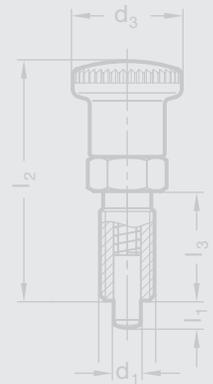
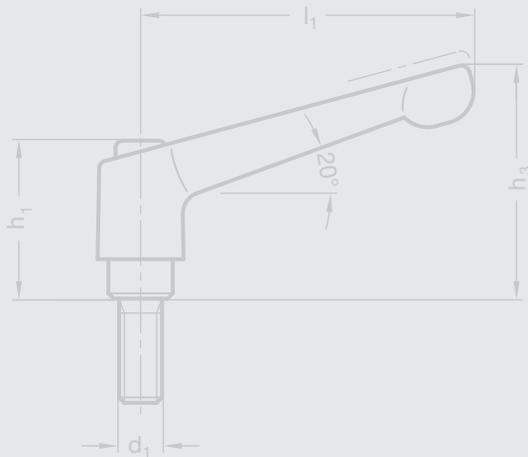
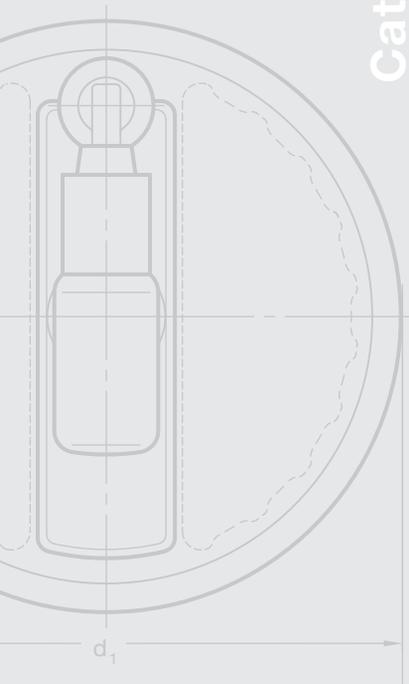


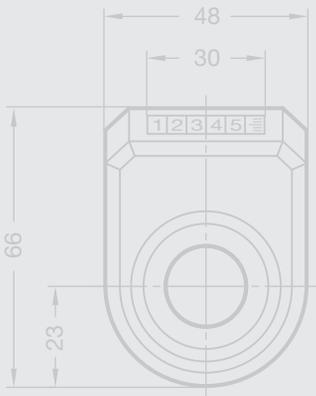
Standard parts

15.0

Catalogue

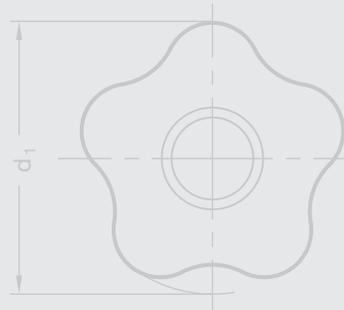


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With the publication of this catalogue, all previous issues become invalid. Technical details are subject to change without notice. The details given herein comply with state of the art engineering at the time of printing. We reserve the right to amend errors and to remove individual articles from the product assortment. The products listed in this catalogue have been developed as standard products with the aim of covering the widest possible spectrum of requirements. We cannot be held liable and responsible for special applications involving extraordinary or unusual uses or requirements concerning our products. Our design department will be pleased to answer questions on certain product properties such as missing tolerance, dimensional details or strength classes. All rights in the catalogue are held by Otto Ganter GmbH & Co. KG. Reprints, also in extracts, are not permitted.

Otto GANTER GmbH & Co. KG, October 2013

Standard Parts for Clamping and Operating

1.1 Handles, Knobs

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Machine and Fixture elements

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Fork joints

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2.9 Retaining magnets

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2.2

2.3

2.4

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2.7

2.8

2.9

—



The leading partner for standard machine elements



Catalogue 1912

Standard machine elements – for over 100 years

Established in 1894 as a mechanical workshop, Ganter presented the first catalogue for standard elements as early as 1912 – five years before the foundation of the Deutsche Industrie Norm (DIN). The idea of standardising industrial products, manufacturing these in economical lot sizes, storing and selling them individually was entirely new at that time. Right to this day, this principle has been underlying our actions which, thanks to high availability and the latest in production engineering, guarantee ultimate benefits for the customer.

Leading worldwide

Ganter is at the leading edge in the development, production and marketing of standard elements for the entire industry. Quality and the volume of the production selection set standards across all industries. Ganter's standard machine elements are on offer worldwide through an efficient sales network. Quality, advice and availability are so guaranteed – wherever you are.

Service inclusive

Ganter's unique range of standard machine elements has the matching product for virtually every possible application – if not, help is at hand with customised solutions. One thing is certain, though: standard machine elements by Ganter come from a single source and give the best possible support to the design and procurement process.

Quick and direct

Thanks to Ganter's tight logistics concept, we are capable of delivering standard elements within the shortest possible time - anywhere in the world.





Ganter is a long-time member of DIN Deutsches Institut für Normung e. V.



A matter of course

The name Ganter stands for first-class grades in service, something which has been acknowledged and attested by the German TÜV. And Ganter is also certified under DIN EN ISO 9001 and ISO 14001.



Elesa S.p.A., Monza

Powerful partners

Ganter's product range has always been strictly driven by needs and requirements of the market. Supplementing this range with strategic alliances and partnerships with other manufacturers has always been part of this philosophy. Elesa Standards, unique plastic elements in design and workmanship, have been part of the Ganter product range for almost 40 years. Today, standard machine elements made by Ganter and Elesa are available in many markets worldwide under the common brand name Elesa+Ganter.



Standard elements in real time

www.ganter-griff.com

All data and new products immediately at hand: Ganter allows the direct access to all important items of information – from any computer and from any place. The Ganter website supports users in selecting the matching elements, regularly delivers updated information and - naturally - allows orders to be placed online.





Always up to date

New standard elements and additions to the range at a glance.

Dialogue-based

The dialogue-based selection function takes you to the matching product quickly and reliably.

All details available

Dimensions, material details and other specifications are shown – 1 to 1, as in the print catalogue.

Input for CAD

Download directly to your own computer: the entire range of standard elements is available in all common 2D and 3D formats.

Ordering online

Order your product easily and conveniently from Ganter's Webshop. Select your articles in a few easy steps and manage these articles in an individual list of favourites. Past orders are remembered and easily retrieved and can again be put into the shopping basket.



Also on DVD

All data are also available offline with the Ganter DVD – including all data sheets in PDF format and all CAD data.

Standard elements for special requirements

Within the huge range of standard elements for a wide range of different applications and uses, Ganter also supplies products with highly specific properties and characteristics. These are classed in product families and marked with appropriate icons, allowing standard elements to be selected specifically in terms of certain requirements.



The stainless steel product family

Standard elements made of rust-proof stainless steel grades – designed for use in the food industry, in the chemical industry or, in general, for use in aggressive atmospheres or outdoors. Normally made without galvanic surface treatment, standard elements of the stainless steel product family are not only corrosion-resistant, but also accurately fitting and environmentally friendly.

For more detail to stainless steel characteristics see page xx.

ERGOSTYLE® ELESA



The Ergostyle product family

Perfect in ergonomics and design: The Ergostyle product family matches the demands made in terms of aesthetics and ease of operation in modern working environments. The functional design supports the visual differentiation of the final products in the markets and underlines their high quality claim.

Ergostyle standard elements have been awarded a number of design prizes; their common mark are three small dots.



The Softline product family

Standard elements fitted with durable elastomer jackets. Their soft, slip-proof surfaces enhance the force transfer between the operator's hand and the operating element – an unbeatable advantage in a moist, oily, greasy, hot or cold environment.

Standard elements of the Softline product family also satisfy ultimate ergonomic demands in every respect.



The Cleanline product family

This range of standard elements, designed specifically for stringent demands in terms of hygiene, are the first choice in medical engineering. Smooth, white surfaces allow trouble-free and thorough cleaning – and underline the first impression of high standards of hygiene. If used, metal inserts are made of rust-proof stainless steel.



The Sanline product family

Special additives in the plastic material or in the appropriate coating prevent unwanted organisms such as microbes or bacteria settling and growing on these standard elements.

These properties are normally based on admitted silver ions which are absolutely harmless to the user and which keep their effectiveness even after a number of cleaning cycles.



The ATEX product family

Standard elements developed specially for hydraulics or gear construction, suitable for use in explosion hazard atmospheres. Each standard element of this product family features the appropriate documentation which gives details and information on the underlying European Explosive Atmosphere Directive (ATEX).



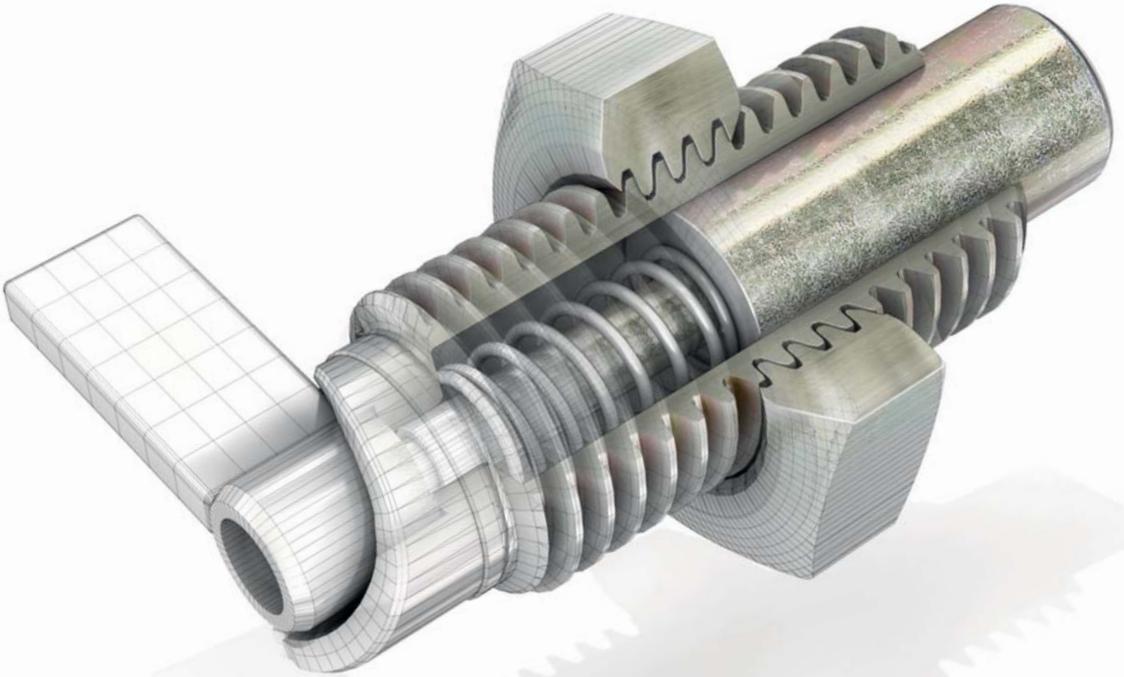
The ESD product family

plastic standard elements, electrically conductive owing to special materials and so counteracting static charges. Designed for use in assembly areas where components sensitive to static electric charges are handled. The letters ESD on each element indicate the special antistatic properties under ICE 61340-5-1.



Inch sizes available

Our extensive range of products also includes many product series which are not only available in metric sizes but also inch sizes, indicated by this symbol. Please contact us with respect to availability and delivery times.



From an idea to the solution
Ganter also develops ultimate technical and economical solutions for specific custom requirements.

Beyond standards



Customised solutions are part of Ganter's core competence. In spite of the enormous variety of standardised elements, there are often highly specific requirements in terms of dimensions, materials or functionality. Working closely with the customer, Ganter then develops individual solutions.

New or adapted

Depending on requirement profile, customised elements are made by cost-effectively adapting an existing Ganter standard element – or by means of an entirely new design.

Also in small unit quantities

A unique variety of different production methods and an adaptable, customer driven organisation allow standard elements to be adapted and customised even in relatively small unit quantities.

All-round service

Ganter not only develops and manufactures customised standard elements. If required, Ganter also manages their on-call inventories, guaranteeing economical lot or batch sizes, favourable prices and a high level of supply availability.



1.1

Handles Knobs



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9



1.1 Handles, Knobs




GN 798
Revolving handles
Plastic,
Aluminium

→ Page 20



GN 598.5
Retractable handles
Plastic /
Stainless Steel

→ Page 25



GN 599.5
Revolving cylindrical handle
Plastic /
Stainless Steel

→ Page 29



GN 798.1
Revolving handles
Plastic / Stainless
Steel-Spindle

→ Page 21



GN 598
Revolving handles
Plastic, Steel

→ Page 26



DIN 98
Revolving handles
Steel, Aluminium,
Plastic

→ Page 30



GN 798.2
Revolving handles
Plastic /
Steel

→ Page 22



GN 598.1
Revolving handles
Plastic / Stainless
Steel-Spindle

→ Page 27



DIN 39
Fixed handles
Steel,
Plastic

→ Page 31



GN 798.3
Retractable handles
Plastic /
Steel

→ Page 23



GN 319.2
Revolving ball knobs
with threaded stud
Plastic / Steel

→ Page 28



DIN 39
Fixed handles
Stainless Steel

→ Page 31



GN 798.5
Retractable handles
Plastic /
Stainless Steel

→ Page 23



GN 319.2
Revolving ball knobs
with female thread
Plastic / Steel

→ Page 28



GN 203
Fixed conical handles
Plastic

→ Page 32



GN 798.7
Safety retractable handles
Plastic /
Steel

→ Page 24



GN 319.5
Revolving ball knobs
with threaded stud
Plastic /
Stainless Steel

→ Page 28



DIN 319
Ball knobs
Plastic

→ Page 33



GN 598.3
Retractable handles
Plastic /
Steel

→ Page 25



GN 319.5
Revolving ball knobs
with female thread
Plastic /
Stainless Steel

→ Page 28



DIN 319
Ball knobs
Steel,
Aluminium

→ Page 34

1.1 Handles, Knobs




DIN 319
Ball knobs
Stainless Steel

→ Page 34



GN 519.1
Cylindrical knobs
Press on type, Plastic

→ Page 40



GN 676
Knurled knobs
Plastic

→ Page 48



DIN 319
Ball knobs
Press on type, Plastic

→ Page 35



GN 519.6
Softline-Cylindrical knobs
Plastic

→ Page 41



GN 676
Knurled knob screws
Plastic

→ Page 50



GN 719.2
Domed gear knobs
Plastic

→ Page 36



DIN 310
Gear lever handles
Plastic / Steel

→ Page 42



GN 676.1
Knobs
Steel

→ Page 51



GN 719.2
Domed gear knobs
Plastic

→ Page 36



DIN 310
Gear lever handles
Plastic / Stainless Steel

→ Page 43



GN 676.5
Knobs
Stainless Steel

→ Page 51



GN 419
Taper knobs
Plastic

→ Page 37



GN 563.2
T-Handles
Aluminium

→ Page 44



GN 75
Waist shaped knobs
Steel

→ Page 52



GN 201
Elliptical shaped knobs
Plastic

→ Page 38



GN 563
T-Handles
Plastic

→ Page 46



GN 76
Mushroom type knobs
Plastic

→ Page 53



GN 519
Cylindrical knobs
Plastic

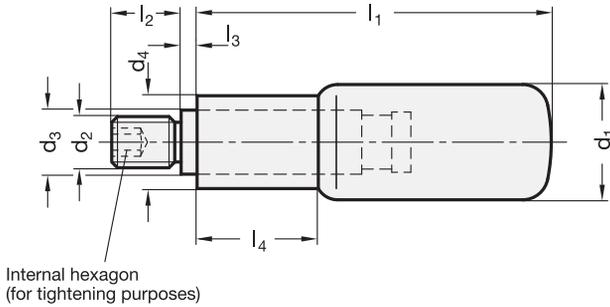
→ Page 39



GN 563.1
T-Handles
Plastic

→ Page 47

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



² d1	³ d2			d3	d4	l1	l2	l3	l4
16	M 6	-		10	13	41,5	12	2,5	15
18	M 6	M 8		10	14,5	56	13	2,5	19
22	M 6	M 8	M 10	14	18,5	59	14	2,5	21
24	M 8	M 10		14	18,5	74	16	2,5	27
25	M 10	-		16	20	84	16	2,5	30

Specification

- Plastic
Technopolymer (Polyamide PA)
- temperature resistant up to 90 °C
- black, matt finish finish
- Aluminium
polished
- Spindle Steel
zinc plated, blue passivated
- *Plastic characteristics* → Page 1141



Information

Typical in design are the revolving handles GN 798 with their stepped shape consisting of two cylinders giving the operator a better grip.

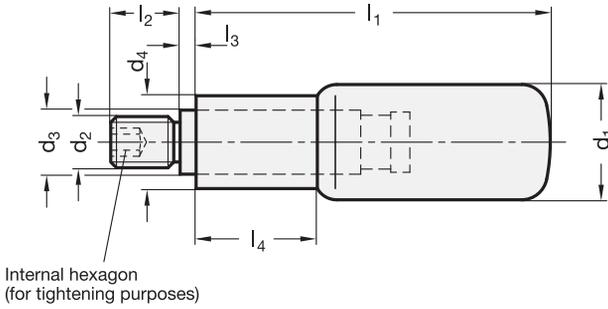
KT

AL

How to order	1 Material
¹ ² ³ GN 798-KT-24-M10	2 d1
	3 d2



ROSTFREI
Inox
Stainless
Steel



² d ₁	³ d ₂		d ₃	d ₄	l ₁	l ₂	l ₃	l ₄
16	M 6	-	10	13	41,5	12	2,5	15
18	M 6	M 8	10	14,5	56	13	2,5	19
22	M 8	M 10	14	18,5	59	14	2,5	21
24	M 8	M 10	14	18,5	74	16	2,5	27
25	M 10	-	16	20	84	16	2,5	30

Specification

- Plastic
Technopolymer (Polyamide PA)
- temperature resistant up to 90 °C
- black, matt finish
- Spindle
Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS-compliant**



KT

Information

Typical in design are the revolving handles GN 798.1 with their stepped shape consisting of two cylinders giving the operator a better grip.

How to order

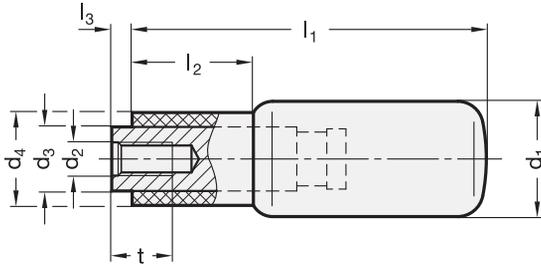
GN 798.1-KT-16-M6

¹	Material
²	d ₁
³	d ₂

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Inch sizes available



² d ₁	³ d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	t
16	M 5	10	13	41,5	12	2,5	10
18	M 5	10	14,5	56	13	2,5	10
22	M 6	14	18,5	59	14	2,5	12
24	M 6	14	18,5	74	16	2,5	12
25	M 8	16	20	84	16	2,5	14

Specification

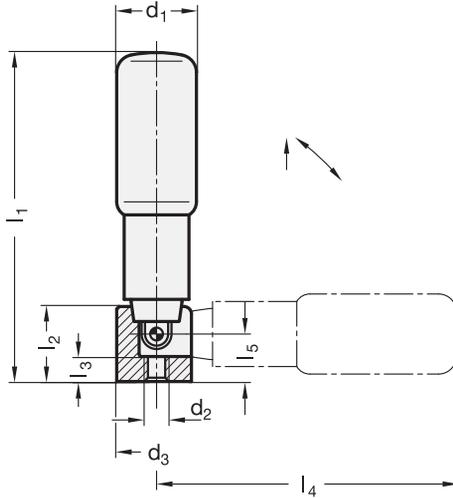
- Plastic
Technopolymer (Polyamide PA)
- temperature resistant up to 90 °C
- black, matt
- Spindle Steel
zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS-compliant**

¹
KT

Information

Typical in design are the revolving handles GN 798.2 with their stepped shape consisting of two cylinders giving the operator a better grip.

How to order	¹	Material
	²	d₁
	³	d₂
GN 798.2-KT-24-M6		



1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

2

d ₁	d ₂	d ₃	l ₁ ≈	l ₂	l ₃	l ₄ ≈	l ₅
16	M 5	16	58	15	5	52,5	9,5
18	M 5	16	72,5	15	5	67	9,5
22	M 6	20	80,5	19,5	6	74	10,5
24	M 6	20	95,5	19,5	6	89	10,5
25	M 6	20	105,5	19,5	6	98,5	10,5

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- temperature resistant up to 90 °C
- black, matt finish
- revolving

1

KT

- **GN 798.3**
Retractable mechanism Steel
blackened
- **GN 798.5**
Retractable mechanism
Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

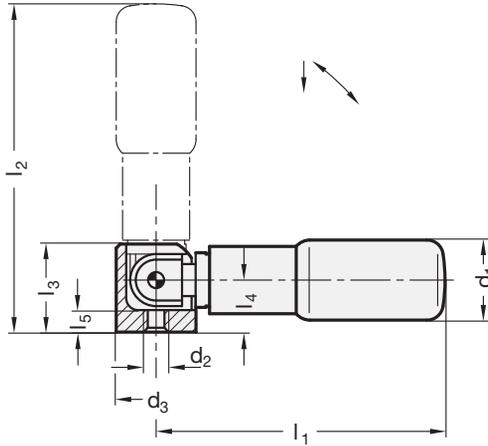
Information

Typical in design are the retractable handles GN 798.3 / GN 798.5 with their stepped shape consisting of two cylinders giving the operator a better grip, especially when pulling the handle out from its locked position before it can be folded back into the rest position.

Retractable handles GN 798.3 / GN 798.5 are suitable when the handle must be withdrawn during automatic operations.

Retractable handle, Steel GN 798.3-KT-22	1	Material
	2	d ₁

Retractable handle, Stainless Steel GN 798.5-KT-25	1	Material
	2	d ₁



2

d ₁	d ₂	d ₃	l ₁	l ₂ ≈ (arrested)	l ₃	l ₄	l ₅
22	M 6	20	73	82	22	13	5,5
24	M 6	20	88	97	22	13	5,5
25	M 6	20	98	107	22	13	5,5

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- temperature resistant up to 90 °C
- black, matt finish
- revolving
- Retractable mechanism Steel
blackened
- *Plastic characteristics* → Page 1141
- **RoHS-compliant**

1

KT

Information

Safety retractable handles GN 798.7 are suitable for applications where the handle must not remain in the operating position.

In order to bring the handle into the operating position it has to be turned first through 90° to a stop against a torsion spring and then it is pushed against spring pressure into its hold position.

By maintaining the forward thrust on the handle, the handwheel can easily be rotated.

When releasing the handle, the springs return it back to the retracted position.

On request

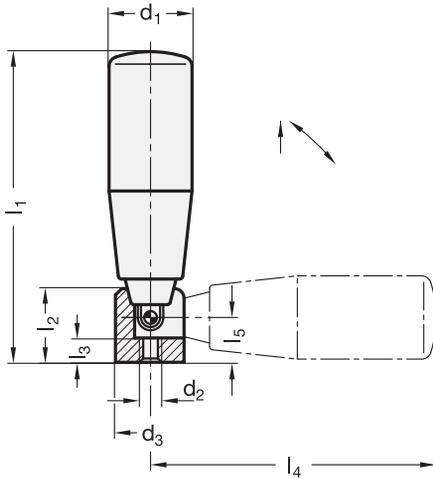
- Stainless Steel-Safety retractable handles

How to order

GN798.7-KT-24

1 **Material**

2 **d₁**



1.1

1.2

1.3

1.4

2

d ₁	GN 598.3	GN 598.5	d ₂	d ₃	l ₁ ≈	l ₂	l ₃	l ₄ ≈	l ₅
18	-	-	M 5	16	57	15	5	52	9,5
21	-	-	M 5	16	67	15	5	62	9,5
22	-	-	M 5	16	73	15	5	68	9,5
23	23	-	M 6	20	87	19,5	6	80	10,5
26	26	-	M 6	20	102	19,5	6	95	10,5
28	28	-	M 8	26	118	26	10	106	16

1.5

1.6

Specification

- Handle
Plastic
Duroplast (Phenolic PF)
- temperature resistant up to 110 °C
- black, shiny finish
- revolving
- **GN 598.3**
Retractable mechanism Steel
blackened
- **GN 598.5**
Retractable mechanism
Stainless Steel AISI 303
- *Stainless Steel characteristics → Page 1144*
- *Plastic characteristics → Page 1141*
- *RoHS-compliant*

1

KU

Information

Retractable handles GN 598.3 / GN 598.5 are suitable when the handle must be withdrawn during automatic operations.

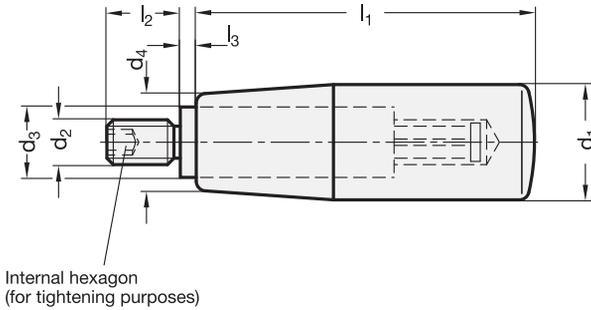
1.7

1.8

1.9

Retractable handle, Steel GN598.3-KU-26	1	Material
	2	d ₁

Retractable handle, Stainless Steel GN598.5-KU-23	1	Material
	2	d ₁



Inch sizes available

d ₁	d ₂		Material				d ₃	d ₄	l ₁	l ₂	l ₃
	Plastic	KT	KT	KT	Steel	ST					
14	-	-	M 6	-	-	-	8	11	28	10	0,5
18	M 6	-	M 6	-	M 6	-	10	15	40	12	2,5
21	M 6	M 8	M 6	M 8	M 6	M 8	10	17	50	13	2,5
22	M 6	M 8	M 6	M 8	-	-	10	18	56	13	2,5
23	M 8	M 10	M 8	M 10	M 8	M 10	13	19	65	14	2,5
26	M 8	M 10	M 8	M 10	M 8	M 10	13	21	80	16	2,5
28	M 10	-	M 10	-	M 10	-	13	22	90	16	2,5
31	M 12	-	-	-	M 12	-	14	25	102	20	2,5

Specification

- Plastic **KU**
Duroplast (Phenolic PF)
- temperature resistant up to 110 °C
- black, shiny finish
- Plastic **KT**
Technopolymer (Polypropylene PP)
- temperature resistant up to 80 °C
- black, matt finish
- black, shiny finish (only size 14)
- Steel **ST**
Plastic coated
black, textured finish
- Spindle Steel
zinc plated, blue passivated
- RoHS-compliant

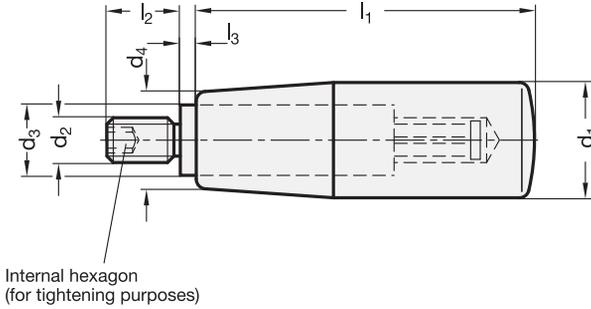
Information

Steel revolving handles GN 598 are mainly used on safety handwheels to increase imbalance and thus avoid free wheeling.

How to order

GN598-KU-21-M8

1	Material
2	d ₁
3	d ₂



Rostfrei
Inox
Stainless
Steel

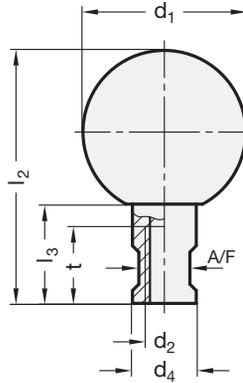
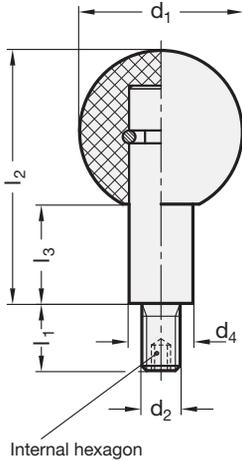
² d ₁	³ d ₂ KU	KT	d ₃	d ₄	l ₁	l ₂	l ₃
18	M 6	M 6	10	15	40	12	2,5
21	M 6	M 6	10	17	50	13	2,5
23	M 8	M 8	13	19	65	14	2,5
26	M 10	M 10	13	21	80	16	2,5
28	M 10	M 10	13	22	90	16	2,5
31	M 12	-	14	25	102	20	2,5

Specification

- Plastic **KU**
 Duroplast (Phenolic PF)
 - temperature resistant up to 110 °C
 - black, shiny finish
- Plastic **KT**
 Technopolymer (Polypropylene PP)
 - temperature resistant up to 80 °C
 - black, matt finish
- Spindle
 Stainless Steel AISI 303
- RoHS-compliant

How to order		1 Material
¹	²	2 d ₁
³		3 d ₂
GN598.1-KU-26-M10		

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Type

- A** with male thread
- B** with female thread



d ₁	d ₂	d ₄	l ₁	l ₂ ±1	l ₃ ±1	A/F	t min.
25	M 6	10	11	37,5	15	8	10
32	M 8	13	13	48	19	10	12
40	M 10	16	14	61	24	14	16
50	M 12	20	21	78	31	17	16

Specification

- Plastic
Duroplast (Phenolic PF)
- temperature resistant up to 110 °C
- black, shiny finish
- **GN 319.2**
Shaft Steel
zinc plated, blue passivated
- **GN 319.5**
Shaft
Stainless Steel AISI 303
matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS-compliant**

Information

Revolving ball knobs GN 319.2 / GN 319.5 can be utilized instead of revolving handles i. e. with handwheels.

Revolving ball knob, Steel

GN319.2-32-M8-A

- 1 d₁
- 2 d₂
- 3 Type

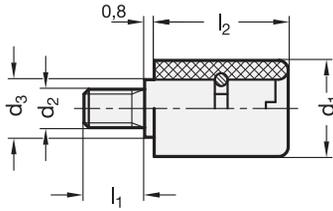
Revolving ball knob, Stainless Steel

GN319.5-25-M6-B

- 1 d₁
- 2 d₂
- 3 Type



Rostfrei
Inox
Stainless
Steel



1 d_1	2 d_2	3 l_1	d_3	l_2
13	M 6	9	8	18
14	M 6	9	8	20
16	M 6	9	8	23

Specification

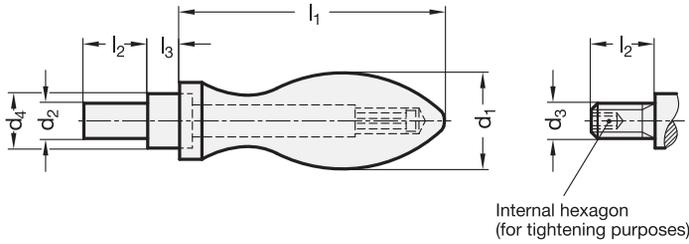
- Plastic
Technopolymer (Polyamide PA)
- temperature resistant up to 80 °C
- black, matt finish
- Spindle
Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS-compliant**

Information

Cylindrical handles GN 599.5 are mainly used on small handwheels (GN 736, GN 736.1) which are installed for control purposes where low torque is required (fingertip grip).

How to order	1 d_1
GN599.5-14-M6-9	2 d_2
	3 l_1

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Type

- D** with plain shaft
- E** with threaded shaft

2

d_1	d_2 h8 Type D		d_3 Type E		d_4 h13	$l_1 \approx$	l_2	l_3	A/F Internal hexagon
	ST / AL	KT	ST / AL	KT					
16	7	7	M 6	M 6	10	49	11	5,5	3
20	8	8	M 8	M 8	13	61	13	6	4
25	10	10	M 10	M 10	16	75	14	8	5
32	13	13	M 12	M 12	20	95	21	10,5	6
36	16	-	M 16	-	22	106	26	11	8

Specification

- Steel **ST**
zinc plated, blue passivated
- Aluminium **AL**
glossy finish
- Plastic **KT**
Technopolymer (Polyamide PA)
- temperature resistant up to 110 °C
- black, matt finish
- Spindle Steel
zinc plated, blue passivated
- *ISO-Fundamental Tolerances* → Page 1132
- *Plastic characteristics* → Page 1141

1

Information

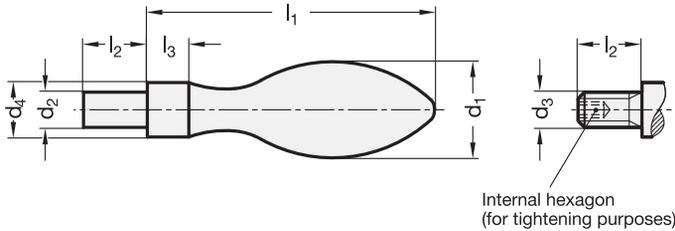
This handle is supplied unassembled so that the shaft can be press fitted or screwed into a tapped blind bore prior to assembly.

During mounting, easy blows with a soft hammer are sufficient to drive the handle into place.

How to order

DIN 98-KT-32-D

1	Material
2	d₁
3	Type



Rostfrei
Inox
Stainless
Steel

3 Type

- D** with plain shaft
- E** with threaded shaft

2

d ₁	d ₂ h8 Type D ST	d ₃ Type E			d ₄ h13	l ₁ ≈	l ₂	l ₃	A/F Internal hexagon
		ST	A4	KT					
16	7	M 6	M 6	-	10	50	11	7	3
20	8	M 8	M 8	M 8	13	64	13	8	4
25	10	M 10	M 10	M 10	16	80	14	10	5
32	13	M 12	-	M 12	20	100	21	13	6
36	16	M 16	-	-	22	112	26	14	8

Specification

- Steel **ST**
zinc plated, blue passivated
- Stainless Steel AISI 316L **A4**
- Plastic **KT**
Technopolymer (Polyamide PA)
- temperature resistant up to 100 °C
- black, matt finish
- threaded bolt Steel, blackened
- *ISO-Fundamental Tolerances* → Page 1132
- *Plastic characteristics* → Page 1141
- **RoHS-compliant**

1

Information

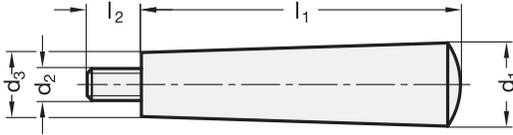
On the official DIN standard sheet you can find the additional sizes 10 and 13.

How to order

DIN 39-ST-25-E

1	Material
2	d₁
3	Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



d₁	d₂	d₃	l₁	l₂
12	M 4	9	40	8
15	M 5	11	50	7
18	M 6	13	64	8
21	M 6	15	72	10
21	M 8	15	72	10
25	M 8	17	90	10
26	M 10	20	100	12
33	M 12	25	124	14

Specification

- Plastic
Duroplast (PF)
- temperature resistant up to 110 °C
- black, shiny finish
- Spindle Steel
zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS-compliant**

Information

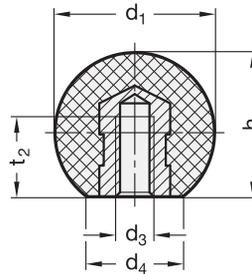
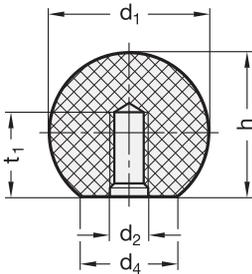
Fixed conical handles GN 203 are not suitable for applications where the handle is exposed to heavy loads. For applications with increased loads we recommend to use cylindrical handles GN 539.

How to order

GN 203-15-M5

1 **d₁**

2 **d₂**



4 Type

- C with tapped hole, no bush
- E with taped bush

d ₁	d ₂ KU Type C Thread			KT Type C Thread		d ₃ KU Type E Thread		KT Type E Thread	d ₄ ≈	h	t ₁ min.	t ₂ min.
12	M 4	-	-	-	-	-	-	-	6	11,2	6	-
16	M 4	M 5	-	M 4	M 5	M 4	-	-	8	15	6	6
20	M 5	M 6	-	M 5	M 6	M 5	-	M 5	12	18	7,5	7,5
25	M 5	M 6	M 8	M 6	M 8	M 6	M 8*	M 6	15	22,5	9	9
30	M 8	-	-	-	-	-	-	-	15	28	12	-
32	M 6	M 8	M 10	M 8	M 10	M 8	-	M 8	18	29	12	12
35	M 10	-	-	-	-	-	-	-	18	32,5	15	-
40	M 8	M 10	M 12	M 10	M 12	M 10	-	-	22	37	15	15
50	M 12	-	-	-	-	M 12	-	-	28	46	18	18

* This size is only available in black with Steel-bush.

Specification

- Plastic **KU**
Duroplast (Phenolic PF)
- Flash removed and polished
- black (standard colour)
- red **RT**, similar RAL 3003:
ad RT on order code
Bush (Type E)
- Steel, zinc plated (standard)
- Brass **MS**
ad MS on order code

- Plastic **KT**
Technopolymer (Polyamide PA)
- shock resistant
- black, matt finish (standard colour)
- red **RT**, similar RAL 3000:
ad RT on order code
Bush (Type E)
Steel, zinc plated

• RoHS-compliant

Information

see also...

- Ball knobs, Press on type DIN 319 → Page 35

How to order

DIN 319-KU-25-M6-C

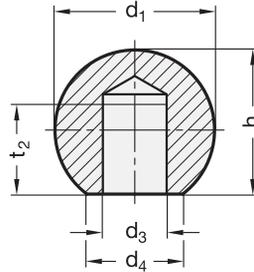
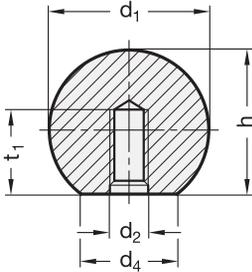
1	Material
2	d ₁
3	d ₂ (d ₃)
4	Type



Rostfrei Inox
Stainless
Steel

4 Type

- C** with tapped hole
- K** with plain hole H7



2 d_1	3 d_2 Type C Thread	3 d_3 H7 Type K Bore B	d_4	h	t_1 min.	t_2 min.
16	M 4	B 6	8	15	7	9
20	M 5	B 8	12	18	9	11
25	M 6	B 10	15	22,5	11	14
32	M 8	B 12	18	29	14,5	17
40	M 10	B 16	22	37	18	22
50	M 12*	B 20	27	46	21	28

* This size is only available in Steel and Aluminium.

Specification

1

- Steel **ST**
polished
- Aluminium **AL**
polished
- Stainless Steel AISI 303 **NI**
matt shot-blasted
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144

How to order

1 **2** **3** **4**
DIN 319-NI-40-M10-C

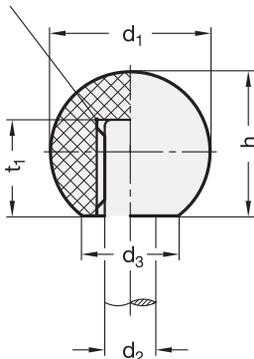
1 Material

2 d_1

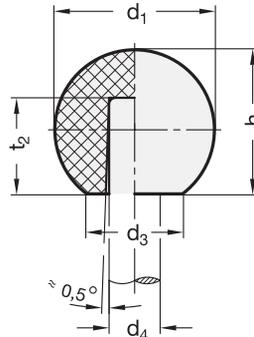
3 d_2 (d_3)

4 Type

Tolerance ring



Shaft-tolerance h9



Shaft-tolerance h9



4 Type

- L with tolerance ring
- M with tapered bore

2

3

3

d ₁	d ₂ Type L	t ₁ Type L	d ₄ Type M	t ₂ Type M	d ₃ ≈	h
16	B 4	11	B 4	9	8	15
20	B 5	13	B 5	12	12	18
20	-	-	B 6	12	12	18
25	B 6	16	B 6	16	15	22,5
25	B 8	15	B 8	16	15	22,5
25	B 10	15	-	-	15	22,5
32	B 8	15	B 8	17	18	29
32	B 10	20	B 10	17	18	29
32	B 12	20	-	-	18	29
40	B 10	25	B 10	22	22	37
40	B 12	23	B 12	22	22	37
50	B 12	20	-	-	28	46
50	B 16	23	-	-	28	46

Specification

- Type L
Plastic
Duroplast (Phenolic PF)
black, shiny finish
Tolerance ring Spring steel

KU

- Type M
Plastic
Technopolymer (Polyamide PA)
- shock resistant
- black, matt finish

KT

- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1144
- RoHS-compliant

On request

- red version

1

Information

When ball knobs DIN 319 type L and M are used the shaft does not require a thread.

During mounting, easy blows with a soft hammer are sufficient to drive the knob into place, the shaft end should be slightly rounded or chamfered (30°).

Before the assembly of the knobs, type L the tolerance ring is to be inserted into the drilling. Further it is to be noted that the button is put on perpendicular and / or axially parallel. Otherwise the knob may break.

Type M ball knobs are a cheaper solution, however, the pulling off force is less predictable.

How to order

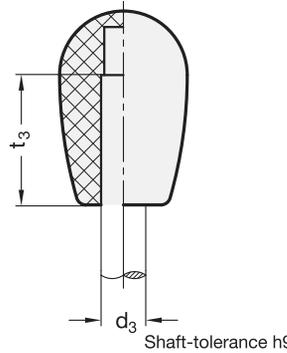
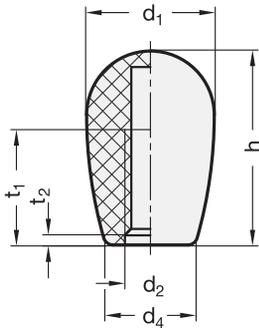
DIN 319-KU-40-B10-L

1 Material

2 d₁

3 d₂ (d₄)

4 Type



ELESA Original design I.622



¹ d ₁	² d ₂ with thread all colours, not in CL	² only SW	² d ₃ press on type only SW, RT, CL		only SW, RT	d ₄	h	t ₁	t ₂ ±0,5	t ₃
16	M 6	-	B 6	-		12	25	16	3,5	17
20	M 8	-	B 8	-		14	31	20	3,5	21
26	M 8	M 10	B 10	-		17	42	30	5	30
26	-	-	-	-	B 8	17	42	30	5	25
34	M 10	M 12	B 10	B 12		21	55	35	8	40

Specification

- Plastic Technopolymer (Polyamide PA)
 - Specification with thread temperature resistant up to 80 °C
 - Specification press on type temperature resistant up to 50 °C

• Colour (shiny finish)

- black, RAL 9005 **● SW**
- orange, RAL 2004 **● OR**
- grey, RAL 7035 **● GR**
- yellow, RAL 1021 **● GB**
- blue, RAL 5024 **● BL**
- red, RAL 3000 **● RT**
- white, RAL 9002, Cleanline **○ CL**

• ISO-Fundamental Tolerances → Page 1132

• Plastic characteristics → Page 1141

Information

Domed gear knobs GN 719.2 are very often used in place of ball knobs DIN 319 for use on gear levers and shafts. Operating knobs are very often chosen for ergonomic reasons.

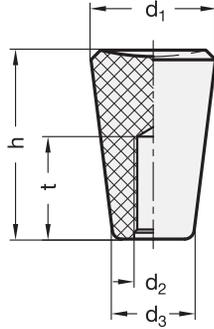
Domed gear knobs GN 719.2 with bore (B) are mounted by driving them over the shaft with a plastic hammer. A threaded shaft is not required. The shaft end should preferably be slightly rounded or phased (30°).

see also...

- Product family Cleanline → Page 13

Domed gear knob with thread GN 719.2-20-M8-SW	¹ d ₁
	² d ₂
	³ Colour

Domed gear knob press on type GN 719.2-34-B10-RT	¹ d ₁
	² d ₃
	³ Colour



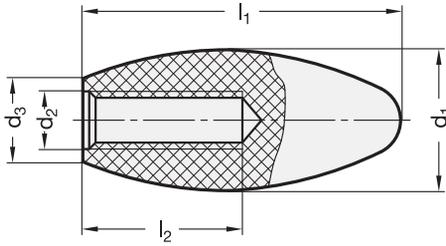
¹ d ₁	² d ₂		d ₃ ≈	h	t _{min.}
20	M 5	M 6	12	30	18
25	M 6	M 8	15	38	18
30	M 8	M 10	18	46	18
35	M 10	M 12	21	53	21

Specification

- Plastic
Duroplast (Phenolic PF)
- temperature resistant up to 110 °C
- black, shiny finish
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

How to order GN 419-25-M8	¹ d ₁
	² d ₂

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



¹ d ₁	² d ₂	d ₃	l ₁	l ₂ min.
14	M 5	7	34	25
23	M 6	14	60	17
23	M 8	14	60	22
26	M 8	16	70	25
26	M 10	16	70	25
30	M 10	16	65	26
30	M 12	16	65	26
35	M 12	22	85	25
35	M 16	22	85	25

Specification

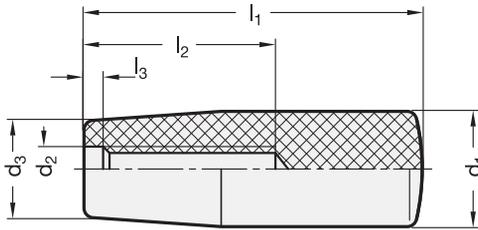
- Plastic
Duroplast (Phenolic PF)
- temperature resistant up to 110 °C
- black, shiny finish
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

How to order

¹ ²
GN201-30-M10

¹ d₁

² d₂



ELESA Original design I.280

¹ d ₁	² d ₂	d ₃	l ₁	l ₂ min.	l ₃ ±0,5
14	M 5	11	28	12	1,5
18	M 6	15	40	25	3,5
18	M 8	15	40	25	3,5
21	M 6	17	50	26	3,5
21	M 8	17	50	35	7,5
23	M 8	19	65	30	7,5
23	M 10	19	65	40	7,5
26	M 10	21	80	55	7
26	M 12	21	80	55	10
28	M 10	22	90	55	7
28	M 12	22	90	58	8
29	M 12	23	116	58	8
31	M 12	25	102	58	8

Specification

- Plastic
Duroplast (Phenolic PF)
- temperature resistant up to 110 °C
- black, shiny finish
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

When using the cylindrical knobs GN 519, make sure that the threaded pin is sufficiently long, otherwise the plastic element may break under excessive stress exposure.

see also...

- *Softline-Cylindrical knobs GN 519.6* → Page 41

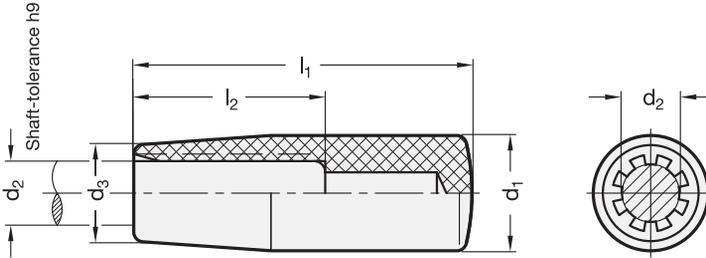
How to order

GN 519-23-M8

1	d ₁
2	d ₂



ELESA Original design I.580 N



¹ d_1	² d_2 Bore B		d_3	l_1	l_2 min.
18	B 8	-	15	40	28
21	B 10	-	17	50	35
23	B 10	B 12	19	65	45
26	B 12	B 14	21	80	50
28	B 15	B 16	22	90	60

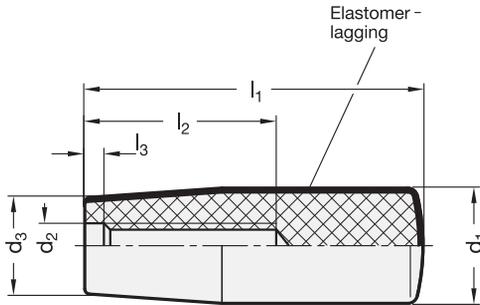
Specification

- Plastic
Technopolymer (Polypropylene PP)
- shock resistant
- temperature resistant up to 80 °C
- black, matt finish
- *ISO-Fundamental Tolerances* → Page 1132
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

The cylindrical knobs GN 519.1 do not require a thread at the shaft.
During mounting, easy blows with a soft hammer are sufficient to drive the knob into place, the shaft end should be slightly rounded or chamfered (30°). The knobs sit absolute vibration-tight.

How to order GN519.1-26-B12	¹ d_1
	² d_2



ELESA Original design I.680 SOFT



¹ d ₁ +0,5	² d ₂	d ₃	l ₁	l ₂ min.	l ₃
24	M 8	20,5	65	30	7
26	M 8	21	80	55	7
26	M 10	21	80	55	7
26	M 12	21	80	55	7
28	M 10	22	90	56	7
28	M 12	22	90	58	7

Specification

- Plastic Technopolymer (Polypropylene PP)
- Softline-lagging Elastomer (TPE) 70 Shore A
 - chemically bonded with the plastic core
 - with FDA admission
 - temperature resistant up to 80 °C
 - black, matt finish
- [Elastomer characteristics](#) → Page 1140
- [Plastic characteristics](#) → Page 1141
- [RoHS compliant](#)

Information

The softline lagging of the cylindrical knobs GN 519.6 makes this knobs ergonomically and operator friendly.

The **soft, antislip** contact surface is very user friendly. It improves the contact between a damp (perspiration) or a dry hand, or oily surface, whether in a cold or hot environment.

see also...

- [Product family Softline](#) → Page 12
- [Cylindrical knobs GN 519 \(with thread\)](#) → Page 39
- [Cylindrical knobs GN 519.1 \(Press-on type\)](#) → Page 40

How to order

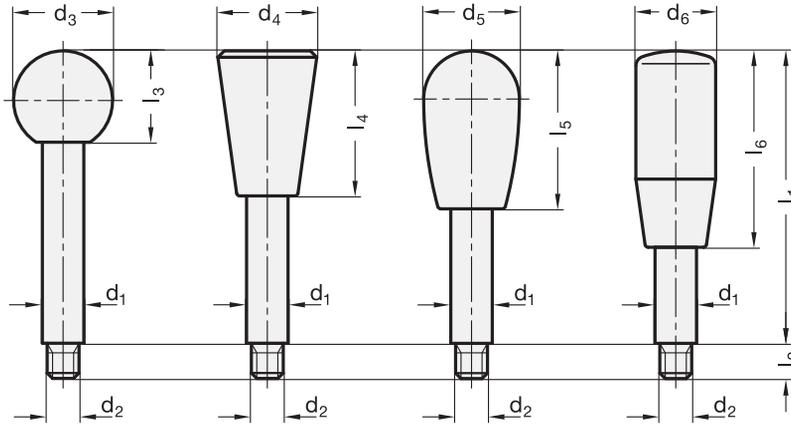
GN519.6-26-M10

1	d ₁
2	d ₂



3 Type

- A Ball knob DIN 319
- C Tapered knob GN 419
- D Domed gear knob GN 719
- E Cylindrical knob GN 519



1 **2**

d₁	l₁			d₂	d₃ Type A	d₄ Type C	d₅ Type D	d₆ Type E	l₂	l₃ Type A	l₄ Type C	l₅ Type D	l₆ Type E
8	63	80	100	M 6	20	20	20	18	9	18	30	32	40
10	80	100	125	M 8	25	25	26	21	11	22,5	38	42	50
12	100	125	160	M 10	32	30	33	23	14	29	46	55	65
14	125	160	200	M 12	35	35	33	26	16	32,5	53	55	80
16	160	200	250	M 14	40	35	38	28	18	37	53	69	90

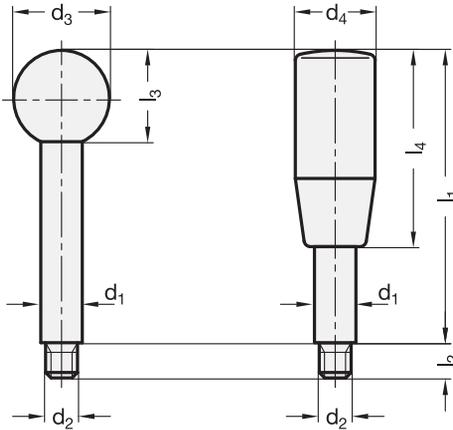
Specification

- Shafts
Steel
blackened
- Knobs
Plastic
Duroplast (Phenolic PF)
- black, shiny finish
- screwed on
- *Ball knobs DIN 319 → Page 33*
- *Tapered knobs GN 419 → Page 37*
- *Domed gear knobs GN 719.2 → Page 36*
- *Cylindrical knobs GN 519 → Page 39*
- *Plastic characteristics → Page 1141*
- **RoHS compliant**

How to order

GN310-10-125-E

1	d₁
2	l₁
3	Type



Rostfrei | Inox
Stainless
Steel

3 Type

- A** Ball knob DIN 319
- E** Cylindrical knob GN 519

d₁	l₁			d₂	d₃ Type A	d₄ Type E	l₂	l₃ Type A	l₄ Type E
8	63	80	100	M 6	20	18	9	18	40
10	80	100	125	M 8	25	21	11	22,5	50
12	100	125	160	M 10	32	23	14	29	65
14	125	160	200	M 12	35	26	16	32,5	80

Specification

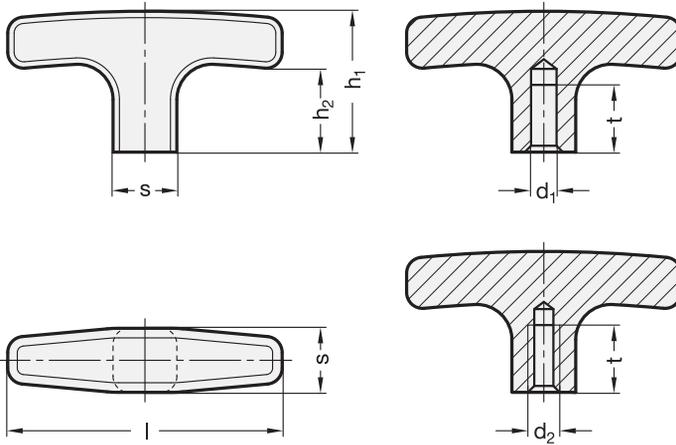
- Shafts
Stainless Steel AISI 303 **NI**
matt shot-blasted
- Knobs
Plastic
Duroplast (Phenolic PF)
- black, shiny finish
- screwed on
- *Ball knobs DIN 319* → Page 33
- *Cylindrical knobs GN 519* → Page 39
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

How to order

GN310-12-100-A-NI

1	d₁
2	l₁
3	Type
4	Stainless Steel

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Length l	¹ d ₁ H7 Bore B	² d ₂ Thread		h ₁	h ₂	s Square	t min.
55	B 6	M 6	M 8	33	22	14	12
67	B 8	M 8	-	37	25	16	16
80	B 8	M 8	M 10	41	26	20	16

Specification

- Aluminium
 - Plastic coated
 - black, RAL 9005, textured finish
 - silver, RAL 9006, textured finish
 - blank
 - tumbled, flash mark not visible
- ISO-Fundamental tolerances → Page 1132
- RoHS compliant



Information

T-Handles GN 563.2 can be used as either operating handles or for clamping purposes, producing high clamping forces.

T-Handles are produced using a stamping process which yields a high density material of high strength and a smooth surface.

An original ELESA-Design, produced in metal with permission of ELESA s.p.a.

see also...

- T-Handles GN 563 (Plastic) → Page 46

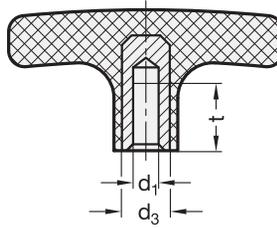
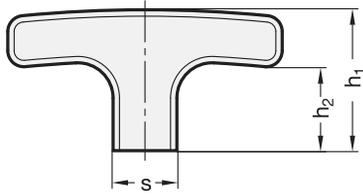
How to order

GN563.2-67-M8-SW

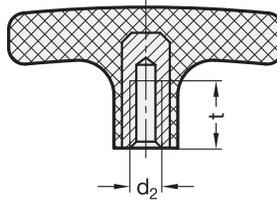
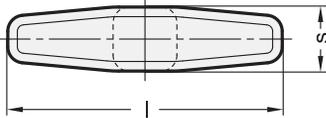
¹	Length l
²	d ₁ (d ₂)
³	Finish



T-Handles Plastic GN 563 → *Page 46*
T-Handles with threaded shaft GN 563.1 → *Page 47*
T-Handles Aluminium GN 563.2 → *Page 44*



ELESA Original design L.652



1 Length l	2 d ₁ H9 Bore B	2 d ₂ Thread	d ₃	h ₁	h ₂	s Square	t min.
40	B 6	M 6	9	30	20	13	16
55	B 6	M 6	10	33	22	14	18
55	-	M 8	10	33	22	14	18
67	B 6	-	11	37	25	16	20
67	B 8	M 8	11	37	25	16	20
80	B 6	-	14	41	26	20	25
80	B 8	M 8	14	41	26	20	25
80	-	M 10	14	41	26	20	25
80	-	M 12	14	41	26	20	18
93	B 6	-	15	45	28,5	21	25
93	-	M 10	15	45	28,5	21	25
93	-	M 12	15	45	28,5	21	18

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre re-inforced
- temperature resistant up to 130 °C
- black, matt finish
- Bush brass
- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- RoHS compliant

On request

- T-Handles in orange or red

Information

T-handles GN 563 can be used on operating handles as well as on clamping fixtures. These handles lend themselves ideally for very high manual clamping forces.

see also...

- T-Handles GN 563.2 (Aluminium) → Page 44

How to order

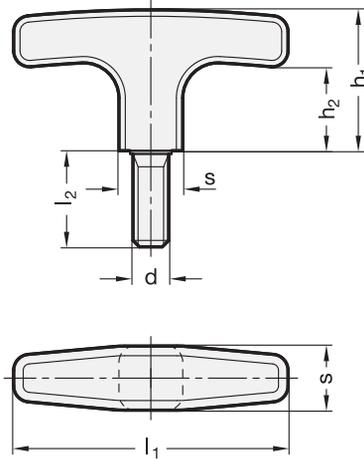
GN 563-80-B8

1 Length l

2 d₁ (d₂)



ELESA Original design L.652 p



¹ l ₁	² d	³ l ₂		h ₁	h ₂	s Square
40	M 6	20	-	30	20	13
55	M 8	20	-	33	22	14
67	M 8	25	-	37	25	16
80	M 10	20	30	41	26	20
93	M 12	30	-	45	28,5	21

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre re-inforced
- temperature resistant up to 130 °C
- black, matt finish
- Threaded shaft Steel
zinc plated, blue passivated
- Plastic characteristics → Page 1141
- RoHS compliant

Information

T-handle screws GN 563.1 can be used on operating levers as well as on clamping fixtures. These handles lend themselves ideally for very high manual clamping forces.

see also...

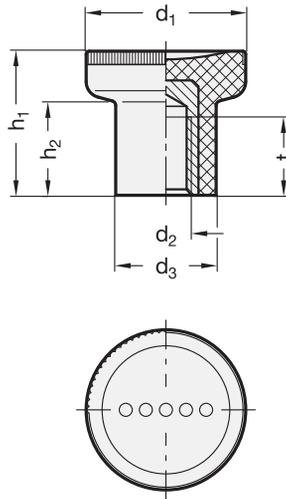
- T-Handles GN 563.2 (Aluminium, with threaded bore) → Page 44

How to order

GN563.1-55-M8-20

¹	l ₁
²	d
³	l ₂

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



ELESA Original design EKK.



1 d_1	2 d_2	d_3	h_1	h_2	t min.
16	M 3	8,5	13	8,5	6
18	M 4	10,5	15,5	10,5	6
21	M 4	12,5	18	10,5	10
21	M 5	12,5	18	10,5	10
25	M 6	14,5	22,5	14	12
25	M 8	14,5	22,5	14	12
31	M 8	18,5	27	17	15
31	M 10	18,5	27	17	17

* These sizes and types are as a rule not available from stock and subject to a minimum quantity order.

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre re-inforced
- temperature resistant up to 130 °C
- Colour (matt finish)
black-grey, RAL 7021
red, RAL 3000
orange*, RAL 2004
grey*, RAL 7035
yellow*, RAL 1021
blue*, RAL 5024
- Bush brass
- *Plastic characteristics* → Page 1141

3

- SG
- RT
- OR
- GR
- GB
- BL

Information

The design of the GN 676 knurled knobs matches the product family Ergostyle®.

These knurled knobs are used for manual applications for clamping or pulling. The concave top of the nut is a comfortable rest point for the thumb during a pulling application.

The knurled section is a useful addition to facilitate the installation of a nut when used for lighter clamping applications.

see also...

- *Product family Ergostyle®* → Page 12
- *Knurled knobs GN 676.1 (Steel)* → Page 51
- *Knurled knobs GN 676.5 (Stainless Steel)* → Page 51
- *Knurled knob screws GN 676* → Page 50

How to order

GN676-25-M6-RT

- 1** d_1
- 2** d_2
- 3** Colour



Knurled knobs (Plastic) GN 676 → *Page 47 / 48*

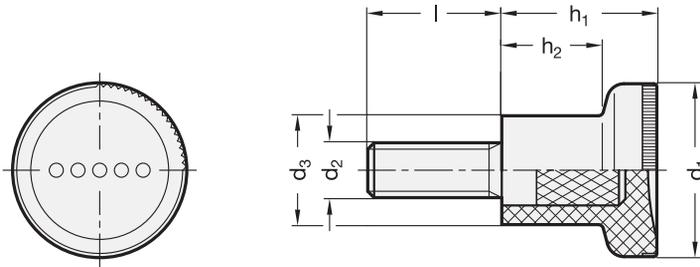
Knurled knobs (Steel) GN 676.1 → *Page 51*

Knurled knobs (Stainless Steel) GN 676.5 → *Page 51*



elesa

ELESA Original design EKK.p



1 d ₁	2 d ₂	3 Length l				d ₃	h ₁	h ₂
21	M 5	10	16	20	-	12,5	18	10,5
21	M 6	16	20	30	-	12,5	18	10,5
25	M 6	16	20	25	30	14,5	22,5	14
31	M 8	20	25	30	40	18,5	27	17
31	M 10	30	40	-	-	18,5	27	17

* These sizes and types are as a rule not available from stock and subject to a minimum quantity order.

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre re-inforced
- temperature resistant up to 130 °C
- Colour (matt finish)
black-grey, RAL 7021
red*, RAL 3000
orange*, RAL 2004
grey*, RAL 7035
yellow*, RAL 1021
blue*, RAL 5024
- Threaded shaft Steel
zinc plated, blue passivated
- *Plastic characteristics* → Page 1141

- 4**
- SG
- RT
- OR
- GR
- GB
- BL

Information

The design of the GN 676 knurled screws matches the product family Ergostyle®.

These knurled screws are used for manual applications for clamping or pulling. The concave top of the nut is a comfortable rest point for the thumb during a pulling application.

The knurled section is a useful addition to facilitate the installation of a nut when used for lighter clamping applications.

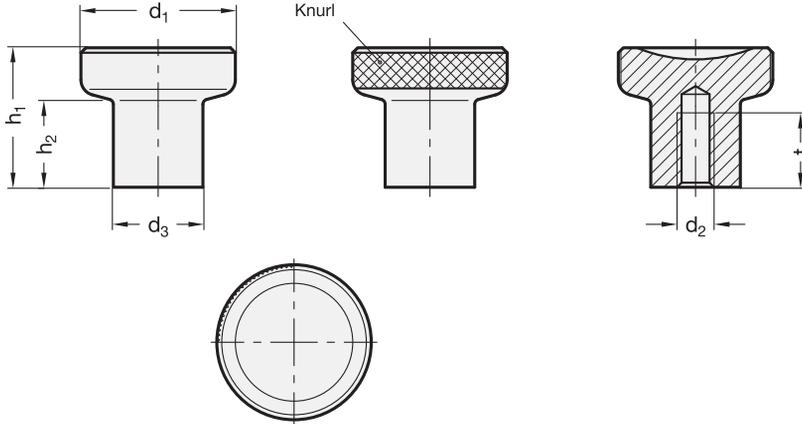
see also...

- *Product family Ergostyle®* → Page 12
- *Knurled knobs GN 676 (with internal thread)* → Page 48

How to order

GN676-31-M8-20-SG

- 1** d₁
- 2** d₂
- 3** Length l
- 4** Colour



Rost
frei
Inox
Stainless
Steel

3 Type
A without knurl
B with knurl

1 d_1	2 d_2	d_3	h_1	h_2	t min.
21	M 4	12,5	18	10,5	10
21	M 5	12,5	18	10,5	10
25	M 6	14,5	22,5	14	12
25	M 8	14,5	22,5	14	12
31	M 8	18,5	27	17	15
31	M 10	18,5	27	17	17

Specification

- **GN 676.1**
Steel
blackened
- **GN 676.5**
Stainless Steel AISI 303
matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

Information

Knobs GN 676.1 are used in applications where a push or pull movement is required. Their concave top gives a more comfortable thumb grip.

The knurled model (Type B) can be used as an attractively shaped knurled knob with a threaded blind hole.

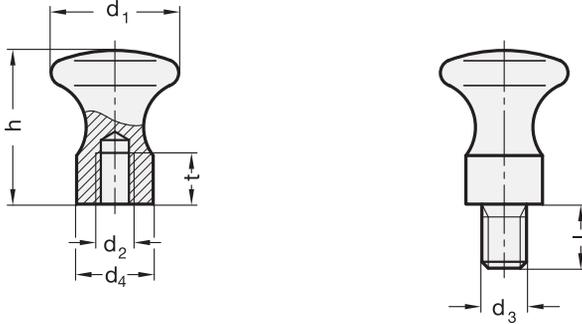
see also...

- *Knurled knobs GN 676 (Plastic)* → Page 48

Steel-Knob GN676.1-21-M5-B	1 d_1
	2 d_2
	3 Type

Stainless Steel-Knob GN676.5-31-M10-A	1 d_1
	2 d_2
	3 Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Type

- D** with female thread
- E** with male thread

1 d_1	2 d_2 Type D	2 d_3 Type E	d_4	h	Length l	t min.
16	M 5	M 6	10	18	10	7
20	M 6	M 8	12	24	12	9
25	M 6	M 8	14	29	14	9
32	M 8	M 10	18	37	16	12
36	M 10	M 12	20	42	18	15

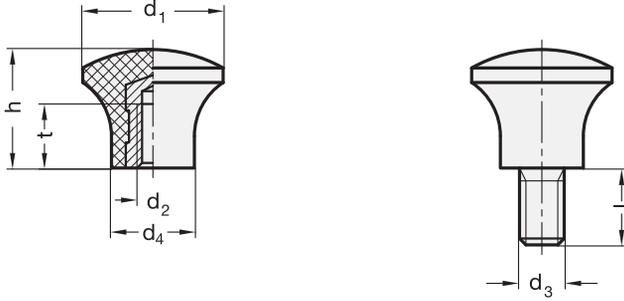
Specification

- Steel
 - turned and polished
 - blackened
- RoHS compliant

Information

- see also...
- Knobs GN 676.5 (Stainless Steel) → Page 51

How to order GN 75-25-M6-D	1 d_1
	2 d_2 (d_3)
	3 Type



3 Type
D with female thread
E with male thread

1 d_1	2 d_2 Type D	2 d_3 Type E	d_4	h	Length l	t min.
17	M 5	M 5	10	14	9	7
21	M 6	M 6	12	17	10	11
25	M 6	M 6	14	21	10	11
33	M 8	M 8	18	29	14	12

Specification

- Plastic
 Duroplast (Phenolic PF)
 - temperature resistant up to 110 °C
 - black, shiny finish
- Type D
 Bush brass
- Type E
 Threaded stud Steel
 zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

How to order

GN 76-25-M6-D

- 1** d_1
- 2** d_2 (d_3)
- 3** Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



1.2

Cabinet „U“ handles
Tubular handles
Gripping trays



1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
☞

1.2 Cabinet „U“ handles, Tubular handles, Gripping trays



GN 565
Cabinet „U“ handles
Aluminium



→ Page 60

GN 625
Cabinet „U“ handles
Plastic



→ Page 66

GN 728.5
Cabinet „U“ handles
Stainless Steel



→ Page 73

GN 565.1
Cabinet „U“ handles
Aluminium



→ Page 61

GN 725
Cabinet „U“ handles
Plastic



→ Page 68

GN 565.3
Cabinet „U“ handles
Aluminium



→ Page 74

GN 565.5
Cabinet „U“ handles
Stainless Steel



→ Page 63

GN 564
Cabinet „U“ handles
Steel / PU-foam



→ Page 69

GN 668
Cabinet „U“ handles
Aluminium



→ Page 75

GN 565.2
Inclined Cabinet „U“ handles
Aluminium



→ Page 64

GN 528
Cabinet „U“ handles
Plastic



→ Page 70

GN 559
Cabinet „U“ handles
Aluminium



→ Page 76

GN 565.4
Arch handles
Aluminium



→ Page 65

GN 528
Cabinet „U“ handles
Plastic



→ Page 70

GN 225
Cabinet „U“ handles
Cast iron



→ Page 77

GN 565.9
Arch handles
Stainless Steel



→ Page 65

GN 528.1
Cabinet „U“ handles
Plastic



→ Page 72

GN 628
Cabinet „U“ handles
Plastic



→ Page 78

GN 625
Cabinet „U“ handles
Plastic



→ Page 66

GN 728
Cabinet „U“ handles
Aluminium



→ Page 73

GN 628.2
Distance bushings for GN 628
Plastic



→ Page 78

1.2 Cabinet „U“ handles, Tubular handles, Gripping trays



GN 425
Cabinet
„U“ handles
Steel



→ Page 80

GN 424.1
Arch handles
Steel



→ Page 85

GN 425.8 
Folding handles
with recessed tray
Stainless Steel /
Zinc die casting



→ Page 88

GN 425.6
Cabinet
„U“ handles
Aluminium



→ Page 80

GN 424.5 
Arch handles
Stainless Steel



→ Page 85

GN 425.5
Folding handles
Steel / Plastic



→ Page 90

GN 425 
Cabinet
„U“ handles
Stainless Steel



→ Page 82

GN 425.1
Cabinet
„U“ handles
Steel



→ Page 86

GN 425.5 
Folding handles
Stainless Steel /
Plastic



→ Page 90

GN 425.3
Cabinet
„U“ handles
Steel



→ Page 83

GN 425.1 
Cabinet
„U“ handles
Stainless Steel



→ Page 86

GN 427
Cabinet
„U“ handles
Aluminium



→ Page 91

GN 425.3 
Cabinet
„U“ handles
Stainless Steel



→ Page 83

GN 425.2
Folding handles
Steel



→ Page 87

GN 427.5 
Cabinet
„U“ handles
Stainless Steel



→ Page 91

GN 224.1
Finger handles
Steel



→ Page 84

GN 425.2 
Folding handles
Stainless Steel



→ Page 87

GN 426
Cabinet
„U“ handles
Aluminium



→ Page 92

GN 224.5 
Finger handles
Stainless Steel



→ Page 84

GN 425.8
Folding handles
with recessed tray
Steel /
Zinc die casting



→ Page 88

GN 426.1
Cabinet
„U“ handles
Aluminium



→ Page 93

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

1.2 Cabinet „U“ handles, Tubular handles, Gripping trays



 <p>GN 426.5 Cabinet „U“ handles Stainless Steel</p> <p>→ Page 95</p>	 <p>GN 333.8 Handle shanks for tubular handles Zinc die casting</p> <p>→ Page 105</p>	 <p>GN 666.1 Tubular handles Stainless Steel / Plastic</p> <p>→ Page 109</p>
 <p>GN 333.1 Tubular handles Aluminium / Zinc die casting</p> <p>→ Page 96</p>	 <p>GN 333.9 Handle shanks for tubular handles Zinc die casting</p> <p>→ Page 105</p>	 <p>GN 667 Cabinet „U“ handles Aluminium / Plastic</p> <p>→ Page 111</p>
 <p>GN 333.5 Tubular handles Stainless Steel</p> <p>→ Page 98</p>	 <p>GN 332 Tubular handles with power switching function, Aluminium</p> <p>→ Page 106</p>	 <p>GN 667 Cabinet „U“ handles Stainless Steel / Plastic</p> <p>→ Page 111</p>
 <p>GN 333.3 Tubular handles with movable handle shanks Aluminium / Zinc die casting</p> <p>→ Page 99</p>	 <p>GN 666 Tubular handles Aluminium / Plastic</p> <p>→ Page 108</p>	 <p>GN 666.5 Tubular handles Mounting from the back Stainless Steel</p> <p>→ Page 112</p>
 <p>GN 331 Tubular handles with power switching function, Aluminium</p> <p>→ Page 100</p>	 <p>GN 666 Tubular handles Aluminium / Plastic</p> <p>→ Page 108</p>	 <p>GN 666.7 Tubular handles Mounting from operator's side Stainless Steel</p> <p>→ Page 112</p>
 <p>GN 333 Tubular handles Aluminium / Zinc die casting</p> <p>→ Page 102</p>	 <p>GN 666 Tubular handles Stainless Steel Plastic</p> <p>→ Page 108</p>	 <p>GN 334 Oval tubular handles Aluminium / Zinc die casting</p> <p>→ Page 114</p>
 <p>GN 333.2 Tubular handles with movable handle shanks Aluminium / Zinc die casting</p> <p>→ Page 104</p>	 <p>GN 666.1 Tubular handles Aluminium / Plastic</p> <p>→ Page 109</p>	 <p>GN 334.1 Oval tubular handles Aluminium / Zinc die casting</p> <p>→ Page 115</p>

GN 366
Oval tubular handles
 Aluminium / Plastic
 → Page 117

GN 730
Ledge handles
 Aluminium
 → Page 125

GN 669
System handles
 Aluminium
 → Page 118

GN 430
Ledge handles
 Aluminium / Plastic
 → Page 126

GN 666.4
Tubular arch handles
 Aluminium
 → Page 120

GN 430.1
Ledge handles with lettering block
 Aluminium / Plastic
 → Page 126

GN 666.4
Tubular arch handles
 Stainless Steel
 → Page 120

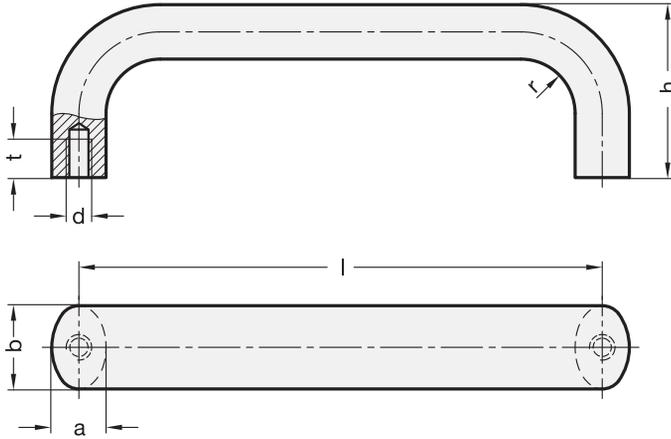
GN 731.1
Gripping trays clip-in type
 Plastic
 → Page 128

GN 665
Arch handles
 Aluminium
 → Page 121

GN 481
Edge handles
 Aluminium / Zinc die casting
 → Page 122

GN 930
Handle tubes with screw channel
 Aluminium
 → Page 124

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Inch Internationaler Designpreis Baden-Württemberg

b	Length $l \pm 0,25$	a	d	h	r	t min.
20	100	13	M 6	49	13	10
20	112	13	M 6	49	13	10
20	117	13	M 6	49	13	10
20	120	13	M 6	49	13	10
20	128	13	M 6	51	13	10
20	160	13	M 6	51	13	10
26	112	17	M 8	55	17	12
26	117	17	M 8	55	17	12
26	120	17	M 8	55	17	12
26	125	17	M 8	55	17	12
26	128	17	M 8	55	17	12
26	160	17	M 8	57	17	12
26	179	17	M 8	57	17	12
26	192	17	M 8	57	17	12
26	300	17	M 8	57	17	12
26	400	17	M 8	57	17	12
26	500	17	M 8	57	17	12

Specification

- Aluminium
 - plastic coated
 - black, RAL 9005, textured finish
 - red, RAL 3000, textured finish
 - silver, RAL 9006, textured finish
 - anodized, natural colour
 - blank tumbled
- Load rating information → Page 1151
- RoHS compliant



Information

Cabinet „U“ handles GN 565 are produced from profiled aluminum extrusions. Their special features are their rigidity and ergonomical shaping.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

see also...

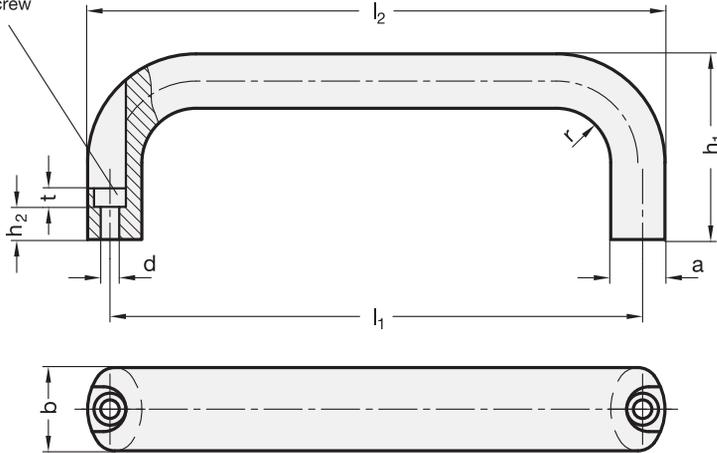
- Inclined Cabinet „U“ handles GN 565.2 → Page 64
- Stainless Steel-Cabinet „U“ handles GN 565.5 → Page 63
- Cabinet „U“ handles GN 725 (Plastic) → Page 68

How to order

GN 565-20-100-SW

1	b
2	Length l
3	Finish

Counterbored for cap screw
DIN 912



b	l₁ ±0,25	a	d	h₁	h₂	l₂	r	t
20	100	13	5,4	49	13,5	112	13	5,5
20	112	13	5,4	49	13,5	124	13	5,5
20	128	13	5,4	51	13,5	140	13	5,5
20	160	13	5,4	51	13,5	172	13	5,5
26	116	17	6,4	55	11	130	17	6
26	132	17	6,4	55	11	146	17	6
26	164	17	6,4	57	11	178	17	6
26	179	17	6,4	57	11	193	17	6
26	196	17	6,4	57	11	210	17	6

Specification

- Aluminium
 - plastic coated
 - black, RAL 9005, textured finish
 - red, RAL 3000, textured finish
 - silver, RAL 9006, textured finish
 - anodized, natural colour
 - blank
 - tumbled
- SW
 - RS
 - SR
 - EL
 - BL
- Load rating information → Page 1151
 - RoHS compliant

Information

Cabinet „U“ handles GN 565.1 are produced from profiled aluminium extrusions. Their special features are their rigidity and ergonomic shaping.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

How to order

GN565.1-26-132-SW

1	b
2	l ₁
3	Finish



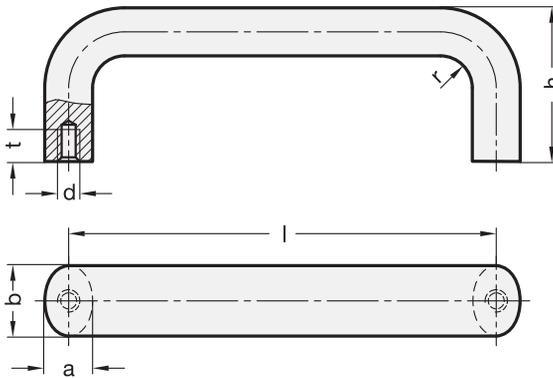
Aluminium Cabinet „U“ handles

GN 565 → *Page 60*

GN 565.1 → *Page 61*

GN 565.2 → *Page 64*

GN 565.4 → *Page 65*



ROSTFREI
 Rost
 frei
 Inox
 Stainless
 Steel

¹ b	² Length l ±0,25	a	d	h	r	t min.
20	112	13	M 6	49	13	10
20	128	13	M 6	51	13	10
20	160	13	M 6	51	13	10
20	200	13	M 6	51	13	10
20	250	13	M 6	51	13	10
20	300	13	M 6	51	13	10
20	350	13	M 6	51	13	10
20	400	13	M 6	51	13	10

Specification

- Stainless Steel AISI 304 matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- *Load rating information* → Page 1152
- **RoHS compliant**

Information

Stainless Steel-Cabinet „U“ handles GN 565.5 are produced from profiled aluminum extrusions. Their special features are their rigidity and ergonomical shaping.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

see also...

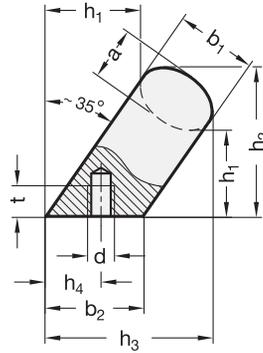
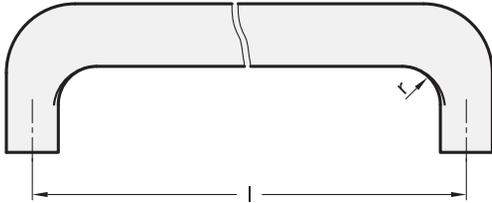
- *Cabinet „U“ handles GN 565 (Aluminium)* → Page 60
- *Cabinet „U“ handles GN 725 (Plastic)* → Page 68
- *Cabinet „U“ handles GN 625 (Plastic)* → Page 66

How to order

GN565.5-20-112

¹ b

² Length l



¹ b ₁	² Length l ±0,25	a	b ₂	d	h ₁	h ₂	h ₃	h ₄ +1	r	t min.
20	112	13	24	M 6	32	48	50	13,5	13	10
20	128	13	24	M 6	32	48	50	13,5	13	10
26	128	17	32	M 8	34	54	57	18	17	12
26	160	17	32	M 8	34	54	57	18	17	12

Specification

- Aluminium
 - plastic coated
 - black, RAL 9005, textured finish
 - silver, RAL 9006, textured finish
 - anodized, natural colour
 - blank tumbled

- SW
- SR
- EL
- BL

- Load rating information → Page 1151
- RoHS compliant

³

Information

Inclined cabinet „U“ handles GN 565.2 are produced from profiled aluminum extrusions. Produced from profiled aluminum extrusions their special features are their rigidity and ergonomical shaping.

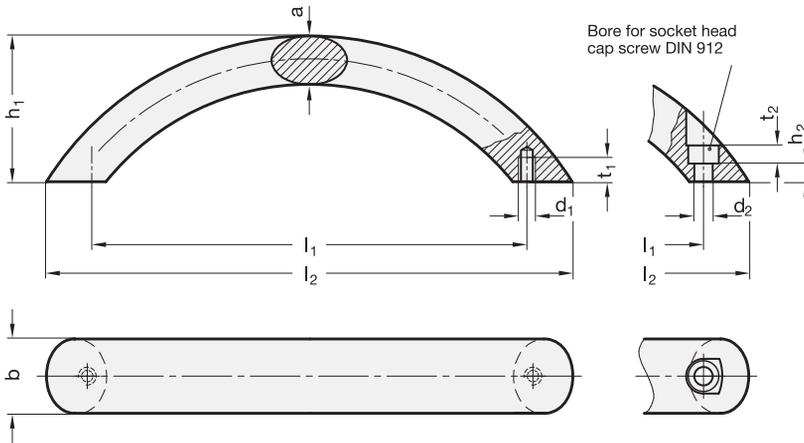
The angled contact surface allows improved access even in tight spaces such as corners.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

How to order

GN565.2-20-128-SW

¹	b ₁
²	Length l
³	Finish



Rost frei
Inox
Stainless
Steel

3 Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operator's side

b		l₁ ±0,25	l₂ ≈	a	d₁	d₂	h₁	h₂	t₁ min.	t₂
GN 565.4	GN 565.9				Type A	Type B				
20	20	160	185	13	M 6	5,3	51	5	8,5	5
20	20	192	221	13	M 6	5,3	51	5	8,5	5
26	-	160	190	17	M 8	6,4	57	6	11	6
26	-	192	227	17	M 8	6,4	57	6	11	6

Specification

GN 565.4

Aluminium

- plastic coated

black, RAL 9005, textured finish

red, RAL 3000, textured finish

silver, RAL 9006, textured finish

- anodized, natural colour

- blank

tumbled

- **SW**
- **RS**
- **SR**
- **EL**
- **BL**

GN 565.9

Stainless Steel

- AISI 304

- matt shot-blasted

● **MT**

• *Stainless Steel characteristics* → Page 1144

• *Load rating information* → Page 1152

• **RoHS compliant**

Information

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

see also...

