

**K**

Kunststoff- / Metall-Knöpfe • Mechanische Bauelemente  
Plastic / Metal Knobs • Mechanical Components



## Kunststoff-/Metall-Knöpfe · Mechanische Bauelemente

### Mechanische Bauelemente vom Spezialisten

Drehen, Drücken, Einstellen, Steuern und Anzeigen. Ein Knopf erfüllt vielfältige, teils anspruchsvolle Aufgaben. Hinzu kommen, abhängig von dem Einsatzbereich, Anforderungen an das Design, die Temperatur- und Wetterbeständigkeit sowie an Montagefreundlichkeit und Wirtschaftlichkeit. Im Rahmen unseres modularen Knopfsystems lässt sich ein Knopf ganz individuell auf das für die Anwendung benötigte Set-up konfigurieren.

MENTOR ist seit Jahrzehnten einer der führenden Spezialisten für Knöpfe aus Kunststoff und Metall für die Musikindustrie, die Hausgerätektechnik und viele andere Branchen.

### Variantenvielfalt

MENTOR bietet seinen Kunden ein breites Sortiment an Kontroll- und Einstellknöpfen. Neben klassischen Drehknöpfen aus Kunststoff und Metall bietet das Sortiment zudem Digital- und Analog-Drehknöpfe für verschiedenste Einsatzbereiche, Aluminium Knebelknöpfe sowie das zu dem Sortiment passende Zubehör. Wir bieten Ihnen unsere Knöpfe in verschiedenen Materialien und Ausführungen an. Unterschiedliche Kunststoffe oder Aluminium, mit Spannzange oder Gewindefestigung: für Ihre Anwendungen gibt es in unserem Sortiment immer eine Lösung.

### Standardprodukte und Sonderausführungen

Unser Sortiment umfasst eine Vielzahl an Standardprodukten, viele davon lieferbar ab Lager mit kurzen Lieferzeiten und geringen Mindestbestellmengen. Aber auch in den Fällen, in denen eine individuelle Ausführung die beste Lösung für Sie darstellt, bietet MENTOR vielfältige Optionen. Die Realisierung kundenspezifischer Lösungen gehört zu den Kernkompetenzen von MENTOR. Andere Formen, Farben, Radien und Maße sind möglich. Erfahrene Produktentwickler erarbeiten gemeinsam mit Ihnen die jeweils beste und wirtschaftlichste Lösung.

## Plastic/Metal Knobs · Mechanical Components

### Mechanical Components from the Specialist

Turning, pushing, adjusting, controlling and displaying. A knob has to perform many tasks, which can be challenging and varied. Depending on the application, there are also requirements in terms of design, temperature-resistance and weather-resistance as well as ease of installation and profitability. Within our modular knob system, a knob can be fully customised to achieve the set-up required for the application in question.

For decades, MENTOR has been one of the leading specialists in plastic and metal knobs for the music industry, domestic appliance technology and many other industries.

### Range of variants

MENTOR offers its customers a wide range of control and adjusting knobs. In addition to classical turning knobs made of plastic and metal, the range also includes digital and analogue turning knobs for a wide range of applications, aluminium wing knobs as well as matching accessories. Our knobs are available to you in a range of materials. Different plastics or aluminium, with collet or setscrew fixing: our range always has the solution for your applications.

### Standard products and special versions

Our range includes a variety of standard products, many of which are available off the shelf with short delivery times and low minimum order quantities. But in cases in which a customised version is the best solution for you, MENTOR offers a variety of options. Implementing customised solutions is one of MENTOR's core competencies. Other shapes, colours, radii and dimensions are possible. Experienced product developers work together with you to find the best and most economical solution in each case.







Mit Erscheinen dieses Kataloges werden alle früheren Veröffentlichungen ungültig. Technische Änderungen behalten wir uns vor. Für eventuell entstandene Druckfehler übernehmen wir keine Gewähr. Aktuelle Entwicklungen, technische Änderungen, Abkündigungen von Bauteilen etc. siehe Website [www.mentor.de.com](http://www.mentor.de.com). Für alle Lieferungen gelten ausschließlich unsere Allgemeinen Geschäftsbedingungen. Nachdruck oder Veröffentlichungen – auch auszugsweise – sind nur mit unserer Genehmigung gestattet.

On publication of this catalog all previous issues will become invalid. We reserve the right to make technical alterations. We refuse any responsibility for printing errors. Current developments, technical alterations, cancellation of components, etc. see homepage [www.mentor.de.com](http://www.mentor.de.com) All deliveries are subject to our general terms and conditions exclusively. Our prior approval must be sought for any reprints or publications – even of excerpts.

# Inhalt

# Contents

|   |   | Seite / Page  |
|---|---|---|
|    | <b>Digital- und Analog-Drehknöpfe</b><br>Digital Drehknöpfe<br>Analog Drehknöpfe<br>Kunststoff Feststellknöpfe  | <b>Digital and Analog Turning Knobs</b><br>Digital Turning Knobs<br>Analog Turning Knobs<br>Plastic Locking Knobs<br><br><b>4</b>   |
|    | <b>Kunststoff Dreh-, Knebel-, Zeiger- und Stellknöpfe</b><br>Drehknöpfe mit Spannzangenbefestigung<br>Drehknöpfe mit Gewindestiftbefestigung<br>Knebelknöpfe<br>Zeigerknöpfe<br>Stellknöpfe                       | <b>Plastic Turning, Wing, Pointer and Adjusting Knobs</b><br>Turning Knobs with Collet Fixing<br>Turning Knobs with setscrew fixing<br>Wing Knobs<br>Pointer Knobs<br>Adjusting Knobs<br><br><b>9</b>                       |
|   | <b>Aluminium Dreh-, Knebel-, Zeiger- und Stellknöpfe</b><br>Drehknöpfe mit Spannzangenbefestigung<br>Drehknöpfe mit Gewindestiftbefestigung<br>Drehknöpfe für Schraubendreherbetätigung (Messing)<br>Knebelknöpfe | <b>Aluminium Turning, Wing, Pointer and Adjusting Knobs</b><br>Turning Knobs with Collet Fixing<br>Turning Knobs with Setscrew Fixing<br>Turning Knobs for Screwdriver Actuating (Brass)<br><br>Wing Knobs<br><br><b>23</b> |
|  | <b>Zubehör</b><br>Präzisions-Einstelltrieb<br>Mechanisches Zubehör<br>Kupplungen  | <b>Accessories</b><br>Precision Setting Drive<br>Mechanical Accessories<br>Couplings<br><br><b>34</b>   |
| <hr/>   |   |   |
|   | <b>Symbole</b>  | <b>Symbols</b>  |
|   | <b>Referenzen</b>   | <b>References</b>   |
|   | <b>Verzeichnis der Artikelnummern</b>   | <b>Index of Article Numbers</b>   |
|   | <b>Auslandsvertretungen</b>   | <b>International sales agents</b>   |
|   | <b>MENTOR Gesamt-Programm</b>   | <b>MENTOR Standard Component Ranges</b>   |
|   |   | <b>3</b><br><b>8</b><br><b>37</b><br><b>38</b><br><b>39</b>   |

# Symbole

# Symbols

## Besonderheiten · Specifics



- 1: Geeignet für Ringbeleuchtung mit Standardartikel **umleuchtet**, kundenspezifische Ringbeleuchtung möglich.  
Effects a light **around** the knob with standard ring led light, custom specific shapes are also possible.
- 2: Geeignet für Ringbeleuchtung mit Standardartikel **unterleuchtet**, kundenspezifische Ringbeleuchtung möglich.  
Displays a ring of light **underneath** the knob with standard ring led light, custom specific shapes are also possible.
- 3: Kundenspezifische Ringbeleuchtung möglich. · Custom specific shapes possible.



Lagermäßig geführte Artikel (Art.-Nr. in **Fettdruck**) liefern wir mit geringen Mindestbestellmengen und kurzen Lieferzeiten.  
Parts, that are available ex-stock (Part No. in **bold**) are delivered with small MOQs and short delivery times.



Mindestbestellmenge für Nicht-Lagerhaltige-Artikel (Art.-Nr. in Magerdruck). Lieferzeit auf Anfrage. · Minimum quantity for manufacture of non-stocked part nos. (in normal font): delivery time on request.



Mindestbestellmenge für Sonderlängen (Länge A). Lieferzeiten und andere Sonderversionen auf Anfrage. · Minimum quantity for customer defined "Length A": delivery times and other customisation on request.

## Digital- und Analog-Drehknöpfe

## Digital and analogue Turning Knobs

### Präzision durch verlässliche Bauelemente

MENTOR Drehknöpfe mit Einstellvorrichtung/-sicherung und Kennzeichnung des Stellwerts durch Umdrehungszahlen oder Skalen sind der optimale Weg, in Ihrer Anwendung immer ein reproduzierbares Ergebnis zu erzielen. Robuste Konstruktion aus Kunststoff oder Kunststoff mit Aluminiumgehäuse.

Analog-/Digitaldrehknöpfe sind für den Einsatz mit Mehrgang-Präzisionsdrehpotentiometern oder anderen Arten von Schalttafelsteuerungen, die eine Einstellvorrichtung/-sicherung benötigen, konzipiert und in verschiedenen Ausführungen erhältlich.

### Precision through reliable components

MENTOR turning knobs with a setting drive and indication of the setting value by means of revolution counters or scales are the ideal way to always achieve a reproducible result in your application. Robust design made from plastic or plastic with an aluminium housing.

Analogue/digital turning knobs are designed for use with multi-turn precision rotary potentiometers or other types of switch panel control systems, which require a setting drive, and are available in a variety of versions.



# Digital-Drehknöpfe

# Digital Turning Knobs

| Technische Daten                             | Technical Data                      |
|--|-------------------------------------|
| Anzahl der Umdrehungen: 10 · kein toter Gang | Number of turns: 10 · no backlash   |
| Ablesbarkeit: 1/500 Umdrehung                | Readability: within 1/500 of a turn |
| Arretierung: Feststellbremse                 | Locking: Locking brake              |
| Werkstoff: Thermoplast                       | Material: Thermoplastic             |

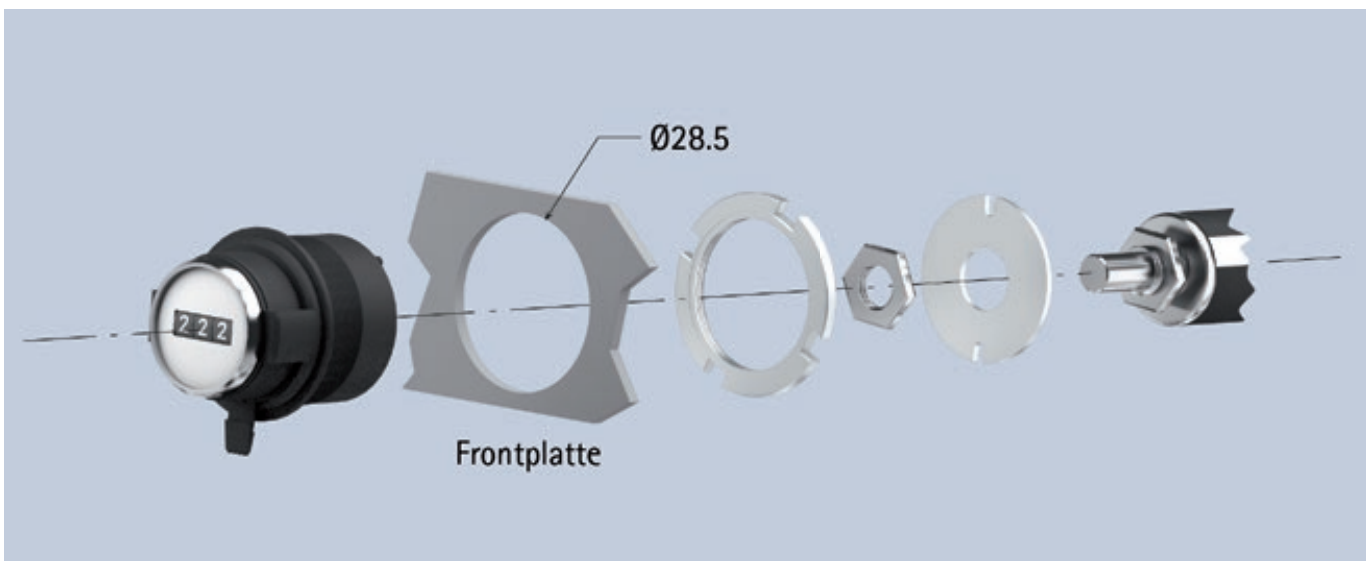
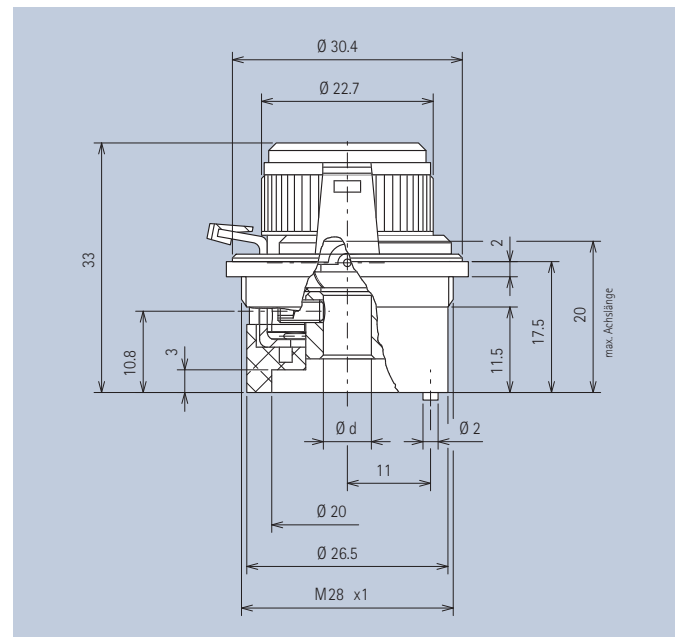
| Montage   | Mounting  |
|---|---|
| Siehe Montageschema unten                                       | See mounting diagram below                            |
| Achslänge über Befestigungsplatte: min. 13 mm / max. 20 mm      | Shaft extension beyond panel: min. 13 mm / max. 20 mm |
| Länge der Durchführung über der Befestigungsplatte: max. 4,1 mm | Bushing extension beyond panel: max. 4.1 mm           |

Für den Gebrauch von Präzisionspotentiometern oder anderen rotierenden Bauteilen.

For use with precision-potentiometers or other rotating devices.



| Ød   | Art.-Nr.         |
|------|------------------|
| 6    | <b>6622.1001</b> |
| 6,35 | <b>6622.1000</b> |



Montageschema · Mounting diagram

# Analog-Drehknöpfe

# Analogue Turning Knobs

| Technische Daten                             | Technical Data                                 |
|--|--|
| Anzahl der Umdrehungen: 15 · kein toter Gang | Number of turns: 15 · no backlash              |
| Skaleneinteilung: 50 je Umdrehung            | Dial divisions: 50 per turn                    |
| Ablesbarkeit: 1/50 Umdrehung                 | Readability: within 1/50 of a turn             |
| Arretierung: Feststellbremse                 | Locking: Locking brake                         |
| Werkstoff: Thermoplast glasfaserverstärkt    | Material: Glass-fibre reinforced Thermoplastic |

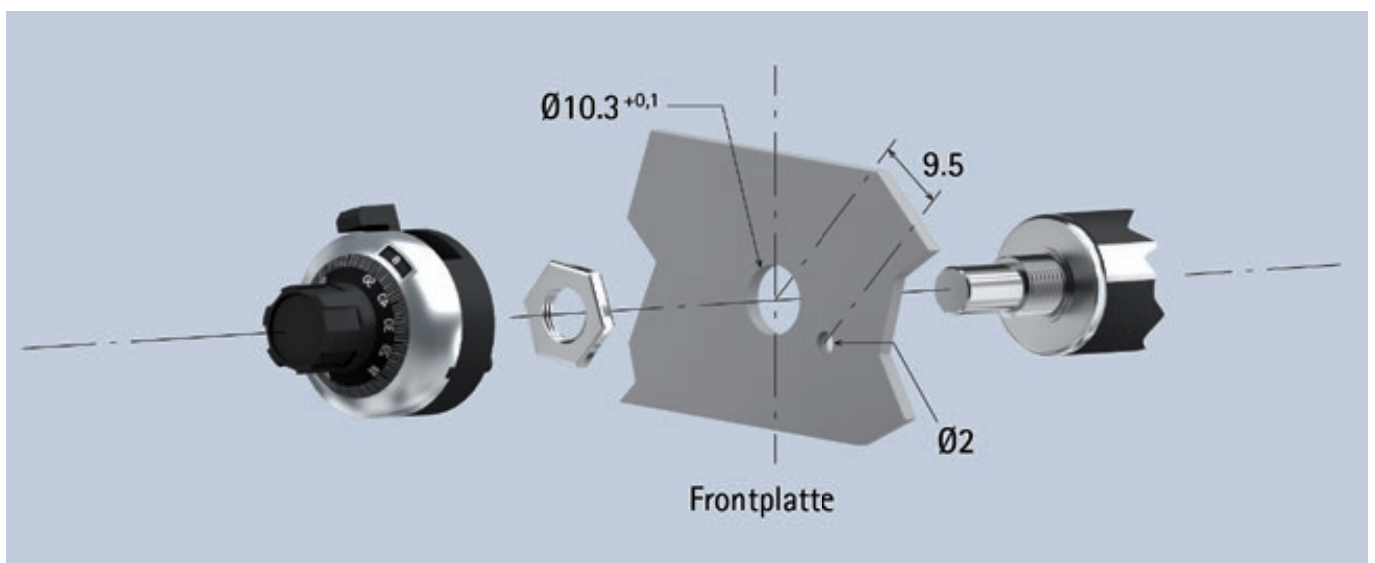
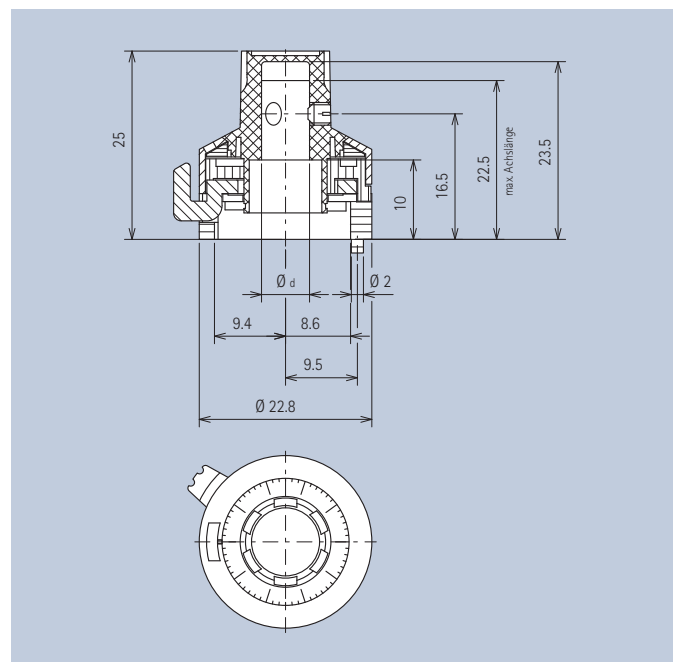
| Montage  | Mounting  |
|--|---|
| Siehe Montageschema unten                                      | See mounting diagram below                              |
| Achslänge über Befestigungsplatte: min. 18 mm / max. 22,5 mm   | Shaft extension beyond panel: min. 18 mm / max. 22.5 mm |
| Länge der Durchführung über der Befestigungsplatte: max. 10 mm | Bushing extension beyond panel: max. 10 mm              |

Für den Gebrauch von Präzisionspotentiometern oder anderen rotierenden Bauteilen.