• *Arch handles GN 665* (l₂ = 526 / 632) → Page 121

• *Arch handles GN 424.1* (Ø10) → Page 85

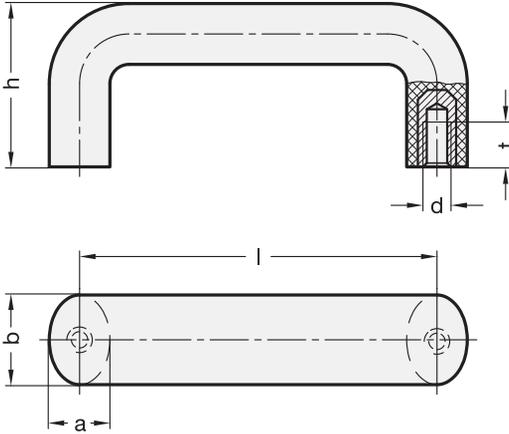
• *Stainless Steel-Arch handles GN 424.5* (Ø10) → Page 85

Aluminium-Arch handle 1 2 3 4 GN 565.4-20-160-B-RS	1	b
	2	l₁
	3	Type
	4	Finish

Stainless Steel-Arch handle 1 2 3 4 GN 565.9-20-192-A-MT	1	b
	2	l₁
	3	Type
	4	Finish



ELESA Original design M.843



Length l	a	b	d	h	t min.
86 ±0,5	17	26	M 6	46,5	12
117 ±0,5	20	30	M 8	53	13
179 ±1,0	20	30	M 8	62	13
300 ±1,0	22	32	M 8	64	13

Specification

- Plastic
Technopolymer (Polyamide PA)
temperature resistant up to 120 °C
- Colours (shiny finish):
 - black, RAL 9005
 - orange, RAL 2004
 - red, RAL 3000
 - white, RAL 9002, Cleanline
 - yellow, RAL 1021
 - grey, RAL 7035
 - blue, RAL 5024
- Bush
 - Standard: Brass
 - Cleanline (CL): Stainless Steel
- *Plastic characteristics* → Page 1141
- *Strength properties* → Page 1147



Information

Cabinet „U“ handles are renowned for their well proven elliptical extrusion profile as well as the ergonomic design with their smooth and shiny surface.

see also...

- *Product family Cleanline* → Page 13

- **SW**
- **OR**
- **RT**
- **CL**
- **GB**
- **GR**
- **BL**

How to order GN625-117-RT	1	Length l
	2	Colour



1.1

1.2

1.3

1.4

1.5

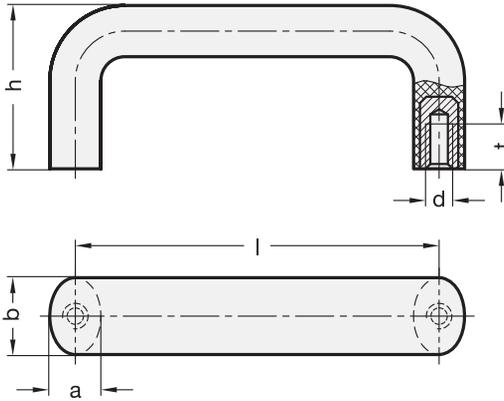
1.6

1.7

1.8

1.9





ELESA Original design M.643

Length l	1		2				a	b	h	t min.				
	d	Standard material (PP)		HT material (PA)		M4				M5	M6	M8	M10	
86 ±0,5	M 5	M 6	-	-	M 6	-	14	23	44	-	10	12	-	-
94 ±0,5	M 5	M 6	-	-	-	-	14	24	48	-	10	12	-	-
117 ±0,5	M 4	M 5	M 6	M 8	M 6	M 8	15	25	49	10	10	12	13	-
120 ±0,5	M 5	M 6	M 8	-	-	-	15	25	49	-	10	12	13	-
132 ±0,5	M 5	M 6	M 8	-	-	-	16	26	54	-	10	12	13	-
150 ±1	M 6	M 8	M 10	-	-	-	16	27	56	-	-	12	13	17
179 ±1	M 8	M 10	-	-	M 8	-	16	27	57	-	-	-	13	17
235 ±1	M 8	M 10	-	-	-	-	18,5	29	61	-	-	-	13	17
300 ±1	M 10	-	-	-	-	-	22	32	64	-	-	-	-	17

Specification

- Plastic Technopolymer (Polypropylene PP)
 - shock-resistant
 - temperature resistant up to 100 °C
 - black, matt finish
- Bush Zinc die casting galvanically treated

3

Information

Cabinet „U“ handles GN 725 are known for their good design and the well proven elliptical profile. They meet the demand from an ergonomical angle.

see also...

- Cabinet „U“ handles GN 565 (Aluminium) → Page 60
- Stainless Steel-Cabinet „U“ handles GN 565.5 → Page 63
- Cabinet „U“ handles GN 625 (Plastic) → Page 66

HT

- Plastic Technopolymer (Polyamide PA)
 - glass fibre reinforced
 - temperature resistant up to 200 °C
 - black, matt finish
- Bush Brass

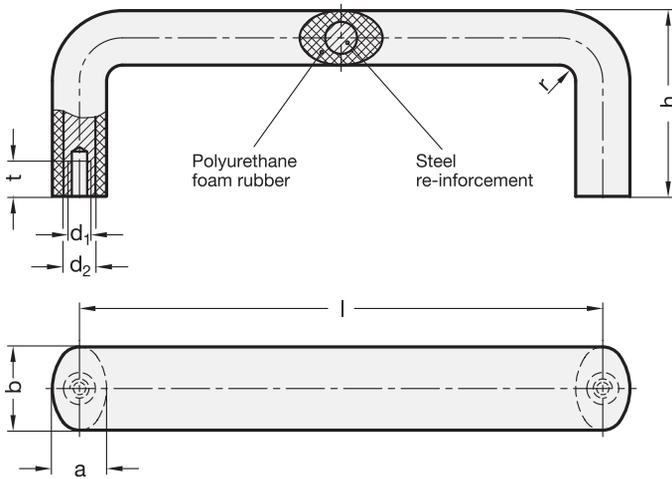
• Plastic characteristics → Page 1141

• Strength properties → Page 1147

• RoHS compliant

Cabinet „U“ handle GN 725-179-M8	1	Length l
	2	d

Cabinet „U“ handle up to 200° C GN 725-86-M6-HT	1	Length l
	2	d
	3	Material



SOFT

1

2

b	Length l ±0,25	a	d ₁	d ₂	h	r	t min.
25	112	16	M 6	10	50	5	10
25	128	16	M 6	10	54	7	10
25	160	16	M 6	10	54	9	10

Specification

- Polyurethane foam (PUR) with steel re-inforcement
 - black, matt slightly textured finish
 - elastic
 - temperature resistant up to 80 °C
 - soft, tear resistant outer skin with high resistance to abrasion

• *Elastomere characteristics* → Page 1140

• *Load rating information* → Page 1151

• **RoHS compliant**

Information

The steel re-inforcement of cabinet „U“ handles GN 564 guarantees high resistance to damage. The shock absorbing PU foam rubber coating prevents injuries to the operator.

The foam rubber (Polyurethane Integral Foam Rubber Bayflex) is by nature of its surface finish extremely user friendly, non corroding and not affected by the environment and in addition offers insulating properties.

They are known for their good design and the well proven elliptical profile. They meet the demand from an ergonomical angle.

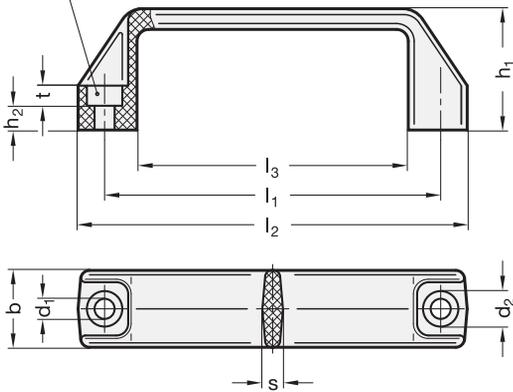
How to order

GN564-25-128

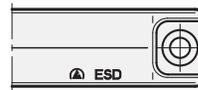
1 b

2 Length l

Bore for socket head cap screw DIN 912



ELESA Original design M.443



Specification ESD

l ₁	d ₁	Material / Colour						b	d ₂	h ₁	h ₂	l ₂	l ₃	s	t
		PA	PP	SV	ESD	SW	OR								
94 -1	6,5	SW	OR	GR	SW	SW	SW	21	10,5	38	6	109	74	6	7
117 ±1	6,5	SW	-	-	SW	-	-	26	13,5	41	9	137	93	7	6
117 ±1	8,5	SW	OR	GR	SW	SW	SW	26	13,5	41	6,5	137	93	7	8,5
122 ±1	8,5	SW	-	-	SW	-	-	26	13,5	41	6,5	142	100	7	8,5
132 ±1	8,5	SW	OR	GR	SW	SW	-	27	13,5	45	7,5	150	108	7	8,5
140 ±1	8,5	SW	OR	GR	SW	-	-	27	13,5	46	7,5	160	113	7	8,5
160 ±1	8,5	SW	OR	GR	SW	-	-	28	13,5	50	8,5	179	132	7,5	8,5
179 ±1	8,5	SW	OR	GR	SW	SW	-	28	13,5	50	8,5	196	151	7,5	8,5
235 ±1	10,5	SW	OR	GR	SW	-	-	30	16,5	54	9,5	260	201	8,5	10,5

Specification



- Plastic Technopolymer (Polyamide) PA**
 - glass fibre reinforced
 - temperature resistant up to 150 °C
 - black, RAL 9005, matt ● **SW**
 - orange, RAL 2004, matt ● **OR**
 - grey, RAL 7031, matt ● **GR**
 - Plastic Technopolymer (Polypropylene) PP**
 - glass fibre reinforced
 - temperature resistant up to 100 °C
 - black, RAL 9005, matt ● **SW**
 - Plastic, Technopolymer, selfextinguishing SV**
 - glass fibre reinforced
 - temperature resistant up to 150 °C
 - black, RAL 9005, matt ● **SW**
 - Plastic Technopolymer (Polyamide) ESD**
 - antistatic
 - temperature resistant up to 150 °C
 - black, RAL 9005, matt ● **SW**
- Plastic characteristics → Page 1141
 • Strength properties → Page 1146

Information

Cabinet „U“ handles GN 528 are fitted to the drawers from the outside using cap screws.

Cabinet „U“ handles of the type PP (Polypropylene) are, however, less viable from a mechanical and thermal viewpoint, but price-wise they are more competitive but are quite adequate for many applications.

Cabinet handles of the type SV are made of a plastic material type UL 94 V-0 which is self-extinguishing. The classification to UL 94 V-0 (Underwriters Laboratories) covers the properties and durability against fire. According to their tests a plastic test piece of a defined shape and dimension is set alight in a vertical position whereby the flame on a scale from V – 0 has to extinguish itself within 10 secs without leaving any burning droplets.

Cabinet „U“ handles type ESD are made out of a conductive plastic material which prevents an electrostatic loading.

The imprint „ESD-C“ on the surface of the handle defines the special antistatical properties according to EN 1000015/1 and IEC 61340-5-1.

see also...

- Cabinet „U“ handles GN 728 (Aluminium die casting) → Page 73
- Stainless Steel-Cabinet „U“ handles GN 728.5 → Page 73

How to order		1	Material
1	2	2	l ₁
3	3	3	d ₁
4	4	4	Colour

GN528-PA-117-6,5-SW



Cabinet „U“ handles (Plastic) GN 528 → [Page 70](#)
Cabinet „U“ handles (Plastic) GN 528.1 → [Page 72](#)
Cabinet „U“ handles (Aluminium) GN 728 → [Page 73](#)
Cabinet „U“ handles (Stainless Steel) GN 728.5 → [Page 73](#)

1.1

1.2

1.3

1.4

1.5

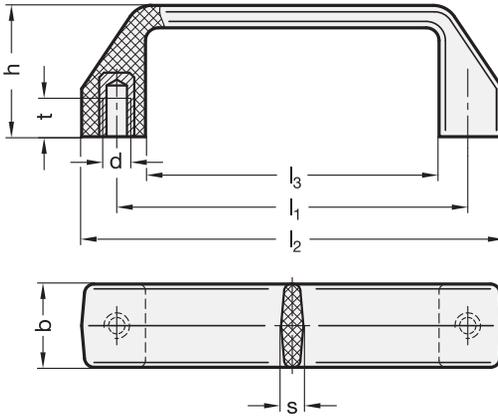
1.6

1.7

1.8

1.9





ELESA Original design M.543

2

3

l ₁	d	Material / Colour			b	h	l ₂	l ₃	s	t min.
		PA	PP	PP						
94 -1	M 6	SW	OR	-	21	36	107	79	6	10
105 ±0,5	M 5	SW	OR	-	23	37	120	90	7	10
105 ±0,5	M 6	SW	OR	-	23	37	120	90	7	10
117 ±0,5	M 6	SW	OR	SW	25	38	134	102	7,5	12
117 ±0,5	M 8	SW	OR	-	25	38	134	102	7,5	12
132 ±0,5	M 8	SW	OR	-	26	45	150	116	8	13

Specification

1

4

- Plastic **PA**
Technopolymer (Polyamide)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, RAL 9005, matt ● **SW**
- orange, RAL 2004, matt ● **OR**
- Plastic **PP**
Technopolymer (Polypropylene)
- glass fibre reinforced
- temperature resistant up to 100 °C
- black, RAL 9005, matt ● **SW**
- Bush brass
- *Plastic characteristics* → Page 1141
- *Strength properties* → Page 1146

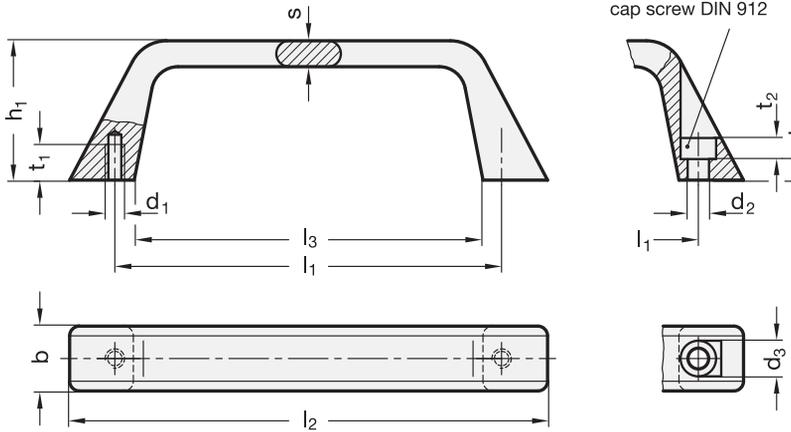
Information

Cabinet „U“ handles GN 528.1 type PP (Polypropylene) offer indeed less mechanical and thermal features, however are of low cost. Their characteristics are sufficient for many applications.

How to order

GN528.1-PA-117-M6-SW

1	Material
2	l ₁
3	d
4	Colour



Rostfrei
Inox
Stainless
Steel

2 Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operator's side

1 1

$l_1 \pm 0,25$ GN 728	$l_1 \pm 0,25$ GN 728.5	b	d ₁	d ₂	d ₃	h ₁	h ₂	l ₂	l ₃	s	t ₁ min.	t ₂
120	120	22,5	M 6	6,4	11	42,5	6,5	147	108	8	10	6,5
180	-	27	M 8	8,4	13,5	47,5	7,5	214	165	10	12	8,5

Specification

- **GN 728**
Aluminium pressure die casting
 - plastic coated
 - black, RAL 9005, textured finish ● **SW**
 - silber, RAL 9006, textured finish ○ **SR**
 - blank ○ **BL**
 - tumbled
- **GN 728.5**
Stainless Steel AISI CF-8
 - Precision casting
 - matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- *Load rating information* → Page 1153
- **RoHS compliant**

3

Information

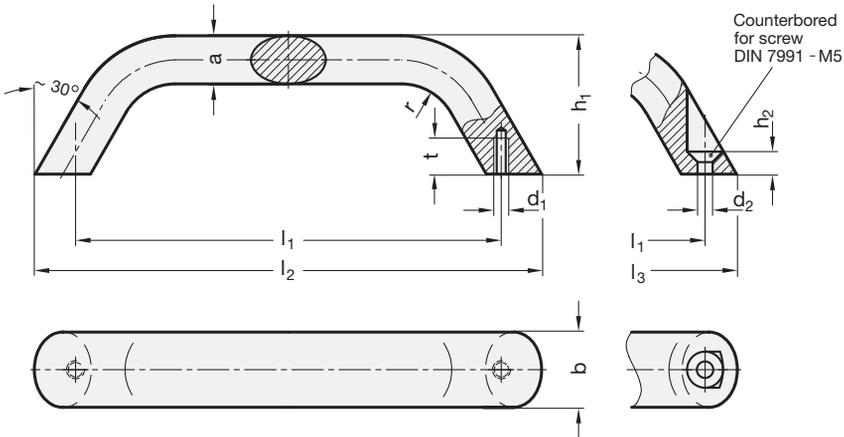
The installation of cabinet „U“ handles GN 728 / GN 728.5 can be carried out from the back (Type A) as well as from the operator's side (Type B). The hole centers dimension is identical on all variants. As a result they can be mounted in pairs opposite each other.

see also...

- *Cabinet „U“ handles GN 528 (Plastic)* → Page 70

Cabinet „U“ handle GN 728-120-A-SW	1	l_1
	2	Type
	3	Finish

Stainless Steel-Cabinet „U“ handle GN 728.5-120-B	1	l_1
	2	Type



3 Type

- A** Mounting from the back (threaded blind bore)
B Mounting from the operator's side

1

2

b	$l_1 \pm 0,25$	l_2 Type A	$l_3 \approx$ Type B	a	d_1 Type A	d_2 Type B	h_1	h_2 Type B	r	t min.
20	120	142	137	13	M 5	5,3	41	5	13	10

Specification

- Aluminium
 - plastic coated
 - black, RAL 9005, textured finish
 - silver, RAL 9006, textured finish
 - blank
 - tumbled



• Load rating information → Page 1151

• RoHS compliant

4

Information

Cabinet „U“ handles GN 565.3 are suitable for applications where lower lifting forces are required such as on lids or protective machine covers.

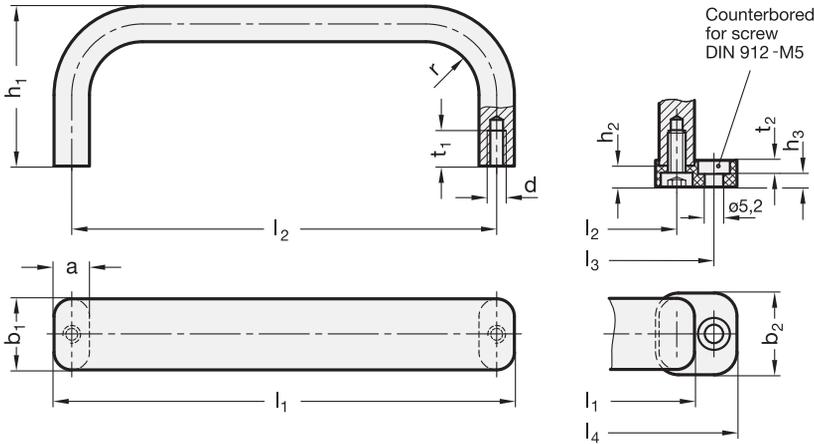
The countersunk holes of type B allow fixing with self tapping screws or countersunk rivets.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

How to order

1	b
2	l_1
3	Type
4	Finish

GN 565.3-20-120-B-SW



3 Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operator's side

1	2	a	b₂	d	h₁	h₂	h₃	l₂	l₃	l₄	r	t₁ min.	t₂
20	130	10	23	M 5	45	6,5	2	120	141	153	15	10	5,5
20	170	10	23	M 5	45	6,5	2	160	181	193	15	10	5,5
20	190	10	23	M 5	45	6,5	2	180	201	213	15	10	5,5
20	210	10	23	M 5	45	6,5	2	200	221	233	15	10	5,5

Specification

- Aluminium
 - plastic coated black, RAL 9005, textured finish **● SW**
 - blank tumbled **○ BL**
- Handle base
 - Plastic Technopolymer (Polyamide PA) black, matt
- Load rating information → Page 1153
- RoHS compliant



Information

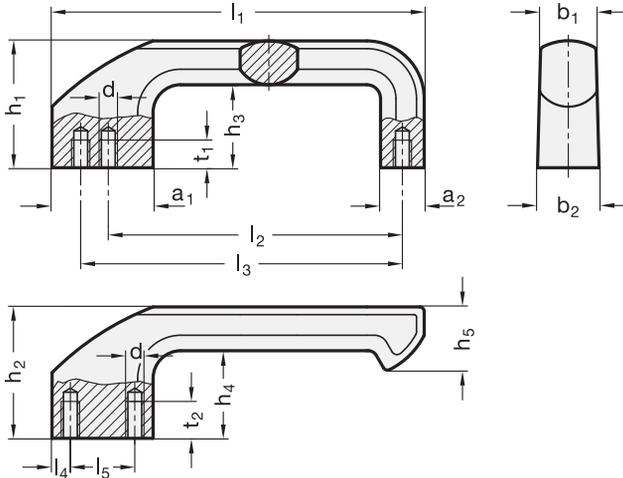
Cabinet handles GN 668 are produced from aluminium extrusions. They can be mounted either from the back (Type A) or by means of the handle base from the operator's side (Type B). The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

How to order

GN668-20-170-B-SW

1	b₁
2	l₁
3	Type
4	Finish

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



2 Type

- A closed type
- B open ended type

1

$l_1 \pm 0,25$	a_1	a_2	b_1	b_2	d	h_1	h_2	h_3	h_4	h_5	l_2	$l_3 \pm 0,2$	l_4	l_5	t_1 min.	t_2 min.
162	38	19	25	28	M 8	55	57	36	38	28	128	140	8	22	12	16

Specification

- Aluminium plastic coated
- black, RAL 9005, textured finish **SW**
- silver, RAL 9006, textured finish **SR**
- Load rating information → Page 1151
- RoHS compliant

3

Information

A special characteristic of the Handle GN 559 is the thumb rest pad on the front of the leg.

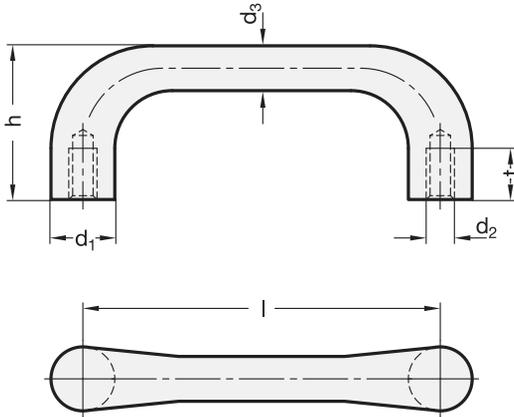
At the same time the extended leg offers an open ended version with wide access.

Handles GN 559 are known for their high stability . They are fixed by two M8 screws whereby type A offers two alternative hole centers (l_2 or l_3).

How to order

GN 559-162-B-SW

1	l_1
2	Type
3	Finish



1

d ₁	d ₂	d ₃	h	Length l ±0,25	t min.
18	M 6	12	42	100	12
20	M 8	14	47	112	15
22	M 10	16	53	125	18
25	M 12	18	59	140	20

Specification

- Cast iron (GS45)
 - plastic coated black, RAL 9005, textured finish ● **SW**
 - blank ○ **BL**
 - unfinished casting, fettled
- Contact surface machined
- RoHS compliant

2

Information

Cabinet „U“ handles GN 225 are simple, very rugged handles.

How to order

GN 225-20-SW

1	d ₁
2	Finish

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

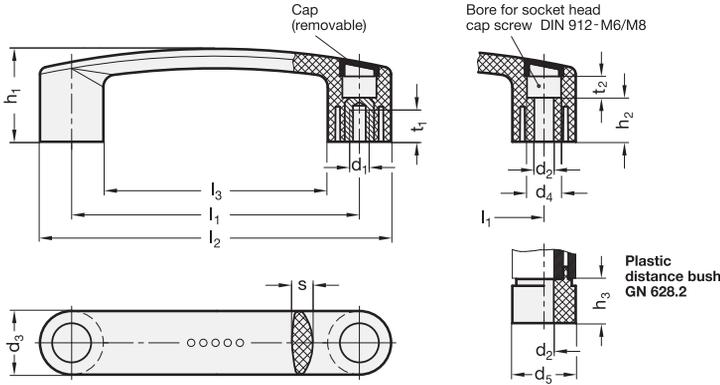


ELESA Original design EBP./DS-EBP.



3 Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operator's side



1	2	2	3	3	3	3	3							
l_1	d_1 Type A	d_2 Type B	d_3	d_4	d_5	h_1	h_2	h_3	l_2	l_3 min.	s	t_1	t_2	
94 -1	M 6	6,5	22	13,5	22,5	35	17	18	116	71	8	12	6,5	
117 ±0,5	M 6	6,5	26	17	26,5	39	7	19,5	144	91	8,5	13	19,5	
117 ±0,5	M 8	8,5	26	17	26,5	39	18	19,5	144	91	8,5	13	8,5	
132 ±0,5	M 8	8,5	27	-	-	42	17,5	-	159	105	9,5	13	10,5	
150 ±1	M 8	8,5	28	18	29	45	18	20,5	180	122	9,5	13	14	
179 ±1	M 8	8,5	29	18	29	51	19	20,5	210	150	9,5	13	16	

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, matt
similar RAL 7021
- Bush (Type A)
Brass
- Colour of the cap (matt):
black-grey, RAL 7021
orange, RAL 2004
grey, RAL 7035
yellow, RAL 1021
blue, RAL 5024
red, RAL 3000
- Plastic characteristics → Page 1141
- Strength properties → Page 1147
- RoHS compliant

- **DSG**
- **DOR**
- **DGR**
- **DGB**
- **DBL**
- **DRT**

Information

The design of the GN 628 cabinet „U“ handles matches the Ergostyle® product family.

The caps for Type A are supplied ready assembled, for Type B they are enclosed loose.

The „hand space“ can be enlarged with the GN 628.2 distance bushings.

see also...

- Product family Ergostyle® → Page 12

Cabinet „U“ handle GN 628-150-8,5-B-DSG	1	l_1
	2	d_1 (d_2)
	3	Type
	4	Colour of the cap

Distance bushing GN 628.2-20,5	5	h_3
--	----------	-------



1.1

1.2

1.3

1.4

1.5

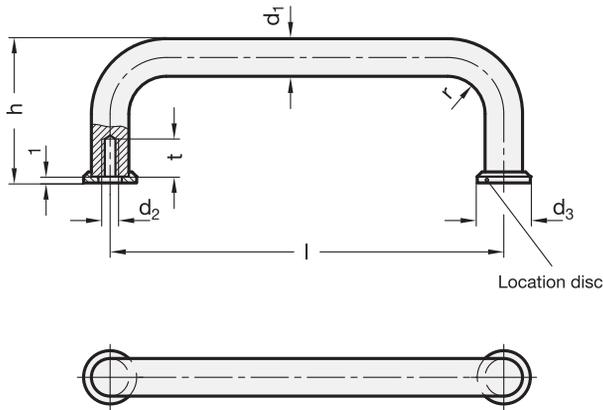
1.6

1.7

1.8

1.9





d_1	Length $l \pm 0,25$	d_2	d_3	h	r	t min.
8	55	M 4	12	35	10	8
8	64	M 4	12	35	10	8
8	88	M 4	12	35	10	8
8	96	M 4	12	35	10	8
8	100	M 4	12	35	10	8
8	120	M 4	12	35	10	8
8	128	M 4	12	35	10	8
10	88	M 5	15	43	12	12
10	100	M 5	15	43	12	12
10	120	M 5	15	43	12	12
10	180	M 5	15	43	12	12
10	200	M 5	15	43	12	12
10	235	M 5	15	43	12	12

Specification

• GN 425

Steel

- plastic coated
- red, RAL 3000, textured finish
- black, RAL 9005, textured finish
- chrome-plated
- blackened

Washers

Zinc die casting, nickel plated



• GN 425.6

Aluminium

- plastic coated
- black, RAL 9005, textured finish
- silver, RAL 9006, textured finish
- anodized, natural colour

Washers

Stainless Steel AISI 303



• Load rating information → Page 1149

• RoHS compliant

Information

Cabinet „U“ handles GN 425 / GN 425.6 are supplied with two location discs. They guarantee a perfect location even with large holes in the cabinet. The discs are loosely enclosed.

The chrome-plated design is only conditionally suitable for outdoor use. The stainless steel design version should be given preference.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

see also...

- *Stainless Steel-Cabinet „U“ handles GN 425 → Page 82*

Cabinet „U“ handle

GN 425-10-120-CR

1	d_1
2	Length l
3	Finish

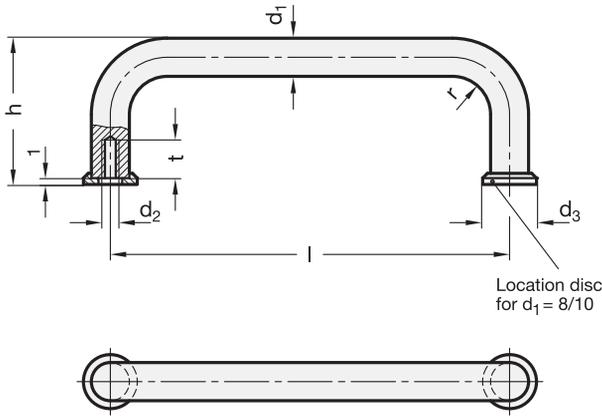
Cabinet „U“ handle

GN 425.6-8-88-EL

1	d_1
2	Length l
3	Finish



Cabinet „U“ handles GN 425 → Page 80
 Finger handles GN 224.1 / GN 224.5 → Page 84
 Arch handles GN 424.1 / GN 424.5 → Page 85
 Folding handles GN 425.5 → Page 90



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Stainless
Steel

1

2

d_1	Material		Length $l \pm 0,25$							d_2	d_3	h	r	t min.
	NI / NEP	A4												
8	AISI 303	-	64	88	96	100	120	128	M 4	12	35	10	8	
10	AISI 303	AISI 316L	88	100	120	180	200	235	M 5	15	43	12	12	
12	AISI 304	-	125	160	200	250	-	-	M 6	-	51	14	12	
16	AISI 304	-	160	200	250	300	-	-	M 6	-	59	18	12	

Specification

- Stainless Steel
 - AISI 303 / AISI 304 (A2)
 - matt shot-blasted
 - electropolished
- Stainless Steel AISI 316L (A4)
- Washers
Stainless Steel AISI 303 / AISI 316L
- Stainless Steel characteristics → Page 1144
- Load rating information → Page 1149
- RoHS compliant

On request

- Stainless Steel version A4 electropolished

3

Information

Stainless Steel-Cabinet „U“ handles GN 425 with $\varnothing 8$ and $\varnothing 10$ are supplied with two stainless steel location discs. They guarantee a perfect location even with large holes in the cabinet. The discs are loosely enclosed.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

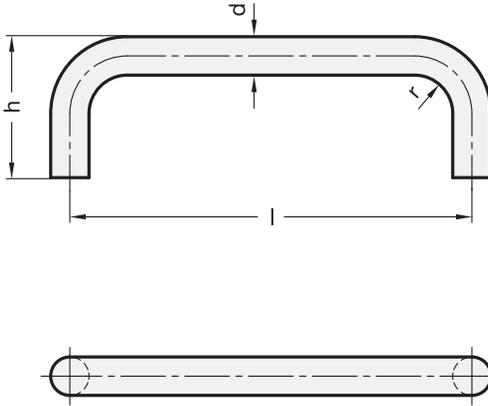
see also...

- Cabinet „U“ handles GN 425 (Steel) → Page 80
- Cabinet „U“ handles GN 425.6 (Aluminium) → Page 80
- Stainless Steel-Cabinet „U“ handles GN 565.5 → Page 63

How to order

GN 425-10-180-NI

1	d_1
2	Length l
3	Material



1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

d	Length l ±0,5			h	r
10	125	160	-	43	12
12	125	160	200	51	14
16	125	160	200	59	18
20	200	250	-	68	22

Specification

- Steel **ST**
matt, shot-blasted
- Stainless Steel AISI 304 **NI**
matt, shot-blasted
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**



Information

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

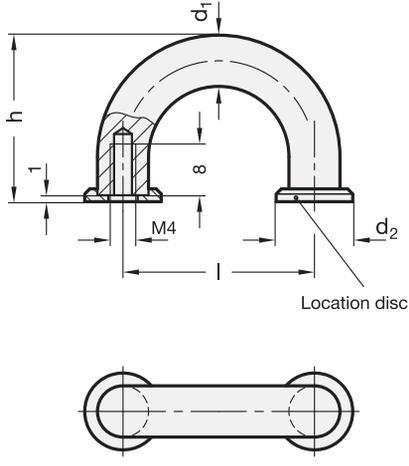
How to order

GN 425.3-12-160-NI

1	d
2	Length l
3	Material



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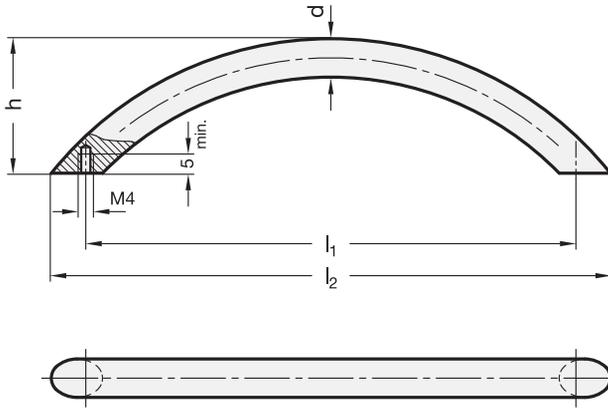
1 d_1	2 Length $l \pm 0,25$	d_2	h
8	30	12	26
10	40	15	31

Specification

- GN 224.1**
 Steel
 chrome-plated ● CR
 Washers
 Zinc die casting, nickel-plated
- GN 224.5**
 Stainless Steel AISI 304
 matt shot-blasted
 Washers
 Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

Finger handle GN 224.1-8-30-CR	1 d_1
	2 Length l
	3 finish

Stainless Steel-Finger handle GN 224.5-10-40	1 d_1
	2 Length l



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Steel

d	l₁	l₂ ≈	h ≈
10	64 ±0,25	75	35
10	96 ±0,25	111	35
10	128 ±0,25	146	35
10	160 ±0,25	181	35
10	192 ±0,35	219	35

Specification

- GN 424.1**
 Steel
 - plastic coated
 - black, RAL 9005, textured finish ● **SW**
 - silver, RAL 9006 ○ **SR**
 - chrome-plated ○ **CR**
- GN 424.5**
 Stainless Steel AISI 303
 matt brushed
- *Stainless Steel characteristics* → Page 1144
- *Load rating information* → Page 1149
- **RoHS compliant**

Information

- see also...
- *Arch handles GN 565.4 (Aluminium)* → Page 65

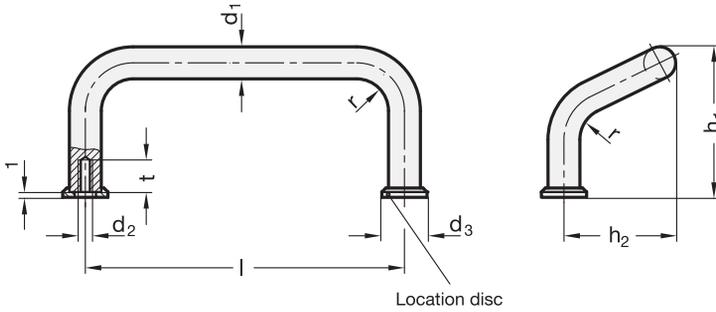
Arch handle	1 d
GN 424.1-10-160-CR	2 l ₁
	3 Finish

Stainless Steel-Arch handle	1 d
GN 424.5-10-128	2 l ₁

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



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¹ d ₁	² Length l ±0,25	d ₂	d ₃	h ₁	h ₂	r	t min.
10	88	M 5	15	47	35	12	12
10	100	M 5	15	47	35	12	12
10	120	M 5	15	47	35	12	12

Specification

- Steel
chrome-plated ● CR
Washers
Zinc die casting
nickel-plated
- Stainless Steel AISI 303 NI
matt shot-blasted
Washers
Stainless Steel AISI 303
- Stainless Steel characteristics → Page 1144
- Load rating information → Page 1149
- RoHS compliant

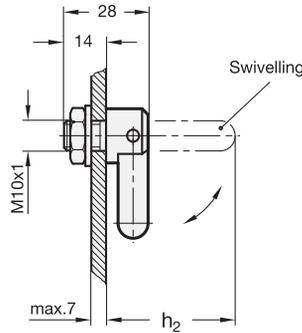
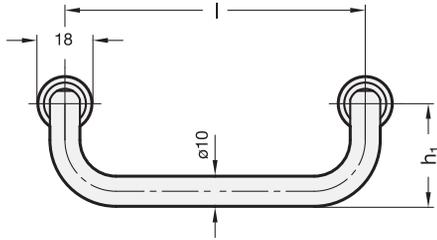
Information

Cabinet „U“ handles GN 425.1 are supplied with two zinc plated location discs. They guarantee a perfect location even with large holes in the cabinet. The discs are loosely enclosed.

The chrome-plated design is only conditionally suitable for outdoor use. The stainless steel design version should be given preference.

Cabinet „U“ handle GN 425.1-10-100-CR	¹ d ₁
	² Length l
	³ Finish

Stainless Steel-Cabinet „U“ handle GN 425.1-10-120-NI	¹ d ₁
	² Length l
	³ Material



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Steel

1

Length $l \pm 0,25$	h_1	h_2
100	34	43
120	34	43
180	34	43

Specification

- Steel chrome-plated **CR**
- Stainless Steel AISI 303 - matt shot-blasted **NI**
- Hexagon nuts ISO 8675-M10x1 Stainless Steel AISI 304
- Washers DIN 125 Stainless Steel AISI 304
- *Stainless Steel characteristics* → Page 1144
- *Load rating information* → Page 1149
- **RoHS compliant**

2

Information

Folding handles GN 425.2 are used in such applications where minimal protrusion is required.

In both positions the handle is retained by a spring loaded detent.

see also...

- *Folding handle with recessed tray GN 425.8* → Page 88

Folding handle GN 425.2-120-CR	1	Length l
	2	Finish

Stainless Steel-Folding handle GN 425.2-180-NI	1	Length l
	2	Material

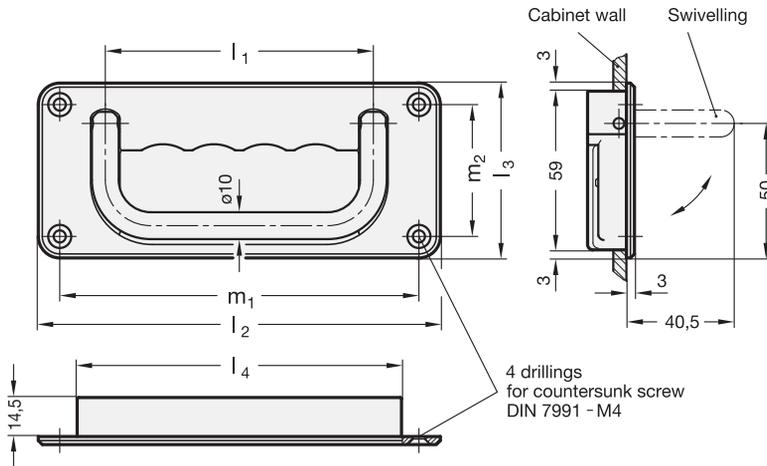
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



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4 Type

- A** with handle locking in the folded up or folded down position
- B** with spring return of the handle in the folded down position



l_1	l_2	l_3	l_4	l_5	l_6	m_1	m_2
100	150	65	121	122	60	134	49
120	170	65	141	142	60	154	49

Specification

- Folding handle
 - Steel chrome-plated ● CR
 - Stainless Steel AISI 304 matt, shot-blasted ● NI
- Tray
 - Zinc die casting plastic coated black, RAL 9005, textured finish ● SW
 - silver, RAL 9006, textured finish ● SR
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant



Information

The folding handles with recessed tray GN 425.8 are used if the handle is to protrude by a maximum of 3 mm when folded down.

In type A, the folding handle is held in both end positions by spring-loaded thrust pieces.

In type B, the folding handle always spring-returns to the starting position after being released, preventing it from protruding with potentially interfering effect.

see also...

- *Gripping trays GN 731.1* → Page 128

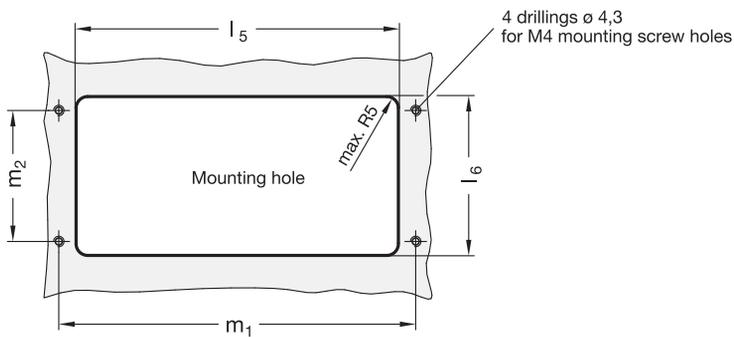
How to order

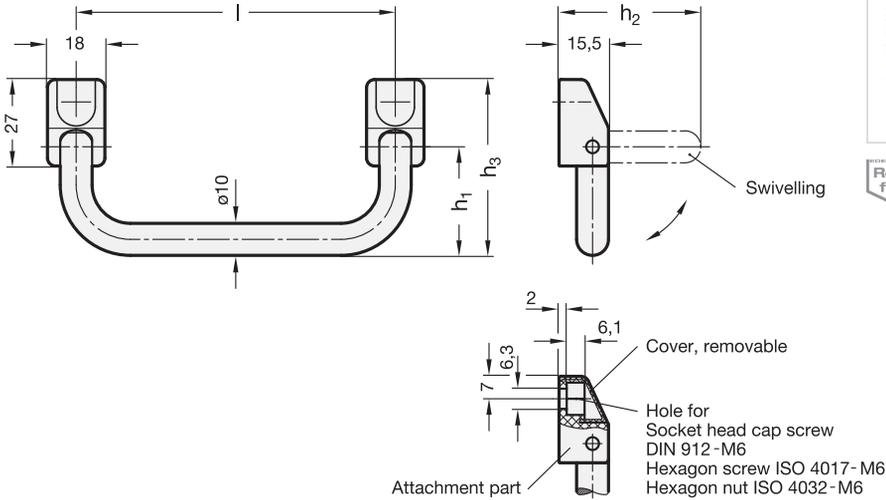
1	l_1
2	Material / Finish handle
3	Finish tray
4	Type

GN425.8-120-CR-SW-A



Installation dimensions with technical details





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Length $l \pm 0,25$	h_1	h_2	h_3	Static load in N swivelling
100	34	44,5	55	500
120	34	44,5	55	500
180	34	44,5	55	500

Specification

- Handle
 - Steel, chrome-plated
 - Stainless Steel AISI 303 matt shot-blasted
- Attachment part
 - Plastic
 - Technopolymer (Polyamide PA)
 - temperature resistant up to 250 °C
 - black, matt
- Cover
 - Plastic
 - Technopolymer (Polyamide PA)
 - temperature resistant up to 100 °C
 - black-grey, matt
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- *Load rating information* → Page 1150
- **RoHS compliant**



CR
NI

Information

Folding handles GN 425.5 are used in places where the handle must not protrude or protrude only a short distance.

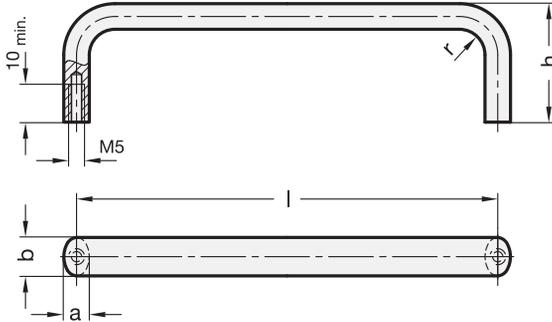
The handle is locked in place in the resting position by means of a spring-loaded (cup springs) thrust bolt.

The static load capacity value given in the table is an approximate value which, if exceeded, may result in permanent deformation or fracture of the plastic attachment part. The folding handle GN 425.2 may be used as an alternative.

How to order

GN425.5-100-NI

- 1 Length l
- 2 Material



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1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9



1

2

b	Length l ±0,25	a	h	r
12	55	8	40	8
12	88	8	40	8
12	100	8	40	8
12	120	8	40	8
12	180	8	40	8
12	200	8	40	8
12	235	8	40	8

Specification

3

- **GN 427**
Aluminium
- plastic coated
 black, RAL 9005, textured finish ● **SW**
 silver, RAL 9006, textured finish ○ **SR**
- anodized, natural colour ○ **EL**
- **GN 427.5**
Stainless Steel AISI 304
matt shot-blasted
- *Stainless Steel characteristics → Page 1144*
- *Load rating information → Page 1151*
- **RoHS compliant**

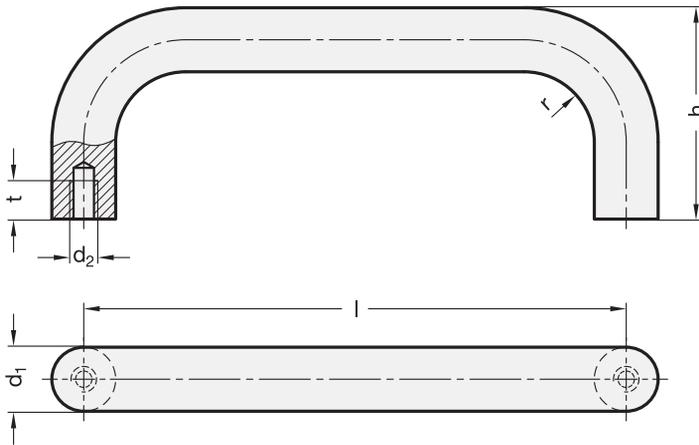
Information

Cabinet „U“ handles GN 427 / GN 427.5 are produced from profiled aluminum extrusions.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

Cabinet „U“ handle GN427-12-120-EL	1	b
	2	Length l
	3	Finish

Stainless Steel-Cabinet „U“ handle GN427.5-12-180	1	b
	2	Length l



² d ₁	³ Length l ±0,25	d ₂	h	r	t min.
20	200	M 8	68	22	15
20	250	M 8	68	22	15
20	300	M 8	68	22	15
20	350	M 8	68	22	15
28	250	M 10	78	32	15
28	300	M 10	78	32	15
28	350	M 10	78	32	15
28	400	M 10	78	32	15

Specification

- Aluminium **AL**
 - plastic coated
 - black, RAL 9005, textured finish ● **SW**
 - silver, RAL 9006, textured finish ● **SR**
 - blank ○ **BL**
 - tumbled
- Cabinet „U“ handles d₁ = 28 manufactured out of aluminium tubing with a wall thickness of 4 mm
Threaded bushings Aluminium
- Load rating information → Page 1150



Information

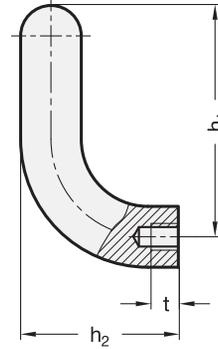
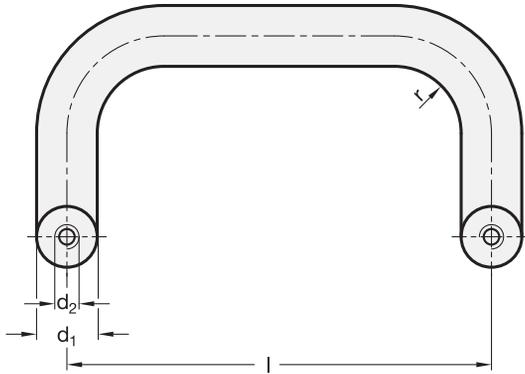
Cabinet „U“ handles GN 426 are produced from profiled aluminium extrusions.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

see also...

- Stainless Steel-Cabinet „U“ handles GN 426.5 → Page 95

How to order	1 Material
¹ ² ³ ⁴	2 d ₁
GN 426-AL-28-300-SW	3 Length l
	4 Finish



² d ₁	³ Length l ±0,25	d ₂	h ₁	h ₂	r	t min.
20	200	M 8	105	68	22	15
20	300	M 8	105	68	22	15
28	250	M 10	120	78	32	15
28	350	M 10	120	78	32	15
28	500	M 10	120	78	32	15

Specification

- Aluminium **AL**
 - plastic coated
 - black, RAL 9005, textured finish ● **SW**
 - silver, RAL 9006, textured finish ● **SR**
 - blank ○ **BL**
 - tumbled
- Cabinet „U“ handles d₁ = 28 are manufactured out of aluminium tubing with a wall thickness of 4 mm
- Load rating information → Page 1150

Information

Cabinet „U“ handles GN 426.1 are produced from profiled aluminium extrusions.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

How to order	1 Material
	2 d ₁
GN 426.1-AL-28-250-SW	3 Length l
	4 Finish

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

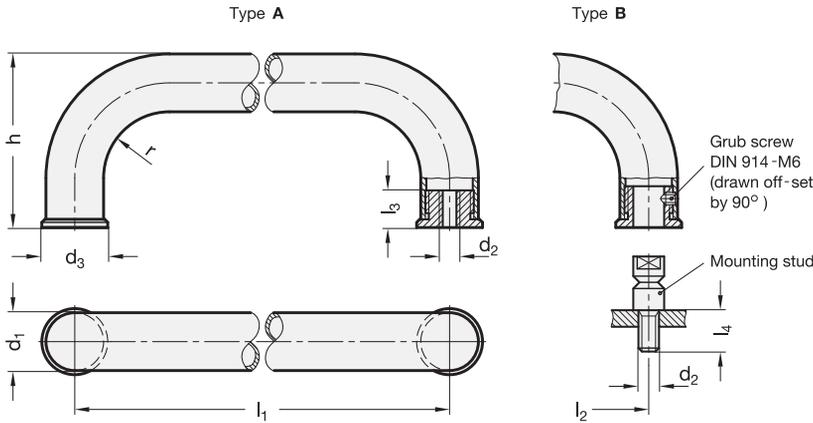




Cabinet „U“ handles GN 426 → *Page 92*

Cabinet „U“ handles GN 426.1 → *Page 93*

Stainless Steel-Cabinet „U“ handles GN 426.5 → *Page 95*



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3 Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operators side

d₁	l₁ ±0,25 Type A	l₂ ±0,3 Type B Threaded bore for mounting stud	d₂	d₃	l₃	l₄	h	r
28	250	250	M 10	32	17	20	90	32
28	300	300	M 10	32	17	20	90	32
28	400	400	M 10	32	17	20	90	32

Specification

- Tube-Ø 28 x 2
Stainless Steel AISI 304
matt shot-blasted
- Bush / Mounting stud
Stainless Steel AISI 303
- Grub screw DIN 914-M6-8-NI
- *Stainless Steel characteristics* → Page 1144
- *Load rating information* → Page 1151
- **RoHS compliant**

Information

Stainless Steel-Cabinet „U“ handles GN 426.5 can be mounted from the back (type A) as well as from the operator’s side (type B). In this case the stud is first screwed in from the machine side and then the handle is pushed on and secured with the grub screw.

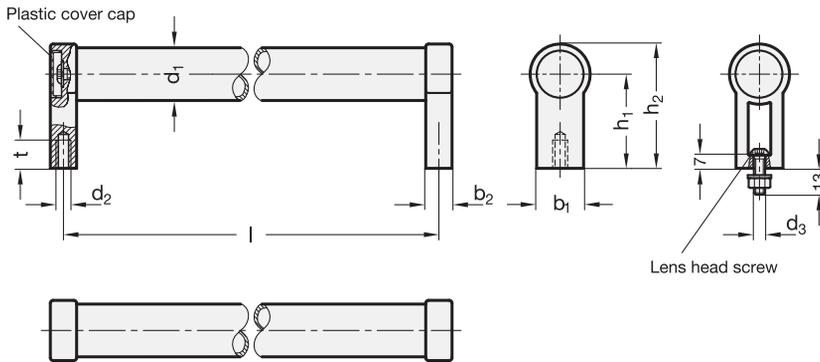
Both mounting methods allow the mounting of a pair of handles in opposite position. This method could be used e.g. on doors (double handle). In general, a mounting stud with special length l_4 might be required.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

see also...

- *Cabinet „U“ handles GN 426 (Aluminium)* → Page 92
- *Stainless Steel-Tubular handles GN 666.5 / GN 666.7* → Page 112

How to order	1 d₁
	2 l₁ (l₂)
	3 Type
GN 426.5-28-400-A	



3 Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operators side (only for $d_1 = 28$)

1

2

d_1	Length $l \pm 0,25$							d_2	d_3	b_1	b_2	h_1	h_2	t min.
20	180	200	250	300	350	400	-	M 6	-	24	12	42	54	12
28	200	250	300	350	400	500	600	M 8	M 6	25	14	50	66	15
30	200	300	350	400	500	600	1000	M 8	-	27	17	51	68	15

Specification

4

- Handle tube
Aluminium (wall thickness 1,5)
- Handle shanks
Zinc die casting
- Tube ● **SW**
plastic coated
black, RAL 9005, textured finish
Handle shanks plastic coated
black, RAL 9005, textured finish
- Tube ● **EL**
anodized, natural colour
Handle shanks plastic coated
black, RAL 9005, textured finish
- Tube ● **ES**
anodized, natural colour
Handle shanks plastic coated
silver, RAL 9006, textured finish
- Cover caps
Plastic, light grey
- Lens head screws
ISO 7380-M6-20
Steel, black zinc plated
- Hexagon nuts ISO 4032-M6
Steel, zinc plated
- Washers DIN 125
Steel, zinc plated
- Load rating information → Page 1148
- RoHS compliant

Information

The handle tube of the GN 333.1 tubular handles can be screwed to the handle bases without further machining or processing, allowing **special lengths** to be realised easily.

For type B, lens head screws, hexagon nuts and washers are included.

see also...

- Tubular handles GN 333 (cranked) → Page 102
- Stainless Steel-Tubular handles GN 333.5 → Page 98
- Tubular handles GN 331 (with power switching function) → Page 100

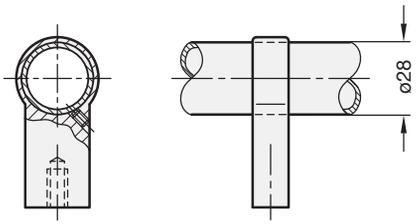
How to order

1	d_1
2	Length l
3	Type
4	Finish

GN 333.1-28-400-B-SW

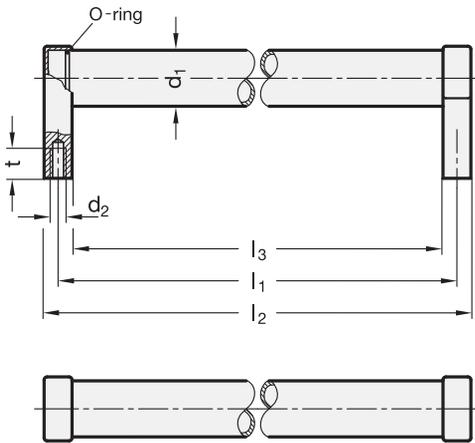


1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Mounting information

For longer handle lengths or greater loads, the GN 333.9 shank is available for GN 333.1 tubular handles with tube diameter 28, Type A.



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1

2

d_1	$l_1 \pm 1$	b	d_2	h_1	h_2	l_2	l_3	t min.
28	200	25	M 8	50	66	214	186	15
28	250	25	M 8	50	66	264	236	15
28	300	25	M 8	50	66	314	286	15
28	400	25	M 8	50	66	414	386	15
28	500	25	M 8	50	66	514	486	15
28	600	25	M 8	50	66	614	586	15

Specification

- Tube $\varnothing 28 \times 2$
Stainless Steel
- AISI 304
- matt shining grinded
- Handle shanks
Stainless Steel-precision casting
- AISi CF-8
- matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- *Load rating information* → Page 1148
- **RoHS compliant**

Information

An O-ring of Stainless Steel-Tubular handles GN 333.5 at the connecting point between the tubular handle and the shanks prevents any spray water from entering the tube.

see also...

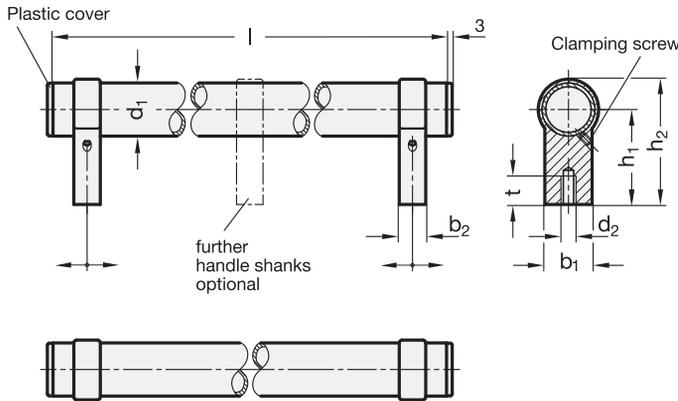
- *Tubular handles GN 333.1 (Aluminium/Zinc die casting)* → Page 96

How to order

GN333.5-28-250

1 d_1

2 l_1



3 Type
A Mounting from the back (threaded blind bore)

1 d_1	2 Length $l \pm 0,25$					d_2	b_1	b_2	h_1	h_2	t min.
28	242	292	392	492	592	M 8	25	14	50	66	15

Specification

- Tube
Aluminium (wall thickness 1,5)
 - Handle shanks
Zinc die casting
plastic coated
 - Cover
Plastic
 - Tube / handle shanks **SW**
plastic coated
black, RAL 9005, textured finish
Cover
black, matt
 - Tube **ELS**
anodized, natural colour
Handle shanks
black, RAL 9005, textured finish
Cover
black, matt
 - Tube **ELG**
anodized, natural colour
Handle shanks
silver, RAL 9006, textured finish
Cover
light grey, matt
- RoHS compliant

Information

The spacing of the attachment holes of the tubular handles GN 333.3 is adjustable. Further handle shanks can be added for very long tubular handles.

Tubular handles GN 333.3 are supplied unassembled.

see also...

- *Handle shanks GN 333.9* → Page 105
- *Handle tubes GN 930* → Page 124

How to order

1	d_1
2	Length l
3	Type
4	Finish

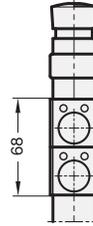
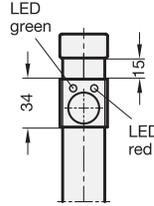
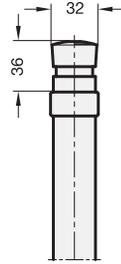
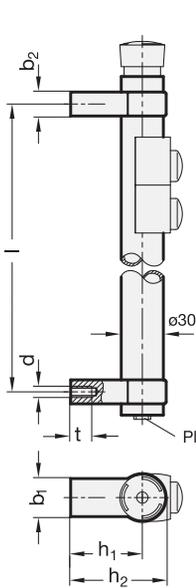
GN333.3-28-292-A-ELG

Application example:

with emergency stop

with one button

with emergency stop
and 2 buttons



3 Type

- T0** without button
- T1** with 1 button
- T2** with 2 buttons

4 Identification no.

- 1** without emergency stop
- 2** with emergency stop

1

Length l ±0,25	d	b ₁	b ₂	h ₁	h ₂	t min.
200	M 8	27	17	51	68	15
300	M 8	27	17	51	68	15

Specification

2

- Tube Ø 30 x 1,5
Aluminium
 - Plastic coated
black, RAL 9005, textured finish ● **SW**
 - anodized, natural colour ○ **EL**
- Handle shanks zinc die casting
plastic coated
black, RAL 9005, textured finish
- Cover caps
(for version without emergency stop)
Plastic
light grey
- Load rating information → Page 1148
- RoHS compliant

Accessory

- Cables with connector GN 330 → Page 890

Information

Tubular handles GN 331 with power switching function are suitable for unlocking safety tumblers in rotating, detachable or side-sliding safety devices which must be closed in order to safeguard the required operational safety.

By integrating functions such as emergency stop, start, release, reset and LED status display, this tubular handle allows the machine to be monitored and operated directly at the door or gate.

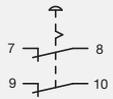
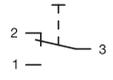
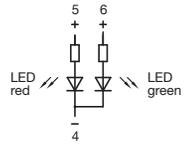
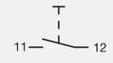
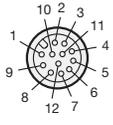
see also...

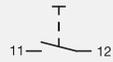
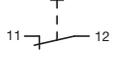
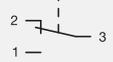
- Tubular handles GN 332 (cranked, with power switching function) → Page 106
- Tubular handles GN 333.1 (without power switching function) → Page 96
- IP-Protection classes → Page 1137

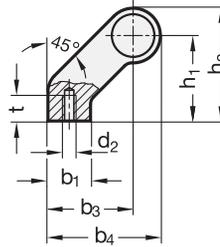
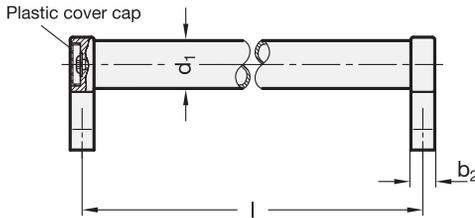
How to order

GN331-300-EL-T2-1

1	Length l
2	Finish
3	Type
4	Identification No.

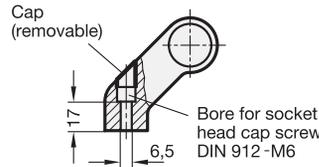
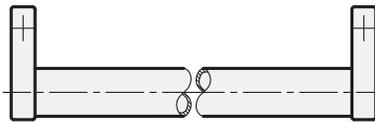
Characteristics of the standard executions GN 331		
The tubular handles have the CE marking, low voltage guideline 06 / 95 / EG		
Emergency stop	2 channel, Breaker	
1st button with 2 LED	Changeover contact	
	LED, red and green	
2nd button	Maker	
Contact termination, Pin configuration	Plug M12x1, 12-pole	
Switching voltage / Switching current	max. 30 V AC / max. 1,5 A	
Operating voltage (LEDs)	24 V DC ±15%	
Protection class	IP 67	
Button colour	for each button a set of caps is included, in this colours: red, green, blue	

Additional variations as special application		
Emergency stop	1 channel	
Number of buttons > 2 Button optional with	Maker	
	Breaker	
	Changeover contact	
Button with labelling area		



3 Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operators side (only for d1=28)



1

2

d ₁	Length l ±0,25								d ₂	b ₁	b ₂	b ₃	b ₄	h ₁	h ₂	t min.
28	200	250	300	350	400	500	600	M 8	25	14	50	66	66	50	66	15
30	200	300	350	400	500	600	1000	M 8	27	17	51	68	68	51	68	15

Specification

4

- Handle tube
Aluminium (wall thickness 1,5)
- Handle shanks
Zinc die casting
- Tube ● **SW**
plastic coated
black, RAL 9005, textured finish
Handle shanks plastic coated
black, RAL 9005, textured finish
- Tube, anodized, natural colour ● **EL**
Handle shanks plastic coated
black, RAL 9005, textured finish
- Tube, anodized, natural colour ● **ES**
Handle shanks plastic coated
silver, RAL 9006, textured finish
- Cover caps plastic, light grey
- Cap (Type B)
Plastic (Technopolymer)
black (for SW / EL)
light grey (for ES)
- Socket head cap screw ISO 7380-M6-20
Steel, black zinc plated
- Hexagon nuts ISO 4032-M6
Steel, zinc plated
- Washers DIN 125
Steel, zinc plated
- Load rating information → Page 1148
- RoHS compliant

Information

The handle tube of the GN 333 tubular handles can be screwed to the handle bases without further machining or processing, allowing **special lengths** to be realised easily.

A typical application area for tubular handles GN 333 are double-winged doors at machines or devices.

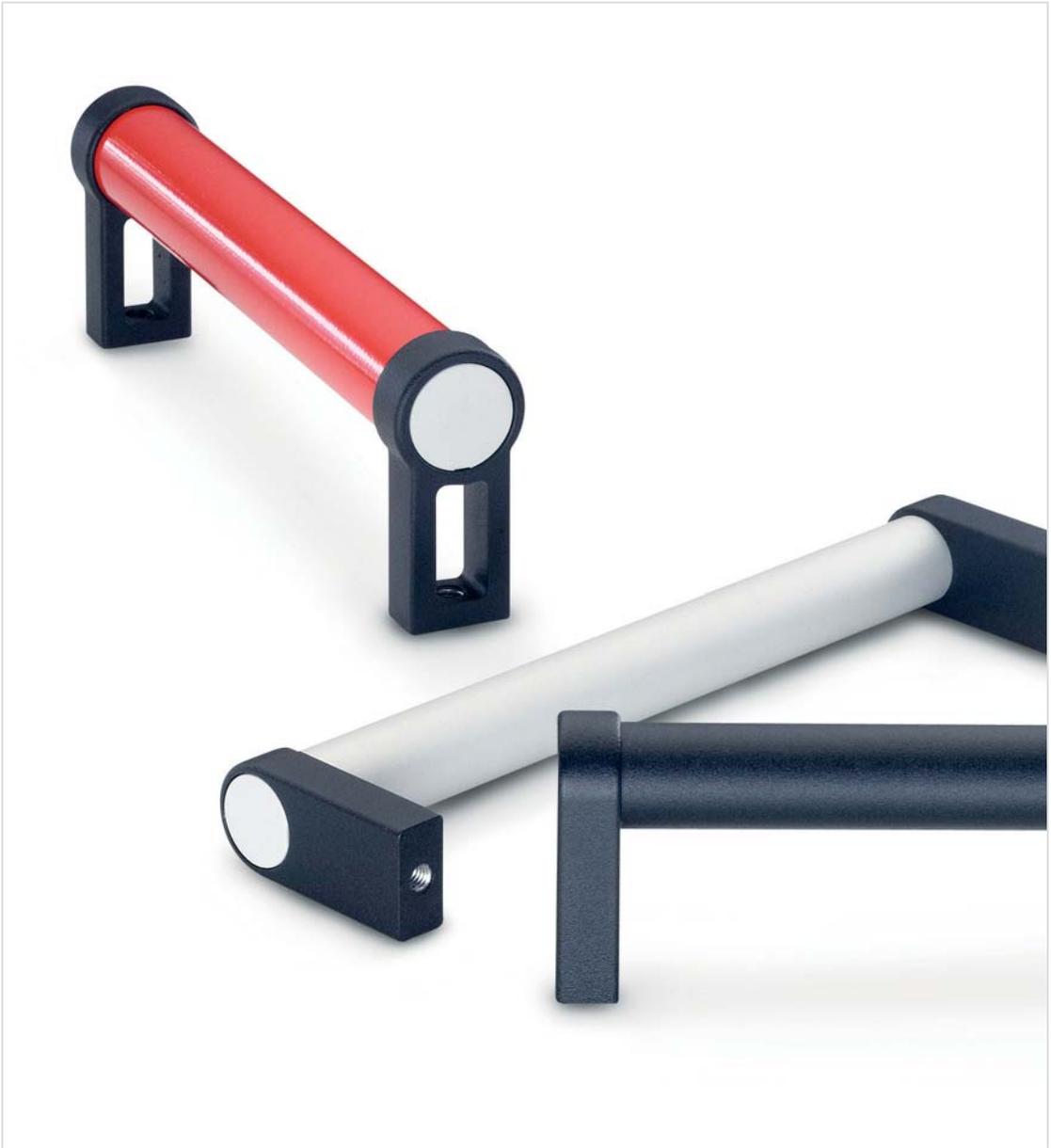
see also...

- Tubular handles GN 333.1 (straight) → Page 96
- Tubular handles GN 332 (with power switching function) → Page 106

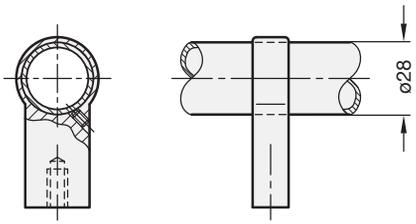
How to order

GN 333-28-600-A-EL

1	d₁
2	Length l
3	Type
4	Finish

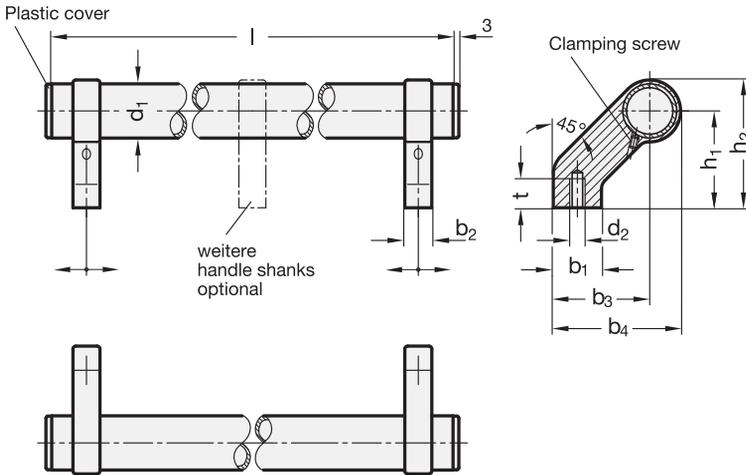


1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Mounting information

For longer handle lengths or greater loads, the GN 333.9 shank is available for GN 333.1 tubular handles with tube diameter 28, Type A.



3 Type

A Mounting from the back (threaded blind bore)

1 d_1	2 Length $l \pm 0,25$					d_2	b_1	b_2	b_3	b_4	h_1	h_2	t min.
28	242	292	392	492	592	M 8	25	14	50	66	50	66	15

Specification

- Tube
Aluminium (wall thickness 1,5)
 - Handle shanks
Zinc die casting
plastic coated
 - Cover
Plastic
 - Tube / handle shanks **● SW**
plastic coated
black, RAL 9005, textured finish
Cover
black, matt
 - Tube **● ELS**
anodized, natural colour
Handle shanks
black, RAL 9005, textured finish
Cover
black, matt
 - Tube **● ELG**
anodized, natural colour
Handle shanks
silver, RAL 9006, textured finish
Cover
light grey, matt
- RoHS compliant



Information

The spacing of the attachment holes of the tubular handles GN 333.2 is adjustable. Further handle shanks can be added for very long tubular handles.

Tubular handles GN 333.2 are supplied unassembled.

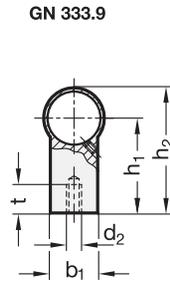
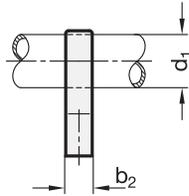
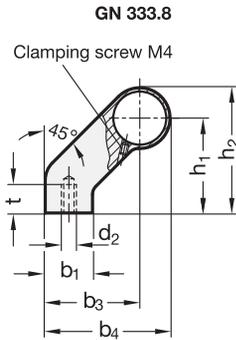
see also...

- Handle tubes GN 930 → Page 124

How to order

1	d_1
2	Length l
3	Type
4	Finish

GN333.2-28-492-A-SW



2 Type

A Mounting from the back (threaded blind bore)

1

d ₁	d ₂	b ₁	b ₂	b ₃	b ₄	h ₁	h ₂	t min.
28	M 8	25	14	50	66	50	66	15

Specification

- Zinc die casting
plastic coated
black, RAL 9005, textured finish
silver, RAL 9006, textured finish
- Grub screw with plastic pad
GN 913.3-M4-6-KU
- RoHS compliant



3

Information

Handle shanks GN 333.9 can be used for longer tubes or higher loads of tubular handles.

They can be used for tube Ø 28 of the tubular handles GN 333, GN 333.1 GN 333.2 and GN 333.3.

see also...

- Tubular handles GN 333 → Page 102
- Tubular handles GN 333.1 → Page 96
- Tubular handles GN 333.3 (with movable shank handles) → Page 99

Handle shanks for tubular handle GN 333.8-28-A-SW	1	d ₁
	2	Type
	3	Finish

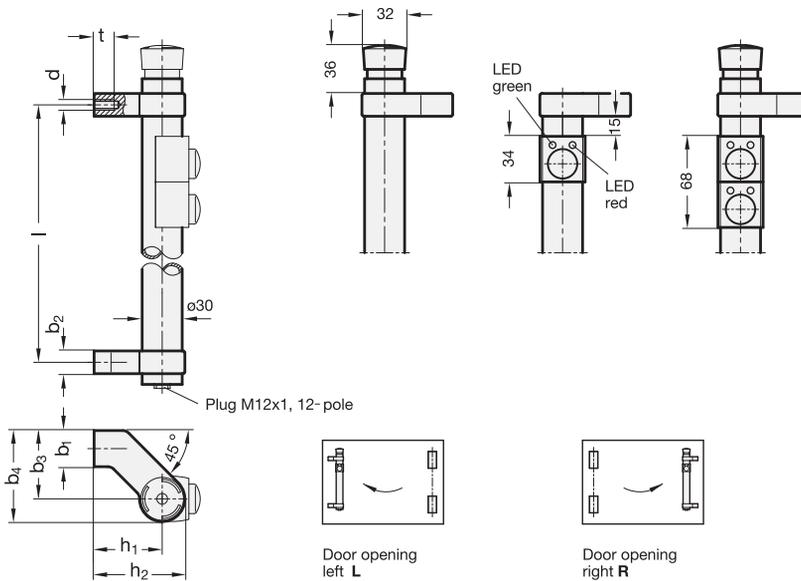
Handle shanks for tubular handle GN 333.9-28-A-SR	1	d ₁
	2	Type
	3	Finish

Application example (Door with right opening):

with emergency stop

with one button

with emergency stop and 2 buttons



3 Type

- T0 without button
- T1 with 1 button
- T2 with 2 buttons

4 Identification no.

- 1 without emergency stop
- 2 with emergency stop

5 Door opening

- L left
- R right

1

Length $l \pm 0,25$	d	b ₁	b ₂	b ₃	b ₄	h ₁	h ₂	t min.
200	M 8	27	17	51	68	51	68	15
300	M 8	27	17	51	68	51	68	15

Specification

- Tube $\varnothing 30 \times 1,5$
Aluminium
- plastic coated
black, RAL 9005, textured finish ● **SW**
- anodized, natural colour ● **EL**
- Handle shanks
Zinc die casting
plastic coated
black, RAL 9005, textured finish
- Cover caps
(for execution without emergency stop)
Plastic
light grey
- Load rating information → Page 1148
- RoHS compliant

Accessory

- Cables with connector GN 330 → Page 890

2

Information

Tubular handles GN 332 with power switching function are suitable for unlocking safety tumblers in rotating, detachable or side-sliding safety devices which must be closed in order to safeguard the required operational safety.

By integrating functions such as emergency stop, start, release, reset and LED status display, this tubular handle allows the machine to be monitored and operated directly at the door or gate.

Tubular handles GN 332 save mounting and installation work, are attractively designed and optimise ergonomics: the switching and operating functions are located precisely where they are needed.

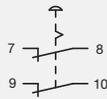
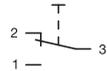
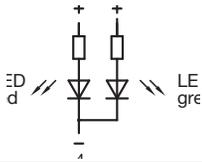
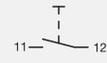
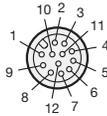
see also...

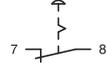
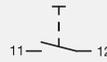
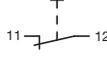
- Tubular handles GN 331 (straight, with power switching function) → Page 100
- Tubular handles GN 333 (without power switching function) → Page 102
- IP-Protection class IP → Page 1137

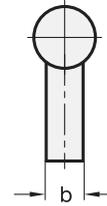
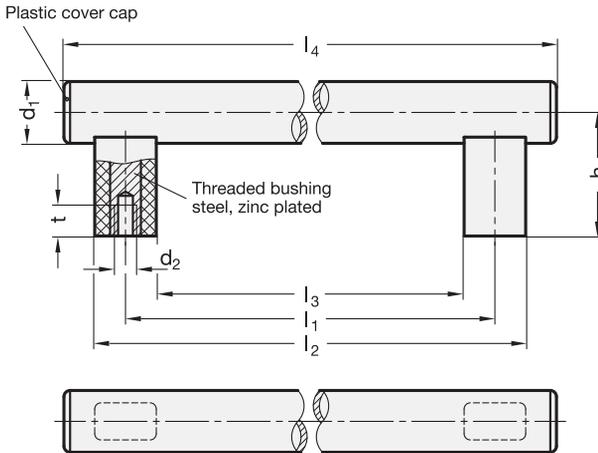
How to order

1	Length l
2	Finish
3	Type
4	Identification No.
5	Door opening

GN332-200-SW-T1-2-L

Characteristics of the standard executions GN 332		
The tubular handles have the CE marking, low voltage guideline 06 / 95 / EG		
Emergency stop	2 channel, Breaker	
1st button with 2 LED	Changeover contact	
	LED, red and green	
2nd button	Maker	
Contact termination, Pin configuration	Plug M12x1, 12-pole	
Switching voltage / Switching current	max. 30 V AC / max. 1,5 A	
Operating voltage (LEDs)	24 V DC ±15%	
Protection class	IP 67	
Button colour	for each button a set of caps is included, in this colours: red, green, blue	

Additional variations as special application		
Emergency stop	1 channel	
Number of buttons > 2 Button optional with	Maker	
	Breaker	
	Changeover contact	
Button with labelling area		



ROSTFREI Rostfrei
Inox Stainless Steel
Inch sizes available

d ₁	d ₂	l ₁ ±0,5	b	h	l ₂	l ₃	l ₄	t min.		
								M6	M8	
30	M 6	M 8	200	18	60	230	170	265	12	15
30	M 6	M 8	250	18	60	280	220	315	12	15
30	M 6	M 8	300	18	60	330	270	365	12	15
30	M 6	M 8	350	18	60	380	320	415	12	15
30	M 6	M 8	400	18	60	430	370	465	12	15
30	M 6	M 8	500	18	60	530	470	565	12	15
30	M 6	M 8	600	18	60	630	570	665	12	15

Specification

- Tube Ø 30 x 1,5
Aluminium / Stainless Steel
- Handle shanks / cover caps
Plastic (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 100 °C
- Tube Aluminium
plastic coated
black, RAL 9005, textured finish ● **SW**
Handle shanks / cover caps, black, matt
- Tube Aluminium
anodized, natural colour ● **EL**
Handle shanks / cover caps, black, matt
- Tube Aluminium
anodized, natural colour ● **ELG**
Handle shanks / cover caps, light grey, matt
- Tube Stainless Steel AISI 304
ground, matt shiny finish ● **NG**
Handle shanks / cover caps, black, matt
- Load rating information → Page 1153
- RoHS compliant

On request

- Cleanline version (CL)

Information

Owing to their large range of variants and their classic design, GN 666 tubular handles are the perfect choice for many applications.

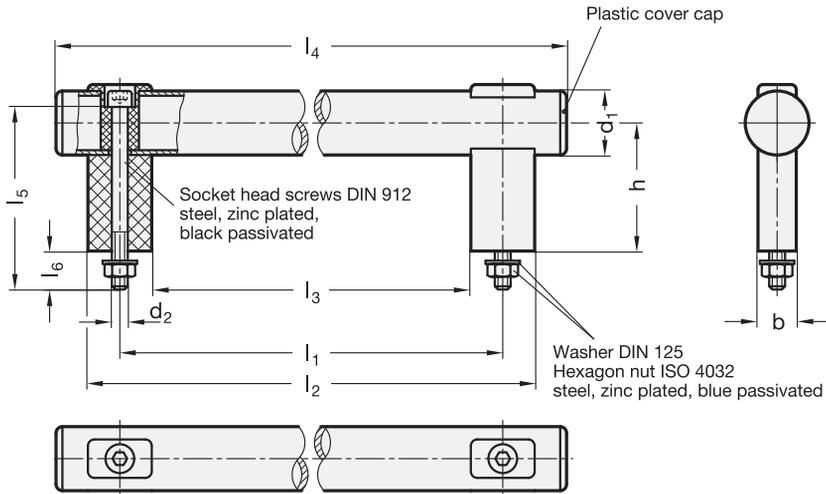
With the modular structure, special lengths are available even in comparatively small unit quantities. Large handle lengths can be supplied with additional centre struts.

see also...

- Stainless Steel-Tubular handles GN 666.5 / GN 666.7 → Page 112
- Oval tubular handles GN 366 → Page 117
- Tubular arch handles GN 666.4 → Page 120

Tubular handles	1	d ₁
	2	d ₂
	3	l ₁
GN666-30-M8-500-EL	4	Material / Finish

Stainless Steel-Tubular handles	1	d ₁
	2	d ₂
	3	l ₁
GN666-30-M8-350-NG	4	Material / Finish



d₁	l₁ ±0,5	b	d₂	h	l₂	l₃	l₄	l₅	h	l₆
30	200	18	M 8	60	230	170	265	85	17	
30	250	18	M 8	60	280	220	315	85	17	
30	300	18	M 8	60	330	270	365	85	17	
30	400	18	M 8	60	430	370	465	85	17	
30	500	18	M 8	60	530	470	565	85	17	
30	600	18	M 8	60	630	570	665	85	17	

Specification

- Tube Ø 30 x 1,5
Aluminium / Stainless Steel
- Handle shanks / cover caps
Plastic (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 100 °C
- Tube Aluminium
plastic coated
black, RAL 9005, textured finish ● **SW**
Handle shanks / cover caps, black, matt
- Tube Aluminium
anodized, natural colour ● **EL**
Handle shanks / cover caps, black, matt
- Tube Aluminium
anodized, natural colour ● **ELG**
Handle shanks / cover caps, light grey, matt
- Tube Stainless Steel AISI 304
ground, matt shiny finish ● **NG**
Handle shanks / cover caps, black, matt
- Load rating information → Page 1152
- RoHS compliant

Information

Owing to their large range of variants and their classic design, GN 666.1 tubular handles are the perfect choice for many applications.

The mounting screws included allow the installation both from the operator side and the rear side. GN 666.1and GN 666 tubular handles of identical length are also suitable for double mounting, e.g. for sliding doors.

see also...

- *Stainless Steel-Tubular handles GN 666.5 / GN 666.7 → Page 112*

Tubular handle	1	d ₁
GN666.1-30-600-SW	2	l ₁
	3	Material / Finish

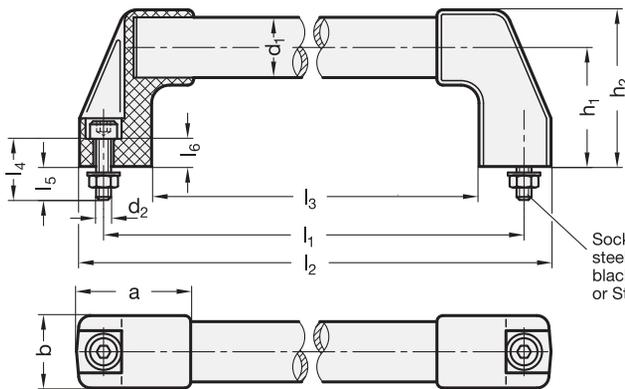
Stainless Steel-Tubular handle	1	d ₁
GN666.1-30-400-NG	2	l ₁
	3	Material / Finish



Tubular handles GN 666 → *Page 108*

Tubular handles GN 666.1 → *Page 109*

Tubular arch handles GN 666.4 → *Page 120*



Socket head screws DIN 912 steel, zinc plated, black passivated or Stainless Steel AISI 304



1

2

d ₁	l ₁ ±1	a	b	d ₂	h ₁	h ₂	l ₂	l ₃	l ₄	l ₅	l ₆
20	180	48	28	M 8	45	58	200	142	25	15,5	9,5
20	200	48	28	M 8	45	58	220	162	25	15,5	9,5
20	250	48	28	M 8	45	58	270	212	25	15,5	9,5
20	300	48	28	M 8	45	58	320	262	25	15,5	9,5
20	350	48	28	M 8	45	58	370	312	25	15,5	9,5
20	400	48	28	M 8	45	58	420	362	25	15,5	9,5
30	300	57	38	M 10	60	78	324	254	35	20,5	14,5
30	350	57	38	M 10	60	78	374	304	35	20,5	14,5
30	400	57	38	M 10	60	78	424	354	35	20,5	14,5
30	500	57	38	M 10	60	78	524	454	35	20,5	14,5
30	600	57	38	M 10	60	78	624	554	35	20,5	14,5
30	700	57	38	M 10	60	78	724	654	35	20,5	14,5
30	1000	57	38	M 10	60	78	1024	954	35	20,5	14,5

Specification

3

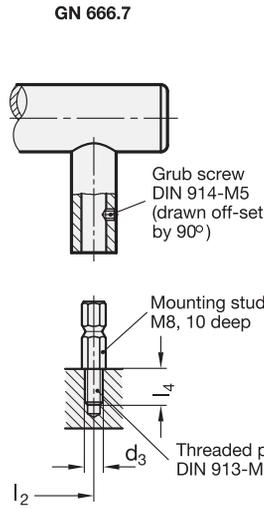
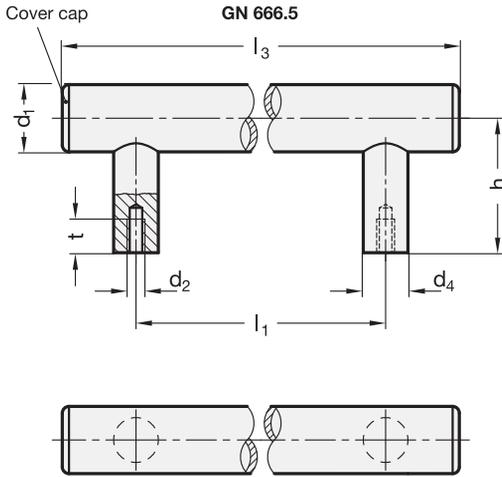
- Tube Ø 20 x 1,5 / Ø 30 x 1,5 Aluminium
 - plastic coated black, RAL 9005, textured finish ● SW
 - anodized, natural colour ● EL
- Stainless Steel AISI 304 ground, matt shiny finish ● NG
- End pieces plastic Technopolymer (Polyamide PA)
 - glass fibre reinforced
 - temperature resistant up to 100 °C
 - black, matt
- Hexagon nuts ISO 4032 Steel zinc plated, blue passivated / Stainless Steel AISI 304
- Washers DIN 125 Steel zinc plated, blue passivated / Stainless Steel AISI 303
- Load rating information → Page 1153
- RoHS compliant

Information

The handle tube of the GN 667 tubular handles can be mounted without any further machining, allowing **special lengths** to be realised easily.

Cabinet „U“ handle GN667-20-200-EL	1	d ₁
	2	l ₁
	3	Finish

Stainless Steel-Cabinet „U“ handle GN667-30-1000-NG	1	d ₁
	2	l ₁
	3	Finish



Inox Stainless Steel

 Inch sizes available

- 4 Type**
- K** with plastic cover cap
 - E** with Stainless Steel cover cap

1 d_1	2 d_2 GN 666.5	2 d_3 GN 666.7	3 $l_1 \pm 0,5$	$l_2 \pm 0,3$ Threaded bore for mounting stud of GN 666.7	d_4	h	l_3	l_4	t min.
30	M 6	M 8	M 8	200	20	60	265	15	15
30	M 6	M 8	M 8	250	20	60	315	15	15
30	M 6	M 8	M 8	300	20	60	365	15	15
30	M 6	M 8	M 8	400	20	60	465	15	15
30	M 6	M 8	M 8	500	20	60	565	15	15
30	M 6	M 8	M 8	600	20	60	665	15	15

Specification

- Tube \varnothing 30 x 1,5
Stainless Steel AISI 304
matt, shiny finish
- Handle shanks
Stainless Steel AISI 304
matt, shiny finish
- Mounting stud (GN 666.7)
with threaded pin DIN 913-M8
Stainless Steel AISI 304
- Grub screw DIN 914-M5
Stainless Steel AISI 304
- Cover caps
 - Type K
Plastic (Polyamide PA), black matt
 - Type E
Stainless Steel AISI 304
- RoHS compliant

On request

- Special lengths

Information

For a mounting of Stainless Steel-Tubular handles GN 666.7 (mounting from the back) the stud is first screwed in from the machine side with the threaded pin DIN 913-M8x25 (included) and then the handle is pushed on and secured with the grub screw DIN 914-M5.

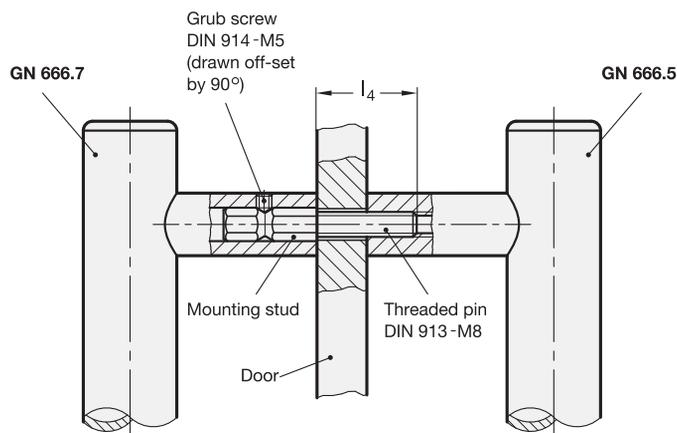
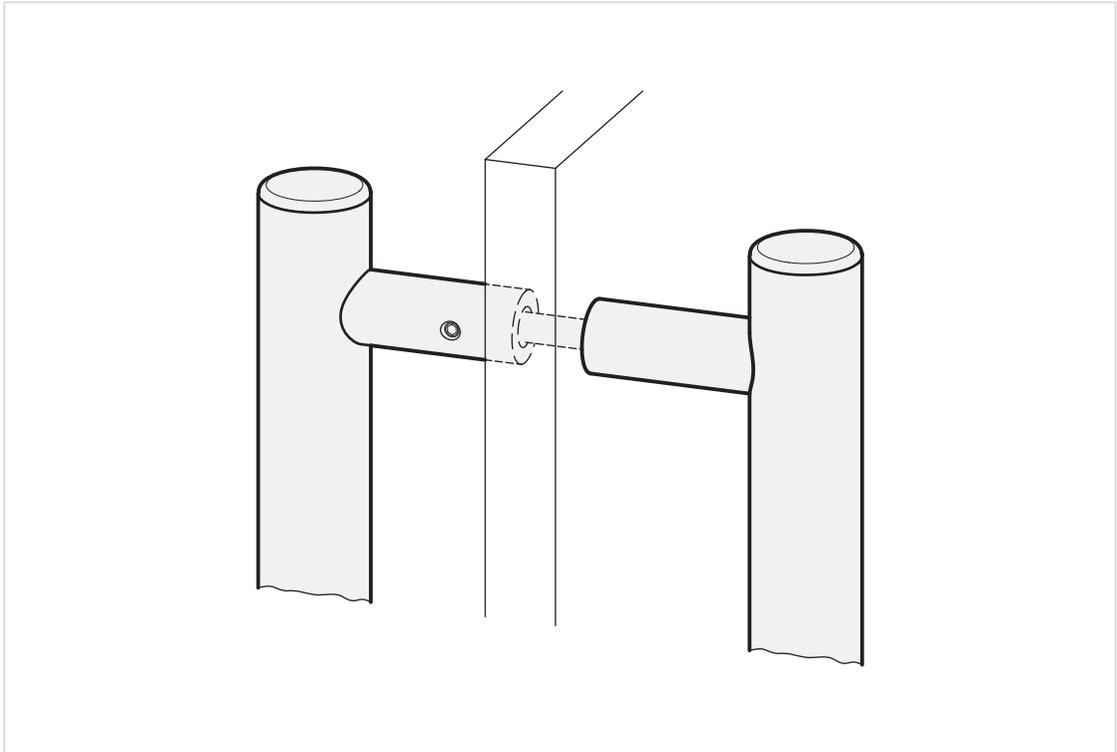
Type E of Stainless Steel-Tubular handles GN 666.5 and GN 666.7 is completely made of A2-Stainless Steel.

see also...

- *Stainless Steel-Cabinet „U“ handles GN 426.5 → Page 95*

Stainless Steel-Tubular handle	1 d_1
	2 d_2
	3 l_1
GN666.5-30-M6-600-E	4 Type

Stainless Steel-Tubular handle	1 d_1
	2 d_3
	3 l_1
GN666.7-30-M8-400-K	4 Type



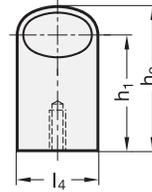
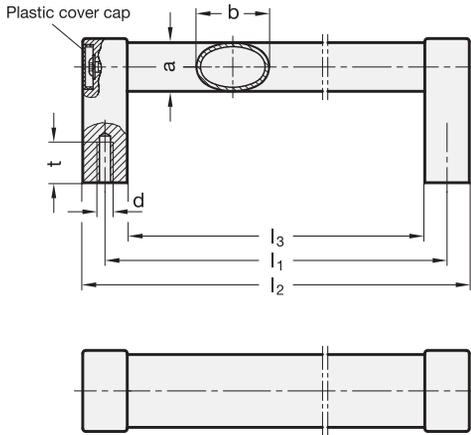
Example of application

Tubular handles GN 666.5 / GN 666.7 allow the mounting of a pair of handles in opposite position. This method could be used on doors (double handle).

Generally a modification of the thread length l_4 is required for this. The included threaded pin DIN 913-M8x25-A2 of the mounting stud needs to be replaced by a longer threaded pin, too.

Handles with a modified thread length l_4 are available on request.

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



b	$l_1 \pm 0,5$	a	d	h_1	h_2	l_2	l_3	l_4	t min.
36	200	24	M 8	57	71	222	178	40	15
36	250	24	M 8	57	71	272	228	40	15
36	300	24	M 8	57	71	322	278	40	15
36	350	24	M 8	57	71	372	328	40	15
36	400	24	M 8	57	71	422	378	40	15
36	500	24	M 8	57	71	522	478	40	15
36	600	24	M 8	57	71	622	578	40	15
36	800	24	M 8	57	71	822	778	40	15

Specification

- Handle tube
Aluminium
- Handle shanks
Zinc die casting
plastic coated
- Tube ● **SW**
plastic coated
black, RAL 9005, textured finish
Handle shanks
black, RAL 9005, textured finish
- Tube ● **EL**
anodized, natural colour
Handle shanks
black, RAL 9005, textured finish
- Tube ● **ES**
anodized, natural colour
Handle shanks
silver, RAL 9006, textured finish
- Cover caps
plastic, light grey
- Load rating information → Page 1148
- RoHS compliant

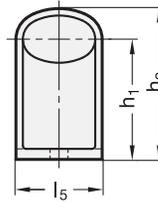
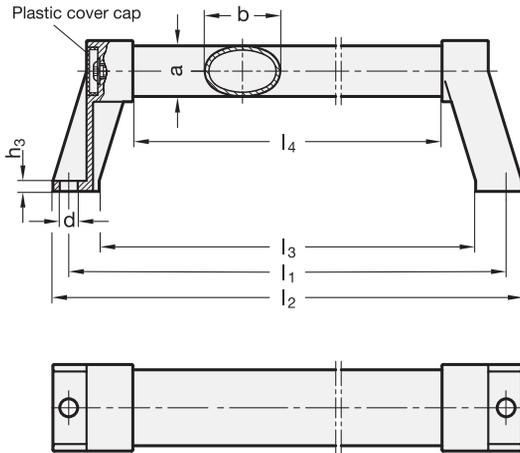
Information

Oval tubular handles GN 334 are attractive in design and highly stable. The handle tube can be mounted without any further machining, allowing **special lengths** to be realised easily

How to order

GN 334-36-300-EL

- | | |
|---|-------------------------|
| 1 | b |
| 2 | l_1 |
| 3 | Finish |



b	l₁ ±0,5	a	d	h₁	h₂	h₃	l₂	l₃	l₄	l₅
36	200	24	8,5	57	72	5	215	171	139	41
36	250	24	8,5	57	72	5	265	221	189	41
36	300	24	8,5	57	72	5	315	271	239	41
36	350	24	8,5	57	72	5	365	321	289	41
36	400	24	8,5	57	72	5	415	371	339	41
36	500	24	8,5	57	72	5	515	471	439	41
36	600	24	8,5	57	72	5	615	571	539	41
36	800	24	8,5	57	72	5	815	771	739	41

Specification

- Handle tube
Aluminium
- Handle shanks
Zinc die casting
plastic coated
- Tube ● SW
plastic coated
black, RAL 9005, textured finish
Handle shanks
black, RAL 9005, textured finish
- Tube ● EL
anodized, natural colour
Handle shanks
black, RAL 9005, textured finish
- Tube ● ES
anodized, natural colour
Handle shanks
silver, RAL 9006, textured finish
- Cover caps
Plastic, light grey
- RoHS compliant

3

Information

Oval tubular handles GN 334.1 are highly stable.
The handle tube can be mounted without any further machining, allowing **special lengths** to be realised easily.

How to order

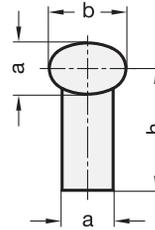
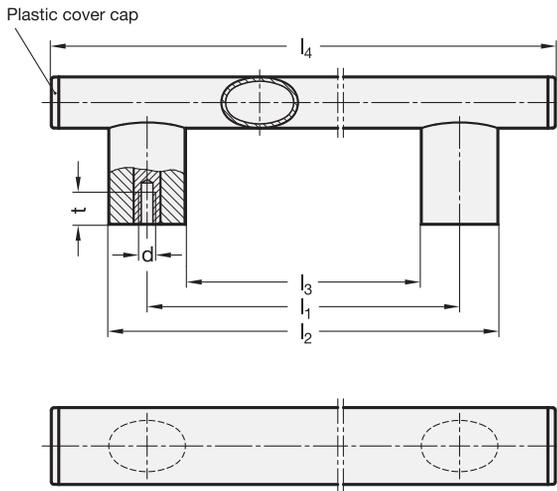
GN334.1-36-400-ES

1	b
2	l₁
3	Finish



Oval tubular handles GN 334 → *Page 114*

Oval tubular handles GN 366 → *Page 117*



1		2		3					
b	d		$l_1 \pm 0,5$	a	h	l_2	l_3	l_4	t min.
36	M 6	M 8	200	24	57	236	164	290	15
36	M 6	M 8	250	24	57	286	214	340	15
36	M 6	M 8	300	24	57	336	264	390	15
36	M 6	M 8	400	24	57	436	364	490	15
36	M 6	M 8	500	24	57	536	464	590	15
36	M 6	M 8	600	24	57	636	564	690	15

Specification

- Handle tube Aluminium
- Handle shanks / Cover cap plastic Technopolymer (Polyamide PA)
 - glass fibre reinforced
 - temperature resistant up to 100 °C
- Tube plastic coated black, RAL 9005, textured finish **SW**
 - Handle shanks / Cover cap black, matt
- Tube anodized, natural colour **ELS**
 - Handle shanks / Cover cap black, matt
- Tube anodized, natural colour **ELG**
 - Handle shanks / Cover cap light grey, matt
- Bushing Steel, zinc plated
- Load rating information → Page 1149
- RoHS compliant



Information

Characteristic for the design of the GN 366 oval handles: Tube and handle shank are made in the same elliptical profile.

see also...

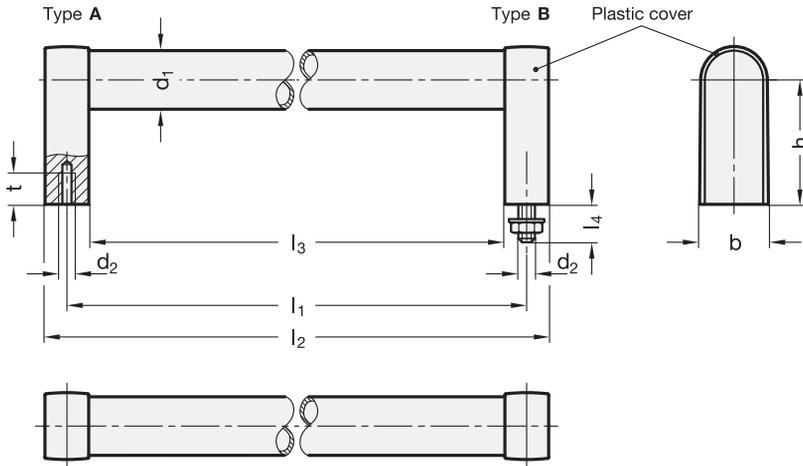
- Oval tubular handles GN 334 → Page 114

How to order

1	b
2	d
3	l_1
4	Finish

GN366-36-M8-400-ELS

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Type

- A** Mounting from the back (threaded blind bore)
- B** Mounting from the operator's side



 d_1	 $l_1 \pm 0,5$	b	d_2	$h \approx$	l_2	l_3	l_4	t min.
28	200	32	M 8	60	220	180	20	15
28	250	32	M 8	60	270	230	20	15
28	300	32	M 8	60	320	280	20	15
28	400	32	M 8	60	420	380	20	15
28	500	32	M 8	60	520	480	20	15
28	600	32	M 8	60	620	580	20	15

Specification

- Tube / End pieces
Aluminium
 - plastic coated
black, RAL 9005, textured finish ● **SW**
 - anodized, natural colour ○ **EL**
- Cover caps
Plastic
Technopolymer (Polyamide PA)
black, matt
- Socket head screws DIN 912-M8x75
Steel, zinc plated
- Hexagon nuts ISO 4032-M8
Steel, zinc plated
- Washers DIN 125
Steel, zinc plated
- Load rating information → Page 1153
- RoHS compliant


Information

System handles GN 669 offer the the advantage of high stability due to the connection of tube / handle shank.

The screws of type B (mounting from operator's side) are shrouded.

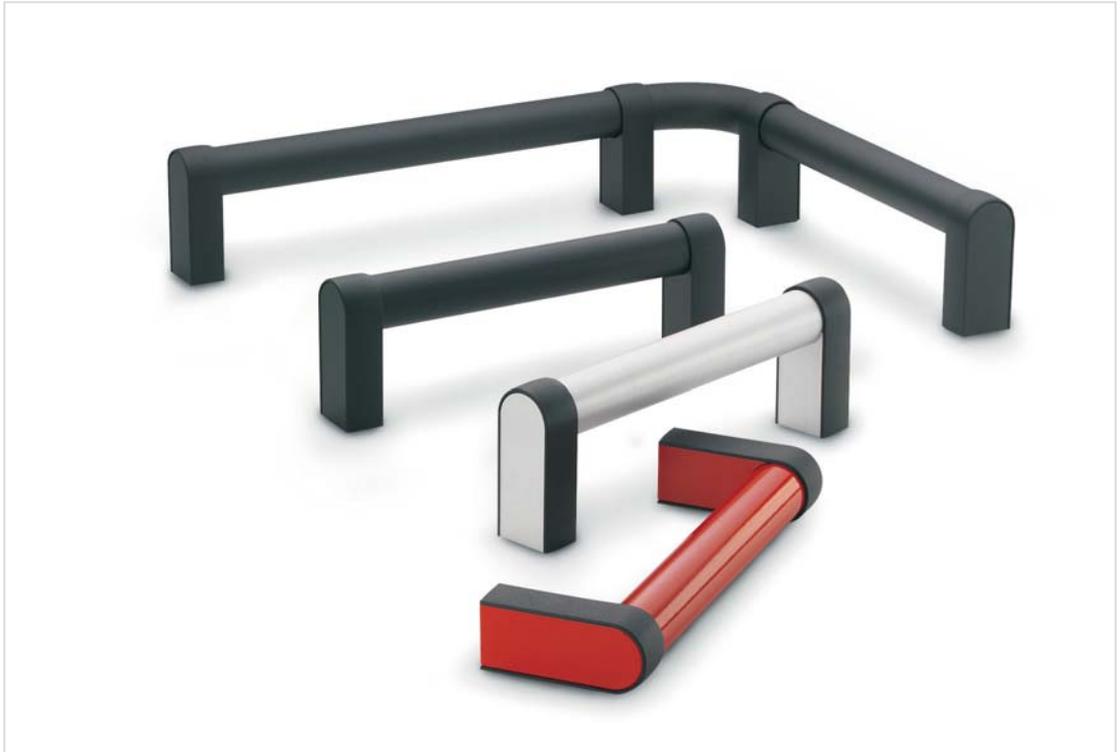
How to order





GN669-28-400-A-EL

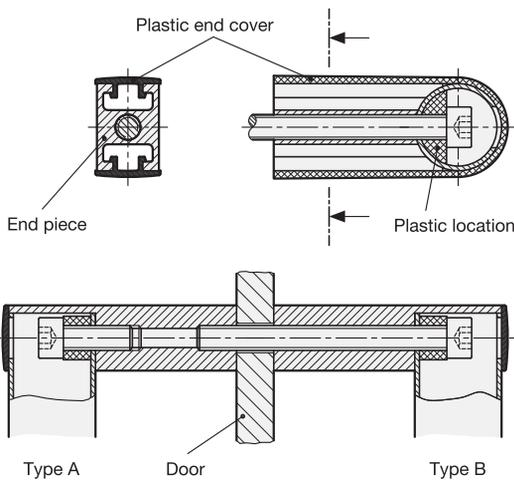
1	d_1
2	l_1
3	Type
4	Finish



1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

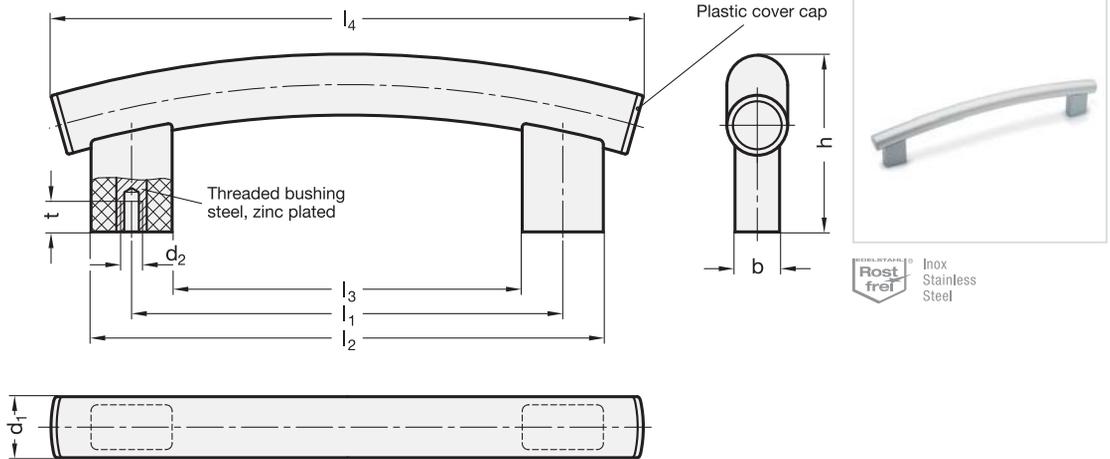
Mounting information

When mounting from the operator's side (Type B) the plastic end covers are supplied loose. Once the handle has been mounted the end covers are pushed over the end of the handle tube and the foot until they snap into the end of the groove at the tube end.



Mounting as a double handle

Both mounting methods (Type A and B) allow the mounting of a pair of handles in opposite position. This method could be used on doors (double handle). Depending on the door thickness longer socket head screws DIN 912 might be required.



1	2	3	4	1	2	3	4	1	2	3	4	1
d ₁	d ₂		l ₁ ±1	b	h	l ₂	l ₃	l ₄				t min.
30	M 6	M 8	400	22	90	440	360	480				15
30	M 6	M 8	500	22	94	540	460	580				15
30	M 6	M 8	600	22	98	640	560	680				15

Ausführung

- Tube Ø 30 x 1,5
Aluminium / Stainless Steel
- Handle shanks
Aluminium, plastic coated
- Cover caps
Plastic (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 100 °C
- Tube / Handle shanks Aluminium **● SW**
plastic coated
black, RAL 9005, textured finish
Cover caps, black, matt
- Tube Aluminium **● EL**
anodized, natural colour
Handle shanks
black, RAL 9005, textured finish
Cover caps, black, matt
- Tube Aluminium **● ES**
anodized, natural colour
Handle shanks
silver, RAL 9006, textured finish
Cover caps, light grey, matt
- Tube Stainless Steel **● NG**
AISI 304
ground, matt shiny finish
Handle shanks
black, RAL 9005, textured finish
Cover caps, black, matt
- Load rating information → Page 1152
- RoHS compliant

Information

With their curved type, GN 666.4 tubular arch handles highlight modern-machine design.

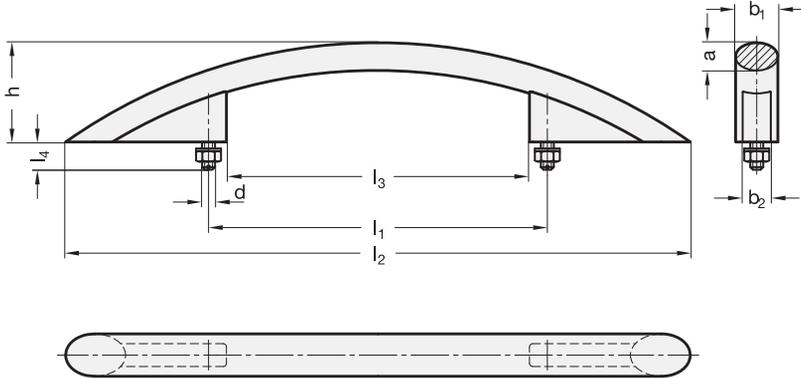
The production method used allows special solutions to be realised, e. g. with other radii of curvature or other leg heights.

see also...

- Stainless Steel-Tubular handles GN 666.5 / GN 666.7 → Page 112

Tubular arch handle	1	d ₁
	2	d ₂
	3	l ₁
GN666.4-30-M6-500-EL	4	Material / Finish

Stainless Steel-Tubular arch handle	1	d ₁
	2	d ₂
	3	l ₁
GN666.4-30-M8-400-NG	4	Material / Finish



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9



¹ b ₁	² l ₁ ±0,25	a	b ₂	d	h -1	l ₂ ≈	l ₃	l ₄ ≈
26	350	17	14	M 8	69	526	328	17
26	450	17	14	M 8	69	632	428	20

Specification

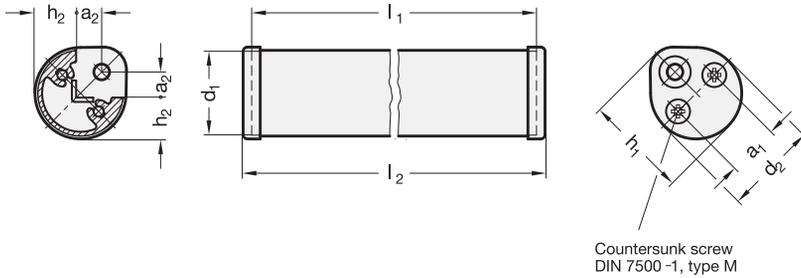
- Arch handle
Aluminium
plastic coated
black, RAL 9005, textured finish ● **SW**
silver, RAL 9006, textured finish ● **SR**
- End pieces
Zinc die casting
plastic coated
silver, RAL 9006, textured finish
- Grub screw
Steel, tensile strength class 5.8 (500 N/mm²)
zinc plated, blue passivated
- Hexagon nuts ISO 4032-M8
Steel, zinc plated
- Washers DIN 125
Steel, zinc plated
- Load rating information → Page 1152
- RoHS compliant

³

Information

- see also...
- Arch handles GN 565.4 (l₂ = 185 ... 227) → Page 65

How to order	¹ b ₁
GN665-26-450-SW	² l ₁
	³ Finish



1 $d_1 -0,5$	2 $l_1 \pm 2$	a_1	a_2	d_2	h_1	$h_2 -0,1$	l_2
30	100	18	9	32	34,5	14,5	106
30	200	18	9	32	34,5	14,5	206
30	300	18	9	32	34,5	14,5	306
30	400	18	9	32	34,5	14,5	406
30	500	18	9	32	34,5	14,5	506

Specification

- Tube extrusion
Aluminium
- End caps
Zinc die casting
- Tube extrusion / End caps
plastic coated
black, RAL 9005, textured finish ● **SW**
- Self tapping countersunk screws
DIN 7500-1, type M with Torx®
- **RoHS compliant**

Accessory

- Four DIN 7500-1 countersunk screws are included.

On request

- Tube extrusion,
anodized, natural colour
- End caps, plastic coated
silver, textured finish

Information

The tube extrusion for edge handles GN 481 is formed in such a way that two countersunk self tapping screws are used to cut their own counter thread in the extrusion to hold the end caps in position.

If an edge handle for a cabinet of non-standard length is required, a standard extrusion can simply be shortened to fit.

How to order

GN 481-30-300-SW

1	d_1
2	l_1
3	Finish



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

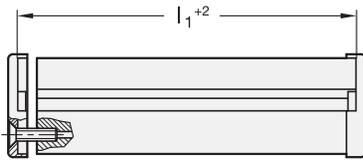


Mounting information

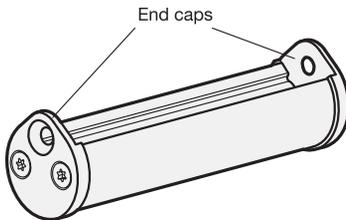
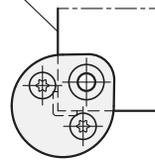
In order to align the edge handle with the edge of the cabinet (tolerance $l_1 + 2 \text{ mm}$), the end caps should, to start with, only be loosely fitted.

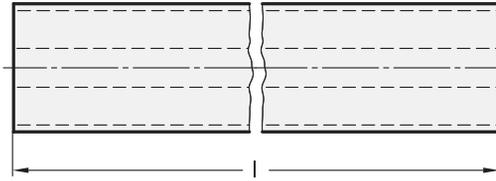
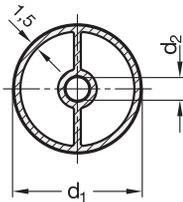
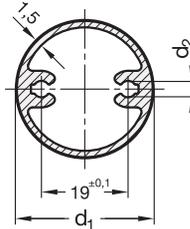
The mounting is carried out in two steps as follows:

1. Fit the end caps firmly to the cabinet.
2. Fix the extrusion axially by using the countersunk screws.



Edge of the cabinet



Design for
 $d_1 = 20$ and 28 Design for
 $d_1 = 30$ 

1

2

$d_1 \pm 0,2$	Length $l \pm 0,25$					d_2	for thread tapping screws DIN 7500
20	194	244	294	394	-	-	4,5 M 5
28	192	242	292	392	492	592	5,5 M 6
30	189	289	389	489	589	989	3,6 M 4

Specification

- Aluminium
 - plastic coated
black, RAL 9005, textured finish
(available up to 3000 mm length)
 - anodized, natural colour
(available up to 2600 mm length)

● SW

● EL

- RoHS compliant

On request

- Plastic cover in black or light grey for tube $\varnothing 28$

3

Information

Handle tubes GN 930 with screw channel are designed for use in a variety of different tube handles (e.g. GN 333).

For applications not requiring handle bases, the screw channel provides a very economical fixing solution with thread-tapping screws. The lengths l listed in the table are ex stock lengths. Depending to the finish, any lengths until max. 3000 mm are available.

see also...

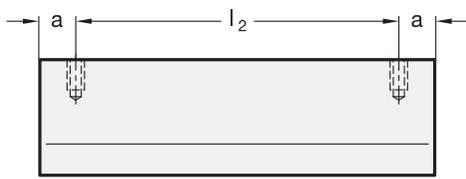
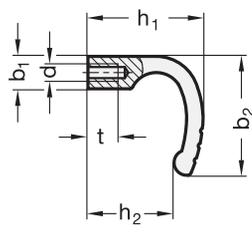
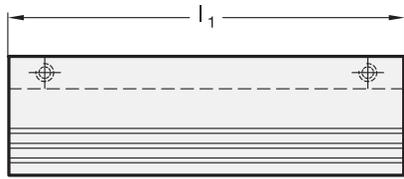
- Handle shanks GN 333.8 (cranked) → Page 105
- Handle shanks GN 333.9 (straight) → Page 105

How to order

GN 930-30-989-EL

1	d_1
2	Length l
3	Finish

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



1

$l_1 \pm 0,25$	d	a	b_1	b_2	h_1	h_2	$l_2 \pm 0,2$	t min.
110	M 6	10	9,5	33	32	24	90	9
125	M 6	10	9,5	33	32	24	105	9
140	M 6	10	9,5	33	32	24	120	9

Specification

- Aluminium
 - plastic coated
 - black, RAL 9005, textured finish
 - silver, RAL 9006, textured finish
 - anodized, natural colour
 - blank tumbled

- SW
- SR
- EL
- BL

• RoHS compliant

2

Information

A typical field of application is on hinged protective doors on machinery and installations.

Manufactured from aluminum extrusion allows special lengths and material sold by the meter to be realised easily.

see also...

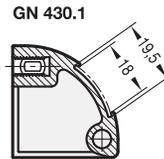
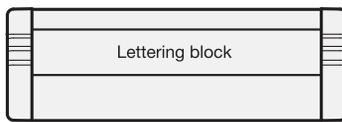
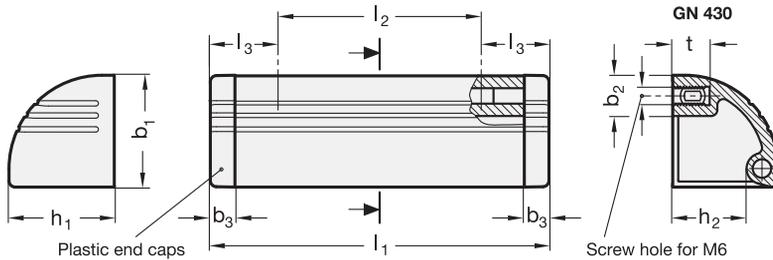
- Ledge handles GN 430 / GN 430.1 (with screw channel) → Page 126

How to order

GN 730-125-SW

1 l_1

2 Finish



l_1	b_1	b_2	b_3	h_1	h_2	l_2 Screw area	l_3	t
110	36	13	8	34	24	66	22	12
130	36	13	8	34	24	86	22	12
150	36	13	8	34	24	106	22	12
200	36	13	8	34	24	156	22	12
250	36	13	8	34	24	206	22	12
300	36	13	8	34	24	256	22	12
400	36	13	8	34	24	356	22	12
500	36	13	8	34	24	456	22	12

Specification



- Aluminium
 - plastic coated
black, RAL 9005, textured finish ● **SW**
 - anodized, natural colour ○ **EL**
- End caps
 - Plastic
 - Technopolymer (Polyamide PA)
 - black-grey
- Lettering block (GN 430.1)
 - Insert groove supplied with:
 - paper strip 200 g/m², width 19,5 mm
bright white, age-resistant
 - PVC hard film
transparent
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

On request

- Special lengths
- single paper strips / film strips

Information

Typical applications for ledge handles GN 430 / GN 430.1 include swivel or sliding doors on protective doors and equipment. They are also suitable for use as drawer handles.

The screw channel for screw sizes M6 (extruded aluminium) allows an optional number of fixing screws in any position within the dimension l_2 .

Special lengths are easily realised because the ledge handle needs no further machining when mounted.

In the design with lettering block, the end cap when delivered is mounted on one side such that the paper / film strip supplied can be lettered and pushed into the groove provided.

Ledge handle

GN 430-200-EL

1 l_1

2 Finish

Ledge handle with lettering block

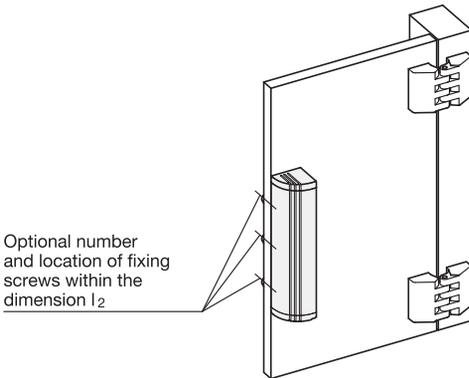
GN 430.1-500-SW

1 l_1

2 Finish



Example of application



Mounting information

- Minimum screw-in depth: 10 mm
- Max. load (screw) 400 N
- Max. tightening torque: 4 Nm

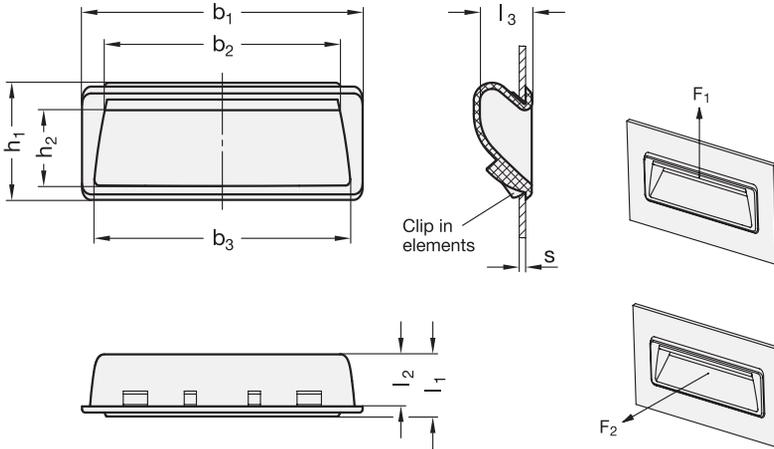
Lettering (GN 430.1)

The paper strip can also be used as substrate for common lettering tape in widths below 18 mm.

Go to www.ganter-griff.com/service to open a Word® document which you can use to create lettering and labels.



ELESA Original design PR-PF



b_1	b_2	b_3	h_1	h_2	l_1	l_2	l_3	F_1 in N	F_2 in N
92	76	83	37	25	19	17	17,4	1800	500
137	122	128	37	25	19	17	17,4	1800	500

Specification



- Plastic Technopolymer (Polyamide PA)
 - glass fibre reinforced
 - temperature resistant up to 80 °C
- Colour (matt): black-grey, RAL 7021 **● SG**
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

For GN 731.1 gripping trays are no mounting screws required. The load capacity was tested with wall thickness $s = 1,5$ mm.

see also...

- *Folding handles with recessed tray GN 425.8* → Page 88

How to order

GN 731.1-92-SG

1 b_1

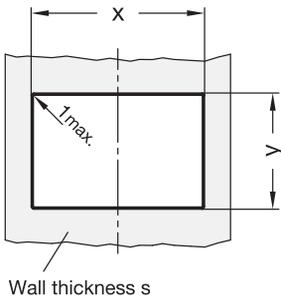
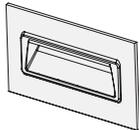
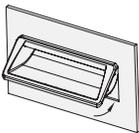
2 Colour



1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

Mounting information

- 1) Drill the handle housing according to the template dimensions reported in the table.
- 2) Remove all drilling burrs before fitting the handle.
- 3) Fit the upper part of the handle into the housing.
- 4) Press onto the lower part until the handle is completely inserted.



s Wall thickness	$x + 0,2$ for $b_1 = 92$	$y \pm 0,1$	$x + 0,2$ for $b_1 = 137$	$y \pm 0,1$
0,7 ... 0,8	87,5	30,5	132	30,5
> 0,8 ... 1,2	87,5	30,7	132	30,7
> 1,2 ... 1,5	87,5	31,7	132	31,7
> 1,5 ... 2	87,5	31,7	132	31,7
> 2 ... 2,2	87,5	31,7	132	31,7



1.3 Cranked handles



- 1.1
- 1.2
- 1.3
- 1.4
- 1.5
- 1.6
- 1.7
- 1.8
- 1.9

1.3 Cranked handles



GN 471
Cranked handles
Aluminium

→ Page 134



GN 471.3
Cranked handles
with retractable handle,
Aluminium

→ Page 140



GN 471.1
Cranked handles
Zinc die casting

→ Page 134



GN 472.3
Cranked handles
with retractable handle,
Aluminium

→ Page 141



GN 570.2
Cranked handles
Plastic

→ Page 135



GN 112.1
Control handles
Zinc die casting

→ Page 142



DIN 468
Cranked handles
Cast iron

→ Page 136



GN 10
Tri-ball handles
Steel

→ Page 144



DIN 469
Cranked handles
Cast iron

→ Page 137



GN 558
Indexing
cranked handles
Cast iron

→ Page 145



GN 269
Cranked
handles
Stainless Steel

→ Page 138



GN 369
Cranked handles
Steel

→ Page 139



1.1

1.2

1.3

1.4

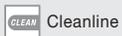
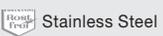
1.5

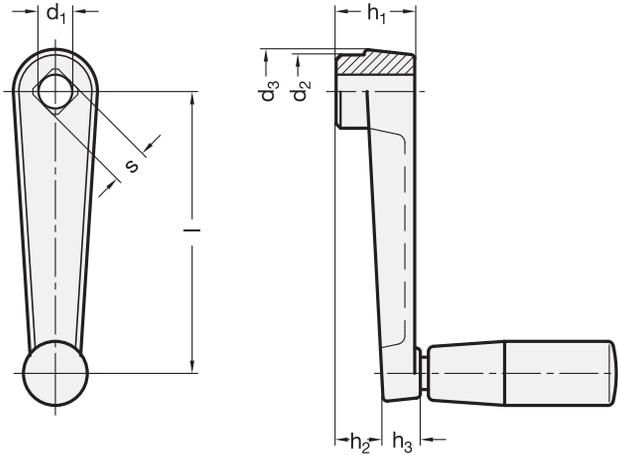
1.6

1.7

1.8

1.9





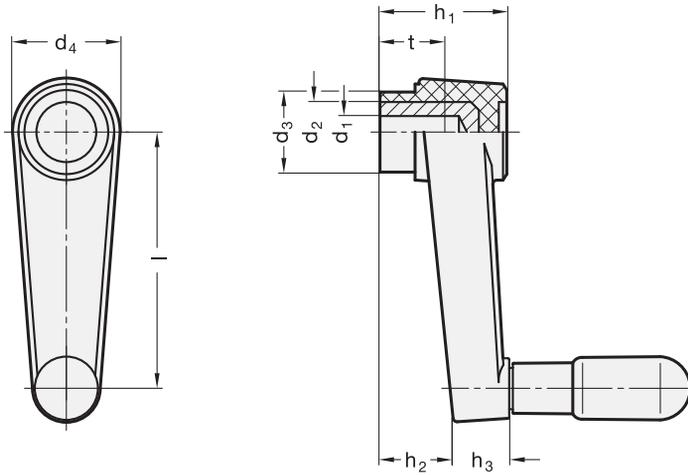
Length l	d ₁ H7 Bore		s H11 Square		d ₂	d ₃	h ₁	h ₂	h ₃	Ø Handle GN 598
	GN 471	GN 471.1	GN 471	GN 471.1						
50	-	B 8	-	V 8	16	18	18	10	10	14
64	-	B 10	-	V 10	19	22	20	11	12	18
80	B 10	B 10	V 10	V 10	23	26	24	14	14	21
100	B 12	B 12	V 12	V 12	27	30	28	17	15	23
125	B 14	-	V 14	-	32	35	34	22	18	26
160	B 17	-	V 17	-	35	39	38	26	18	26

Specification

- Body
 - **GN 471:** Aluminium
 - **GN 471.1:** Zinc die casting
 - plastic coated
 - black, textured finish
 - hub machined
- Revolving handles GN 598
Plastic, Technopolymer
black, matt finish
- *Square DIN 79* → Page 1126
- *Cross holes GN 110* → Page 1127
- *ISO-Fundamental Tolerances* → Page 1132
- RoHS-compliant

Aluminium-Cranked handle GN471-80-B10	1	Length l
	2	d ₁ (s)

Zinc die casting-Cranked handle GN471.1-50-V8	1	Length l
	2	s (d ₁)



ELESA Original design MT-AT

Length l	² d_1 H9 Bore	d_2	d_3	d_4	h_1	h_2	h_3	t min.	\emptyset Handle
50	B 6	15	18	23	30	20,5	9	16	14
64	B 8	15	20	27	32	18,5	13,5	18	16
80	B 10	18	23,5	30	36	23,5	14	23	18
100	B 12	18	24	34	40	24,5	14,5	22	22
130	B 14	26	34	40	49	34	15,5	28	22
160	B 16	26	34	45	55	38	17,5	28	24

Specification

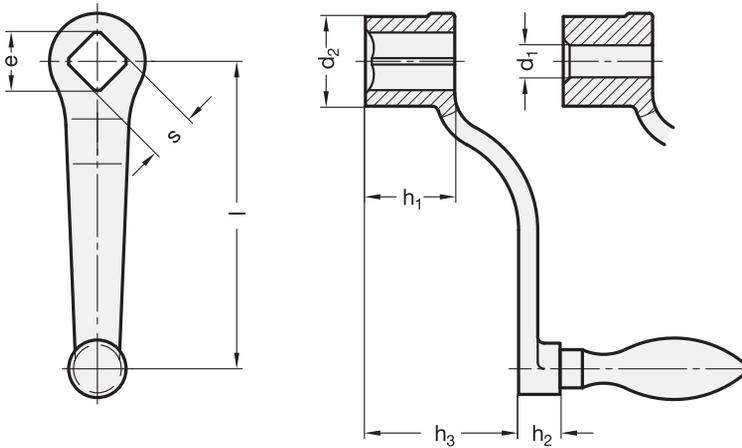
- Body
Plastic
- glass fibre reinforced
- temperature resistant up to 90 °C
- black, matt
- Hub bush
Steel, blackened
- Revolving handles
Plastic, Technopolymer
black, matt
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- Strength properties → Page 1139
- RoHS-compliant

Information

Cranked handles GN 570.2 are connected to a shaft by means of a cross pin.

How to order	¹ Length l
	² d_1

GN570.2-80-B10



3 Type

- F with fixed handle
- D with revolving handle

1 Length l	2 s H11 Square		2 e min. (Column 1)	d ₁ H7 Bore	d ₂	h ₁	h ₂	h ₃ ≈	Ø Handle
63	V 10	-	13,1	B 6	20	20	11	32	16
80	V 10	V 12	13,1	B 8	24	24	13	38	18
100	V 12	V 14	16,1	B 10	28	28	13	48	20
125	V 14	V 17	18,1	B 10	34	34	14	55	22
160	V 17	V 19	22,2	B 14	38	38	14	65	25
200	V 19	V 22	25,2	B 17	44	44	21	78	28
250	V 22	V 24	28,2	B 17	48	48	21	90	32
315	V 24	V 27	32,2	B 20	54	54	26	105	36

Specification

- Body
Cast iron (GGG)
- plastic coated
 black, textured finish
- hub machined
- Fixed handles DIN 39
Steel zinc plated, blue passivated
- Revolving handles DIN 98
Steel zinc plated, blue passivated
- Square DIN 79 → Page 1126
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS-compliant

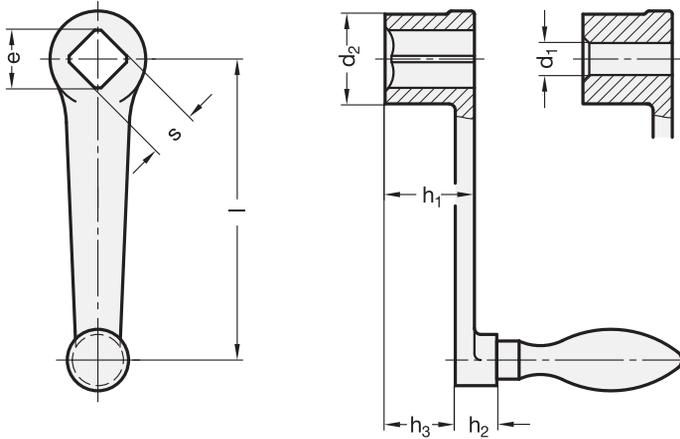
Information

The hub bores d₁ H7 are not provided for in the official standard sheet.

How to order

DIN 468-100-V14-F

- 1 Length l
- 2 s (d₁)
- 3 Type



3 Type

- F with fixed handle
- D with revolving handle

1 Length l	2 s H11 Square		e min. (Column 1)	d ₁ H7 Bore	d ₂	h ₁	h ₂	h ₃ ≈	Ø Handle
63	V 10	-	13,1	B 6	20	20	11	15	16
80	V 10	V 12	13,1	B 8	24	24	13	18	18
100	V 12	V 14	16,1	B 10	28	28	13	21	20
125	V 14	V 17	18,1	B 10	34	34	14	26	22
160	V 17	V 19	22,2	B 14	38	38	14	29	25
200	V 19	V 22	25,2	B 17	44	44	21	34	28
250	V 22	V 24	28,2	B 17	48	48	21	36	32

Specification

- Body
Cast iron (GGG)
- plastic coated
 black, textured finish
- hub machined
- Fixed handles DIN 39
Steel zinc plated, blue passivated
- Revolving handles DIN 98
Steel zinc plated, blue passivated
- Keyway P9 DIN 6885/1 → Page 1124
- Square DIN 79 → Page 1126
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS-compliant

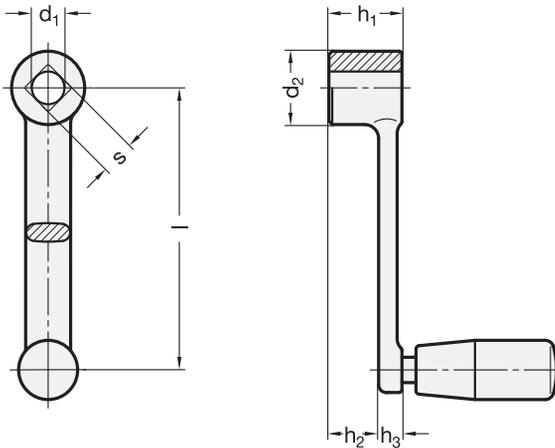
Information

The hub bores d₁ H7 are not provided for in the official standard sheet.

How to order

DIN 469-125-V17-D

- 1 Length l
- 2 s (d₁)
- 3 Type



 Rostfrei
 Inox
 Stainless
 Steel

Length l	d ₁ H9 Bore	s H11 Square	d ₂	h ₁	h ₂ ≈	h ₃	Ø
80	B 10	V 10	22	22	15,4	6,6	18
100	B 12	V 12	26	26	17,7	8,3	21
125	B 14	V 14	28	28	18,8	9,2	23
160	B 17	V 17	32	32	22,6	9,4	23

Specification

- Body
Stainless Steel precision casting
AISI CF-8
Face of the hub machined
- Revolving handles
similar to GN 598.1
Plastic (Duroplast PF)
black, shiny finish
Spindle
Stainless Steel AISI 303
- Square DIN 79 → Page 1126
- Cross holes GN 110 → Page 1127
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

On request

- Stainless Steel-Cranked handles
with retractable handle GN 798.5

Information

Stainless Steel-Cranked handles GN 269 have been designed to comply with stringent hygiene requirements.

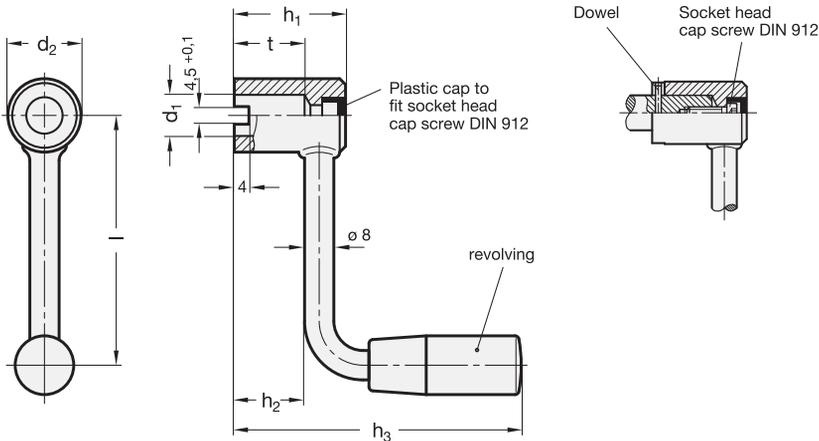
The cylindrical handles are made of Duroplast which in general provides good stability when exposed to chemicals.

How to order

GN269-100-V12

1 Length l

2 s (d₁)


3 Type

- A** without slot
N with slot

1 Length l	2 d ₁ H9 Bore	d ₂	h ₁	h ₂ ≈	h ₃ ≈	t +0,5	Ø Handle	for screws DIN 912
63	B 10	18	28	18	74	18	18	M5
80	B 10	18	28	18	74	18	18	M5
100	B 12	20	30	20	88	20	21	M6
125	B 12	20	30	20	88	20	21	M6

Specification

- Steel
 - shot-blasted and nickel plated
 - Crank butt-welded
- Plastic cap black
- Revolving handles GN 598
 - Plastic, Duroplast black, shiny finish
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS-compliant

Information

Cranked handles GN 369 are for light duty applications and are of extremely good value.

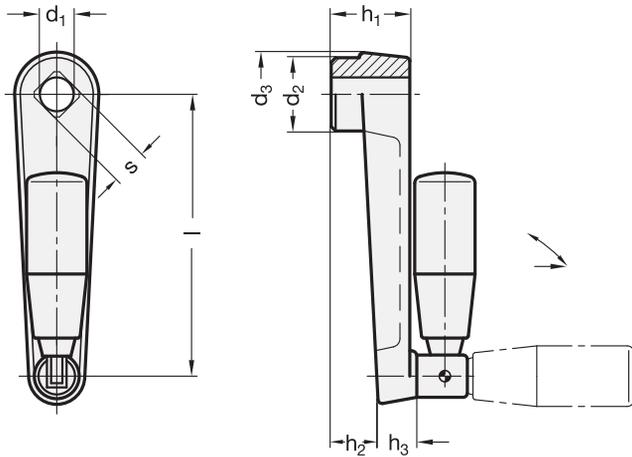
A suitable dowel in the shaft and the slot in the handle provides a cheap connection to the shaft. To secure the handle permanently to the shaft, remove the plastic cap and insert screw.

Due to the production method which is not dependent on a specific shape, these cranked handles can be produced as specials at a competitive price.

How to order

GN369-80-B10-N

- | | |
|----------|----------------|
| 1 | Length l |
| 2 | d ₁ |
| 3 | Type |



1

2

2

Length l	d ₁ H7 Bore	s H11 Square	d ₂	d ₃	h ₁	h ₂	h ₃	Ø Retractable handle GN 598.3
100	B 12	V 12	27	30	28	17	13	23
125	B 14	V 14	32	35	34	22	14	23
160	B 17	V 17	35	39	38	26	14	26

Specification

- Body
 - Aluminium
 - plastic coated
 - black, textured finish
 - hub machined
- Retractable handles GN 598.3
 - Plastic, Duroplast
 - black, shiny finish
 - Retractable mechanism
 - Steel, blackened
- Square DIN 79 → Page 1126
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS-compliant

On request

- with retractable handle GN 598.5 → Page 25
(retractable mechanism Stainless Steel)

Information

The handpiece of the cranked handle GN 471.3 is locked in a tapered bore in the operating position.

For tilting, the handle must first be pulled out of the taper in axial direction.

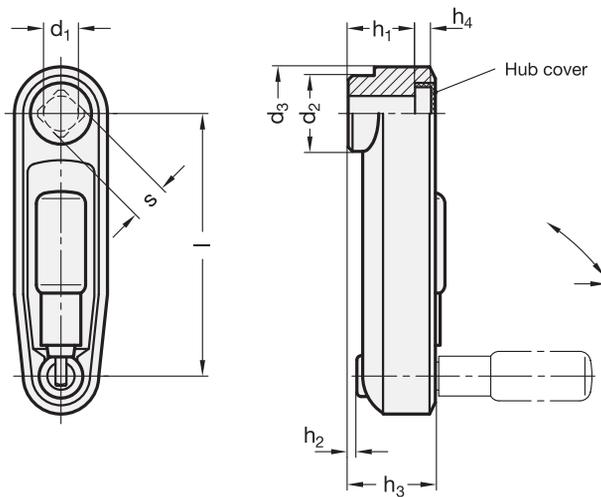
A compression spring holds the handle in both end positions. When folded out, it automatically re-engages.

How to order

GN471.3-125-V14

1 Length l

2 s (d₁)



1

2

2

Length l	d ₁ H7 Bore	s H11 Square	d ₂	d ₃	h ₁	h ₂ ≈	h ₃	h ₄	∅ Retractable handle GN 798.3
80	B 10	V 10	23	29	20	3	26	4,3	16
100	B 12	V 12	26	34	24	4,5	30	4,2	18
125	B 14	V 14	28	36	31	9	37	4,2	24

Specification

- Body
 - Aluminium
 - plastic coated
 - black, textured finish
 - hub machined
- Hub cover
 - Plastic
 - light grey
- Retractable handles GN 798.3
 - Plastic, Technopolymer
 - black, shiny finish
 - Retractable mechanism
 - Steel, blackened
- Square DIN 79 → Page 1126
- Cross hole GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS-compliant

On request

- with retractable handle GN 798.5 → Page 23 (retractable mechanism Stainless Steel)

Information

The handpiece of the cranked handle GN 472.3 is locked in a tapered bore in the operating position.

For tilting, the handle must first be pulled out of the taper in axial direction.

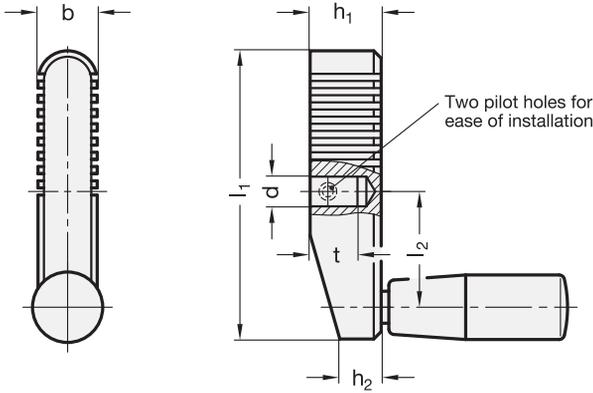
A compression spring holds the handle in both end positions. When folded out, it automatically re-engages.

How to order

GN472.3-100-V12

1 Length l

2 s (d₁)



¹ l ₁	² d H7 Blind bore		b	h ₁	h ₂	l ₂	t min.	Ø Handle
70	S 8	-	17	19	11,5	26,5	12	18
80	S 8	-	18	21	12,5	31	12	21
90	S 10	-	19	23	13,5	35,5	15	21
100	S 10	S 12	20	25	14	40	17	23

Specification

- Body
Zinc die casting
plastic coated
black, textured finish
- Revolving handles GN 598
Plastic, Technopolymer
black, matt finish
- *ISO-Fundamental Tolerances* → Page 1132
- [RoHS-compliant](#)

Information

Control handles GN 112.1 allow fine adjustment.

They are connected to a shaft by means of a cross pin. To simplify the installation there is a centred drilling on both sides.

[see also...](#)

- *Control handles GN 10 (Steel, turned)* → Page 144

How to order

GN 112.1-90-S10

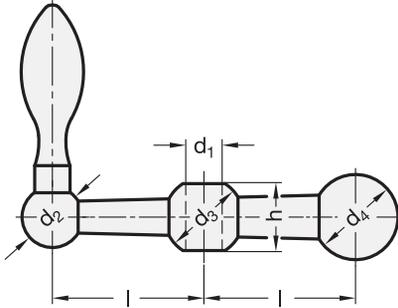
¹ l₁

² d





3 Type
F with fixed handle



1 No.	2 d ₁ H7 Bore	d ₂	d ₃	d ₄	h	l	Ø Handle
100	B 7	13	16	18	13	25	10
101	B 8	15	19	20	17	28	13
102	B 8	16	20	22	17	34	14
103	B 10	18	23	25	19,5	41	16
104	B 12	20	26	28	21,5	50	18

Specification

- Steel
 - turned
 - zinc plated, blue passivated
- Fixed handles DIN 39
 - Steel zinc plated, blue passivated
- ISO-Fundamental Tolerances → Page 1132
- RoHS-compliant

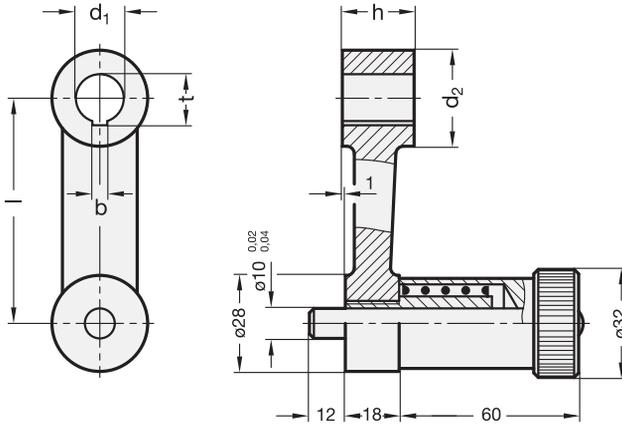
Information

Tri-ball handles GN 10 allow fine adjustment.
An alternative in modern design are control handles GN 112.1.

see also...

- Control handles GN 112.1 (Zinc die casting) → Page 142

How to order GN 10-104-B12-F	1	No.
	2	d ₁
	3	Type



2 Bore
B without keyway
K with keyway

1 Length l	3 d ₁ H7 Bore	d ₂	h	b P9	t
75	16	32	24	5	17,3
90	18	34	26	6	19,7
110	20	36	30	6	21,7
135	22	42	32	6	23,7
165	24	44	36	8	25,7

Specification

- Body
Cast iron (GGG)
- deburred and shot-blasted
- hub machined
- Handle
Steel, blackened
- Indexing pin
Steel, hardened
- Keyway P9 DIN 6885/2 → Page 1125
- ISO-Fundamental Tolerances → Page 1132
- RoHS-compliant

Information

Indexing cranked handles GN 558 are for positioning mechanisms. Standard machine elements for positioning of spindles:

see also...

- Serrated locking plates GN 187.4 → Page 554
- Indexing mechanisms GN 200 → Page 356
- Indexing levers GN 215 → Page 360
- Adjustable knob GN 700 → Page 358

How to order

GN 558-75-K16

1	Length l
2	Bore
3	d ₁

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



1.4 Handwheels



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9



1.4 Handwheels




GN 923
Disc
handwheels
Aluminium

→ Page 150



GN 521.3
Handwheels
with
retractable handle,
Plastic

→ Page 157



GN 322
Handwheels
Aluminium

→ Page 164



GN 923.3
Handwheels
with
retractable handle,
Aluminium

→ Page 151



GN 522
Spoked
handwheels
Plastic

→ Page 160



GN 324
Handwheels
Aluminium

→ Page 164



GN 923.7
Handwheels
with safety-
retractable handle,
Aluminium

→ Page 151



GN 522.3
Handwheels
with
retractable handle,
Plastic

→ Page 161



GN 322.3
Handwheels
with
retractable handle,
Aluminium

→ Page 165



GN 924
Spoked
handwheels
Aluminium

→ Page 154



GN 520
Disc handwheels
Plastic /
Steel-bush

→ Page 162



GN 322.7
Handwheels
with safety-
retractable handle

→ Page 165



GN 924.3
Handwheels
with
retractable handle,
Aluminium

→ Page 155



GN 520.6
Disc
handwheels
Plastic / Stainless
Steel-bush

→ Page 162



**GN 321.4 /
GN 321.5**
Safety
handwheels
Aluminium

→ Page 168



GN 924.7
Handwheels
with safety-
retractable handle,
Aluminium

→ Page 155



GN 321
Disc
handwheels
Aluminium

→ Page 163



**GN 322.4 /
GN 322.5**
Safety
handwheels
Aluminium

→ Page 168



GN 521
Disc
handwheels
Plastic

→ Page 156



GN 323
Disc
handwheels
Aluminium

→ Page 163



**GN 323.4 /
GN 323.5**
Safety
handwheels
Aluminium

→ Page 168

1.4 Handwheels




GN 000.4
Coupling attachments
for safety
handwheels
→ Page 170



GN 226
Knurled
handwheels
Plastic
→ Page 180



GN 555
Spoked
handwheels
Plastic
→ Page 187



GN 000.5
Coupling
attachments
for safety
handwheels
→ Page 171



GN 226.1
Cover discs
for knurled
handwheels
GN 226
→ Page 181



GN 949
Handwheels
Stainless Steel
→ Page 188



GN 321.6
Safety
handwheels
Aluminium
→ Page 172



GN 527.1
Handwheels
Plastic
→ Page 182



GN 227.2
Handwheels
Pressed
Stainless Steel
→ Page 189



GN 327
Safety
handwheels
Aluminium
→ Page 174



DIN 3670
Disc
handwheels
Aluminium
→ Page 183



GN 227.1
Pressed steel
handwheels
→ Page 190



GN 735
Control
handwheels
Plastic
→ Page 176



DIN 950
Handwheels
Aluminium,
Cast iron
→ Page 184



GN 227
Pressed steel
handwheels
for valves
→ Page 191



GN 736
Control
handwheels
Aluminium
→ Page 178



GN 950.6
Handwheels
Stainless Steel
→ Page 185

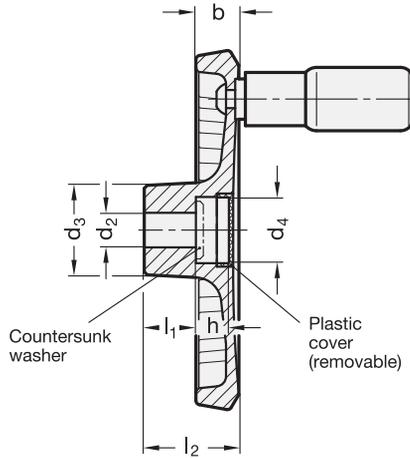
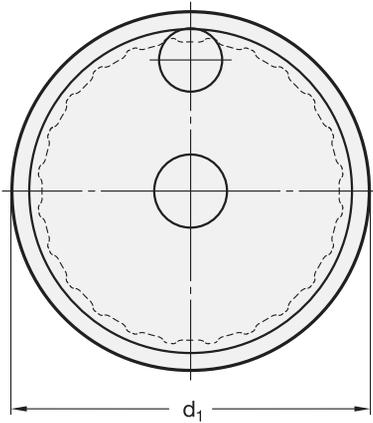


GN 736.1
Control
handwheels
with deposition
for scale
Aluminium
→ Page 179



GN 950.1
Handwheels
with large hub
Cast iron
→ Page 186

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- A** without handle
- R** with revolving handle

1 d ₁	3 d ₂ H7 Bore	d ₃	d ₄	b	h	l ₁	l ₂ ≈	Ø Handle GN 798	recommended countersunk washer
80	10	12	26	17	13	7	16	16	GN 184-16
100	10	12	28	22	14	9,5	17	18	GN 184-20
125	12	14	31	22	15	11	18	22	GN 184-20
140	14	16	36	28,5	16,5	13	19	24	GN 184-25
160	14	16	36	28,5	18	14,5	20	24	GN 184-25
200	18	20	42	36	20,5	16	24	25	GN 184-32

Specification

- Aluminium pressure die casting
 - Hub machined
 - Rim turned
 - plastic coated
 - black, RAL 9005, textured finish ● **SW**
 - silver, RAL 9006, textured finish ○ **SR**
- Rim concentric and square to bore < 0,4
- Revolving handles GN 798
 - Plastic, Technopolymer
 - black, matt
- *Keyway P9 DIN 6885* → Page 1124
- *Cross holes GN 110* → Page 1127
- *ISO-Fundamental Tolerances* → Page 1132
- **RoHS compliant**

Accessory

- Countersunk washers GN 184 are to be ordered separately.

Information

Disc handwheels GN 923 are distinguished by modern design. The removable plastic cover shrouds the fixing components such as screws, countersunk washers as well as the shaft end.

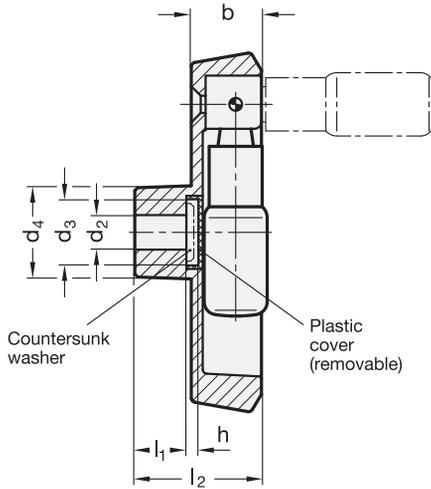
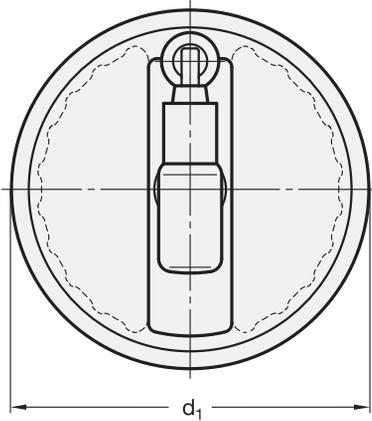
see also...

- *Countersunk washers GN 184 (for axial fixing)* → Page 542

How to order

1 d ₁
2 Bore code
3 d ₂
4 Type
5 Colour

GN923-140-B14-R-SW



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- R** with revolving handle

1

3

d ₁ GN 923.3	GN 923.7	d ₂ H7 Bore		d ₃	d ₄	b	h	l ₁	l ₂ ≈	Ø Handle	recommended countersunk washer
100	-	10	12	18	28	20	4	17	39	18	GN 184-16
125	125	12	14	23	31	24,5	4	18	45	22	GN 184-22
140	140	14	16	23	36	26	4	19	47	24	GN 184-22
160	160	14	16	23	36	26	4	20	48	24	GN 184-22
200	200	18	20	23	42	27	4	24	53	25	GN 184-22

Specification

5

- Aluminium pressure die casting
 - Hub machined
 - Rim turned
 - plastic coated
 - black, RAL 9005, textured finish ● **SW**
 - silver, RAL 9006, textured finish ● **SR**
- Rim concentric and square to bore < 0,4
- Retractable handles GN 798.3 / GN 798.7
 - Plastic, Technopolymer
 - black, matt
 - Retracting mechanism
 - Steel, blackened
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Accessory

- Countersunk washers GN 184 are to be ordered separately.

Information

GN 923.3

The handle in these handwheels is locked in a conical bore in the operating position. For reversal, it must first be pulled from the cone in axial direction. A pressure spring holds the handle in both positions. When swung out, it automatically engages again.

GN 923.7

These handwheels are suitable for applications where the handle must not remain in the operating position.

In order to bring the handle into this position it has to be turned first through 90° to a stop against a torsion spring and then it is pushed against spring pressure into its hold position. By maintaining the forward thrust on the handle the handwheel can easily be rotated. When releasing the handle the springs returns it back to the retracted position.

Handwheel, retractable handle locked

1 2 3 4 5

GN923.3-160-K14-R-SR

- 1 d₁
- 2 Bore code
- 3 d₂
- 4 Type
- 5 Colour

Handwheel, retractable handle swivelling

1 2 3 4 5

GN923.7-200-B20-R-SW

- 1 d₁
- 2 Bore code
- 3 d₂
- 4 Type
- 5 Colour



reddot design award



Disc handwheels GN 923 → Page 150



reddot design award



Handwheels with retractable handle GN 923.3 / GN 923.7 → Page 151



reddot design award



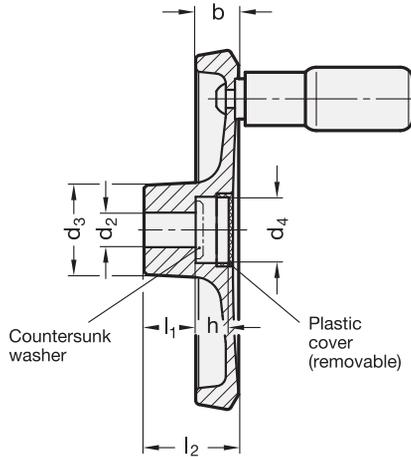
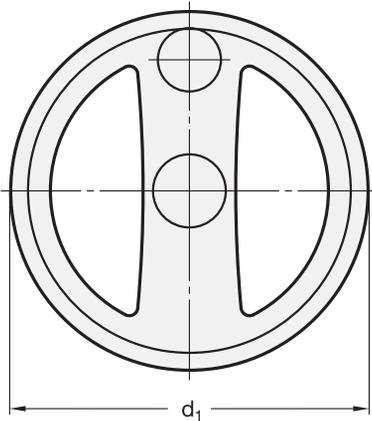
Spoked handwheels GN 924 → Page 154



reddot design award



Handwheels with retractable handle GN 924.3 / GN 924.7 → Page 155



2 Bore code

- B without keyway
- K with keyway

4 Type

- A without handle
- R with revolving handle

1

3

d ₁	d ₂ H7 Bore	d ₃	d ₄	b	h	l ₁	l ₂ ≈	Ø Handle GN 798	recommended countersunk washer
125	12	14	31	23	15	11	33,5	22	GN 184-20
140	14	16	36	28,5	16,5	13	36,5	24	GN 184-25
160	14	16	36	28,5	18	14,5	39,5	24	GN 184-25
200	18	20	42	36	20,5	16	45,5	25	GN 184-32

Specification

5

- Aluminium pressure die casting
 - Hub machined
 - Rim turned
 - plastic coated
 - black, RAL 9005, textured finish ● SW
 - silver, RAL 9006, textured finish ● SR
- Rim concentric and square to bore < 0,4
- Revolving handles GN 798
 - Plastic, Technopolymer
 - black, matt
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Accessory

- Countersunk washers GN 184 are to be ordered separately.

Information

Spoked handwheels GN 924 are distinguished by modern design. The removable plastic cover shrouds the fixing components such as screws, countersunk washers as well as the shaft end.

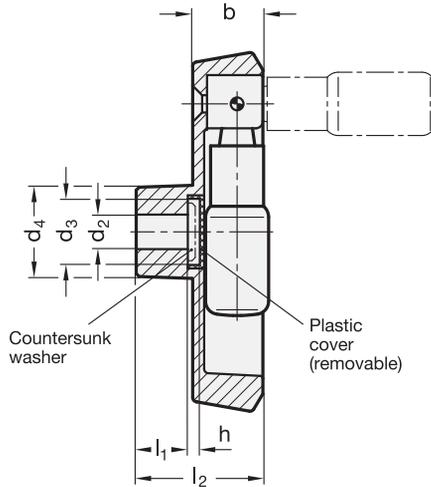
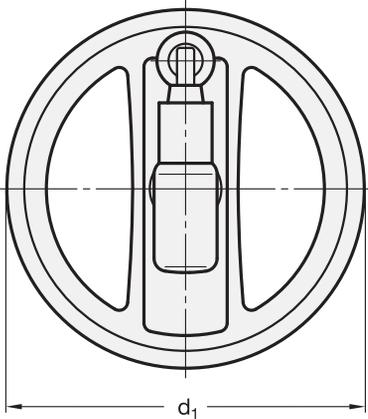
see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

1	d ₁
2	Bore code
3	d ₂
4	Type
5	Colour

1 2 3 4 5
GN924-125-K12-A-SR



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- R** with revolving handle

1

3

d ₁	d ₂ H7 Bore		d ₃	d ₄	b	h	l ₁	l ₂	Ø Handle	recommended countersunk washer
125	12	14	23	31	24,5	4	18	45	22	GN 184-22
140	14	16	23	36	26	4	19	47	24	GN 184-22
160	14	16	23	36	26	4	20	48	24	GN 184-22
200	18	20	23	42	27	4	24	53	25	GN 184-22

Specification

- Aluminium pressure die casting
 - Hub machined
 - Rim turned
 - plastic coated
 - black, RAL 9005, textured finish ● **SW**
 - silver, RAL 9006, textured finish ● **SR**
- Rim concentric and square to bore < 0,4
- Retractable handles GN 798.3 / GN 798.7
 - Plastic, Technopolymer
 - black, matt
 - Retracting mechanism
 - Steel, blackened
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Accessory

- Countersunk washers GN 184 are to be ordered separately.

5

Information

GN 924.3

The handle in these handwheels is locked in a conical bore in the operating position. For reversal, it must first be pulled from the cone in axial direction.

A pressure spring holds the handle in both positions. When swung out, it automatically engages again.

GN 924.7

These handwheels are suitable for applications where the handle must not remain in the operating position.

In order to bring the handle into this position it has to be turned first through 90° to a stop against a torsion spring and then it is pushed against spring pressure into its hold position. By maintaining the forward thrust on the handle the handwheel can easily be rotated.

When releasing the handle the springs returns it back to the retracted position.

Handwheel, retractable handle locked

1 2 3 4 5
GN924.3-125-B12-R-SW

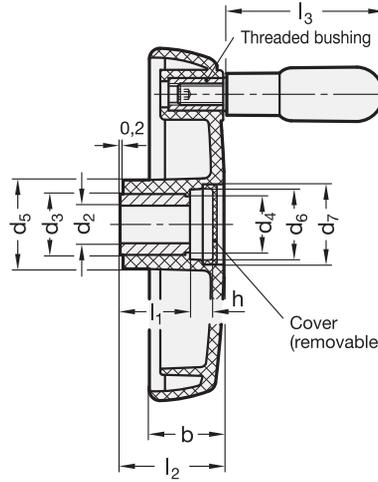
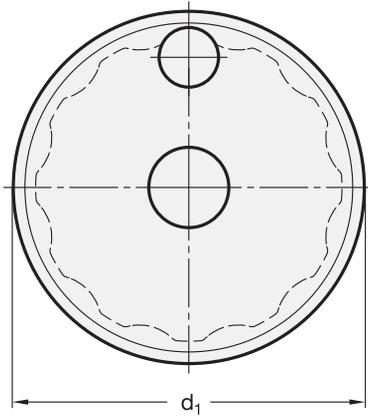
1	d ₁
2	Bore code
3	d ₂
4	Type
5	Colour

Handwheel, retractable handle swivelling

1 2 3 4 5
GN924.7-140-K16-R-SR

1	d ₁
2	Bore code
3	d ₂
4	Type
5	Colour

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



ELESA Original design VDS./VDS+



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- A** without handle
- R** with revolving handle

1 **3**

d ₁	d ₂ H7 Bore Type A		Type R		d ₃	d ₄	d ₅	d ₆	d ₇	b	h	l ₁	l ₂	l ₃
80	-	-	8	10	18	16	25	19	21	20	8	17	29	45
100	10	12	10	12	22	20	30	25	27	24	9	22	34	60
125	-	-	12	14	26	24	35	28	31	28	11	27	39,5	60
150	14	-	14	16	26	24	38	30	34	32	10	30	44	65
175	-	-	16	20	35	33	44	35	39	36	16	28	49	80
200	20	-	20	24	40	38	50	40	44	39	13	36	53	90
250	-	-	20	-	40	38	57	48	50	43	19	36	60	90
300	-	-	20	-	40	36,5	72	66	68,5	46	20	44	66	90

Specification

- Plastic
Technopolymer (Polypropylene PP)
- reinforced, shock-resistant
- temperature resistant up to 80 °C
- black, matt
- Hub bush
Steel, blackened
- Threaded bush
Brass
- Cover
Plastic, light grey
- Revolving handles
Plastic, Technopolymer (Polyamide PA)
- black, matt
- Spindle Steel
zinc plated, blue passivated
- Keyway P9 DIN 6885 → Page 1124
- Strength properties → Page 1138
- RoHS compliant

Information

Disc handwheels GN 521 have recessed grips at their back.

The cover conceals clamping elements, e.g. countershaft pulleys, as well as protruding and recessed shafts. For mounting, the cover is pushed in by hand. For dismantling, the cover can be raised and taken off by applying moderate pressure in the rim of the cover.

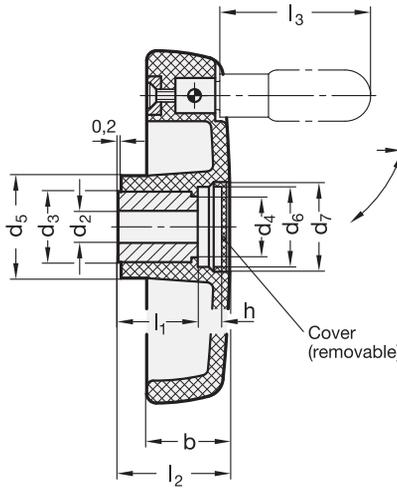
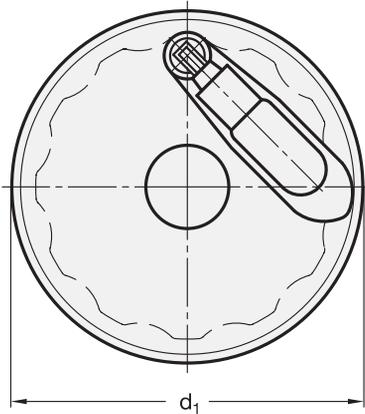
see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

GN521-150-K14-R

- 1** d₁
- 2** Bore code
- 3** d₂
- 4** Type



ELESA original design VDS+IR



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- R** with revolving handle

1 **3**

d ₁	d ₂ H7 Bore	d ₃	d ₄	d ₅	d ₆	d ₇	b	h	l ₁	l ₂	l ₃	
80	8	10	18	16	25	13,5	16,5	20	4	17	38	45
100	10	12	22	20	30	25	27	24	9	22	34	45
125	12	14	26	24	35	28	31	28	11	27	39,5	60
150	14	16	26	24	38	30	34	32	10	30	44	65
175	16	20	35	33	44	35	39	36	16	28	49	80
200	20	24	40	38	50	40	44	39	13	36	53	90
250	20	-	40	38	57	48	50	43	19	36	60	90
300	20	-	40	36,5	72	65	68,5	46	18	44	66	90

Specification

- Plastic Technopolymer (Polypropylen PP)
 - reinforced, shock-resistant
 - temperature resistant up to 80 °C
 - black, matt
- Hub bush Steel, blackened
- Cover
 - Plastic, black for d₁ = 80
 - Plastic, grey for d₁ ≥ 100
- Retractable handle
 - Plastic, Technopolymer (Polyamide PA) black, matt
 - Retracting mechanism Steel, blackened
- Keyway P9 DIN 6885 → Page 1124
- Strength properties → Page 1138
- RoHS compliant

On request

- with safety retractable handle (swivelling)

Information

The handle in the handwheels GN 521.3 is locked in a conical bore in the operating position.

For reversal, it must first be pulled from the cone in axial direction.

A pressure spring holds the handle in both positions. When swung out, it automatically engages again.