For use with precision-potentiometers or other rotating devices.



| Gehäuse ring · Housing Ring  | Ød   | Art.-Nr.         |
|--|------|------------------|
| Aluminiumausführung matt-naturton-eloxiert<br>Aluminium type mat-aluton-anodized | 6,35 | <b>6623.1000</b> |
| Aluminiumausführung matt-naturton-eloxiert<br>Aluminium type mat-aluton-anodized | 6    | 6623.1001        |
| Aluminiumausführung hochglanz gedreht<br>Aluminium type high-gloss turned        | 6,35 | 6623.1010        |
| Aluminiumausführung hochglanz gedreht<br>Aluminium type high-gloss turned        | 6    | 6623.1011        |
| Aluminiumausführung matt-schwarz-eloxiert<br>Aluminium type mat-black-anodized   | 6,35 | 6623.1030        |
| Aluminiumausführung matt-schwarz-eloxiert<br>Aluminium type mat-black-anodized   | 6    | 6623.1031        |



Montageschema · Mounting diagram

# Kunststoff Feststellknöpfe mit Spannzangenbefestigung

# Plastic Locking Knobs with setscrew fixing

### Technische Daten

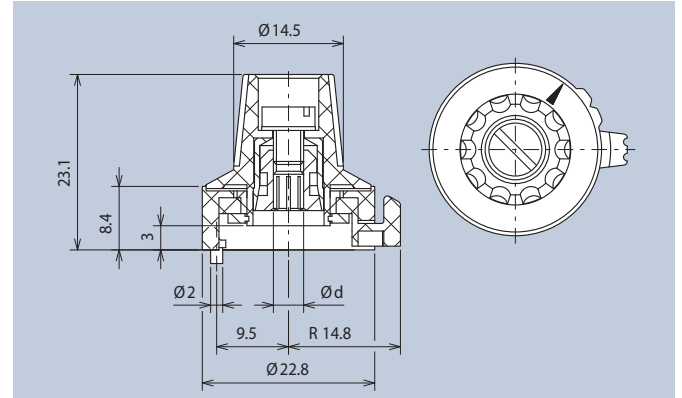
Werkstoff: ABS

### Technical Data

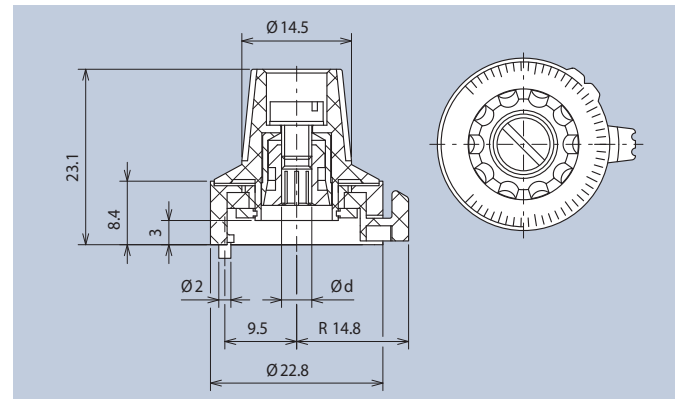
Material: ABS



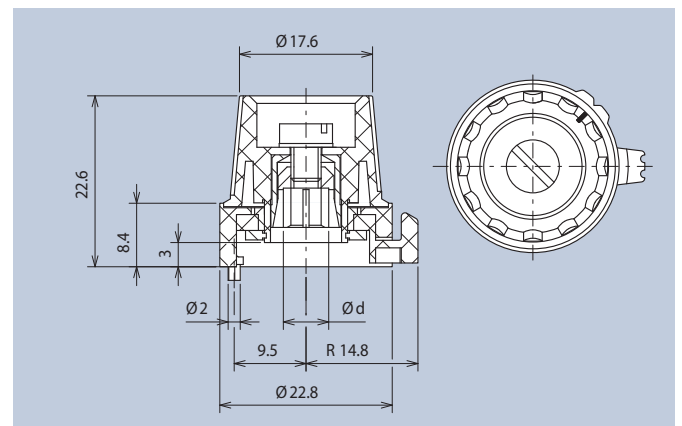
| Markierung · marking | Ød | Art.-Nr.  |
|----------------------|----|-----------|
| ohne · without       | 4  | 4331.4030 |
| ohne · without       | 6  | 4331.6030 |
| mit · with           | 4  | 4331.4031 |
| mit · with           | 6  | 4331.6031 |



| Skaleneinteilung · dial setting | Ød | Art.-Nr.  |
|---------------------------------|----|-----------|
| mit · with                      | 4  | 4331.4032 |
| mit · with                      | 6  | 4331.6032 |



| Markierung · marking | Ød | Art.-Nr.  |
|----------------------|----|-----------|
| ohne · without       | 6  | 4332.6030 |
| mit · with           | 6  | 4332.6031 |



# Abdeckkappen glänzend

# Caps gloss

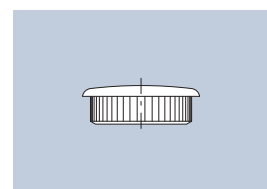
### Technische Daten

Werkstoff: PC (499.x); PP (332.x)

### Technical Data

Material: PC (499.x); PP (332.x)

| Abdeckkappe passend zu Knopf · Cap fits to knob |        |                     |                     |
|---|--------|---------------------|---------------------|
| Farbe · Color                                   |        | 4331 ... · Art.-Nr. | 4332 ... · Art.-Nr. |
|   | red    | 499.642             | 332.662             |
|   | black  | 499.643             | 332.663             |
|   | grey   | 499.644             | 332.664             |
|   | blue   | 499.646             | 332.666             |
|   | yellow | 499.647             | 332.667             |
|   | green  | 499.648             | 332.668             |



499.../332...

Art.-Nrn. in **Fett**druck sind Lagerware, Art.-Nrn. in Magerdruck sind keine Lagerware.

Part Nos. in **bold** font are available ex-stock with . Those in normal font are manufactured to order.

Mindestmengen · Minimum quantities

1.000 auf Anfrage · on request

## Referenzen

## References

Seit vielen Jahren setzen Kunden aus aller Welt auf die Qualität von MENTOR. Profitieren auch Sie von unserem Wissen und Branchenverständnis. Nachfolgend finden Sie Beispiele realisierter Anwendungen mit Standardprodukten.

For many years, customers from around the world have relied on the quality of MENTOR products. Benefit from our knowledge and understanding of the industry. Below, you can discover how our standard products have been used in practice.



### Aluminium Drehknopf für Analogsynthesizer

Das Berliner Unternehmen x0xsh0p ist seit 2008 spezialisiert auf den Vertrieb von Analogsynthesizern. Bei der x0xb0x, dem Flaggschiff unter den sog. Synthesizern setzt man in puncto der Haptik und der Qualität auf Aluminium-Knöpfe aus dem MENTOR Standard-Programm.

### Aluminium Turning Knobs for analogue synthesizers

The company x0xsh0p, based in Berlin, is specialized in sales of analog synthesizers since 2008. At the x0xb0x, the flagship of the so called synthesizers, the company uses MENTOR standard aluminium knobs because of their high quality and good surface feel.



### Kundenspezifische Knöpfe für professionelles Audio Equipment

Sennheiser, weltweit bekannter Hersteller für hochwertiges Audio Equipment, wählt für seine Mehrkanal-Empfänger EM 9046 kundenspezifische Knöpfe von MENTOR. Als komplett schwarz lackierte Version oder mit freigelasertem Motiv sorgt er für eine einfache und übersichtliche Handhabung von verschiedensten Funktionen.

### Customized buttons for the professional audio equipment

Sennheiser, a worldwide known manufacturer for high quality audio equipment, prefers customized buttons from MENTOR in his multichannel-receiver EM 9046. As a version completely lacquered in black or with a free-lasered symbol he assures a simple and clear handling of a wide variety of functions.



### Aluminium Drehknöpfe für den perfekten Klang

Funk Tonstudientechnik entwickelt und fertigt anspruchsvolle Audio-Systeme für die analoge und digitale Tonstudientechnik. Bei den Präzisions-Pegelstellern des Vorverstärker AMX-V kommen Aluminium Drehknöpfe von MENTOR zum Einsatz. Hochwertige Materialien und die einfache Formensprache gewährleisten eine angenehme Haptik und das zeitlose Design dieser Drehkopf-Klassiker.

### Aluminium twist buttons for the perfect sound

Funk Tonstudientechnik develops and manufactures sophisticated audio systems for the analog and digital sound studio technique. For the precision level controls from the Preamplifier AMX-V aluminium twist buttons from MENTOR are used. High-end material and the easy form language ensure a pleasant use and the timeless design of these knob classics.

Weitere Informationen unter: [www.mentor.de.com/referenzen](http://www.mentor.de.com/referenzen)

Further information at: [www.mentor.de.com/references](http://www.mentor.de.com/references)



## Kunststoff Dreh-, Knebel-, Zeiger- und Stellknöpfe

### **Vielseitig einsetzbar**

Gefertigt aus ABS oder PBT sind MENTOR Kunststoff-Drehknöpfe kostengünstig, vielseitig einsetzbar und durch Spannzangen- oder Gewindefestigung einfach zu montieren. Sie sind ausgelegt für unterschiedliche Belastbarkeiten und Temperaturanforderungen.

### **Individualisierbar**

Die MENTOR Kunststoff-Drehknopfsysteme lassen sich mit dem entsprechenden Zubehör optimal für verschiedene Anwendungen konfigurieren. Mit der passenden Zeigerscheibe wird so schnell aus einem Standardknopf ein individuelles Produkt, ganz nach Ihrem Wunsch.

### **Kurze Lieferzeiten und kleine Mindestmengen**

Viele Produkte aus dem Sortiment der Kunststoff-Drehknöpfe sind lieferbar ab Lager mit kurzen Lieferzeiten und kleinen Mindestmengen.

## Plastic Turning, Wing, Pointer and Adjusting Knobs

### **Versatile uses**

Produced from ABS or PBT, MENTOR plastic turning knobs are cost-effective, versatile and, thanks to collet or setscrew fixing, easy to install. They are designed for different loads and temperature requirements.

### **Customisable**

With the corresponding accessories, MENTOR plastic turning knob systems can be configured for a range of applications. With the right pointer dial, for example, a standard knob can become a customised product, entirely according to your requirements.





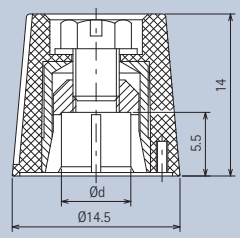

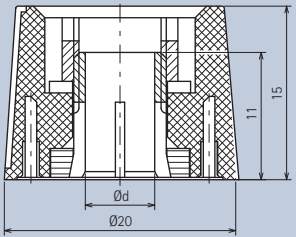

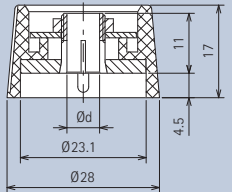

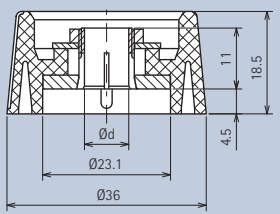

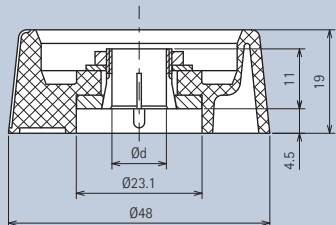
### **Short delivery times and low minimum order quantities**

Many products from the range of plastic turning knobs are available off the shelf with short delivery times and low minimum order quantities.





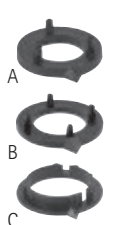

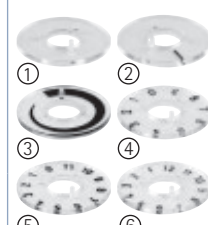

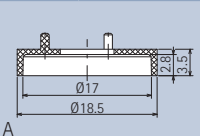
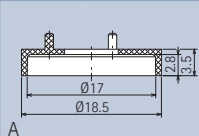
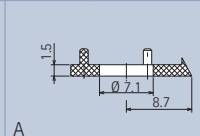
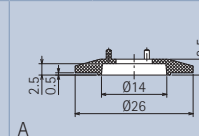
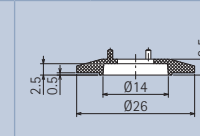
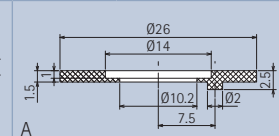
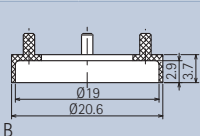
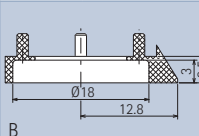
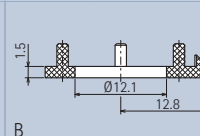
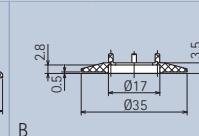
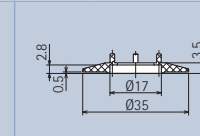
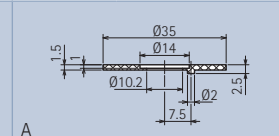
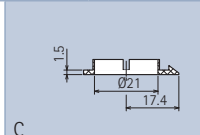
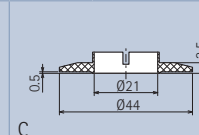
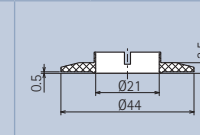
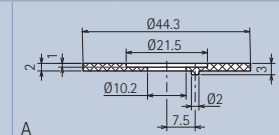
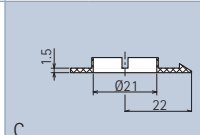
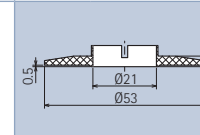
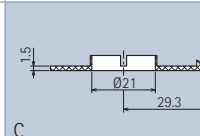
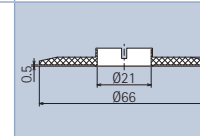
# Kunststoff Drehknopfsystem matt mit Spannzangenbefestigung

# Plastic Turning Knob System mat with Collet Fixing

| Knöpfe · Knobs  |  | Abdeckkappen · Caps  |   |   |
|---|--|--|---|---|
| <b>Farbschlüssel · Color Key</b><br>■ rot · red      ■ blau · blue<br>■ schwarz · black      ■ gelb · yellow<br>■ grau · grey      ■ grün · green |  | <br>ohne Markierung<br>without marking | <br>mit Markierung<br>with marking | <br>ohne Markierung<br>without marking<br>matt · mat |
|    | <br>Ød<br>Ø14.5<br>5.5<br>14                  | 4<br>6<br>■ 4331.4000<br>■ 4331.6000   | 4<br>6<br>■ 4331.4001<br>■ 4331.6001  | ■ 499.642<br>■ 499.643<br>■ 499.644<br>■ 499.646<br>■ 499.647<br>■ 499.648<br>matt · mat<br>■ 499.673                                   |
|    | <br>Ød<br>Ø20<br>11<br>15                    | 4<br>6<br>■ 4332.4000<br>■ 4332.6000   | 4<br>6<br>■ 4332.4001<br>■ 4332.6001  | ■ 332.662<br>■ 332.663<br>■ 332.664<br>■ 332.666<br>■ 332.667<br>■ 332.668<br>matt · mat<br>■ 332.673                                   |
|    | <br>Ød<br>Ø23.1<br>Ø28<br>4.5<br>11<br>17   | 6<br>■ 4333.6000   | 6<br>■ 4333.6001  | ■ 333.662<br>■ 333.663<br>■ 333.664<br>■ 333.666<br>■ 333.667<br>■ 333.668<br>matt · mat<br>■ 333.673                                   |
|    | <br>Ød<br>Ø23.1<br>Ø36<br>4.5<br>11<br>18.5 | 6<br>■ 4334.6000   | 6<br>■ 4334.6001  | ■ 334.662<br>■ 334.663<br>■ 334.664<br>matt · mat<br>■ 334.673  |
|    | <br>Ød<br>Ø23.1<br>Ø48<br>4.5<br>11<br>19   | 6<br>■ 4335.6000   | 6<br>■ 4335.6001  | ■ 335.662<br>■ 335.663<br>■ 335.664<br>matt · mat<br>■ 335.673  |

# Zubehör

# Accessories

| Mutterabdeckungen · Nut Coverings  |  | Zeiger · Pointers  | Zeigerscheiben · Pointer Dials   |  | Grundplatten · Base Plates   |
|--|--|--|--|--|--|
|  <p>A<br/>B<br/>ohne Zeiger<br/>without Pointer</p> |  <p>A<br/>B<br/>mit Zeiger<br/>with Pointer</p> |  <p>A<br/>B<br/>C</p> |  <p>A<br/>B<br/>C</p> |  <p>①<br/>②<br/>③<br/>④<br/>⑤<br/>⑥</p>                    |  <p>A</p>   |
|  <p>A</p>   |  <p>A</p>                                       |  <p>A</p>             |  <p>A</p>             |  <p>A</p>  |  <p>A</p>   |
| <p>■ <b>331.120</b></p>  | <p>■ <b>331.130</b><br/>■ 331.132</p>  | <p>■ <b>331.100</b><br/>■ <b>331.101</b><br/>■ 331.102</p>   | <p>■ <b>331.250</b></p>  | <p>①...<b>331.200</b><br/>②...<b>331.201</b><br/>③...<b>331.202</b><br/>④...<b>331.203</b><br/>⑤...<b>331.204</b><br/>⑥...<b>331.205</b></p> | <p>■ <b>331.300</b></p>  |
|  <p>B</p>  |  <p>B</p>                                      |  <p>B</p>            |  <p>B</p>            |  <p>B</p>   |  <p>A</p>  |
| <p>■ <b>332.120</b></p>  | <p>■ <b>332.100</b><br/>■ <b>332.101</b><br/>■ 332.102</p>   | <p>■ <b>4332.100</b></p>   | <p>■ <b>332.250</b></p>  | <p>①...<b>332.200</b><br/>②...<b>332.201</b><br/>③...<b>332.202</b><br/>④...<b>332.203</b><br/>⑤...<b>332.204</b><br/>⑥...<b>332.205</b></p> | <p>■ <b>332.300</b></p>  |
|  |  |  <p>C</p>           |  <p>C</p>           |  <p>C</p>  |  <p>A</p> |
|  |  | <p>■ <b>333.100</b><br/>■ <b>333.101</b><br/>■ 333.102</p>   | <p>■ <b>333.250</b></p>  | <p>①...<b>333.200</b><br/>②...<b>333.201</b><br/>③...<b>333.202</b><br/>④...<b>333.203</b><br/>⑤...<b>333.204</b><br/>⑥...<b>333.205</b></p> | <p>■ <b>333.300</b></p>  |
|  |  |  <p>C</p>           |  |  <p>C</p>  |  |
|  |  | <p>■ <b>334.100</b><br/>■ <b>334.101</b><br/>■ 334.102</p>   |  | <p>①...<b>334.200</b><br/>②...<b>334.201</b></p>   |  |
|  |  |  <p>C</p>           |  |  <p>C</p>  |  |
|  |  | <p>■ <b>335.100</b><br/>■ <b>335.101</b><br/>■ 335.102</p>   |  | <p>①...<b>335.200</b><br/>②...<b>335.201</b></p>   |  |




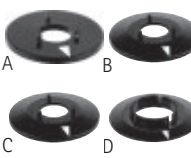
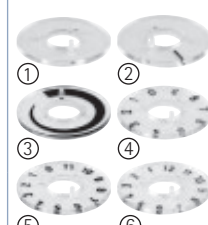