The cover conceals clamping elements, e.g. countershaft pulleys, as well as protruding and recessed shafts. For mounting, the cover is pushed in by hand. For dismantling, the cover can be raised and taken off by applying moderate pressure in the rim of the cover.

see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

GN521.3-150-K16-R

- 1** d₁
- 2** Bore code
- 3** d₂
- 4** Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Disc handwheels GN 521 → *Page 156*

Handwheels with retractable handle GN 521.3 → *Page 157*



Spoked handwheels GN 522 → *Page 160*
Handwheels with retractable handle GN 522.3 → *Page 161*

1.1

1.2

1.3

1.4

1.5

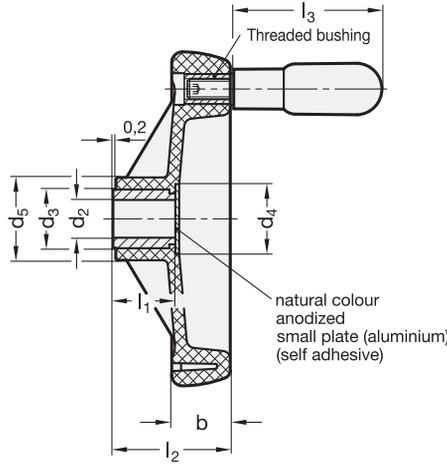
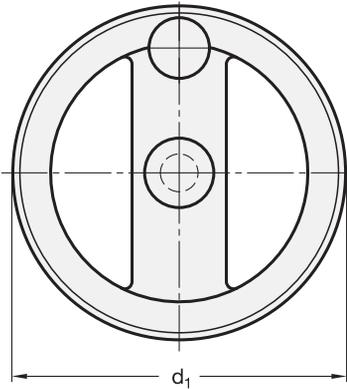
1.6

1.7

1.8

1.9





ELESA Original design VRTP./VRTP+I



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- A** without handle
- R** with revolving handle

1 d_1	3 d_2 H7 Bore		d_3	d_4	d_5	b	l_1	l_2	l_3
80	8	10	18	20,5	25	18	17	35	45
100	10	12	18	20,5	25,5	20	17	37	60
125	12	14	22	26	31	22	22	44	65
160	14	16	26	31	40	25	27	51	80
200	16	20	30	36	48,5	28	34	61	80
250	20	24	35	44	58	32	38	69	90
300	20	26	40	52	66	35,5	43	78	90
375*	26	-	35	70	81	39	43	87	90

* not available from stock, requires a minimum order quantity

Specification

- Plastic Technopolymer (Polypropylene PP)
 - reinforced, shock-resistant
 - temperature resistant up to 80 °C
 - black, matt
- Hub bush
 - Steel, blackened
- Threaded bush
 - Brass
- Revolving handles
 - Plastic, Technopolymer (Polyamide PA)
 - black, matt
 - Spindle Steel
 - zinc plated, blue passivated
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- Strength properties → Page 1138
- RoHS compliant

Information

Elegant design and ergonomic requirements are realised for the spoked handwheels GN 522.

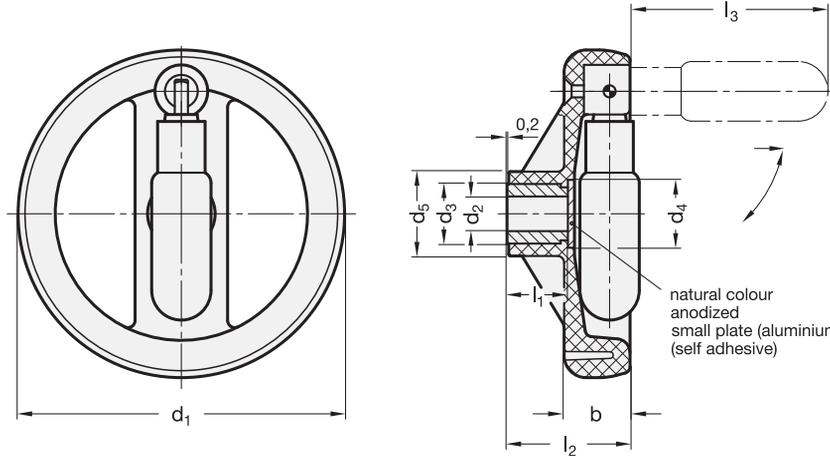
see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

GN 522-125-B12-R

1	d_1
2	Bore code
3	d_2
4	Type



ELESA original design VRTP+IR



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- R** with revolving handle

1 d_1	3 d_2 H7 Bore	d_3	d_4	d_5	b	l_1	l_2	l_3
80	8	10	18	20,5	23	18	17	35
100	10	12	18	20,5	25	20	17	37
125	12	14	22	26	31	22	22	44
160	14	16	26	31	40	25	27	51
200	16	20	30	36	50	28	34	61
250	20	24	35	44	59	32	38	69
300	20	26	40	52	66	35,5	43	78
375*	26	-	35	70	69	39	43	87

* not available from stock, requires a minimum order quantity

Specification

- Plastic Technopolymer (Polypropylene PP)
 - reinforced, shock-resistant
 - temperature resistant up to 80 °C
 - black, matt
- Hub bush Steel, blackened
- Retractable handles
 - Plastic, Technopolymer (Polyamide PA) black, matt
 - Retractable mechanism Steel, blackened
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- Strength properties → Page 11383
- Plastic characteristics → Page 1141
- RoHS compliant

Information

Elegant design and ergonomic requirements are realised for the handwheels with retractable handle GN 522.3.

When the handle is required in an operating position it is firmly anchored. To fold it in, it has to be pulled out of the arrest position parallel to the shaft.

A pressure spring will hold the handle in either rest position.

see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

<p>How to order</p> <p>GN522.3-200-B20-R</p>	1 d_1
	2 Bore code
	3 d_2
	4 Type



ELESA original design VD.FP

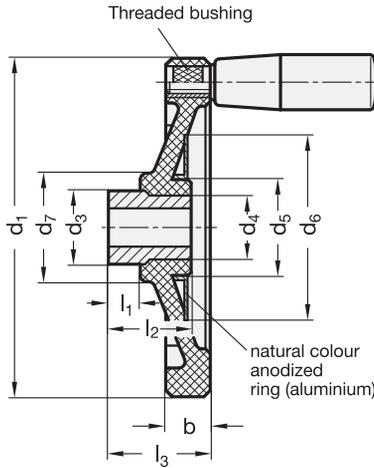
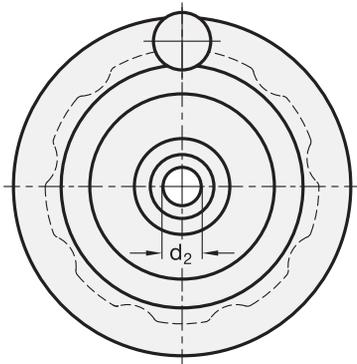


2 Bore code

- B** without keyway
- K** with keyway

4 Type

- A** without handle
- D** with revolving handle



1

3

d ₁	GN 520 Hub Steel	GN 520.6 Hub Stainless Steel	d ₂ H7 Bore	d ₃	d ₄	d ₅	d ₆	d ₇	b	l ₁ -0,5	l ₂ -0,5	l ₃	Ø Handle	
50	-	-	10	-	16	16	-	25	26	12	8,5	18,5	22	14
63	-	-	10	-	20	20	-	31	28	13	10	23,5	28	18
80	-	-	10	12	20	16	28	43	30	14	10	28	31	18
100	100	-	10	12	24	20	35	54	39	15	12	36	40	21
125	125	-	12	14	32	24	44	70	46	15	15	38	44	23
150	150	-	14	16	32	24	44	70	48	18	15	38	48	23
175	-	-	16	18	40	31	55	90	56	19	15	43	53	26
200	200	-	18	20	40	31	55	90	60	21	15	43	57	28
250	250	-	22	24	49	38	66	110	70	25	15	44	65	28
300	300	-	26	30	58	58	94	148	82	25	18	56	75	28

Specification

- Plastic Duroplast (Phenolic PF)
 - reinforced
 - temperature resistant up to 110 °C
- **GN 520**
 - Hub bush Steel, blackened
 - Threaded bush Brass
 - Revolving handles GN 598 Plastic, Duroplast
 - Spindle Steel, zinc plated
- **GN 520.6**
 - Hub bush Stainless Steel AISI 303
 - Threaded bush Stainless Steel
 - Revolving handles GN 598.1 Plastic, Duroplast
 - Spindle Stainless Steel AISI 303
- RoHS compliant

Information

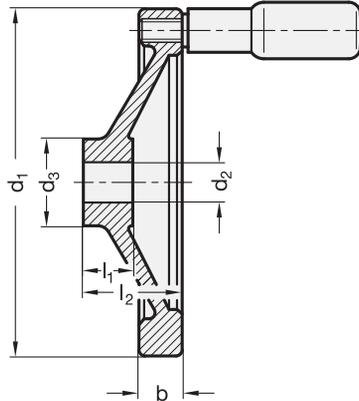
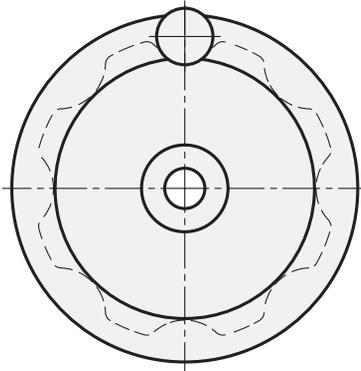
Disc handwheels GN 520 / GN 520.6 are renowned in particular for their design and the matt passivated aluminium ring in the front.

see also...

- Countersunk washers GN 184 / GN 184.5 (for axial fixing) → Page 542
- Cross holes GN 110 → Page 1127
- Strength properties → Page 1138

Disc handwheel, hub Steel	1 d ₁
	2 Bore code
GN520-125-K14-D	3 d ₂
	4 Type

Disc handwheel, hub Stainless Steel	1 d ₁
	2 Bore code
GN520.6-150-B14-A	3 d ₂
	4 Type



2 Bore code

- B without keyway
- K with keyway

4 Type

- A without handle
- R with revolving handle

1

3

d ₁	d ₂ H7 Bore		d ₃	b	l ₁	l ₂ ≈	Ø Handle GN 798
80	10	12	28	13	16	26	16
100	10	12	28	14	17	30	18
125	12	14	31	15	18	33	22
140	14	16	36	16,5	19	36	24
160	14	16	36	18	20	39	24
200	18	20	45	20,5	24	45	25
250	22	26	48	23	28	51	25

Specification

- Aluminium
 - Hub machined
 - Rim turned
- Rim concentric and square to bore < 0,4
- **GN 321**
 - Rim high-polished
 - unmachined body matt shot-blasted
- **GN 323**
 - Body plastic coated black, textured finish
- Revolving handles GN 798
 - Plastic, Technopolymer black, matt
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

GN 321 / GN 323 disc handwheels have recessed grips at their back.

see also...

- Safety handwheels (disengage the clutch) → Page 168
- Countersunk washers GN 184 (for axial fixing) → Page 542

Disc handwheel, polished

GN321-160-K16-A

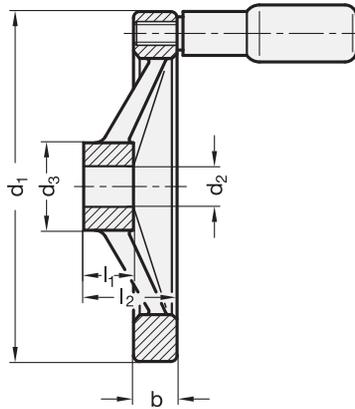
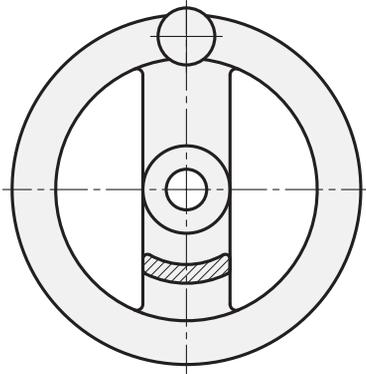
1	d ₁
2	Bore code
3	d ₂
4	Type

Disc handwheel, black

GN323-125-B12-R

1	d ₁
2	Bore code
3	d ₂
4	Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Internationaler Designpreis Baden-Württemberg

2 Bore code

- B without keyway
- K with keyway

4 Type

- A without handle
- R with revolving handle

1

3

d ₁	d ₂ H7 Bore		d ₃	b	l ₁	l ₂	Ø Handle GN 798
125	12	14	31	15	18	33	22
140	14	16	36	16,5	19	36	24
160	14	16	36	18	20	39	24
200	18	20	42	20,5	24	45	25
250	22	26	48	23	28	51	25

Specification

- Aluminium
 - Hub machined
 - Rim turned
- Rim concentric and square to bore < 0,4
- **GN 322**
 - Rim high-polished
 - unmachined body matt shot-blasted
- **GN 324**
 - Body plastic coated black, textured finish
- Revolving handles GN 798
 - Plastic, Technopolymer black, matt
- *Keyway P9 DIN 6885* → Page 1124
- *Cross holes GN 110* → Page 1127
- *ISO-Fundamental Tolerances* → Page 1132
- **RoHS compliant**

Information

see also...

- *Safety handwheels (disengage the clutch)* → Page 168
- *Countersunk washers GN 184 (for axial fixing)* → Page 542

Handwheel, polished

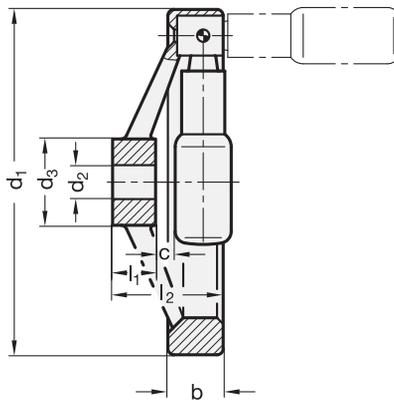
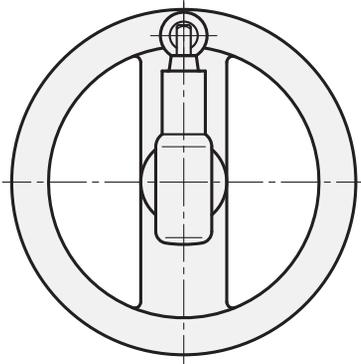
GN322-140-K14-R

1	d ₁
2	Bore code
3	d ₂
4	Type

Handwheel, black

GN324-200-B20-A

1	d ₁
2	Bore code
3	d ₂
4	Type



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- R** with revolving handle

1

3

d ₁	d ₂ H7 Bore		d ₃	b	c		l ₁	l ₂	Ø Handle
					GN 322.3	GN 322.7			
125	12	-	31	24,5	6,5	7,5	18	44	22
140	14	-	36	24,5	6	7	19	45,5	24
160	14	16	36	25	6,5	7,5	20	47	24
200	18	20	42	25	7,5	8,5	24	52,5	25
250	22	-	48	26,5	12	13	28	61	25

Specification

- Aluminium
 - Hub machined
 - Rim turned and polished
 - Unmachined body matt shot-blasted
- Rim concentric and square to bore < 0,4
- Retractable handles GN 798.3 / GN 798.7
 - Plastic, Technopolymer black, matt
 - Retracting mechanism Steel, blackened
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

GN 322.3

The handle in these handwheels is locked in a conical bore in the operating position. For reversal, it must first be pulled from the cone in axial direction. A pressure spring holds the handle in both positions. When swung out, it automatically engages again.

GN 322.7

These handwheels are suitable for applications where the handle must not remain in the operating position.

In order to bring the handle into this position it has to be turned first through 90° to a stop against a torsion spring and then it is pushed against spring pressure into its hold position. By maintaining the forward thrust on the handle the handwheel can easily be rotated. When releasing the handle the springs returns it back to the retracted position.

Handwheel, retractable handle locked

1 d ₁
2 Bore code
3 d ₂
4 Type

GN322.3-160-B16-R

Handwheel, retractable handle swivelling

1 d ₁
2 Bore code
3 d ₂
4 Type

GN322.7-125-B12-R

The relevant health and safety at work provisions state that handwheels must be attached to spindles such that they are not turned along together with the machine drive assembly. Safety handwheels meet this requirement:

If not in operation, the wheel is disengaged. Shifting it in axial direction (pushing or pulling) will intermesh two serrated bushings, formlocking the wheel with the shaft.

After releasing, the wheel will disengage again automatically.

A number of user notices for various design types are listed below. These notices are non-binding and given without liability. They do not constitute a warranty of proper function. The user must in any case determine whether the safety handwheels are suitable for the intended purpose and use.

1. Safety handwheels with coupling attachment GN 000.4 (friction bearing)

All coupling elements are housed in an enclosed component known as coupling attachment. It is designed such that it can be installed in all current types of handwheels and also in other machine elements.

Optionally, the same coupling attachment can be mounted in the handwheel such that the axial movement for disengagement is either “pulling” or “pushing” for disengaging. The “pushing” version is safer in terms of health and safety at work because the risk of inadvertent engagement is lower.

Type **A** (without handle)

As there is no unbalance (handle), this handwheel will also turn along with the drive, but it can be stopped by hand.

With the wheel moving along, the bearing is not put under excessive strain, with the effect that this type is particularly suitable for continuous operation. At higher speeds, the unbalanced handwheel may cause vibrations, however. Also, the friction heat which develops when braking the wheel must be kept in mind.

Type **D** (with handle)

The handle (unbalance) causes the disengaged handwheel to stop while the shaft is turning. Owing to the type of construction and bearing design of these couplings, the use of these handwheels is usually limited to relatively slow-turning spindle speeds or spindle speeds running at higher speed for short periods. A high risk of dirt deposits (grinding dust) and dry-running can limit the user options even further.

If the handwheel and its handle are deliberately or inadvertently set in (concurrent) motion while the shaft is turning, bearing friction may cause the wheel to turn permanently. At higher speeds, this may cause vibrations and, considering the rotating mass of the handle, can result in injuries also if disengaged. This risk / operating status must therefore be avoided at all cost.

Coupling attachments GN 000.4 → Page 170

Safety handwheels with coupling attachment GN 000.4 → Page 168

2. Safety handwheels with Coupling attachment GN 000.5 (needle bearing)

The details given under 1. above apply in principle also to these safety handwheels.

With their needle bearings, they have the advantage over friction bearings that they can be used for somewhat higher speeds due to their substantially lower friction, lower wear and tear and lower sensitivity to lubrication.

Owing to their larger construction length and lower friction (hardened contact surfaces) and finer intermeshing, these wheels are also easier to engage.

Coupling attachments GN 000.5 → Page 171

Safety handwheels with Coupling attachment GN 000.5 → Page 168

3. Safety handwheels with cap GN 321.6

These handwheels are an advance development of the safety handwheels with coupling attachment GN 000.5 (needle bearing).

The coupling elements have been specially developed for this type of handwheel and are therefore not intended for general use. Also, they are only intended for the “pulling” mode of engagement.

The user notices listed under 1. and/or 2. above also apply here. Owing to their type of construction, especially the cap, these handwheels are largely protected from dirt.

Safety handwheels GN 321.6 → Page 172

4. Safety handwheels with fixed bearing flange GN 327

The safety handwheels described under 1. to 3. above are characterised by the fact that they require no special machine-side measures for attaching. They are simply pushed over the shaft. However, the inevitable bearing friction generates a link between shaft and handwheel which needs to be kept in mind as specified above.

For applications with very high rotary speed, ultimate levels of safety at work and under continuous operation, the safety handwheel with fixed bearing flange is the best possible solution. The separate bearing configuration means that the user notices given for types 1. to 3. do not apply.

However, this safety handwheel is more complex, with a number of requirements to be met at the machine side.

Safety handwheels GN 327 → Page 174

1.1

1.2

1.3

1.4

1.5

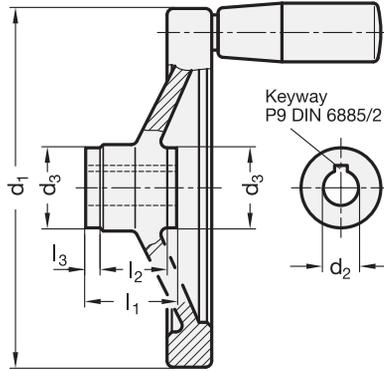
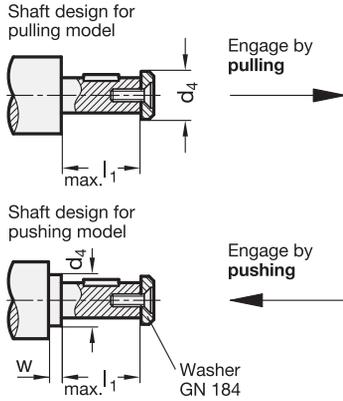
1.6

1.7

1.8

1.9





- 3 Type**
A without handle
D with revolving steel handle
- 4 Mode**
ZI engage by pulling
DR engage by pushing

d ₁	d ₂ H7 Bore with keyway GN 000.4 GN 000.5		d ₃		d ₄ max.	l ₁		l ₂	l ₃		w min.	Coupling GN 000.4 GN 000.5
	GN 000.4	GN 000.5	GN 000.4	GN 000.5		GN 000.4	GN 000.5		GN 000.4	GN 000.5		
125	K 12	-	28	29	17	28,5	42	18	5	12	4	Size 1
140	K 12	-	28	29	17	28,5	42	19	5	12	4	Size 1
140	K 14	K 16	32	33	21	32,5	48	19	6	14	4	Size 2
160	K 14	K 16	32	33	21	32,5	48	20	6	14	4	Size 2
200	K 18	K 20	38	39	26	36,5	50	24	6	13	4	Size 3
250	K 22	-	45	46	30	47,5	54	28	12	13	4	Size 4

Specification

- Handwheels see page 169 respectively standard sheets
- Coupling elements
 - Coupling attachments GN 000.4 → Page 170
 - Coupling attachments GN 000.5 → Page 171
- Keway P9 DIN 6885/2 → Page 1125
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The use of coupling attachments in handwheels other than specified on this sheet is also possible.

see also...

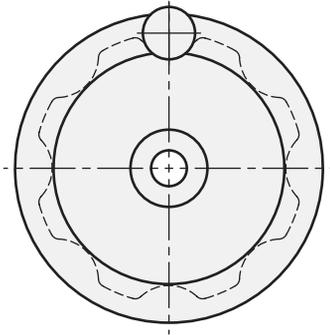
- More information to safety handwheels → Page 166 / 167
- Countersunk washers GN 184 (for axial fixing) → Page 542

* Insert the code-no. of the desired handwheels (see Page 169) (here in How to order: GN 321).

How to order	1	d ₁
	2	d ₂
	3	Type
	4	Mode
GN321.4-160-K16-D-ZI		

Safety handwheels

Overview of types

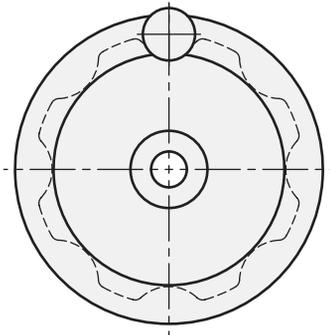


Disc handwheels GN 321 → Page 163

Aluminium
Rim polished

handles GN 598 → Page 26

Steel
plastic coated
black, textured finish

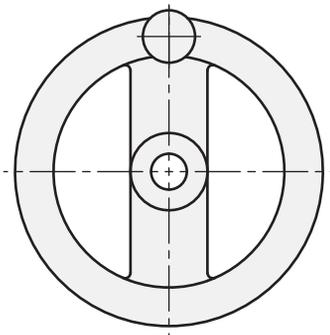


Disc handwheels GN 323 → Page 163

Aluminium
plastic coated
black, textured finish

handles GN 598 → Page 26

Steel
plastic coated
black, textured finish



Spoked handwheels GN 322 → Page 164

Aluminium
Rim polished

handles GN 598 → Page 26

Steel
plastic coated
black, textured finish

1.1

1.2

1.3

1.4

1.5

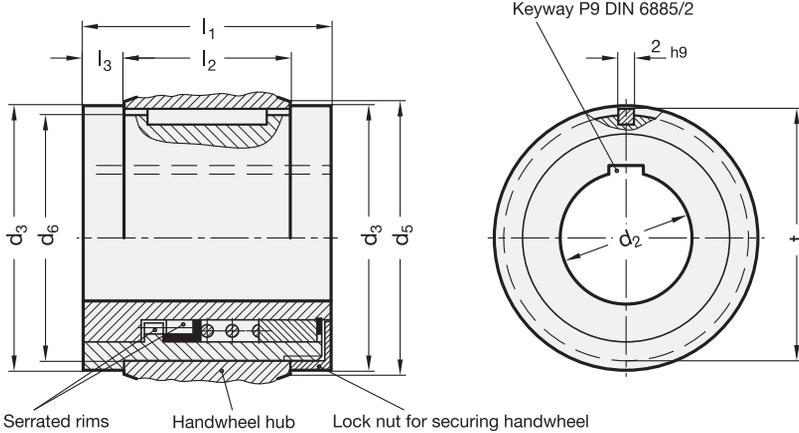
1.6

1.7

1.8

1.9





No.	d ₁ Ø Handwheel GN 321 GN 322 GN 323	d ₂ H7 Bore with keyway		d ₃	d ₄ max. see page 168	d ₅ Minimum- Ø of handwheel hub	d ₆ -0,03 Bore-Ø of hub d ₆ H7	l ₁	l ₂ ±0,1 Length of handwheel hub	l ₃	t	w min. see page 168
1	125	K 12	-	28	17	29	25	28,5	18	5	26	4
1	140	K 12	-	28	17	29	25	28,5	19	5	26	4
2	140	K 14	K 16	32	21	33	29	32,5	19	6	30	4
2	160	K 14	K 16	32	21	33	29	32,5	20	6	30	4
3	200	K 18	K 20	38	26	39	35	36,5	24	6	36	4
4	250	K 22	-	45	30	46	41	47,5	28	12	42	4

Specification

- Steel nitrided
- Bearing surface ground and / or PTFE-coated
- Keyway P9 DIN 6885/2 → Page 1125
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The PTFE-coated surfaces of the coupling attachments GN 000.4 provide minimal friction between bearing surfaces even when lubrication is being neglected.

An oil-hole is provided which in the completely assembled safety handwheel connects with the wheel hub.

see also...

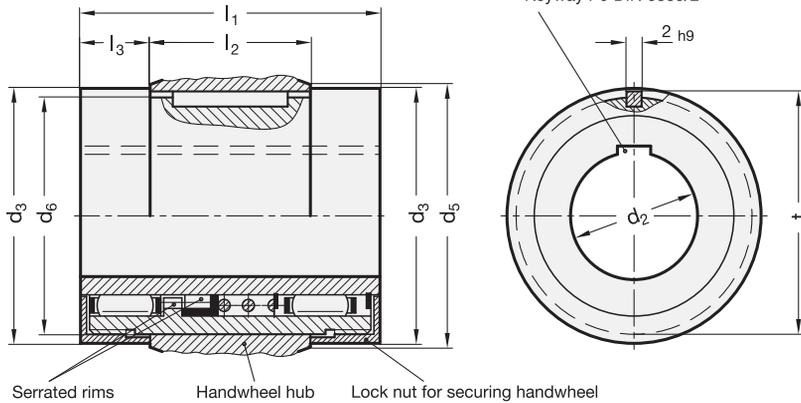
- More information to safety handwheels → Page 166

How to order

GN000.4-2-K14

1 No.

2 Keyway d₂



No.	d ₁ Ø Handwheel GN 321 GN 322 GN 323	d ₂ H7 Bore with keyway	d ₃	d ₄ max. see Page 168	d ₅ Minimum-Ø of hand- wheel hub	d ₆ -0.05 Bore- Ø of hub d ₆ H7	l ₁	l ₂ ±0.1 Length of handwheel hub	l ₃	t	w min. see Page 168
1	125	K 12	29	17	29	25	42	18	12	26	4
1	140	K 12	29	17	29	25	42	19	12	26	4
2	140	K 14	33	21	33	29	48	19	14	30	4
2	160	K 14	33	21	33	29	48	20	14	30	4
3	200	K 18	39	26	39	35	50	24	13	36	4
4	250	K 22	46	30	46	41	54	28	13	42	4

Specification

- Steel hardened
- Bearing surfaces ground
- Keyway P9 DIN 6885/2 → Page 1125
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The use of needle bearings and the hardened bearing surfaces make the clutch engagement extremely easy. This is also assisted by the finer teeth of the clutch and the increased length of the coupling attachment. Its suitability for high shaft speeds, especially when these are maintained for long periods, is a further advantage of the needle bearing.

An oil-hole is provided which in the completely assembled safety handwheel connects with the wheel hub.

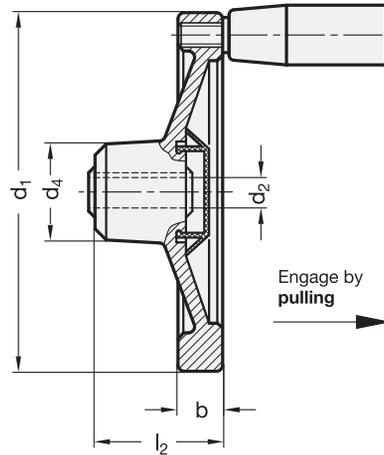
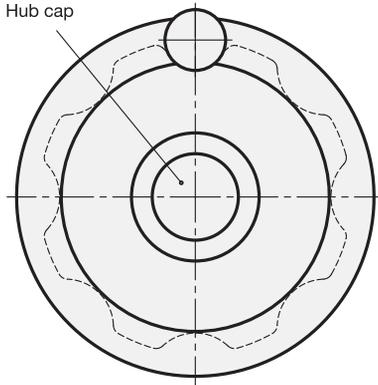
see also...

- More information to safety handwheels → Page 166 / 167

How to order

GN000.5-4-K22

1	Nr.
2	Keyway d ₂



- 3** Type
A without handle
D with revolving handle

1 **2**

d_1	d_2 H7 Bore with keyway		d_3	d_4	d_5	d_6 max.	b	h	l_1	l_2	Ø Handle	
140	K 12	K 14	K 16	24	42	40	23	16,5	7	45	58	23
160	K 12	K 14	K 16	24	42	40	23	18	7	45	58	26

Specification

- Handwheel body
Aluminium
- Rim turned and polished
- unmachined surface
 plastic coated
 black, textured finish
- Coupling attachments
- Steel, hardened
- Glide surfaces honed
- Hub cap
Plastic, light grey
- Revolving handles GN 598
Steel, plastic coated
black, textured finish
- Keyway P9 DIN 6885/2 → Page 1125
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The hub cap protects the bearing from the ingress of dust and at the same time acts as a shroud for the mounting components.

The wheel hub is fitted with an inside groove to retain the hub cap on its segmented edge.

The hub cap is pushed into position by hand and it can be removed by levering it away at the relieved point with a screw driver.

The needle bearings are greased on assembly which should be ample for permanent lubrication.

see also...

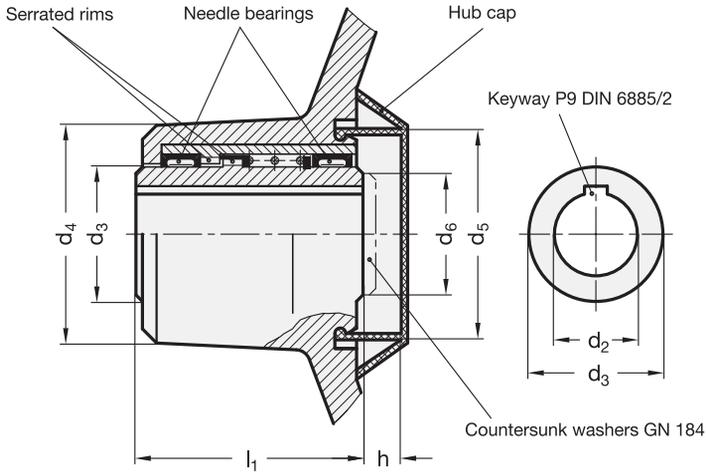
- More information to safety handwheels → Page 166 / 167
- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

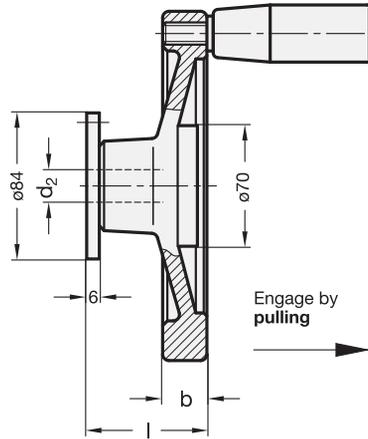
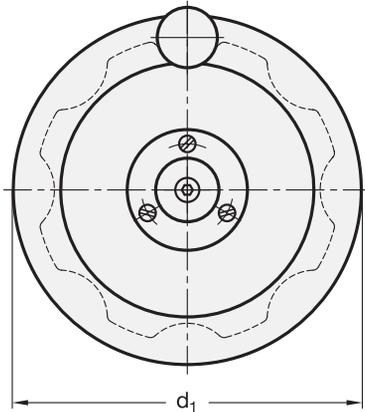
GN321.6-160-K14-D

- 1** d_1
- 2** Keyway d_2
- 3** Type

Details hub with coupling attachments



1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
—



3 Type

- A without handle
- D with revolving handle

4 Identification no.

- 1 with bearing bush
- 2 with centring ring

1

2

d ₁	d ₂ H7 Bore with keyway				b	Length l	Ø Handle
160	K 14	K 16	K 18	K 20	18	66	26
200	K 14	K 16	K 18	K 20	20,5	68	26

Specification

- Handwheel body
Aluminium
Rim turned and polished
- Coupling attachments
 - Steel, nitrided
 - Bearing surface ground and / or PTFE-coated
 - Bearing flange blackened
- Revolving handles GN 598
Plastic, Duroplast
black, shiny finish
- Keyway P9 DIN 6885/2 → Page 1125
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Safety handwheels GN 327 feature the ultimate in health and safety at work standards because the handwheel, if disengaged, is mounted on a fixed component, the bearing flange. The wheel is fully disengaged from the rotating shaft.

The bearing flange can also accept the bearing of the shaft via the bearing bushing (identification no. 1). This bearing bushing is a dry bearing (DU bushing). Normally, the shaft has a separate bearing and the bearing bushing serves to center the bearing flange.

Centering can also be effected by a centering ring (identification no. 2) if the appropriate bore hole has been made at the machine side. In this case there is no need for the bearing bushes and no bearing friction (heating) will occur.

see also...

- More information to safety handwheels → Page 166 / 167

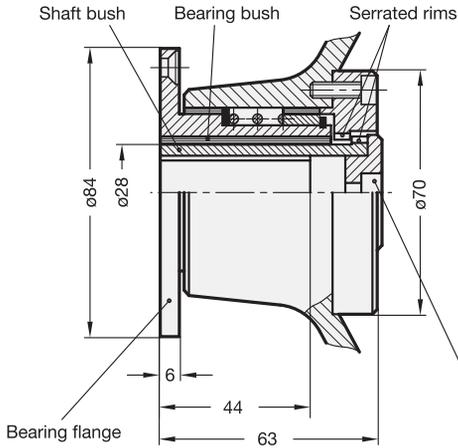
How to order

GN327-160-K16-A-1

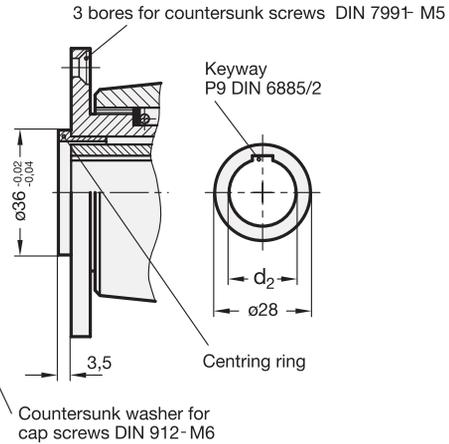
1	d ₁
2	d ₂
3	Type
4	Mode

Details hub with coupling attachments

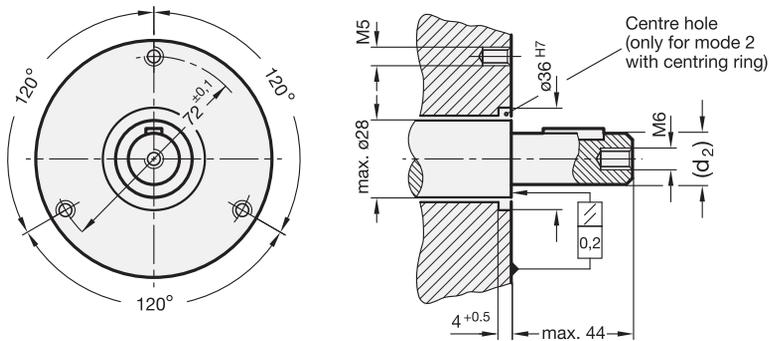
with bearing bush: Mode 1



with centring ring: Mode 2



Specification of shaft and dimensions



Assembly instructions

Shaft bush and countershaft pulley are delivered in two separate components. Before assembly, make sure that the shaft bush can be pushed smoothly and free-moving over the shaft.

Proper function is guaranteed only if:

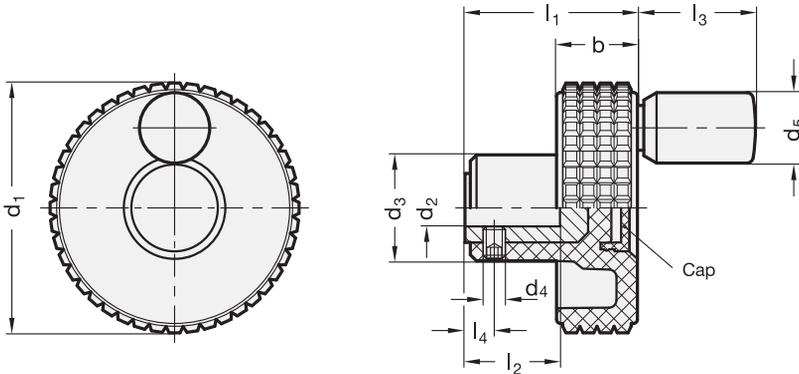
- shaft bush and bearing surface are level with each other
- the shaft axis lies at a right angle to the bearing surface on the machine side.

Design with bearing bush (Mode 1)

Push the handwheel and the shaft bush at the same time over the shaft, bolt down the bearing flange, and fix the shaft bush axially with the countershaft pulley.

Design with centring ring (Mode 2)

The handwheel can be bolted at once through the centring ring above the bearing flange. Then push the shaft bush onto the shaft and fix it axially with the countershaft pulley.



elesa

ELESA original design MBT+I



3 Type

D with revolving knob

1 d_1	2 d_2 H9 Bore	d_3	d_4	d_5	b	l_1	l_2	l_3	l_4
40	B 6	17	M 4	13,5	14	26,5	14	20	4
50	B 6	20	M 5	13,5	17	33	18	20	5
60	B 8	23	M 5	16	20,5	39	20	23	6
70	B 10	24	M 5	16	21,5	42	25	23	6
85	B 10	29	M 5	16	20	30,5	22	23	6
100	B 10	35	M 5	16	20	31	22	23	6

Specification

- Plastic Technopolymer (Polypropylene PP)
 - reinforced, shock-resistant
 - temperature resistant up to 90 °C
 - black, matt
- Bush Brass
- Grub screw DIN 916 with internal hexagon and serrated point
- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- RoHS compliant

On request

- Cap in other colours

Information

Control handwheels GN 735 are used for setting operations with low torque.

Coarse setting is made by means of the cylindrical handle (fingertip grip) followed by fine setting using the knurled rim of the handwheel.

see also...

- Control handwheels GN 736 / 736.1 (Aluminium) → Page 178 / 179

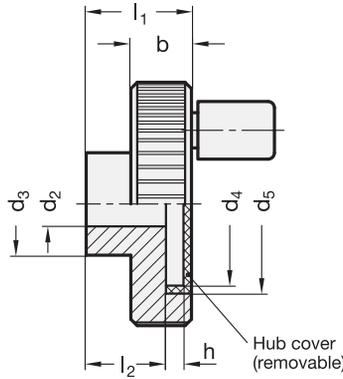
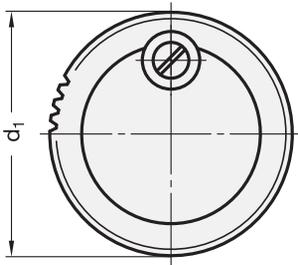
How to order

GN 735-40-B6-D

- 1** d_1
- 2** d_2
- 3** Type



Control handwheels
GN 735 → Page 176
GN 736 → Page 178
GN 736.1 → Page 179



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- A** without handle
- D** with revolving handle

1

3

d₁	d₂ H8 Bore	d₃	d₄	d₅	b -0,5	h	l₁	l₂	Ø Handle
52	10	22	37	39,5	13	3,8	23	17	13
62	10	25	47	49,5	13	3,8	23	17	14

Specification

- Aluminium anodized, black
- Hub cover Plastic, light grey
- Revolving cylindrical handles GN 599.5 Plastic, Technopolymer black, matt
- *Keyway P9 DIN 6885 → Page 1124*
- *Cross holes GN 110 → Page 1127*
- *ISO-Fundamental Tolerances → Page 1132*
- **RoHS compliant**

Information

Control handwheels GN 736 are used for setting operations with low torque.

Coarse setting is made by means of the cylindrical handle (fingertip grip) followed by fine setting using the knurled rim of the handwheel.

see also...

- *Control handwheels GN 735 (Plastic) → Page 176*
- *Countersunk washers GN 184 (for axial fixing) → Page 542*

How to order

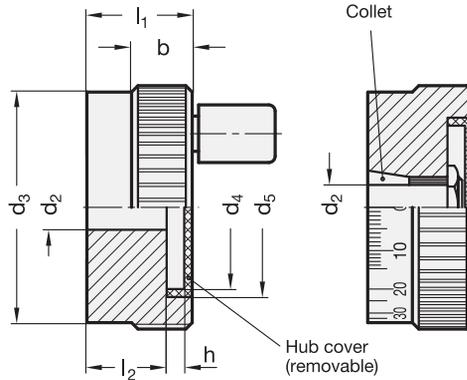
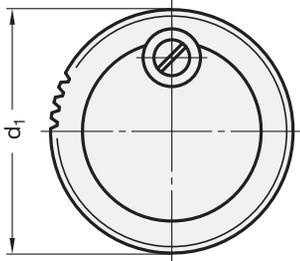
GN 736-52-B10-D

1 d₁

2 Bore code

3 d₂

4 Type



2 Bore code

- B without keyway
- K with keyway
- Z with collet

4 Type

- A without handle
- D with revolving handle

5 Coding

- S with standard scale
0...90, 100 graduations
acc. scale scheme
d₁/100 A RA 0-10 20...90/10
(only for bore code Z)

1

3

d ₁	d ₂ H8 Bore	d ₃	d ₄	d ₅	b -0,5	h	l ₁	l ₂	Ø Handle
52	10	50	37	39,5	13	3,8	23	17	13
62	10	60	47	49,5	13	3,8	23	17	14

Specification

- Aluminium anodized, black
- Standard scale (coding **S**) engraved
- Hub cover Plastic, light grey
- Collet / Hexagon nut Brass
- Revolving cylindrical handles GN 599.5 Plastic, Technopolymer black, matt
- Keyway P9 DIN 6885 → Page 1124
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Control handwheels GN 736.1 are used for setting operations with low torque. Coarse setting is made by means of the cylindrical handle (fingertip grip) followed by fine setting using the knurled rim of the handwheel.

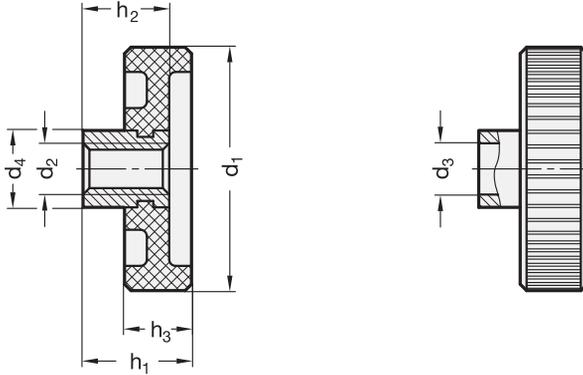
The model fitted with collet offers an absolutely reliable mounting on the shaft and at the same time allows an easy setting of the adjustable scale ring wheel. The scale is wear resistant and easily legible since the engraved alu coloured numbers contrast with the black anodized surface. Besides the standard scale (Coding S) the control handwheels can be supplied with any type of graduation. For full details of the available graduations, numbering sequence, number position and type of scale, see page 337.

see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

Control handwheel	1 d ₁
	2 Bore code
GN 736.1-62-B10-A	3 d ₂
	4 Type

Control handwheel with scale	1 d ₁
	2 Bore code
	3 d ₂
	4 Type
GN 736.1-52-Z10-D-S	5 Coding



² d₁	³ d₂ Thread		³ d₃ H7 Bore		d₄	h₁	h₂	h₃
50	M 8	M 10	B 8	B 10	18	25	20	15
63	M 10	M 12	B 10	B 12	20	30	24	18
80	M 16	-	B 12	B 16	25	36	29	22

Specification

- Plastic
Technopolymer (Polyamide PA)
- shock-resistant
- black, matt finish
- Hub
Steel, blackened
- *Cross holes GN 110* → Page 79
- *ISO-Fundamental Tolerances* → Page 1132
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

On request

- without bore

¹ **Information**

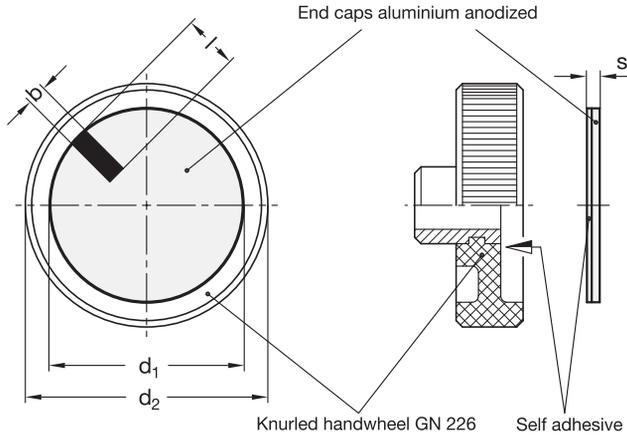
KT

Knurled handwheels GN 226 are mainly used instead of star and hand knobs for light adjusting or clamping applications.

How to order

¹ ² ³
GN226-KT-50-M10

1	Material
2	d₁
3	d₂ (d₃)



2 Type

- A with black symbol
- B neutral

1

d ₁	d ₂ Knurled handwheel	b	Length l	s
39	50	4	10	0,4
52	63	5	12	0,4
67	80	6	15	0,4

Specification

- Aluminium
 - anodized, matt natural colour
 - Symbol black
 - self-adhesive
- RoHS compliant

Information

Cover discs GN 226.1 not only improve the appearance of the knurled handwheels GN 226 , but also widen the range of applications.

Apart from the standard symbol, diagrams and or other symbols can be printed.

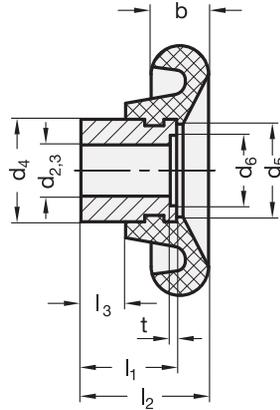
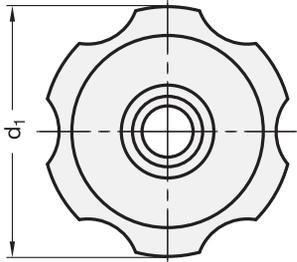
Cover discs and knurled handwheels are supplied separately.

How to order

GN226.1-52-A

1	d ₁
2	Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9




ELESsa Original design VL.640 FP

3 Type

- B** with plain through bore H7
D with threaded through bore

1 $d_1 +1$	2 d_2 H7 Bore	2 d_3 Thread	d_4	d_5	d_6	t	b	$l_1 -0,5$	l_2	l_3
50	B 8	M 8	20	18	-	-	13	21	29	10
50	B 10	M 10	20	18	-	-	13	21	29	10
60	B 10	M 10	25	24	-	-	16	23	30	11
60	B 12	M 12	25	24	-	-	16	23	30	11
70	B 12	M 12	30	29	18,1	0,8	18	25	33	12
70	B 14	-	30	29	21,4	1,5	18	25	33	12
80	B 14	M 14	35	34	18,1	0,8	19	30	40	15
80	B 16	M 16	35	34	21,4	1,5	19	30	40	15

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 120 °C
- black, shiny finish
- Hub
Steel, blackened
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- RoHS compliant

On request

- without bore

Information

Handwheels with a crenellated rim GN 527.1 are very sturdy Control wheels which can be used either as Control wheels or for clamping purposes.

Worth mentioning is the deliberately large hub bore. They also lend themselves to applications where a large contact face or a large bore is required.

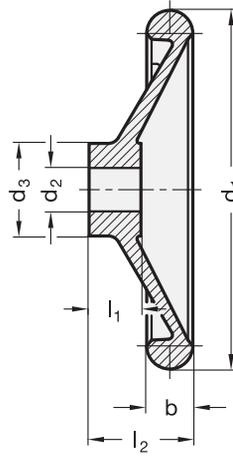
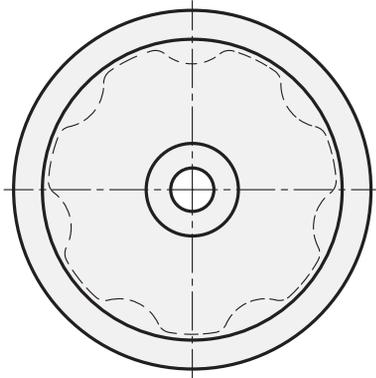
see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

GN527.1-80-M16-D

1	d_1
2	d_2 (d_3)
3	Type



2 Bore code

- B** without keyway
- K** with keyway

1

3

d₁	d₂ H7 Bore			d₃	b	l₁	l₂ ≈
80	10	12	-	26	14	16	29
100	10	12	-	28	15	17	33
125	12	14	-	31	16	18	36
160	14	16	-	36	18	20	40
200	18	20	22	42	22	24	45
250	22	24	26	48	26	28	50
315	26	28	30	56	28	33	56
400	30	32	-	65	32	38	63

Specification

- Aluminium
 - Hub machined
 - Rim turned and polished
 - Unmachined body shot-blasted
- Rim concentric and square to bore < 0,4
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Disc handwheels DIN 3670 have recessed grips at their back. As a rule they are supplied without handle, but the mounting of a handle is possible.

see also...

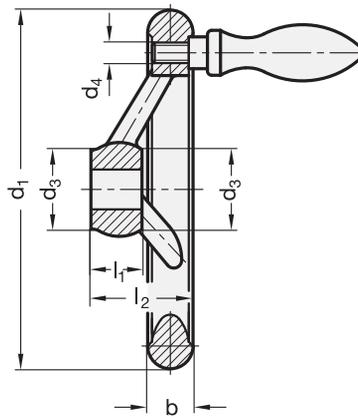
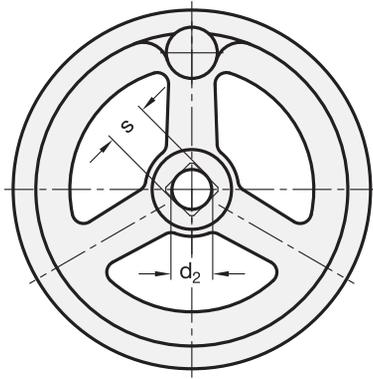
- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

DIN 3670-125-K12

1	d₁
2	Bore code
3	d₂

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Bore code

- B** without keyway
- K** with keyway
- V** with square

5 Type

- A** without handle
- F** with fixed handle
- D** with revolving handle

2 d ₁	4 d ₂ H7 Bore			4 s H11 Square	d ₃ ≈	d ₄	b	l ₁	l ₂ ≈	Ø Handle	No. of spokes
80	10	12	-	V 9	24	M 6	14	16	29	16	3
100	10	12	-	V 9	26	M 6	15	17	33	16	3
125	12	14	-	V 11	28	M 8	16	18	36	20	3
140	14	16	-	-	30	M 8	17	19	39	20	3
160	14	15	16	V 12	33	M 10	18	20	40	25	3
180	16	18	-	-	35	M 10	20	22	43	25	3
200	18	20	22	V 14	38	M 10	22	24	45	25	3
250	22	24	26	V 17	48	M 12	26	28	50	32	5
315	26	28	30	V 19	53	M 12	28	33	56	32	5
400	30	32	34	V 24	65	M 12	32	38	63	32	5
500	34	36	40	V 27	78	M 12	34	45	72	32	5

Specification

- Cast iron **GG**
 - Hub machined
 - Rim turned und polished
- Aluminium **AL**
 - Hub machined
 - Rim turned und polished
 - unmachined body shot-blasted
- Rim concentric and square to bore < 0,4
- Handles DIN 39 / DIN 98
Steel, zinc plated bzw.
Plastic, Technopolymer black
- Keyway P9 DIN 6885 → Page 1124
- Square DIN 79 → Page 1126
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

1

Information

Handwheels DIN 950-GG (cast iron) are supplied with revolving handles DIN 98 made of zinc plated steel. Handwheels DIN 950-AL (aluminum) are supplied with revolving handles DIN 98 made of plastic.

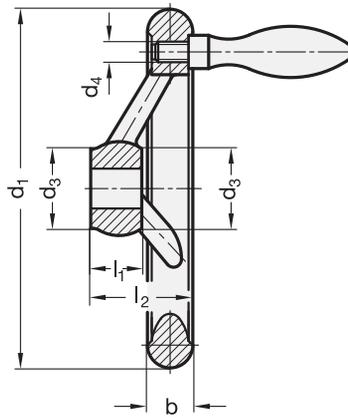
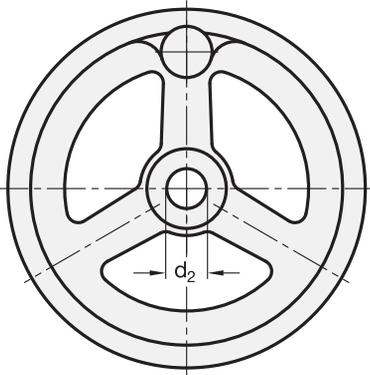
see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

1 Material
2 d ₁
3 Bore code
4 d ₂ (s)
5 Type

DIN 950-GG-160-B14-A



Rostfrei
Inox
Stainless
Steel

2 Bore code

- B without keyway
- K with keyway

4 Type

- A without handle
- F with fixed handle

1 d ₁	3 d ₂ H9 Bore	d ₃ ≈	d ₄	b	l ₁	l ₂ ≈	Ø Handle	No. of spokes
100	10	25,5	M 6	14,5	17	33	16	3
125	12	27	M 8	15,8	18	35,5	20	3
140	14	29	M 8	17	19	38,5	20	3
160	14	31	M 10	17,5	20	39,5	25	3
200	18	37	M 10	20	24	44,5	25	3

Specification

- Stainless Steel precision casting
 - AISI 316
 - acid-resistant (A4-Quality)
 - Hub machined
 - Rim turned and polished
 - unmachined surface matt shot-blasted
- Stainless Steel-Handle
 - AISI 316L
 - acid-resistant (A4-Quality)
- *Keyway P9 DIN 6885* → Page 1124
- *Cross holes GN 110* → Page 1127
- *ISO-Fundamental Tolerances* → Page 1132
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

On request

- other bore-Ø
- with square

Information

The dimensions of the Stainless Steel-Handwheels GN 950.6 comply extensively with Handwheels DIN 950..

see also...

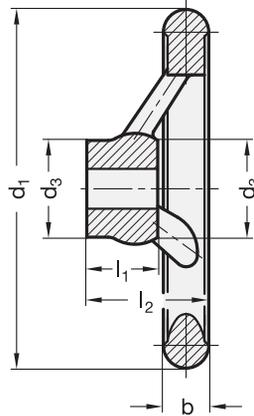
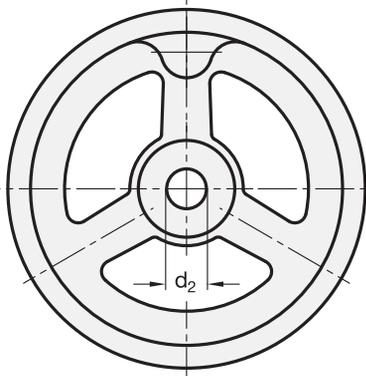
- *St. Steel-Countersunk washers GN 184.5 (for axial fixing)* → Page 542

How to order

GN950.6-160-B14-F

- 1** d₁
- 2** Bore code
- 3** d₂
- 4** Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Bore code

- B** without keyway
- K** with keyway

5 Type

- A** without handle
- D** with revolving handle

2

4

d ₁	d ₂ H7 Bore	d ₃	b	l ₁	l ₂ ≈	Ø Handle	No. of spokes
125	14	34	16	26	45	20	3
160	16	45	18	32	52	25	3
200	20	50	22	38	59	25	3
250	24	56	26	44	66	32	5

Specification

1

- Cast iron **GG**
 - Hub machined
 - Rim turned und polished
- Rim concentric and square to bore < 0,4
- Revolving handles DIN 98
Steel, zinc plated
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Handwheels GN 950.1 differ from normal handwheels DIN 950 only by the larger hub.

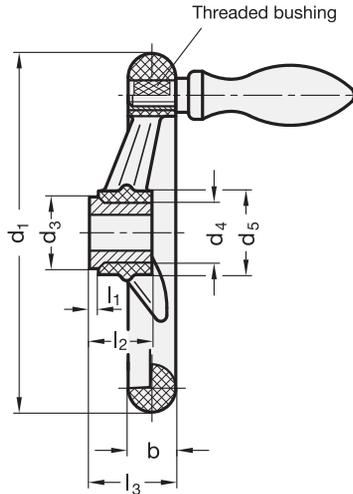
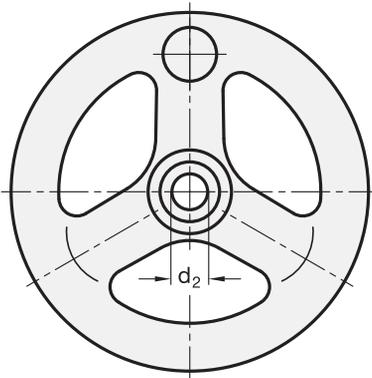
see also...

- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

1	Material
2	d ₁
3	Bore code
4	d ₂
5	Type

GN950.1-GG-125-K14-A



2 Bore code

- B without keyway
- K with keyway

4 Type

- A without handle
- D with revolving handle

1

3

d ₁	d ₂ H7 Bore	d ₃	d ₄	d ₅	b	l ₁ -0,5	l ₂ -0,5	l ₃ ≈	Ø Handle	No. of spokes
100	10	12	25	19	28	-	23	28	16	3
125	12	14	24	20	30	1	25	35	20	3
140	14	16	32	24	36	3	26	35	20	3
160	14	16	32	24	37	5	28	40	25	3
200	18	20	40	31	45	4	33	45	25	3
250	22	24	49	38	56	7	36	58	32	3
300	26	30	58	47	70	2	40	65	32	3

Specification

- Plastic
Duroplast (Phenolic PF)
- reinforced
- temperature resistant up to 110 °C
- black, shiny finish
- Moulding flash removed and polished
- Hub bush
Steel, blackened
- Threaded bush
Brass
- Revolving handles DIN 98
Plastic, Technopolymer
black, matt
- *Keyway P9 DIN 6885* → Page 1124
- *ISO-Fundamental Tolerances* → Page 1132
- *Strength properties* → Page 1138
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

Face and bore are machined **after** the steel insert is pressed in, resulting in concentricity and squareness of rim.

They are also available without bore.

see also...

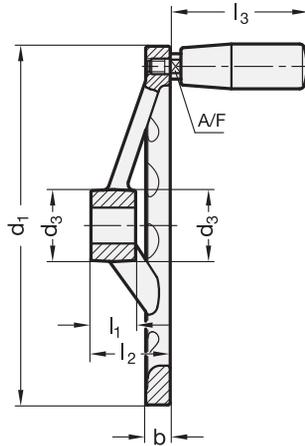
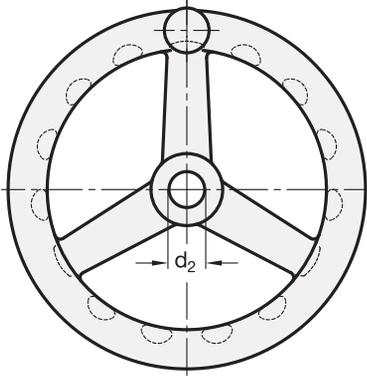
- *Countersunk washers GN 184 (for axial fixing)* → Page 542

How to order

GN555-160-K16-D

1	d ₁
2	Bore code
3	d ₂
4	Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Rostfrei | Inox
Stainless
Steel

2 Bore code

- B** without keyway
- K** with keyway

4 Type

- A** without handle
- D** with revolving handle

1

3

d_1	d_2 H8 Bore		d_3	b	l_1	$l_2 \approx$	$l_3 \approx$	A/F	Ø Handle	No. of spokes
100	10	12	20	7	15	27,5	45	9	18	3
125	12	14	24	9	16	28,5	55	9	21	3
140	14	16	28	10	18	30,5	71	11	23	3
160	14	16	31	11	20	35,5	71	11	23	3
200	18	20	36	14	23	39	71	11	23	3

Specification

- Stainless Steel precision casting
 - AISI CF-8
 - Hub machined
 - Rim turned
 - matt shot-blasted
- Revolving handles similar to GN 598.1
 - Plastic, Duroplast black, shiny finish
 - Spindle Stainless Steel AISI 304
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- Stainless Steel characteristics → Page 1144
- RoHS compliant

Information

The design of Stainless Steel-Handwheels GN 949 complies with the requirements of hygiene standards.

The revolving handles are made of Duroplast which, in general, provides good resistance to the impact of chemical agents.

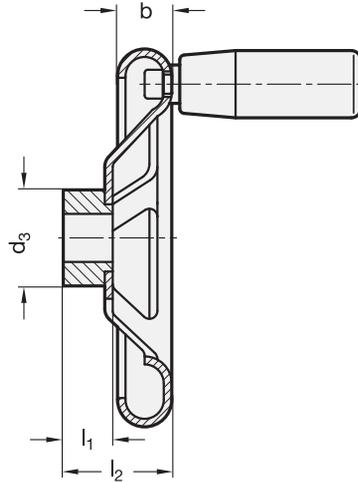
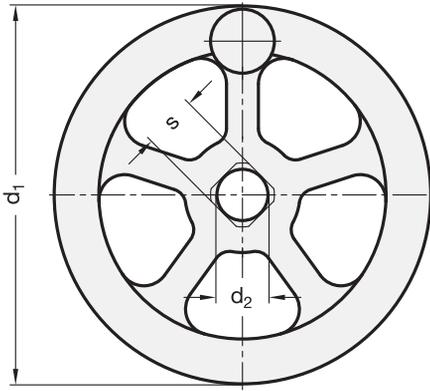
see also...

- *Stainless Steel-Countersunk washers GN 184.5* → Page 542 (for axial fixing)
- *Stainless Steel-Handwheels GN 950.6 (A4-Quality)* → Page 185

How to order

GN949-125-B12-A

- 1** d_1
- 2** Bore code
- 3** d_2
- 4** Type



Rost frei
Inox
Stainless
Steel

2 Bore code

- B** without keyway
- K** with keyway
- V** with square

4 Type

- A** without handle
- D** with revolving handle

1

3

d ₁	d ₂ H9 Bore	s H11 Square	b	d ₃	l ₁	l ₂ ≈	Ø Handle	No. of spokes	Thickness of pressed stainless steel (mm)
160	12	V 12	22	30	20	39	26	4	2
200	14	V 14	22	40	24	44	26	4	2,5
250	17	V 17	30	45	28	52	28	5	3
315	19	V 19	36	55	33	64	28	5	3
400	24	V 24	43	65	38	81	28	5	3

Specification

- Stainless Steel AISI 304
 - matt shot-blasted
 - Wheel body, pressed Stainless Steel
 - Hub welded
- Revolving handles similar to GN 598.1
 - Plastic, Duroplast black, shiny finish
 - Spindle Stainless Steel AISI 304
- Keyway P9 DIN 6885 → Page 1124
- Square DIN 79 → Page 1126
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

Information

The hub lengths of the pressed Stainless Steel-Handwheels GN 227.2 conform to DIN 950.

Stainless Steel-Handwheels GN 227.2 are renowned for their high mechanical strength. They are not affected by shock and knocks. They are of an attractive design and shape at reasonable cost.

see also...

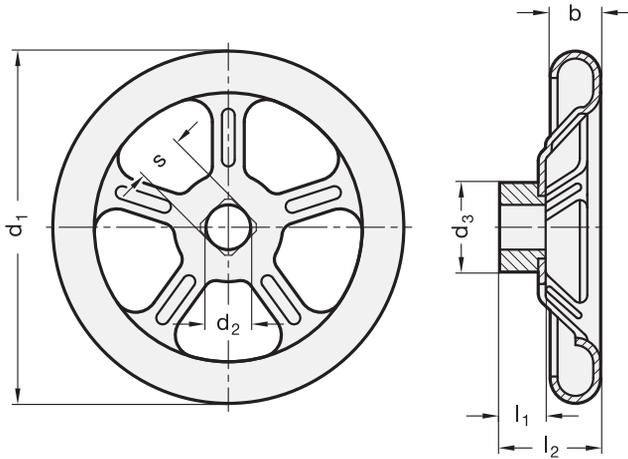
- *Stainless Steel-Countersunk washers GN 184.5* → Page 542 (for axial fixing)

How to order

GN227.2-200-B14-A

- 1** d₁
- 2** Bore code
- 3** d₂
- 4** Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



2 Bore code

- B** without keyway
- K** with keyway
- V** with square

1

3

d ₁	d ₂ H9 Bore	s H11 Square	b	d ₃	l ₁	l ₂ ≈	No. of spokes	Thickness of pressed steel
125	11	V 11	18	30	18	29	3	1,5
160	12	V 12	22	30	20	37	4	1,5
200	14	V 14	22	40	24	46	4	2,5
250	17	V 17	30	45	28	52	5	2,5
315	19	V 19	35	55	33	64	5	2,5
400	24	V 24	40	65	38	82	5	3

Specification

- Pressed Steel plastic coated black, textured finish **● SW**
- Hub Steel, welded
- Keyway P9 DIN 6885 → Page 1124
- Square DIN 79 → Page 1126
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- with conical square VK
- with revolving handle

4

Information

The hub lengths of the pressed steel handwheels GN 227.1 conform to DIN 950.

Pressed steel handwheels GN 227.1 are renowned for their high mechanical strength. They are not affected by shock and knocks.

see also...

- Stainless Steel-Handwheels GN 227.2 → Page 189
- Countersunk washers GN 184 (for axial fixing) → Page 542

How to order

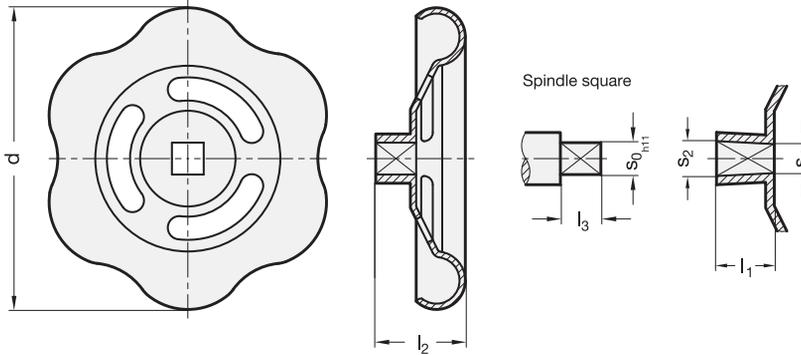
GN 227.1-200-V14-SW

1 d₁

2 Bore code

3 d₂ (s)

4 Colour



d	Square s ₀	s ₁ -0,1	s ₂ -0,1	l ₁ ±0,5	l ₂	l ₃ -1	No. of spokes
50	V 6	5,8	6,15	9	15,5	8	3
50	V 7	6,8	7,15	9	15,5	8	3
60	V 6	5,8	6,15	9	16,5	8	3
60	V 7	6,8	7,15	10	17,5	9	3
70	V 7	6,8	7,15	10	19	9	3
70	V 8	7,8	8,15	10	19	9	3
80	V 8	7,8	8,15	11	20	10	3
80	V 9	9,0	9,15	12	20	11	3
90	V 9	8,8	9,15	12	24	11	3
100	V 9	9,0	9,20	13	24	12	4
100	V 10	9,8	10,20	13	24	12	4
120	V 11	11,0	11,20	14	31	13	4
120	V 12	12,0	12,25	16	32,5	14	4
140	V 12	12,0	12,25	16	32,5	14	4
160	V 14	14,0	14,25	20	37	18	4

Specification

- Pressed Steel plastic coated black, RAL 9005 red, RAL 3000 uncoated

- SW
- RT
- RH

- RoHS compliant

Information

Pressed steel handwheels GN 227 have been specially developed for valves and they offer definite advantages:

They consist of a single unwelded piece of pressed sheet metal manufactured by a special process to give a re-inforced hub. They offer high mechanical strength and are not affected by shocks and knocks.

They are resistant to temperature and fire and not weakened by any ageing process.

The slightly tapered square hole allows easy installation and firm seating on a spindle.

How to order GN 227-60-V7-SW	1	d
	2	s ₀
	3	Colour



1.5 Adjustable hand levers Ratchets



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9



1.5 Adjustable hand levers, Ratchets



 <p>GN 300 Adjustable hand levers Zinc die casting</p> <p>→ Page 196</p>	 <p>GN 300.5 Adjustable hand levers with external hexagon, Stainless Steel</p> <p>→ Page 201</p>	 <p>GN 302 Adjustable hand levers straight lever, Zinc die casting</p> <p>→ Page 210</p>
 <p>GN 300 Adjustable hand levers Zinc die casting</p> <p>→ Page 197</p>	 <p>GN 303 Adjustable hand levers with push button, Zinc die casting</p> <p>→ Page 202</p>	 <p>GN 302 Adjustable hand levers straight lever, Zinc die casting</p> <p>→ Page 211</p>
 <p>GN 300.1 Adjustable hand levers Zinc die casting / Stainless Steel</p> <p>→ Page 198</p>	 <p>GN 303 Adjustable hand levers with push button, Zinc die casting</p> <p>→ Page 203</p>	 <p>GN 101 Adjustable hand levers Zinc die casting</p> <p>→ Page 212</p>
 <p>GN 300.1 Adjustable hand levers Zinc die casting / Stainless Steel</p> <p>→ Page 199</p>	 <p>GN 303.1 Adjustable hand levers with push button, Zinc die casting / Stainless Steel</p> <p>→ Page 204</p>	 <p>GN 101 Adjustable hand levers Zinc die casting</p> <p>→ Page 213</p>
 <p>GN 300.5 Adjustable hand levers with internal hexagon, Stainless Steel</p> <p>→ Page 200</p>	 <p>GN 303.1 Adjustable hand levers with push button, Zinc die casting / Stainless Steel</p> <p>→ Page 205</p>	 <p>GN 604 Adjustable hand levers Plastic</p> <p>→ Page 214</p>
 <p>GN 300.5 Adjustable hand levers with external hexagon, Stainless Steel</p> <p>→ Page 200</p>	 <p>GN 300.4 Adjustable hand levers with increased clamping force</p> <p>→ Page 206</p>	 <p>GN 604 Adjustable hand levers Plastic</p> <p>→ Page 215</p>
 <p>GN 300.5 Adjustable hand levers with internal hexagon, Stainless Steel</p> <p>→ Page 201</p>	 <p>GN 300.4 Adjustable hand levers with increased clamping force</p> <p>→ Page 207</p>	 <p>GN 604.1 Adjustable hand levers Plastic / Stainless Steel</p> <p>→ Page 216</p>

1.5 Adjustable hand levers, Ratchets




GN 604.1
Adjustable hand levers
Plastic / Stainless Steel

→ Page 217



GN 212.5
Adjustable tension levers
Stainless Steel

→ Page 224



GN 125.5
Adjustable flat tension levers
Stainless Steel

→ Page 233



GN 603
Adjustable hand levers with releasing button,
Plastic

→ Page 218



GN 212.5
Adjustable tension levers
Stainless Steel

→ Page 225



GN 99.2
Adjustable clamping levers
Steel

→ Page 234



GN 603
Adjustable hand levers with releasing button,
Plastic

→ Page 219



GN 312
Safety tension levers
Steel

→ Page 226



GN 99.2
Adjustable clamping levers
Steel

→ Page 235



GN 603.1
Adjustable hand levers with releasing button,
Plastic / Stainless Steel

→ Page 220



GN 312
Safety tension levers
Steel

→ Page 227



GN 6337.3
Adjustable clamping levers
Steel

→ Page 236



GN 603.1
Adjustable hand levers with releasing button,
Plastic / Stainless Steel

→ Page 221



GN 125
Adjustable flat tension levers
Steel

→ Page 230



GN 6337.3
Adjustable clamping levers
Steel

→ Page 237



GN 212.3
Adjustable tension levers
Steel

→ Page 222



GN 125
Adjustable flat tension levers
Steel

→ Page 231



GN 316
Ratchet spanner
Steel

→ Page 238



GN 212.3
Adjustable tension levers
Steel

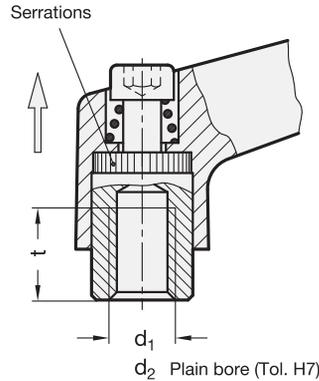
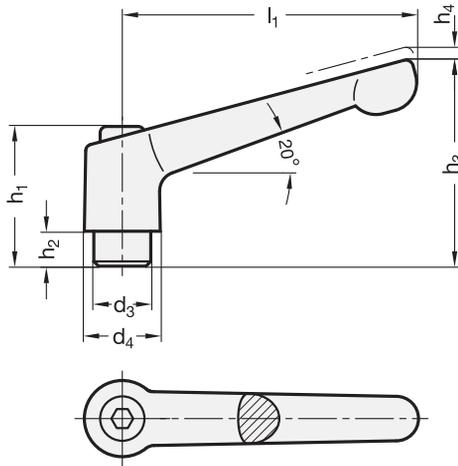
→ Page 223



GN 125.5
Adjustable flat tension levers
Stainless Steel

→ Page 232

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Inch sizes available

1	2			2									
l_1	d_1 Thread			d_2 H7 Bore		d_3	d_4	h_1	h_2	h_3	h_4 Stroke	t min.	
30	M 3	-	-	-	-	10	13	24,5	4	31	3,5	7	
30	M 4	M 5	M 6	B 5	B 6	10	13	24,5	4	31	3,5	9	
45	M 4	M 5	M 6	B 5	B 6	10	13	24,5	4	35	3,5	9	
63	M 6	M 8	-	B 8	-	13,5	17,5	31	6,5	45	4	11	
78	M 8	M 10	-	B 8	B 10	16	21	36	8	55	4	14	
92	M 10	M 12	-	B 12	-	19	24	43	11	65	4	17	
108	M 12	M 14	M 16	B 12	B 16	23	30	50,5	12	76	5	22	

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish
black, RAL 9011, silk finish
orange, RAL 2004, textured finish
red, RAL 3000, textured finish
silver, RAL 9006, textured finish
- chrome-plated
- uncoated
slide grinded
- Threaded insert and retaining screw
Steel (5.8), blackened
- RoHS compliant

- SW
- SZ
- OS
- RS
- SR
- CR
- RH

Information

Adjustable hand levers GN 300 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

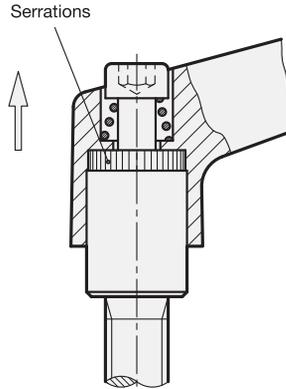
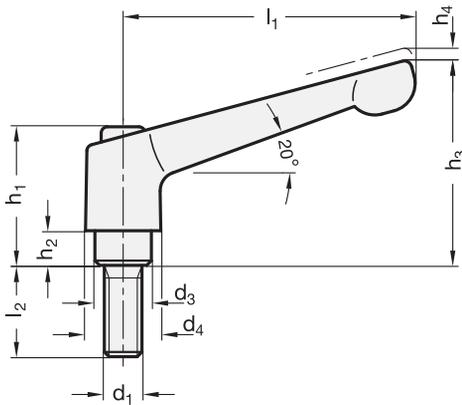
see also...

- Adjustable hand levers GN 300.1 (insert Stainless Steel) → Page 198
- Adjustable Stainless Steel-Hand levers GN 300.5 → Page 200
- Adjustable hand levers GN 302 (straight handle) → Page 210

How to order

GN300-92-M12-SR

- 1 l_1
- 2 d_1 (d_2)
- 3 Colour (Finish)



Inch sizes available

1 2 3

1		2		3														
l_1	d_1	l_2			d_3	d_4	h_1	h_2	h_3	h_4	Stroke							
30	M 3	-	6	8	10	12	16	-	-	-	10	13	24,5	4	31	3,5		
30	M 4	-	12	16	20	25	32	-	-	-	10	13	24,5	4	31	3,5		
30	M 5	M 6	12	16	20	25	32	40	50	-	10	13	24,5	4	31	3,5		
45	M 4	-	12	16	20	25	32	-	-	-	10	13	24,5	4	35	3,5		
45	M 5	M 6	12	16	20	25	32	40	50	-	10	13	24,5	4	35	3,5		
63	M 6	M 8	12	16	20	25	32	40	50	63	13,5	17,5	31	6,5	45	4		
63	M 10	-	20	25	32	40	50	63	80	-	13,5	17,5	31	6,5	45	4		
78	M 8	M 10	16	20	25	32	40	50	63	80	16	21	36	8	55	4		
78	M 12	-	25	32	40	50	63	80	-	-	16	21	36	8	55	4		
92	M 10	M 12	16	20	25	32	40	50	63	80	19	24	43	11	65	4		
92	M 16	-	25	32	40	50	63	80	-	-	19	24	43	11	65	4		
108	M 12	M 16	25	32	40	50	63	80	120	-	23	30	50,5	12	76	5		

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish
black, RAL 9011, silk finish
orange, RAL 2004, textured finish
red, RAL 3000, textured finish
silver, RAL 9006, textured finish
- chrome-plated
- uncoated
slide grinded
- Threaded stud and retaining screw
Steel (5.8), blackened
- RoHS compliant

4

Information

Adjustable hand levers GN 300 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

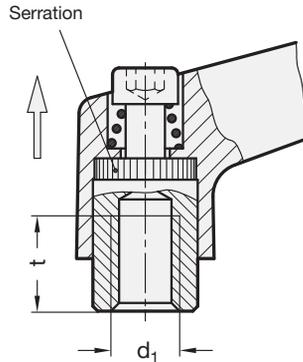
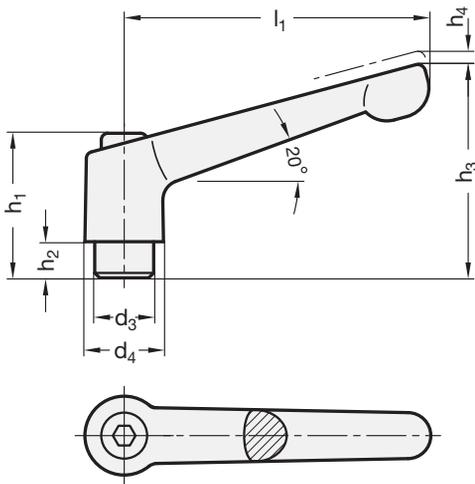
see also...

- Adjustable hand levers GN 300.1 (insert Stainless Steel) → Page 199
- Adjustable hand levers GN 300.5 (Stainless Steel) → Page 201
- Adjustable hand levers GN 302 (straight handle) → Page 211

How to order

GN 300-63-M8-25-SW

1	l_1
2	d_1
3	l_2
4	Colour (Finish)



Inch sizes available

1		2									
l_1	d_1			d_3	d_4	h_1	h_2	h_3	h_4 Stroke	t min.	
30	M 3	-	-	10	13	24,5	4	31	3,5	7	
30	M 4	M 5	M 6	10	13	24,5	4	31	3,5	9	
45	M 4	M 5	M 6	10	13	24,5	4	35	3,5	9	
63	M 6	M 8	-	13,5	17,5	31	6,5	45	4	11	
78	M 8	M 10	-	16	21	36	8	55	4	14	
92	M 10	M 12	-	19	24	43	11	65	4	17	
108	M 12	M 16	-	23	30	50,5	12	76	5	22	

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish ● **SW**
black, RAL 9011, silk finish ● **SZ**
orange, RAL 2004, textured finish ● **OS**
red, RAL 3000, textured finish ● **RS**
silver, RAL 9006, textured finish ● **SR**
- chrome-plated ● **CR**
- uncoated ● **RH**
slide grinded
- Threaded stud and retaining screw
Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

3

Information

Adjustable hand levers GN 300.1 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

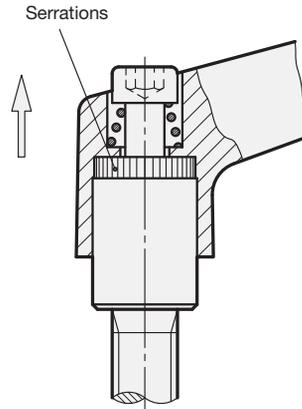
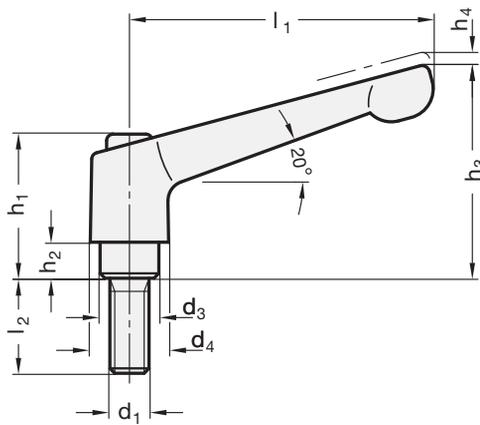
see also...

- *Adjustable hand levers GN 300 (insert steel)* → Page 196
- *Adjustable hand levers GN 300.5 (Stainless Steel)* → Page 200

How to order

GN300.1-78-M10-OS

1	l_1
2	d_1
3	Colour (Finish)



Inch sizes available

1		2		3						d ₃	d ₄	h ₁	h ₂	h ₃	h ₄	Stroke
l ₁	d ₁	l ₂														
30	M 3	-	6	8	10	12	16	-	-	10	13	24,5	4	31	3,5	
30	M 4	-	12	16	20	25	32	-	-	10	13	24,5	4	31	3,5	
30	M 5	M 6	12	16	20	25	32	40	50	10	13	24,5	4	31	3,5	
45	M 4	-	12	16	20	25	32	-	-	10	13	24,5	4	35	3,5	
45	M 5	M 6	12	16	20	25	32	40	50	10	13	24,5	4	35	3,5	
63	M 6	M 8	16	20	25	32	40	50	63	13,5	17,5	31	6,5	45	4	
78	M 8	M 10	20	25	32	40	50	63	80	16	21	36	8	55	4	
92	M 10	M 12	20	25	32	40	50	63	80	19	24	43	11	65	4	
108	M 16	-	32	40	50	63	80	-	-	23	30	50,5	12	76	5	

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish ● **SW**
black, RAL 9011, silk finish ● **SZ**
orange, RAL 2004, textured finish ● **OS**
red, RAL 3000, textured finish ● **RS**
silver, RAL 9006, textured finish ● **SR**
- chrome-plated ● **CR**
- uncoated ● **RH**
slide grinded
- Threaded stud and retaining screw
Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**



Information

Adjustable hand levers GN 300.1 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

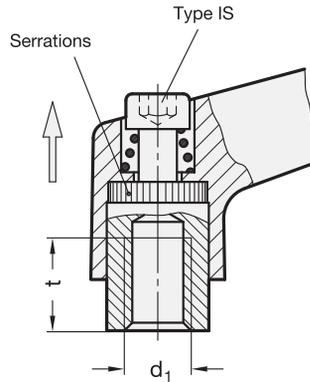
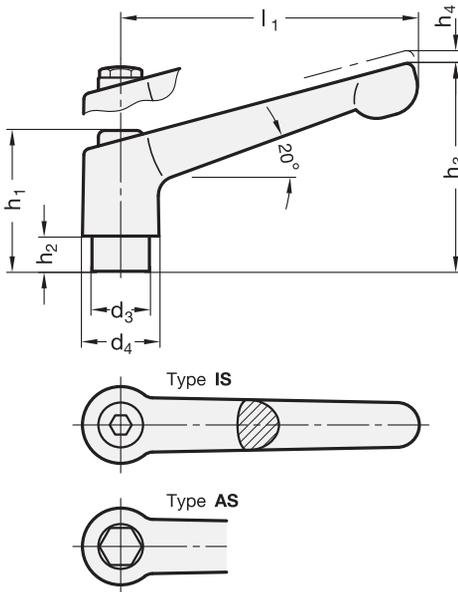
see also...