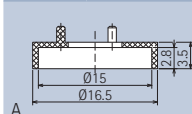
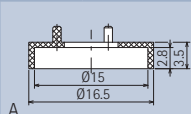
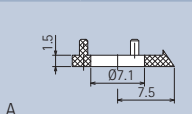
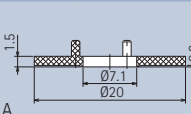
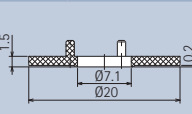
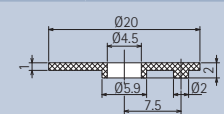
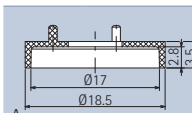
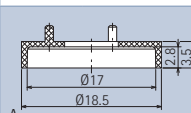
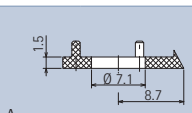
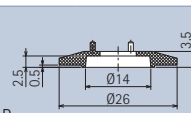
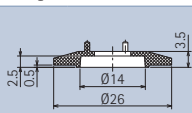
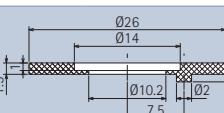
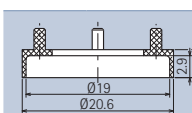
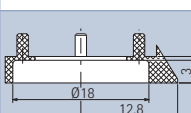
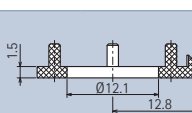
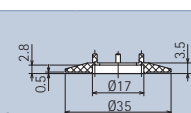
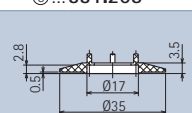
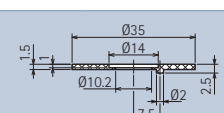
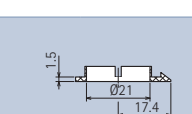
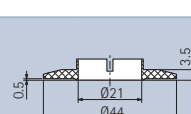
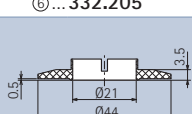
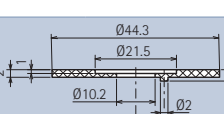
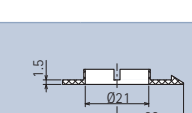
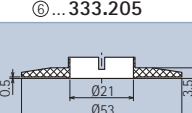
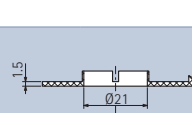
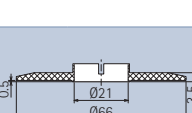
# Kunststoff Drehknopfsystem mit Spannzangenbefestigung

# Plastic Turning Knob System with Collet Fixing

| Knöpfe · Knobs  |   | Abdeckkappen · Caps                           |   |   |
|---|---|---|---|---|
| <b>Farbschlüssel · Color Key</b><br>■ rot · red      ■ blau · blue<br>■ schwarz · black      ■ gelb · yellow<br>■ grau · grey      ■ grün · green |   | <br>ohne Markierung<br>without marking        | <br>mit Markierung<br>with marking            | <br>glänzend<br>gloss   |
| <br>1   | <br>13<br>5.5<br>Ød<br>Ø11.8                | 3<br>4<br>■ 330.3<br>■ 330.4                  | ■ 330.31<br>■ 330.41                          | ■ 499.642<br>■ 499.643<br>■ 499.644<br>■ 499.646<br>■ 499.647<br>■ 499.648              |
| <br>1   | <br>14<br>5.5<br>Ød<br>Ø14.5                | 4<br>6<br>■ 331.4<br>■ 331.6                  | ■ 331.41<br>■ 331.61                          | ■ 499.642<br>■ 499.643<br>■ 499.644<br>■ 499.646<br>■ 499.647<br>■ 499.648              |
| <br>2   | <br>15<br>11<br>Ød<br>Ø20                   | 4<br>6<br>■ 332.4<br>■ 332.6                  | ■ 332.41<br>■ 332.61                          | ■ 332.662<br>■ 332.663<br>■ 332.664<br>■ 332.666<br>■ 332.667<br>■ 332.668              |
| <br>3   | <br>17<br>11<br>4.5<br>Ød<br>Ø23.1<br>Ø28   | 6<br>■ 333.6                                  | ■ 333.61                                      | MOQ 5.000<br>■ 333.662<br>■ 333.663<br>■ 333.664<br>■ 333.666<br>■ 333.667<br>■ 333.668 |
| <br>3   | <br>18.5<br>11<br>4.5<br>Ød<br>Ø23.1<br>Ø36 | 6<br>8<br>■ 334.6<br>■ 334.8                  | ■ 334.61<br>■ 334.81<br>MOQ 1.000             | ■ 334.662<br>■ 334.663<br>■ 334.664   |
| <br>3   | <br>19<br>11<br>4.5<br>Ød<br>Ø23.1<br>Ø48   | 6<br>8<br>10<br>■ 335.6<br>■ 335.8<br>■ 335.9 | ■ 335.61<br>■ 335.81<br>■ 335.91<br>MOQ 1.000 | ■ 335.662<br>■ 335.663<br>■ 335.664   |



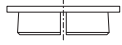
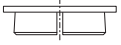

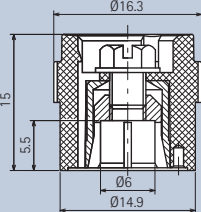

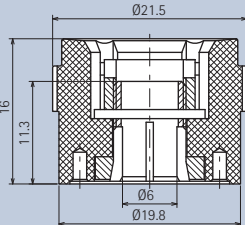

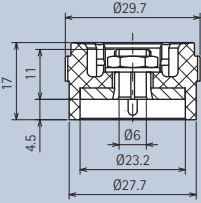

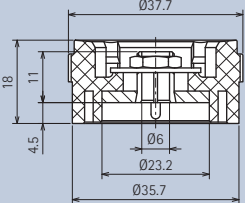
# Zubehör

# Accessories

| Mutterabdeckungen · Nut Coverings   |   | Zeiger · Pointers   | Zeigerscheiben · Pointer Dials  |   | Grundplatten · Base Plates  |
|---|---|---|---|---|---|
|  <p>A<br/>B</p> <p>ohne Zeiger<br/>without Pointer</p> |  <p>A<br/>B</p> <p>mit Zeiger<br/>with Pointer</p>       |  <p>A<br/>B<br/>C</p>                                    |  <p>A<br/>B<br/>C<br/>D</p>  |  <p>①<br/>②<br/>③<br/>④<br/>⑤<br/>⑥</p>   |  <p>A</p>                    |
|  <p>A</p> <p>■ 330.120</p>                             |  <p>A</p> <p>■ 330.130</p>                               |  <p>A</p> <p>■ 330.100<br/>■ 330.101<br/>■ 330.102</p>   |  <p>A</p> <p>■ 330.250</p>   |  <p>A</p> <p>①...330.200<br/>②...330.201<br/>③...330.202<br/>④...330.203<br/>⑤...330.204<br/>⑥...330.205</p>   |  <p>A</p> <p>■ 330.300</p>   |
|  <p>A</p> <p>■ 331.120</p>                             |  <p>A</p> <p>■ 331.130<br/>■ 331.132</p>                 |  <p>A</p> <p>■ 331.100<br/>■ 331.101<br/>■ 331.102</p>   |  <p>B</p> <p>■ 331.250</p>   |  <p>A</p> <p>①...331.200<br/>②...331.201<br/>③...331.202<br/>④...331.203<br/>⑤...331.204<br/>⑥...331.205</p>   |  <p>A</p> <p>■ 331.300</p>   |
|  <p>B</p> <p>■ 332.120</p>                           |  <p>B</p> <p>■ 332.100<br/>■ 332.101<br/>■ 332.102</p> |  <p>B</p> <p>■ 4332.100</p>                            |  <p>C</p> <p>■ 332.250</p> |  <p>A</p> <p>①...332.200<br/>②...332.201<br/>③...332.202<br/>④...332.203<br/>⑤...332.204<br/>⑥...332.205</p> |  <p>A</p> <p>■ 332.300</p> |
|   |   |  <p>C</p> <p>■ 333.100<br/>■ 333.101<br/>■ 333.102</p> |  <p>D</p> <p>■ 333.250</p> |  <p>A</p> <p>①...333.200<br/>②...333.201<br/>③...333.202<br/>④...333.203<br/>⑤...333.204<br/>⑥...333.205</p> |  <p>A</p> <p>■ 333.300</p> |
|   |   |  <p>C</p> <p>■ 334.100<br/>■ 334.101<br/>■ 334.102</p> |   |  <p>A</p> <p>①...334.200<br/>②...334.201</p>   |   |
|   |   |  <p>C</p> <p>■ 335.100<br/>■ 335.101<br/>■ 335.102</p> |   |  <p>A</p> <p>①...335.200<br/>②...335.201</p>   |   |



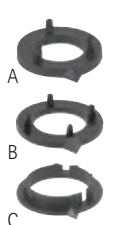

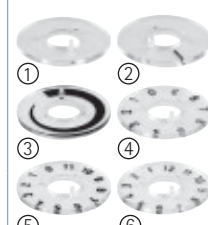

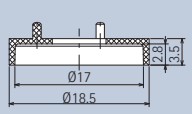
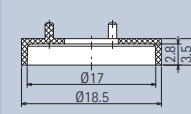
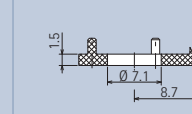
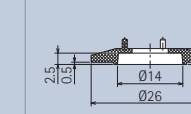
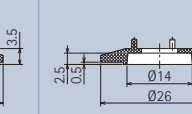
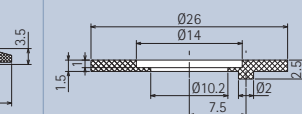
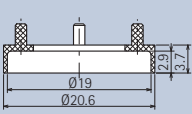
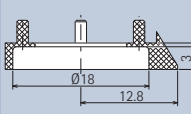
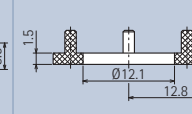
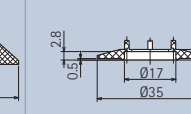
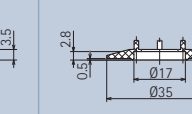
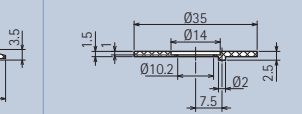
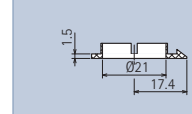
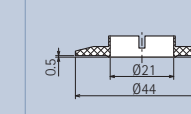
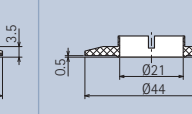
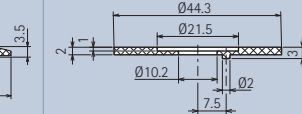
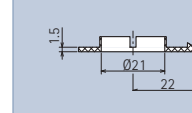
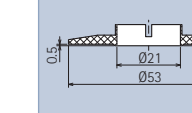
# Kunststoff Drehknopfsystem mit Spannzangenbefestigung

# Plastic Turning Knob System with Collet Fixing

| Knöpfe · Knobs  |   | Abdeckkappen · Caps  |  |  |
|---|---|--|--|--|
| <p>Farbschlüssel · Color Key</p> <ul style="list-style-type: none"> <li><span style="color: red;">■</span> rot · red</li> <li><span style="color: blue;">■</span> blau · blue</li> <li><span style="color: black;">■</span> schwarz · black</li> <li><span style="color: yellow;">■</span> gelb · yellow</li> <li><span style="color: grey;">■</span> grau · grey</li> <li><span style="color: green;">■</span> grün · green</li> </ul> |  |  <p>glänzend<br/>gloss</p>   |  <p>ohne Markierung<br/>without marking</p>   |  <p>mit Markierung<br/>with marking</p>   |
| <p>1</p>    | <p>6</p> <p>■ <b>4131.603</b></p>   | <p>MOQ 5.000</p> <ul style="list-style-type: none"> <li><span style="color: red;">■</span> 331.662</li> <li><span style="color: black;">■</span> 331.663</li> <li><span style="color: grey;">■</span> 331.664</li> <li><span style="color: blue;">■</span> 331.666</li> <li><span style="color: yellow;">■</span> 331.667</li> <li><span style="color: green;">■</span> 331.668</li> </ul> | <p>MOQ 1) 3.000<br/>2) 5.000</p> <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4131.063<sup>1)</sup></li> <li><span style="color: grey;">■</span> 4131.064<sup>2)</sup></li> </ul> | <p>MOQ 2.000</p> <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4131.073</li> <li><span style="color: grey;">■</span> 4131.074</li> </ul> |
| <p>2</p>    | <p>6</p> <p>■ <b>4132.603</b></p>   | <ul style="list-style-type: none"> <li><span style="color: red;">■</span> 332.662</li> <li><span style="color: black;">■</span> 332.663</li> <li><span style="color: grey;">■</span> 332.664</li> <li><span style="color: blue;">■</span> 332.666</li> <li><span style="color: yellow;">■</span> 332.667</li> <li><span style="color: green;">■</span> 332.668</li> </ul>                  | <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4132.063</li> <li><span style="color: grey;">■</span> 4132.064</li> </ul>  | <p>MOQ 2.000</p> <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4132.073</li> <li><span style="color: grey;">■</span> 4132.074</li> </ul> |
| <p>3</p>    | <p>6</p> <p>■ <b>4133.603</b></p>   | <p>MOQ 5.000</p> <ul style="list-style-type: none"> <li><span style="color: red;">■</span> 333.662</li> <li><span style="color: black;">■</span> 333.663</li> <li><span style="color: grey;">■</span> 333.664</li> <li><span style="color: blue;">■</span> 333.666</li> <li><span style="color: yellow;">■</span> 333.667</li> <li><span style="color: green;">■</span> 333.668</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4133.063</li> <li><span style="color: grey;">■</span> 4133.064</li> </ul>  | <p>MOQ 2.000</p> <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4133.073</li> <li><span style="color: grey;">■</span> 4133.074</li> </ul> |
| <p>3</p>    | <p>6</p> <p>■ <b>4134.603</b></p>   | <ul style="list-style-type: none"> <li><span style="color: red;">■</span> 334.662</li> <li><span style="color: black;">■</span> 334.663</li> <li><span style="color: grey;">■</span> 334.664</li> </ul>  | <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4134.063</li> <li><span style="color: grey;">■</span> 4134.064</li> </ul>  | <p>MOQ 2.000</p> <ul style="list-style-type: none"> <li><span style="color: black;">■</span> 4134.073</li> <li><span style="color: grey;">■</span> 4134.074</li> </ul> |

# Zubehör

# Accessories

| Mutterabdeckungen · Nut Coverings  |  | Zeiger · Pointers  | Zeigerscheiben · Pointer Dials   |  | Grundplatten · Base Plates   |
|--|--|--|--|--|--|
|  <p>A<br/>B<br/>ohne Zeiger<br/>without Pointer</p> |  <p>A<br/>B<br/>mit Zeiger<br/>with Pointer</p> |  <p>A<br/>B<br/>C</p> |  <p>A<br/>B<br/>C</p> |  <p>① ②<br/>③ ④<br/>⑤ ⑥</p>  |  <p>A</p>   |
|  <p>A</p>   |  <p>A</p>                                       |  <p>A</p>             |  <p>A</p>             |  <p>A</p>                    |  <p>A</p>   |
| <p>■ 331.120</p>   | <p>■ 331.130<br/>■ 331.132</p>   | <p>■ 331.100<br/>■ 331.101<br/>■ 331.102</p>   | <p>■ 331.250</p>   | <p>① ... 331.200<br/>② ... 331.201<br/>③ ... 331.202<br/>④ ... 331.203<br/>⑤ ... 331.204<br/>⑥ ... 331.205</p> | <p>■ 331.300</p>   |
|  <p>B</p>   |  <p>B</p>                                     |  <p>B</p>           |  <p>B</p>           |  <p>B</p>                  |  <p>A</p> |
| <p>■ 332.120</p>   | <p>■ 332.100<br/>■ 332.101<br/>■ 332.102</p>   | <p>■ 4332.100</p>  | <p>■ 332.250</p>   | <p>① ... 332.200<br/>② ... 332.201<br/>③ ... 332.202<br/>④ ... 332.203<br/>⑤ ... 332.204<br/>⑥ ... 332.205</p> | <p>■ 332.300</p>   |
|  |  |  <p>C</p>           |  <p>C</p>           |  <p>C</p>                  |  <p>A</p> |
|  |  | <p>■ 333.100<br/>■ 333.101<br/>■ 333.102</p>   | <p>■ 333.250</p>   | <p>① ... 333.200<br/>② ... 333.201<br/>③ ... 333.202<br/>④ ... 333.203<br/>⑤ ... 333.204<br/>⑥ ... 333.205</p> | <p>■ 333.300</p>   |
|  |  |  <p>C</p>           |  |  <p>C</p>                  |  |
|  |  | <p>■ 334.100<br/>■ 334.101<br/>■ 334.102</p>   |  | <p>① ... 334.200<br/>② ... 334.201</p>   |  |

# Kunststoff Drehknöpfe matt mit Spannzangenbefestigung

# Plastic Turning Knobs mat with Collet Fixing

### Technische Daten

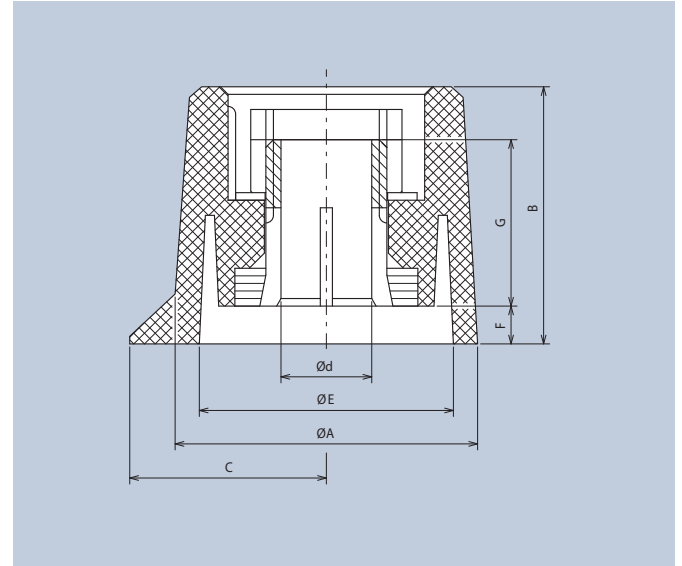
Werkstoff: PBT

### Technical Data

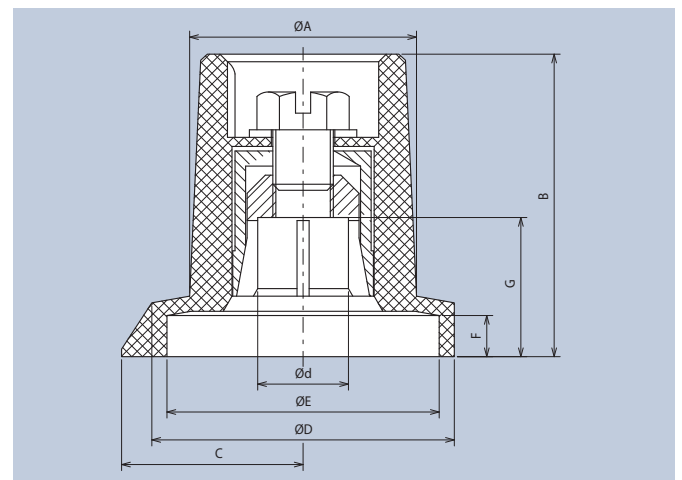
Material: PBT



| ØA | B    | C   | Ød   | ØE | F   | G  | schwarz black Art.-Nr. |
|----|------|-----|------|----|-----|----|------------------------|
| 12 | 14   | 7,5 | 3    | -  | -   | 5  | <b>4307.3131</b>       |
| 12 | 14   | 7,5 | 3,2  | -  | -   | 5  | 4307.1131              |
| 12 | 14   | 7,5 | 4    | -  | -   | 5  | <b>4307.4131</b>       |
| 15 | 16   | 9,5 | 4    | -  | -   | 5  | <b>4309.4131</b>       |
| 15 | 16   | 9,5 | 6    | -  | -   | 5  | <b>4309.6131</b>       |
| 15 | 16   | 9,5 | 6,35 | -  | -   | 5  | 4309.7131              |
| 20 | 17   | 13  | 4    | 17 | 2,5 | 11 | <b>4311.4131</b>       |
| 20 | 17   | 13  | 6    | 17 | 2,5 | 11 | <b>4311.6131</b>       |
| 20 | 17   | 13  | 6,35 | 17 | 2,5 | 11 | 4311.7131              |
| 28 | 18,5 | 17  | 6    | 23 | 4,5 | 11 | <b>4312.6131</b>       |
| 28 | 18,5 | 17  | 6,35 | 23 | 4,5 | 11 | 4312.7131              |



| ØA | B  | C    | Ød   | Ød | ØE | F   | G | schwarz black Art.-Nr. |
|----|----|------|------|----|----|-----|---|------------------------|
| 12 | 18 | 10,5 | 3    | 17 | 15 | 2,5 | 9 | <b>4308.3131</b>       |
| 12 | 18 | 10,5 | 3,2  | 17 | 15 | 2,5 | 9 | 4308.1131              |
| 12 | 18 | 10,5 | 4    | 17 | 15 | 2,5 | 9 | <b>4308.4131</b>       |
| 15 | 20 | 12   | 4    | 20 | 18 | 2,5 | 9 | <b>4310.4131</b>       |
| 15 | 20 | 12   | 6    | 20 | 18 | 2,5 | 9 | <b>4310.6131</b>       |
| 15 | 20 | 12   | 6,35 | 20 | 18 | 2,5 | 9 | 4310.7131              |