- *Adjustable hand levers GN 300 (insert steel)* → Page 197
- *Adjustable hand levers GN 300.5 (Stainless Steel)* → Page 201

How to order

GN300.1-63-M8-32- RS

1	l ₁
2	d ₁
3	l ₂
4	Colour (Finish)



Rost free
 Inox Stainless Steel
 Inch sizes available

3 Type
AS with external hexagon
IS with internal hexagon

1

2

l_1	d_1			d_3	d_4	h_1	h_2	h_3	h_4 Stroke	t min.
30	M 3	-	-	10	13	24,5	4	31	3,5	7
30	M 4	M 5	M 6	10	13	24,5	4	31	3,5	9
45	M 4	M 5	M 6	10	13	24,5	4	35	3,5	9
63	M 6	M 8	-	13,5	17,5	31	6,5	45	4	11
78	M 8	M 10	-	16	21	36	8	55	4	14
92	M 10	M 12	-	19	24	43	11	63	4	17

Specification

- Stainless Steel
- Handle
Precision casting AISI CF-8 matt shot-blasted
- Threaded bush
AISI 303
- Retaining crew
AISI 303
- Spring
AISI 301
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

Information

Adjustable hand levers GN 300.5 with full Stainless Steel-Handle, correspond to applications where „agressive“ surrounding conditions are given, or where stainless steel materials are prescribed such as in food processing or chemical industry.

Retaining screws with hexagon head (Type AS) comply with the requirement „prevents water from accumulating“.

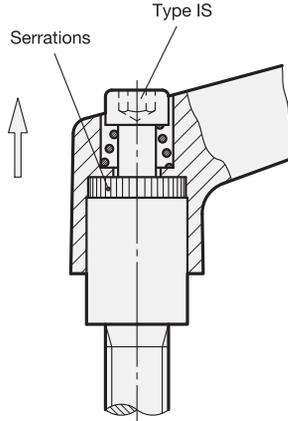
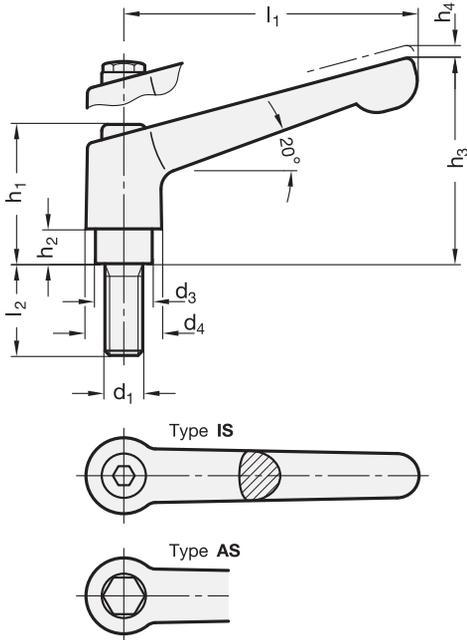
Adjustable hand levers have proved to be ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

How to order

GN300.5-78-M10-AS

- 1** l_1
- 2** d_1
- 3** Type



ROSTFREI Rost free
Inox Stainless Steel
Inch sizes available

3 Type
AS with external hexagon
IS with internal hexagon

1		2		3													
l_1	d_1	l_2								d_3	d_4	h_1	h_2	h_3	h_4	Stroke	
30	M 3	-	6	8	10	12	16	-	-	10	13	24,5	4	31	3,5		
30	M 4	-	12	16	20	25	32	-	-	10	13	24,5	4	31	3,5		
30	M 5	M 6	12	16	20	25	32	40	50	10	13	24,5	4	31	3,5		
45	M 4	-	12	16	20	25	32	-	-	10	13	24,5	4	35	3,5		
45	M 5	M 6	12	16	20	25	32	40	50	10	13	24,5	4	35	3,5		
63	M 6	M 8	16	20	25	32	40	50	63	13,5	17,5	31	6,5	45	4		
78	M 8	M 10	20	25	32	40	50	63	80	16	21	36	8	55	4		
92	M 10	M 12	20	25	32	40	50	63	80	19	24	43	11	63	4		

Specification

- Stainless Steel
- Handle
Precision casting AISI CF-8 matt shot-blasted
- Threaded stud
AISI 303
- Retaining screw
AISI 303
- Spring
AISI 301
- *Stainless Steel characteristics → Page 1144*
- **RoHS compliant**

Information

Adjustable hand levers GN 300.5 with full Stainless Steel-Handle, correspond to applications where „agressive“ surrounding conditions are given, or where stainless steel materials are prescribed such as in food processing or chemical industry.

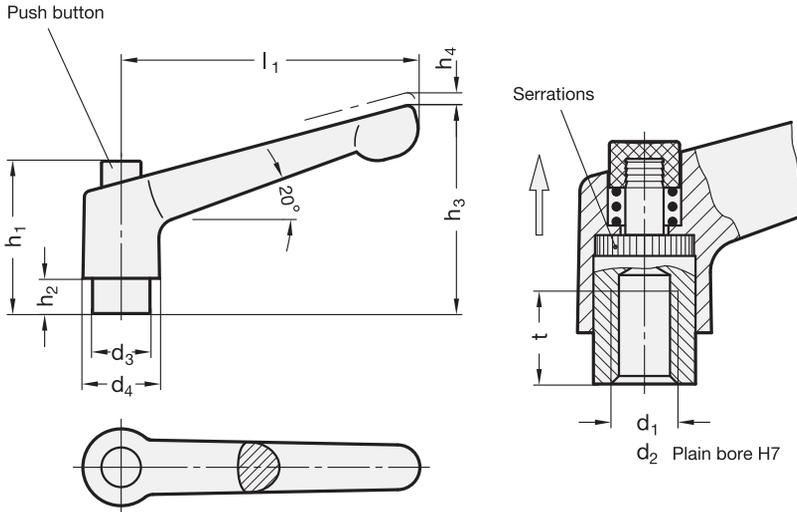
Retaining screws with hexagon head (Type AS) comply with the requirement „prevents water from accumulating“.

Adjustable hand levers have proved to be ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

How to order		1	l_1
		2	d_1
		3	l_2
		4	Type

GN300.5-63-M8-32-IS



1 l_1	2 d_1 Thread			2 d_2 H7 Bore		d_3	d_4	h_1	h_2	h_3	h_4 Stroke	t min.
30	M 3	-	-	-	-	10	13	26,5	4	31	3,5	7
30	M 4	M 5	M 6	B 5	B 6	10	13	26,5	4	31	3,5	9
45	M 4	M 5	M 6	B 5	B 6	10	13	26,5	4	35	3,5	9
63	M 6	M 8	-	B 8	-	13,5	17,5	32,5	6,5	45	4	11
78	M 8	M 10	-	B 8	B 10	16	21	37,5	8	55	4	14

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005
textured finish **● SW**
- Push button
Plastic
black, RAL 9005
orange, RAL 2004
grey, RAL 7035 **● S**
● O
● G
- Threaded insert
Steel, blackened
- Pin for push button
Stainless Steel
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- Handle in colours of GN 300

Information

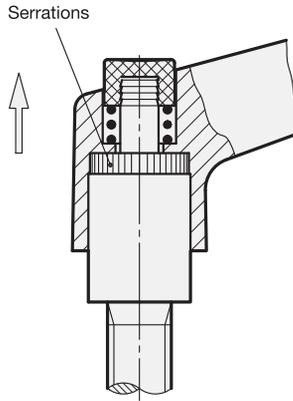
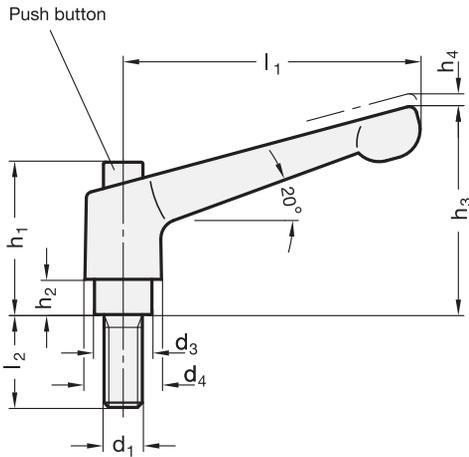
Adjustable hand levers GN 303 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

The push button is a design element that offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

see also...

- Adjustable hand levers GN 303.1 (insert Stainless Steel) → Page 204

How to order	1 l_1
	2 d_1 (d_2)
GN303-78-M10-SW-G	3 Handle colour
	4 Push button colour



1 2 3

1			2			3						d ₃	d ₄	h ₁	h ₂	h ₃	h ₄ Stroke	
l ₁	d ₁		l ₂															
30	M 3	-	6	8	10	12	16	-	-	-	10	13	26,5	4	31	3,5		
30	M 4	-	12	16	20	25	32	-	-	-	10	13	26,5	4	31	3,5		
30	M 5	M 6	12	16	20	25	32	40	50	-	10	13	26,5	4	31	3,5		
45	M 4	-	12	16	20	25	32	-	-	-	10	13	26,5	4	35	3,5		
45	M 5	M 6	12	16	20	25	32	40	50	-	10	13	26,5	4	35	3,5		
63	M 6	M 8	12	16	20	25	32	40	50	63	13,5	17,5	32,5	6,5	45	4		
63	M 10	-	20	25	32	40	50	63	80	-	13,5	17,5	32,5	6,5	45	4		
78	M 8	M 10	16	20	25	32	40	50	63	80	16	21	37,5	8	55	4		
78	M 12	-	25	32	40	50	63	80	-	-	16	21	37,5	8	55	4		

Specification

4 5

- Handle
Zinc die casting
- plastic coated
black, RAL 9005
textured finish ● SW
- Push button
Plastic
black, RAL 9005
orange, RAL 2004
grey, RAL 7035 ● S
● O
● G
- Threaded insert
Steel, blackened
- Pin for push button
Stainless Steel
- RoHS compliant

On request

- Handle in colours of GN 300

Information

Adjustable hand levers GN 303 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

The push button is a design element that offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

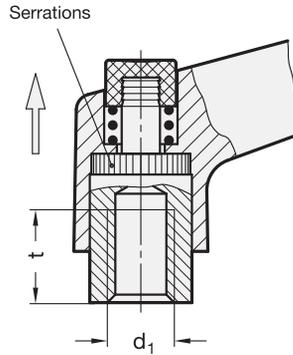
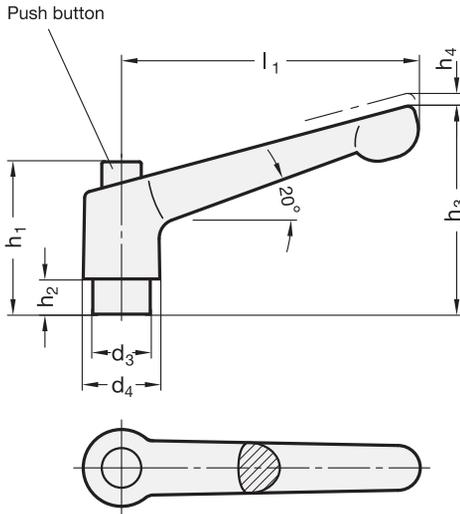
see also...

- Adjustable hand levers GN 303.1 (insert Stainless Steel) → Page 205

How to order

1	l ₁
2	d ₁
3	l ₂
4	Handle colour
5	Push button colour

1 2 3 4 5
GN303-63-M8-25-SW-G



Rostfrei
Inox
Stainless
Steel

1 l_1	2 d_1			d_3	d_4	h_1	h_2	h_3	h_4 Stroke	t min.
30	M 3	-	-	10	13	26,5	4	31	3,5	7
30	M 4	M 5	M 6	10	13	26,5	4	31	3,5	9
45	M 4	M 5	M 6	10	13	26,5	4	35	3,5	9
63	M 6	M 8	-	13,5	17,5	32,5	6,5	45	4	11
78	M 8	M 10	-	16	21	37,5	8	55	4	14

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005
textured finish **● SW**
- Push button
Plastic
black, RAL 9005 **● S**
orange, RAL 2004 **● O**
grey, RAL 7035 **● G**
- Threaded insert
Stainless Steel AISI 303
- Pin for push button
Stainless Steel
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

On request

- Handle in colours of GN 300

Information

Adjustable hand levers GN 303.1 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

The push button is a design element that offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

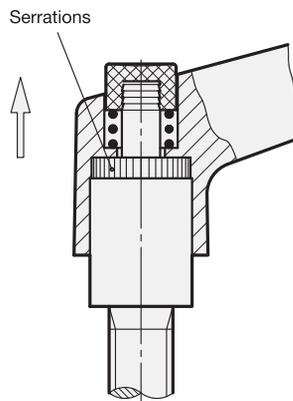
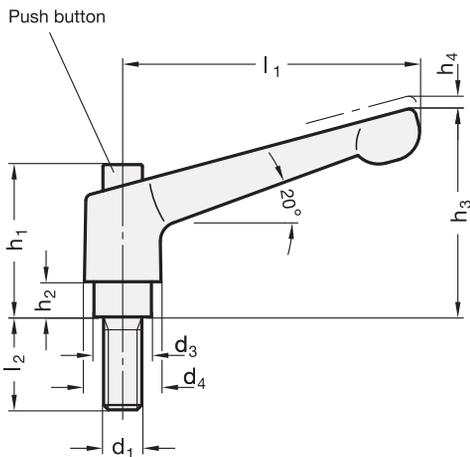
see also...

- *Adjustable hand levers GN 303 (insert steel, blackened)* → Page 202

How to order

1	l_1
2	d_1
3	Handle colour
4	Push button colour

GN303.1-78-M10-SW-S



Rostfrei
Inox
Stainless
Steel

1 2 3

1		2		3															
l ₁	d ₁	l ₂		d ₃	d ₄	h ₁	h ₂	h ₃	h ₄										
30	M 3	-	6	8	10	12	16	-	-	-	10	13	26,5	4	31	3,5			
30	M 4	-	12	16	20	25	32	-	-	-	10	13	26,5	4	31	3,5			
30	M 5	M 6	12	16	20	25	32	40	50	-	10	13	26,5	4	31	3,5			
45	M 4	-	12	16	20	25	32	-	-	-	10	13	26,5	4	35	3,5			
45	M 5	M 6	12	16	20	25	32	40	50	-	10	13	26,5	4	35	3,5			
63	M 6	M 8	12	16	20	25	32	40	50	63	13,5	17,5	32,5	6,5	45	4			
63	M 10	-	20	25	32	40	50	63	-	-	13,5	17,5	32,5	6,5	45	4			
78	M 8	M 10	16	20	25	32	40	50	63	80	16	21	37,5	8	55	4			

Specification

4 5

- Handle
Zinc die casting
- plastic coated
black, RAL 9005
textured finish ● SW
- Push button
Plastic
black, RAL 9005 ● S
orange, RAL 2004 ● O
grey, RAL 7035 ● G
- Threaded insert
Stainless Steel AISI 303
- Pin for push button
Stainless Steel
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

On request

- Handle in colours of GN 300

Information

Adjustable hand levers GN 303.1 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

The push button is a design element that offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

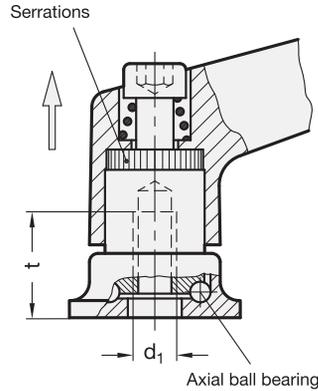
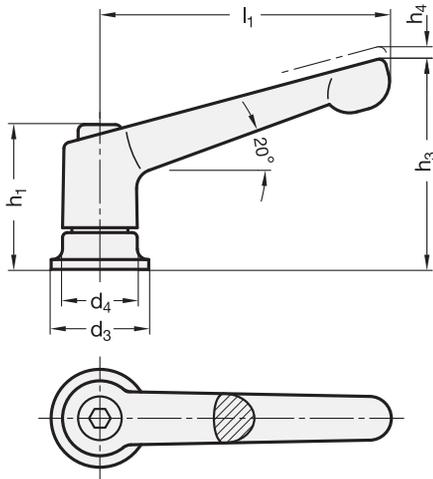
see also...

- *Adjustable hand levers GN 303 (insert steel, blackened)* → Page 203

How to order

1	l ₁
2	d ₁
3	l ₂
4	Handle colour
5	Push button colour

GN303.1-63-M8-32-SW-G



¹ l ₁	² d ₁	d ₃	d ₄	h ₁	h ₃	h ₄ Stroke	t min.
63	M 6	24	17,5	34,5	48,5	4	12,5
78	M 8	25	21	39,5	58,5	4	14
92	M 10	30	24	46,5	68,5	4	18
108	M 12	35	30	56,5	82	5	26,5

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish ● **SW**
black, RAL 9011, silk finish ● **SZ**
orange, RAL 2004, textured finish ● **OS**
red, RAL 3000, textured finish ● **RS**
silver, RAL 9006, textured finish ● **SR**
- chrome-plated ● **CR**
- Bushes
tempered Steel, nitrided
- Retaining screw
Steel, blackened
- **RoHS compliant**

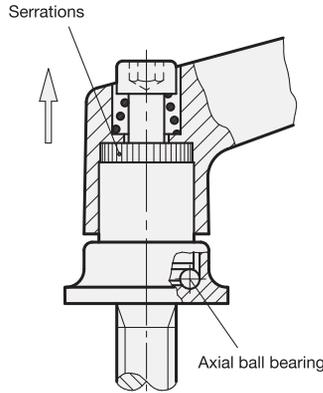
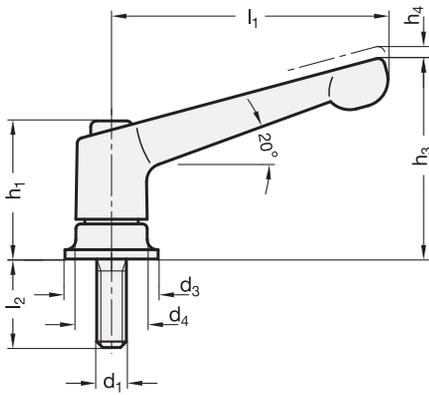
³

Information

Adjustable hand levers GN 300.4 are produced with a clamping area which is linked via a thrust ball bearing to the bush and screw respectively of the clamping lever. This has led to the following advantages:

- **Doubled** clamping force through vastly reduced friction.
- There is no movement on the contact area between adjustable hand lever and component which greatly reduces any marking on the clamping area.
- In addition a reduced creep factor has been achieved by the increased preload.

How to order	¹ l ₁
GN 300.4-78-M8-SW	² d ₁
	³ Colour (Finish)



1	2	3						d ₃	d ₄	h ₁	h ₃	h ₄ Stroke
63	M 6	20	27	-	-	-	24	17,5	34,5	48,5	4	
78	M 8	21	36	-	-	-	25	21	39,5	58,5	4	
92	M 10	29	47	-	-	-	30	24	46,5	68,5	4	
108	M 12	34	50	57	65	85	35	30	56,5	82	5	

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish ● **SW**
black, RAL 9011, silk finish ● **SZ**
orange, RAL 2004, textured finish ● **OS**
red, RAL 3000, textured finish ● **RS**
silver, RAL 9006, textured finish ● **SR**
- chrome-plated ● **CR**
- Threaded stud and bush
tempered steel, nitrided
- Retaining screw
Steel, blackened
- RoHS compliant



Information

Adjustable hand levers GN 300.4 are produced with a clamping area which is linked via a thrust ball bearing to the bush and screw respectively of the clamping lever. This has led to the following advantages:

- **Doubled** clamping force through vastly reduced friction.
- There is no movement on the contact area between adjustable handlever and component which greatly reduces any marking on the clamping area.
- In addition a reduced creep factor has been achieved by the increased preload.

How to order		1	l ₁
		2	d ₁
GN 300.4-92-M10-47-RS		3	l ₂
		4	Colour (Finish)

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Adjustable hand levers GN 300 → *Page 196 / 197*

Adjustable hand levers GN 300.1 with insert in Stainless Steel → *Page 198 / 199*

Adjustable Stainless Steel-Hand levers GN 300.5 → *Page 200 / 201*



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

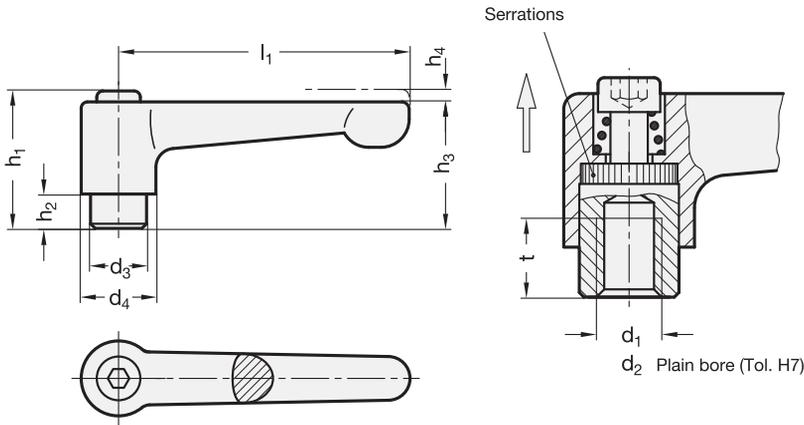
1.9



Adjustable hand levers GN 302 → Page 210 / 211



Inch sizes available



1 l_1	2 d_1 Thread			2 d_2 H7 Bore		d_3	d_4	h_1	h_2	h_3	h_4 Stroke	t min.
30	M 3	-	-	-	-	10	13	24,5	4	22	3,5	7
30	M 4	M 5	M 6	B 5	B 6	10	13	24,5	4	22	3,5	9
45	M 4	M 5	M 6	B 5	B 6	10	13	24,5	4	22	3,5	9
63	M 6	M 8	-	B 8	-	13,5	17,5	31	6,5	28,5	4	11
78	M 8	M 10	-	B 8	B 10	16	21	36	8	34	4	14

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish **● SW**
orange, RAL 2004, textured finish **● OS**
red, RAL 3000, textured finish **● RS**
silver, RAL 9006, textured finish **● SR**
- Threaded bush and retaining screw
Steel, blackened
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- with insert in Stainless Steel
- with push-button

Information

Adjustable hand levers GN 302 have a straight lever, not inclined, being parallel to the clamping space.

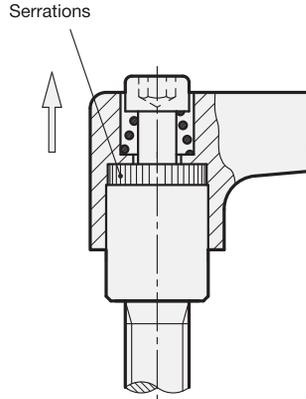
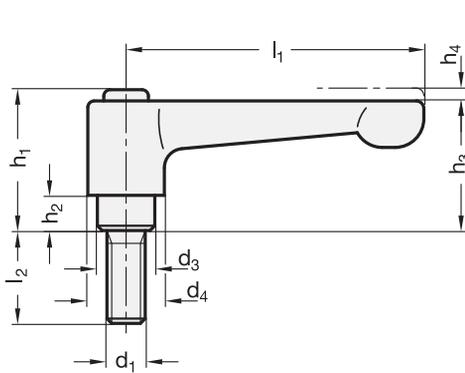
Adjustable hand levers are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

How to order

GN 302-45-M4-SR

1	l_1
2	d_1 (d_2)
3	Colour (Finish)



Inch sizes available

1		2		3													
l_1	d_1			l_2				d_3	d_4	h_1	h_2	h_3	h_4	Stroke			
30	M 3	-	6	8	10	12	16	-	-	-	10	13	24,5	4	22	3,5	
30	M 4	-	12	16	20	25	32	-	-	-	10	13	24,5	4	22	3,5	
45	M 4	-	12	16	20	25	32	-	-	-	10	13	24,5	4	22	3,5	
45	M 5	M 6	12	16	20	25	32	40	50	-	10	13	24,5	4	22	3,5	
63	M 6	M 8	12	16	20	25	32	40	50	63	13,5	17,5	31	6,5	28,5	4	
63	M 10	-	20	25	32	40	50	63	80	-	13,5	17,5	31	6,5	28,5	4	
78	M 8	M 10	16	20	25	32	40	50	63	80	16	21	36	8	34	4	
78	M 12	-	25	32	40	50	63	80	-	-	16	21	36	8	34	4	

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish
orange, RAL 2004, textured finish
red, RAL 3000, textured finish
silver, RAL 9006, textured finish
- Threaded stud and retaining screw
Steel (5.8), blackened
- RoHS compliant

- SW
- OS
- RS
- SR

On request

- with insert in Stainless Steel
- with push-button

4

Information

Adjustable hand levers GN 302 have a straight lever, not inclined, being parallel to the clamping space.

Adjustable hand levers are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

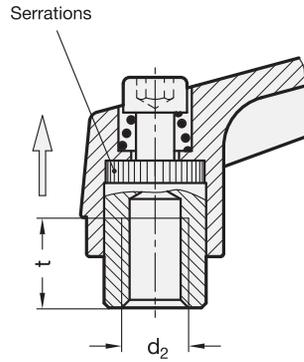
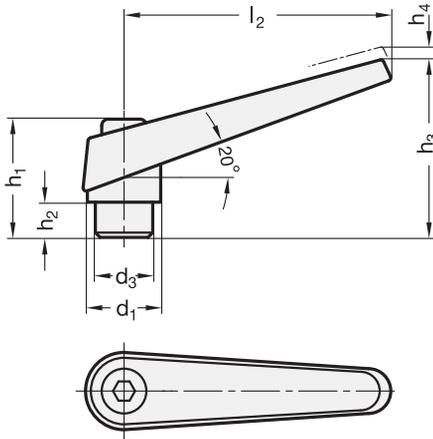
How to order

GN 302-63-M8-25-SW

1	l_1
2	d_1
3	l_2
4	Colour (Finish)

GN 101 Adjustable hand levers

Handle zinc die casting



Inch sizes available

d₁	d₂	d₃	h₁	h₂	h₃ ≈	h₄ Stroke	l₂	t min.
14	M 5 M 6	10	25	4,5	35	3,5	45	9
18	M 6 M 8	13,5	31	6,5	45	4	62	11
22	M 8 M 10	16	36	8	52	4	74	14
25	M 10 M 12	19	43	11	63	4	89	17
30	M 12 M 16	23	50,5	12	76	5	108	22

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish **● SW**
orange, RAL 2004 **● OR**
- Threaded bush and retaining screw
Steel, blackened
- RoHS compliant

On request

- with insert in Stainless Steel

Information

Adjustable hand levers GN 101 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever disengages serrations and allowing to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

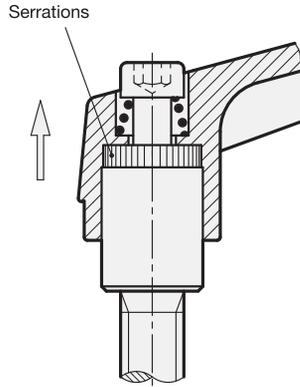
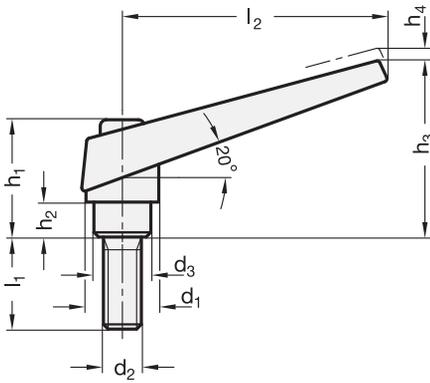
How to order

GN 101-25-M12-OR

- | | |
|---|----------------|
| 1 | d ₁ |
| 2 | d ₂ |
| 3 | Colour |

GN 101 Adjustable hand levers

Handle zinc die casting



Inch sizes available

1			2			3									
d ₁	d ₂		l ₁			d ₃	h ₁	h ₂	h ₃	h ₄ Stroke	l ₂				
14	M 5	M 6	12	16	20	25	32	40	50	10	25	4,5	35	3,5	45
18	M 6	M 8	16	20	25	32	40	50	63	13,5	31	6,5	45	4	62
22	M 10	-	20	25	32	40	50	63	80	16	36	8	52	4	74
25	M 12	-	25	32	40	50	63	80	-	19	43	11	63	4	89
30	M 16	-	32	40	50	63	80	-	-	23	50,5	12	76	5	108

Specification

- Handle
Zinc die casting
- plastic coated
black, RAL 9005, textured finish ● SW
orange, RAL 2004 ● OS
- Threaded stud and retaining screw
Steel (5.8), blackened
- RoHS compliant

On request

- with insert in Stainless Steel

Information

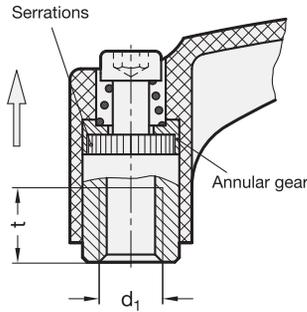
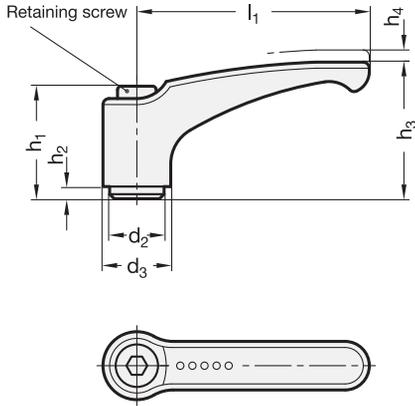
Adjustable hand levers GN 101 are ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever disengages serrations and allowing to be swivelled to the ideal clamping position. On releasing the lever the serrations automatically re-engage.

How to order

GN 101-22-M10-40-SW

- 1 d₁
- 2 d₂
- 3 l₁
- 4 Colour



ELESA Original design ERZ.



1 l_1	2 d_1			d_2	d_3	h_1	h_2	h_3	h_4 Stroke	t min.
44	M 4	M 5	M 6	10	15,5	24,5	3,5	30,5	3	8
63	M 6	M 8	-	13,5	19	31	3,5	38,5	3	10
78	M 8	M 10	-	16	23	36	3,5	46,5	4	14
95	M 10	M 12	-	19	26,5	43	5	56,5	5	17

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, RAL 7021
- orange, RAL 2004
- Serrated ring
Zinc die casting
- Threaded bush and retaining screw
Steel, blackened
- RoHS compliant



Information

Adjustable hand levers GN 604 like all the products of the Ergostyle® family are renowned for their good style but also their ergonomic shape. The gently arched handle with a reinforced end of the lever gives the operator a good grip.

Pulling the lever disengages the serration and allows it to be turned in either direction to reach the ideal new location. On releasing the handle the serrations re-engage automatically.

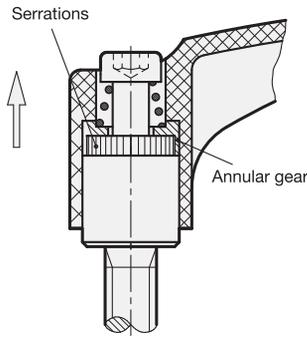
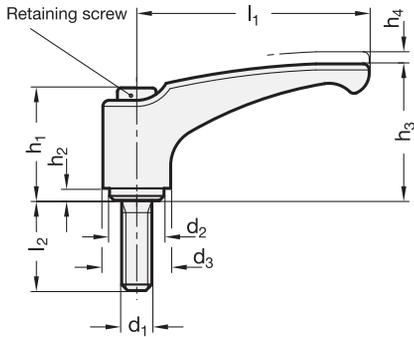
see also...

- Product family Ergostyle® → Page 12
- Adjustable hand levers GN 604.1 (insert Stainless Steel) → Page 216

How to order

GN604-44-M6-SG

- 1** l_1
- 2** d_1
- 3** Colour



ELESA Original design ERZ.p



1		2		3													
l_1	d_1			l_2		d_2	d_3	h_1	h_2	h_3	h_4	Stroke					
44	M 4 -	12	16	20	25	32	-	-	-	10	15,5	24,5	3,5	30,5	3		
44	M 5 M 6	12	16	20	25	32	40	50	-	10	15,5	24,5	3,5	30,5	3		
63	M 6 M 8	12	16	20	25	32	40	50	63	13,5	19	31	3,5	38,5	3		
63	M 10 -	20	25	32	40	50	63	80	-	13,5	19	31	3,5	38,5	3		
78	M 8 M 10	16	20	25	32	40	50	63	80	16	23	36	3,5	46,5	4		
78	M 12 -	25	32	40	50	63	80	-	-	16	23	36	3,5	46,5	4		
95	M 10 M 12	16	20	25	32	40	50	63	80	19	26,5	43	5	56,5	5		
95	M 16 -	25	32	40	50	63	80	-	-	19	26,5	43	5	56,5	5		

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, RAL 7021
- orange, RAL 2004
- Serrated ring
Zinc die casting
- Threaded stud and retaining screw
Steel, blackened
- Plastic characteristics → Page 1141
- RoHS compliant



Information

Adjustable hand levers GN 604, like all the products of the Ergostyle® family are renowned for their good style but also their ergonomical shape.

The gently arched handle with a reinforced end of the lever gives the operator a good grip.

Pulling the lever disengages the serration and allows it to be turned in either direction to reach the ideal new location. On releasing the handle the serrations re-engage automatically.

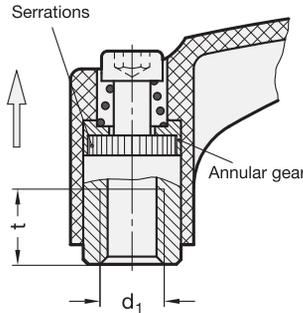
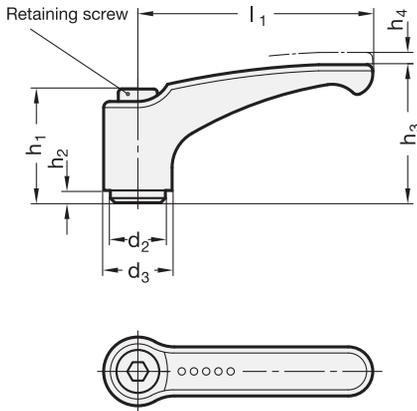
see also...

- Product family Ergostyle® → Page 12
- Adjustable hand levers GN 604.1 (insert Stainless Steel) → Page 217

How to order

1 l_1
2 d_1
3 l_2
4 Colour

GN604-95-M12-25-SG



ELESA Original design ERZ.SST



¹ l ₁	² d ₁	d ₂	d ₃	h ₁	h ₂	h ₃	h ₄ Stroke	t min.
44	M 5 M 6	10	15,5	24,5	3,5	30,5	3	8
63	M 6 M 8	13,5	19	31	3,5	38,5	3	10
78	M 8 M 10	16	23	36	3,5	46,5	4	14
95	M 10 M 12	19	26,5	43	5	56,5	5	17

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, RAL 7021 ● **SG**
- orange, RAL 2004 ● **OR**
- Serrated ring
Zinc die casting
- Threaded bush and retaining screw
Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

Adjustable hand levers GN 604 like all the products of the Ergostyle® family are renowned for their good style but also their ergonomical shape.

The gently arched handle with a reinforced end of the lever gives the operator a good grip.

Pulling the lever disengages the serration and allows it to be turned in either direction to reach the ideal new location. On releasing the handle the serrations re-engage automatically.

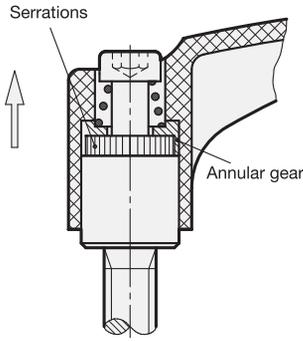
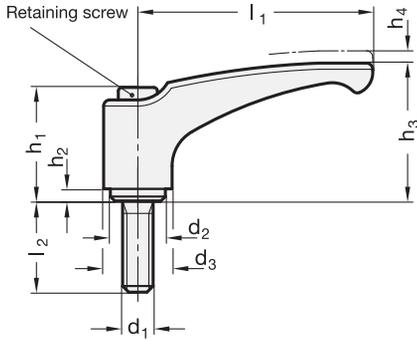
see also...

- *Product family Ergostyle®* → Page 12
- *Adjustable hand levers GN 604 (insert steel, blackened)* → Page 214

How to order

GN604.1-78-M10-SG

- ¹ l₁
- ² d₁
- ³ Colour



ELESA Original design ERZ.SST-p



1		2		3												
l ₁	d ₁			l ₂			d ₂	d ₃	h ₁	h ₂	h ₃	h ₄		Stroke		
44	M 5	M 6	12	16	20	25	32	40	50	10	15,5	24,5	3,5	30,5	3	
63	M 6	M 8	16	20	25	32	40	50	63	13,5	19	31	3,5	38,5	3	
78	M 10	-	20	25	32	40	50	63	80	16	23	36	3,5	46,5	4	
95	M 10	M 12	20	25	32	40	50	63	80	19	26,5	43	5	56,5	5	

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, RAL 7021
- orange, RAL 2004
- Serrated ring
Zinc die casting
- Threaded stud and retaining screw
Stainless Steel AISI 303
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- RoHS compliant



Information

Adjustable hand levers GN 604 like all the products of the Ergostyle® family are renowned for their good style but also their ergonomic shape. The gently arched handle with a reinforced end of the lever gives the operator a good grip. Pulling the lever disengages the serration and allows it to be turned in either direction to reach the ideal new location. On releasing the handle the serrations re-engage automatically.

see also...

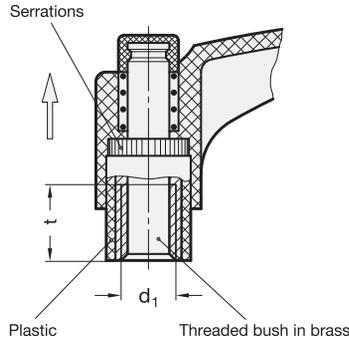
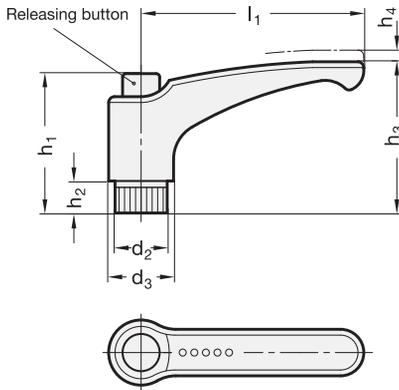
- *Product family Ergostyle®* → Page 12
- *Adjustable hand levers GN 604 (insert steel, blackened)* → Page 215

How to order

1	l ₁
2	d ₁
3	l ₂
4	Colour

GN604.1-95-M12-25-OR

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



ELESA Original design: ERX.



1 l_1	2 d_1	d_2	d_3	h_1	h_2	h_3	h_4	Stroke	t
30	M 3 M 4 M 5 M 6	12	15,5	29,5	6	30	3,5	10	
44	M 5 M 6 - -	12	15,5	29,5	6	32,5	3,5	10	
63	M 6 M 8 - -	15	19	37,5	8	43	4	13	
78	M 8 M 10 M 12 -	19	23	47	12	54	4	17	
95	M 12 M 14 - -	21,5	26,5	54,5	13	64,5	4,5	20	
108	M 12 M 14 M 16 -	25	30	54,5	11	65,5	4,5	20	

* not available from stock, requires a minimum order quantity

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, similar RAL 7021
- Colour of the releasing button:
black-grey, RAL 7021
orange, RAL 2004
grey*, RAL 7035
yellow*, RAL 1021
blue*, RAL 5024
red*, RAL 3000
- Threaded insert
Brass
- Plastic characteristics → Page 1141
- RoHS compliant



Information

Adjustable hand levers GN 603, like all the products of the Ergostyle® range, are renowned for their good style but also their ergonomical shape.

They are like all adjustable hand levers ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

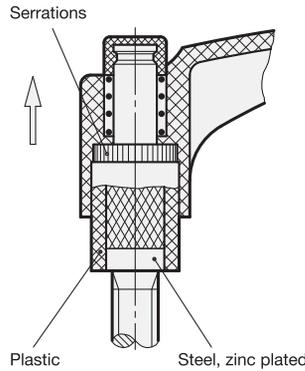
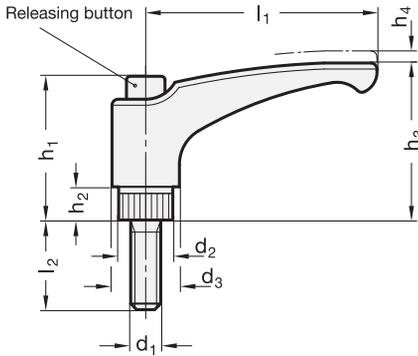
The releasing button offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

see also...

- Product family Ergostyle® → Page 12
- Adjustable hand levers GN 603.1 (insert Stainless Steel) → Page 220

- **DSG**
- **DOR**
- **DGR**
- **DGB**
- **DBL**
- **DRT**

How to order	1 l_1
GN603-95-M12-DOR	2 d_1
	3 Colour of the releasing button



ELESA Original design: ERX.p



1		2		3																	
l ₁	d ₁											d ₂	d ₃	h ₁	h ₂	h ₃	h ₄	Stroke			
30	M 5	-	-	10	16	20	-	-	-	-	-	-	12	15,5	29,5	6	30	3,5			
30	M 6	-	-	10	16	20	25	30	40	-	-	-	12	15,5	29,5	6	30	3,5			
44	M 5	-	-	10	16	20	-	-	-	-	-	-	12	15,5	29,5	6	32,5	3,5			
44	M 6	-	-	10	16	20	25	30	40	-	-	-	12	15,5	29,5	6	32,5	3,5			
63	M 6	-	-	10	16	20	25	30	35	40	-	-	15	19	37,5	8	43	4			
63	M 8	-	-	16	20	25	30	35	40	50	60	70	15	19	37,5	8	43	4			
78	M 10	-	-	20	25	30	35	40	50	60	70	-	19	23	47	12	54	4			
78	M 12	-	-	20	25	30	35	40	50	60	70	80	19	23	47	12	54	4			
95	M 12	M 16	-	30	50	70	-	-	-	-	-	-	21,5	26,5	54,5	13	64,5	4,5			
108	M 12	M 14	M 16	30	50	70	-	-	-	-	-	-	25	30	54,5	11	65,5	4,5			

* not available from stock, requires a minimum order quantity

Specification

- Handle Plastic Technopolymer (Polyamide PA)
 - glass fibre reinforced
 - temperature resistant up to 130 °C
 - black-grey, similar RAL 7021
- Colour of the releasing button:
 - black-grey, RAL 7021
 - orange, RAL 2004
 - grey*, RAL 7035
 - yellow*, RAL 1021
 - blue*, RAL 5024
 - red*, RAL 3000
- Threaded stud Steel zinc plated, blue passivated
- Plastic characteristics → Page 1141
- RoHS compliant

- DSG
- DOR
- DGR
- DGB
- DBL
- DRT

Information

Adjustable hand levers GN 603, like all the products of the Ergostyle® range, are renowned for their good style but also their ergonomic shape.

They are like all adjustable hand levers ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

The releasing button offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

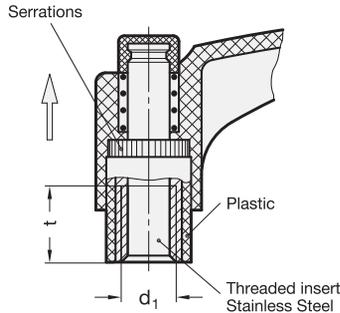
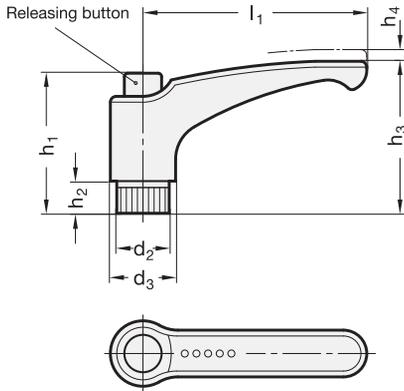
see also...

- Product family Ergostyle® → Page 12
- Adjustable hand levers GN 603.1 (insert Stainless Steel) → Page 221

How to order

1	l ₁
2	d ₁
3	l ₂
4	Colour releasing button

GN603-63-M8-20-DOR



ELESA Original design ERX.SST



Inox
Stainless
Steel



¹ l ₁	² d ₁	d ₂	d ₃	h ₁	h ₂	h ₃	h ₄ Stroke	t min.
30	M 5	12	15,5	29,5	6	30	3,5	6
30	M 6	12	15,5	29,5	6	30	3,5	10
44	M 5	12	15,5	29,5	6	32,5	3,5	6
44	M 6	12	15,5	29,5	6	32,5	3,5	10
63	M 6	15	19	37,5	8	43	4	12
63	M 8	15	19	37,5	8	43	4	13
78	M 8	19	23	47	12	54	4	13
78	M 10	19	23	47	12	54	4	17
95	M 12	21,5	26,5	54,5	13	64,5	4,5	20
108	M 12	25	30	54,5	11	65,5	4,5	20

* not available from stock, requires a minimum order quantity

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, matt similar RAL 7021
- Colour of the releasing button (shiny finish):
black-grey, RAL 7021 ● **DSG**
orange, RAL 2004 ● **DOR**
grey*, RAL 7035 ● **DGR**
yellow*, RAL 1021 ● **DGB**
blue*, RAL 5024 ● **DBL**
red*, RAL 3000 ● **DRT**
- Threaded insert
Stainless Steel AISI 303
- *Plastic characteristics* → Page 1141
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

Information

Adjustable hand levers GN 603.1, like all the products of the Ergostyle® range, are renowned for their good style but also their ergonomic shape.

They are like all adjustable hand levers ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

The releasing button offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

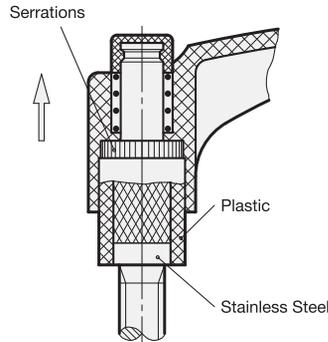
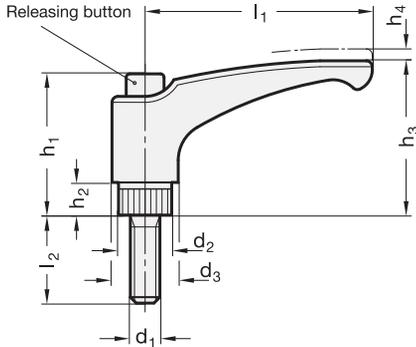
see also...

- *Adjustable hand levers GN 603 (insert brass)* → Page 218

How to order

¹	l ₁
²	d ₁
³	Colour of the releasing button

GN603.1-95-M12-DOR



ELESA Original design ERX.SST.p



Inox
Stainless
Steel



1	2	3												
l_1	d_1	l_2						d_2	d_3	h_1	h_2	h_3	h_4	Stroke
30	M 6	16	20	25	30	-	-	12	15,5	29,5	6	30	3,5	
44	M 6	16	20	25	30	-	-	12	15,5	29,5	6	32,5	3,5	
63	M 8	16	20	25	30	40	50	15	19	37,5	8	43	4	
78	M 10	20	30	40	-	-	-	19	23	47	12	54	4	
78	M 12	30	40	50	-	-	-	19	23	47	12	54	4	
95	M 12	30	40	50	70	-	-	21,5	26,5	54,5	13	64,5	4,5	
108	M 12	40	50	70	-	-	-	25	30	54,5	11	65,5	4,5	

* not available from stock, requires a minimum order quantity

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black-grey, matt similar RAL 7021
- Colour of the releasing button (shiny finish):
black-grey, RAL 7021 ● **DSG**
orange, RAL 2004 ● **DOR**
grey*, RAL 7035 ● **DGR**
yellow*, RAL 1021 ● **DGB**
blue*, RAL 5024 ● **DBL**
red*, RAL 3000 ● **DRT**
- Threaded stud
Stainless Steel AISI 303
- Plastic characteristics → Page 1141
- Stainless Steel characteristics → Page 1144
- RoHS compliant

Information

Adjustable hand levers GN 603.1, like all the products of the Ergostyle® range, are renowned for their good style but also their ergonomic shape.

They are like all adjustable hand levers ideal whenever parts have to be clamped in a confined space or in a particular lever position. The centre insert is connected to the lever via serrations which can easily be disengaged.

The releasing button offers an easy disengagement. Its use is limited to applications where dismantling of the lever for installation is not required.

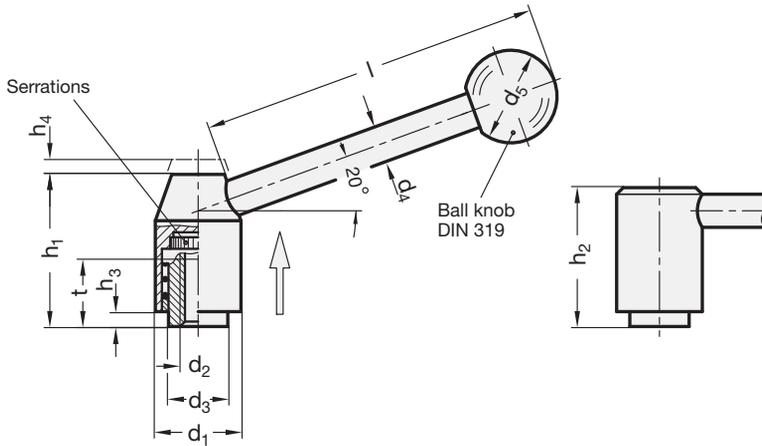
see also...

- Adjustable hand levers GN 603 (insert steel, zinc plated) → Page 219

How to order

1	l_1
2	d_1
3	l_2
4	Colour of the releasing button

GN603.1-63-M8-20-DOR



Inch sizes available

3 Type

- E angled lever
- D straight lever

d ₁	d ₂ Thread		d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄ Stroke	l	t min.	
21	M 6	M 8	-	13,5	8	20	33,5	31	1	4	70	11
24	M 8	M 10	-	16	10	25	40	37	2,5	4,5	96	14
28	M 10	M 12	-	19	12	30	48,5	44,5	4,5	4,5	110	17
33	M 12	M 14	M 16	23	12	32	55	51,5	6	5,5	124	22
40	M 16	M 20	-	28	14	35	68	64	6	5,5	138	36

Specification

- Steel blackened
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- RoHS compliant

Information

Adjustable tension levers GN 212.3 have proved to be ideal whenever parts have to be clamped in a confined space or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

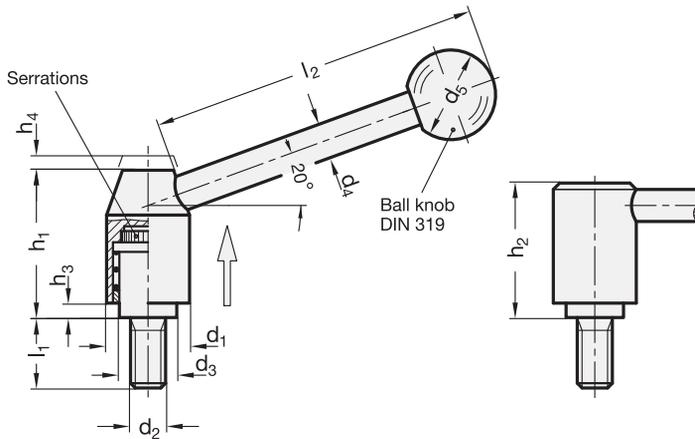
see also...

- *Adjustable Stainless Steel-Tension levers GN 212.5* → Page 224
- *Safety tension levers GN 312* → Page 226

How to order

GN 212.3-24-M8-D

1	d ₁
2	d ₂
4	Type



Inch sizes available

- 4 Type**
- E angled lever
 - D straight lever

1 **2** **3**

d₁	d₂ Thread	l₁								d₃	d₄	d₅	h₁	h₂	h₃	h₄ Stroke	l₂
21	M 8	12	16	20	25	32	40	50	63	13,5	8	20	33,5	31	1	4	70
21	M 10	20	25	32	40	50	63	80	-	13,5	8	20	33,5	31	1	4	70
24	M 10	16	20	25	32	40	50	63	80	16	10	25	40	37	2,5	4,5	96
24	M 12	25	32	40	50	63	80	-	-	16	10	25	40	37	2,5	4,5	96
28	M 10	16	20	25	32	40	50	63	-	19	12	30	48,5	44,5	4,5	4,5	110
28	M 12	16	20	25	32	40	50	63	80	19	12	30	48,5	44,5	4,5	4,5	110
33	M 12	25	32	40	50	63	-	-	-	23	12	32	55	51,5	6	5,5	124
33	M 16	32	40	50	63	80	-	-	-	23	12	32	55	51,5	6	5,5	124
40	M 16	40	50	63	80	-	-	-	-	28	14	35	68	64	6	5,5	138
40	M 20	40	50	63	80	-	-	-	-	28	14	35	68	64	6	5,5	138

Specification

- Steel blackened
- Screw Tensile strength class 5.8 (500 N/mm²)
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- RoHS compliant

Information

Adjustable tension levers GN 213.3 have proved to be ideal whenever parts have to be clamped in a confined space or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

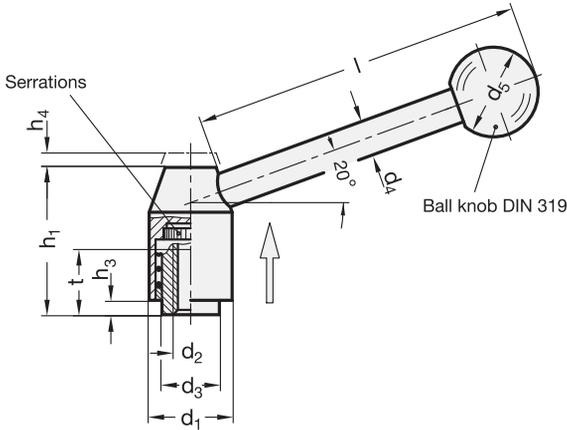
see also...

- Adjustable Stainless Steel-Tension levers GN 212.5 → Page 225
- Safety tension levers GN 312 → Page 227

How to order

GN 212.3-28-M12-80-E

- 1** d₁
- 2** d₂
- 3** l₁
- 4** Type



Inox
Stainless
Steel



Inch
sizes
available

3 Type

E angled lever

1

2

d ₁	d ₂ Thread		d ₃	d ₄	d ₅	h ₁	h ₃	h ₄ Stroke	l	t min.
21	M 6	M 8	13,5	8	20	33,5	1	4	70	11
24	M 8	M 10	16	10	25	40	2,5	4,5	96	14
28	M 10	M 12	19	12	30	48,5	4,5	4,5	110	17

Specification

- Stainless Steel AISI 303
Hub and shaft matt shot-blasted
- Ball knobs DIN 319
Plastic, Duroplast
black, shiny finish
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

On request

- straight lever (90°)

Information

Adjustable tension levers GN 212.5 have proved to be ideal whenever parts have to be clamped in a confined space or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

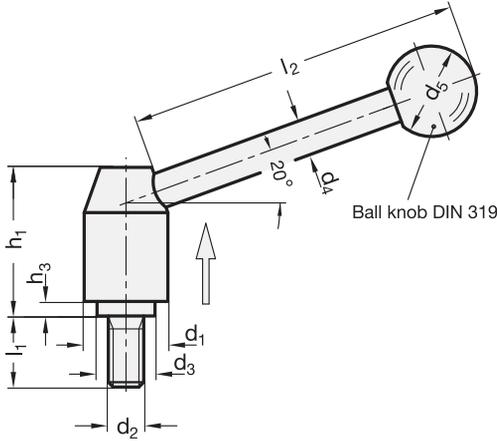
see also...

- *Adjustable tension levers GN 212.3 (Steel, blackened)* → Page 222

How to order

GN 212.5-24-M10-E

1	d ₁
2	d ₂
4	Type



Rost frei
Inox
Stainless
Steel
Inch
sizes
available

4 Type
E angled lever

1 2 3

d ₁	d ₂ Thread	l ₁								d ₃	d ₄	d ₅	h ₁	h ₃	h ₄ Stroke	l ₂
21	M 8	16	20	25	32	40	50	63		13,5	8	20	33,5	1	4	70
24	M 10	20	25	32	40	50	63	80		16	10	25	40	2,5	4,5	96
28	M 12	25	32	40	50	63	80	-		19	12	30	48,5	4,5	4,5	110

Specification

- Stainless Steel AISI 303 matt shot-blasted
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

On request

- straight lever (90°)

Information

Adjustable tension levers GN 212.5 have proved to be ideal whenever parts have to be clamped in a confined space or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever, disengages the serrations and allowing it to be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

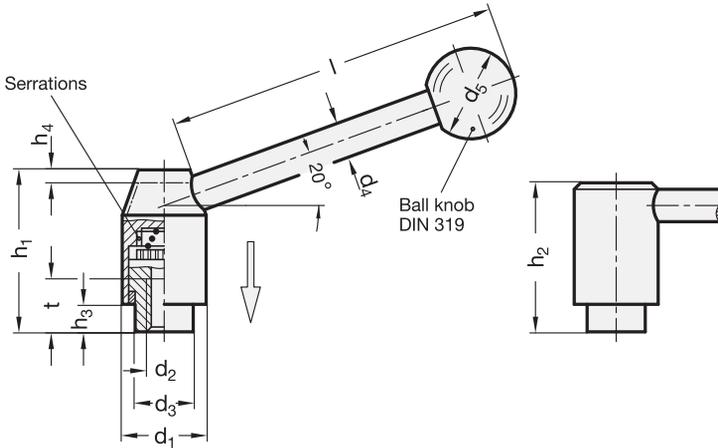
see also...

- *Adjustable tension levers GN 212.3 (Steel, blackened)* → Page 223

How to order

1	d ₁
2	d ₂
3	l ₁
4	Type

GN 212.5-28-M12-25-E



Inch sizes available

3 Type

- E angled lever
- D straight lever

1

2

d ₁	d ₂ Thread		d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄ Stroke	l	t min.
21	M 6	M 8	13,5	8	20	37	34,5	4,5	3	70	11
24	M 8	M 10	16	10	25	44	41	6,5	3,5	96	14
28	M 10	M 12	19	12	30	53	49	8,5	4	110	17
33	M 12	M 16	23	12	32	60	56	10,5	4,5	124	22

Specification

- Steel blackened
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- RoHS compliant

Information

Safety tension levers GN 312 are used on such applications where a thoughtless or mistaken releasing or re-positioning of the tension lever could lead to an accident.

The lever in its rest position is not connected with the internal spindle and can be rotated unhindered.

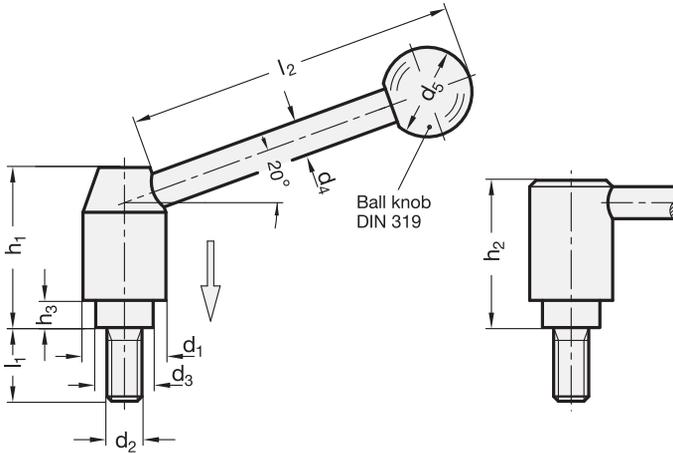
The tension lever engages in the serration only after pushing it down, thus allowing clamping or unclamping.

The „freewheel“ position is re-established as soon as the handle is released.

How to order

GN312-21-M8-E

- 1 d₁
- 2 d₂
- 3 Type



Inch sizes available

- 4 Type**
- E angled lever
 - D straight lever

1 2 3

d ₁	d ₂	l ₁	d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	l ₂	h ₄ Stroke						
21	M 8	16	20	25	32	40	50	63	13,5	8	20	37	34,5	4,5	70	3
24	M 10	20	25	32	40	50	63	80	16	10	25	44	41	6,5	96	3,5
28	M 12	20	25	32	40	50	63	80	19	12	30	53	49	8,5	110	4
33	M 16	32	40	50	63	80	-	-	23	12	32	60	56	10,5	124	4,5

Specification

- Steel blackened
Threaded stud
Tensile strength class 5.8 (500 N/mm²)
- Ball knobs DIN 319
Plastic, Duroplast black, shiny finish
- RoHS compliant

Information

Safety tension levers GN 312 are used on such applications where a thoughtless or mistaken releasing or re-positioning of the tension lever could lead to an accident.

The lever in its rest position is not connected with the internal spindle and can be rotated unhindered.

The tension lever engages in the serration only after pushing it down, thus allowing clamping or unclamping.

The „freewheel“ position is re-established as soon as the handle is released.

How to order

1 d₁
2 d₂
3 l₁
4 Type

GN312-24-M10-32-E



Adjustable tension levers GN 212.3 → *Page 222 / 223*

Adjustable Stainless Steel-Tension levers GN 212.5 → *Page 224 / 225*



Adjustable flat tension levers GN 125 → Page 230 / 231
Adjustable Stainless Steel-Flat tension levers GN 125 → Page 232 / 233

1.1

1.2

1.3

1.4

1.5

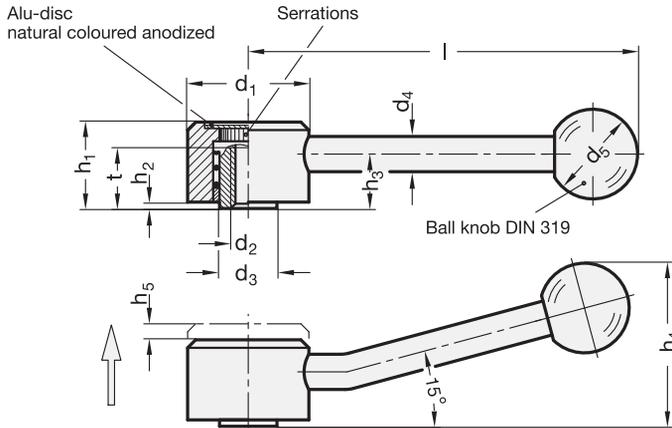
1.6

1.7

1.8

1.9





Inch sizes available

3 Type

- D straight lever
- E angled lever

1 2

d ₁	d ₂ Thread			d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄ ≈	h ₅ Stroke	l	t min.
32	M 6	M 8	-	13,5	8	20	20,5	1,5	12,5	36	4	100	11
36	M 8	M 10	M 12	16	10	25	24,5	2	15	45	4,5	120	14
40	M 10	M 12	-	19	12	30	26,5	2	16	50	4,5	130	17
45	M 12	M 14	M 16	23	12	32	31,5	2	20	60	5	145	23

Specification

- Steel blackened
Threaded insert
Tensile strength class 5.8 (500 N/mm²)
- Plane surface with natural coloured, anodized Aluminium disc
- Ball knobs DIN 319
Plastic, Duroplast
black, shiny finish
- RoHS compliant

On request

- with threaded through hole

Information

The overall height of GN 125 is reduced to a minimum.

As all other adjustable levers, they are ideal whenever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever, disengages the serrations and the lever can be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

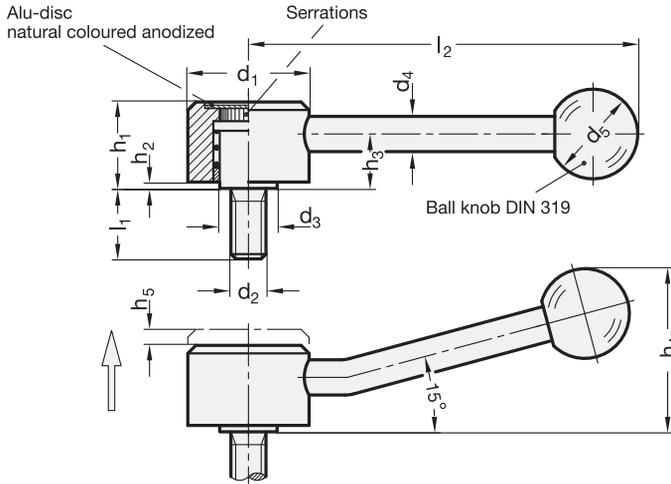
see also...

- Adjustable Stainless Steel-Flat tension levers GN 125.5 → Page 232

How to order

GN 125-32-M8-D

1	d ₁
2	d ₂
4	Type



Inch sizes available

4 Type

- D straight lever
- E angled lever

1 2 3

d ₁	d ₂ Thread	l ₁								d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄ ≈	h ₅ Stroke	l ₂
32	M 8	12	16	20	25	32	40	50	63	13,5	8	20	20,5	1,5	12,5	36	4	100
32	M 10	20	25	32	40	50	63	80	-	13,5	8	20	20,5	1,5	12,5	36	4	100
36	M 10	16	20	25	32	40	50	63	80	16	10	25	24,5	2	15	45	4,5	120
36	M 12	25	32	40	50	63	80	-	-	16	10	25	24,5	2	15	45	4,5	120
40	M 12	25	32	40	50	63	80	-	-	19	12	30	26,5	2	16	50	4,5	130
45	M 16	32	40	50	63	80	-	-	-	23	12	32	31,5	2	20	60	5	145

Specification

- Steel blackened
Threaded stud
Tensile strength class 5.8 (500 N/mm²)
- Plane surface with natural coloured, anodized Aluminium-disc
- Ball knobs DIN 319
Plastic, Duroplast
black, shiny finish
- RoHS compliant

Information

The overall height of GN 125 is reduced to a minimum.
As all other adjustable levers, they are ideal whenever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.
Pulling the lever, disengages the serrations and the lever can be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

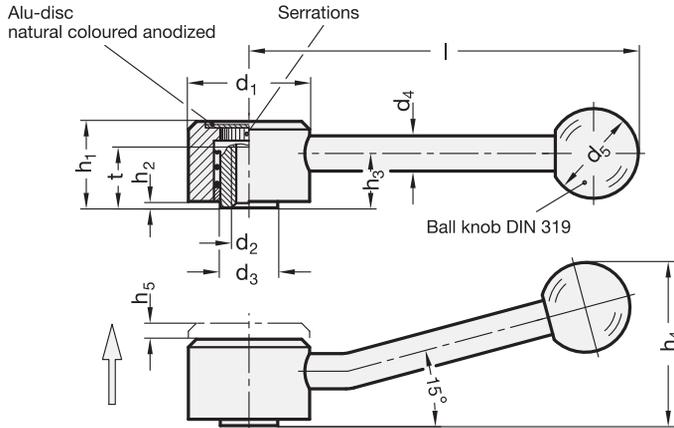
see also...

- Adjustable Stainless Steel-Flat tension levers GN 125.5 → Page 233

How to order

GN 125-32-M8-40-E

- 1 d₁
- 2 d₂
- 3 l₁
- 4 Type



ROSTFREI
Rost
frei
Inox
Stainless
Steel

3 Type

- D straight lever
- E angled lever

1

2

d ₁	d ₂ Thread		d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄ ≈	h ₅ Stroke	l	t min.
32	M 6	M 8	13,5	8	20	20,5	1,5	12,5	36	4	100	11
36	M 8	M 10	16	10	25	24,5	2	15	45	4,5	120	14
40	M 10	M 12	19	12	30	30	4	19	53	4,5	130	17
45	M 12	M 16	23	12	32	35,5	4	24	64	5	145	23

Specification

- Stainless Steel AISI 303
matt shot-blasted
- Plane surface with natural coloured,
anodized Aluminium-disc
- Ball knobs DIN 319
Plastic, Duroplast
black, shiny finish
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

On request

- with threaded through hole

Information

The overall height of Stainless Steel-tension levers GN 125.5 is reduced to a minimum.

As all other adjustable levers, they are ideal whenever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever, disengages the serrations and the lever can be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

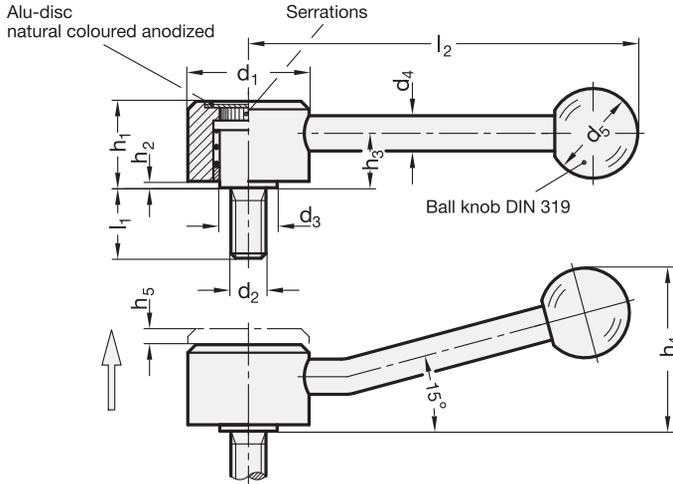
see also...

- *Adjustable flat tension levers GN 125 (Steel, blackened)* → Page 230

How to order

GN 125.5-40-M12-E

1 d₁
2 d₂
4 Type



ROSTFREI
Inox
Stainless
Steel

4 Type
D straight lever
E angled lever

1 2 3

d ₁	d ₂ Thread	l ₁		d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄ ≈	h ₅ Stroke	l ₂						
32	M 8	12	16	20	25	32	40	50	-	13,5	8	20	20,5	1,5	12,5	36	4	100
36	M 10	16	20	25	32	40	50	63	80	16	10	25	24,5	2	15	45	4,5	120
40	M 12	25	32	40	50	63	80	-	-	19	12	30	30	4	19	53	4,5	130
45	M 16	32	40	50	63	80	-	-	-	23	12	32	35,5	4	24	64	5	145

Specification

- Stainless Steel AISI 303 matt shot-blasted
- Plane surface with natural coloured, anodized Aluminium-disc
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

Information

The overall height of Stainless Steel-tension levers GN 125.5 is reduced to a minimum.

As all other adjustable levers, they are ideal whenever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever, disengages the serrations and the lever can be swivelled to the ideal clamping position. On releasing the lever it will automatically re-engage.

see also...

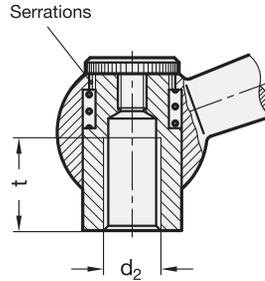
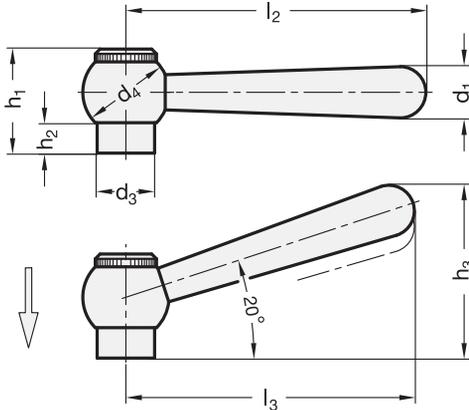
- *Adjustable flat tension levers GN 125 (Steel, blackened)* → Page 231

How to order

GN 125.5-32-M8-20-D

1	d ₁
2	d ₂
3	l ₁
4	Type

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



- 3** Type
M Straight lever
N Angled lever

1

2

d ₁	d ₂ Thread		d ₃	d ₄	h ₁	h ₂	h ₃ ≈	l ₂	l ₃ ≈	t min.
10	M 6	M 8	13,5	20	25	8	39,5	63	60	12
13	M 8	M 10	16	25	29	8	49,5	80	76	15
16	M 10	M 12	19	28	33,5	10,5	60,5	100	95	18

Specification

- Steel blackened
- RoHS compliant

Information

Adjustable clamping levers GN 99.2 are known for their small dimensions. They are for use in applications where either the clamping range is limited or where a specific lever position is required. The serrated bore in the spherical hub is fitted with a threaded bolt insert which engages in the hub with its own serrations.

By depressing the clamping lever the serrations are disengaged freeing it for re-positioning in the most convenient position. When releasing the lever the serrations will re-engage automatically.

Should a rotation of 360° not be possible the insert can be slightly screwed in (after the lever has been disengaged) by means of the slotted knurled screw.

see also...

- Clamping levers DIN 99 (not adjustable) → Page 244

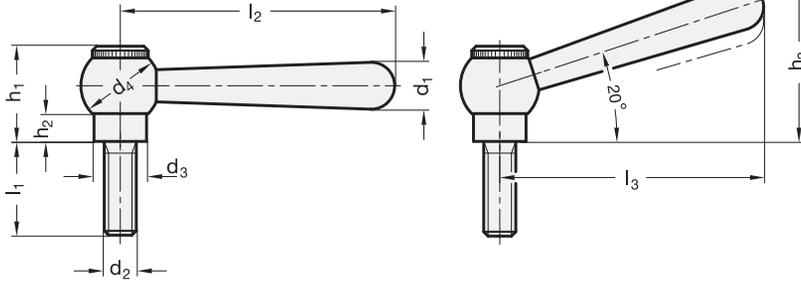
How to order

GN99.2-16-M12-N

- 1** d₁
- 2** d₂
- 3** Type

GN 99.2 Adjustable clamping levers

PUSH to disengage



- 4 Type**
M Straight lever
N Angled lever

- 1** **2** **3**

d ₁	d ₂	l ₁	d ₃	d ₄	h ₁	h ₂	h ₃ ≈	l ₂	l ₃ ≈
10	M 8	20	13,5	20	25	8	39,5	63	60
13	M 10	20	16	25	29	8	49,5	80	76
16	M 12	25	19	28	33,5	10,5	60,5	100	95

Specification

- Steel blackened
Threaded stud
Tensile strength class 5.8 (500 N/mm²)
- RoHS compliant

Information

Adjustable clamping levers GN 99.2 are known for their small dimensions. They are for use in applications where either the clamping range is limited or where a specific lever position is required. The serrated bore in the spherical hub is fitted with a threaded bolt insert which engages in the hub with its own serrations.

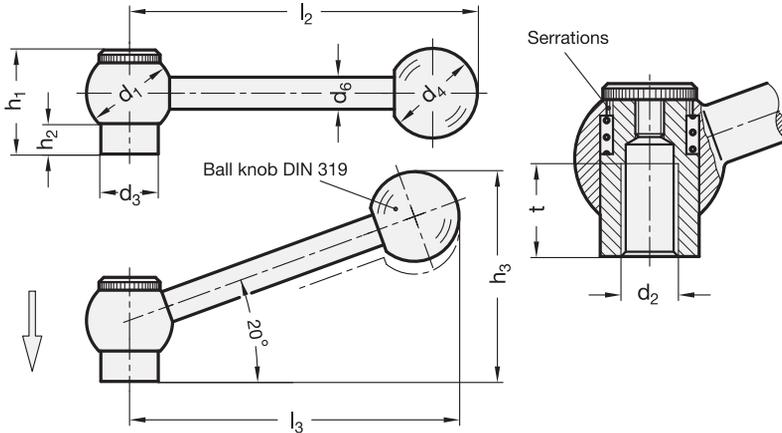
By depressing the clamping lever the serrations are disengaged freeing it for re-positioning in the most convenient position. When releasing the lever the serrations will re-engage automatically.

Should a rotation of 360° not be possible the insert can be slightly screwed in (after the lever has been disengaged) by means of the slotted knurled screw.

How to order

GN99.2-13-M10-40-N

- 1** d₁
2 d₂
3 l₁
4 Type



3 Type

- M Straight lever
- N Angled lever

1

2

d ₁	d ₂ Thread		d ₃	d ₄	d ₆	h ₁	h ₂	h ₃ ≈	l ₂	l ₃ ≈	t min.
20	M 6	M 8	13,5	20	8,5	25	8	46	74	70	12
25	M 8	M 10	16	25	11	29	8	58	93	87	15
28	M 10	M 12	19	30	13	33,5	10,5	70,5	116	109	18

Specification

- Steel blackened
- Ball knobs DIN 319 Plastic, Technopolymer black, shiny finish
- RoHS compliant

Information

Adjustable clamping levers GN 6337.3 have proved to be ideal whenever parts have to be clamped in a confined space or a particular lever position is required. The insert is connected with the lever via serrations in the ball bore which can be disengaged.

Pushing the lever down, disengages the serrations and the lever can be swivelled to the ideal clamping position. Engagement is achieved by releasing the lever.

Should a rotation of 360° not be possible, the insert can be lightly screwed in (after the lever is disengaged) via a slot in the knurled screw.

see also...

- Ball levers DIN 6337 (not adjustable) → Page 247

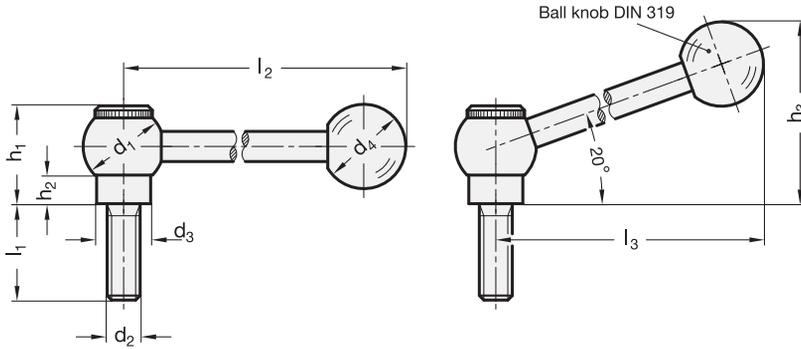
How to order

GN6337.3-28-M12-N

- 1 d₁
- 2 d₂
- 3 Type



- 4 Type**
- M** Straight lever
 - N** Angled lever



- 1**
- 2**
- 3**

d ₁	d ₂	l ₁	d ₃	d ₄	h ₁	h ₂	h ₃ ≈	l ₂	l ₃ ≈					
20	M 8	20	25	32	40	50	63	13,5	20	25	8	46	74	70
25	M 10	20	25	32	40	50	63	16	25	29	8	58	93	87
28	M 12	25	32	40	50	63	80	19	30	33,5	10,5	70,5	116	109

Specification

- Steel blackened
Threaded stud
Tensile strength class 5.8 (500 N/mm²)
- Ball knobs DIN 319
Plastic, Technopolymer
black, shiny finish
- **RoHS compliant**

Information

Adjustable clamping levers GN 6337.3 have proved to be ideal whenever parts have to be clamped in a confined space or a particular lever position is required. The insert is connected by the lever via serrations in the ball bore which can be disengaged.

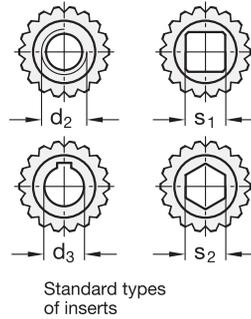
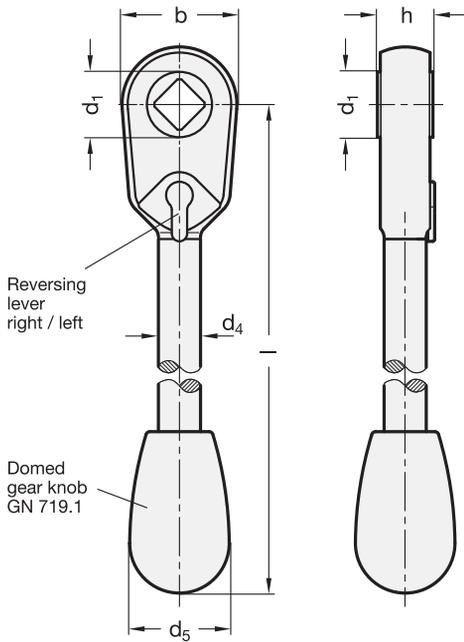
Pushing the lever down, disengages the serrations and the lever can be swivelled to the ideal clamping position. Engagement is achieved by releasing the lever.

Should a rotation of 360° not be possible, the insert can be lightly screwed in (after the lever is disengaged) via a slot in the knurled screw.

How to order

1	d ₁
2	d ₂
3	l ₁
4	Type

GN6337.3-28-M12-50-N



d₁ ∅ Insert	d₂ Thread	d₃ H7 Bore with Keyway		s₁ Square V	s₂ Hexagon SK	b	d₄	d₅	h	l	max. torque in Nm		
12	M 8	-	-	V 8	-	22	9	20	11	118	40		
17	M 10	M 12	K 10	K 12	V 10	30	11	26	14	156	70		
22	M 14*	M 16	K 14	K 16	V 12	V 14	SK 14*	39,5	14	33	17	187	130
26	M 20	-	K 18	-	V 17	-	SK 17*	46	17	33	22	219	180

* not available from stock, requires a minimum order quantity.

Specification

- Steel
- Housing plastic coated black matt, textured finish
- Shaft zinc plated, blau passiviert
- Wearing parts hardened
- Domes gear knobs GN 719.1 Plastic, Duroplast black, shiny finish
- Square DIN 79 → Page 1126
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- other inserts

Information

Ratchet spanners GN 316 are well designed of robust construction and simple to use.

To exchange the inserts remove screw and cover. They are, however, also practical for fixed applications on any machinery and equipment. For example for assembly and repair work. The inserts are easily interchanged and can be supplied individually.

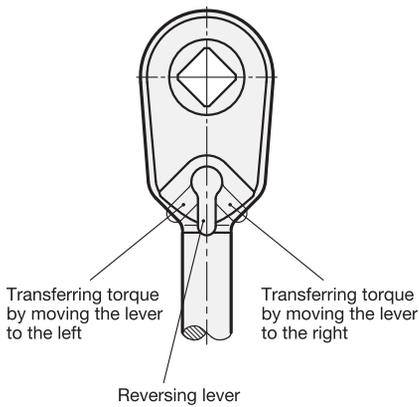
How to order

GN316-26-V17

1	d ₁
2	s ₁ (s ₂ , d ₂ , d ₃)



1.1
1.2
1.3
1.4
1.5



1.6
1.7
1.8
1.9

Function

In order to reverse the operation of this spanner move the cam lever from its middle position either to the left or the right to obtain the function required.

In the middle position the ratchet function is eliminated and the spanner can be used in both directions as an ordinary spanner.





1.6 Clamping levers Tension levers



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

—

1.6 Clamping levers, Tension levers




DIN 99
Clamping levers
Steel

→ Page 244



GN 99.8
Clamp nuts
with double lever
Stainless Steel

→ Page 249



GN 6305
Tommy nuts
with fixed bar
Steel

→ Page 254



DIN 99
Clamping
levers
Stainless Steel

→ Page 245



GN 206
Clamp nuts
Malleable cast iron

→ Page 250



GN 6307
Tommy nuts
with movable bar
Steel

→ Page 255



GN 204
Short
clamping levers
Steel

→ Page 246



GN 206
Clamp nuts
Stainless Steel-
Precision casting

→ Page 250



GN 6304
Tommy screws
with fixed bar
Steel

→ Page 256



DIN 6337
Ball levers
Steel

→ Page 247



GN 206.1
Clamp nuts
with double lever
Malleable cast iron

→ Page 251



GN 6306
Tommy screws
with movable bar
Steel

→ Page 257



GN 99.5
Clamp nuts
Steel

→ Page 248



GN 206.1
Clamp nuts
with double lever
Stainless Steel-
Precision casting

→ Page 251



GN 212
Tension levers
Steel

→ Page 258



GN 99.6
Clamp nuts
Stainless Steel

→ Page 248



GN 601
Clamping levers
Plastic

→ Page 252



GN 212
Tension levers
Stainless Steel

→ Page 259



GN 99.7
Clamp nuts
with double lever
Steel

→ Page 249



GN 601
Clamping levers
Plastic

→ Page 252



GN 750
Control levers
Steel

→ Page 260



GN 150
Split hubs
Sintered Steel

→ Page 262



GN 223
Control levers
Steel

→ Page 264



GN 211
Control levers
Steel

→ Page 265



GN 213
Turret levers
Steel

→ Page 266

1.1

1.2

1.3

1.4

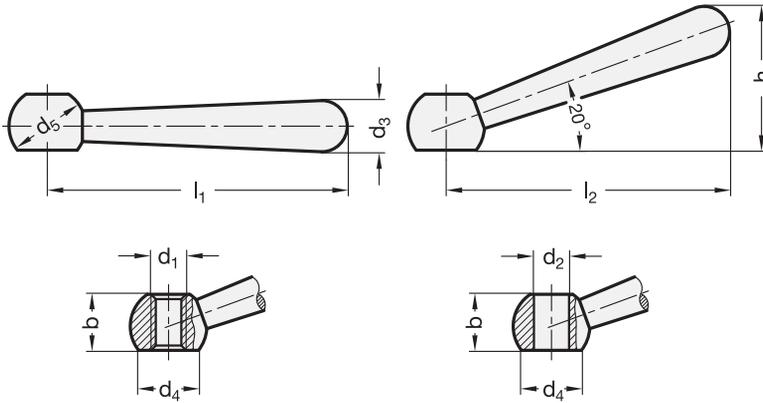
1.5

1.6

1.7

1.8

1.9



3 Type

- K** Straight lever with plain bore H7 (only $l_1 = 50$ to 160)
- M** Straight lever with threaded bore (only $l_1 = 50$ to 160)
- L** Angled lever with plain bore H7
- N** Angled lever with threaded bore

1

2

2

l_1	d_1 Thread	d_2 H7 Bore	b	d_3	$d_4 \approx$	$d_5 -0,2$	$h \approx$	$l_2 \approx$
50	M 6	B 6	9,5	8	7,5	12	24	48
63	M 8	B 8	12	10	11	16	30	60
80	M 10	B 10	14,5	13	15	20	38	76
100	M 12	B 12	18,5	16	19	25	47	95
125	M 16	B 16	24	20	23,5	32	59,5	119
160	M 20	B 20	30	25	29,5	40	76	152
200	M 24	B 24	40	32	33	50	97	190

Specification

- Steel
 - turned
 - blackened
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The official DIN standard sheet specifies additional sizes 40 - M5 / B5.

see also...