## Abdeckkappen matt

## Caps mat

### Technische Daten

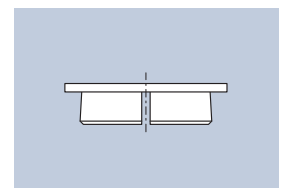
Werkstoff: PBT

### Technical Data

Material: PBT

MOD 2.000

| Abdeckkappe passend zu Knopf-ØA · Cap fits to knob-ØA |                              |                |                  |                  |                  |                  |
|---|------------------------------|----------------|------------------|------------------|------------------|------------------|
| Farbe · Color   | Strichanzeige Indicator mark | Ø12 · Art.-Nr. | Ø15 · Art.-Nr.   | Ø20 · Art.-Nr.   | Ø28 · Art.-Nr.   |                  |
|   | red                          | ohne · without | <b>4307.0021</b> | <b>4309.0021</b> | <b>4311.0021</b> | <b>4312.0021</b> |
|   | black                        | ohne · without | <b>4307.0031</b> | <b>4309.0031</b> | <b>4311.0031</b> | <b>4312.0031</b> |
|   | grey                         | ohne · without | <b>4307.0041</b> | <b>4309.0041</b> | <b>4311.0041</b> | <b>4312.0041</b> |
|   | red                          | black          | 4307.0121        | 4309.0121        | 4311.0121        | 4312.0121        |
|   | black                        | white          | 4307.0131        | <b>4309.0131</b> | 4311.0131        | 4312.0131        |
|   | grey                         | black          | 4307.0141        | 4309.0141        | 4311.0141        | 4312.0141        |



4307.../4309.../4311.../4312...



# Kunststoff Drehknöpfe glänzend mit Spannzangenbefestigung

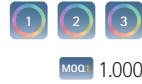
# Plastic Turning Knobs gloss with Collet Fixing

### Technische Daten

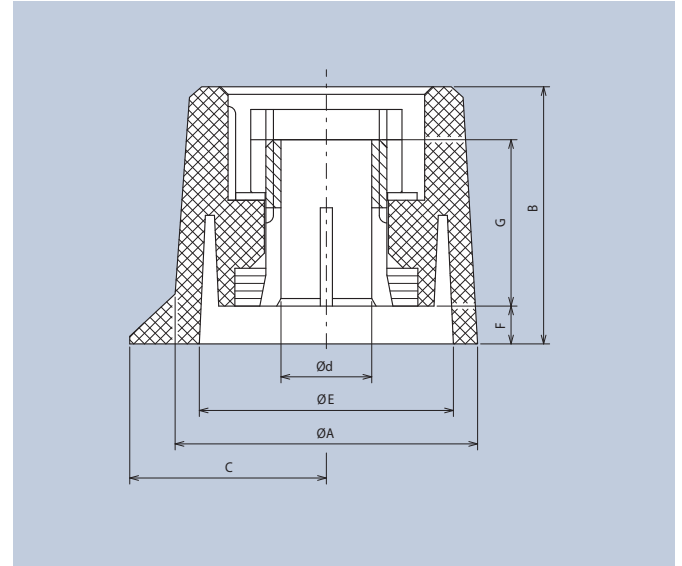
Werkstoff: ABS

### Technical Data

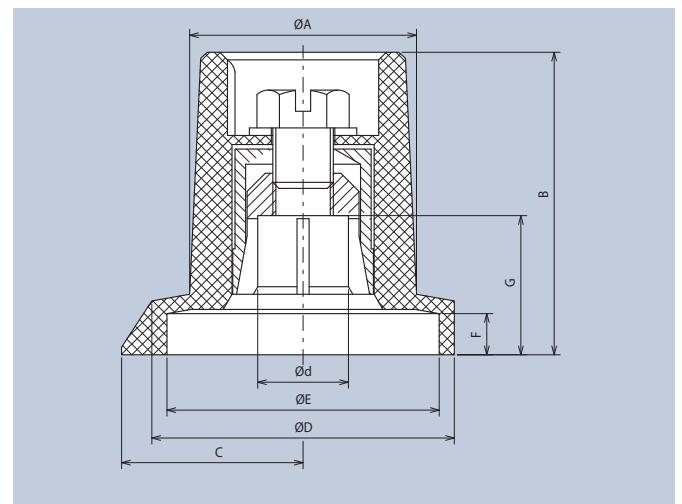
Material: ABS



| ØA | B    | C   | Ød   | ØE | F   | G  | schwarz black Art.-Nr. |
|----|------|-----|------|----|-----|----|------------------------|
| 12 | 14   | 7,5 | 3    | -  | -   | 5  | 4307.3133              |
| 12 | 14   | 7,5 | 3,2  | -  | -   | 5  | 4307.1133              |
| 12 | 14   | 7,5 | 4    | -  | -   | 5  | 4307.4133              |
| 15 | 16   | 9,5 | 4    | -  | -   | 5  | 4309.4133              |
| 15 | 16   | 9,5 | 6    | -  | -   | 5  | 4309.6133              |
| 15 | 16   | 9,5 | 6,35 | -  | -   | 5  | 4309.7133              |
| 20 | 17   | 13  | 4    | 17 | 2,5 | 11 | 4311.4133              |
| 20 | 17   | 13  | 6    | 17 | 2,5 | 11 | <b>4311.6133</b>       |
| 20 | 17   | 13  | 6,35 | 17 | 2,5 | 11 | 4311.7133              |
| 28 | 18,5 | 17  | 6    | 23 | 4,5 | 11 | <b>4312.6133</b>       |
| 28 | 18,5 | 17  | 6,35 | 23 | 4,5 | 11 | 4312.7133              |



| ØA | B  | C    | Ød   | ØD | ØE | F   | G | schwarz black Art.-Nr. |
|----|----|------|------|----|----|-----|---|------------------------|
| 12 | 18 | 10,5 | 3    | 17 | 15 | 2,5 | 9 | 4308.3133              |
| 12 | 18 | 10,5 | 3,2  | 17 | 15 | 2,5 | 9 | 4308.1133              |
| 12 | 18 | 10,5 | 4    | 17 | 15 | 2,5 | 9 | 4308.4133              |
| 15 | 20 | 12   | 4    | 20 | 18 | 2,5 | 9 | 4310.4133              |
| 15 | 20 | 12   | 6    | 20 | 18 | 2,5 | 9 | 4310.6133              |
| 15 | 20 | 12   | 6,35 | 20 | 18 | 2,5 | 9 | 4310.7133              |



# Abdeckkappen glänzend

# Caps gloss

### Technische Daten

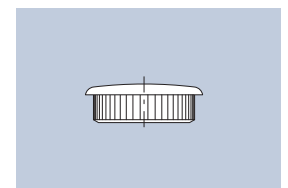
Werkstoff: PC (Ø 12); PP (Ø 15, 20, 28)

### Technical Data

Material: PC (Ø 12); PP (Ø 15, 20, 28)

MOD 5.000

| Farbe · Color |        | Ø12 · Art.-Nr. | Ø15 · Art.-Nr. | Ø20 · Art.-Nr. | Ø28 · Art.-Nr. |
|---------------|--------|----------------|----------------|----------------|----------------|
|               | red    | 499.642        | 331.662        | 332.662        | 333.662        |
|               | black  | 499.643        | 331.663        | 332.663        | 333.663        |
|               | grey   | 499.644        | 331.664        | 332.664        | 333.664        |
|               | blue   | 499.646        | 331.666        | 332.666        | 333.666        |
|               | yellow | 499.647        | 331.667        | 332.667        | 333.667        |
|               | green  | 499.648        | 331.668        | 332.668        | 333.668        |



499.../331.../332.../333...

# Kunststoff Drehknöpfe mit Gewindestiftbefestigung

# Plastic Turning Knob with setscrew fixing

**Technische Daten**

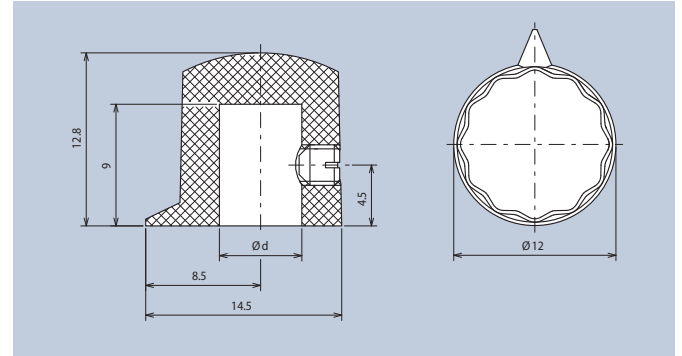
Werkstoff: ABS

**Technical Data**

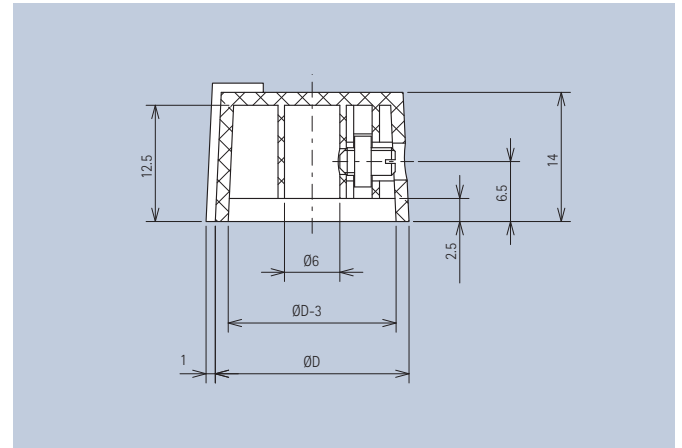
Material: ABS



| Ød | Art.-Nr. |
|----|----------|
| 4  | 408.41   |
| 6  | 408.61   |



| ØD | Art.-Nr.  |
|----|-----------|
| 17 | 4458.6317 |
| 21 | 4458.6321 |
| 28 | 4458.6328 |



# LICHT EVOLUTION

[www.mentor.de.com](http://www.mentor.de.com)

Mit Liebe zum Detail und großer Leidenschaft für das Thema Licht entwickeln wir kontinuierlich die Möglichkeiten weiter, mit denen wir die Produkte unserer Kunden ins rechte Licht rücken.

Unser Spektrum reicht heute von Lichtleitern über kunden-spezifische Beleuchtungssysteme bis hin zu Light Engines. So entwickeln und produzieren wir innovative OEM Lichtlösungen für unsere Kunden. Vom Konzept bis zur Produktion – alles aus einer Hand.

**Alles aus Licht. Für Ihr Produkt.**

Nutzen auch Sie das Potential des Lichts in Ihren Produkten und schaffen Sie so einen echten Mehrwert für Ihre Kunden.

With our love of detail and our great passion for light, we are constantly developing the possibilities for displaying our customers' products in the right light.

Today, our spectrum ranges from light guides and light modules through customised lighting systems to light engines. In this way, we develop and produce innovative OEM light solutions for our customers. From design to production, everything from a single source.

**Everything from light. For your product.**

Why not exploit the potential of light in your products too, and create real added value for your customers?



Lichtleiter | Light guides



Lichtmodule | Light modules



Systemlösungen | System solutions



Light Engines | Light engines

# Kunststoff Knebelknöpfe mit Spannzangenbefestigung

# Plastic Wing Knobs with Collet Fixing

### Technische Daten

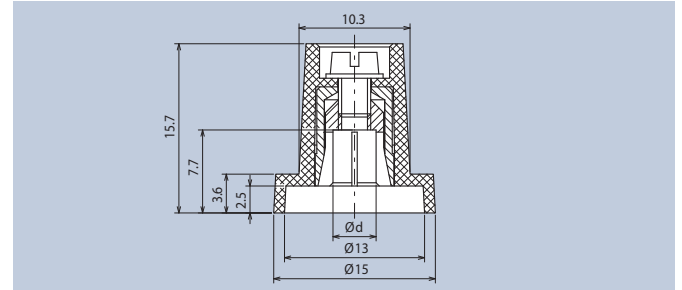
Werkstoff: PA

### Technical Data

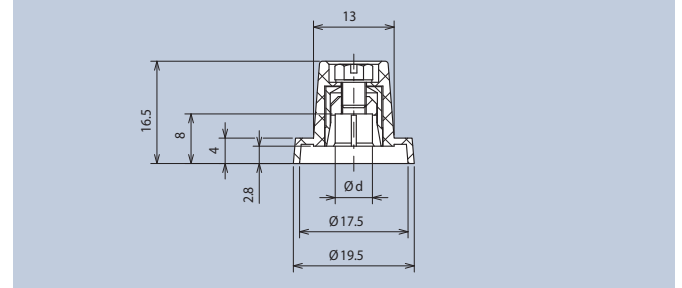
Material: PA



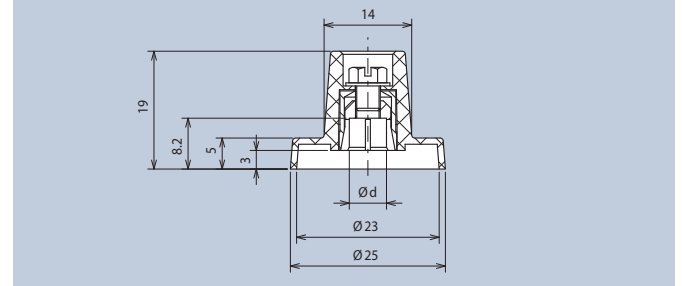
|    |                             |
|----|-----------------------------|
| Ød | schwarz · black<br>Art.-Nr. |
| 3  | 355.31                      |
| 4  | 355.41                      |



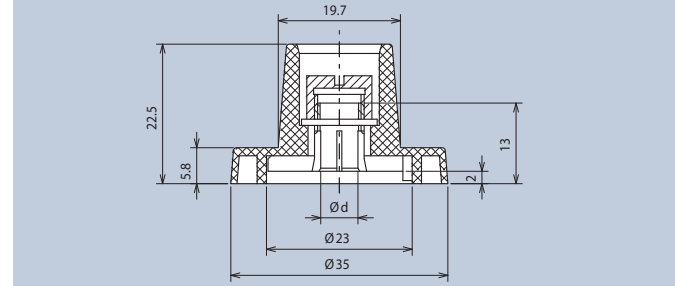
|    |                             |
|----|-----------------------------|
| Ød | schwarz · black<br>Art.-Nr. |
| 4  | 352.41                      |
| 6  | 352.61                      |



|    |                             |
|----|-----------------------------|
| Ød | schwarz · black<br>Art.-Nr. |
| 6  | 353.61                      |



|    |                             |
|----|-----------------------------|
| Ød | schwarz · black<br>Art.-Nr. |
| 6  | 354.61                      |



## Abdeckkappen glänzend

## Caps gloss

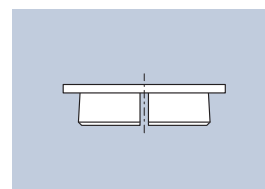
### Technische Daten

Werkstoff: ABS (4129.x); PC (499.x); PP (332.x)

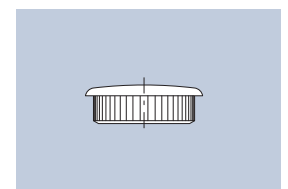
### Technical Data

Material: ABS (4129.x); PC (499.x); PP (332.x)

| Abdeckkappe passend zu Knopf · Cap fits to knob |                   |                       |                   |  |
|---|-------------------|-----------------------|-------------------|--|
| Farbe · Color                                   | 355... · Art.-Nr. | 352/353... · Art.-Nr. | 354... · Art.-Nr. |  |
|   | 4129.062          | 499.642               | 332.662           |  |
|   | 4129.063          | 499.643               | 332.663           |  |
|   | 4129.064          | 499.644               | 332.664           |  |
|   | -                 | 499.646               | 332.666           |  |
|   | -                 | 499.647               | 332.667           |  |
|   | -                 | 499.648               | 332.668           |  |



4129...



499.../332...

Art.-Nrn. in **Fett**druck sind Lagerware, Art.-Nrn. in Magerdruck sind keine Lagerware.

Part Nos. in **bold** font are available ex-stock with . Those in normal font are manufactured to order.

Mindestmengen · Minimum quantities

--- auf Anfrage · on request

## Kunststoff Zeigerknöpfe mit Spannzangenbefestigung

## Plastic Pointer Knobs with setscrew fixing

### Technische Daten

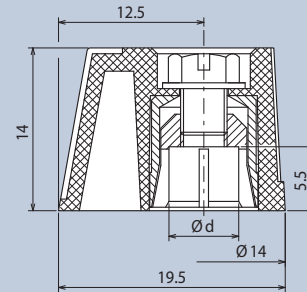
Werkstoff: ABS



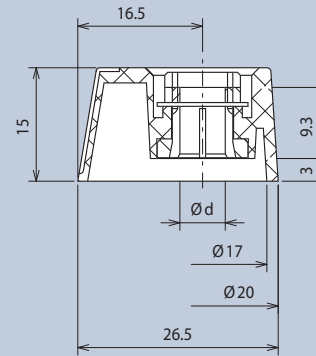
| Ød | Art.-Nr. |
|----|----------|
| 4  | 427.411  |
| 6  | 427.611  |

### Technical Data

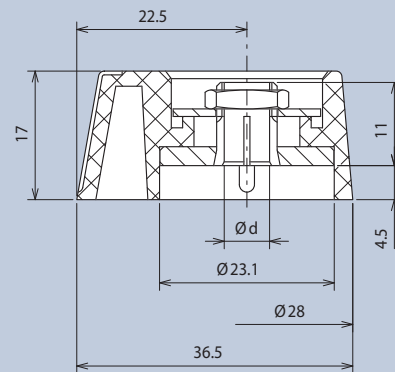
Material: ABS



| Ød | Art.-Nr. |
|----|----------|
| 6  | 428.611  |



| Ød | Art.-Nr. |
|----|----------|
| 6  | 429.611  |



## Abdeckkappen glänzend

## Caps gloss

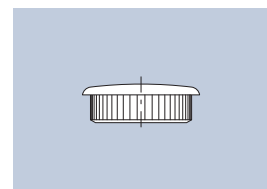
### Technische Daten

Werkstoff: PC (499.x); PP (332.x and 333.x)

### Technical Data

Material: PC (499.x); PP (332.x and 333.x)

| Abdeckkappe passend zu Knopf · Cap fits to knob |                    |                    |                    |  |
|---|--------------------|--------------------|--------------------|--|
| Farbe · Color                                   | 427 ... · Art.-Nr. | 428 ... · Art.-Nr. | 429 ... · Art.-Nr. |  |
| red   | 499.642            | 332.662            | 333.662            |  |
| black   | 499.643            | 332.663            | 333.663            |  |
| grey  | 499.644            | 332.664            | 333.664            |  |
| blue  | 499.646            | 332.666            | 333.666            |  |
| yellow  | 499.647            | 332.667            | 333.667            |  |
| green   | 499.648            | 332.668            | 333.668            |  |



499.../332.../333...

# Kunststoff Stellknöpfe

# Plastic Adjusting Knobs

**Technische Daten**

Werkstoff: ABS

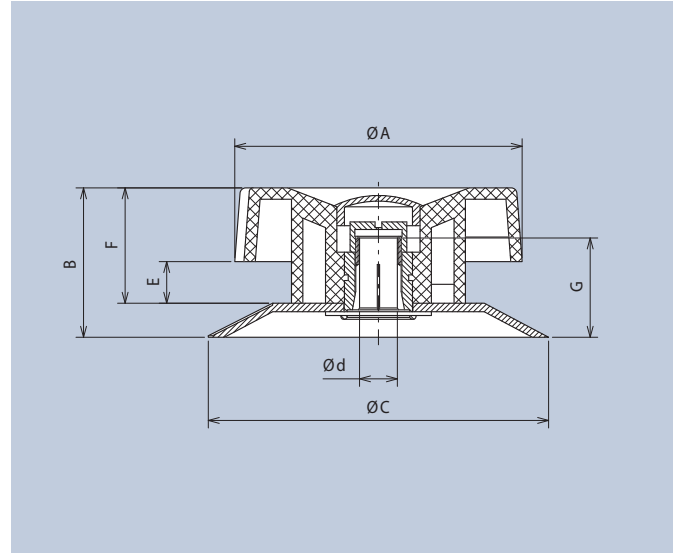
**Technical Data**

Material: ABS



mit Spannzangenbefestigung · with collet fixing

| ØA | B    | ØC   | Ød | E  | F    | G  | Art.-Nr.      |
|----|------|------|----|----|------|----|---------------|
| 76 | 40   | 90   | 8  | 11 | 30,5 | 28 | 473.81        |
| 76 | 40   | 90   | 10 | 11 | 30,5 | 28 | <b>473.91</b> |
| 50 | 35,5 | 58   | 6  | 11 | 26   | 28 | <b>474.61</b> |
| 50 | 35,5 | 58   | 8  | 11 | 26   | 28 | <b>474.81</b> |
| 50 | 35,5 | 58   | 10 | 11 | 26   | 28 | <b>474.91</b> |
| 38 | 28   | 42   | 6  | 8  | 20   | 13 | <b>475.61</b> |
| 28 | 24,5 | 31,5 | 6  | 6  | 18   | 10 | <b>476.61</b> |
| 19 | 19   | 21   | 6  | 5  | 16   | 8  | <b>477.61</b> |

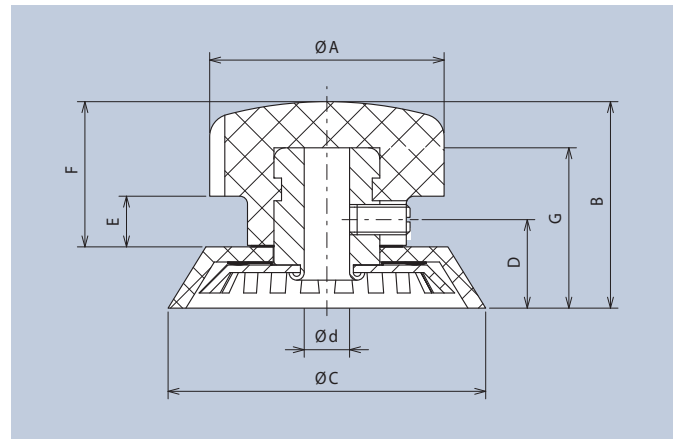


mit Gewindestiftbefestigung · with setscrew fixing

| ØA | B  | ØC   | Ød | D    | E   | F  | G    | Z* | Art.-Nr.       |
|----|----|------|----|------|-----|----|------|----|----------------|
| 19 | 16 | 21   | 6  | 6,2  | 5   | 12 | 13,2 | 2  | <b>320.621</b> |
| 25 | 22 | 31,5 | 6  | 9,5  | 6   | 15 | 16,6 | 1  | <b>321.611</b> |
| 31 | 27 | 42   | 6  | 11,5 | 6,5 | 19 | 21,2 | 1  | <b>322.611</b> |

\* Anzahl der Gewindestifte zur Knopfbefestigung

\* Number of setscrews for knob fixing



## Aluminium Dreh-, Knebel-, Zeiger- und Stellknöpfe

### Aluminium Drehknöpfe

Dank seiner Materialeigenschaften ist Aluminium ein sehr gut geeigneter Werkstoff für Knöpfe, die als Bedienelement einen edlen und hochwertigen Eindruck erzeugen sollen. Wir bieten mit unserem Sortiment Aluminiumknöpfe mit verschiedenen Befestigungs- und Bedienarten sowie in unterschiedlichen Design-Ausführungen. Dank des passenden Zubehörs lassen sich unsere Aluminium Drehknöpfe optimal auf die jeweilige Anwendung anpassen.

### Aluminium Knebelknöpfe

Durch ihre Form bieten Aluminium Knebelknöpfe mit Gewinde- und Spannzangenbefestigung eine besondere Haptik und eine sehr gute Bedienbarkeit. Sowohl in Silber mit einer Schutzlackierung oder schwarz pulverbeschichtet sind die Knebelknöpfe in verschiedensten Maßen im klassischen Design erhältlich.

## Aluminium Turning, Wing, Pointer and Adjusting Knobs

### Aluminium turning knobs

Thanks to its material properties, aluminium is an ideal material for control knobs intended to create a refined and high-quality impression. Our range of aluminium knobs with different fixing and control types is available in a range of designs. With the corresponding accessories, our aluminium turning knobs can be optimally adapted to the respective application.






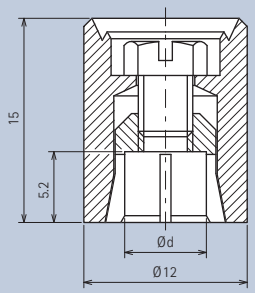

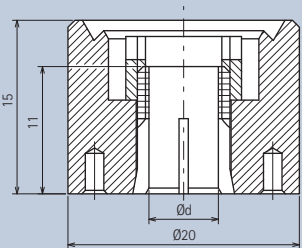

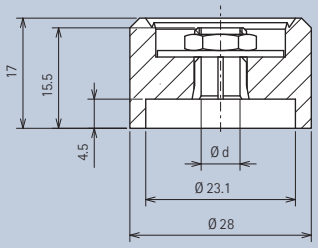

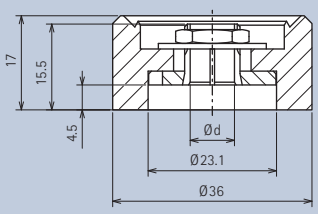
### Aluminium wing knobs

Due to their shape, aluminium wing knobs with setscrew and collet fixing provide a particular feel and very good operability. Both in silver with a protective finish and black powder coated, the wing knobs are available in a range of sizes in the classical design.



# Aluminium Drehknopfsystem mit Spannzangenbefestigung





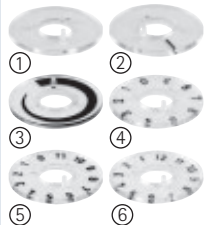

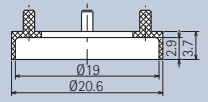
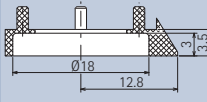
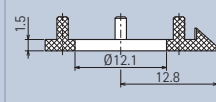
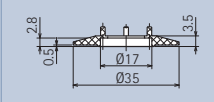
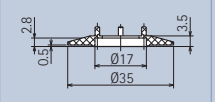
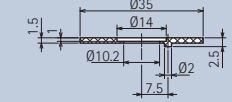
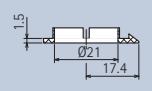
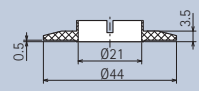
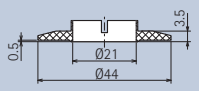
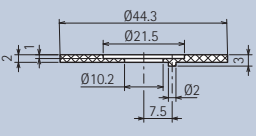
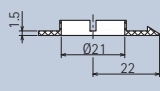
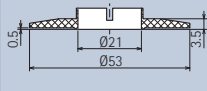
# Aluminium Turning Knob System with Collet Fixing

| Knöpfe · Knobs  |  | Abdeckkappen · Caps  |  |   |   |
|---|--|--|--|---|---|
| <b>Farbschlüssel · Color Key</b><br>■ rot · red      ■ blau · blue<br>■ schwarz · black      ■ gelb · yellow<br>■ grau · grey      ■ grün · green |  | <br>Ø<br>d alufarben eloxiert<br>alu-decorated anodized | <br>schwarz eloxiert<br>black anodized | <br>ohne Markierung<br>without marking | <br>mit Markierung<br>with marking |
|    | <br>15<br>5.2<br>Ød<br>Ø12                    | 4<br>6<br><b>531.4</b><br>531.6  | <b>531.43</b><br>531.603   | ■ 499.642<br>■ 499.643<br>■ 499.644<br>■ 499.646<br>■ 499.647<br>■ 499.648  | ■ 531.142<br>■ 531.143<br>■ 531.144<br>MOQ 2.000  |
|    | <br>15<br>11<br>Ød<br>Ø20                   | 6<br><b>532.6</b>  | <b>532.603</b>   | ■ 332.662<br>■ 332.663<br>■ 332.664<br>■ 332.666<br>■ 332.667<br>■ 332.668  | ■ 532.662<br>■ 532.663<br>■ 532.664<br>MOQ 2.000  |
|    | <br>17<br>15.5<br>4.5<br>Ød<br>Ø23.1<br>Ø28 | 6<br><b>533.6</b>  | <b>533.603</b>   | ■ 333.662<br>■ 333.663<br>■ 333.664<br>■ 333.666<br>■ 333.667<br>■ 333.668<br>MOQ 5.000                                   | ■ 533.662<br>■ 533.663<br>■ 533.664<br>MOQ 2.000  |
|    | <br>17<br>15.5<br>4.5<br>Ød<br>Ø23.1<br>Ø36 | 6<br><b>534.6</b>  |  | ■ 334.662<br>■ 334.663<br>■ 334.664   | ■ 534.662<br>■ 534.663<br>■ 534.664   |



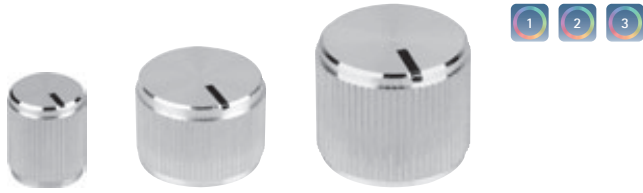
# Zubehör

# Accessories

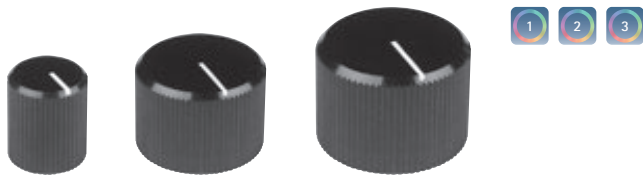
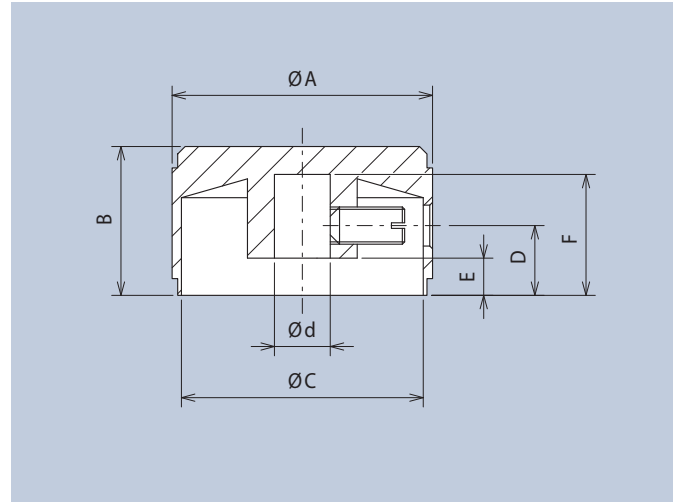
| Mutterabdeckungen · Nut Coverings  |  | Zeiger · Pointers   | Zeigerscheiben · Pointer Dials  |   | Grundplatten · Base Plates   |
|--|--|---|---|---|--|
| <br>B<br>ohne Zeiger<br>without Pointer | <br>B<br>mit Zeiger<br>with Pointer | <br>B<br>C | <br>B<br>C | <br>① ②<br>③ ④<br>⑤ ⑥ | <br>A   |
| <br>B                                 | <br>B                             | <br>B    | <br>B    | <br>B               | <br>A |
| ■ 332.120  | ■ 332.100<br>■ 332.101<br>■ 332.102  | ■ 4332.100  | ■ 332.250   | ①...332.200<br>②...332.201<br>③...332.202<br>④...332.203<br>⑤...332.204<br>⑥...332.205                  | ■ 332.300  |
|  |  | <br>C    | <br>C    | <br>C              | <br>A |
|  | ■ 333.100<br>■ 333.101<br>■ 333.102  |   | ■ 333.250   | ①...333.200<br>②...333.201<br>③...333.202<br>④...333.203<br>⑤...333.204<br>⑥...333.205                  | ■ 333.300  |
|  |  | <br>C    |   | <br>C               |  |
|  | ■ 334.100<br>■ 334.101<br>■ 334.102  |   |   | ①...334.200<br>②...334.201  |  |

# Aluminium Drehknöpfe mit Gewindestiftbefestigung

# Aluminium Turning Knobs with Setscrew Fixing



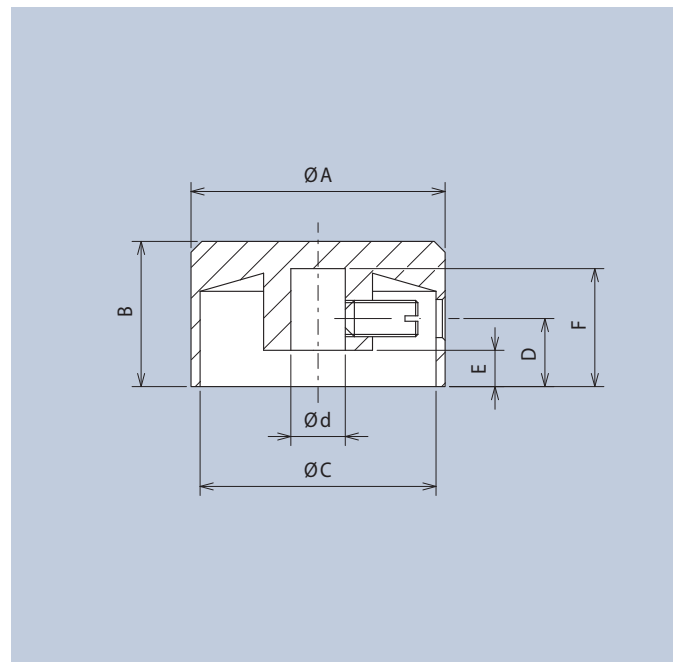
| schutzlackiert · protective finish |    |      |    |     |     |    |                  |
|------------------------------------|----|------|----|-----|-----|----|------------------|
| ØA                                 | B  | ØC   | Ød | D   | E   | F  | Art.-Nr.         |
| 12                                 | 14 | 11   | 4  | 6   | 2,5 | 11 | 5551.4612        |
| 12                                 | 14 | 11   | 6  | 6   | 2,5 | 11 | <b>5551.6612</b> |
| 17                                 | 14 | 15   | 6  | 8,5 | 6   | 13 | <b>5552.6612</b> |
| 20                                 | 14 | 18   | 6  | 7,5 | 3,5 | 12 | <b>5553.6612</b> |
| 24                                 | 15 | 21,5 | 6  | 7,5 | 4   | 12 | <b>5554.6612</b> |
| 28                                 | 16 | 26   | 6  | 7,5 | 4   | 13 | <b>5555.6612</b> |
| 35                                 | 18 | 31   | 6  | 8   | 3,5 | 15 | <b>5556.6612</b> |



| eloxiert · anodized |    |      |    |     |     |      |                                       |                                   |  |
|---------------------|----|------|----|-----|-----|------|---------------------------------------|-----------------------------------|--|
| ØA                  | B  | ØC   | Ød | D   | E   | F    | ohne Strichanzei<br>without Indicator | mit Strichanzei<br>with Indicator |  |
| 8                   | 10 | -    | 4  | 3   | -   | 8    | 504.41                                | 504.411                           |  |
| 12                  | 12 | 11   | 4  | 5   | 2,5 | 10,5 | 505.41                                | 505.411                           |  |
| 12                  | 12 | 11   | 6  | 5   | 2,5 | 10,5 | 505.61                                | 505.611                           |  |
| 17                  | 13 | 15   | 6  | 7,5 | 5   | 12   | 506.61                                | 506.611                           |  |
| 20                  | 14 | 18   | 4  | 7,5 | 3,5 | 11,5 | 507.41                                | 507.411                           |  |
| 20                  | 14 | 18   | 6  | 7,5 | 3,5 | 11,5 | 507.61                                | 507.611                           |  |
| 24                  | 15 | 21,5 | 6  | 7,5 | 4   | 12   | 508.61                                | 508.611                           |  |
| 28                  | 16 | 26   | 6  | 7,5 | 4   | 13   | 509.61                                | 509.611                           |  |
| 35                  | 18 | 31   | 6  | 8   | 3,5 | 15   | 539.61                                | 539.611                           |  |

| schwarz eloxiert · black anodized |    |      |    |     |     |      |                                       |                                   |  |
|-----------------------------------|----|------|----|-----|-----|------|---------------------------------------|-----------------------------------|--|
| ØA                                | B  | ØC   | Ød | D   | E   | F    | ohne Strichanzei<br>without Indicator | mit Strichanzei<br>with Indicator |  |
| 8                                 | 10 | -    | 4  | 3   | -   | 8    | 504.413                               | 504.4131                          |  |
| 12                                | 12 | 11   | 4  | 5   | 2,5 | 10,5 | 505.413                               | 505.4131                          |  |
| 12                                | 12 | 11   | 6  | 5   | 2,5 | 10,5 | 505.613                               | 505.6131                          |  |
| 17                                | 13 | 15   | 6  | 7,5 | 5   | 12   | 506.613                               | 506.6131                          |  |
| 20                                | 14 | 18   | 4  | 7,5 | 3,5 | 11,5 | 507.413                               | 507.4131                          |  |
| 20                                | 14 | 18   | 6  | 7,5 | 3,5 | 11,5 | 507.613                               | 507.6131                          |  |
| 24                                | 15 | 21,5 | 6  | 7,5 | 4   | 12   | 508.613                               | 508.6131                          |  |
| 28                                | 16 | 26   | 6  | 7,5 | 4   | 13   | 509.613                               | 509.6131                          |  |
| 35                                | 18 | 31   | 6  | 8   | 3,5 | 15   | 539.613                               | 539.6131                          |  |