- Short clamping levers GN 204 → Page 246
- Clamp nuts GN 99.5 (welded) → Page 248
- Adjustable clamping levers GN 99.2 → Page 234

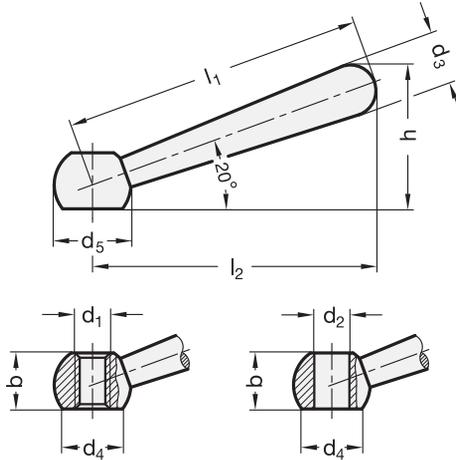
How to order

DIN 99-100-M12-N

1 l_1

2 d_1 (d_2)

3 Type



Rostfrei Inox
Stainless
Steel

3 Type

- N** Angled lever with threaded bore
- L** Angled lever with plain bore H7

1 l_1	2 d_1 Thread	2 d_2 H7 Bore	b	d_3	$d_4 \approx$	$d_5 -0,2$	$h \approx$	$l_2 \approx$
50	M 6	-	9,5	8	7,5	12	24	48
63	M 8	B 8	12	10	11	16	30,5	60
80	M 10	B 10	14,5	13	15	20	38	76
100	M 12	B 12	18,5	16	19	25	47	95
125	M 16	-	24	20	23,5	32	59,5	119

Specification

- Stainless Steel AISI 303 **NI**
matt shot blasted
- *ISO Fundamental Tolerances* → Page 1132
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

On request

- Stainless Steel-Clamping levers with straight lever

4

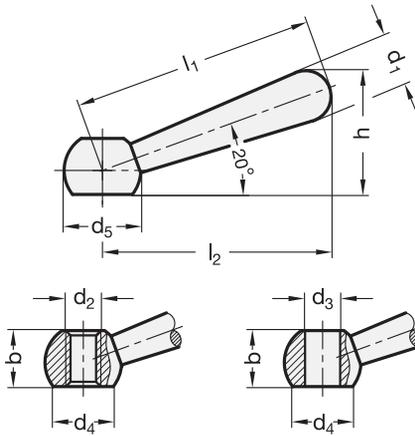
Information

- see also...
- *Stainless Steel-Clamp nuts GN 99.6 (welded)* → Page 248

How to order

DIN 99-63-M8-N-NI

- 1** l_1
- 2** d_1 (d_2)
- 3** Type
- 4** Material



3 Type

- N** Angled lever with threaded bore
- L** Angled lever with plain bore H7

1 d ₁	2 d ₂ Thread	2 d ₃ H7 Bore	b	d ₄ ≈	d ₅	h ≈	l ₁	l ₂ ≈
10	M 8	-	11	12,5	16	26	50	48
13	M 10	B 10	14	16	20	32	63	60
16	M 12	B 12	17,5	20	25	40	80	76
20	M 16	B 16	23	25	32	51	100	95
25	M 20	-	30	31	40	63,5	125	119

Specification

- Steel
 - turned
 - blackened
- *ISO Fundamental Tolerances* → Page 1132
- **RoHS compliant**

On request

- Short clamping levers with straight lever

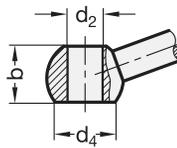
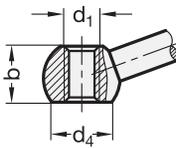
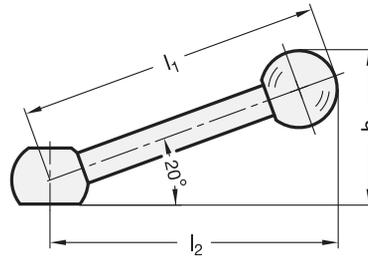
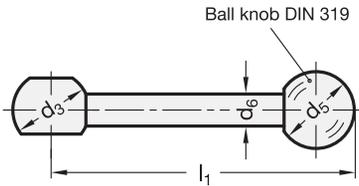
Information

- see also...
- *Clamping levers DIN 99* → Page 244

How to order

GN 204-16-M12-N

1	d ₁
2	d ₂ (d ₃)
3	Type



3 Type

- K*** Straight lever with plain bore H7
- L** Angled lever with plain bore H7
- M*** Straight lever with threaded bore
- N** Angled lever with threaded bore

1 l_1	2 d_1 Thread	2 d_2 H7 Bore	b	d_3	d_4	d_5	d_6	$h \approx$	$l_2 \approx$
63	M 8	B 8	12	16	12,5	20	8	33	60
80	M 10	B 10	14,5	20	16	20	9	40	76
100	M 12	B 12	18,5	25	20	25	11	50	95
125	M 16	B 16	24	32	25	32	15	63	119
160	M 20	B 20	30	40	31	40	18	80	152

* not available from stock, requires a minimum order quantity

Specification

- Steel
 - turned
 - blackened
- Ball knobs DIN 319
 - Plastic, black
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The official DIN standard sheet specifies additional sizes 200 - M24 / B24.

see also...

- Adjustable ball levers GN 6337.3 → Page 236

How to order

DIN 6337-100-M12-N

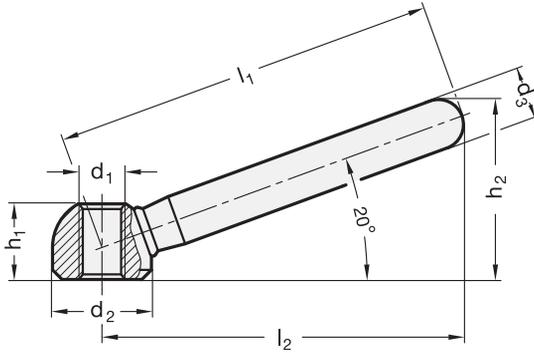
1 l_1

2 d_1 (d_2)

3 Type



ROSTFREI
Inox
Stainless
Steel



1

2

l_1	d_1	d_2	d_3	h_1	$h_2 \approx$	$l_2 \approx$
63	M 8	16	10	12,5	30,5	60
80	M 10	20	12	15	37	76
100	M 12	25	14	19	46	95
125	M 16	32	18	25	58,5	119
160	M 20	40	20	31	73	152

Specification

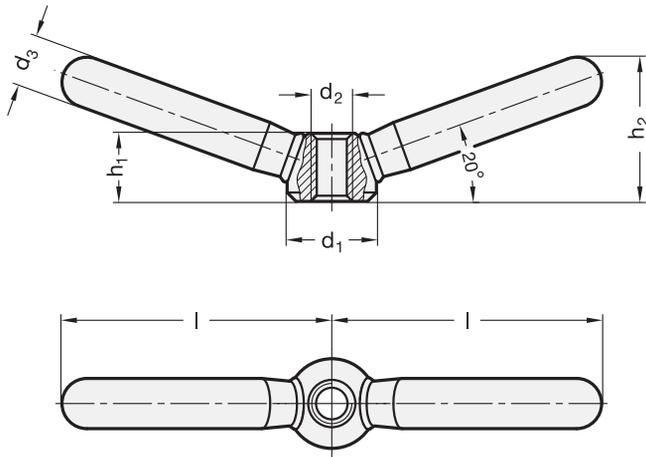
- **GN 99.5**
Steel
zinc plated, blue passivated
- **GN 99.6**
Stainless Steel AISI 304
matt shot-blasted
- Shaft butt-welded to nut
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

Information

- see also...
- *Clamping levers DIN 99 (turned)* → Page 244

Clamp nut GN99.5-100-M12	1	l_1
	2	d_1

Stainless Steel-Clamp nut GN99.6-80-M10	1	l_1
	2	d_1



ROSTFREI
Inox
Stainless
Steel

1 d_1	2 d_2	d_3	h_1	$h_2 \approx$	Length $l \approx$
16	M 8	10	12,5	26	47,5
20	M 10	12	15	32	59,5
25	M 12	14	19	40	75,5
32	M 16	18	25	52	94,5
40	M 20	20	31	62	118

Specification

- **GN 99.7**
Steel
zinc plated, blue passivated
- **GN 99.8**
Stainless Steel AISI 304
matt shot-blasted
- Shaft butt-welded to nut
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

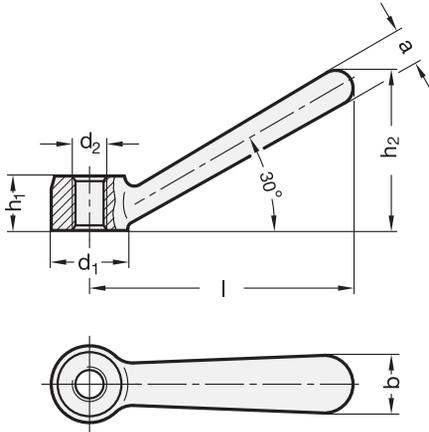
Clamp nuts with double lever GN99.7-20-M10	1	d_1
	2	d_2

Stainless Steel-Clamp nuts with double lever GN99.8-32-M16	1	d_1
	2	d_2

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Rostfrei
Inox
Stainless
Steel



¹ d ₁	² d ₂	a	b	h ₁	h ₂ ≈	Length l ≈
16	M 8	7	12	12	34	56
20	M 10	9	14	14	42,5	70
25	M 12	11	18	18	53	87
32	M 16	15	22	22	66,5	109
40	M 20	18	28	28	84,5	140

Specification

³

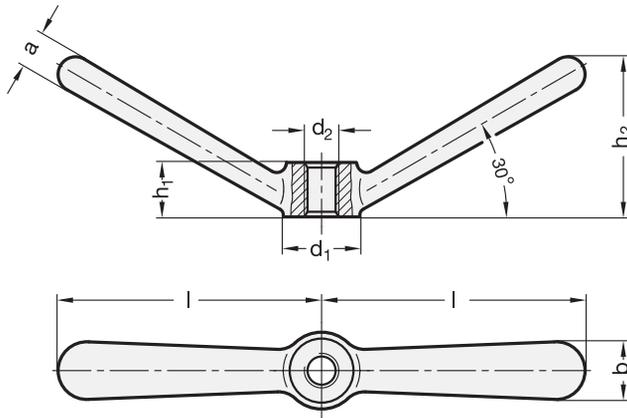
- Malleable cast iron
 - fettled
 - Contact faces machined
- Stainless Steel-Precision casting **NI**
 - AISI CF-8
 - fettled
 - Contact faces machined
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

On request

- Clamp nuts GN 206 plastic coated

Clamp nut GN 206-32-M16	¹ ²	1 d ₁
		2 d ₂

Stainless Steel-Clamp nut GN 206-25-M12-NI	¹ ² ³	1 d ₁
		2 d ₂
		3 Material



Rostfrei Inox
Stainless
Steel

d₁	d₂	a	b	h₁	h₂ ≈	Length l ≈
16	M 8	7	12	12	34	56
20	M 10	9	14	14	42	70
25	M 12	11	18	18	53	87
32	M 16	15	22	22	66	109
40	M 20	18	28	28	84	140

Specification

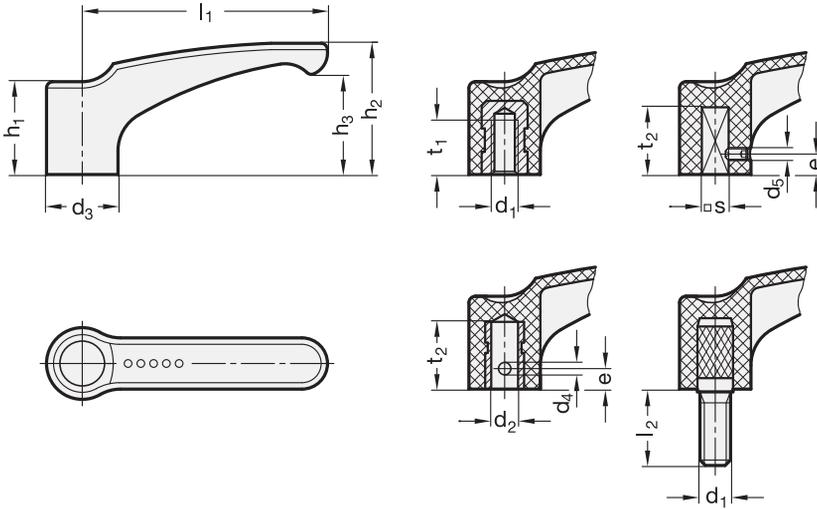
- Malleable cast iron
 - fettled
 - Contact faces machined
- Stainless Steel-Precision casting **NI**
 - AISI CF-8
 - fettled
 - Contact faces machined
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

On request

- Clamp nuts with double lever GN 206.1 plastic coated

Clamp nuts with double lever GN 206.1-32-M16	1	d₁
	2	d₂

Stainless Steel-Clamp nuts with double lever GN 206.1-20-M10-NI	1	d₁
	2	d₂
	3	Material



ELESA Original design ERF.



¹ l ₁	² d ₁ Thread	² d ₂ H9 Bore	² s H9 Square	³ l ₂	d ₃	d ₄	d ₅	e	h ₁	h ₂	h ₃	t ₁ min.	t ₂ min.
44	M 6	B 6	V 5	16	15,5	3	M4	7	19	26,5	19	12	15
63	M 8	B 8	V 6	25	19	4	M4	8	24,5	35	26,5	13	20
78	M 10	B 10	V 8	30	23	4	M5	9	29,5	42	32	17	25
95	M 12	B 12	V 10	50	26,5	5	M5	10	34	51,5	40	20	30

Specification

- Plastic
 - glass fibre reinforced
 - temperature resistant up to 130 °C
 - black-grey RAL 7021, matt
- Threaded bush
Brass
- Threaded stud
Steel
zinc plated, blue passivated
- ISO Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- RoHS compliant

Information

Design and handling of the clamping levers GN 601 comply with the requirements and claims of the Ergostyle® product family.

see also...

- Product family Ergostyle® → Page 12
- Adjustable clamping levers GN 603 → Page 218
- Adjustable clamping levers GN 604 → Page 214

Clamping levers ¹ ² GN601-44-V5	1	l ₁
	2	s (d ₁ , d ₂)

Clamping levers with threaded stud ¹ ² ³ GN601-63-M8-25	1	l ₁
	2	d ₁
	3	l ₂



1.1

1.2

1.3

1.4

1.5

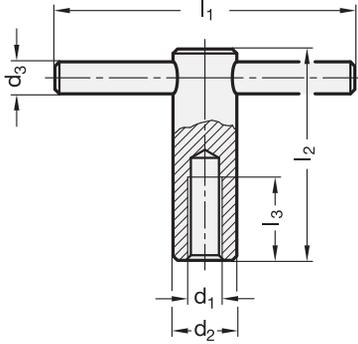
1.6

1.7

1.8

1.9





d ₁	d ₂	d ₃	l ₁	l ₂	l ₃ min.
M 10	18	8	80	60	20
M 12	20	10	100	70	25
M 16	24	12	120	85	35
M 20	30	16	140	95	40

Specification

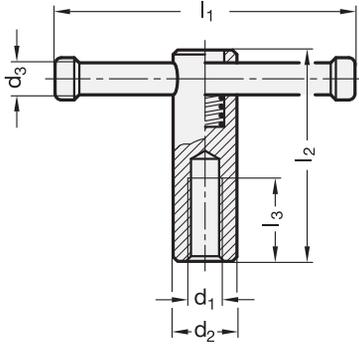
- Steel
Tensile strength class 5.8 (500 N/mm²)
blackened
- RoHS compliant

How to order



DIN 6305-M16

1 d₁



d_1	d_2	d_3	l_1	l_2	l_3 min.
M 10	18	8	80	60	20
M 12	20	10	100	70	25
M 16	24	13	120	85	35
M 20	30	16	140	95	40

Specification

- Steel
Tensile strength class 5.8 (500 N/mm²)
blackened
- Bar end caps
Plastic, grey
- RoHS compliant

Information

The movable bar of the tommy nut DIN 6307 is held in any position by the pressure spring.

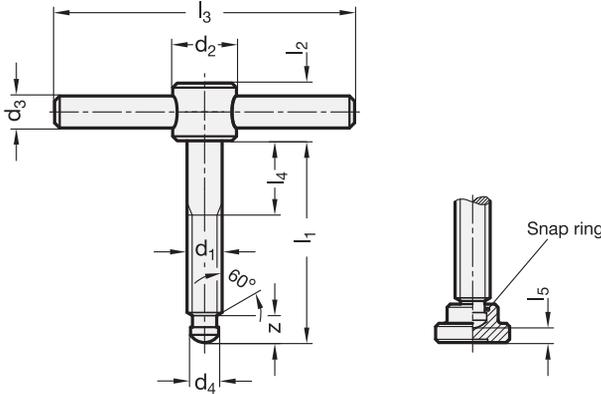
The plastic end caps limit the travel distance. They are pressed on with form-lock and may be supplied separately if the parts are to be electroplated. The official DIN standard sheets provides steel rings at this point.

How to order

DIN 6307-M12

1 d_1

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Type

- E without thrust pad
- F with thrust pad DIN 6311

1

2

d ₁	l ₁		d ₂	d ₃	d ₄ h11	l ₂	l ₃	l ₄	l ₅ ≈	z ≈	
M 6	40	50	-	12	5	4,5	10	50	10	2,2	5,4
M 8	50	60	-	14	6	6	12	60	15	3	6,8
M 10	60	70	-	18	8	8	14	80	20	3,6	8,2
M 12	70	80	-	20	10	8	18	100	20	4,5	8,6
M 16	75	90	110	24	12	12	20	120	20	5,3	10,6
M 20	75	90	110	30	16	15,5	28	140	20	5,6	12,4

Specification

- Steel
Tensile strength class 5.8 (500 N/mm²)
- blackened
- Thrust point hardened
- *Thrust pads DIN 6311* → Page 594
- *ISO Fundamental Tolerances* → Page 1132
- **RoHS compliant**

Information

The thrust point of these screws DIN 6304 is designed to be used with or without a thrust pad for clamping.

The snap ring is a simple and quick method to connect the thrust pad to the tommy screw.

Instead of DIN 6311 a thrust pad GN 6311.1 can be used. In that case the tommy screw and the thrust pad have to be ordered separately.

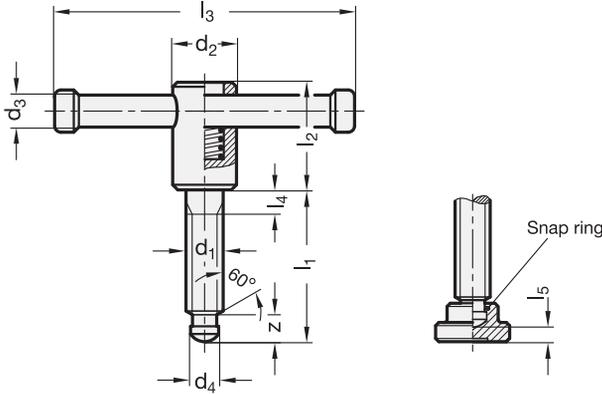
see also...

- *Thrust pads GN 6311.1* → Page 595

How to order

DIN 6304-M12-70-E

- 1 d₁
- 2 l₁
- 3 Type



3 Type

- D without thrust pad
- E with thrust pad DIN 6311

1 2

d ₁	l ₁			d ₂	d ₃	d ₄ h11	l ₂	l ₃	l ₄	l ₅ ≈	z ≈
M 10	40	50	-	18	8	8	32	80	10	3,6	8,2
M 12	50	60	-	20	10	8	35	100	10	4,5	8,6
M 16	55	70	90	24	13	12	40	120	10	5,3	10,6
M 20	55	70	90	30	16	15,5	45	140	10	5,6	12,4

Specification

- Steel
Tensile strength class 5.8 (500 N/mm²)
- blackened
- Thrust point hardened
- Bar end caps
Plastic, grey
- Thrust pads DIN 6311 → Page 594
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The thrust point of these screws DIN 6306 is designed to be used with or without the thrust pad for clamping.

The snap ring is a simple and quick method to connect the thrust pad to the tommy screw.

Instead of DIN 6311 a thrust pad GN 6311.1 can be used. In that case the tommy screw and the thrust pad have to be ordered separately.

The movable bar of the tommy screw DIN 6306 is held in any position by the pressure spring.

The end caps are pressed on to the bar and thus limit the bar travel, they can also be supplied separately should the bar be plated first. The official DIN standard sheets provides for steel rings at this point.

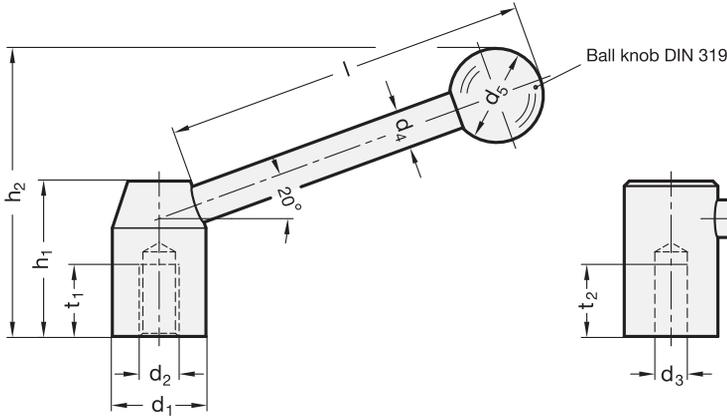
see also...

- Thrust pads GN 6311.1 → Page 595

How to order

DIN 6306-M12-50-D

- 1 d₁
- 2 l₁
- 3 Type



3 Type

- C** angled lever with plain bore H7
- E** angled lever with threaded bore
- B*** straight lever with plain bore H7
- D*** straight lever with threaded bore

1 d ₁	2 d ₂ Thread	2 d ₃ H7 Bore	d ₄	d ₅	h ₁	h ₂ ≈ Type C Type E	Length l ≈	t ₁ min.	t ₂ min.
22	M 10	B 10	8	20	37	66	82	15	19
25	M 12	B 12	10	25	42	76	96	18	21
28	M 12	B 12	12	30	47	87	110	18	23
32	M 16	B 16	12	32	52	97	124	23	25
36	M 16	B 16	14	35	58	108	138	24	27
40	M 20	B 20	16	40	64	120	152	27	29

* not available from stock, requires a minimum order quantity

Specification

- Steel blackened
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- Cross holes GN 110 → Page 1127
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Tension levers GN 212 are used as clamping element as well as operating levers.

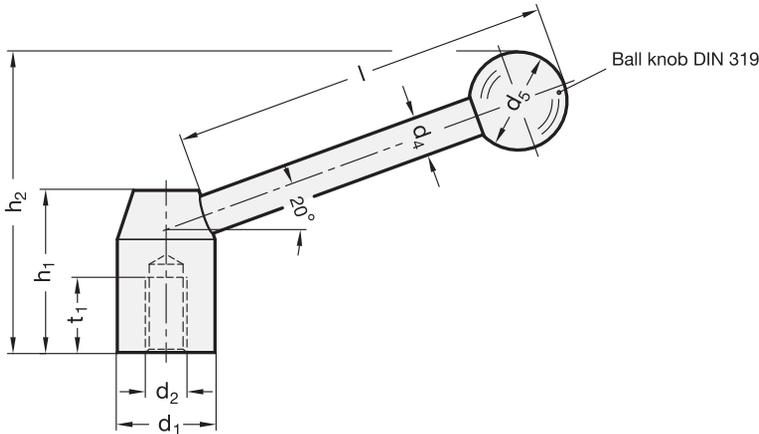
see also...

- Adjustable tension levers GN 212.3 → Page 222

How to order

GN212-28-B12-C

- 1** d₁
- 2** d₃ (d₂)
- 3** Type



Rostfrei
Inox
Stainless
Steel

3 Type
E angled lever with threaded bore

1 d ₁	2 d ₂	d ₄	d ₅	h ₁	h ₂ ≈	Length l	t ₁ min.
22	M 8	8	20	37	66	70	12
25	M 10	10	25	42	76	96	15
28	M 12	12	30	47	87	110	18
32	M 16	12	32	52	97	110	23

Specification

- Stainless Steel - AISI 303 - matt shot-blasted
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- Cross holes GN 110 → Page 1127
- Stainless Steel characteristics → Page 1144
- RoHS compliant

4 Information

Stainless Steel-Tension levers GN 212 are used as clamping element as well as operating levers.

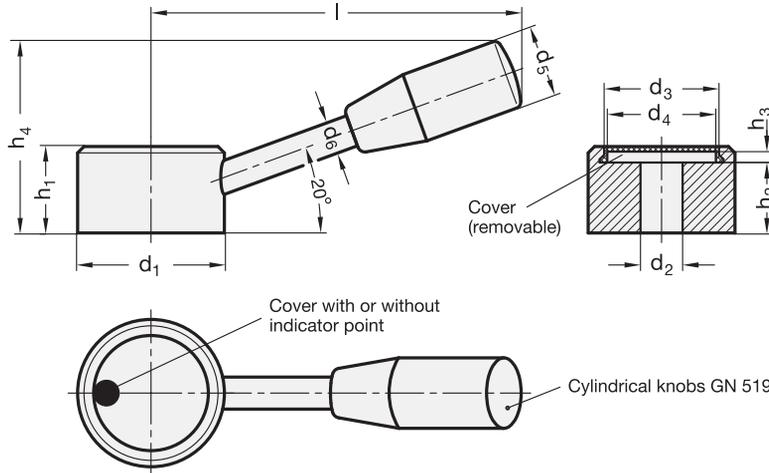
see also...

- Adjustable Stainless Steel-Tension levers GN 212.5 → Page 224

How to order

GN212-25-M10-E-NI

- 1** d₁
- 2** d₂
- 3** Type
- 4** Material



3 Type

- M** Cover with indicator point
- N** Cover plain

1

2

d ₁	d ₂ H7 Bore		d ₃	d ₄	d ₅	d ₆	h ₁	h ₂	h ₃	h ₄ ≈	Length l
32	B 10	-	25	23	18	8	21	15	4,2	43	84
40	B 10	B 12	32	30	21	9	25	19	4,0	54	106
50	B 14	B 16	40	37,5	23	11	28	22	3,8	63	130

Specification

- Steel blackened
- Cover Plastic, light grey
- Cylindrical knobs GN 519 Plastic, Duroplast black, shiny finish
- Cross holes GN 110 → Page 1127
- Keyway P9 DIN 6885 → Page 1124
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- Control lever versions of the assembly examples

Information

The cover hides fasteners (see assembly instructions) and provides a printing facility for any symbol or logo.

On assembly, the cover is pushed in by hand and can be removed with a screw driver via a suitable slot.

Control levers GN 750 can also be supplied as standard with:

- Square DIN 79 **V** + Bore-Ø
- Keyway DIN 6885 **K** + Bore-Ø

How to order

GN 750-32-B10-N

- 1** d₁
- 2** d₂
- 3** Type



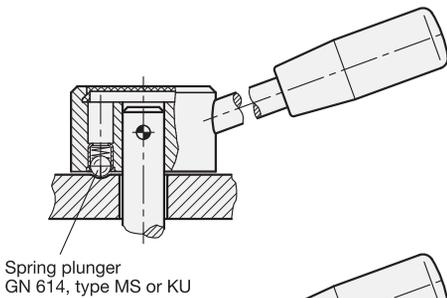
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

Assembly examples

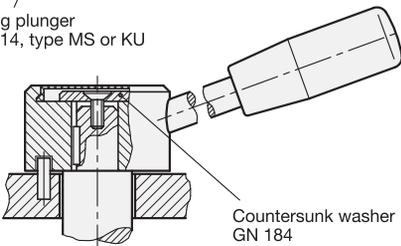
Control lever GN 750 with spring-loaded ball, GN 614 (page 490), version brass (MS) or plastic (KU), fitted to the shaft with a dowel pin.

The spring-loaded ball provides a simple indexing assembly, the location indent can be spotted through the control lever hub.

The shaft end and the screw of the indexing ball are hidden by the plastic cover.

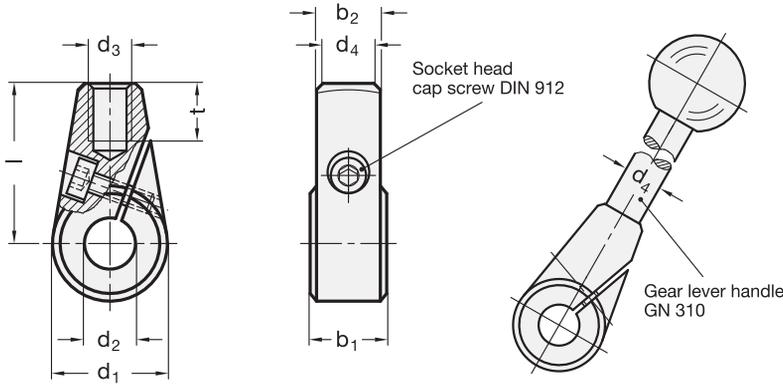


Spring plunger
GN 614, type MS or KU



Countersunk washer
GN 184

Control lever GN 750 with keyway and countersunk washer GN 184 (page 542) for positive lateral location and with a radial slot and dowel pin providing angle limitations.



1

2

d ₁	d ₂ Bore		b ₁ ±0,2	b ₂	d ₃	d ₄ Gear lever handle	Length l	t min.
24	B 10	B 12	15,5	13	M 8	10	36	11
28	B 12	B 14	17,5	15	M 10	12	41	14
32	B 14	B 16	19,5	17	M 12	14	45	16

Specification

- Sintered Steel
black oxidised with vapor
- RoHS compliant

Information

Split hubs GN 150 are distinguished by the method of simple clamping to any shaft.

This can be achieved without prior machining of the shaft, eliminating clamping parts and assembly work.

A further advantage is the positioning of the lever arm to any required position.

The shaft tolerance should be within h11; to transmit higher torques the hub can be supplied with a keyway.

see also...

- Gear lever handles GN 310 → Page 42

How to order

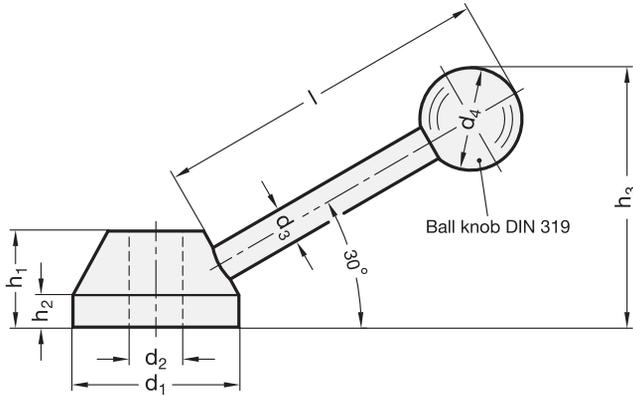
GN 150-28-B14

1	d ₁
2	d ₂



Split hubs GN 150 → *Page 262*

Gear lever handles GN 310 → *Page 42*



1

2

d ₁	d ₂ H7 Bore	d ₃	d ₄	h ₁	h ₂	h ₃ ≈	Length l ≈
25	B 8	6	16	14	5	35	45
32	B 10	8	20	18	6,5	48	62
40	B 12	10	30	22	8,5	77	95
52	B 16	14	40	28	11	96	136

Specification

- Steel blackened
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- Keyway P9 DIN 6885 → Page 1124
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Control levers GN 223 can also be supplied as standard with:

- Square DIN 79 **V** + Bore-Ø
- Keyway DIN 6885 **K** + Bore-Ø

see also...

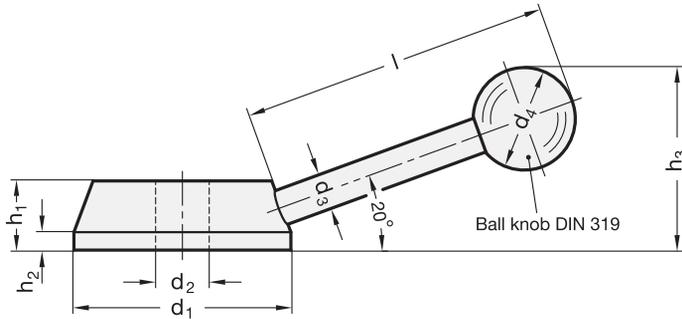
- Control levers GN 750 (with Cover) → Page 260

How to order

GN223-32-B10

1 d₁

2 d₂



¹ d ₁	² d ₂ H7 Bore	d ₃	d ₄	h ₁	h ₂	h ₃ ≈	Length l ≈
50	B 12	8	20	17	5	45	82
55	B 14	10	25	18	5	52	96
65	B 16	12	30	20	5	60	110
80	B 20	14	35	24	6	74	138

Specification

- Steel blackened
- Ball knobs DIN 319 Plastic, Duroplast black, shiny finish
- Keyway P9 DIN 6885 → Page 1124
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Control levers GN 211 can be used in connection with indexing elements, grooves for angle limitations and such like due to their comparably big hub diameter.

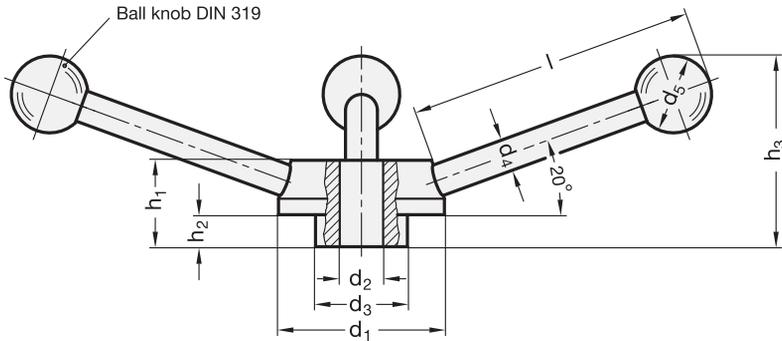
Spring plungers as well as indexing plungers can be used as indexing elements.

Control levers GN 211 can also be supplied as standard with:

- Square DIN 79 **V** + Bore-Ø
- Keyway DIN 6885 **K** + Bore-Ø

How to order GN211-65-B16	¹ d ₁
	² d ₂

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



1

2

d_1	d_2 H7 Bore	d_3	d_4	d_5	h_1	h_2	$h_3 \approx$	Length $l \approx$
50	B 12	28	8	20	26	9	53	82
55	B 14	30	10	25	28	10	61	96
60	B 15	32	10	25	30	11	52	96
65	B 16	35	12	30	32	12	71	110
72	B 18	40	12	32	36	14	80	124
80	B 20	44	14	35	40	16	89	138
100	B 24	54	16	40	52	24	113	170

Specification

- Steel
blackened
- Ball knobs DIN 319
Plastic, Duroplast
black, shiny finish
- Keyway P9 DIN 6885 → Page 1124
- ISO Fundamental Tolerances → Page 1132
- RoHS compliant

Information

Turret levers GN 213 can also be supplied as standard with:

- Square DIN 79 **V** + Bore-Ø
- Keyway DIN 6885 **K** + Bore-Ø

How to order

GN213-65-B16

1 d_1 2 d_2



1.7

Star knobs
Wing screws
Knurled screws



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9



1.7 Star knobs, Knurled screws, Wing screws




DIN 6336
Star knobs
Aluminium



→ Page 274



GN 6336.4
Star knobs
with threaded bolt
Plastic, Cast iron



→ Page 278



GN 6336.12
Star knobs
with thrust pad,
Plastic /
Stainless Steel



→ Page 283



DIN 6336
Star knobs
Cast iron



→ Page 274



GN 6336.5
Star knobs
with threaded bolt
Plastic /
Stainless Steel



→ Page 279



GN 5337.2
Star knobs
Plastic

→ Page 284



DIN 6336
Star knobs
Stainless Steel




→ Page 274



GN 6336.5
Star knobs
with threaded bolt
Aluminium /
Stainless Steel



→ Page 279



GN 5337.2
Star knobs
with threaded bolt
Plastic

→ Page 285



DIN 6336
Star knobs
Plastic



→ Page 275



GN 6336.5
Star knobs
with threaded bolt
Stainless Steel



→ Page 279



GN 5337.3
Safety star
knobs
Plastic

→ Page 286



DIN 6336
Star knobs
Plastic /
Stainless Steel



→ Page 275



GN 6336.3
Quick release
star knobs
Plastic

→ Page 281



GN 5337.3
Safety star
knobs
Plastic /
Stainless Steel



→ Page 286



GN 6336.1
GN 6336.2
Star knobs
Plastic



→ Page 276



GN 6336.10
Star knobs
with pivot,
Plastic /
Stainless Steel



→ Page 282



GN 5337.3
Safety star
knobs
with threaded bolt
Plastic

→ Page 286



GN 6336.1
GN 6336.2
Star knobs
Plastic /
Stainless Steel




→ Page 277



GN 6336.11
Star knobs
with ball pin,
Plastic /
Stainless Steel



→ Page 283



GN 5337.3
Safety star
knobs
with threaded bolt
Plastic /
Stainless Steel



→ Page 286

1.7 Star knobs, Knurled screws, Wing screws




GN 5336
Star knobs
Aluminium

→ Page 287



DIN 6335
Star knobs
Plastic

→ Page 293



GN 6335.5
Star knobs
with threaded bolt
Stainless Steel

→ Page 297



GN 5334
Star knobs
Stainless Steel

→ Page 288



GN 6335.1
Star knobs
Plastic

→ Page 294



GN 6335.9
Star knobs
with increased
clamping force,
Plastic

→ Page 298



GN 5334
Star knobs
with
threaded bolt
Stainless Steel

→ Page 289



GN 6335.2
Star knobs
Plastic

→ Page 294



GN 5339.5
Triangular
knobs
Stainless Steel

→ Page 299



GN 5335
Star knobs
Stainless Steel

→ Page 291



GN 6335.2
Star knobs
Plastic /
Stainless Steel

→ Page 295



GN 5330
Tristar knobs
Plastic

→ Page 300



DIN 6335
Star knobs
Cast iron

→ Page 292



GN 6335.4
Star knobs
with threaded bolt
Plastic, Cast iron

→ Page 296



GN 5330
Tristar knobs
with threaded bolt
Plastic

→ Page 301



DIN 6335
Star knobs
Aluminium

→ Page 292



GN 6335.5
Star knobs
with threaded bolt
Plastic /
Stainless Steel

→ Page 297



GN 532
Wing nuts
Plastic

→ Page 302



DIN 6335
Star knobs
Stainless Steel

→ Page 292



GN 6335.5
Star knobs
with threaded bolt
Aluminium /
Stainless Steel

→ Page 297



GN 531
Wing screws
Plastic

→ Page 303

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

1.7 Star knobs, Wing screws, Knurled screws




GN 531
Wing screws
Plastic /
Stainless Steel

→ Page 304



GN 431
Wing screws
Stainless Steel

→ Page 311



GN 7336.5
Knurled screws
with pivot
Plastic /
Stainless Steel

→ Page 315



GN 531.1
Wing screws
Plastic

→ Page 305



GN 534
Knurled knobs
Plastic

→ Page 312



GN 420
Knurled nuts
Plastic

→ Page 316



GN 834
Wing nuts
Stainless Steel

→ Page 306



GN 534
Knurled screws
Plastic

→ Page 313



GN 420
Knurled nuts
Plastic /
Stainless Steel

→ Page 316



GN 835
Wing screws
Stainless Steel

→ Page 307



GN 7336
Knurled knobs
Plastic

→ Page 314



GN 421
Knurled screws
Plastic

→ Page 317



GN 434
Wing nuts
Stainless Steel

→ Page 310



GN 7336
Knurled knobs
Plastic /
Stainless Steel

→ Page 314



GN 421
Knurled
screws
Plastic /
Stainless Steel

→ Page 318



GN 433
Wing screws
Stainless Steel

→ Page 310



GN 7336
Knurled screws
Plastic

→ Page 314



GN 421.10
Knurled screws
with pivot, Plastic

→ Page 319



GN 432
Wing nuts
Stainless Steel

→ Page 311



GN 7336
Knurled screws
Plastic /
Stainless Steel

→ Page 314



GN 421.11
Knurled screws
with ball pin,
Plastic

→ Page 420

1.7 Star knobs, Wing screws, Knurled screws




GN 421.12
Knurled screws
with thrust pad,
Plastic

→ Page 320



DIN 466
Knurled nuts
Stainless Steel

→ Page 325



DIN 467
Flat
knurled nuts
Steel

→ Page 331



GN 536
Knurled nuts
Stainless Steel

→ Page 321



DIN 464
Knurled screws
Steel

→ Page 326



DIN 467
Flat
knurled nuts
Stainless Steel

→ Page 331



GN 535
Knurled
screws
Stainless Steel

→ Page 321



DIN 464
Knurled
screws
Stainless Steel

→ Page 327



DIN 6303
Knurled nuts
Steel

→ Page 322



DIN 653
Flat
knurled screws
Steel

→ Page 328



DIN 6303
Knurled nuts
Stainless Steel

→ Page 323



DIN 653
Flat
knurled screws
Stainless Steel

→ Page 329



GN 6303.1
Quick release
knurled nuts
Steel

→ Page 324



DIN 653.10
Flat
knurled screws
with pivot
Steel

→ Page 330



DIN 466
Knurled nuts
Steel

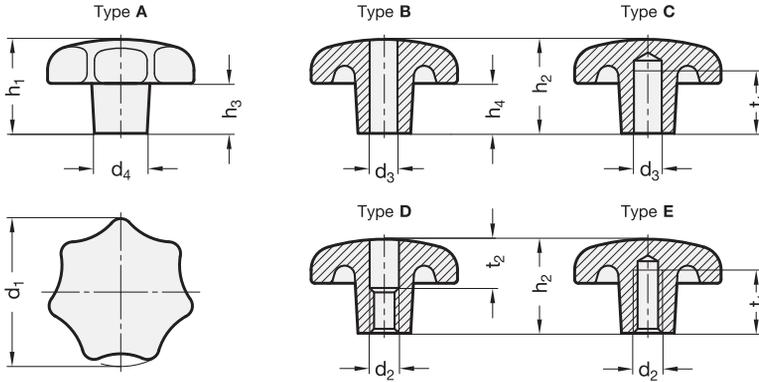
→ Page 325



DIN 653.10
Flat
knurled screws
with pivot
Stainless Steel

→ Page 330

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Rost free
 Inch sizes available
 Inch sizes available

4 Type

- A** casting only (unmachined)
- B** with threaded through bore H7
- C** with threaded blind bore H7
- D** with threaded through bore
- E** with threaded blind bore

2			3		3		d ₄	h ₁ Type A	h ₂ Type B, C, D, E	h ₃ min. Type A	h ₄ min. Type B, C, D, E	t ₁	t ₂
d	GG	NI	AL	d ₂ Thread Type D Type E	d ₃ H7 Bore Type B Type C								
32	32	-		M 6	-	B 6	12	21	20	10	9	12	10
40	40	40		M 8	-	B 8	14	26	25	13	12	15	12
50	50	50	50	M 8	M 10	B 8	B 10	18	34	17	15	18	16
63	63	63	63	M 10	M 12	B 10	B 12	20	42	21	19	22	20
80	-	80	80	M 12	M 16	B 12	B 16	25	52	25	23	28	30

Specification

- Cast iron **GG**
fettled and tumbled
- Stainless Steel-Precision casting **NI**
only Types A, D, E
- AISI CF-8
- matt shot-blasted
- Aluminium **AL**
only Types A, C, D, E
- matt finish (ground) **MT**
flash mark not visible
- polished **PL**
- ISO-Fundamental tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

On request

- plastic coated

5

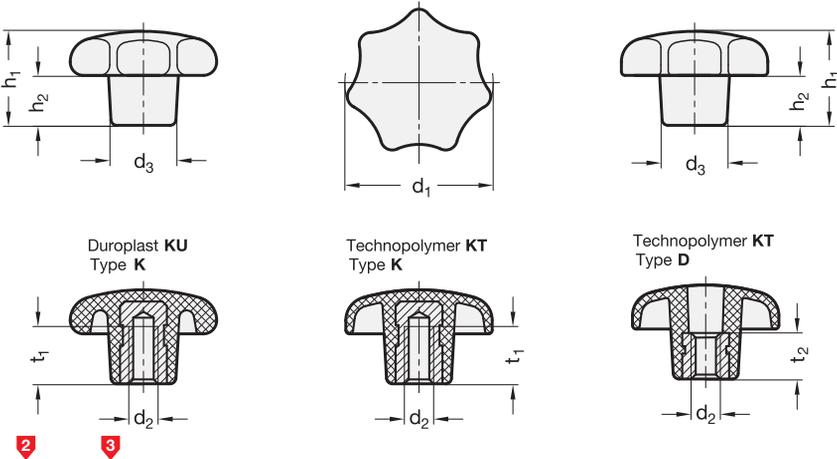
Information

see also...

- Star knobs with threaded bolt GN 6336.4 → Page 278
- Star knobs with threaded bolt GN 6336.5 → Page 279

Star knob Cast iron	1	Material
	2	d ₁
	3	d ₂ (d ₃)
DIN 6336-GG-63-M12-D	4	Type

Star knob Aluminium	1	Material
	2	d ₁
	3	d ₂ (d ₃)
DIN 6336-AL-40-B8-C-PL	4	Type
	5	Finish



Rostfrei
 Inox Stainless Steel
 Inch sizes available

4 Type
K with threaded bush
D with threaded through bore

d ₁	d ₂			d ₃		h ₁	h ₂	t ₁ min.	t ₂	
	Bush steel Plastic KU Type K	Plastic KT Type K	Plastic KT Type D	Bush brass Plastic KU Type K	Bush Stainless Steel Plastic KT Type K					
20	-	-	-	M 4	-	10	13	7	6,5	-
25	M 5	M 5	-	M 5	-	12	16	8	9,5	-
32	-	M 5	-	-	M 5	14	20	10	9,5	-
32	M 6	M 6	M 6	M 6	M 6	14	20	10	12	10,5
40	M 6	M 6	-	M 6	M 6	18	25	13	12	-
40	M 8	M 8	M 8	M 8	M 8	18	25	13	14	13
50	M 8	M 8	M 8	M 8	M 8	22	32	17	14	16
50	M 10	M 10	M 10	M 10	M 10	22	32	17	18	16
63	M 10	M 10	-	M 10	M 10	26	40	21	18	-
63	M 12	M 12	M 12	M 12	M 12	26	40	21	22	20
80	M 12	M 12	-	M 12	M 12	35	50	25	22	-
80	M 16	M 16	-	M 16	M 16	35	50	25	30	-

Specification

- Plastic Duroplast (PF) black, shiny finish
Bush
- Steel zinc plated, blue passivated (standard)
- Brass: add **MS** on order code
- Plastic Technopolymer (Polyamide PA) - shock-resistant - black, matt finish
Bush
- Steel zinc plated, blue passivated (standard)
- Stainless Steel AISI 303: add **NI** on order code

• Plastic characteristics → Page 1141

• RoHS compliant

Information

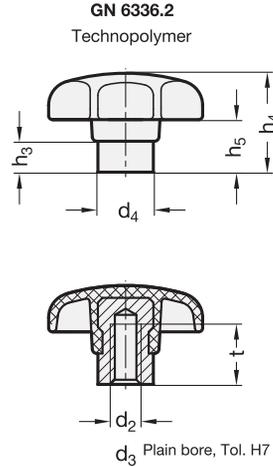
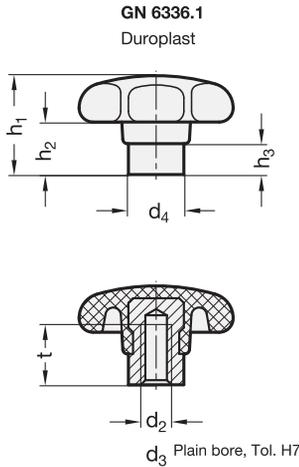
Star knobs DIN 6336 with bore H7 are available under code GN 6336.1 and GN 6336.2.

see also...

- Star knobs with threaded bolt GN 6336.4 → Page 278
- Star knobs with threaded bolt GN 6336.5 → Page 279
- Star knobs GN 6336.1 / GN 6336.2 (with protruding steel bush) → Page 276
- Quick release-Star knobs GN 6336.3 → Page 281

Star knob, Duroplast	1	Material
DIN 6336-KU-63-M12-K	2	d ₁
	3	d ₂
	4	Type

Star knob, Technopolymer	1	Material
DIN 6336-KT-50-M10-D	2	d ₁
	3	d ₂
	4	Type



Inch sizes available

3 Type

- E** with threaded blind bore
- C** with plain blind bore, Tol. H7

d₁	d₂ Thread GN 6336.1 GN 6336.2 Type E	d₃ H7 Bore GN 6336.1 Type C	Bore GN 6336.2 Type C	d₄	h₁	h₂	h₃	h₄	h₅	t min.
32	M 6	B 6	B 6	12	21	10	8,5	20	10	12
40	M 6	B 6	B 8	14	26	13	10	26	13	14
50	M 8	B 8	B 10	18	34	17	10	32	17	18
63	M 10	B 10	B 12	20	42	21	14	40	21	22
80	M 12	B 16	-	25	52	25	15	52	27	30

Specification

- **GN 6336.1**
Plastic
Duroplast (PF)
black, shiny finish
Bush
Steel zinc plated, blue passivated
- **GN 6336.2**
Plastic
Technopolymer (Polyamide PA)
- shock-resistant
- black, matt finish
Bush
Steel zinc plated, blue passivated
- *ISO-Fundamental Tolerances* → Page 1132
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

Star knobs GN 6336.1 / GN 6336.2 with all steel bush have important advantages:

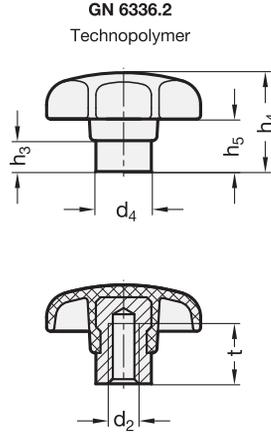
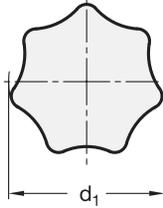
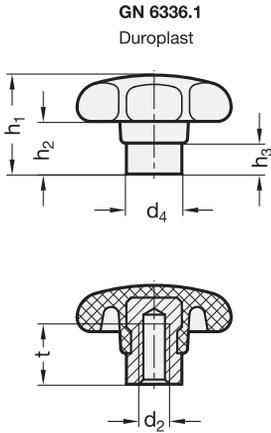
The face of the bush is exactly square to the bore and is with the complete diameter out of steel. The protruding steel bush allows a perfect cross-dowels connection.

see also...

- *Star knobs with threaded bolt GN 6336.4* → Page 278

Star knob Duroplast GN6336.1-63-M12-E	1 d_1
	2 d_2 (d_3)
	3 Type

Star knob Technopolymer GN6336.2-50-B10-C	1 d_1
	2 d_3 (d_2)
	3 Type



Rostfrei Inox Stainless Steel **Inch** Inch sizes available

3 Type
E with threaded blind bore

d ₁	d ₂		d ₄	h ₁	h ₂	h ₃	h ₄	h ₅	t
	GN 6336.1	GN 6336.2							
32	M 6	M 6	12	21	10	8,5	20	10	12
40	M 8	M 8	14	26	13	10	26	13	14
50	M 10	M 10	18	34	17	10	32	17	18
63	M 12	M 12	20	42	21	14	40	21	22
80	M 16	-	25	52	25	15	52	-	30

Specification

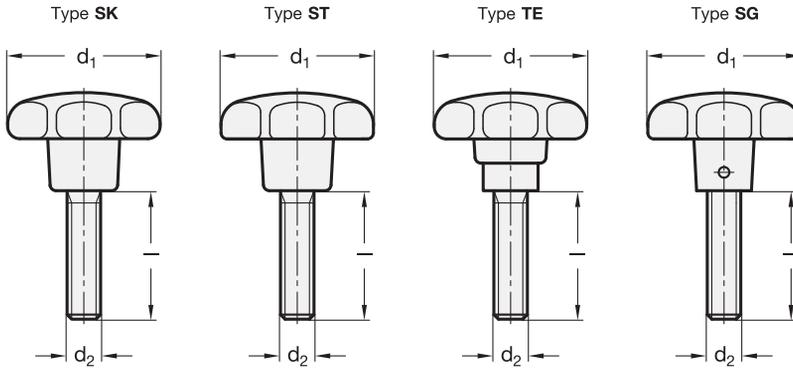
- GN 6336.1**
Plastic
Duroplast (PF)
black, shiny finish
Bush
Stainless Steel AISI 303 **NI**
- GN 6336.2**
Plastic
Technopolymer (Polyamide PA)
- shock-resistant
- black, matt finish
Bush
Stainless Steel AISI 303 **NI**
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

Information

Star knobs GN 6336.1 / GN 6336.2 with all steel bush have important advantages:
The face of the bush is exactly square to the bore and is with the complete diameter out of Stainless Steel. The protruding Stainless Steel bush allows a perfect cross-dowels connection.

Star knob Duroplast / Stainless Steel	1	d ₁
	2	d ₂
	3	Type
	4	Material

Star knob Technopolymer / Stainless Steel	1	d ₁
	2	d ₂
	3	Type
	4	Material



Inch sizes available

- 1 Type**
- SK** Star knob DIN 6336 Plastic (KU) Duroplast (PF)
 - ST** Star knob DIN 6336 Plastic (KT) Technopolymer
 - TE** Star knob GN 6336.2 Plastic Technopolymer
 - SG** Star knob DIN 6336 Cast iron (GG)

d ₁	d ₂	Length l Type ST									Length l Type SK, SG						Length l Type TE				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
25	M 5	5	10	15	20	25	30	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	M 6	6	10	16	20	25	30	35	45	60	16	20	25	30	35	45	16	20	25	30	35
40	M 8	8	16	20	25	30	35	40	50	55	16	20	25	30	40	55	16	20	25	30	45
50	M 10	10	15	20	25	30	35	40	45	55	25	30	35	45	55	-	25	30	35	45	55
63	M 12	12	20	25	30	35	40	50	60	-	30	35	40	50	60	-	30	35	40	50	60
80	M 16	-	-	-	-	-	-	-	-	-	30	40	50	60	70	-	-	-	-	-	-

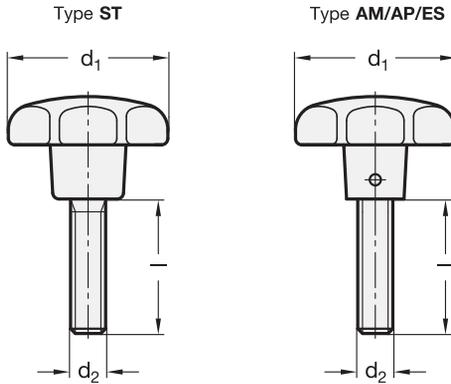
Specification

- Star knob details and dimensions see:
 - DIN 6336-KU / KT → Page 335
 - GN 6336.2 → Page 336
 - DIN 6336-GG → Page 334
- For Type SK, ST, TE the threaded bolts are zinc plated, blue passivated and moulded in position
- For Type SG the threaded bolt (blackened) is screwed in and secured by a cross-dowel.
- Plastic characteristics → Page 1141
- RoHS compliant

Information

- Should clamping with the bush face be necessary, then it is recommendable to use either Type TE or Type SG.
- see also...
- Star knobs 6336.10 (with brass / plastic thrust pad) → Page 282

How to order		1 Type
2	d ₁	
3	d ₂	
4	Length l	
GN6336.4-SK-50-M10-30		



- 1 Type**
- ST** Star knob DIN 6336 Plastic (KT) Technopolymer (Polyamide PA)
 - AM** Star knob DIN 6336 Aluminium (AL) matt (ground)
 - AP** Star knob DIN 6336 Aluminium (AL) polished
 - ES** Star knob DIN 6336 Stainless Steel-Precision casting (NI) matt shot-blasted

d ₁	d ₂		Length l ≈				
	Type ST	Type AM Type AP Type ES					
25	M 5	-	10	15	20	25	-
32	M 6	-	10	16	20	25	30
40	M 8	M 8	20	25	30	40	-
50	M 10	M 10	20	25	30	45	55
63	M 12	M 12	30	40	50	-	-

Specification

- Star knob details and dimensions see:
 - DIN 6336-KT → Page 275
 - DIN 6336-AL → Page 274
 - DIN 6336-NI → Page 274
- Threaded bolt
Stainless Steel
German Material No.
 - Type ST:
German Material No. 1.4547 (M5 ... M10)
AISI 303 (M12)
 - Type AM / AP / ES
AISI 303
- For the Types AM / AP and ES the threaded bolt is screwed in and secured by a cross-dowel.
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

- see also...
- *Stainless Steel-Star knobs GN 5334* → Page 288
 - *Star knobs GN 6336.4 (with steel threaded bolt)* → Page 278

How to order		1 Type
2 d₁		
3 d₂		
4 Length l		

GN6336.5-ST-40-M8-20

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

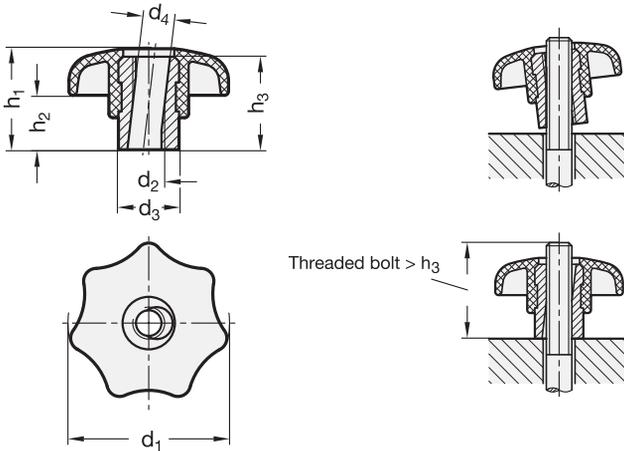


Aluminium Star knobs, matt and polished

GN 5336 → *Page 287*

DIN 6336 → *Page 274*

DIN 6335 → *Page 292*



d₁	d₂	d₃	d₄	h₁	h₂ ≈	h₃ min.
40	M 8	16	8,4	26	13	24
50	M 10	20	10,5	34	17	30
63	M 12	26	13	42	21	37

Specification

- Plastic
Technopolymer (Polyamide PA)
- shock-resistant
- black, matt finish
- Bush
Steel
zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

Quick release star knobs GN 6336.3 are used in such applications where the knob has to be completely removed after the releasing operation and refitted rapidly for re-clamping.

The knob is tilted over the threaded spindle. When in position, the knob is brought into a straight position for meshing of the two threads on nut and spindle. The knob will then have to be turned only by fraction of a rotation to achieve clamping.

see also...

- *Quick release knurled nuts GN 6303.1* → Page 324

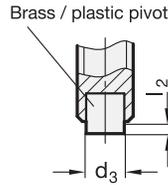
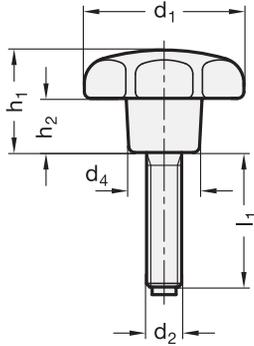
How to order	1	d₁
	2	d₂

GN6336.3-50-M10

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Rostfrei
Inox
Stainless
Steel



1 2 3

d ₁	d ₂	l ₁ Nominal length						l ₂		d ₃		d ₄	h ₁	h ₂
		5	10	15	20	25	-	MS-pad	KU-pad	MS-pad	KU-pad			
25	M 5	10	15	20	25	-	0,5	1	3	3	12	16	8	
32	M 6	10	16	20	25	30	1	1,3	4	3,5	14	20	10	
40	M 8	20	25	30	40	50	1,5	1,6	6	5	18	25	13	
50	M 10	20	25	30	45	55	2	1,9	8	6,5	22	32	17	

Specification

- Star knob DIN 6336
Plastic
Technopolymer (Polyamide PA)
black, matt finish
- Threaded bolt
Stainless Steel AISI 304 Cu
- Pivot
- Brass **MS**
- Plastic (Polyacetal POM) **KU**
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

4

Information

Star knobs GN 6336.10 with brass or plastic thrust pad are used when indentations or damage is to be avoided.

see also...

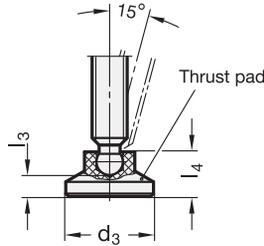
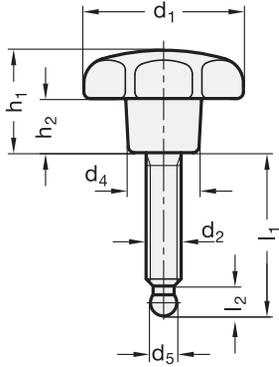
- Knurled screws GN 421.10 → Page 319

How to order

1	d ₁
2	d ₂
3	l ₁
4	Material thrust pad

GN6336.10-32-M6-20-KU

1 2 3 4



ROSTFREI
Inox
Stainless
Steel

1 d ₁	2 d ₂	3 l ₁				4 d ₃	d ₄	d ₅	h ₁	h ₂	l ₂	l ₃	l ₄
32	M 6	25	35	45	15	14	4,5 ±0,03	20	10	5,1	3,6	7,6	
40	M 8	30	40	50	18	18	6,1 ±0,05	25	13	6,2	4,2	9,2	
40	M 8	30	40	50	21	18	6,1 ±0,05	25	13	6,2	5	10	
40	M 8	30	40	50	25	18	6,1 ±0,05	25	13	6,2	5,5	10,5	
40	M 8	30	40	50	32	18	6,1 ±0,05	25	13	6,2	6	11	
40	M 8	30	40	50	40	18	6,1 ±0,05	25	13	6,2	8	13	
50	M 10	35	45	55	21	22	7,8 ±0,05	32	17	7,3	4,3	10	
50	M 10	35	45	55	25	22	7,8 ±0,05	32	17	7,3	4,6	10,5	
50	M 10	35	45	55	32	22	7,8 ±0,05	32	17	7,3	5	11	
50	M 10	35	45	55	40	22	7,8 ±0,05	32	17	7,3	7	13	

Specification

- Star knob DIN 6336
Plastic
Technopolymer (Polyamide PA)
black, matt
- Threaded stud
Stainless Steel AISI 304 Cu
- Thrust pad
Plastic
Technopolymer (Polyacetal POM)
- temperature resistant up to 80 °C
- black, matt
- *Plastic characteristics* → Page 1141
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

Information

Star knobs GN 6336.11 / GN 6336.12 have a ball pin whose diameter is smaller than the core diameter of the thread.

The movable thrust pad is easily clipped on and taken off.

The thrust pads are supplied disassembled.

see also...

- *Ball jointed levelling feet GN 638 (without star knob)* → Page 816
- *Knurled thumb screws GN 421.11 / GN 421.12* → Page 320

Star knobs with ball pin

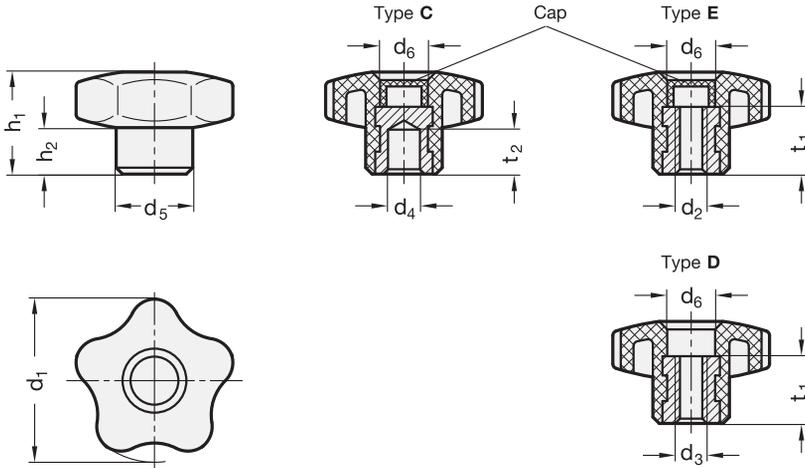
GN6336.11-40-M8-50

1	d ₁
2	d ₂
3	l ₁

Star knobs with movable thrust pad

GN6336.12-50-M10-45-25

1	d ₁
2	d ₂
3	l ₁
4	d ₃



ELESA Original design VCT.

- 3 Type**
- E** with cap (threaded blind bore)
 - C** with cap (blind bore H9)
 - D** without cap (threaded through bore)

d ₁	2				SV*	2			2		d ₅	d ₆	h ₁	h ₂	t ₁	t ₂ min.
	Type E					Type E	Type D			Type C						
25	M 4	M 5	M 6	M 5	-	-	-	-	-	13	8	19	8	10	-	
32	M 5	M 6	-	M 6	M 5	M 6	-	-	-	15	10	23	10	12	-	
40	M 6	M 8	-	M 8	M 6	M 8	-	B 8	-	17	13	27	12	18	14	
40	M 10	-	-	-	M 10	-	-	-	-	17	13	27	12	17	-	
50	M 8	M 10	M 12	M 10	M 8	M 10	M 12	B 8	B 10	19	15	32	14	20	14	
63	M 10	M 12	-	-	M 10	M 12	-	B 8	B 10	22	19	37	16	26	20	
74	M 12	M 14	-	-	M 12	M 14	-	B 8	-	26	17	43,5	22	26	20	
74	M 16	-	-	-	M 16	-	-	-	-	26	17	43,5	22	31	-	

* not available from stock, requires a minimum order quantity

Specification

- Plastic Technopolymer (Polypropylene PP)
 - reinforced, shock-resistant
 - temperature resistant up to 90 °C
 - black, matt finish

- Type E and D Bush Brass

- Type C Bush Steel

- Plastic (only Type E / D) Technopolymer (Polyamide PA)
 - glass fibre reinforced
 - self extinguishing
 - temperature resistant up to 150 °C
 - black, matt finish
- Plastic characteristics → Page 1141

SV*



• RoHS compliant

On request

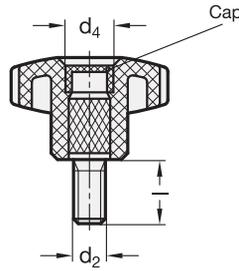
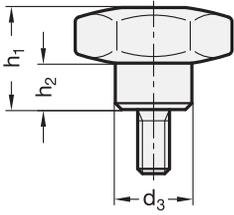
- caps in other colours (standard colour: black)

Information

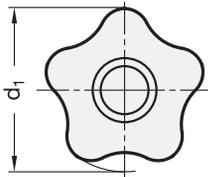
Star knobs GN 5337.2 Type SV are produced from a plastic material, which according to UL 94 V-O is classified as a self extinguishing material. This classification to UL 94 V-O (Underwriters Laboratories) determines the resistance of a plastic material to fire. This comprises a test on a piece of plastic material of a specific form and dimensions in a vertical position to be set alight, whereby the flame according to V-O must extinguish itself without burning droplets developing.

Star knob	1 d ₁
GN5337.2-40-M8-E	2 d ₂ (d ₃ , d ₄)
	3 Type

Star knob self extinguishing	1 d ₁
GN5337.2-32-M5-D-SV	2 d ₃ (d ₂)
	3 Type
	4 Material



ELESA Original design VCT.p



1 d_1	2 d_2	3 Length l				d_3	d_4	h_1	$h_2 \approx$
25	M 5	10	16	20	-	13	8	19	8
25	M 6	10	16	20	30	13	8	19	8
32	M 6	16	20	30	-	15	10	23	10
32	M 8	16	20	30	40	15	10	23	10
40	M 6	20	25	30	-	17	13	27	12
40	M 8	16	25	35	45	17	13	27	12
50	M 8	20	30	40	-	19	15	32	14
50	M 10	20	30	40	50	19	15	32	14
63	M 10	20	30	40	50	22	19	37	16
63	M 12	30	50	-	-	22	19	37	16
74	M 12	30	50	70	-	26	17	43,5	22
74	M 14	50	-	-	-	26	17	43,5	22

Specification

- Plastic
Technopolymer (Polypropylene PP)
- reinforced, shock-resistant
- temperature resistant up to 90 °C
- black, matt finish
- Threaded bolt
Steel
zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

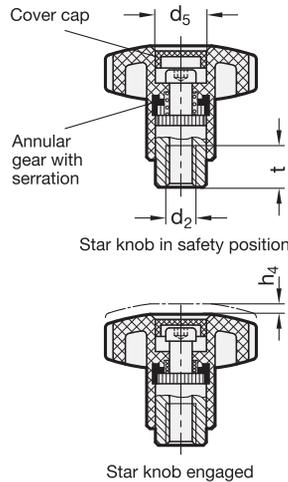
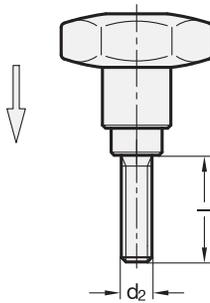
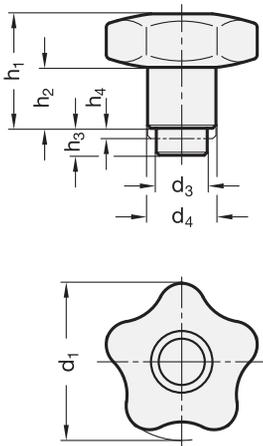
On request

- caps in other colours
(standard colour: black)

How to order

GN5337.2-50-M10-20

1	d_1
2	d_2
3	Length l



ROSTFREI
Inox
Stainless
Steel

1		2		3			d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄ Stroke	t min.	
d ₁	d ₂	M 8	M 10	20	25	32									
40	M 6	M 8	M 10	20	25	32	40	13,5	18	13,5	30	14	7	2,5	11
50	M 8	M 10	M 12	25	32	40	50	16	22	16,5	34	15	8	3,5	14

Specification

- Knob Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish
- Threaded bush / Threaded stud
- Steel **ST**
blackened
- Stainless Steel AISI 303 **NI**
- Annular gear
Zinc die casting
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- RoHS compliant

On request

- caps in other colours
(standard colour: black)

Information

Safety star knobs GN 5337.3 are most suitable for applications where an accidental or inconsiderate loosening or adjusting of the knob may lead to accidents.

In non-operative condition, the star knob is not linked with the threaded insert, i.e. the knob can be turned easily.

Only after axial pushing of the star knob, the two serrations get engaged so that the knob can be untightened resp. tightened.

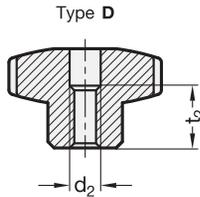
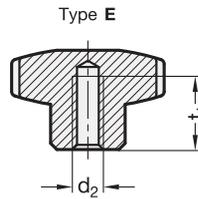
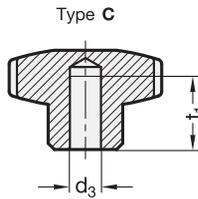
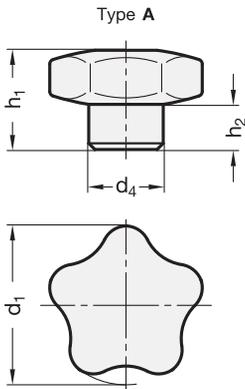
After releasing, the two serrations are disengaged by a spring. The five lobes give the knobs a specific style; this shape has also enabled the operator to achieve a higher torque. The star knob is an original ELESA-Design.

see also...

- *Safety tension levers GN 312* → Page 226

Safety star knob	1	d ₁
	2	d ₂
GN 5337.3-40-M8-ST	4	Material

Safety star knob with threaded stud	1	d ₁
	2	d ₂
	3	Length l
GN 5337.3-50-M10-40-NI	4	Material



3 Type

- A casting only (unmachined)
- C with blind bore H7
- D with threaded through bore
- E with threaded blind bore

1 d_1	2 d_2 Thread Type E	Type D Type E	2 d_3 H7 Bore Type C	$d_4 -0,5$	$h_1 -1$ Type A	Type C Type D Type E	$h_2 \approx$	t_1 min.	t_2
40	M 6	M 8	B 8	15	25	25	12,5	15	15
50	M 8	M 10	B 10	19	32	32	16	18	20
60	M 10	M 12	B 12	21	40	40	20	22	26
70	M 12	M 16	B 16	26	46	46	23	28	32

Specification

- Aluminium
 - matt finish (ground)
 - flash mark not visible
 - polished
- Type **A** (without bore) only available with a matt finish (MT)
- Cross hole GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant



Information

Star knobs GN 5336 are forged, therefore a close grain structure is maintained providing a high tensile strength and a smooth surface.

Original ELESA design, now produced in metal in agreement with ELESA s.p.a.

MT

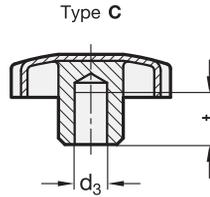
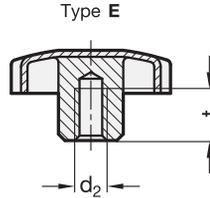
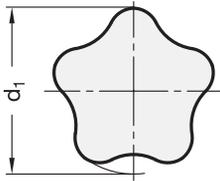
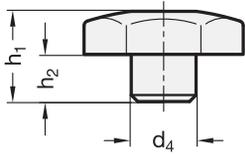
PL

How to order

1 d_1
2 d_2 (d_3)
3 Type
4 Finish

GN5336-50-M10-E-MT

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Rostfrei
 Inox Stainless Steel
 Inch sizes available

3 Type
E with threaded blind bore
C with blind bore H7

1 d_1	2 d_2 Thread	2 d_3 H7 Bore	d_4	$h_1 \approx$	$h_2 \approx$	t min.
40	M 8	B 8	14	24	12	15
50	M 10	B 10	18	30	16,5	18
60	M 12	B 12	20	37,5	20	22

Specification

- Stainless Steel AISI 304 matt shot-blasted
- Knob drawn from Stainless Steel-sheet
- Hub welded
- Cross hole GN 110 → Page 1126
- ISO-Fundamental tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

Information

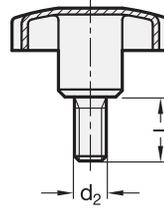
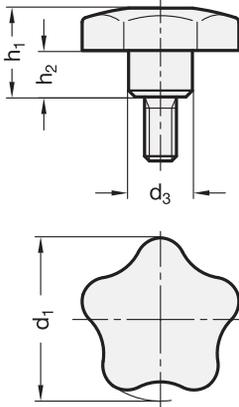
Original ELESA design, now produced in metal in agreement with ELESA s.p.a.

see also...

- *Stainless Steel-Triangular knobs GN 5339.5* → Page 299
- *Stainless Steel-Star knobs GN 5335* → Page 291
- *Stainless Steel-Wing nuts GN 834* → Page 306
- *Stainless Steel-Knurled nuts GN 536* → Page 321

How to order

1 d_1
2 d_2 (d_3)
3 Type
GN5334-50-M10-E



ROSTFREI Rostfrei
Inox Stainless Steel
Inch sizes available

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

1 d ₁	2 d ₂	3 Length l				d ₃	h ₁ ≈	h ₂ ≈
40	M 8	20	30	40	-	14	24	12
50	M 10	20	30	40	-	18	30	16,5
60	M 12	20	30	40	50	20	37,5	20

Specification

- Stainless Steel AISI 304 matt shot-blasted
- Knob drawn from Stainless Steel-sheet
- Hub with threaded bolt welded
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

Information

Original ELESA design, now produced in metal in agreement with ELESA s.p.a.

see also...

- *Stainless Steel-Wing screws GN 835* → Page 307
- *Stainless Steel-Knurled screws GN 535* → Page 321

How to order	1 d ₁
GN5334-50-M10-40	2 d ₂
	3 Length l

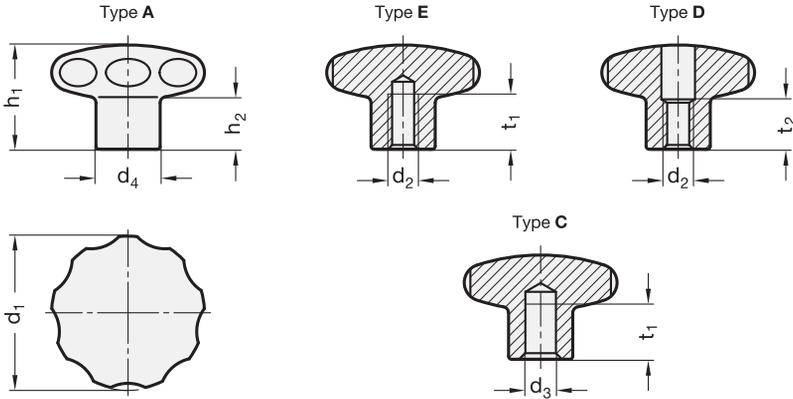


Stainless steel Star and Triangular knobs

GN 5334 → *Page 288*

GN 5335 → *Page 291*

GN 5339.5 → *Page 299*



Rost free
 Inch sizes available
 Inox Stainless Steel

- 3 Type**
- A casting only
 - E with threaded blind bore
 - D with threaded through bore
 - C with plain blind bore H7

1 d_1	2 d_2 Thread Type D Type E	2 d_3 H7 Bore Type C	d_4	h_1	h_2	t_1 min.	t_2
40	M 6	-	18	30,5	15	12	13
40	M 8	B 8	18	30,5	15	15	13
50	M 8	-	21	34	17	15	16
50	M 10	B 10	21	34	17	18	16
60	M 10	-	25	39	18	18	20
60	M 12	B 12	25	39	18	22	20

Specification

- Stainless Steel AISI 303
matt shot-blasted —
- Stainless Steel AISI 303
highly polished **PL**
- Cross hole GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

Information

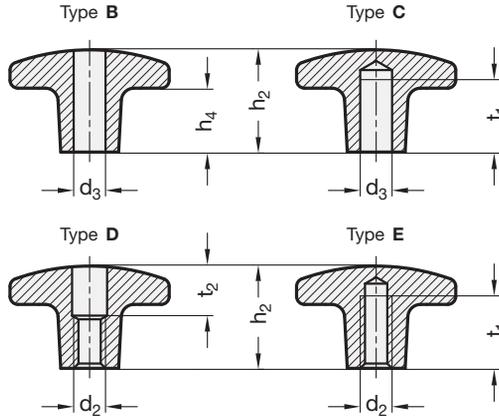
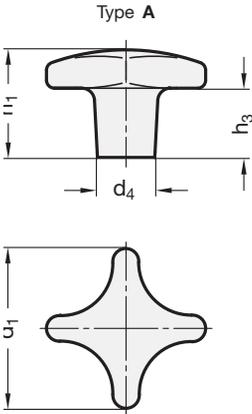
Stainless Steel-Star knobs GN 5335 are a special development intended for the food processing machinery industry. The smooth and enclosed areas as well as the large corner radii comply with the requirements of hygiene standards.

see also...

- Stainless Steel-Star knobs GN 5334 → Page 288
- Stainless Steel-Wing nuts GN 834 → Page 306
- Stainless Steel-Knurled nuts GN 536 → Page 321

Star knob, matt shot-blasted	1 d_1
GN 5335-40-M8-E	2 d_2 (d_3)
	3 Type

Star knob, highly polished	1 d_1
GN 5335-50-M10-D-PL	2 d_2
	3 Type
	4 highly polished



Rostfrei
 Inox Stainless Steel
 Inch sizes available

4 Type

- A** casting only (unmachined)
- B** with through bore H7
- C** with blind bore H7
- D** with threaded through bore
- E** with threaded blind bore

2			3		3							
d	GG	NI	AL	d ₂ Thread Type D Type E	d ₃ H7 Bore Type B Type C	d ₄	h ₁ Type A	h ₂ Type B, C, D, E	h ₃ Type A	h ₄ Type B, C, D, E	t ₁ min.	t ₂
32	32	-	-	M 6	B 6	12	21	20	10	9	12	10
40	40	40	-	M 8	B 8	14	26	25	14	13	15	12
50	50	50	-	M 10	B 10	18	34	32	20	18	18	16
63	63	63	-	M 12	B 12	20	42	40	25	23	22	20
80	-	80	-	M 16	B 16	25	52	50	30	28	28	30
100	-	-	-	M 20	B 20	32	65	63	38	36	36	38

Specification

- Cast iron **GG**
fettled and tumbled
- Stainless Steel-Precision casting **NI**
only Types A, D, E
- AISI CF-8
- matt shot-blasted
- Aluminium **AL**
only Types A, C, D, E
- matt finish (ground) **MT**
flash mark not visible
- polished **PL**
- ISO-Fundamental tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

On request

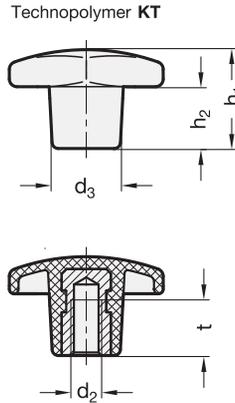
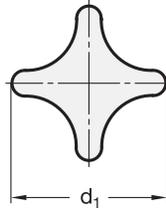
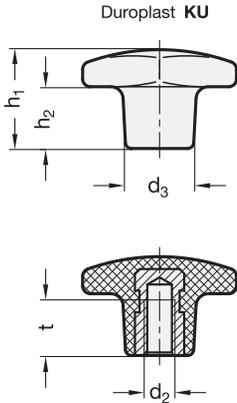
- plastic coated

Information

- see also...
- Star knobs with threaded bolt GN 6335.4 → Page 296

Star knob Cast iron	
1	Material
2	d ₁
3	d ₂ (d ₃)
4	Type

Star knob Aluminium	
1	Material
2	d ₁
3	d ₃ (d ₂)
4	Type
5	Finish



Inch sizes available

4 Type
K with threaded bush

d ₁	d ₂		d ₃	h ₁	h ₂	t min.
	Plastic KU	Plastic KT				
20	M 4	-	10	13	6	7
25	M 5	-	13	17	8	9,5
32	M 6	M 6	14	20	10	12
40	M 8	M 8	18	25	13	14
50	M 10	M 10	22	32	20	18
63	M 12	M 12	26	40	25	22
80	M 16	M 16	35	50	30	30
100*	M 20	-	34	65	38	30

* with bush in brass (MS) not available from stock, requires a minimum order quantity

Specification

- Plastic Duroplast (PF) black, shiny finish
- Bush
 - Steel zinc plated, blue passivated (standard)
 - Brass: add MS on order code

KU

- Plastic Technopolymer (Polyamide PA) - shock-resistant - black, matt finish
- Bush
 - Steel zinc plated, blue passivated

KT

- Plastic characteristics → Page 1141
- RoHS compliant

1

Information

Star knobs DIN 6335 with bore H7 are available as GN 6335.1.

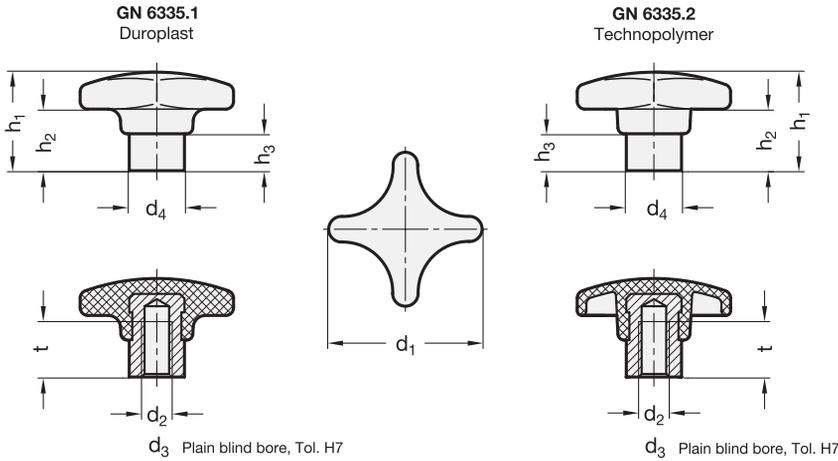
see also...

- Star knobs with threaded bolt GN 6335.4 → Page 296
- Star knobs with threaded bolt GN 6335.5 → Page 297
- Star knobs GN 6335.1 / GN 6335.2 (with protruding steel bush) → Page 294

How to order

DIN 6335-KU-63-M12-K

- 1 Material
- 2 d₁
- 3 d₂
- 4 Type



3 Type

- E** with threaded blind bore
- C** with plain blind bore, Tol. H7

d ₁	d ₂ Thread			d ₃ Bore H7		d ₄	h ₁	h ₂ ≈	h ₃	t min.
	GN 6335.1 Type E	GN 6335.2 Type E		GN 6335.1 / GN 6335.2 Type C						
32	M 6	M 6	-	B 6	-	12	20	10	9	12
40	M 8	M 6	M 8	B 6	B 8	14	25	13	10	14
50	M 10	M 8	M 10	B 8	B 10	18	32	20	12	18
63	M 12	M 10	M 12	B 10	B 12	20	40	25	14	22
80	M 16	M 12	M 16	B 16	-	25	50	30	17	30

Specification

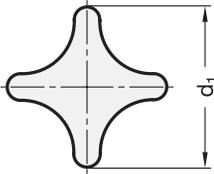
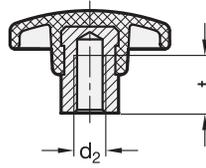
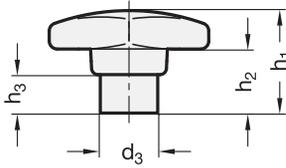
- **GN 6335.1**
Plastic
Duroplast (PF)
black, shiny finish
Bush
Steel zinc plated, blue passivated
- **GN 6335.2**
Plastic
Technopolymer (Polyamide PA)
- shock-resistant
- black, matt finish
Bush
Steel zinc plated, blue passivated
- *ISO-Fundamental Tolerances* → Page 1132
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

Star knobs GN 6335.1 with all steel bush have important advantages:
The face of the bush is exactly square to the bore and is in steel to prevent edge breakages. Cross-dowels can be used successfully.
see also...
• *Star knobs with threaded bolt GN 6335.4* → Page 296

Star knob Duroplast	1	d ₁
GN6335.1-63-M12-E	2	d ₂ (d ₃)
	3	Type

Star knob Technopolymer	1	d ₁
GN6335.2-50-B10-C	2	d ₃ (d ₂)
	3	Type



3 Type
E with threaded blind bore

1 d_1	2 d_2	d_3	h_1	$h_2 \approx$	h_3	$t_{min.}$
32	M 6	12	20	10	9	12
40	M 8	14	25	13	10	14
50	M 10	18	32	20	12	18
63	M 12	20	40	25	14	22

Specification

- Plastic
Technopolymer (Polyamide PA)
- shock-resistant
- black, matt finish
- Bush
Stainless Steel AISI 303 **NI**
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**



Information

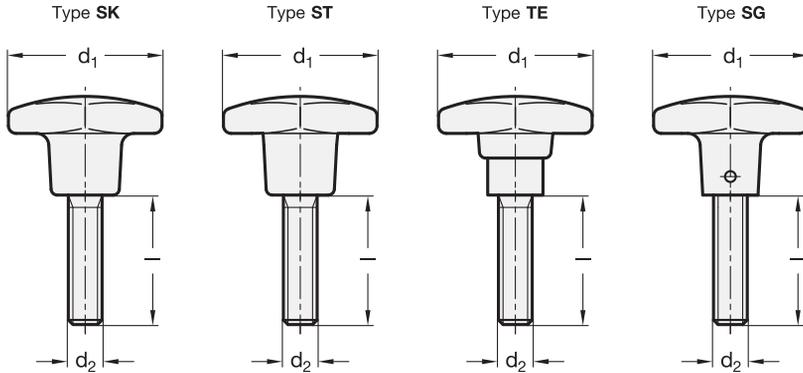
The star knobs GN 6335.2 with protruding Stainless Steel bush (basic dimensions as DIN 6335) offer decisive advantages.

The face of the bush is precisely square to the bore. The protruding metal bush prevents the edge from breaking. In addition, the use of cross dowels is therefore simplified.

How to order

1 d_1
2 d_2
3 Type
4 Material

GN6335.2-32-M6-E-NI



1	Type
SK	Star knob DIN 6335 Plastic (KU) Duroplast (PF)
ST	Star knob DIN 6335 Plastic (KT) Technopolymer
TE	Star knob GN 6335.2 Plastic Technopolymer
SG	Star knob DIN 6335 Cast iron (GG)

d ₁	d ₂	2 3 4 Length I Type ST, TE							Length I Type SK, SG					
		32	M 6	16	20	25	30	35	45	16	20	25	30	35
40	M 8	16	20	25	30	40	55	15	20	25	30	40	55	
50	M 10	25	30	35	45	55	-	25	30	35	45	55	-	
63	M 12	30	35	40	50	60	-	30	35	40	50	60	-	
80	M 16	-	-	-	-	-	-	30	40	50	60	70	-	

Specification

- Star knob details and dimensions see:
 - DIN 6335-KU / KT → Page xx
 - GN 6335.2 → Page xx
 - DIN 6335-GG → Page xx
- For Type SK, ST, TE the threaded bolts are zinc plated, blue passivated and moulded in position.
- For Type SG the threaded bolt (blackened) is screwed in and secured by a cross-dowel.
- Plastic characteristics → Page 1141
- RoHS compliant

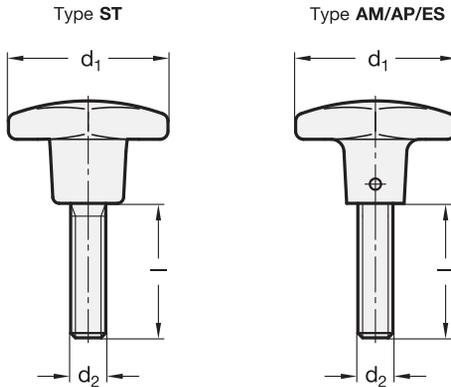
Information

Should clamping with the bush face be necessary, then it is recommendable to use either type TE or type SG.

How to order

1 2 3 4
GN6335.4-SK-63-M12-50

1	Type
2	d ₁
3	d ₂
4	Length I



- 1 Type**
- ST** Star knob DIN 6335 Plastic (KT) Technopolymer (Polyamide PA)
 - AM** Star knob DIN 6335 Aluminium (AL) matt (ground)
 - AP** Star knob DIN 6335 Aluminium (AL) polished
 - ES** Star knob DIN 6335 Stainless Steel-Precision casting (NI) matt shot-blasted

d ₁	d ₂		Length l ≈				
	Type ST	Type AM Type AP Type ES					
32	M 6	-	10	16	20	25	30
40	M 8	M 8	20	25	30	40	-
50	M 10	M 10	20	25	30	45	55
63	M 12	M 12	30	40	50	-	-

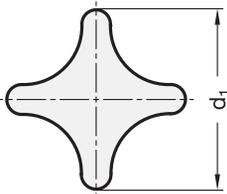
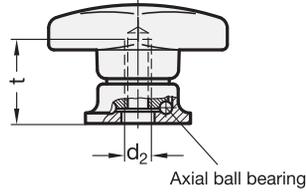
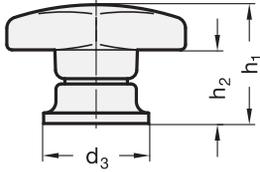
Specification

- Star knob details and dimensions see:
 - DIN 6335-KT → Page 293
 - DIN 6335-AL → Page 292
 - DIN 6335-NI → Page 292
- Threaded bolt
 - Stainless Steel
 - German Material No.
 - Type ST: German Material No. 1.4547 (M6 ... M10) AISI 303 (M12)
 - Type AM / AP / ES: AISI 303
- For the Types AM / AP and ES the threaded bolt is screwed in and secured by a cross-dowel.
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

- see also...
- *Stainless Steel-Star knobs GN 5334* → Page 289
 - *Star knobs GN 6335.4 (with steel threaded bolt)* → Page 296

How to order		1	Type
		2	d ₁
		3	d ₂
		4	Length l
GN6335.5-ST-40-M8-20			



1

2

d ₁	d ₂	d ₃	h ₁	h ₂	t min.
40	M 6	24	27	15,5	14,5
50	M 8	25	34	22,5	15
63	M 10	30	41	26,5	19
80	M 12	35	54	34	28,5

Specification

- Plastic
Technopolymer (Polyamide PA)
- shock-resistant
- black, matt finish
- Bushes
high quality steel
nitrided, blackened
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

On request

- with threaded bolt

Information

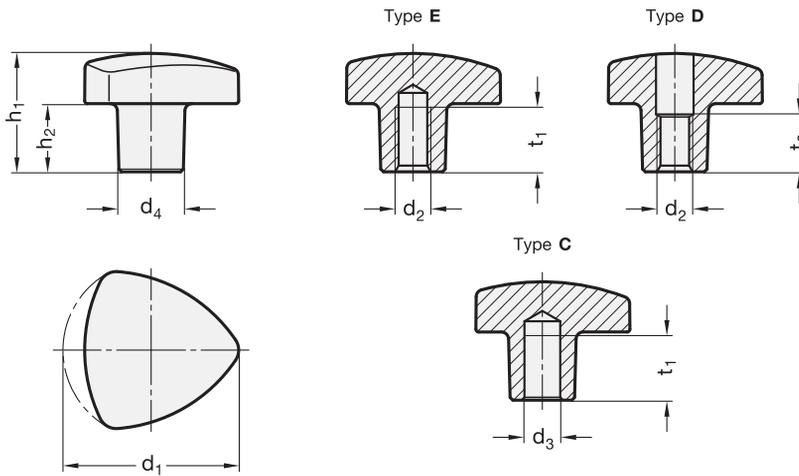
Star knobs GN 6335.9 have a clamping contact area which is connected to the knob via an axial ball bearing. This has led to the following advantages:

Doubled clamping force through vastly reduced friction. There is no movement on the contact area between star knob and component which greatly reduces any marking on the clamping area. In addition a reduced creep factor has been achieved by the increased preload.

How to order

GN6335.9-50-M8

1 d₁2 d₂



Rostfrei Inox
Stainless
Steel

- 3 Type**
- E** with threaded blind bore
 - D** with threaded through bore
 - C** with plain blind bore H7

1 d_1	2 d_2 Thread Type E	Type D	2 d_3 H7 Bore Type C	d_4	$h_1 \approx$	$h_2 \approx$	t_1 min.	t_2
32	M 5	-	-	12	21	12	10	-
32	M 6	M 6	B 6	12	21	12	12	10
40	M 6	-	-	14	26	13	12	-
40	M 8	M 8	B 8	14	26	14	15	13
50	M 8	-	-	18	32	18	15	-
50	M 10	M 10	B 10	18	33	19	18	16
60	M 10	-	-	20	41	23	18	-
60	M 12	M 12	B 12	20	41	23	22	20

Specification

- Stainless Steel-Precision casting
 - AISI CF-8
 - matt shot-blasted
 - highly polished (only Type D and E)
- Cross hole GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

4 Information

MT
PL

Stainless Steel-Triangular knobs GN 5339.5 have been specially designed for use on machinery in the food industry. The smooth and enclosed areas as well as the corner radii comply with the requirements of hygiene standards.

Original ELESA-Design, manufactured in metal version under permission of ELESA s.p.a.

see also...

- *Stainless Steel-Star knobs GN 5334* → Page 288
- *Stainless Steel-Knurled nuts GN 536* → Page 321

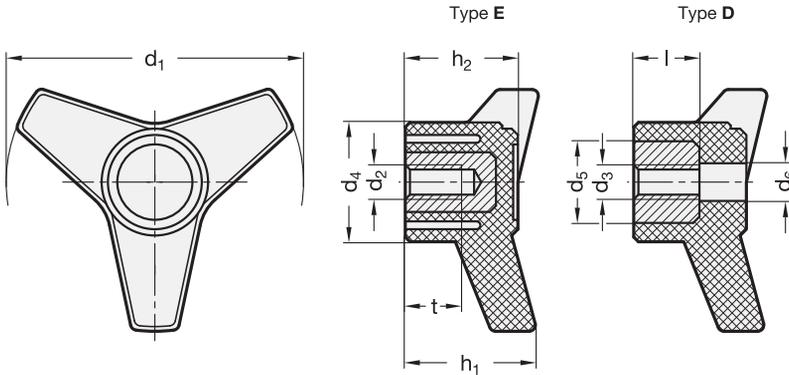
How to order	1 d_1
	2 d_2 (d_3)
GN 5339.5-50-M8-E-MT	3 Type
	4 Finish



ELESA Original design VB.639

3 Type

- E with threaded blind bore
- D with threaded through bore



¹ d ₁	² d ₂ Type E		² d ₃ Type D		d ₄	d ₅	d ₆	h ₁	h ₂	Length l	t min.
63	M 8	-	-	-	26	-	-	28	25	21	15
63	M 10	-	M 10	M 12	26	16	13	28	25	21	17
80	M 10	M 12	M 12	-	32	18	17	35	30	25	17
100	M 12	M 14	M 16	-	36	20	19	42	36	31	20
130	M 16	-	M 16	-	43	24	22	47	40	34	22

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish
- Bush
Brass
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

On request

- with bore H9

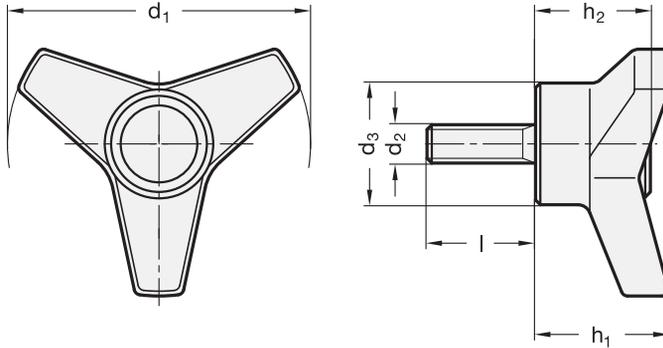
Information

Tristar knobs GN 5330 have been developed for heavy duty applications. Due to its shape, higher torque can be achieved.

How to order

¹ ² ³
GN5330-80-M12-E

- | | |
|---|----------------------------------|
| 1 | d ₁ |
| 2 | d ₂ (d ₃) |
| 3 | Type |



ELESA Original design VB.639 p

¹ d ₁	² d ₂	³ Length l	d ₃	h ₁	h ₂
63	M 8	25	27	28	25
80	M 10	30	32	36	30
100	M 12	40	36	42	36

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish
- Threaded bolt
Steel zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

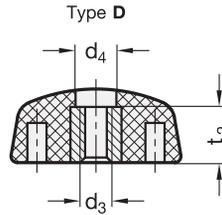
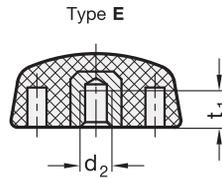
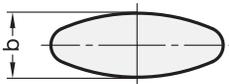
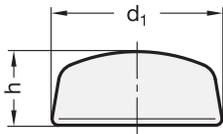
Information

Tristar knobs GN 5330 have been developed for heavy duty applications. Due to its shape, higher torque can be achieved.

How to order

GN 5330-100-M12-40

¹	d ₁
²	d ₂
³	Length l



ELESA Original design CT.476

3 Type

- E** with threaded blind bore
- D** with threaded through bore

1 d_1	2 d_2 Type E		2 d_3 Type D	d_4	b	h	t_1 min. Type E	t Type D
20	M 4	-	-	-	9,5	11	6	-
26	M 5	-	-	-	11	13	6	-
32	M 6	M 8	M 6	7,5	13	15	8	12
40	M 8	-	M 8	9	16	17	8	14
48	M 8	-	M 8	9	19	19	10	16
56	M 10	-	M 10	11	21	23	13	20

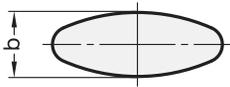
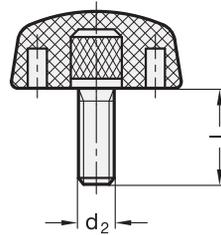
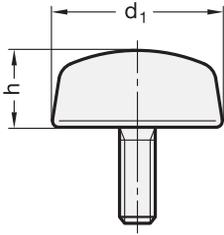
Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish
- Bush
Brass
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

How to order

GN 532-40-M8-E

- 1** d_1
- 2** d_2 (d_3)
- 3** Type



ELESA Original design CT.476 p

1 d ₁	2 d ₂	3 Length l					b	h	
20	M 4	6	10	-	-	-	-	9,5	11
25	M 5	10	16	-	-	-	-	11	13
32	M 6	10	16	20	25	30	40	13	15
32	M 8	16	20	25	40	-	-	13	15
40	M 8	16	25	40	-	-	-	16	17
40	M 10	20	30	40	-	-	-	16	17
48	M 8	16	25	-	-	-	-	19	19
56	M 10	20	30	-	-	-	-	21	23

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish
- Threaded bolt
Steel zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

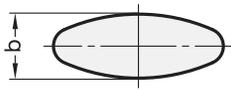
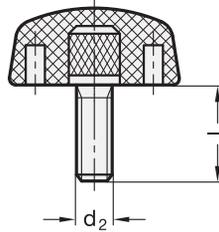
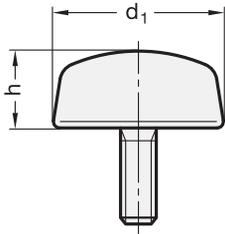
- see also...
- *Wing screws GN 531.1 (with protruding hub)* → Page 305

How to order

GN 531-32-M6-20

1	d ₁
2	d ₂
3	Length l

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



ELESA Original design CT.476 S-p

Rostfrei ROHSTANLE
Inox
Stainless
Steel

1 d ₁	2 d ₂	3 Length l					b	h
20	M 4	6	10	-	-	-	9,5	11
25	M 5	10	16	25	-	-	11	13
32	M 6	10	16	20	25	30	13	15
32	M 8	16	20	25	30	40	13	15
40	M 8	16	25	40	-	-	16	17
48	M 8	16	25	-	-	-	19	19
56	M 10	20	30	-	-	-	21	23

Specification

4

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130° C
- black, matt finish
- Threaded bolt
Stainless Steel AISI 303 **NI**
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

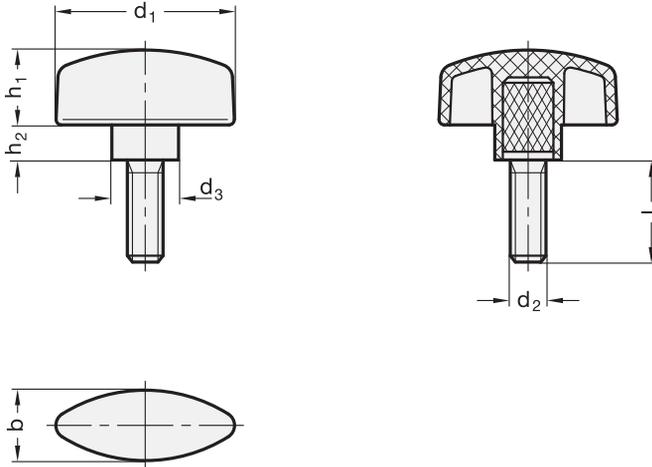
How to order

GN 531-32-M6-30-NI

1	d ₁
2	d ₂
3	Length l
4	Material



ELESA Original design CTL.476p



d₁	d₂	Length l			d₃	b	h₁	h₂
32	M 6	10	16	20	11	13	14,5	5,5
40	M 8	16	25	-	14	15,5	17	7,5
48	M 8	16	25	-	17	19	19	9
56	M 10	20	30	-	18,5	21	23	11

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish
- Threaded bolt
Steel zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- RoHS compliant

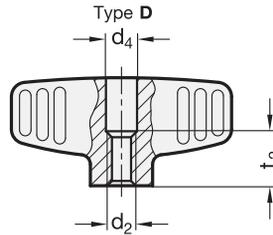
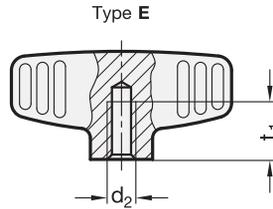
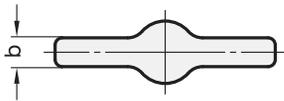
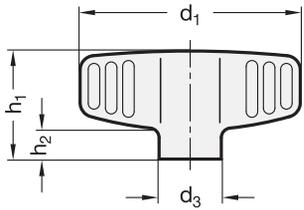
Information

- see also...
- *Wing screws GN 531 (Hub not protruding)* → Page 303

How to order	
1	d₁
2	d₂
3	Length l

GN531.1-56-M10-20

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Rost
frei | **Inox**
Stainless
Steel

3 Type

- E** with threaded blind bore
- D** with threaded through bore

1

2

d₁	d₂	d₃	d₄	b	h₁	h₂	t₁ min.	t₂
46	M 6	13	6,5	6	22,5	6	12	10
46	M 8	13	8,5	6	22,5	6	15	13
58	M 8	16	8,5	7	26,5	7	15	13
58	M 10	16	10,5	7	26,5	7	18	16

Specification

- Stainless Steel-Precision casting
- AISI CF-8
- matt shot-blasted **MT**
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

4

Information

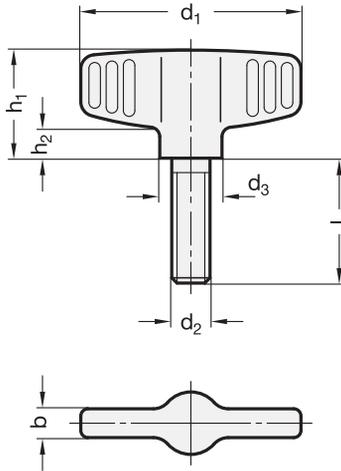
see also...

- *Stainless Steel-Wing nuts GN 432*
(with smaller diameter *d₁*) → Page 311
- *Stainless Steel-Wing nuts GN 434*
(with smaller diameter *d₁*) → Page 310

How to order

GN834-46-M8-E-MT

- 1** **d₁**
- 2** **d₂**
- 3** **Type**
- 4** **Finish**



Rostfrei Inox
Stainless
Steel

1 d_1	2 d_2	3 Length l			d_3	b	h_1	h_2
46	M 6	16	20	25	13	6	22,5	6
46	M 8	16	20	25	13	6	22,5	6
58	M 8	20	25	30	16	7	26,5	7
58	M 10	20	25	30	16	7	26,5	7

Specification

- Stainless Steel-Precision casting
- AISI CF-8
- matt shot-blasted
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

MT

4 Information

see also...

- *Stainless Steel-Wing screws GN 431 (with smaller diameter d_1)* → Page 311
- *Stainless Steel-Wing screws GN 433 (with smaller diameter d_1)* → Page 310

How to order

GN835-58-M10-25-MT

1	d_1
2	d_2
3	Length l
4	Finish

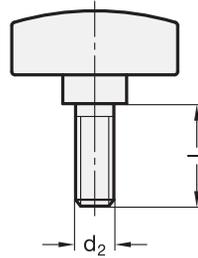
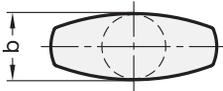
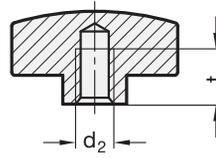
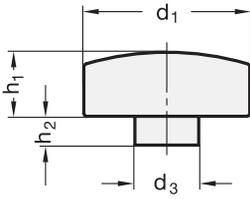
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Stainless Steel-Wing nuts GN 834 → *Page 306*
Stainless Steel-Wing screws GN 835 → *Page 307*



Stainless Steel-Wing nuts GN 434 → Page 310
Stainless Steel-Wing screws GN 433 → Page 310
Stainless Steel-Wing nuts GN 432 → Page 311
Stainless Steel-Wing screws GN 431 → Page 311



Rostfrei
Inox
Stainless
Steel

1 d ₁	2 d ₂	3 Length l			d ₃	b	h ₁	h ₂	t min.
26	M 5	10	16	-	10	11	10	4,5	8
26	M 6	16	20	25	10	11	10	4,5	8
34	M 6	20	25	30	12	13	12	5	10
34	M 8	16	20	30	12	13	12	5	9

Specification

- Stainless Steel-Precision casting
- AISI CF-8
- matt shot-blasted **MT**
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

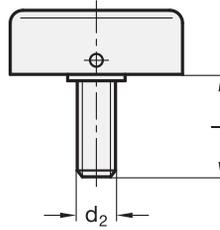
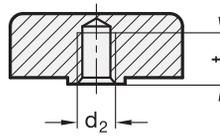
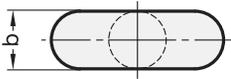
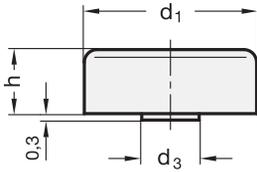


Information

- see also...*
- *Stainless Steel-Wing nuts GN 834 (with bigger diameter d₁)* → Page 306
 - *Stainless Steel-Wing screws GN 835 (with bigger diameter d₁)* → Page 307

Stainless Steel-Wing nut GN434-26-M6-MT	1 d ₁
	2 d ₂
	4 Finish

Stainless Steel-Wing screw GN433-34-M8-20-MT	1 d ₁
	2 d ₂
	3 Length l
	4 Finish



Rost free
 Inox Stainless Steel
 Inch sizes available

1 d ₁	2 d ₂	3 Length l				d ₃	b	h	t min.
25	M 6	16	20	25	-	8	8	10	7
30	M 6	16	20	25	-	10	10	12	9
30	M 8	16	20	25	32	10	10	12	9
36	M 8	16	20	25	32	12	12	14,5	10
36	M 10	20	30	40	-	12	12	14,5	10

Specification

- Body
 - Stainless Steel (Sintered Steel)
 - AISI 316
 - matt shot-blasted
- Threaded bolt
 - Stainless Steel AISI 304
 - matt shot-blasted
 - screwed in and secured by cross-dowel
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

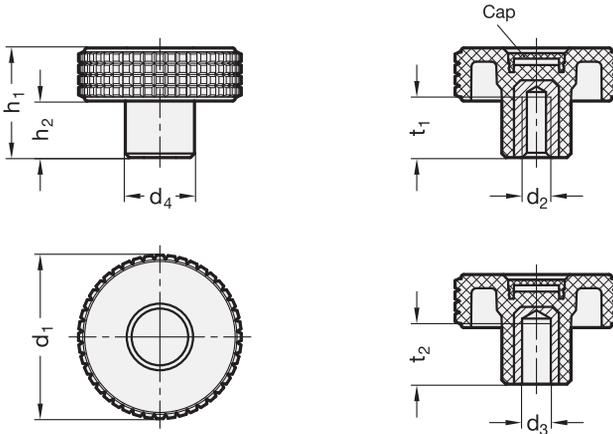
Information

- see also...
- *Stainless Steel-Wing nuts GN 834* (with bigger diameter d₁) → Page 306
 - *Stainless Steel-Wing screws GN 835* (with bigger diameter d₁) → Page 307

Stainless Steel-Wing nut GN432-25-M6	1 d ₁
	2 d ₂

Stainless Steel-Wing screw GN431-25-M6-20	1 d ₁
	2 d ₂
	3 Length l

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



ELESA Original design MBT. Color

d₁	d₂ Thread	d₃ H9 Bore	d₄	h₁	h₂	t₁ min.	t₂ min.
32	M 5	-	15	24	11,5	10	-
32	M 6	-	15	24	11,5	12	-
40	M 6	B 6	17	26,5	12,5	12	14
40	M 8	-	17	26,5	12,5	13	-
50	M 8	B 8	20	33	16	20	20
50	M 10	-	20	33	16	18	-
60	M 10	B 10	23	39	18,5	20	25
60	M 12	-	23	39	18,5	20	-
70	M 12	-	24	42	20,5	20	-
70	M 14	-	24	42	20,5	20	-

Specification

- Plastic Technopolymer (Polypropylen PP)
 - reinforced, shock-resistant
 - temperature resistant up to 90 °C
 - black, RAL 9005, matt



Information

The unique profile on the rim of the knurled knobs GN 534 is characteristic of its form and the function.

see also...

- Control handwheels (with handle) GN 735 → Page 176

- Bush Brass

• ISO-Fundamental Tolerances → Page 1132

• Cross hole GN 110 → Page 1127

• Plastic characteristics → Page 1141

• RoHS compliant

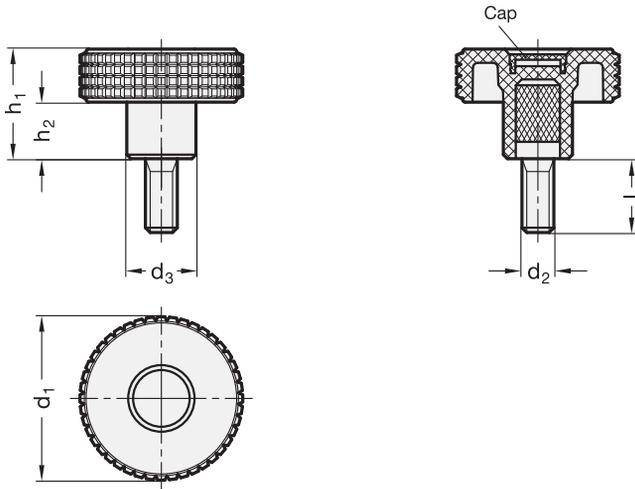
On request

- Cap in other colours

How to order

GN 534-40-M8-SW

- 1 **d₁**
- 2 **d₂ (d₃)**
- 3 **Colour**



ELESA Original design MBT.p Color

1 d ₁	2 d ₂	3 Length l						d ₃	h ₁	h ₂
32	M 5	10	20	40	-	-	-	15	24	11,5
32	M 6	10	16	20	30	40	-	15	24	11,5
40	M 6	10	16	20	30	40	-	17	26,5	12,5
40	M 8	16	20	25	30	40	50	17	26,5	12,5
50	M 8	16	30	50	-	-	-	20	33	16
50	M 10	20	30	50	-	-	-	20	33	16
60	M 10	20	30	50	-	-	-	23	39	18,5
60	M 12	20	30	50	-	-	-	23	39	18,5
70	M 12	30	50	-	-	-	-	24	42	20,5

Specification

- Plastic
Technopolymer (Polypropylen PP)
- reinforced, shock-resistant
- temperature resistant up to 90 °C
- black, RAL 9005, matt ● **SW**
- Threaded bolt
Steel zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- *RoHS compliant*

On request

- Cap in other colours



Information

The unique profile on the rim of the knurled knobs GN 534 is characteristic of its form and the function.

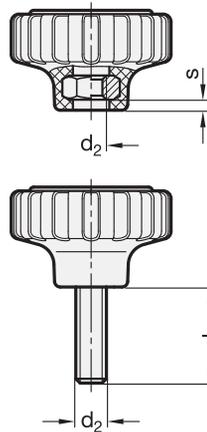
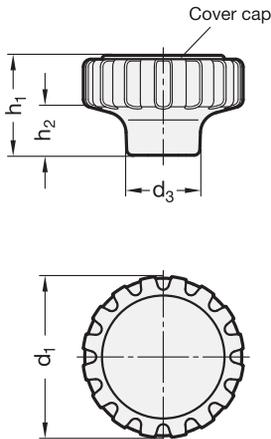
How to order

1	d ₁
2	d ₂
3	Length l
4	Colour

GN 534-60-M12-30-SW

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9





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Stainless
Steel

1 d_1	2 d_2	3 Length l					d_3	h_1	h_2	s	max. thread length for internal thread
34	M 6	11	15	20	25	30	16	21	10,5	5	19
42	M 8	15	20	25	30	40	19	26	13	5	24
53	M 10	20	25	30	40	50	24	32	16	5	30

Specification

- Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish
- Threaded inserts
- Steel **ST**
zinc plated, blue passivated
- Stainless Steel AISI 304 **NI**
- Cover cap Plastic
light grey, matt
- *Stainless Steel characteristics → Page 1144*
- *Plastic characteristics → Page 1141*
- **RoHS compliant**

On request

- The cover cap is also available in different colours
(standard colour: light grey)



Information

Knurled knobs GN 7336 distinguish an attractive design in combination with closed shape (no recess on the underside of the handles).

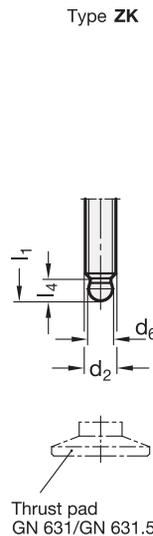
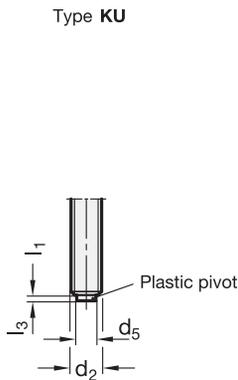
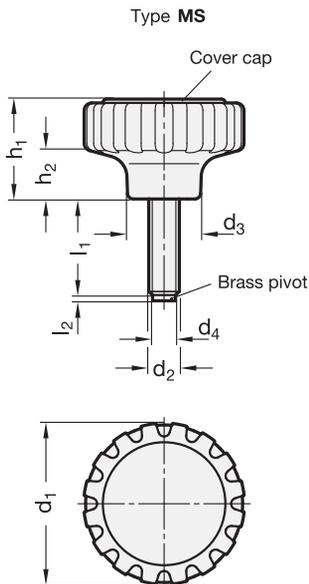
Knurled knobs GN 7336 are also available without threaded insert.

How to order:

- GN 7336-34
- GN 7336-42
- GN 7336-53

Knurled knob GN 7336-42-M8-NI	1 d_1
	2 d_2
	4 Material
	3 Length l

Knurled screw GN 7336-34-M6-20-ST	1 d_1
	2 d_2
	3 Length l
	4 Material



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Steel

- 4 Type**
- MS** Brass pivot
 - KU** Plastic pivot (Polyacetal POM)
 - ZK** spherical pivot

1 2 3

d ₁	d ₂	l ₁				d ₃	d ₄ Brass pivot	d ₅ Plastic pivot	d ₆ Spherical pivot	h ₁	h ₂	l ₂ Brass pivot	l ₃ Plastic pivot	l ₄ ≈ Spherical pivot
34	M 6	15	20	25	30	16	4	3,5	4,5 ±0,03	21	10,5	1	1,3	5,1
42	M 8	20	25	30	40	19	6	5	6,1 ±0,05	26	13	1,5	1,6	6,2
53	M 10	25	30	40	50	24	8	6,5	7,8 ±0,05	32	16	2	1,9	7,3

Specification

- Plastic Technopolymer (Polyamide PA)
 - glasfibre reinforced
 - temperature resistant up to 130 °C
 - black, matt
- Threaded bolt
Stainless Steel AISI 304
- Cover cap plastic
light grey, matt
- *Plastic characteristics* → Page 1141
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

Information

Knurled screws GN 7336.5, type MS / KU with brass or plastic pivots are used when pressure dents or damage must be avoided.

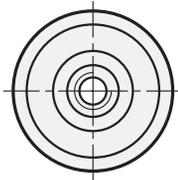
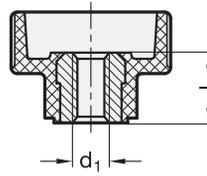
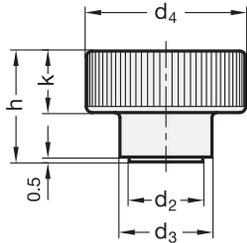
Knurled screws GN 7336.5, type ZK feature a spherical pivot whose Ø d₆ is smaller than the core Ø of the thread. The version with spherical pivot is suitable for holding GN 631 / GN 631.5 thrust pads, which must be ordered separately.

Ther knurled screws GN 7336.5 distinguish an attractive design in combination with closed shape (no recess on the underside of the handles).

see also...

- *Thrust pads GN 631 / GN 631.5* → Page 597
- *Stainless Steel-Hexagon screws GN 933.5* → Page 527 (with brass / plastic / spherical pivot)

How to order	1	d ₁
	2	d ₂
	3	l ₁
	4	Type
GN 7336.5-42-M8-25-MS		



Inox
Stainless
Steel



Inch
sizes
available



d ₁ Steel	Stainless Steel (NI)	d ₂	d ₃	d ₄	h	k	l
M 4	-	9	12	19	14	8	9
M 5	M 5	9	12	19	14	8	9
M 6	M 6	12	14	24	16,5	9,5	10,5
M 8	M 8	14	16	30	19,5	11	11,5
M 10	-	16	18	36	22,5	12,5	14

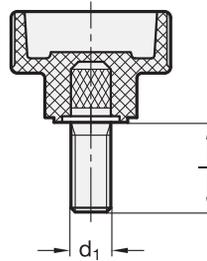
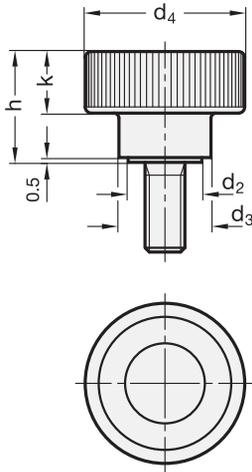
Specification



- Plastic
Technopolymer (Polyamide PA)
black, shiny finish
- Bush
Steel zinc plated, blue passivated
- Bush
Stainless Steel AISI 303 **NI**
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Knurled nut	1	d ₁
GN 420-M8		

Knurled nut with Stainless Steel bush	1	d ₁
GN 420-M6-NI		
	2	Material



d₁	Length l					d₂	d₃	d₄	h	k
M 4	10	15	20	30	-	9	12	19	14	8
M 5	10	15	20	25	-	9	12	19	14	8
M 6	10	16	20	25	30	12	14	24	16,5	9,5
M 8	16	20	25	30	40	14	16	30	19,5	11
M 10	20	25	30	40	-	16	18	36	22,5	12,5

Specification

- Plastic
Technopolymer (Polyamide PA)
black, shiny finish
- Threaded bolt
Steel zinc plated, blue passivated
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

- see also...
- *Knurled screws GN 421.10*
(with brass / plastic thrust pad) → Page 319

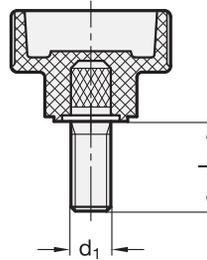
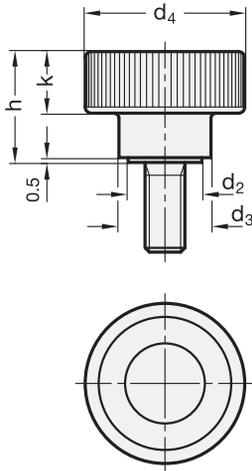
How to order

GN421-M6-25

1 **d₁**

2 **Length l**

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



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Stainless
Steel

1

2

d ₁	Length l					d ₂	d ₃	d ₄	h	k
M 5	10	15	20	25	-	9	12	19	14	8
M 6	10	16	20	25	30	12	14	24	16,5	9,5
M 8	20	25	30	40	-	14	16	30	19,5	11
M 10	20	25	30	45	55	16	18	36	22,5	12,5

Specification

3

- Plastic
Technopolymer (Polyamide PA)
black, shiny finish
- Threaded bolt
Stainless Steel AISI 304 Cu **NI**
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

see also...

- *Knurled screws GN 421.10*
(with brass / plastic thrust pad) → Page 319

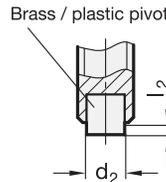
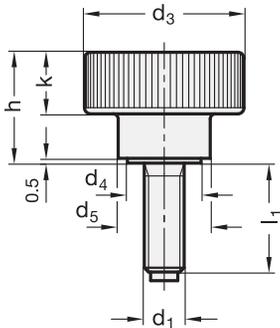
How to order

1 2 3
GN 421-M6-30-NI

1	d ₁
2	Length l
3	Material



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Inox
Stainless
Steel



1

2

d ₁	l ₁ Nominal length						l ₂ MS-pad	KU-pad	d ₂ MS-pad	KU-pad	d ₃	d ₄	d ₅	h	k
	M 5	10	15	20	25	-									
M 5	10	15	20	25	-	0,5	1	3	3	19	9	12	14	8	
M 6	10	16	20	25	30	1	1,3	4	3,5	24	12	14	16,5	9,5	
M 8	20	25	30	40	-	1,5	1,6	6	5	30	14	16	19,5	11	
M 10	20	25	30	45	55	2	1,9	8	6,5	36	16	18	22,5	12,5	

Specification

3

- Plastic Technopolymer (Polyamide PA) black shiny finish
- Threaded bolt Stainless Steel AISI 304 Cu
- Pivot
 - Brass **MS**
 - Plastic (Polyacetal POM) **KU**
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- **RoHS compliant**

Information

Knurled screws GN 421.10 with pads in brass or plastic are used in applications, where marks and damage on the workpiece are unacceptable.

see also...

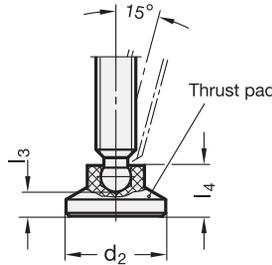
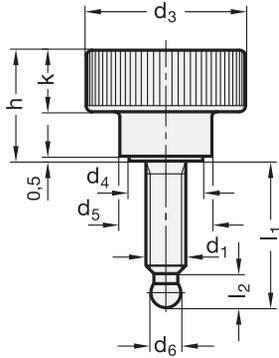
- *Star knobs GN 6336.10 (with brass / plastic thrust pad)* → Page 282
- *Grub screws GN 913.3 (with brass / plastic thrust pad)* → Page 520
- *Stainless Steel-Grub screws GN 913.5 (with brass / plastic thrust pad)* → Page 521

How to order

GN421.10-M8-25-MS

1	d ₁
2	l ₁
3	Material thrust pad

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



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Stainless
Steel

1				2		3							
d ₁	l ₁			d ₂	d ₃	d ₄	d ₅	d ₆	h	k	l ₂	l ₃	l ₄
M 6	25	35	45	15	24	12	14	4,5 ±0,03	16,5	9,5	5,1	3,6	7,6
M 8	30	40	50	18	30	14	16	6,1 ±0,05	19,5	11	6,2	4,2	9,2
M 8	30	40	50	21	30	14	16	6,1 ±0,05	19,5	11	6,2	5	10
M 8	30	40	50	25	30	14	16	6,1 ±0,05	19,5	11	6,2	5,5	10,5
M 8	30	40	50	32	30	14	16	6,1 ±0,05	19,5	11	6,2	6	11
M 8	30	40	50	40	30	14	16	6,1 ±0,05	19,5	11	6,2	8	13
M 10	35	45	55	21	36	16	18	7,8 ±0,03	22,5	12,5	7,3	4,3	10
M 10	35	45	55	25	36	16	18	7,8 ±0,03	22,5	12,5	7,3	4,6	10,5
M 10	35	45	55	32	36	16	18	7,8 ±0,03	22,5	12,5	7,3	5	11
M 10	35	45	55	40	36	16	18	7,8 ±0,03	22,5	12,5	7,3	7	13

Specification

- Knurled screw GN 421
Plastic, Technopolymer (Polyamide PA)
black, shiny finish
- Threaded bolt
Stainless Steel AISI 304 Cu
- Thrust pad
Plastic
Technopolymer (Polyacetal POM)
- temperature resistant up to 80 °C
- black, matt
- *Stainless Steel characteristics* → Page 1144
- *Plastic characteristics* → Page 1141
- RoHS compliant

Information

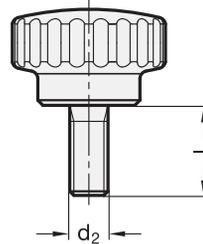
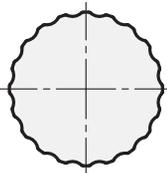
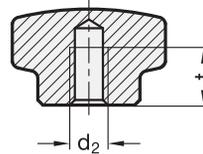
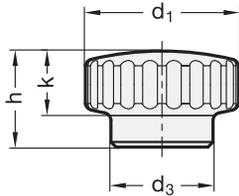
Knurled screws GN 421.11 / GN 421.12 have a ball pin whose diameter is smaller than the core diameter of the thread.
The movable thrust pad is easily clipped on and taken off.
The thrust pads are supplied disassembled.

see also...

- *Star knobs GN 6336.11 / GN 6336.12* → Page 283
- *Knurled screws GN 421.10* → Page 319
(with Brass / Plastic pad)

Knurled thumb screws with ball pin GN421.11-M8-30	1	d ₁
	2	l ₁

Knurled thumb screws with movable thrust pad GN421.12-M10-45-21	1	d ₁
	2	l ₁
	3	d ₂



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Stainless
Steel

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9



1

2

3

d ₁	d ₂	Length l			d ₃	h	k	t min.
20	M 5	10	16	-	14	13	8,5	8
24	M 6	16	20	25	16	15	10,5	9
28	M 8	16	20	30	18	17	12,5	10

Specification

- Stainless Steel AISI 304
 - matt shot-blasted **MT**
 - highly polished **PL**
- Stainless Steel characteristics → Page 1144
- RoHS compliant

4

Information

The knurling of the Stainless Steel-Knurled screws GN 535 / Knurled nuts GN 536 allows a use in an environment with hygienic requirements.

see also...

- Stainless Steel-Star knobs GN 5335 → Page 291
- Stainless Steel-Control knobs GN 436 → Page 346 (Knurling like GN 536)

Stainless Steel-Knurled screws

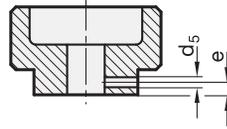
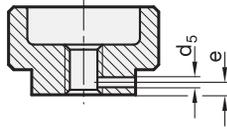
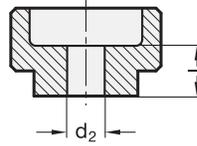
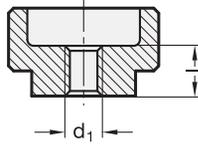
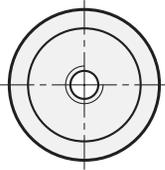
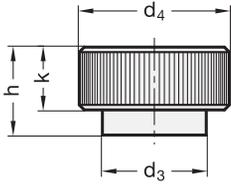
GN 535-28-M8-20-MT

1	d ₁
2	d ₂
3	Length l
4	Finish

Stainless Steel-Knurled nuts

GN 536-20-M5-PL

1	d ₁
2	d ₂
4	Finish



2 Type

- A without dowel hole
- B with dowel hole



d₁ Thread	d₂ H7 Bore	d₃	d₄	d₅ H11	e	h	k	l
M 5	B 5	14	20	1,5	2,5	12	8	7
M 6	B 6	16	24	1,5	2,5	14	10	8
M 8	B 8	20	30	2	3	17	12	10
M 10	B 10	28	36	3	4	20	14	12
M 12	B 12	32	40	4	4	24	16	16

Specification

- Steel
 - Tensile strength class 5 (500 N/mm²)
 - blackened
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The dowel bore d_5 in the DIN 6303 knurled nut is designed for the use of clamping or notch pins.

DIN 6303 knurled nuts with H7 bore and the size M12 are not provided for on the official standard sheet.

see also...

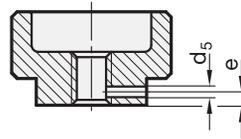
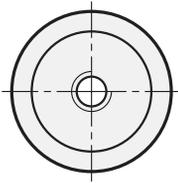
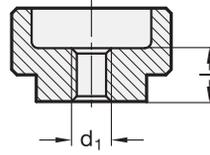
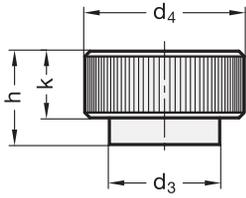
- Quick release-Knurled nuts GN 6303.1 → Page 324

How to order

DIN 6303-M8-A

1 **d₁** (d₂)

2 **Type**



Rostfrei
Inox
Stainless
Steel

2 Type

- A without dowel
- B* with dowel

1

d ₁	d ₃	d ₄	d ₅ H11	e	h	k	l
M 5	14	20	1,5	2,5	12	8	7
M 6	16	24	1,5	2,5	14	10	8
M 8	20	30	2	3	17	12	10
M 10	28	36	3	4	20	14	12
M 12	32	40	4	4	24	16	16

* not available from stock, requires a minimum order quantity

Specification

- Stainless Steel AISI 303 **NI**
- matt shot-blasted
- *ISO-Fundamental Tolerances* → Page 1132
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

3

Information

The dowel bore d₅ in the DIN 6303 Stainless Steel-knurled nut is designed for the use of clamping or notch pins.

DIN 6303 knurled nuts with H7 bore and the size M12 are not provided for on the official standard sheet.

see also...

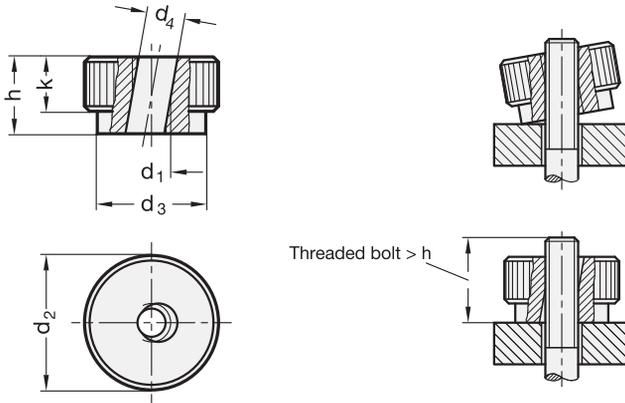
- *Stainless Steel-Knurled nuts GN 536* → Page 321

How to order

DIN 6303-M6-A-NI

1	d ₁
2	Type
3	Material

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



d ₁	d ₂	d ₃	d ₄	h	k
M 5	20	14	5,3	12	8
M 6	24	16	6,7	14	10
M 8	30	20	8,7	17	12
M 10	36	28	11	20	14
M 12	40	32	13	24	16

Specification

- Steel
 - Tensile strength class 5 (500 N/mm²)
 - blackened
- RoHS compliant

Information

Quick release knurled nuts GN 6303.1 are used in such applications where the nut has to be completely removed after the releasing operation and refitted rapidly for re-clamping.

The nut is tilted over the threaded spindle. When in position, the nut is brought into a straight position for meshing of the two threads on nut and spindle. The nut will then have to be turned only by a fraction of a rotation to achieve clamping.

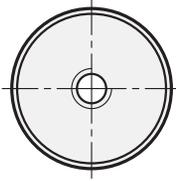
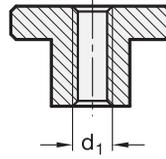
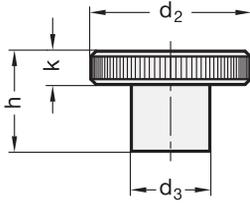
see also...

- Quick release star knobs GN 6336.3 → Page 281

How to order

GN6303.1-M8

1 d₁



1

d ₁		d ₂	d ₃	h	k
Steel	Stainless Steel NI				
M 3	-	12	6	7,5	2,5
M 4	M 4	16	8	9,5	3,5
M 5	M 5	20	10	11,5	4
M 6	M 6	24	12	15	5
M 8	M 8	30	16	18	6
M 10	M 10	36	20	23	8
M 12	-	40	22	25	10

Specification

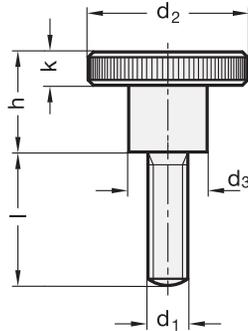
2

- Steel
 - Tensile strength class 5 (500 N/mm²)
 - visible face fine turned
 - blackened
- Stainless Steel AISI 303 **NI**
 - matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

Knurled nut	1	d ₁
DIN 466-M6		

Stainless Steel-Knurled nut	1	d ₁
DIN 466-M8-NI	2	Material

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



1

2

d ₁	Length l								d ₂	d ₃	h	k
M 3	6	10	12	16	20	-	-	-	12	6	7,5	2,5
M 4	5	8	10	12	16	20	25	-	16	8	9,5	3,5
M 5	6	8	10	12	16	20	25	30	20	10	11,5	4
M 6	8	10	12	16	20	25	30	35	24	12	15	5
M 8	12	16	20	25	30	35	40	-	30	16	18	6
M 10	15	20	25	30	35	40	-	-	36	20	23	8

Specification

- Steel
 - Tensile strength class 5.8 (500 N/mm²)
 - visible face fine turned
 - blackened
- RoHS compliant

Information

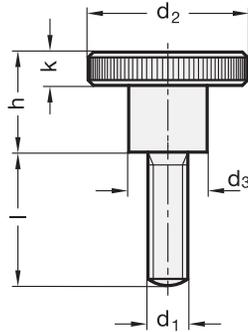
One piece and threaded over all knurled screws DIN 464 are produced from is full length.

How to order

DIN 464-M6-20

1 d₁

2 Length l



Rostfrei
Inox
Stainless
Steel

1		2								
d ₁		Length l				d ₂	d ₃	h	k	
M 3	6	10	12	16	-	-	12	6	7,5	3
M 4	8	10	12	16	20	25	16	8	9,5	3,5
M 5	10	12	16	20	25	30	20	10	11,5	4
M 6	12	16	20	25	30	35	24	12	15	5
M 8	16	20	25	30	35	-	30	16	18	6

Specification

- Stainless Steel AISI 303
- visible face fine turned
- matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

3

Information

All Stainless Steel-Knurled screws DIN 464 are produced from one piece and threaded over its full length.

see also...

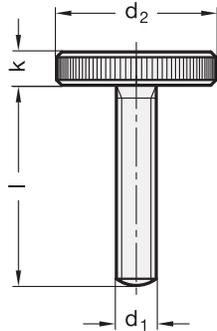
- *Knurled nuts DIN 466 (Steel / Stainless Steel)* → Page 325

How to order

DIN 464-M6-20-NI

1	d ₁
2	Length l
3	Material

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



d ₁	Length l						d ₂	k
	6	8	10	16	20	-		
M 3	6	8	10	16	20	-	12	2,5
M 4	8	10	12	16	20	25	16	3,5
M 5	10	12	16	20	25	30	20	4
M 6	12	16	20	25	30	40	24	5
M 8	16	20	25	30	35	40	30	6
M 10	20	25	30	35	40	-	36	8

Specification

- Steel
 - Tensile strength class 5 (500 N/mm²)
 - visible face fine turned
 - blackened
- RoHS compliant

Information

All flat knurled screws DIN 653 are produced from one piece and threaded over ist full length.

see also...

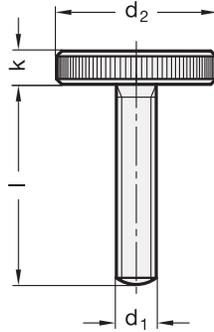
- Knurled screws GN 653.10 (Steel, with brass / plastic pivot) → Page 330

How to order

DIN 653-M6-20

1 d₁

2 Length l



Rostfrei Inox
Stainless
Steel

d₁	Length l				d₂	k
M 4	8	10	12	16	16	3,5
M 5	10	12	16	20	20	4
M 6	12	16	20	25	24	5
M 8	16	20	25	30	30	6
M 10	20	25	30	40	36	8

Specification

- Stainless Steel AISI 303
- visible face fine turned
- matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

NI

Information

All Stainless Steel-Flat knurled thumb screws DIN 653 are produced from one piece and threaded over its full length.

see also...

- *Stainless Steel-Knurled screws GN 653.10 (with brass / plastic thrust pad)* → 320

How to order

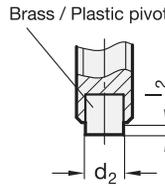
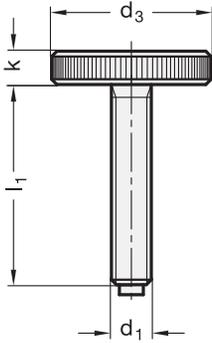
DIN 653-M6-20-NI

1	d₁
2	Length l
3	Material

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



Rost
frei | Inox
Stainless
Steel



1

2

d ₁	l ₁					l ₂		d ₂		d ₃	k
	12	16	20	25	30	Brass pad	Plastic pad	Brass pad	Plastic pad		
M 5	12	16	20	25	-	0,5	1	3	3	20	4
M 6	12	16	20	25	30	1	1,3	4	3,5	24	5
M 8	16	20	25	30	40	1,5	1,6	6	5	30	6

Specification

3 4

- Steel **ST**
 - Tensile strength class 5 (500 N/mm²)
 - visible face fine turned
 - blackened
- Stainless Steel AISI 303 **NI**
 - visible face fine turned
 - matt shot-blasted
- Pivot
 - Brass **MS**
 - Plastic **KU**
(Polyacetal POM)
- *Stainless Steel characteristics* → Page 1144
- **RoHS compliant**

Information

Flat knurled screws GN 653.10 with thrust pads in brass or plastic are used in applications, where marks and damages on the workpiece are unacceptable.

The head dimensions comply with flat knurled thumb screws DIN 653.

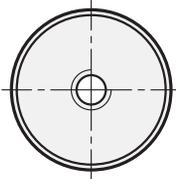
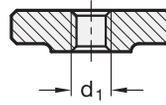
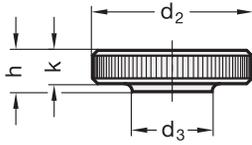
see also...

- *Knurled screws GN 421.10* → Page 319
- *Star knobs GN 6336.10 (with brass / plastic pivot)* → Page 282

How to order

GN653.10-M6-25-NI-KU

1	d ₁
2	l ₁
3	Material
4	Material of the thrust pad



1

d ₁		d ₂	d ₃	h	k
Steel	Stainless Steel (NI)				
M 3	M 3	12	6	3	2,5
M 4	M 4	16	8	4	3,5
M 5	M 5	20	10	5	4
M 6	M 6	24	12	6	5
M 8	M 8	30	16	8	6
M 10	M 10	36	20	10	8
M 12	-	40	22	12	10

Specification

2

- Steel
 - Tensile strength class 5 (500 N/mm²)
 - visible face fine turned
 - blackened
- Stainless Steel AISI 303 **NI**
 - matt shot-blasted
- *Stainless Steel characteristics* → Page 1144
- RoHS compliant

Knurled nut

DIN 467-M8

1 d₁

Stainless Steel-Knurled nut

DIN 467-M8-NI

1 d₁

2 Material

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9

1.8 Indexing mechanisms, Control knobs



GN 711
Rulers
Plastic,
Stainless Steel



→ Page 336

GN 726.1
Control knobs
Aluminium
black anodized



→ Page 344

GN 727
Control knobs
with adjustable
spindle
Aluminium / Steel



→ Page 352

GN 711.1
Indicator
arrows
Plastic,
Stainless Steel



→ Page 336

GN 726.2
Control knobs
Aluminium
black anodized



→ Page 345

GN 200
Indexing
mechanisms
Steel



→ Page 354

GN 164
Scale rings
Steel



→ Page 338

GN 436
Control knobs
Stainless Steel



→ Page 346

GN 200
Indexing
mechanisms
with tension lever
Steel



→ Page 354

GN 264
Scale rings
Steel



→ Page 340

GN 436.1
Control knobs
Stainless Steel



→ Page 347

GN 200
Indexing
mechanisms
Stainless Steel



→ Page 356

GN 268
Collar bushes
for GN 264
Steel



→ Page 341

GN 723.4
Control knobs
Aluminium,
anodized, natural
colour



→ Page 348

GN 700
Adjustable knobs
stepless positioning
Aluminium / Steel



→ Page 358

GN 374
Flat springs
for GN 264
Steel



→ Page 341

GN 723.3
Reference flanges
for GN 723.4



→ Page 350

GN 215
Indexing levers
Steel



→ Page 360

GN 726
Control knobs
Aluminium
black anodized



→ Page 342

GN 729
Control knobs
Aluminium
black anodized

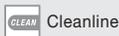


→ Page 351

GN 900
Adjustable
slide units
Aluminium



→ Page 366





GN 900.1
Fastening units
Aluminium

→ Page 368



GN 900.2
Connecting sets X-Y
Aluminium

→ Page 369



GN 900.3
Connecting sets X-Y
Aluminium

→ Page 370



GN 900.4
Mounting plates
Aluminium

→ Page 372



GN 900.5
Rotary plates
Aluminium

→ Page 373



GN 900.6
Rotary tables
Stainless Steel /
Aluminium

→ Page 374

1.1

1.2

1.3

1.4

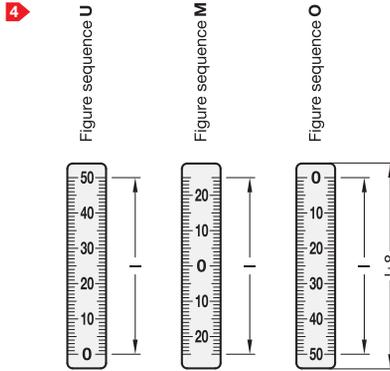
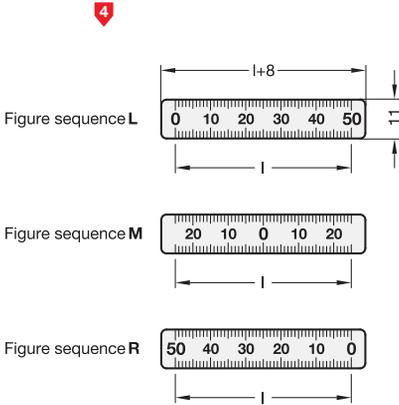
1.5

1.6

1.7

1.8

1.9

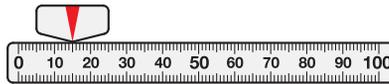
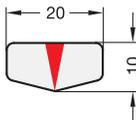


Rostfrei
Inox
Stainless
Steel

3 Type

- W** Figures horizontally arranged (Figure sequence L, M, R)
- S** Figures vertically arranged (Figure sequence U, M, O)

Indicator arrow GN 711.1



2

Ruler length *l*

50	100	150	200	300	400	500	750*	1000*
----	-----	-----	-----	-----	-----	-----	------	-------

* The NI-version of this length consists of 2 parts.

Specification

- **Stainless Steel** **NI**
 - Thickness 0,6 mm
 - Scale etched
- **Plastic** **KUS**
 - Thickness 0,3 mm
 - highlighted in silver
 - Scale printed
- **Plastic** **KUT**
 - Thickness 0,3 mm
 - transparent
 - Scale printed
- **RoHS compliant**

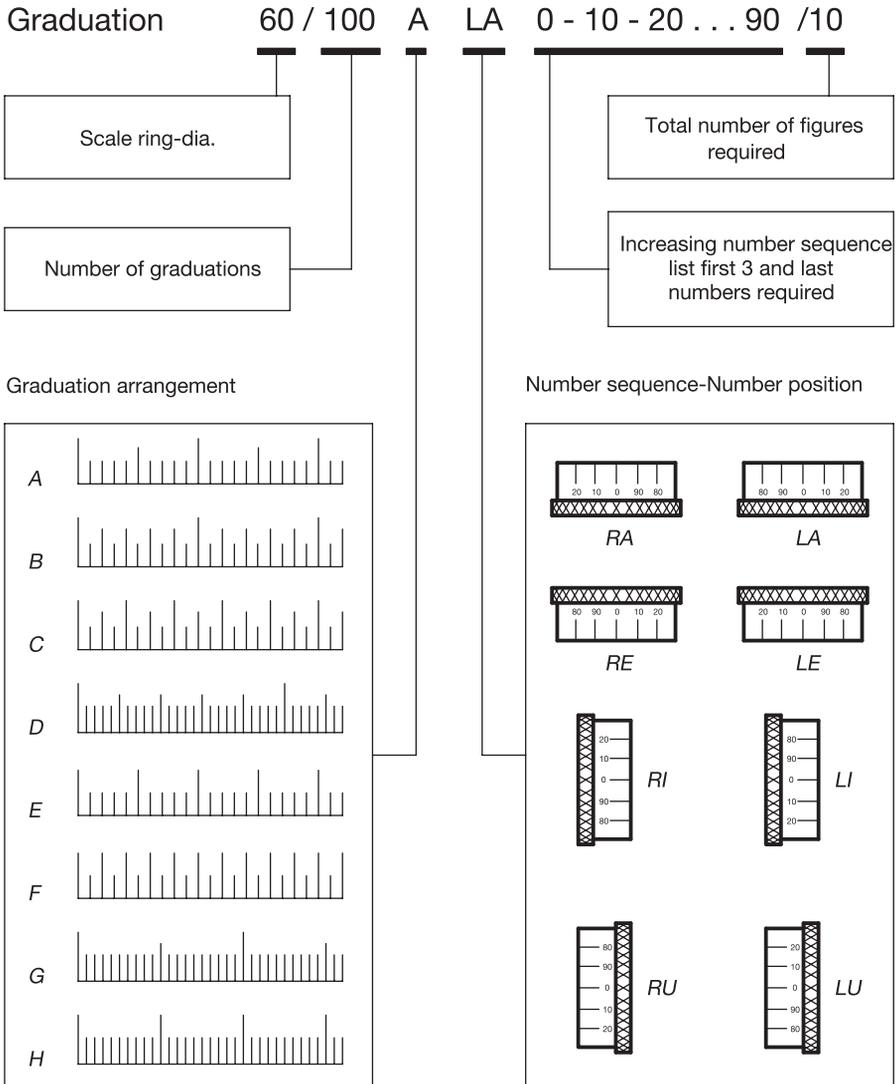
1

Information

To stick the ruler GN 711 remove the protective strip at the back.
The engraved side of the Stainless Steel-Rulers is also protected by a strip.

Ruler	1 Material
	2 Length <i>l</i>
	3 Type
	4 Figure sequence
GN 711-NI-100-W-L	

Indicator arrow	1 Material
	711.1-KUT



Information

The size of numbers and length of graduations depend on the number of graduations, quantity of numbers and the scale ring diameter.

1.1

1.2

1.3

1.4

1.5

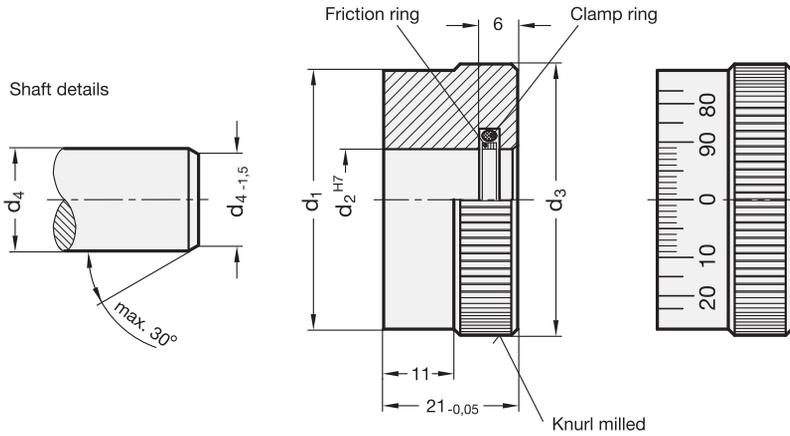
1.6

1.7

1.8

1.9





- 2 Bore code**
B without friction ring
R with friction ring
- 4 Type**
MCR matt chrome plated
MCRS matt chrome plated, standard scale 0...90, 100 graduations, acc. scale scheme d7/100 A RA 0-10 20...90/10

1 $d_1 \pm 0,02$	3 d_2 H7 Bore	d_3	d_4 ^{-0,02} / _{-0,05}	d_5
30	12	14	31,7	12
40	14	16	41,3	14
50	16	18	51,8	16
60	18	20	61,4	18

Specification

- Steel
 - Knurl milled
 - Scale lug d_1 fine turned
 - blank (standard version)
 - matt chrome plated
 - matt chrome plated with std. scale
- Scale engraved with laser precision, black
- Clamp ring Rubber
- Friction ring Polyamide
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- special graduations see „How to order Graduations“ → Page 337

Information

The non-wearing friction ring ensures perfect engagement of the scale ring when re-aligning the spindle. In addition it allows the setting of the scale ring on a static shaft.

Besides the standard scale (Type MCRS) the scale rings can be supplied with any type of graduation. It is suggested to use the matt chrome plated version (MCR) so that a nice discrepancy in colour is given.

Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet „How to order Graduations“ → Page 337

see also...

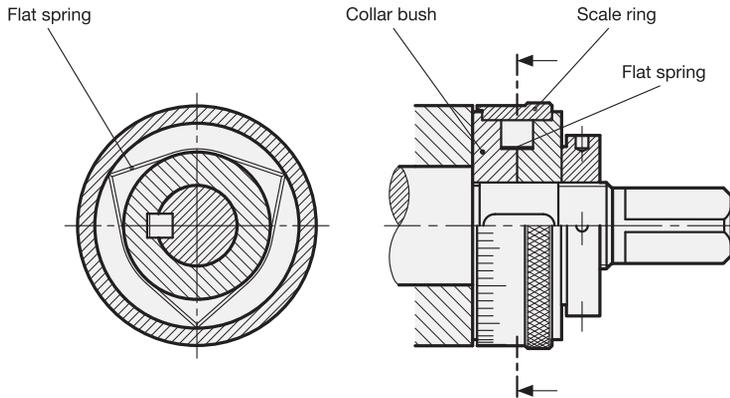
- Control handwheels GN 736.1 (with handle and graduations) → Page 179

Scale ring without scale, blank	1 d_1
GN 164-40-R14	2 Bore code
	3 d_2

Scale ring with standard scale	1 d_1
GN 164-50-R16-MCRS	2 Bore code
	3 d_2
	4 Type

Scaling sets

Assembly and installation example



A complete scale set is composed of:

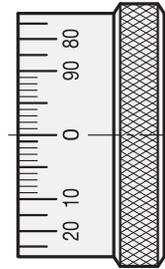
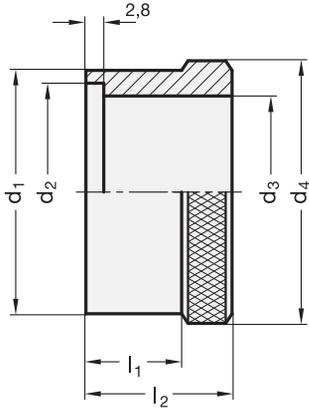
1 Scale ring	2 Collar bushes	3 Flat springs
GN 264-30	GN 268-24-K12	GN 374-0,3-10
GN 264-40	GN 268-32-K12	GN 374-0,4-10
GN 264-40	GN 268-32-K14	GN 374-0,4-10
GN 264-40	GN 268-32-K16	GN 374-0,4-10
GN 264-60	GN 268-50-K12	GN 374-0,6-10
GN 264-60	GN 268-50-K16	GN 374-0,6-10
GN 264-60	GN 268-50-K20	GN 374-0,6-10
GN 264-60	GN 268-50-K28	GN 374-0,6-10
GN 264-80	GN 268-68-K12	GN 374-0,8-10
GN 264-80	GN 268-68-K14	GN 374-0,8-10
GN 264-80	GN 268-68-K16	GN 374-0,8-10
GN 264-80	GN 268-68-K22	GN 374-0,8-10

Information

The scale set is used for the precision setting of all machine components which are adjustable via spindles.

All individual parts are made of steel. The flat springs are a perfect and virtually non-wearing connecting link between scale ring and spindle or collar bushes. When adjusting the spindle, they ensure that the scale ring is safely driven without impairing the setting options of the ring when the shaft is at rest.

The individual parts belonging to a scale set must be ordered separately.



- 2** Type
- MCR** matt chrome plated
 - MCRS** matt chrome plated, standard scale 0...90, 100 graduations, acc. scale scheme d_i/100 A RA 0-10 20...90/10

1

d ₁	d ₂	d ₃ H7	d ₄	l ₁	l ₂	Scaling set consists of:
30	27	24	33	16	23,7	1 Scale ring GN 264 2 Collar bushes 3 Flat springs
40	36	32	43	16	23,7	GN 268-24-K... GN 374-0,3-10
60	55	50	63	16	25,7	GN 268-32-K... GN 374-0,4-10
80	75	68	83	16	25,7	GN 268-50-K... GN 374-0,6-10
						GN 268-68-K... GN 374-0,8-10

Specification

- Steel
 - Scale lug d_i fine turned
 - blank (standard version)
 - matt chrome plated
 - matt chrome plated with std. scale
- Scale engraved with laser precision, black
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

2

Information

Besides the standard scale (Type MCRS) the scale rings can be supplied with any type of graduation. It is suggested to use the matt chrome plated version (MCR) so that a nice discrepancy in colour is given.

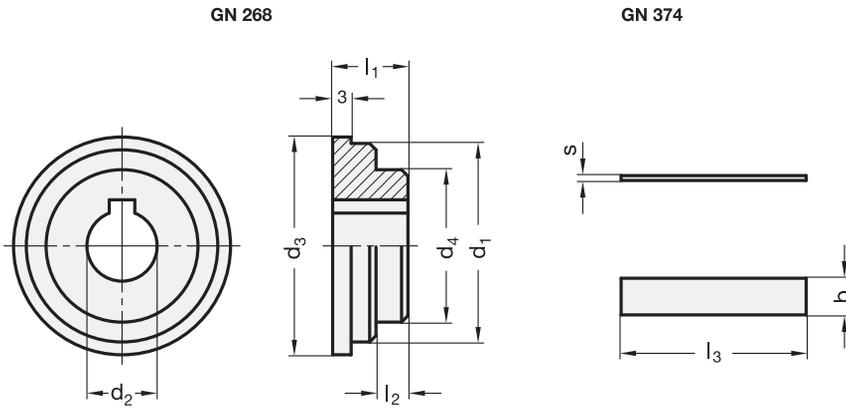
Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet „How to order Graduations“ → Page 337

On request

- special graduations see „How to order Graduations“ → Page 337

Scale ring without scale, blank	
GN264-80	1 d _i

Scale ring with standard scale	
GN264-40-MCRS	1 d _i
	2 Type



d ₁ f7	d ₂ H7 Bore with keyway				d ₃	d ₄	l ₁	l ₂	l ₃	s	b	Scaling set consists of: 2 Collar bushes GN 268	
	1 Scale ring												3 Flat springs
24	K 12	-	-	-	26,7	18	13,5	5,5	21	0,3	10	GN 264-30	GN 374-0,3-10
32	K 12	K 14	K 16	-	35,7	25	13,5	5,5	29	0,4	10	GN 264-40	GN 374-0,4-10
50	K 12	K 16	K 20	K 28	54,7	38	14,5	5,5	45	0,6	10	GN 264-60	GN 374-0,6-10
68	K 12	K 14	K 16	K 22	74,7	50	14,5	5,5	60	0,8	10	GN 264-80	GN 374-0,8-10

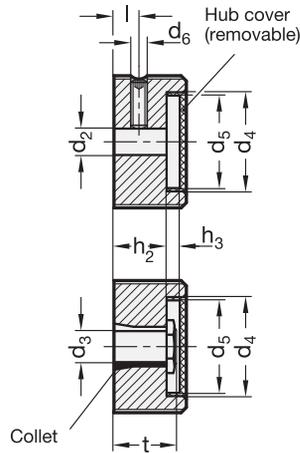
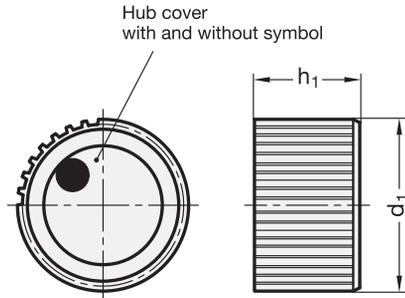
Specification

- Steel blank
- Keyway P9 DIN 6885 → Page 1124
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Collar bush GN 268-32-K16	1	d ₁
	2	d ₂

Flat spring GN 374-0,4-10	3	s
	4	b

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Type

- N Cover neutral
- M Cover with indicator point

4 Identification No.

- 1 with grub screw
- 2 with collet

1

2

2

d ₁	d ₂ H8 Bore		d ₃ Collet	d ₄	d ₅	d ₆	h ₁	h ₂	h ₃	l	t
22	B 5	-	-	16	14	M 4	15	9	4,3	5	-
27	B 6	-	Z 6	20	18	M 4	17	11	4,3	5,5	14
34	B 6	B 8	Z 8	25	23	M 5	20	14	4,2	7	17
42	B 8	B 10	Z 10	32	30	M 5	23	17	4	8,5	20

Specification

- Aluminium anodized, black
- Cover Plastic, light grey
- Collet / hexagon nut Brass
- Stainless Steel-Grub screw DIN 916 with internal hexagon and serrated point
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The light grey cover of the control knobs GN 726 shrouds the fixing components as well as the shaft end. The cover also lends itself for a logo or other symbols.

Made from an aluminum extrusion allows the manufacture of **customized solutions** in existing diameters at relatively low cost.

see also...

- Control knobs GN 726.1 (with extension for scale) → Page 344

How to order

1 2 3 4
GN 726-34-Z8-M-2

1	d ₁
2	d ₃ (d ₂)
3	Type
4	Identification No.



- Control knobs GN 726 → Page 342
- Control knobs GN 726.1 → Page 344
- Control knobs GN 726.2 → Page 345
- Scale rings GN 736.1 → Page 179
- Stainless Steel-Control knobs GN 436 → Page 346
- Stainless Steel-Control knobs GN 436.1 → Page 347
- Control knobs GN 723.4 → Page 348

1.1

1.2

1.3

1.4

1.5

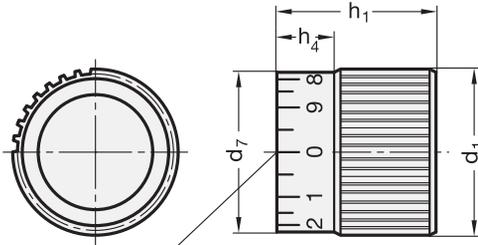
1.6

1.7

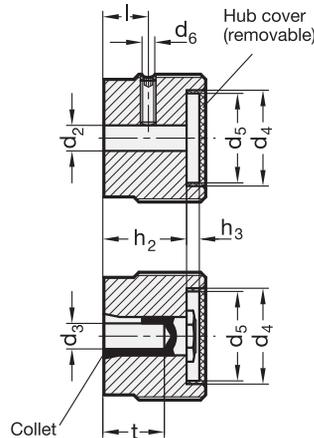
1.8

1.9





Arrow, resp. "zero"
(in case of graduation)
opposite grub screw



3 Type

- A with arrow
- B neutral, without indicator point or scale
- S with scale 0...9
20 graduations

4 Identification No.

- 1 with grub screw
- 2 with collet

1

2

2

d ₁	d ₂ H8 Bore		d ₃ Collet	d ₄	d ₅	d ₆	d ₇	h ₁	h ₂	h ₃	h ₄	l	t
22	B 5	-	-	16	14	M 4	20	22	16	4,3	8	12,5	-
27	B 6	-	Z 6	20	18	M 4	25	26	20	4,3	9	14	14
34	B 6	B 8	Z 8	25	23	M 5	32	30	24	4,2	10	15	17
42	B 8	B 10	Z 10	32	30	M 5	40	34	28	4	11	16	20

Specification

- Aluminium anodized, black
- Scale (Type S) and arrow (Type A) white, engraved with laser precision
- Cover Plastic, light grey
- Collet / hexagon nut Brass
- Stainless Steel-Grub screw DIN 916 with internal hexagon and serrated point
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The light grey cover of the control knobs GN 726.1 shrouds the fixing components as well as the shaft end. The cover also lends itself for a logo or other symbols.

The collet version (Type 2) permits a simple adjustment of the types with scale or arrow.

Scale and arrow on the control knobs are indelibly marked and easily legible.

Besides the standard scale (Type S) the control knobs can be supplied with any type of graduation.

Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale knobs on the order sheet „How to order Graduations“ → Page 337

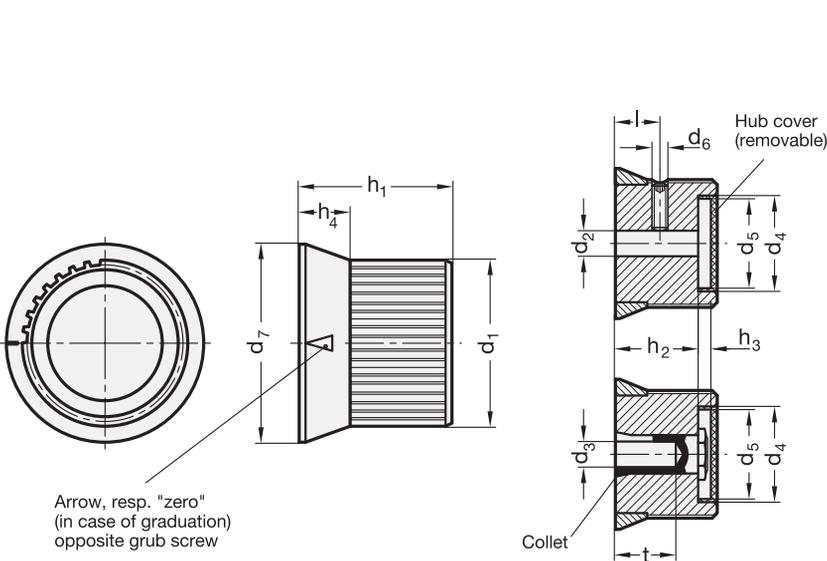
On request

- special graduations see „How to order Graduations“ → Page 337

How to order

GN 726.1-42-B10-A-1

1	d ₁
2	d ₂ (d ₃)
3	Type
4	Identification No.



- 3 Type**
- A** with arrow
 - B** neutral, without indicator point or scale
 - S** with scale 0...9
20 graduations
- 4 Identification No.**
- 1** with grub screw
 - 2** with collet

1	2	2	d₁	d₂ H8 Bore	d₃ Collet	d₄	d₅	d₆	d₇	h₁	h₂	h₃	h₄	l	t
			22	B 5	-	-	16	M 4	27,5	22	16	4,3	8	12,5	-
			27	B 6	-	Z 6	20	M 4	33,5	26	20	4,3	9	14	14
			34	B 6	B 8	Z 8	25	M 5	41	30	24	4,2	10	15	17
			42	B 8	B 10	Z 10	32	M 5	50	34	28	4	11	16	20

Specification

- Aluminium anodized, black
- Scale ring Plastic, black pressed on
- Arrow (Type A) and scale (Type S) white, engraved with laser precision
- Cover Plastic, light grey
- Collet / hexagon nut Brass
- Stainless Steel-Grub screw DIN 916 with internal hexagon and serrated point
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

The light grey cover of the control knobs GN 726.2 shrouds the fixing components as well as the shaft end. The cover also lends itself for a logo or other symbols.

The collet version permits a simple adjustment of the types with scale or arrow.

Besides the standard scale (Type S) the control knobs can be supplied with any type of graduation.

Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale knobs on the order sheet „How to order Graduations“ → Page 337

see also...

- Control knobs GN 723.4 (Aluminium, anodized, natural colour) → Page 348

On request

- special graduations see „How to order Graduations“ → Page 337

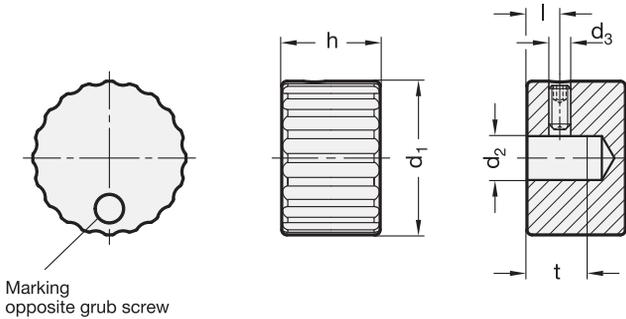
How to order		1 d₁
		2 d₃ (d₂)
		3 Type
		4 Identification No.