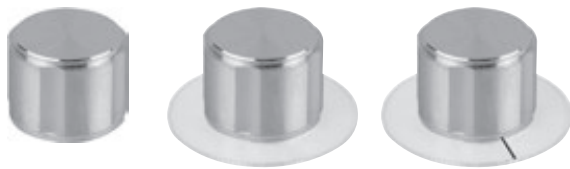
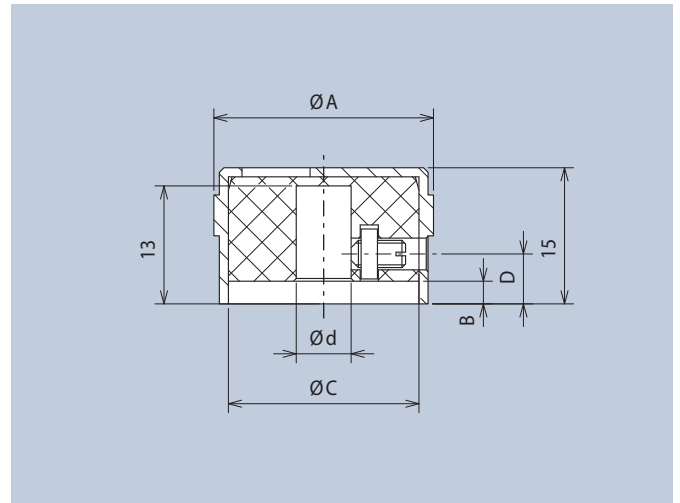


# Aluminium Drehknöpfe mit Gewindestiftbefestigung

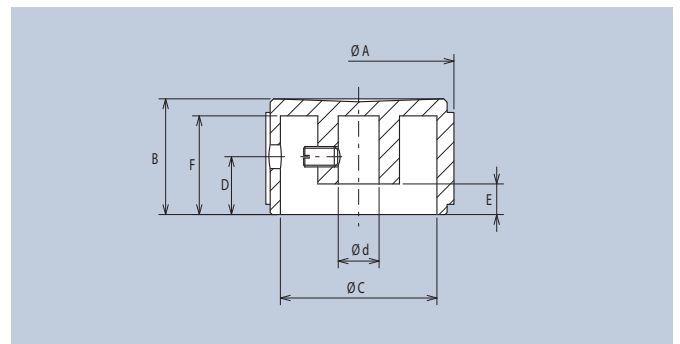
# Aluminium Turning Knobs with Setscrew Fixing



| ØA | B   | ØC | D   | Ød | Art.-Nr.  |
|----|-----|----|-----|----|-----------|
| 15 | -   | -  | 4   | 4  | 5615.4614 |
| 15 | -   | -  | 4   | 6  | 5615.6614 |
| 20 | 2,5 | 17 | 5,5 | 6  | 5616.6614 |
| 24 | 2,5 | 21 | 5,5 | 6  | 5617.6614 |



| schutzlackiert, ohne Scheibe · protective finish, without dial |    |    |    |     |     |      |    |           |
|--|----|----|----|-----|-----|------|----|-----------|
| ØA   | B  | ØC | Ød | D   | E   | F    | ØG | Art.-Nr.  |
| 20   | 15 | 16 | 6  | 7,5 | 3,5 | 12,5 | -  | 5572.6000 |
| 28   | 17 | 23 | 6  | 8,5 | 4,5 | 14,5 | -  | 5574.6000 |

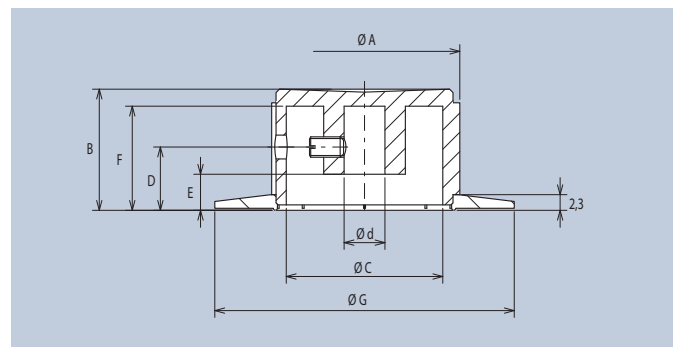


schutzlackiert, mit Scheibe, ohne Markierung  
protective finish, with dial, without mark

| ØA | B    | ØC | Ød | D   | E   | F    | ØG | Art.-Nr.  |
|----|------|----|----|-----|-----|------|----|-----------|
| 20 | 15,8 | 16 | 6  | 8,3 | 4,3 | 13,3 | 32 | 5572.6100 |
| 28 | 17,8 | 23 | 6  | 9,3 | 5,3 | 15,3 | 44 | 5574.6100 |

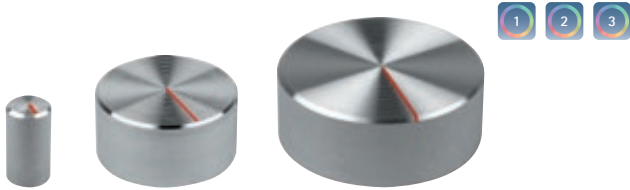
schutzlackiert, mit Scheibe, mit Markierung  
protective finish, with dial, with mark

| ØA | B    | ØC | Ød | D   | E   | F    | ØG | Art.-Nr.  |
|----|------|----|----|-----|-----|------|----|-----------|
| 20 | 15,8 | 16 | 6  | 8,3 | 4,3 | 13,3 | 32 | 5572.6110 |
| 28 | 17,8 | 23 | 6  | 9,3 | 5,3 | 15,3 | 44 | 5574.6110 |



## Aluminium Drehknöpfe mit Gewindestiftbefestigung

## Aluminium Turning Knobs with Setscrew Fixing

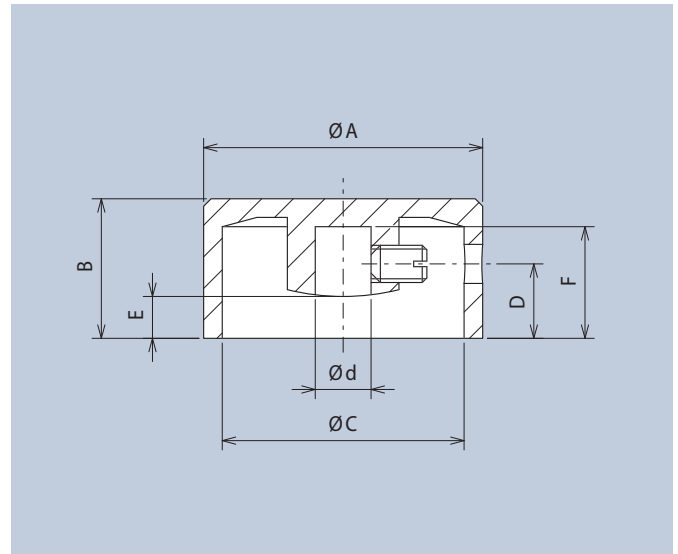


schuttlackiert, ohne Strichanzeige · protective finish, without indicator mark

| ØA | B  | ØC | Ød | D   | E   | F    | Art.-Nr. |
|----|----|----|----|-----|-----|------|----------|
| 8  | 15 | -  | 4  | 6   | -   | 13,5 | 510.41   |
| 12 | 15 | 11 | 6  | 6   | 2,5 | 13,5 | 511.61   |
| 20 | 15 | 18 | 6  | 7,5 | 3,5 | 12   | 512.61   |
| 30 | 15 | 26 | 6  | 8   | 4,5 | 12   | 513.61   |
| 40 | 15 | 36 | 6  | 7,5 | 3   | 12   | 514.61   |
| 50 | 15 | 46 | 6  | 7,5 | 3   | 12   | 515.61   |

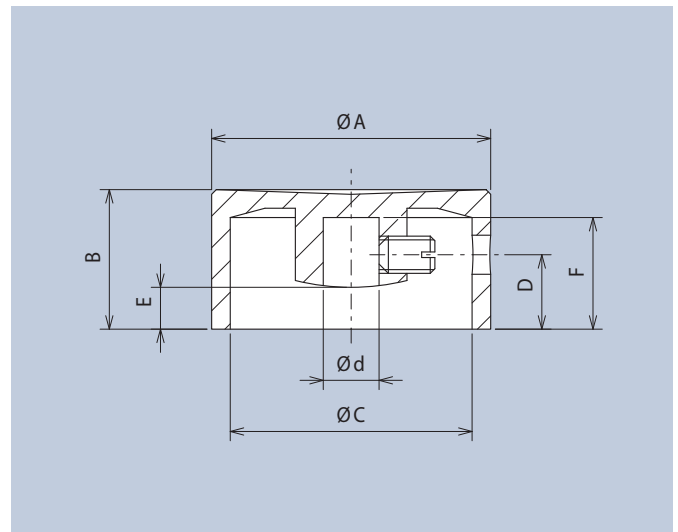
schuttlackiert, mit Strichanzeige (rot) · protective finish, with indicator mark (red)

| ØA | B  | ØC | Ød | D   | E   | F    | Art.-Nr.       |
|----|----|----|----|-----|-----|------|----------------|
| 8  | 15 | -  | 4  | 6   | -   | 13,5 | <b>520.411</b> |
| 12 | 15 | 11 | 6  | 6   | 2,5 | 13,5 | <b>521.611</b> |
| 20 | 15 | 18 | 6  | 7,5 | 3,5 | 12   | <b>522.611</b> |
| 30 | 15 | 26 | 6  | 8   | 4,5 | 12   | <b>523.611</b> |
| 40 | 15 | 36 | 6  | 7,5 | 3   | 12   | <b>524.611</b> |
| 50 | 15 | 46 | 6  | 7,5 | 3   | 12   | 525.611        |



schuttlackiert, mit Strichanzeige (schwarz)  
protective finish, with indicator mark (black)

| ØA | B  | ØC | Ød | D   | E   | F    | Art.-Nr.        |
|----|----|----|----|-----|-----|------|-----------------|
| 8  | 15 | -  | 4  | 6   | -   | 13,5 | <b>520.4191</b> |
| 12 | 15 | 11 | 6  | 6   | 2,5 | 13,5 | <b>521.6191</b> |
| 20 | 15 | 18 | 6  | 7,5 | 3,5 | 12   | <b>522.6191</b> |
| 30 | 15 | 26 | 6  | 8   | 4,5 | 12   | <b>523.6191</b> |
| 40 | 15 | 36 | 6  | 7,5 | 3   | 12   | <b>524.6191</b> |
| 50 | 15 | 46 | 6  | 7,5 | 3   | 12   | 525.6191        |



## Aluminium Drehknöpfe mit Gewindestiftbefestigung

## Aluminium Turning Knobs with Setscrew Fixing

### Technische Daten

Knopf: eloxiert mit eingelegter schwarzer Kunststoffkappe

Zeigerscheibe: transparentes Thermoplast mit schwarzer Strichanzeige

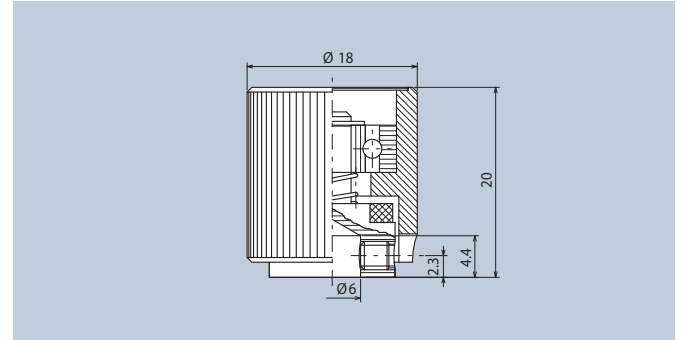
### Technical Data

Knob: anodized with inserted black plastic cap

Indicator dial: transparent Thermoplastic with black indicator mark

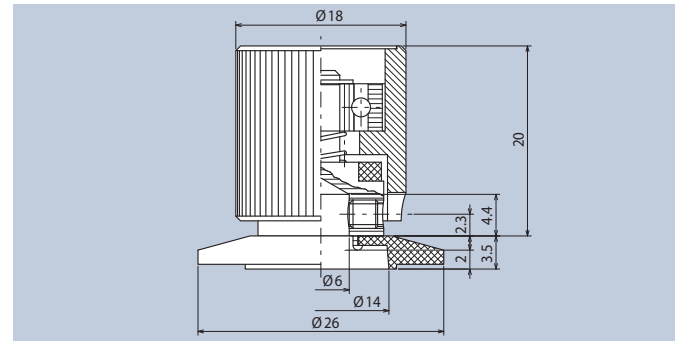
Ein Fixierknopf zur Sicherung von Einstellwerten, der in eingedrücktem Zustand über eine Reibkupplung die Achse des Bauelements betätigt. In nicht gedrücktem Zustand läuft der Knopf ohne Mitnahmemoment frei.

A fixing knob to secure settings, which operates the shaft of the component via a friction clutch when pressed. When not pressed, the knob runs freely without any lock-in torque.



Art.-Nr.

538.62



Art.-Nr.

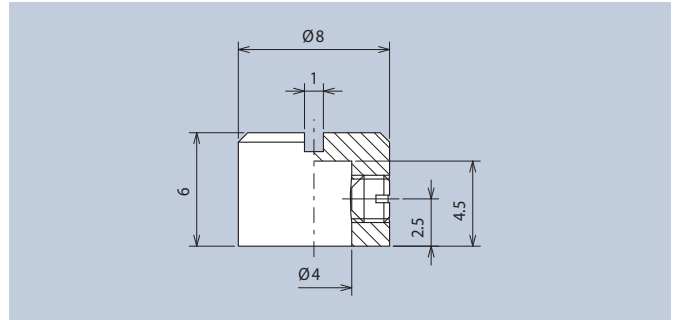
538.621

## Messing Drehknöpfe für Schraubendreherbetätigung



|  |       |
|--|-------|
| Messing hochglanz-verchromt · Brass high-gloss chrome-plated |       |
| Art.-Nr.   | 517.4 |

## Brass Turning Knobs for Screwdriver Actuating

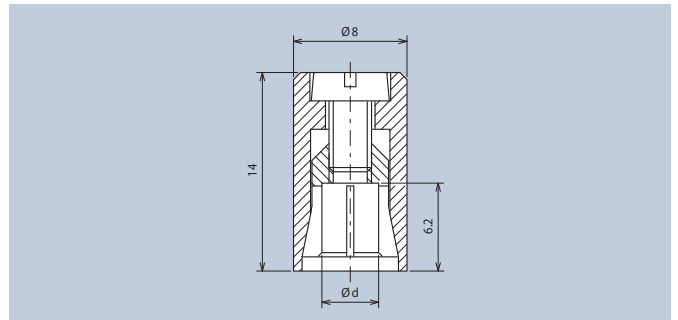


## Messing Drehknöpfe mit Spannzangenbefestigung



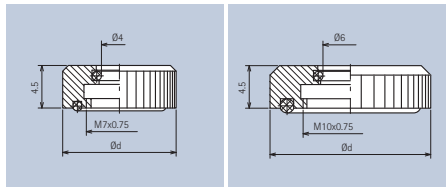
|  |          |
|--|----------|
| Messing hochglanz-verchromt · Brass high-gloss chrome-plated |          |
| Ød   | Art.-Nr. |
| 3  | 487.3    |
| 4  | 487.4    |

## Turning Knobs with Collet Fixing



## Rändelmuttern für wasserdichte Frontplattenmontage

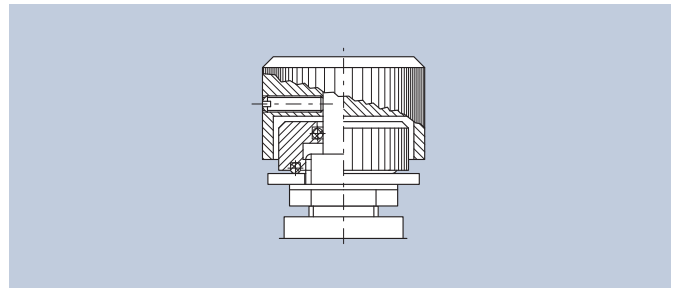
z. B. für Schalter und Potentiometer



|   |           |
|---|-----------|
| Aluminium eloxiert · Aluminium anodized |           |
| Ød                                      | Art.-Nr.  |
| 12                                      | 6600.0402 |
| 17                                      | 6601.0403 |

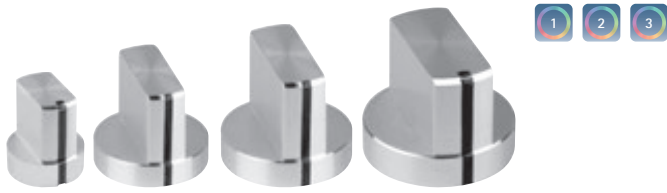
## Sealed Knurled Face Nuts for Waterproof Front-Panel Mounting

e.g. for switches and potentiometers



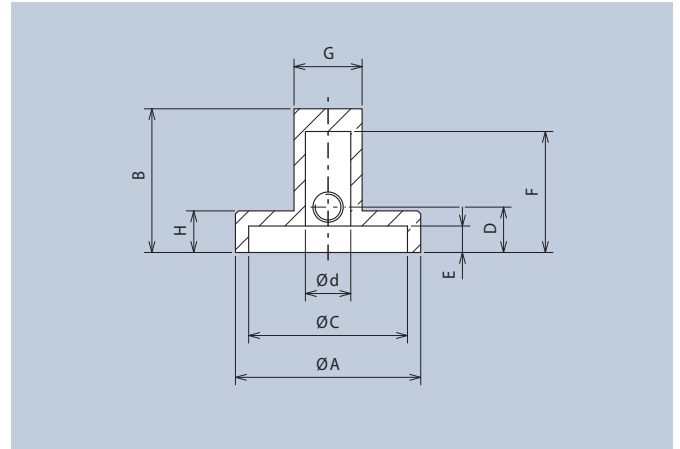
## Aluminium Knebelknöpfe mit Gewindestiftbefestigung