Rost
frei | **Inox**
Stainless
Steel

3 Type

- N** without indicator point
- M** with indicator point



Marking
opposite grub screw

1 d_1	2 d_2 H8 Bore		d_3	h	Length l	t min.
24	B 5	B 6	M 4	16	4	10
28	B 6	B 8	M 4	18	4	11

Specification

- Stainless Steel AISI 304
- matt shot-blasted **MT**
- Indicator point (Type M)
engraved with laser precision
- Stainless Steel-Grub screw DIN 916
with internal hexagon and serrated point
- **RoHS compliant**

4

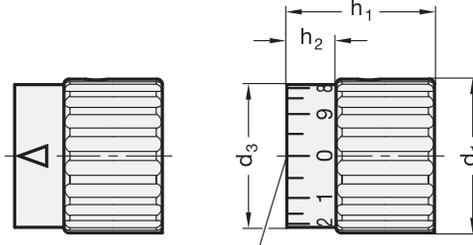
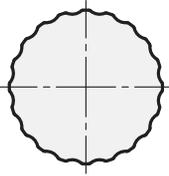
Information

- see also...
- *Stainless Steel-Knurled nuts GN 536* → Page 321

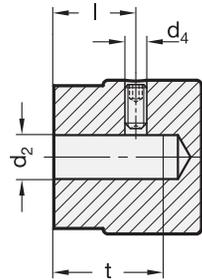
How to order

GN 436-24-B6-N-MT

1	d_1
2	d_2
3	Type
4	Finish



0 resp. arrow opposite grub screw



Rost
frei
Inox
Stainless
Steel

3 Type

- A** with arrow
- B** neutral, without arrow or scale
- S** with standard scale 0...9 20 graduations

1

2

d₁	d₂ H8 Bore		d₃	d₄	h₁	h₂	Length l	t min.
24	B 5	B 6	22	M 4	24	8	12	18
28	B 6	B 8	26	M 4	27	9	13	20

Specification

- Stainless Steel AISI 304 - matt shot-blasted **MT**
- Scale (Type S) and arrow (Type A) engraved with laser precision
- Stainless Steel-Grub screw DIN 916 with internal hexagon and serrated point
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

4

Information

Scale and arrow on the Stainless Steel-control knobs GN 436.1 are indelibly marked and easily legible.

Besides the standard scale (Type S) the control knobs can be supplied with any type of graduation.

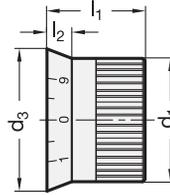
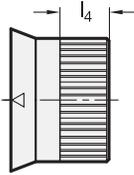
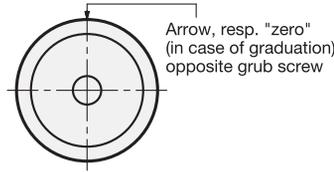
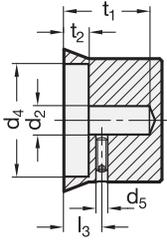
Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale knobs on the order sheet „How to order Graduations“ → Page 337

How to order

GN436.1-28-B6-S-MT

1	d₁
2	d₂
3	Type
4	Finish

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



3 Type

- N** neutral
- M** with arrow
- S** with scale 0...9
20 graduations

1

2

d₁	d₂ H8 Bore		d₃ -0,2	d₄	d₅	l₁	l₂	l₃	l₄	t₁	t₂
27	B 6	-	33,5	23,5	M 4	25,5	7,5	10,5	12,5	23,5	7,5
34	B 6	B 8	41	29,5	M 5	29,5	9,5	13,5	13	26,5	9,5
42	B 8	B 10	50	37,5	M 5	33,5	10,5	15,5	15	30,5	11,5

Specification

- Aluminium anodized, natural colour
- Scale (Type S) and arrow (Type M) engraved with laser precision
- Stainless Steel-Grub screw DIN 916 with internal hexagon and serrated point
- *ISO-Fundamental Tolerances* → Page 1132
- **RoHS compliant**

Accessory

- Reference flanges GN 723.3 are to be ordered separately

On request

- special graduations see „How to order Graduations“ → Page 337

Information

Control knobs GN 723.4 can be combined with reference flanges GN 723.3 which offer the following advantages:

- they are provided with a reference mark relating to the scale on the control knobs
- they give additional support to the control shaft,
- the version with a friction ring prevents unexpected movement through vibration.

Scale and arrow on the control knobs are indelibly marked and easily legible.

Besides the standard scale (Type S) they can be supplied with any type of graduation.

Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale knobs on the order sheet „How to order Graduations“ → Page 337

see also...

- *Reference flanges GN 723.3* → Page 350

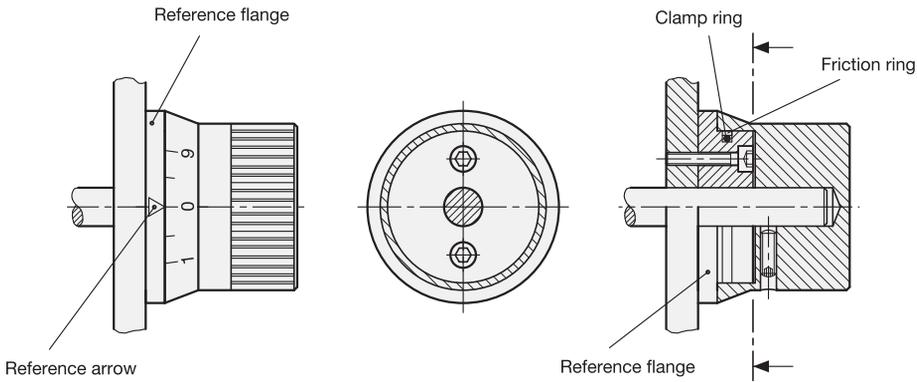
How to order

GN 723.4-42-B10-S

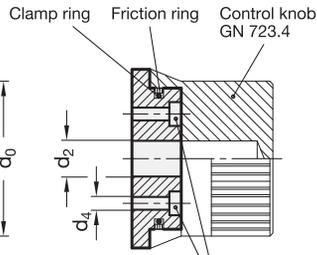
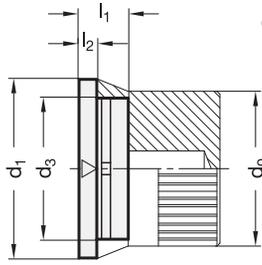
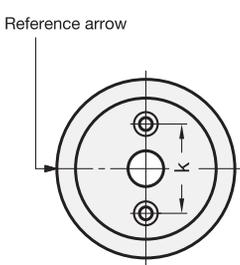
1	d₁
2	d₂
3	Type



Control knob GN 723.4 combined with a reference flange GN 723.3 → Page 350



Reference arrow



2 Bores for socket head cap screws DIN 912



3 Type

- A with friction ring
- B without friction ring

¹ d ₀ Control knob Ø GN 723.4	d ₁	² d ₂ H8		d ₃ -0,1	d ₄	k	l ₁	l ₂
27	33,5	B 6	-	23,3	3,2	13	11,2	4
34	41	B 6	B 8	29,3	3,2	18	14,2	5
42	50	B 8	B 10	37,3	4,3	24	16,2	5
52	60	B 10	B 12	47,3	4,3	30	17,2	6

Specification

- Aluminium
anodized, black
- Reference arrow
white, engraved with laser precision
- Clamp ring
Rubber
- Friction ring
Polyamide
- ISO-Fundamental Tolerances → Page 1132

Information

Reference flanges GN 723.3 are used together with control knobs GN 723.4 which offer the following advantages:

- they have a reference mark to line up with the control knob scale,
- they offer additional support for the control shaft,
- the version with friction ring prevents an unexpected movement of the control knob by vibration.

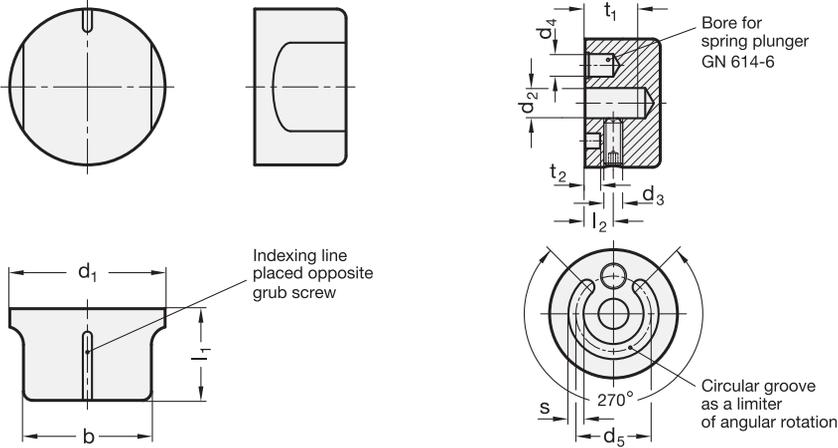
see also...

- Control knobs GN 723.4 → Page 348

How to order

GN 723.3-50-B8-A

- ¹ d₁
- ² d₂
- ³ Type



d₁	d₂ H8 Bore	b	d₃	d₄	d₅	l₁	l₂	t₁ min.	t₂ +0,2	s ^{+0,3} _{+0,1}
34	B 6	B 8	28	M 5	6	20	20	7,5	14	4
42	B 8	B 10	35	M 5	6	30	22	7,5	16	4

Specification

- Aluminium anodized, black
- Indexing line white, engraved with laser precision
- Stainless Steel-Grub screw DIN 916 with internal hexagon and serrated point
- ISO-Fundamental Tolerances → Page 1132

Information

Control knobs GN 729 are usually selected for applications which require a limited movement within 180°.

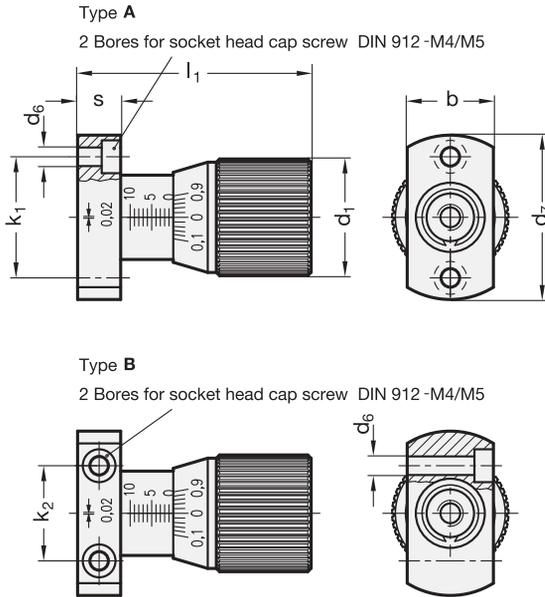
With the aid of limiting pins which protrude into the circular groove the angle of rotation can be restricted. The bore d₄ is for a spring plunger GN 614 to act as a simple detent.

The indexing line is indelible and visible from two sides.

How to order	1 d ₁
	2 d ₂

GN 729-42-B8

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



2 Type

- A** Fixing hole parallel to the spindle axle
- B** Fixing hole vertical to the spindle axle

3 Coding

- SR** with scale 0,1...0,9
50 graduations ascending clockwise
- SL** with scale 0,1...0,9
50 graduations ascending anti-clockwise

1

d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	b	h	k ₁	k ₂	l ₁ +0,2	l ₂	l ₃	s	w Adjustable range
27	M 6	M 12x1	6,4	18	4,3	38	20	4,3	28	22	54	19,5	37,5	10	10
34	M 8	M 16x1	8,5	23	5,3	50	25	4,2	36	30	67	23,5	45,5	11	15

Specification

- Body
Steel
matt chrome plated
- Spindel
Steel
blank
- Control knob
Aluminium
anodized, black
- Scales
engraved with laser precision
- Cover
Plastic, light grey
- **RoHS compliant**

Information

Control knobs with adjustable spindle GN 727 allow precise adjustment or aligning i. e. of a positive stop. The spindle thread is without backlash. The graduations on the control knob are non-abrasive and well legible, The light grey cover shrouds the fixing components as well as the shaft end.

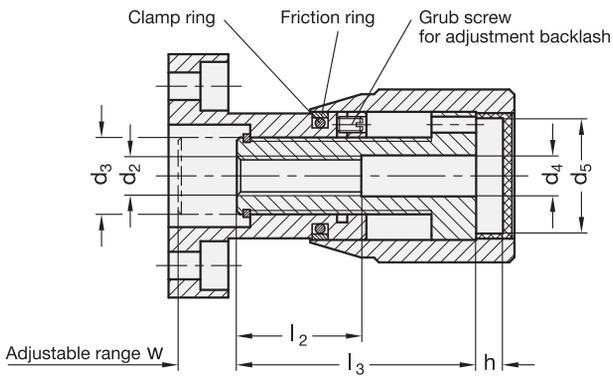
How to order

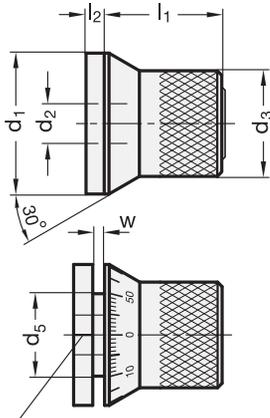
GN727-27-A-SR

- 1** d₁
- 2** Type
- 3** Coding

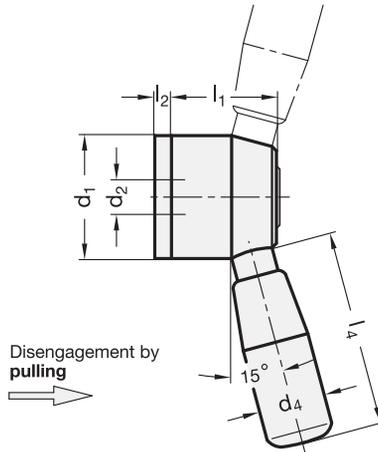


Control knobs with adjustable spindle GN 727 - Complementary dimensions with technical details





Reference line for type AS



3 Type

- A** Control knob, blackened, without scale
- AS** Control knob, matt chrome plated, with scale 0...50 60 graduations
- B** with 1 tension lever
- C** with 2 tension levers

1 2

$d_1 -0,5$	d_2 H7 Bore with keyway		d_3	d_4	d_5	d_6 P.C.D. Ø	l_1	l_2	l_3	l_4	w Stroke	
44	K 10	K 12	-	33	23	23	33	37	6	31	75	4
52	K 12	K 14	K 16	42	26	31,5	41,8	37,5	6	31,5	90	4

Specification

- Steel blackened
- Type AS:
Control knob matt chrome plated
 - Scale engraved with laser precision black
 - Reference line on location ring
- Keyway P9 DIN 6885/1 for bore K 10 → Page 1124
Keyway P9 DIN 6885/2 for bores > K 10 → Page 1125
- Fixed cylindrical handles GN 539
Plastic, Technopolymer black, shiny finish
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- Special graduations see „How to order Graduations“ → Page 337

Information

Indexing mechanisms GN 200 replace and simplify complicated indexing and safety mechanisms.

Besides the standard scale (Type AS) the control knob version may be supplied with any scale. In such cases, it is recommended to use the matt chrome plated version since the colour contrast is better.

Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet „How to order Graduations“ → Page 337

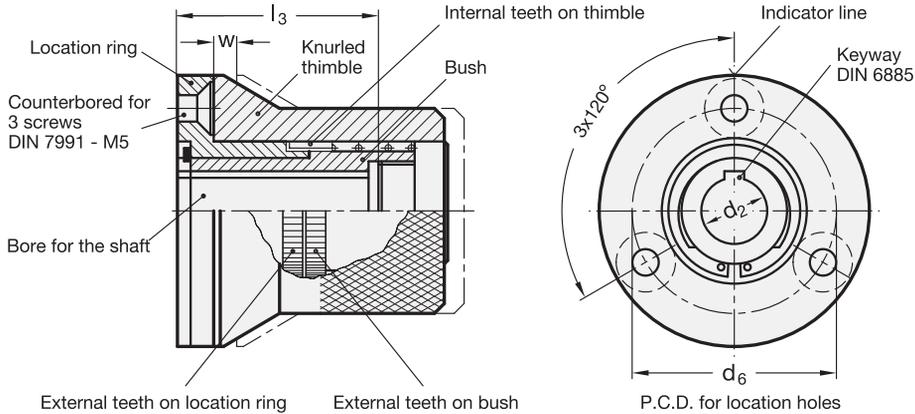
see also...

- *Stainless Steel-Indexing mechanisms GN 200* → Page 356
- *Indexing levers GN 215* → Page 360
- *Adjustable knobs GN 700 (with stepless positioning)* → Page 358

How to order

GN200-44-K12-A

- 1** d_1
- 2** d_2
- 3** Type



Applications

With these indexing mechanisms, shaft and lead screws can be turned and positioned in steps of 6° or multiples of it.

Description

The indexing mechanism is a self-contained unit, all the adjusting and securing components are housed in the smallest possible space. The unit consists of three main parts:

- Bushing – can be connected to the shaft with a key or crossdowel.
- Location ring – is screwed and doweled to the machine or equipment. The bushing is also a bearing for the location ring.
- Knurled housing – providing engagement between the locating ring and the shaft which can be turned or positioned.

In the locked position, the knurled housing via the internal teeth (60) connects the locating ring and the bush (both via external teeth), the latter being connected to the shaft. To turn the shaft, the knurled housing is pulled out against the spring pressure, disengaging from the location ring, but still engaged with the bush.

More information

With 60 teeth, the following divisions can be achieved: 2, 3, 4, 5, 6, 10, 20, 30.

A simple method provides indexing of the shaft to limited number of positions only, i.e. every 120° .

For this purpose, the location ring is manufactured with a dowel which allows engagement only when the bushing is provided with a corresponding hole (see assembly examples).

This hole can be manufactured oversize as the dowel is for rough positioning only. Accurate positioning is maintained via the teeth.

Knurled housing and tension levers can be supplied with scales and symbols.

With teeth, a more accurate and wear-resistant indexing mechanism is obtained than with single dowel locations.

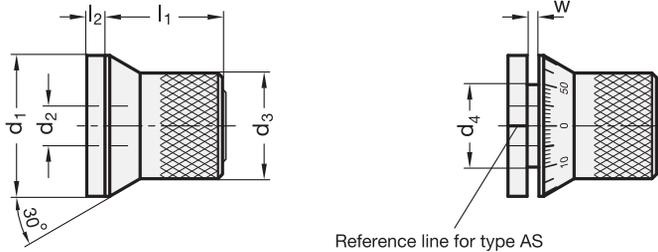
When a very high torque is to be transmitted, engaging and disengaging of the teeth is made difficult due to the small clearance, i.e. the friction between them. In such cases, indexing levers GN 215 are recommended.



Rost free
Inox
Stainless
Steel

3 Type

- A** without scale
- AS** with scale 0...50
60 graduations



Reference line for type AS

1

2

$d_1 -0,5$	d_2 H7 Bore with keyway			d_3	d_4	d_6 P.C.D. Ø for fixing screws Page 355	l_1	l_2	l_3 Bore length Page 355	w Stroke
44	K 10	K 12	-	33	23	33	37	6	31	4
52	K 12	K 14	K 16	42	31,5	41,8	37,5	6	31,5	4

Specification

4

- Stainless Steel AISI 303 **NI**
- Type AS:
 - Scale engraved with laser precision
 - Reference line on location ring
- Keyway P9 DIN 6885/1 for bore K 10 → Page 1124
Keyway P9 DIN 6885/2 for bores > K 10 → Page 1125
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

On request

- Special graduations see „How to order Graduations“ → Page 337

Information

Stainless Steel-Indexing mechanisms GN 200 replace and simplify complicated indexing and safety mechanisms.

Besides the standard scale (Type AS) the control knob version may be supplied with any scale.

Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet „How to order Graduations“ → Page 337

see also...

- Applications and more information to GN 200 → Page 354

How to order

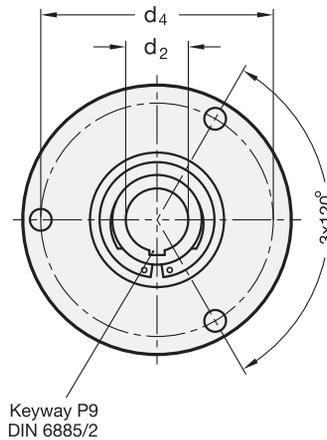
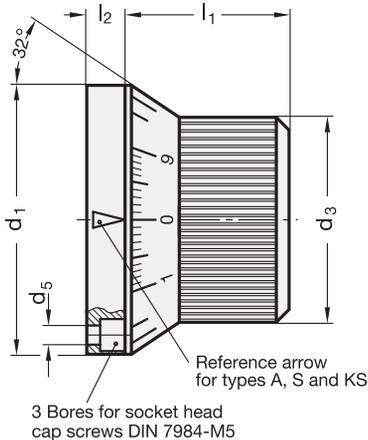
GN 200-52-K12-AS-NI

1	d_1
2	d_2
3	Type
4	Stainless Steel



Indexing mechanisms GN 200 → [Page 354](#)
 Stainless Steel-Indexing mechanisms GN 200 → [Page 356](#)
 Indexing levers GN 215 → [Page 360](#)
 Adjustable knob GN 700 → [Page 358](#)

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



- 3 Type**
- A** with arrow
 - B** neutral, without arrow or scale
 - S** with standard scale 0...9 100 graduations
 - KS** with customized scale

1 d_1	2 d_2 H7 Bore with keyway	d_3	$d_4 -0,2$	d_5	l_1	l_2	l_3
66	K 12	K 14	55	5,5	44	9	40

Specification

- Attachment part and bush
Steel
blackened
- Blocking mechanism
Steel
hardened and ground
- Scale ring and rotating knob
Aluminium
black anodized
- Scale / arrow
- engraved with laser precision
- centered between two mounting holes
- *ISO-Fundamental Tolerances* → *Page 1132*

On request

- special graduations
see „How to order Graduations“ → *Page 337*

Information

With this adjustable knob GN 700 a shaft can be infinitely adjusted in both directions. The anti-backlash mechanism with a max. load of 15 Nm ensures the firm locking of the shaft in any position.

This mechanism prevents any uncontrolled movement of the shaft. The locking action is a safety feature to prevent unwanted re-adjustments caused by backlash and vibration.

Scale and arrow on the control knobs are indelibly marked and easily legible.

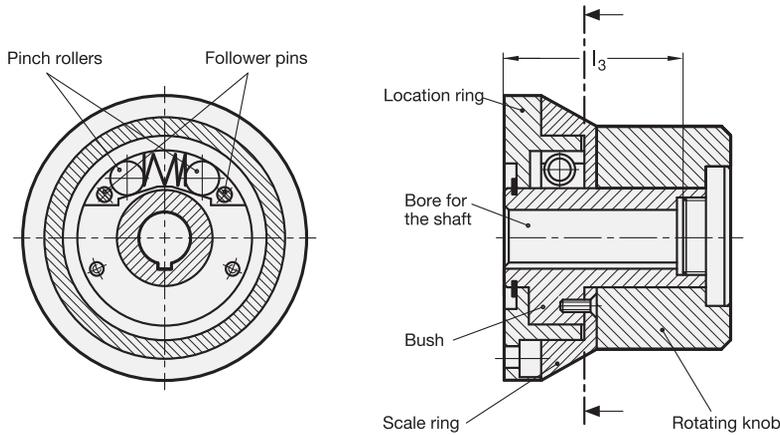
Besides the standard scale (Type AS) the control knob version may be supplied with any other scale (Type KS).

Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet „How to order Graduations“ → *Page 337*

see also...

- *Indexing mechanisms GN 200* → *Page 354*
- *Indexing levers GN 215* → *Page 360*

How to order GN 700-66-K14-S	1 d_1
	2 d_2
	3 Type



Description

The anti-backlash mechanism which operates on the principle of a bidirectional freewheeling and antireversing basis allows the transfer of movement in both directions without backlash. The adjustable knob is not suitable for applications on machines or equipments which are exposed to vibrations.

The **bush** is connected by the key and keyway to the revolving shaft.

The **location ring** remains static and centrally positioned by the bushing and the two pinch rollers, fixed to the machine frame or housing by three screws.

The **rotating knob** with the knurled barrel is carried by the bush.

The **scale ring** is firmly anchored to the bush and the driven shaft by two countersunk screws.

If the knob is repositioned, one of the follower pins – depending on the direction of rotation – pushes the pinch roller against the spring into an idling position which releases the bush and shaft to rotate freely.

The second follower pin on the opposite side reduces the movement of its pinch roller and ensures at the same time a firm grip and forward movement of the bush while the first pinch roller remains in an idling position.

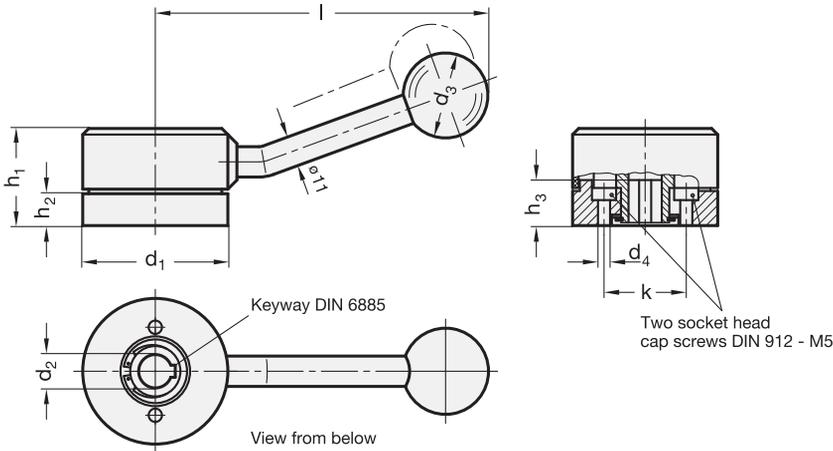
When releasing the knob, the spring will push the pinch roller back into the grip position, thus linking the bush again with the static section.

The scale ring is connected firmly with the bush and any readjustment of the shaft can be accurately controlled.

This infinitely adjustable knob cannot, however, be used in such cases where the shaft to be adjusted runs ahead of the adjustment. The anti-backlash mechanism in this knob cannot be used as a bearing for the driven shaft.

Hints for installation

A perfect functioning can only be guaranteed if the shaft of the machine is positioned at a perfect right angle to the contact surface of the static part.



3 Type
A without serrations
B with 30 serrations

1 d_1	2 d_2 H7 Bore with keyway	d_3	d_4	d_5	h_1	h_2	h_3 max. shaft length	k	l	$w +0,5^\circ$	
54	K 10	K 12	32	5,2	44,5	37	13	16,5	30	122	22°
60	K 14	K 16	32	5,2	50	39	15	18,5	36	125	19°

Specification

- Steel blackened
- Cover Plastic black, with inserted Alu-disc matt anodized, natural colour
- Keyway for bore
K10: 3 P9 x 1,1
K12 ... K16: DIN 6885/2 → Page 1125
- Ball knob DIN 319
Plastic, Duroplast black, shiny finish
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

On request

- Serrations, restricted angle to drawing

Information

With indexing levers GN 215 shafts can be turned through a predetermined angle and positively locked. To index, lift the lever against spring pressure from serrations (one hand control).

Limiting the indexing angle can be achieved with two dowels (sketch).

The **bush** is connected to the shaft via keyway.

The **location flange** is bolted to the machine with two socket head cap screws (M 5).

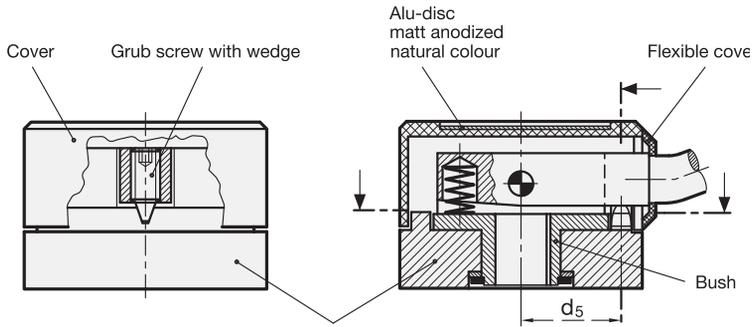
The **lever**, via the location pin, provides the connection between shaft and location flange.

The serrations are protected from swarf and similar particles by the cover. This cover can be inserted by hand (elastic segments engage into a groove) and removed with a screw driver.

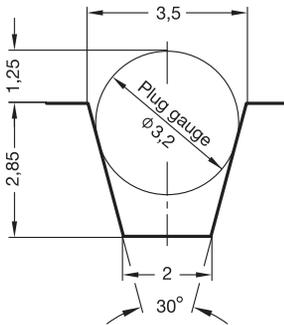
see also...

- Indexing mechanisms GN 200 → Page 354
- Adjustable knob GN 700 (with stepless positioning) → Page 358

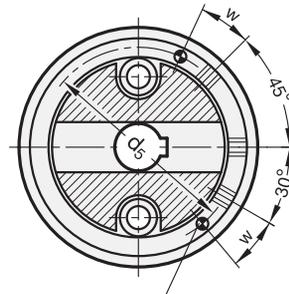
How to order GN215-60-K14-A	1 d_1
	2 d_2
	3 Type



with plug gauge to aid checking



three serrations and two dowels restricting the index angle



Dowel pin \varnothing 3,5 x 7 mm protruding (only if restricted indexing angle is required).
w = angle from serration (lever position).

Technical and assembly instructions

The location pin is a wedge-type as standard, which guarantees backlash-free positioning and also achieving easy engagement and disengagement. Special serrations and dowel pins which restrict the indexing angle can be produced to customers requirement. Please ask for a quotation.

If backlash-free positioning is not required, a dowel pin (made from a grub screw) can be used. The serrations can be made square or with dowels and suitable holes. Such holes have to be made large enough to ensure that the dowel is not restricted on engagement (lever swivel radius).

Smallest available angle for special serrations:

Size 54 - 11°

Size 60 - 9°

Smaller angles can be achieved with suitable serrations and dowels.

Milling cutter for standard serrations can be supplied.



Specifications with Control knob (Type D)



Specifications with Control knob and position indicator (Type DN / DR)



Specifications with handwheel (Type S)



Specifications with handwheel and position indicator (Type HN / HR)



Specifications without adjustable spindle (Type S)
for manual or pneumatic operation

Description

The adjustable slide units GN 900 are a work holding system which can accommodate almost any type of application.

Four standard sizes are available with different slide widths i.e. 30, 50, 80 and 120 mm which again cover almost a full specific range of applications.

As standard for each slide width there are externally guided slides with different openings. The design of these adjustable slide units can accommodate outside components.

These adjustable slide units can be combined with a range of adaptor components to bring the adjustable slide unit into any required position whether horizontal, vertical or any other angular position for machining operations. A unique clamping technique (design features page 364) allows simple and rapid workpiece clamping.

All components are in aluminium, stainless steel and plastic material which makes the adjustable slide units with control knob (Type D) a corrosion free unit.

A range of different operating features with or without digital position indicators is also available. In addition there is a range of other accessories.

Other features

- slides in anodized aluminium
- high load ratings
- favourable friction values
- high quality slideways by virtue of the anodized surface hardness
- backlash free shaft adjustment
- fine adjustment to 0,05 mm
- scale rings with zero position
- adjustable clamping levers to suit the positioning of the slides

Application examples

- Precision positioning of soldering / welding heads
- Adjustment of inkjet printers
- Adjustment of measurement cameras
- Adjustment of laser heads
- Re-adjustment of back stops
- Adjustment of sensors

The manually operated rotary table GN 900.6 is a positioner which extends the range of applications for the adjustable slide units considerably.

This rotary table can, of course, also be used without the adjustable slide units.



The adjustable assembly X-Y consisting of two adjustable slide units GN 900 and an X - Y connecting set GN 900.2 with a mounting plate GN 900.4.



The adjustable assembly X-Y-Z consisting of three adjustable slide units GN 900, X- and Z-axis with position indicator, plus rotary table GN 900.6 mounted on Z-axis, assembled on mounting plate GN 900.4.



The adjustable assembly X-Y consisting of two adjustable slide units GN 900, Y-axis with rotary plate GN 900.5 positioned at a horizontal cross angle of 120°.



Adjustable slide unit type S with a mounted pneumatic cylinder.



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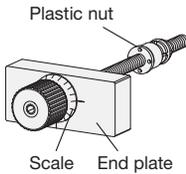
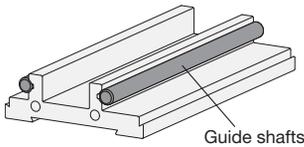
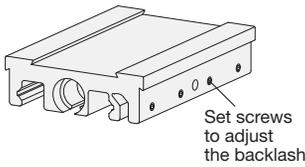
1.8

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Adjustable slide units

Features



The outer slide is made of a press formed block of anodized aluminium extrusion which is usually the moving part.

As a standard there is usually one outer slide size for each outside slide length on which the connecting sets GN 900.2 and mounting plates GN 900.4 and rotary plates GN 900.5 can be mounted.

Special lengths can be supplied.

The inner slide is also made of a press formed block of anodized aluminium extrusion which is the carrier. The guides are made of two high grade shafts in stainless steel.

High load ratings and favourable friction values is achieved by the anodized hard guide surfaces.

The length of the inner slide is determined by the length of the outer slide by adding the stroke.

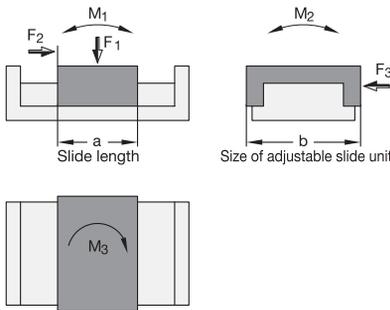
The backlash free drive unit consists of an end plate and a preloaded stainless steel spindle, ball bearing mounted, and a preloaded plastic nut.

The thread pitches are:

Slide size 30 : 0,5 mm

Slide size 50, 80, 120 : 1,0 mm

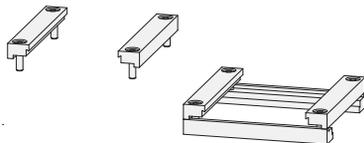
For positioning a scale is used (one graduation line = 0,05 mm adjustable range) which can be reset to „0“.



Permissible load values of the adjustable slide units GN 900

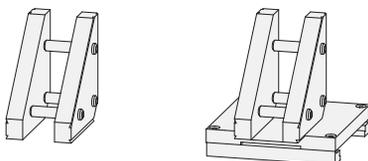
b	F ₁ in N	F ₂ * in N	F ₃ in N	M ₁ in Nm in relation to a	M ₂ in Nm	M ₃ in Nm
30	150	40	65	2a = 45	2	1
50	300	120	215	4a = 70	5	3
80	500	150	365	8a = 120	10	6
120	1000	300	700	15a = 160	20	12

* F₂ is the max/permissible sliding thrust



Fastening units GN 900.1 consist to two mounting rails. On the latter, the adjustable slide unit is mounted on a base plate from the operator's side.

Connecting sets GN 900.2 consist of four rails. With the latter, two adjustable slide units are combined to form an adjustable assembly X - Y (or Y - Z).



Type S

Type P

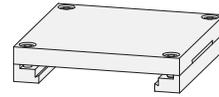
Connecting sets GN 900.3 consist of two plates. With the latter two adjustable slide units combined to form an adjustable assembly X-Z (or Y-Z). If this slide has to be parallel to the reference axis this is achieved by using an additional plate (Type P).

Adjustable slide units

Features

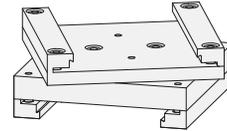


Mounting plates GN 900.4 serves as an adaptor plate to be machined on the side which is required for mounting. By using a machined mounting plate further work on the actual slide can be eliminated.

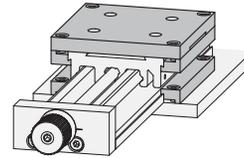


The plate is fixed with the fastening unit GN 900.1 on the adjustable slide unit.

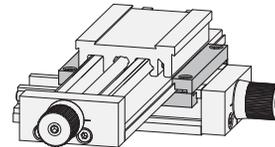
The rotary plate GN 900.5 allows oblique positioning of the adjustable slide unit at any angle.



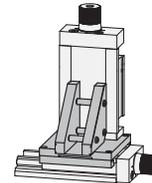
Adjustable slide unit with mounting plate GN 900.4 fitted to the base plate by using fastening unit GN 900.1.



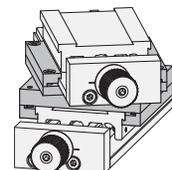
Adjustable slide unit X-Y, adjustable slide unit is fitted to the base plate using connecting set GN 900.2.



Adjustable slide unit X-Z, adjustable slide unit is connected together using the connecting set GN 900.3.



Adjustable slide unit X-Y, Y-slide with rotary plate GN 900.5 set shown in an angular position.



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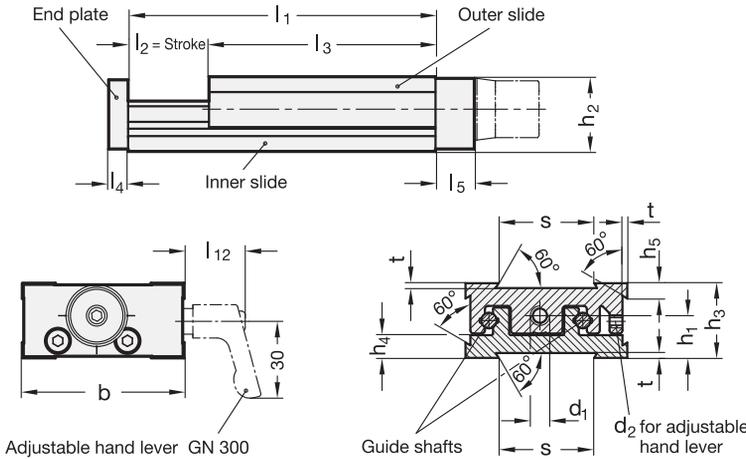
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5 Identification No.

- 1 without adjustable hand lever
- 2 with adjustable hand lever (only from b=50)

- 1
- 2
- 3

b	Length l ₁ - stroke l ₂				d ₁	d ₂	d ₃	d ₄	d ₅	h ₁	h ₂
	l ₁ - l ₂	l ₁ - l ₂	l ₁ - l ₂	l ₁ - l ₂							
30	50-5	55-10	60-15	65-20	M4 x 0,5	M3	14	-	-	9,3	16
50	95-25	120-50	145-75	170-100	M6 x 1	M4	17	50	22	13	22,5
80	145-25	170-50	195-75	220-100	M8 x 1	M5	22	80	22	20,5	35,5
120	185-25	210-50	235-75	260-100	M10 x 1	M5	34	100	34	26,3	45

b	h ₃	h ₄	h ₅	h ₆	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	l ₉	l ₁₀	l ₁₁	l ₁₂	s	t
30	17	4	3	33	45	4	6	20	-	-	-	-	-	-	16	1
50	23	7	4,5	47	70	6	12	20	22	52	24	33	57	36	30	1,5
80	36	10	10	51	120	8	16	24	31	55	27	33	66	25	50	2
120	46	13,8	10	57	160	10	18	34	40	69	41	33	75	25	80	2

Specification

- Slides / end plates
Aluminium press formed
anodized extrusion, natural colour
- Guide shafts
Stainless Steel
- Drive
 - Lead spindle / ball bearing
Stainless Steel
 - Lead nut
Plastic
- Fixing screws
Stainless Steel
- Control knob / Scale ring
Aluminium, black anodized
- Disc handwheels GN 520 → Page 162
- Position indicator GN 954 → Page 390
- RoHS compliant

Information

Adjustable slide units GN 900 can be combined with a range of adaptors to give various axis configurations.

These fastening units and connecting sets (GN 900.1, GN 900.2, GN 900.3) can be clamped to the adjustable slide units in a rapid and simple way.

For fine adjustment there is a scale ring graduated in increments of 0,05 mm, with digital position indicator 0,02 mm.

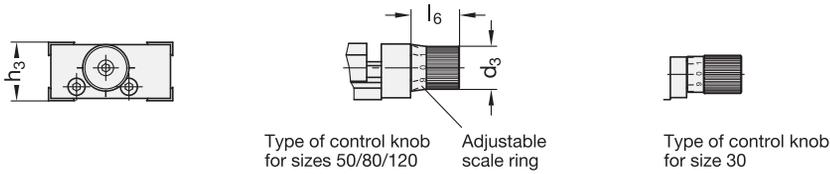
Furthermore this adjustable slide units (Type D, with control knob) is rust proof.

see also...

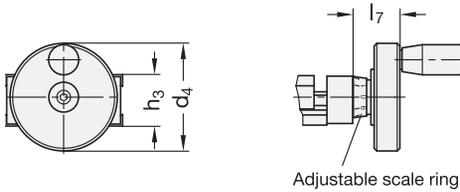
- Additional constructional features → Page 362

<p>How to order</p> <p>GN900-80-170-50-D-1</p>	1	b
	2	l ₁
	3	l ₂
	4	Type
	5	Identification No.

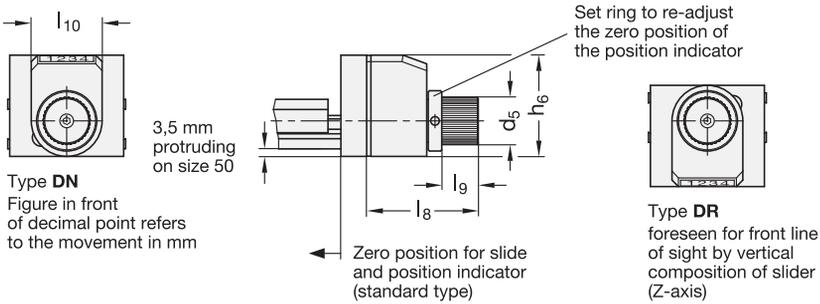
4 Type **D** with Control knob



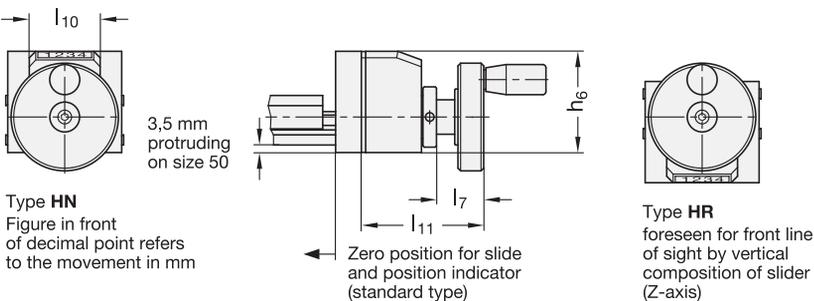
4 Type **H** with handwheel (from size 50 upwards)



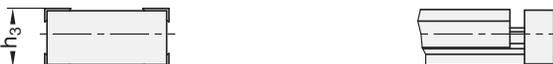
4 Type **DN** / Type **DR** with control knob and digital position indicator GN 954 (from size 50 upwards)



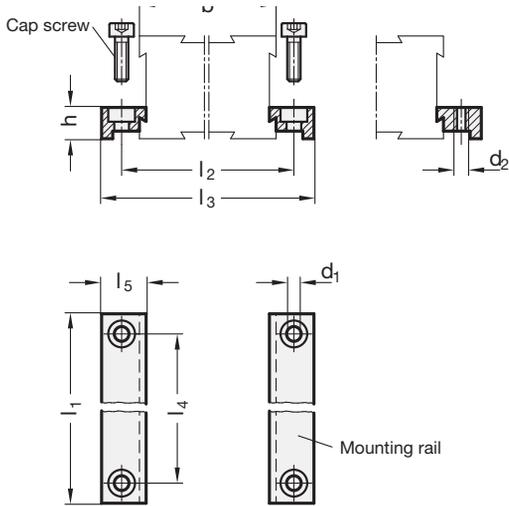
4 Type **HN** / Type **HR** with handwheel and digital position indicator GN 954 (from size 50 upwards)



4 Type **S** without adjustable spindle and operating element (i. e. for mounting a pneumatic cylinder)



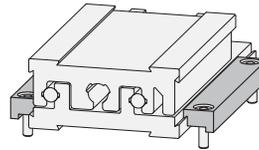
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Mounting example

3 Type

- A with bore for cap screw
- B with threaded bore d_2



1 **2**

b Size of the slide	l₁	d₁ for cap screws DIN 912	d₂	h	l₂	l₃	l₄	l₅
30	41	2,7	M 2,5	4,2	35,4	41	35,4	6,5
50	67	3,3	M 3	7	58	67	58	10
80	105	4,5	M 4	12,5	92	105	92	14,5
120	145	5,5	M 5	13,8	131,8	145	131,8	14,5

Specification

- Aluminium anodized, natural colour
- Socket head cap screw DIN 912 Stainless Steel
- RoHS compliant

Information

Fastening units GN 900.1 are fitted to the base of the adjustable slide units GN 900 from the operator's side.

The mounting is made on the outside ledge of the slide so that the inner slide can still be moved.

A fastening unit GN 900.1 consists of two mounting rails. Four Stainless Steel-cap screws are included.

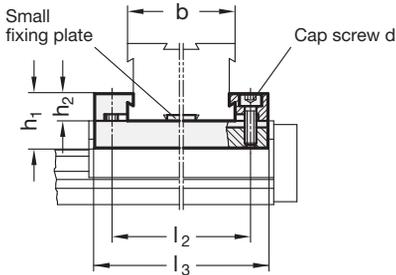
see also...

- Adjustable slide units GN 900 → Page 366

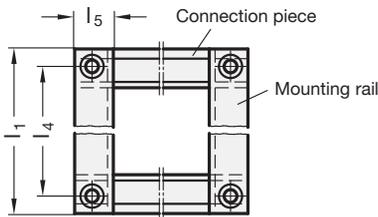
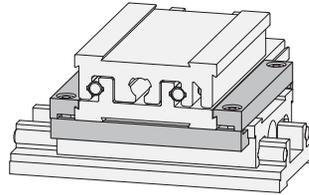
How to order

GN900.1-80-105-A

- 1** b
- 2** l₁
- 3** Type



Mounting example



1 2

b Size of the slide	l ₁	d for cap screws DIN 912	h ₁	h ₂	l ₂	l ₃	l ₄	l ₅
30	41	M 2,5	8,4	4,2	35,4	41	35,4	6,5
50	67	M 3	14	7	58	67	58	10
80	105	M 4	25	12,5	92	105	92	14,5
120	145	M 5	27,6	13,8	131,8	145	131,8	14,5

Specification

- Aluminium anodized, natural colour
- Socket head cap screws DIN 912 Stainless Steel
- RoHS compliant

Information

With connecting sets GN 900.2 two adjustable slide units GN 900 can be combined to produce an X-Y axis configuration.

This combination is achieved with a clamping system which eliminates the use of any kind of fixing holes in the slide.

The stationary base of the second adjustable slide unit is clamped on to the slide of the first unit to give the X-Y configuration. The slides on both units together give the X-Y movement.

The small fixing plate serves for the 90° alignment and fine adjustment of the XY-axis configuration.

All parts required to make up a set are included.

see also...

- Adjustable slide units GN 900 → Page 366

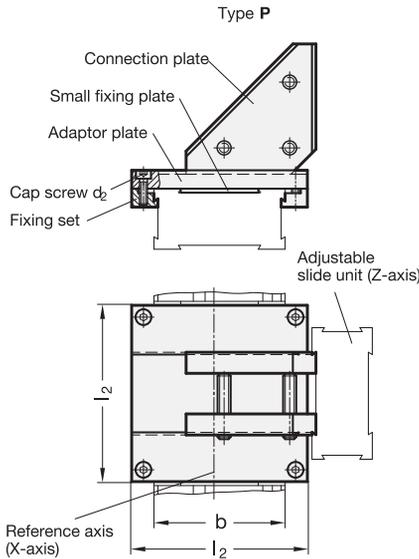
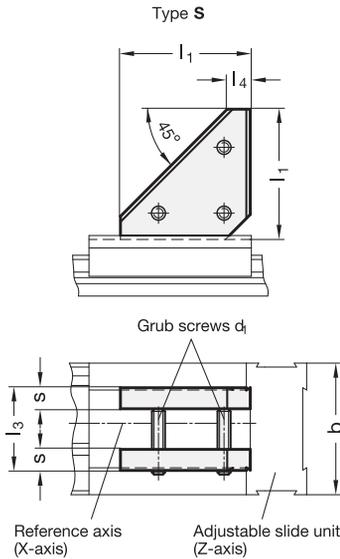
How to order

GN900.2-50-67

1 b

2 l₁

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1.4
1.5
1.6
1.7
1.8
1.9



- 3 Type**
- P** Mounting the Z-axis via connecting plate and additional plate
 - S** Direct mounting of the Z-axis via connecting plate

1 **2**

b Size of the slide	l₁	d₁ Grub screw DIN 913	d₂ Cap screws DIN 912	l₂	l₃	l₄	s
30	30	M 4	M 2,5	41	17	6	6
50	50	M 5	M 3	67	32	8	8
80	80	M 6	M 4	105	52	13	12
120	120	M 8	M 5	145	82	13	16

Specification

- Aluminium anodized, natural colour
- Grub screw DIN 912 Steel, zinc plated
- Socket head cap screws DIN 912 Stainless Steel
- **RoHS compliant**

Information

With connecting sets GN 900.3 two adjustable slide units GN 900 can be combined to produce an X-Z axis configuration.

The combination is created by using two connection plates which eliminate any type of fixing holes in the slides. At the same time the adjustable slide unit with the Z-axis can, to a limited extent (vertically to the Z-axis), still be adjusted.

In the case of a slide configuration of the Z-axis parallel to the reference axis (Type P) an adaptor plate (complete with a fastening set, small fixing plates and socket head cap screws) is required which is included in the set.

The small fixing plates serves for the 90° alignment of the Z-axis and fine adjustment of the adaptor plate (Type P).

All parts required to make up a set are included.

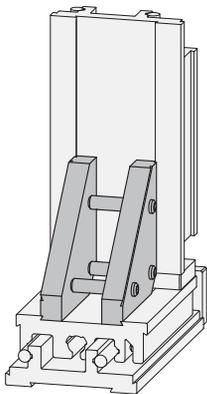
see also...

- *Adjustable slide units GN 900* → Page 366

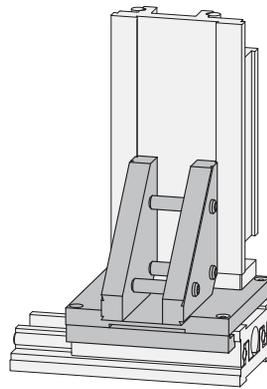
How to order GN900.3-120-120-P	1	b
	2	l₁
	3	Type



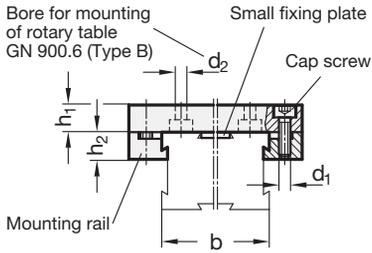
Installation example



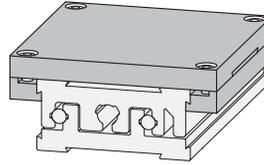
Type S



Type P

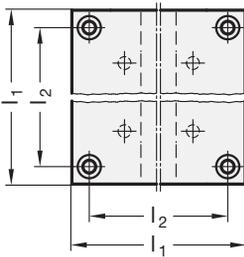


Mounting example



3 Type

- A** without retaining bores
- B** with retaining bores for rotary tables



1

2

b Size of the slide	l₁	d₁ Cap screws DIN 912	d₂ for cap screws DIN 912 Type B		h₁	h₂	l₂	Type B for rotary tables
30	41	M 2,5	-	-	5	4,2	35,4	-
50	67	M 3	5,5	M 5	8	7	58	GN 900.6-55
80	105	M 4	5,5	M 5	12	12,5	92	GN 900.6-80
120	145	M 5	5,5	M 5	16	13,8	131,8	GN 900.6-80

Specification

- Aluminium
anodized, natural colour
- Socket head cap screws DIN 912
Stainless Steel
- **RoHS compliant**

Information

Mounting plates GN 900.4 type A are used for installing fixtures on the operator's side. Type B is used for installing a rotary table GN 900.6.

The mounting plate can be simply clamped on to the slide and no additional drilled holes are required.

The small fixing plates serves as an additional fine adjustment of the mounting plate with the adjustable slide unit.

All parts required to make up a set are included.

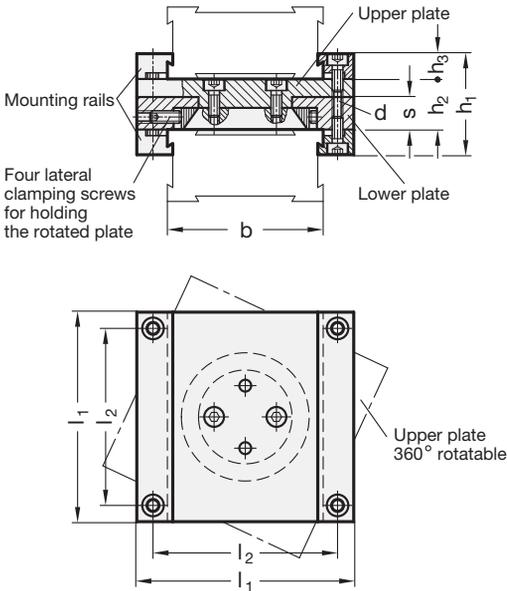
see also...

- *Adjustable slide units GN 900* → Page 366
- *Rotary tables GN 900.6* → Page 374

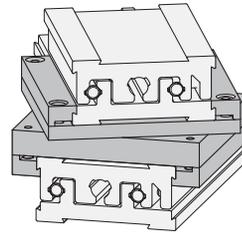
How to order

GN900.4-50-67-B

- 1** **b**
- 2** **l₁**
- 3** **Type**



Mounting example



b Size of the slide	l ₁	d Cap screws DIN 912	h ₁	h ₂	h ₃	l ₂	s
30	41	M 2,5	18,4	10	4,2	35,4	6
50	67	M 3	28	14	7	58	9
80	105	M 4	39	14	12,5	92	9
120	145	M 5	47,6	20	13,8	131,8	12

Specification

- Aluminium
anodized, natural colour
- Socket head cap screws DIN 912
Stainless Steel
- RoHS compliant

Information

Rotary plates GN 900.5 allow rotation of one of the adjustable slide units at an off-set angle to the other. This possibility offers an additional axis configuration.

This alternative adaptor consists of two plates connected together in the centre so that they are rotatable. The lower plate is clamped to the lower sliding part while the upper one is clamped to the stationary base of the upper sliding unit.

The required parts include two fastening sets as well as the necessary socket head cap screws.

see also...

- Adjustable slide units GN 900 → Page 366

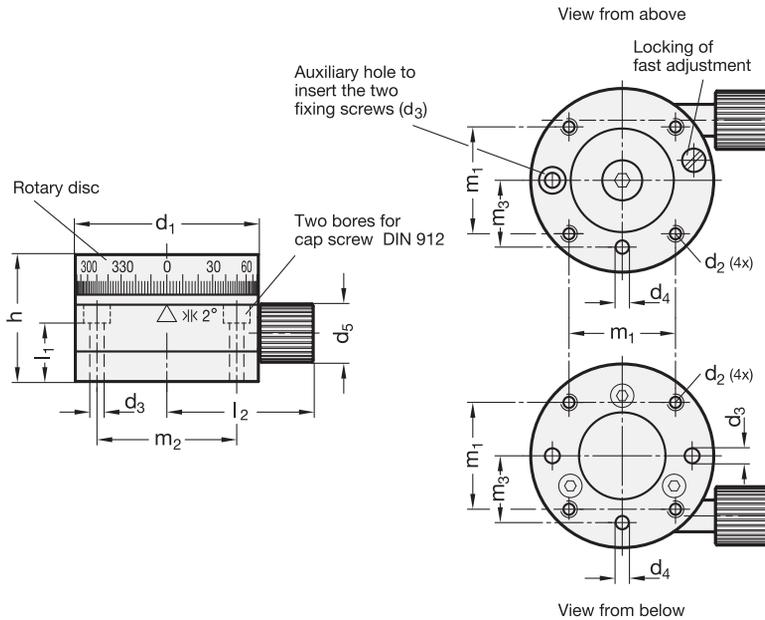
How to order

GN900.5-80-105

1 b

2 l₁

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



d_1 h7	d_2 Thread depth	d_3 for cap screws DIN 912	d_4 H7 Bore depth	d_5	h	l_1	l_2	m_1	m_2	$m_3 \pm 0,02$	useable for mounting plates GN 900.4
55	M 5 - 8	4,3 M 4	4 - 10	17	38	17,5	44	32	42	20	Size 50
80	M 5 - 8	5,4 M 5	4 - 10	23	45	24	59	40	60	30	Size 80 and 120

Specification

- Rotary disc
Stainless Steel AISI 303
- all other parts
Steel (some zinc plated)
ad/or Brass
- Control knob
Aluminium
black anodized
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- RoHS compliant

Information

Rotary tables GN 900.6 is a turning unit for manual operation. To get the turning movement we use a high quality worm gear.

The rotary table is also fitted with a fastadjustment and for this purpose a grub screw on the side of the rotary disc has to be released. In addition the rotary disc can also be clamped via an easily accessible grub screw. In both cases internal conically shaped arresting components come into use.

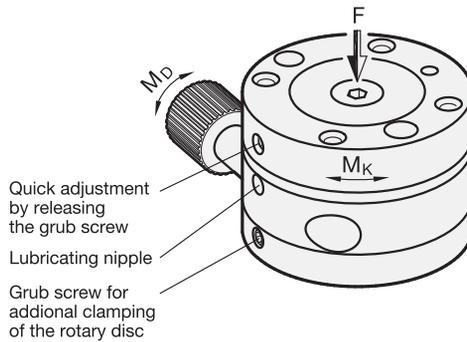
see also...

- Adjustable slide units GN 900 → Page 366
- Mounting plates GN 900.4
(for clamping to an adjustable slide unit) → Page 372

How to order

GN900.6-55

1 d_1



d_1	Rotating range	Concentricity tolerance	circular runout tolerance	max. entry torque M_D	max. load capacity of rotary disc		F max. in Newton
					unclamped	clamped M_K	
55	$0^\circ \infty$	$\pm 0,02$	$\pm 0,02$	1,5 Nm	5 Nm	10 Nm	50
80	$0^\circ \infty$	$\pm 0,03$	$\pm 0,03$	2,5 Nm	5 Nm	10 Nm	100



1.9 Position indicators



1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9





GN 000.8
Position indicators
Pendulum system
analog

→ Page 383



GN 952.1
Adapter bushes
for position
indicators
GN 953, GN 954

→ Page 392



GN 323.8
Disc handwheels
for position
indicators
Pendulum system

→ Page 384



GN 953.6
Clamping plates
for position
indicators GN 953

→ Page 393



GN 953
Position indicators
digital, 5 Numbers

→ Page 388



GN 954.6
Clamping plates
for position
indicators GN 954

→ Page 393



GN 953.1
Spacer plate
for position
indicators GN 953

→ Page 389



GN 954
Position indicators
digital, 4 Numbers

→ Page 390



GN 954.1
Spacer plate
for position
indicators GN 954

→ Page 391



GN 954.3
Hand knob
for position
indicators GN 954

→ Page 391

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

1.9

Position indicators

Principles of operation / Examples of applications



Position indicators are mechanical measuring devices which indicate and monitor the movement of a machine component along a linear shaft or threaded lead spindle.

They are used to move and give a read out of values such as lengths [m, mm], force [N], volumes [l], revolutions [rpm] etc.

Position indicators are split into the following categories:

Operating principle of the measuring mechanism

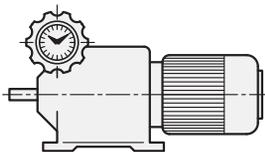
- Energized by a weighted pendulum and gravity (pendulum system) for connecting to a horizontal spindle
GN 000.8 → Page 383
- Self energized, direct or indirect, stationary system to be connected in any required position
GN 953 → Page 388
GN 954 → Page 390

Type of read out

- analogue (GN 000.8)
- digital (GN 953 / 954)

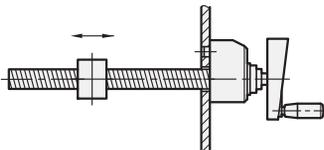
The movement is in most cases initiated by control systems. There is an extensive range of handwheels and hand knobs available which can be used for incorporating position indicators in their hubs.

Examples of applications



Handwheel with position indicators GN 000.8
Operating principle pendulum system, analogue read out

Applications:
Regulating rpm speed on steplessly adjustable gear boxes



Hand lever with position indicators GN 953 / GN 954
Operating principle stationary system (direct driven), digital read out

Applications:
Positioning of machine parts

Function

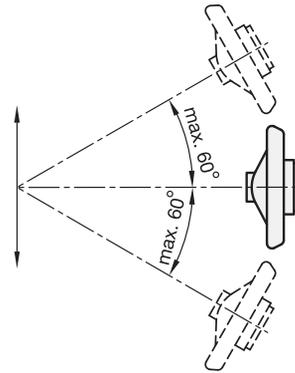
Fixed firmly to the housing or the operating element, the pointer shaft with the longer red pointer is mounted at the centre of the position indicator. The red pointer therefore shows the revolution of the spindle at a ratio of 1 to 1, at the same time turning in the same direction as the spindle. The pendulum is positioned freely on the same pointer shaft, with the pendulum not turning in sync but always held in the same position owing to its force of gravity.

The scale and the gear wheels required for the desired reduction ratio of the second pointer are mounted on this pendulum. The rotary motion of the operating element is now transferred to the second, shorter pointer via a gear wheel fixed to the pointer shaft and via the reduction gearing at the fixed pendulum. Any position (rotary position) of the spindle can now be read with accuracy on the scale.

Use

The outstanding feature of pendulum-type position indicators is that the measuring system is fully integrated in the operating element. During installation, they require no further measures on the machine side.

In principle, these position indicators have been designed solely for attachment to horizontal spindles, but the high precision of the mechanical measurement system (the pendulum system is mounted on ball bearings) and the extremely low centre of gravity allow these to be used also for spindles inclined by as much as 60°.



Selecting the reduction

While the longer red pointer shows the rotary motion of the spindle of a ratio of 1 to 1, the shorter black pointer makes only a fraction of the rotary motion defined by the reduction ratio.

The reduction ratio is selected depending on the maximum number of spindle revolutions over the entire range of adjustment. The preferred selection is the standard reduction ratio which is the same as or, if possible, slightly larger than the maximum number of revolutions.

Example:

Spindle adjustment range: 11 revolutions

Selected reduction ratio: 12 to 1

This selection gives virtually the whole scale range for the position indication.

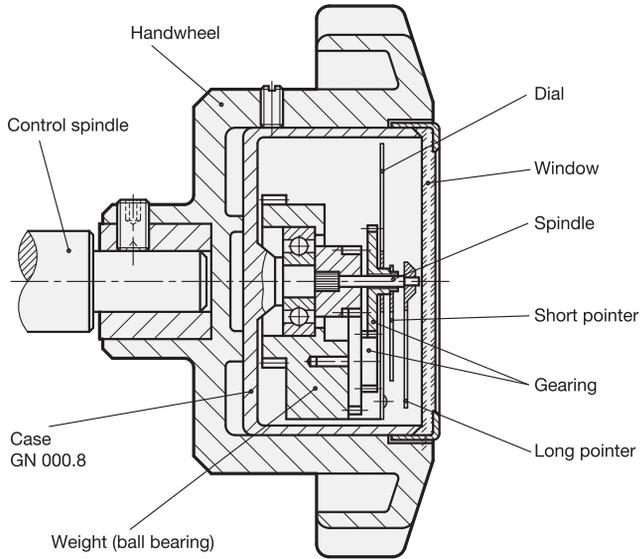
Scale

The standard scales have divisions (number of graduation marks) matching the reduction ratio.

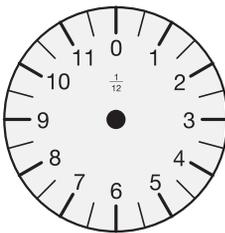
The numerical sequence also matches the reduction ratio depending on use, i.e. right turn (clockwise) or left turn (anti-clockwise).

If required and using a separately arranged table, the measured value corresponding the application in hand can be assigned to each scale number.

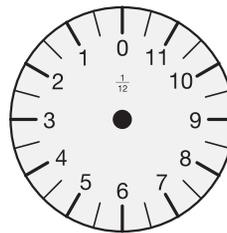
Special scales on request.



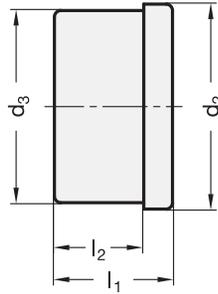
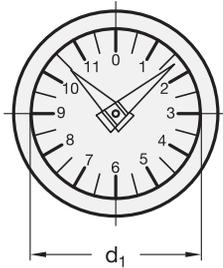
Examples of 12:1 standard dial



Figures rising by clockwise rotation



Figures rising by anti-clockwise rotation



ELESA Original design GA11 / GA12

3 Type

- R** Numbers ascending clockwise
- L** Numbers ascending anti-clockwise



d ₁	Reduction Counting gear					d ₂	d ₃	l ₁	l ₂
42	2:1*	10:1	20:1	40:1	72:1*	49,8	48,2	30	23
42	4:1*	12:1	24:1	48:1*	100:1*	49,8	48,2	30	23
42	6:1*	15:1*	30:1	50:1*	120:1*	49,8	48,2	30	23
42	8:1*	16:1*	36:1*	60:1*	-	49,8	48,2	30	23
60	2:1*	10:1	20:1	40:1*	72:1*	68,5	67	32	25
60	4:1*	12:1	24:1	48:1*	100:1*	68,5	67	32	25
60	6:1	15:1*	30:1	50:1*	120:1*	68,5	67	32	25
60	8:1*	16:1*	36:1	60:1*	150:1*	68,5	67	32	25

* not available from stock, requires a minimum order quantity

Specification

- Housing Plastic (Polyamide PA)
 - glass fibre reinforced
 - black, matt
- Sight glass Plastic (Polyamide PA)
 - clear glass, ageing proof
 - shock-resistant
- Housing / Sight glass
 - temperature resistant up to 100 °C
 - oil and solvent proof (not suitable for alcohol)
- Pointer Plastic
 - long pointer red
 - short pointer black
- Scale Aluminium
 - matt anodized
 - Graduation lines and numbers black
- Pendulum system on ball bearings
- Protection class IP 67
- RoHS compliant

On request

- Special scales
- glycerin filled as a damping media

Information

Position indicators GN000.8 are suitable for installation in various types of operating handles.

Points of special interest are:

Housing, spindles of pointers and sight glass are all in **one piece** welded by ultrasonic process. They are spray water proof and corrosion proof (Protection class IP 67).

The pendulum system is mounted on ball bearings for accurate display, and operational up to 60° C.

The reducing ratio shows the number of revolutions (long red hand) required per 1 complete revolution of the small hand.

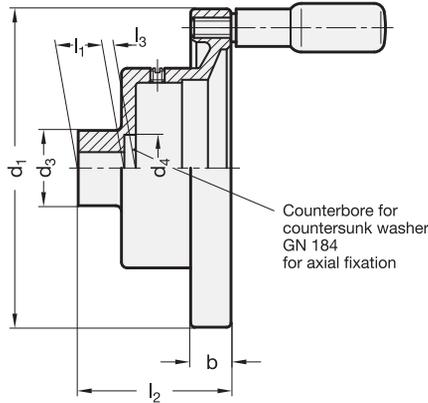
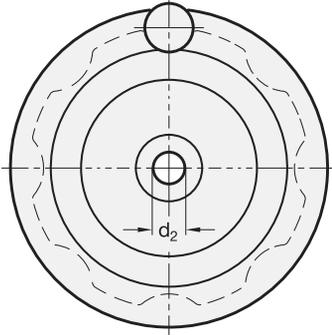
see also...

- *More information to position indicators GN 000.8* → Page 381
- *Hand wheels with GN 000.8* → Page 384
- *IP Protection classes* → Page 1137

How to order

GN000.8-42-30-R

1	d ₁
2	Reduction
3	Type



2 Bore code

- B** without keyway
- K** with keyway

4 Type

- A** without handle
- R** with revolving handle

1

3

d₁	d₂ H7 Bore	d₃	d₄	b	l₁	l₂ ≈	l₃	Ø Handles GN 798	for position indicators GN 000.8 GN 000.3
80	10	26	20,5	13	16	48	3,5	16	Size 42 -
100	10	28	20,5	14	17	58	3,5	18	Size 42 -
125	12	31	25,5	15	18	61	4	22	Size 60 Size 60
160	14	36	29	18	20	67	4	24	Size 60 Size 60
200	18	42	33	20,5	24	75	4,5	25	Size 60 Size 60
250	22	48	37	23	28	81,5	4,5	25	Size 60 Size 60

Specification

- Aluminium Gravity die casting
 - Hub machined
 - Rim turned on all sides
 - Wheel body plastic coated
 - black, textured finish
- Rim concentric and square to bore IT 12
- Revolving handles GN 798 Plastic, Technopolymer black, matt
- Keyway P9 DIN 6885 → Page 1124
- Cross holes GN 110 → Page 1127
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Accessory

- Position indicators GN 000.8 / GN 000.3 are to be ordered separately.

Information

Handwheels GN 323.8 have a recessed hub to accept position indicators GN 000.8 / GN 000.3.

The hub dimensions (for fitting) correspond to those of disc handwheels GN 323 and/or handwheels to DIN 950.

see also...

- Position indicators GN 000.8 (Pendulum system, analogue indication) → Page 383
- Countersunk washers GN 184 (for axial fixing) → Page 542
- Disc handwheels GN 323 (without recess for position indicators) → Page 163

How to order

GN323.8-125-K12-R

- 1** d₁
- 2** Bore code
- 3** d₂
- 4** Type



Installation sequence

1. Install the handwheel to the spindle and fix it with the grub screw or keyway/countersunk washer.
2. Turn the spindle to the starting point (0-position).
3. Move position indicator „by hand“ to the 0-position before mounting it.
4. Install the position indicator into the recess of the hub and fix it with a screw.
Do not apply unnecessarily excessive torque to avoid deformation of the housing!
5. Rotate the handwheel and ascertain that the starting point of the spindle is aligned with the 0-position of the two pointers (GN 000.8) respectively pointer and counter (GN 000.3).
Should that not be the case, the screw has to be loosened and the position indicator adjusted. Tighten the screw again.

Operating principle

The position indicator is fitted with a hollow shaft which can be pushed directly on to the spindle.

The spindle revolutions are transmitted from the gear drive directly to a counter.

If this transmission method is used the position indicator must be fitted with a torque limiter. For this purpose a pin on the housing protrudes into a bore on the machine. The hollow shaft is fitted to the spindle and secured with a grub screw.

Application

Position indicators with direct driven counter are from the point of view of installation, not only relatively simple and reliable but also very accurate. The digital read out ensures rapid reading and resetting of the new position.

This position indicator is suitable for any type of installation, but it requires, however, a torque limiter on the machine side (Retaining system).

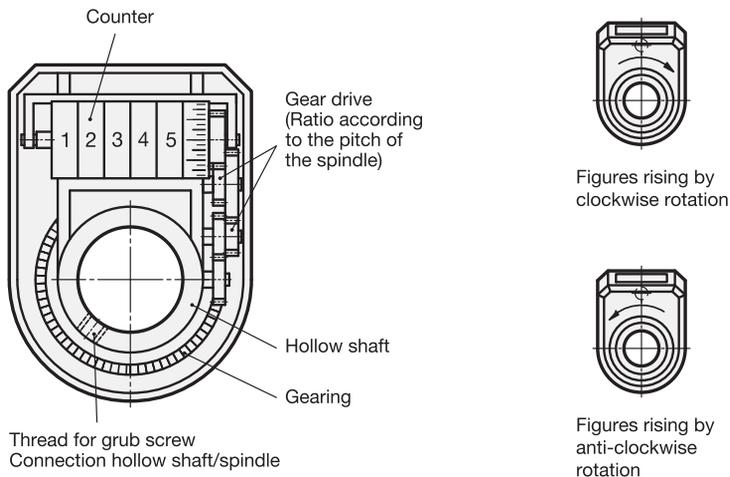
They are also suitable for motor driven spindles. For max. revolution please read the table in the data sheet.

Choice of counters

As a rule the choice of counter depends on the gradient of the thread on the spindle. As a guide line, the read out after one complete revolution starting from the zero (0) position.

The counter is for a pitch of 0,5 mm with two following decimals. For a pitch of 1mm with either 1 or 2 decimal points. All other gradients have 1 following decimal.

Furthermore there are counters with ascending numbers for clockwise rotation and ascending numbers for anti-clockwise rotation.





Position indicators
GN 953 → Page 388
GN 954 → Page 390

1.1

1.2

1.3

1.4

1.5

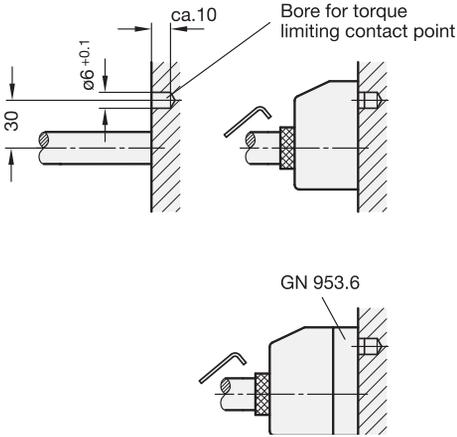
1.6

1.7

1.8

1.9





Installation instructions for GN 953

With the **adapter bushes GN 952.1** → Page 392, the hollow shaft (with Bore 20 H7) of the position indicator can be adapted to fit the spindle.

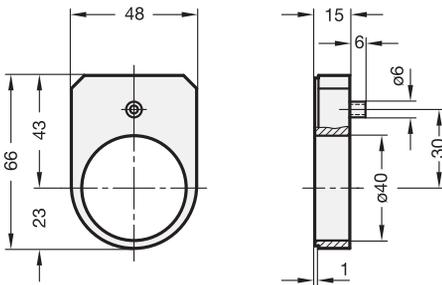
Before installation of the position indicator a bore for the torque limiting contact point is to be placed (see left).

The mounting of the position indicator is via the torque limiting contact point which is connected to the hollow spindle and secured with a grub screw.

Before completing the installation, turn the spindle to the starting point (0) position and zero the position indicator.

with **clamping plates GN 953.6** → Page 393, spindles can be clamped and secured after adjusting.

GN 953.1 | Spacer plate



Specification

- Plastic (Polyamide PA)
black, matt

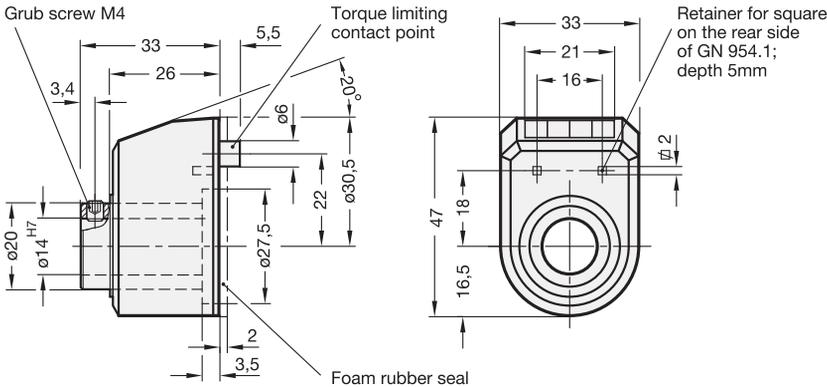
The previous position indicators GN 952 are replaced by position indicators GN 953, they are dimensionally reduced compared to GN 952.

The spacer plate is used as adapter in case the dimensions on the machine body are applied to match the previous model GN 952.

How to order

GN 953.1





ELESA Original design DD51

2 Installation (front view)

- AN** Counter above on the chamfer
- AR** Counter above in front
- FN** Counter below on the chamfer
- FR** Counter below in front

3 Type

- R** Numbers ascending clockwise
- L** Numbers ascending anti-clockwise



1 Counter

Counter	indication after 1 spindle revolution	corresponds to thread pitch	max. revolutions per minute
00.50	0050	0,5	500
01.00	0100	1,0	250
001.0	0010	1,0	1500
001.25	0012	1,25	1500
001.5	0015	1,5	1500
002.0	0020	2,0	1250
002.5	0025	2,5	1000
003.0 *	0030	3,0	830
004.0 **	0040	4,0	625
005.0	0050	5,0	500
006.0	0060	6,0	415
008.0	0080	8,0	315
010.0	0100	10,0	250

* Suitable for linearer actuators GN 291 ff. Ø 18 ** Suitable for linearer actuators GN 291 ff. Ø 30

Specification

- Housing Plastic (Polyamide PA)
 - orange, RAL 2004
 - grey, RAL 7035
 - temperature resistant up to 80 °C
 - oil and solvent proof
- Numbers white, Number wheels for integers black, decimals red with additional scale
- Hollow shaft Steel, blackened



Information

Position indicators GN 954 are fitted with a direct drive counter with digital read out. Both housing sections are ultrasonically welded. This makes the housing particularly compact and stable.

The moss rubber seal prevents the transmission of vibration to the counter and also acts as a seal. The numbers are easily legible, which is assisted by the magnifying effect of the safety sight glass.

see also...

- More information to position indicators → Page 386

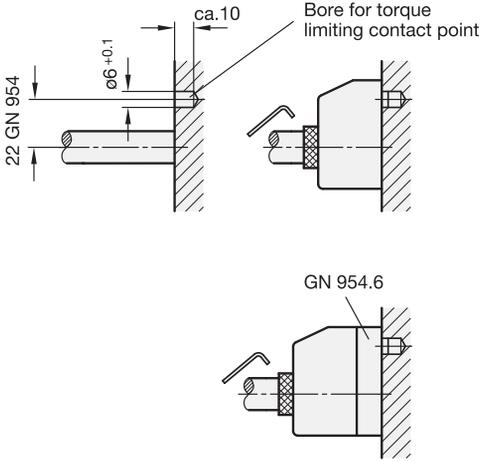
On request

- Position indicators GN 954 with locking lever to prevent accidental change

How to order

GN 954-001.0-FN-R-GR

- 1 Counter
- 2 Installation (front view)
- 3 Type
- 4 Colour



Installation instructions

With the **adapter bushes GN 952.1** → Page 392, the hollow shaft (with Bore 14 H7) of the position indicator can be adapted to fit the spindle.

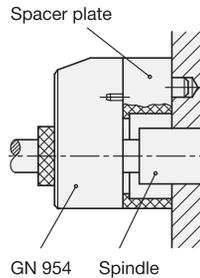
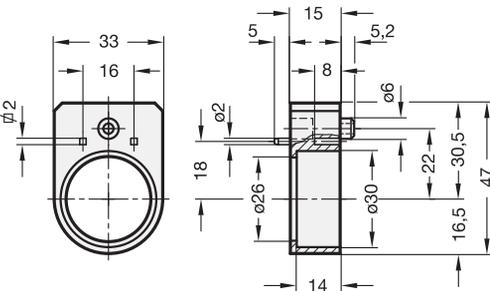
Before installation of the position indicator a bore for the torque limiting contact point is to be placed.

The mounting of the position indicator is via the torque limiting contact point which is connected to the hollow spindle and secured with a grub screw.

Before completing the installation, turn the spindle to the starting point (0) position and zero the position indicator.

With **clamping plates GN 954.6** → Page 393, spindles can be clamped and secured after adjusting.

GN 954.1 | Spacer plate



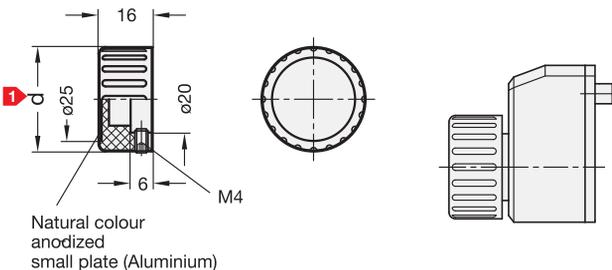
Specification

- Plastic (Polyamide PA) black, matt

The spacer plate GN 954.1 are used for bridging spindle adaptors, spacer rings and so on for GN 954.

Spacer plate
GN 954.1

GN 954.3 | Hand knob



Natural colour anodized small plate (Aluminium)

Specification

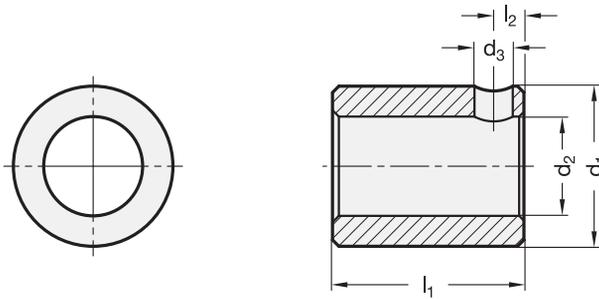
- Plastic (Polyamide PA) black, matt

The hand knobs GN 954.3 are to fit the position indicator GN 954.

How to order
GN954.3-31 1 d



ELESA Original design RB51/RB52



¹ d ₁ f7	² d ₂ H7 Bore						³ l ₁	d ₃	l ₂	
14	B 6	B 8	B 10	B 12	-	-	-	20	4,25	3,5
20	B 6	B 8	B 10	B 12	B 14	B 15	B 16	20	5,5	4,5

Specification

- Steel blackened
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

Information

With the help of adapter bushes GN 952.1 position indicators can be adapted to accept different smaller spindle diameters.

The adapter bushes are supplied with a set screw.

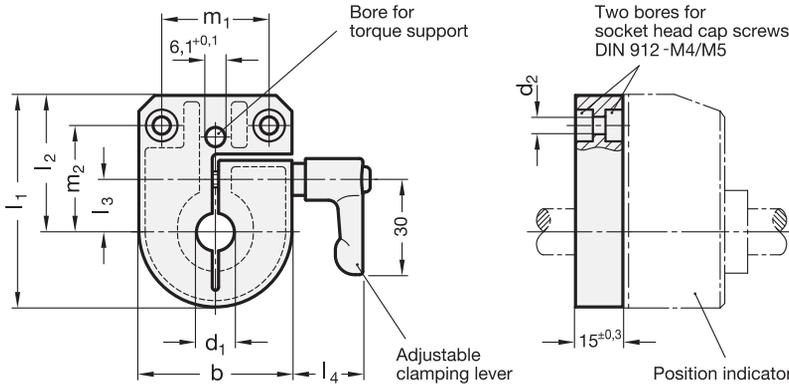
see also...

- Position indicators GN 953 → Page 388
- Position indicators GN 954 → Page 390

How to order

¹ ² ³
GN952.1-14-B12-20

¹	d ₁
²	d ₂
³	l ₁



b	d₁ ^{+0,06 +0,02}						d₂	l₁	l₂	l₃	l₄	m₁	m₂	for position indicators
33	B 8 B 10 B 12 B 14 -	4,5	47	30,5	11	22	21	23,5	GN 954					
48	B 12 B 14 B 15 B 16 B 20	5,5	67	43,1	16	22	34	33,6	GN 953					

Specification

- Zinc die casting plastic coated black, textured finish
- Adjustable hand levers GN 302-30 black, textured finish → Page 211
- RoHS compliant

Information

Clamping plates GN 953.6 / GN 954.6 are used in connection with position indicators GN 953 / GN 954.

In a simpler way and without large construction and installation effort these spindles can, after adjustment, be clamped and locked.

At the same time these plates are fitted with the bore Ø 6 to accept the torque limiter for the position indicator.

The spacer can be installed so that it lies as required either to the right or the left.

Clamping plate	1	b
GN953.6-48-B12	2	d₁

Clamping plate	1	b
GN954.6-33-B10	2	d₁

1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9