## Aluminium Wing Knobs with Setscrew Fixing



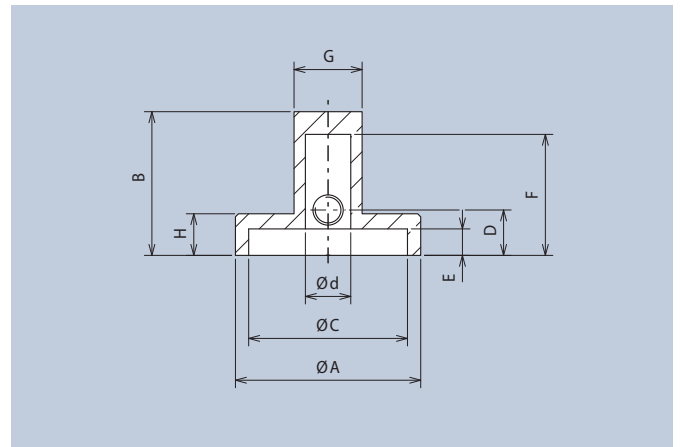
schutzlackiert · protective finish

| ØA   | B    | ØC   | D | E   | F    | G  | H   | Ød | Art.-Nr.         |
|------|------|------|---|-----|------|----|-----|----|------------------|
| 12,2 | 14   | 10,2 | 6 | 3,2 | 12,7 | 6  | 4   | 3  | 5580.3611        |
| 12,2 | 14   | 10,2 | 6 | 3,2 | 12,7 | 6  | 4   | 4  | 5580.4611        |
| 17,4 | 15   | 15   | 6 | 3   | 13   | 6  | 4   | 4  | 5581.4611        |
| 20,5 | 17,3 | 18   | 8 | 3,5 | 15,5 | 9  | 5   | 4  | 5582.4611        |
| 20,5 | 17,3 | 18   | 8 | 3,5 | 15,5 | 9  | 5   | 6  | <b>5582.6611</b> |
| 24,5 | 19   | 21   | 8 | 3,5 | 16   | 10 | 5,5 | 6  | <b>5583.6611</b> |



schwarz pulverbeschichtet · black powder coated

| ØA   | B    | ØC   | D | E   | F    | G  | H   | Ød | Art.-Nr.         |
|------|------|------|---|-----|------|----|-----|----|------------------|
| 12,2 | 14   | 10,2 | 6 | 3,2 | 12,7 | 6  | 4   | 3  | 5580.3631        |
| 12,2 | 14   | 10,2 | 6 | 3,2 | 12,7 | 6  | 4   | 4  | <b>5580.4631</b> |
| 17,4 | 15   | 15   | 6 | 3   | 13   | 6  | 4   | 4  | <b>5581.4631</b> |
| 20,5 | 17,3 | 18   | 8 | 3,5 | 15,5 | 9  | 5   | 4  | 5582.4631        |
| 20,5 | 17,3 | 18   | 8 | 3,5 | 15,5 | 9  | 5   | 6  | <b>5582.6631</b> |
| 24,5 | 19   | 21   | 8 | 3,5 | 16   | 10 | 5,5 | 6  | <b>5583.6631</b> |



## Aluminium Zeigerknöpfe mit Spannzangenbefestigung

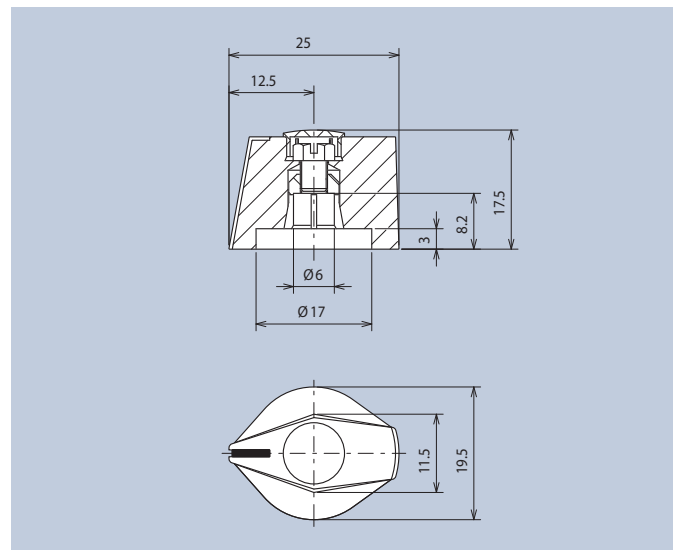
## Aluminium Pointer Knobs with Collet Fixing



| Ausführung · Version                                | Art.-Nr. |
|---|----------|
| aluminiumfarben lackiert<br>aluminium gloss painted | 499.60   |
| matt schwarz lackiert<br>mat black painted          | 499.603  |

Kundenspezifisch lieferbar mit andersfarbiger Kappe.  
Alternative Kappen, siehe Seite 21.

Custom-specific available with different cap.  
For alternative caps, see page 21.




## Ring-Beleuchtung als Standardbauteil


Ring LED light as standard component

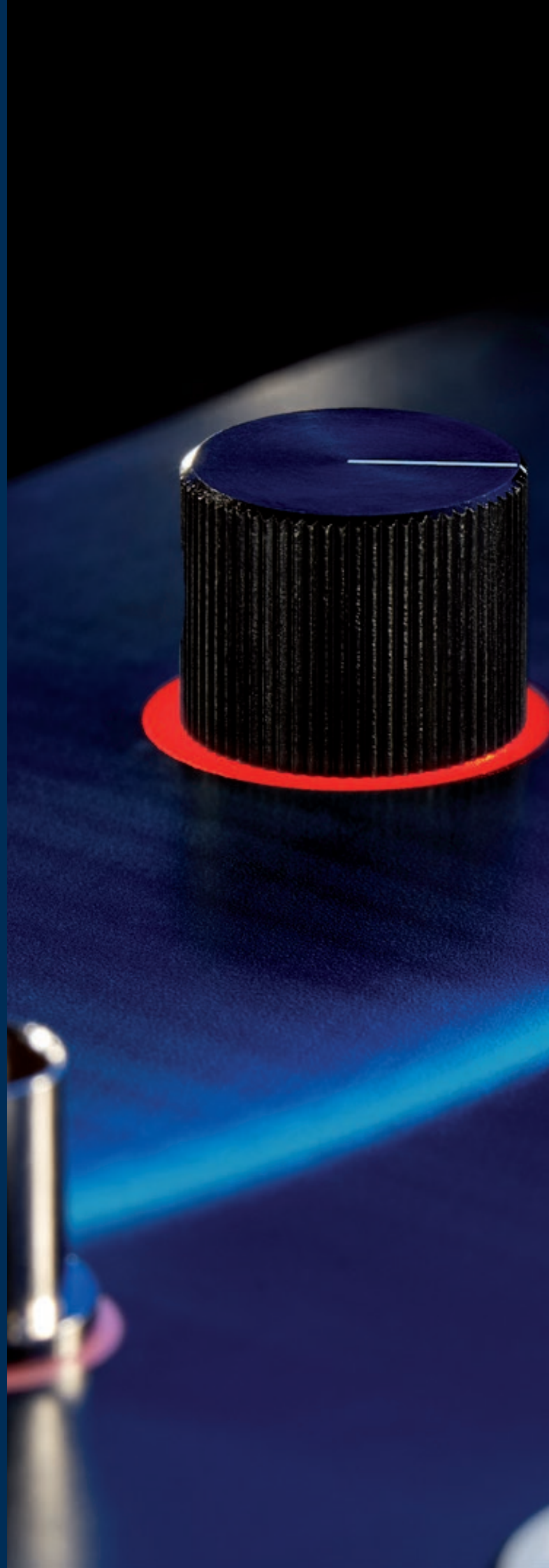


Die Ring-Beleuchtung von MENTOR ist als Standardbauteil oder kundenspezifische Lösung lieferbar und ermöglicht es, Licht auf einfache und kostengünstige Weise in Ihre Produkte zu integrieren.

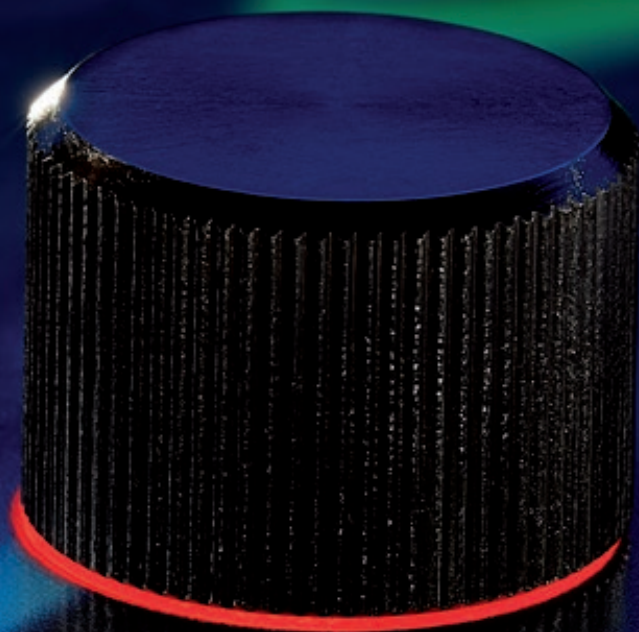
Diejenigen Knöpfe, bei denen sie zum Einsatz kommen kann, sind in diesem Katalog mit dem Symbol  gekennzeichnet.

*Ring LED lights from MENTOR are available as standard components or as customised solutions. They enable you to integrate light in your products simply and cost-effectively.*

*In this catalogue, the knobs with which ring LED lights can be used are identified with the  symbol.*







- Homogenes Lichtbild. Geeignet für Tag- und Nachtanwendungen.
- Platzsparend. Problemlos zu montieren.
- Kostengünstige Standardprodukte. Lieferbar ab Lager.
- Individuelle Anpassungen einfach möglich.

Mehr Infos: [www.mentor.de.com/ringbeleuchtung](http://www.mentor.de.com/ringbeleuchtung)

- *Homogeneous light pattern. Ideal for daytime and night-time applications.*
- *Space-saving. Easy to fit.*
- *Good value standard products. Available off the shelf.*
- *Individual adaptations easily possible.*

*More information: [www.mentor.de.com/ringledlight](http://www.mentor.de.com/ringledlight)*

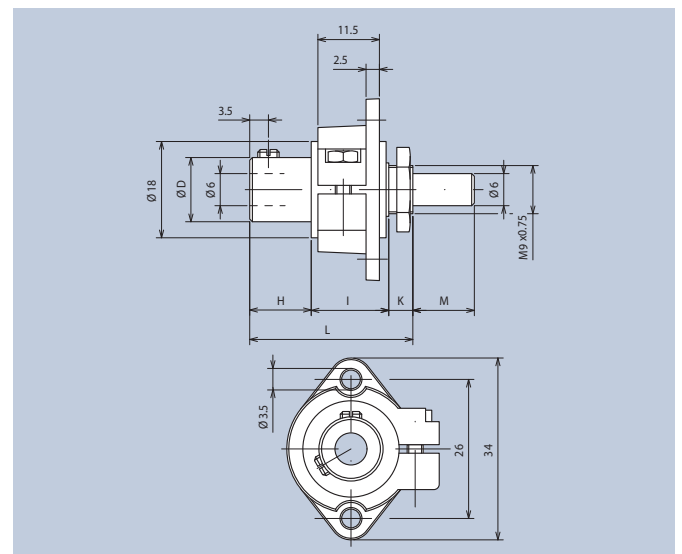
Im Bereich Zubehör umfasst unser Sortiment Präzisions-Einstelltriebe, mechanisches Zubehör und Kupplungen. Eine Knopf Anwendung lässt sich so mit den entsprechenden Einzelkomponenten komplettieren. Der gesamte Produktbereich Zubehör ist lieferbar ab Lager mit kurzen Lieferzeiten und geringen Mindestbestellmengen.

Our accessories range includes precision setting drives, mechanical accessories and couplings. A knob application can be finished off with the corresponding individual components. Our entire range of accessory products is available off the shelf with short delivery times and low minimum order quantities.



## Präzisions-Einstelltrieb

## Precision Setting Drive



| ØD | H    | I    | K   | L  | M   | Übersetzung Ratio | Drehmoment Torque | Art.-Nr.     |
|----|------|------|-----|----|-----|-------------------|-------------------|--------------|
| 12 | 11,5 | 15   | 7,5 | 34 | 8,5 | 6:1               | 20 Ncm ± 10%      | <b>101.2</b> |
| 12 | 12   | 17,5 | 4,5 | 34 | 12  | 10:1              | 20 Ncm ± 10%      | <b>101.5</b> |

## Mechanisches Zubehör

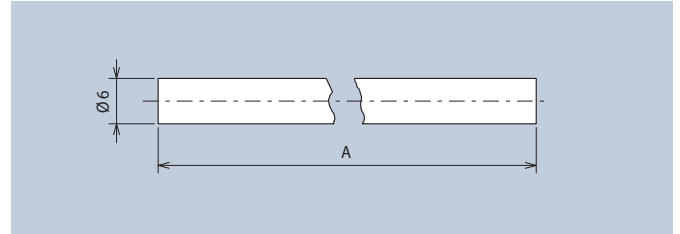
## Mechanical Accessories

Verlängerungsachsen  
Hart-PVC schwarz



| A   | Art.-Nr. |
|-----|----------|
| 60  | 724.11   |
| 80  | 724.21   |
| 100 | 724.31   |
| 120 | 724.41   |

Extension Shafts  
Rigid PVC black

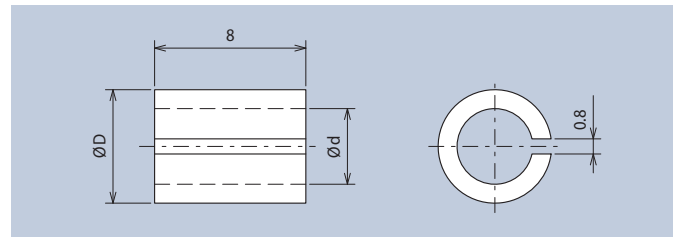


Reduzierrohr  
Messing verzinkt



| Ød | ØD | Art.-Nr.  |
|----|----|-----------|
| 4  | 6  | 640.      |
| 3  | 4  | 6640.1431 |

Reducing Sleeve  
Brass zincd

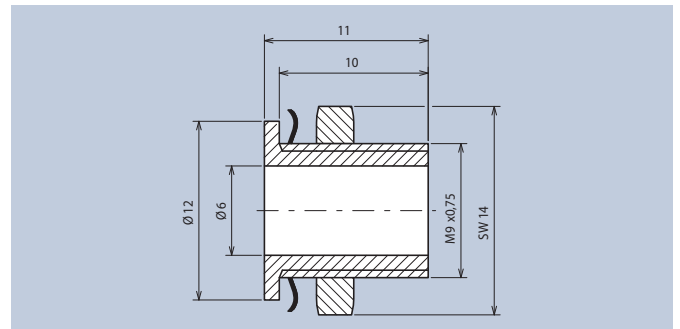


Achsdurchführung  
Messing vernickelt



|          |      |
|----------|------|
| Art.-Nr. | 729. |
|----------|------|

Shaft Lead-Through  
Brass nickel-plated



# Kupplungen

# Couplings

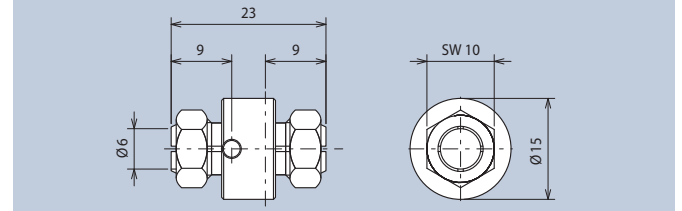
### Gelenkkupplung

Achskupplung mit Spannzangenbefestigung. Max. Drehmoment 120 Ncm. Max. 15° Winkelabweichung. Max. Achsversatz 1 mm. Werkstoff Messing vernickelt.



### Jointed Coupling

Shaft coupling with retaining chucks. Max. transmission torque 120 Ncm. Max. 15° angular deviation. Max. shaft offset 1 mm. Material brass nickel-plated.



|          |        |
|----------|--------|
| Art.-Nr. | 648.66 |
|----------|--------|

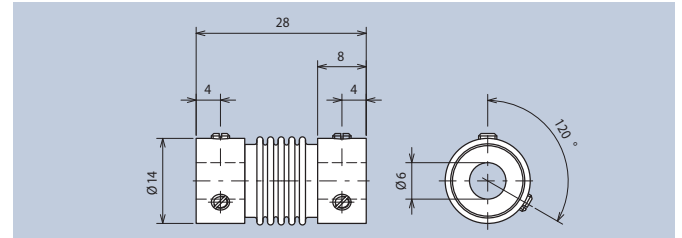
### Gelenkkupplung

Max. Drehmoment 120 Ncm. Max. 15° Winkelabweichung. Lebensdauer 10<sup>6</sup> Lastwechsel bei 3° Winkelabweichung. Werkstoff Kupplungskörper Edelstahl. Werkstoff Befestigungsbuchsen Messing.



### Jointed Coupling

Max. transmission torque 120 Ncm. Max. 15° angular deviation. Service life 10<sup>6</sup> load alternations under 3° of angular deviation. Material coupling case steel precious. Material connecting sleeves brass.



|          |       |
|----------|-------|
| Art.-Nr. | 717.6 |
|----------|-------|

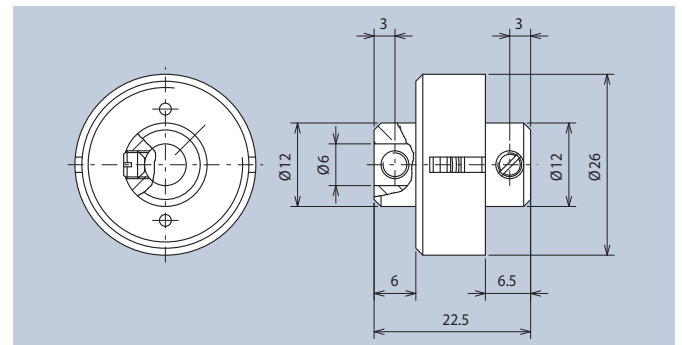
### Rutschkupplung

Diese Spezialkupplung ist auf beliebige Drehmomente bis max. 30 Ncm einstellbar. Werkstoff: Aluminium eloxiert.



### Friction Clutch

This special type of clutch can be adjusted to any desired torque with a maximum of 30 Ncm. Material: aluminium anodized.



|          |      |
|----------|------|
| Art.-Nr. | 716. |
|----------|------|

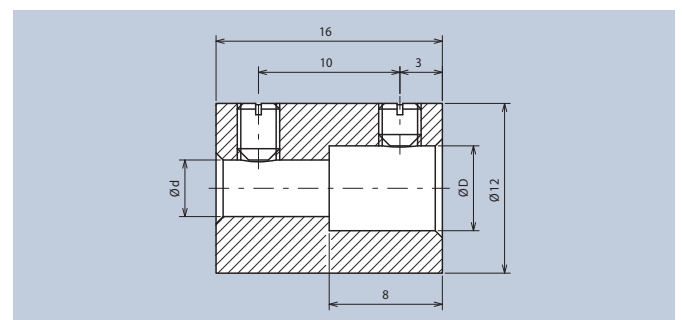
### Achskupplungen

Messing



### Shaft Couplings

Brass



| Ød | ØD | Art.-Nr.     |
|----|----|--------------|
| 4  | 4  | <b>720.4</b> |
| 6  | 6  | <b>720.6</b> |
| 4  | 6  | 720.64       |

## Verzeichnis der Artikelnummern

## Index of Article Numbers

| Art.-Nr.<br>Article-no. | Seite<br>Page            | Art.-Nr.<br>Article-no.          | Seite<br>Page | Art.-Nr.<br>Article-no. | Seite<br>Page | Art.-Nr.<br>Article-no. | Seite<br>Page | Art.-Nr.<br>Article-no. | Seite<br>Page | Art.-Nr.<br>Article-no. | Seite<br>Page |
|-------------------------|--------------------------|----------------------------------|---------------|-------------------------|---------------|-------------------------|---------------|-------------------------|---------------|-------------------------|---------------|
| 101.2                   | 34                       | 332.666 ..7,10,12,14,17,20,21,24 | 473.91        | ..22                    | 524.611       | ..28                    | 4134.603      | ..14                    | 4331.6001     | ..10                    |               |
| 101.5                   | 34                       | 332.667 ..7,10,12,14,17,20,21,24 | 474.61        | ..22                    | 524.6191      | ..28                    | 4307.0021     | ..16                    | 4331.6030     | ..7                     |               |
| 320.621                 | 22                       | 332.668 ..7,10,12,14,17,20,21,24 | 474.81        | ..22                    | 525.611       | ..28                    | 4307.0031     | ..16                    | 4331.6031     | ..7                     |               |
| 321.611                 | 22                       | 332.673                          | 474.91        | ..22                    | 525.6191      | ..28                    | 4307.0041     | ..16                    | 4331.6032     | ..7                     |               |
| 322.611                 | 22                       | 333.6                            | 475.61        | ..22                    | 531.4         | ..24                    | 4307.0121     | ..16                    | 4332.100      | ..11,13,15,25           |               |
| 330.3                   | 12                       | 333.61                           | 476.61        | ..22                    | 531.6         | ..24                    | 4307.0131     | ..16                    | 4332.4000     | ..10                    |               |
| 330.4                   | 12                       | 333.100                          | 477.61        | ..22                    | 531.43        | ..24                    | 4307.0141     | ..16                    | 4332.4001     | ..10                    |               |
| 330.31                  | 12                       | 333.101                          | 487.3         | ..30                    | 531.142       | ..24                    | 4307.1131     | ..16                    | 4332.6000     | ..10                    |               |
| 330.41                  | 12                       | 333.102                          | 487.4         | ..30                    | 531.143       | ..24                    | 4307.1133     | ..17                    | 4332.6001     | ..10                    |               |
| 330.100                 | 13                       | 333.200                          | 499.60        | ..31                    | 531.144       | ..24                    | 4307.3131     | ..16                    | 4332.6030     | ..7                     |               |
| 330.101                 | 13                       | 333.201                          | 499.603       | ..31                    | 531.603       | ..24                    | 4307.3133     | ..17                    | 4332.6031     | ..7                     |               |
| 330.102                 | 13                       | 333.202                          | 499.642       | ..7,10,12,17,20,21,24   | 532.6         | ..24                    | 4307.4131     | ..16                    | 4333.6000     | ..10                    |               |
| 330.120                 | 13                       | 333.203                          | 499.643       | ..7,10,12,17,20,21,24   | 532.603       | ..24                    | 4307.4133     | ..17                    | 4333.6001     | ..10                    |               |
| 330.130                 | 13                       | 333.204                          | 499.644       | ..7,10,12,17,20,21,24   | 532.662       | ..24                    | 4308.1131     | ..16                    | 4334.6000     | ..10                    |               |
| 330.200                 | 13                       | 333.205                          | 499.646       | ..7,10,12,17,20,21,24   | 532.663       | ..24                    | 4308.1133     | ..17                    | 4334.6001     | ..10                    |               |
| 330.201                 | 13                       | 333.250                          | 499.647       | ..7,10,12,17,20,21,24   | 532.664       | ..24                    | 4308.3131     | ..16                    | 4335.6000     | ..10                    |               |
| 330.202                 | 13                       | 333.300                          | 499.648       | ..7,10,12,17,20,21,24   | 533.6         | ..24                    | 4308.3133     | ..17                    | 4335.6001     | ..10                    |               |
| 330.203                 | 13                       | 333.662                          | 499.673       | ..10,12,14,17,21,24     | 533.603       | ..24                    | 4308.4131     | ..16                    | 4458.6317     | ..18                    |               |
| 330.204                 | 13                       | 333.663                          | 504.41        | ..26                    | 533.662       | ..24                    | 4308.4133     | ..17                    | 4458.6321     | ..18                    |               |
| 330.205                 | 13                       | 333.664                          | 504.411       | ..26                    | 533.663       | ..24                    | 4309.0021     | ..16                    | 4458.6328     | ..18                    |               |
| 330.250                 | 13                       | 333.666                          | 504.413       | ..26                    | 533.664       | ..24                    | 4309.0031     | ..16                    | 5551.4612     | ..26                    |               |
| 330.300                 | 13                       | 333.667                          | 504.4131      | ..26                    | 534.6         | ..24                    | 4309.0041     | ..16                    | 5551.6612     | ..26                    |               |
| 331.4                   | 12                       | 333.668                          | 505.41        | ..26                    | 534.662       | ..24                    | 4309.0121     | ..16                    | 5552.6612     | ..26                    |               |
| 331.6                   | 12                       | 333.673                          | 505.61        | ..26                    | 534.663       | ..24                    | 4309.0131     | ..16                    | 5553.6612     | ..26                    |               |
| 331.41                  | 12                       | 334.6                            | 505.411       | ..26                    | 534.664       | ..24                    | 4309.0141     | ..16                    | 5554.6612     | ..26                    |               |
| 331.61                  | 12                       | 334.8                            | 505.413       | ..26                    | 538.62        | ..29                    | 4309.4131     | ..16                    | 5555.6612     | ..26                    |               |
| 331.100                 | ..11,13,15               | 334.61                           | 505.611       | ..26                    | 538.621       | ..29                    | 4309.4133     | ..17                    | 5556.6612     | ..26                    |               |
| 331.101                 | ..11,13,15               | 334.81                           | 505.613       | ..26                    | 539.61        | ..26                    | 4309.6131     | ..16                    | 5572.6000     | ..27                    |               |
| 331.102                 | ..11,13,15               | 334.100                          | 505.4131      | ..26                    | 539.611       | ..26                    | 4309.6133     | ..17                    | 5572.6100     | ..27                    |               |
| 331.120                 | ..11,13,15               | 334.101                          | 505.6131      | ..26                    | 539.613       | ..26                    | 4309.7131     | ..16                    | 5572.6110     | ..27                    |               |
| 331.130                 | ..11,13,15               | 334.102                          | 506.61        | ..26                    | 539.6131      | ..26                    | 4309.7133     | ..17                    | 5574.6000     | ..27                    |               |
| 331.132                 | ..11,13,15               | 334.200                          | 506.611       | ..26                    | 640.          | ..35                    | 4310.4131     | ..16                    | 5574.6100     | ..27                    |               |
| 331.200                 | ..11,13,15               | 334.201                          | 506.613       | ..26                    | 648.66        | ..36                    | 4310.4133     | ..17                    | 5574.6110     | ..27                    |               |
| 331.201                 | ..11,13,15               | 334.662                          | 506.6131      | ..26                    | 716.          | ..36                    | 4310.6131     | ..16                    | 5580.3611     | ..31                    |               |
| 331.202                 | ..11,13,15               | 334.663                          | 507.41        | ..26                    | 717.6         | ..36                    | 4310.6133     | ..17                    | 5580.3631     | ..31                    |               |
| 331.203                 | ..11,13,15               | 334.664                          | 507.61        | ..26                    | 720.4         | ..36                    | 4310.7131     | ..16                    | 5580.4611     | ..31                    |               |
| 331.204                 | ..11,13,15               | 334.673                          | 507.411       | ..26                    | 720.6         | ..36                    | 4310.7133     | ..17                    | 5582.4631     | ..31                    |               |
| 331.205                 | ..11,13,15               | 335.6                            | 507.413       | ..26                    | 720.64        | ..36                    | 4311.0021     | ..16                    | 5581.4611     | ..31                    |               |
| 331.250                 | ..11,13,15               | 335.8                            | 507.611       | ..26                    | 724.11        | ..35                    | 4311.0031     | ..16                    | 5581.4631     | ..31                    |               |
| 331.300                 | ..11,13,15               | 335.9                            | 507.613       | ..26                    | 724.21        | ..35                    | 4311.0041     | ..16                    | 5582.4611     | ..31                    |               |
| 331.662                 | ..14,17                  | 335.61                           | 507.4131      | ..26                    | 724.31        | ..35                    | 4311.0121     | ..16                    | 5582.4631     | ..31                    |               |
| 331.663                 | ..14,17                  | 335.81                           | 507.6131      | ..26                    | 724.41        | ..35                    | 4311.0131     | ..16                    | 5582.6611     | ..31                    |               |
| 331.664                 | ..14,17                  | 335.91                           | 508.61        | ..26                    | 729.          | ..35                    | 4311.0141     | ..16                    | 5582.6631     | ..31                    |               |
| 331.666                 | ..14,17                  | 335.100                          | 508.611       | ..26                    | 4129.062      | ..20                    | 4311.4131     | ..16                    | 5583.6611     | ..31                    |               |
| 331.667                 | ..14,17                  | 335.101                          | 508.613       | ..26                    | 4129.063      | ..20                    | 4311.4133     | ..17                    | 5583.6631     | ..31                    |               |
| 331.668                 | ..14,17                  | 335.102                          | 508.6131      | ..26                    | 4129.064      | ..20                    | 4311.6131     | ..16                    | 5615.4614     | ..27                    |               |
| 332.4                   | 12                       | 335.200                          | 509.61        | ..26                    | 4131.063      | ..14                    | 4311.6133     | ..17                    | 5615.6614     | ..27                    |               |
| 332.6                   | 12                       | 335.201                          | 509.611       | ..26                    | 4131.064      | ..14                    | 4311.7131     | ..16                    | 5616.6614     | ..27                    |               |
| 332.41                  | 12                       | 335.662                          | 509.613       | ..26                    | 4131.073      | ..14                    | 4311.7133     | ..17                    | 5617.6614     | ..27                    |               |
| 332.61                  | 12                       | 335.663                          | 509.6131      | ..26                    | 4131.074      | ..14                    | 4312.0021     | ..16                    | 6600.0402     | ..30                    |               |
| 332.100                 | ..11,13,15,25            | 335.664                          | 510.41        | ..28                    | 4131.603      | ..14                    | 4312.0031     | ..16                    | 6601.0403     | ..30                    |               |
| 332.101                 | ..11,13,15,25            | 335.673                          | 511.61        | ..28                    | 4132.063      | ..14                    | 4312.0041     | ..16                    | 6622.1000     | ..5                     |               |
| 332.102                 | ..11,13,15,25            | 352.41                           | 512.61        | ..28                    | 4132.064      | ..14                    | 4312.0121     | ..16                    | 6622.1001     | ..5                     |               |
| 332.120                 | ..11,13,15,25            | 352.61                           | 513.61        | ..28                    | 4132.073      | ..14                    | 4312.0131     | ..16                    | 6623.1000     | ..6                     |               |
| 332.200                 | ..11,13,15,25            | 353.61                           | 514.61        | ..28                    | 4132.074      | ..14                    | 4312.0141     | ..16                    | 6623.1001     | ..6                     |               |
| 332.201                 | ..11,13,15,25            | 354.61                           | 515.61        | ..28                    | 4132.603      | ..14                    | 4312.6131     | ..16                    | 6623.1010     | ..6                     |               |
| 332.202                 | ..11,13,15,25            | 355.31                           | 517.4         | ..30                    | 4133.063      | ..14                    | 4312.6133     | ..17                    | 6623.1011     | ..6                     |               |
| 332.203                 | ..11,13,15,25            | 355.41                           | 520.411       | ..28                    | 4133.064      | ..14                    | 4312.7131     | ..16                    | 6623.1030     | ..6                     |               |
| 332.204                 | ..11,13,15,25            | 408.41                           | 520.4191      | ..28                    | 4133.073      | ..14                    | 4312.7133     | ..17                    | 6623.1031     | ..6                     |               |
| 332.205                 | ..11,13,15,25            | 408.61                           | 521.611       | ..28                    | 4133.074      | ..14                    | 4331.4000     | ..10                    | 6640.1431     | ..35                    |               |
| 332.250                 | ..11,13,15,25            | 427.411                          | 521.6191      | ..28                    | 4133.603      | ..14                    | 4331.4001     | ..10                    |               |                         |               |
| 332.300                 | ..11,13,15,25            | 427.611                          | 522.611       | ..28                    | 4134.063      | ..14                    | 4331.4030     | ..7                     |               |                         |               |
| 332.662                 | ..7,10,12,14,17,20,21,24 | 428.611                          | 522.6191      | ..28                    | 4134.064      | ..14                    | 4331.4031     | ..7                     |               |                         |               |
| 332.663                 | ..7,10,12,14,17,20,21,24 | 429.611                          | 523.611       | ..28                    | 4134.073      | ..14                    | 4331.4032     | ..7                     |               |                         |               |
| 332.664                 | ..7,10,12,14,17,20,21,24 | 473.81                           | 523.6191      | ..28                    | 4134.074      | ..14                    | 4331.6000     | ..10                    |               |                         |               |



Wir beraten Sie gerne · *We will be happy to assist you:*

Fon: +49 (0) 211 20002-0 · Fax: +49 (0) 211 20002-41 · Mail: [info@mentor.de.com](mailto:info@mentor.de.com)

Produktübersicht unter · *Product overview at:* [www.mentor.de.com/knopf](http://www.mentor.de.com/knopf)

**Australien · Australia**

MENTOR GmbH & Co. · Präzisions-  
Bauteile KG  
Otto-Hahn-Straße 1  
D - 40699 Erkrath  
Tel.: +49 211 20002 0  
Fax: +49 211 20002 41  
Internet: www.mentor.de.com  
E-Mail: info@mentor.de.com

**Belgien · Belgium**

Heynen NV  
Centrum-Zuid 3047  
B - 3530 Houthalen  
Tel.: +32 11 600909  
Fax: +32 11 525777  
Internet: www.heynen.com  
E-Mail: heynen@heynen.com

**Bosnien Herzegowina**

**Bosnia Herzegovina**  
INTERKONT BERGER GmbH  
Fraunhofer Str. 5, 1. OG-Ost  
D - 87700 Memmingen  
Tel.: +49 8331 97990  
Fax: +49 833 979910  
Internet: www.interkont.de  
E-Mail: info@interkont.de

**China · China**

MENTOR Electronics & Technology  
(Shanghai) Ltd.  
139 Lane 3740 Hua Ning Road,  
Xing Zhuang Industry Zone,  
Min Hang District,  
CN - 201108 Shanghai  
Tel.: +86 21 64425170-0  
Fax: +86 21 64891132  
Internet: www.mentor-components.cn  
E-Mail: info@mentor-components.cn

**Dänemark · Denmark**

Skaarup Imcase A/S  
Lejrvej 31  
DK - 3500 Værløse  
Tel.: +45 44 850485  
Internet: www.s-i.dk  
E-Mail: info@s-i.dk

**Finnland · Finland**

Oy Nylund-Group Ab  
Masalantie 375  
FIN - 02430 Masala  
Tel.: +358 10 217 0300  
Fax: +358 10 217 0306  
Internet: www.nylund.fi  
E-Mail: asiakaspalvelu@nylund.fi

**Frankreich · France**

MENTOR GmbH & Co. · Präzisions-  
Bauteile KG  
Bureau de liaison France  
50 Avenue d'Alsace  
F - 68025 Colmar Cedex  
Tel.: +33 3 89 20 63 35  
Fax: +33 3 89 20 43 79  
Internet: www.mentor-composants.fr  
E-Mail: info@mentor-composants.fr

**Großbritannien · United Kingdom**

Multitron Ltd  
1 Queensmere House  
Royal Close, Wimbledon Village  
UK - London SW19 5RS  
Tel.: +44 203 475 2610  
Internet: www.multitron.co.uk  
E-Mail: info@multitron.co.uk

**Israel · Israel**

Trans-Innovation-Group (TIG)  
27 Shaked St.  
HevelModi'in Industrial Park  
7319900 Israel  
Tel.: +972 73 2336600  
Fax: +972 73 2336601  
Internet: www.ti-group.co.il  
E-Mail: info-tig@ti-group.co.il

**Italien · Italy**

Fast Elettronica Italiana S.p.A.  
Via Rovetta 35  
I - 20127 Milano  
Tel.: +39 02 2610141  
Fax: +39 02 2822287  
Internet: www.fastelettronica.com  
E-Mail: sales@fastelettronica.com

**Kroatien · Croatia**

INTERKONT BERGER GmbH  
Fraunhofer Str. 5, 1. OG-Ost  
D - 87700 Memmingen  
Tel.: +49 8331 97990  
Fax: +49 833 979910  
Internet: www.interkont.de  
E-Mail: info@interkont.de

**Mazedonien · Macedonia**

INTERKONT BERGER GmbH  
Fraunhofer Str. 5, 1. OG-Ost  
D - 87700 Memmingen  
Tel.: +49 8331 97990  
Fax: +49 833 979910  
Internet: www.interkont.de  
E-Mail: info@interkont.de

**Montenegro · Montenegro**

INTERKONT BERGER GmbH  
Fraunhofer Str. 5, 1. OG-Ost  
D - 87700 Memmingen  
Tel.: +49 8331 97990  
Fax: +49 833 979910  
Internet: www.interkont.de  
E-Mail: info@interkont.de

**Niederlande · The Netherlands**

Heynen BV  
De Groote Heeze 11  
NL - 6598 AV Heijen  
Tel.: +31 485 550909  
Fax: +31 485 550900  
Internet: www.heynen.com  
E-Mail: heynen@heynen.com

**Norwegen · Norway**

Bredengen AS  
Brobekkvæien 104 G  
Postboks 84-Vollebekk  
N - 0516 Oslo  
Tel.: +47 2100 9100  
Fax: +47 2100 9101  
Internet: www.bredengen.no  
E-Mail: bredengen@bredengen.no

**Österreich · Austria**

SEMIKRON Gleichrichterelemente  
Ges.m.b.H.  
Hirschstettner Strasse 19-21  
Block J/EG-OG1  
A - 1220 Wien  
Tel.: +43 1 58636580  
Fax: +43 1 586365832  
Internet: www.semikron-austria.at  
E-Mail: sales.ska@semikron.at

**Polen · Poland**

MENTOR Poland Sp. z o.o.  
ul. Zachodnia 10 a  
PL - 55-220 Jelcz-Laskowice  
Tel.: +48 71 3016559  
Internet: www.mentor-poland.com  
E-Mail: biuro@mentor-poland.com

**Portugal · Portugal**

Dachs Electronica, S.A.  
Avda. del Progrés 97  
E - 08340 Vilassar de Mar  
Tel.: +34 93 741 85 00  
Internet: www.dachs.es  
E-Mail: info@dachs.es

**Russland · Russia**

PROSOFT Ltd.  
108, Profsoyuznaya Street  
RUS - 117437 Moskau  
Tel.: +7 495 2340636  
Fax: +7 495 2340640  
Internet: www.prosoft.ru  
E-Mail: info@prosoft.ru

**Schweden · Sweden**

Stig Wahlström AB  
Marbackagatan 27  
S - 12343 Farsta  
Tel.: +46 8 6833300  
Fax: +46 8 6058174  
Internet: www.wahlstrom.se  
E-Mail: elektronik@wahlstrom.se

**Schweiz · Switzerland**

Componenta AG  
Braueristrasse 1  
CH - 8200 Schaffhausen  
Tel.: +41 52 558 35 70  
Fax: +41 52 558 35 32  
Internet: www.componenta.ch  
E-Mail: info@componenta.ch

**Serbien · Serbia**

INTERKONT BERGER GmbH  
Fraunhofer Str. 5, 1. OG-Ost  
D - 87700 Memmingen  
Tel.: +49 8331 97990  
Fax: +49 833 979910  
Internet: www.interkont.de  
E-Mail: info@interkont.de

**Slowakei · Slovakia**

Macro Components, s.r.o.  
Dolné Rudiny 1  
010 01 Žilina  
Tel.: +421 41 7634-181  
Fax: +421 41 7634-109  
Internet: www.macro.sk  
E-Mail: macro@macro.sk

**Slowenien · Slovenia**

INTERKONT BERGER GmbH  
Fraunhofer Str. 5, 1. OG-Ost  
D - 87700 Memmingen  
Tel.: +49 8331 97990  
Fax: +49 8331 979910  
Internet: www.interkont.si  
E-Mail: info@interkont.si

**Spanien · Spain**

Dachs Electronica, S.A.  
Avda. del Progrés 97  
E - 08340 Vilassar de Mar  
Tel.: +34 93 741 85 00  
Internet: www.dachs.es  
E-Mail: info@dachs.es

**Tschechien · Czech Republic**

Ryston Macro Weil s.r.o.  
Pod vinici 2045/18  
CZ - 143 00 Praha 4  
Tel.: +420 / 225 272 300  
Fax: +420 / 225 272 310  
Internet: www.mw.ryston.cz/  
E-Mail: info-mw@ryston.cz

**Ungarn · Hungary**

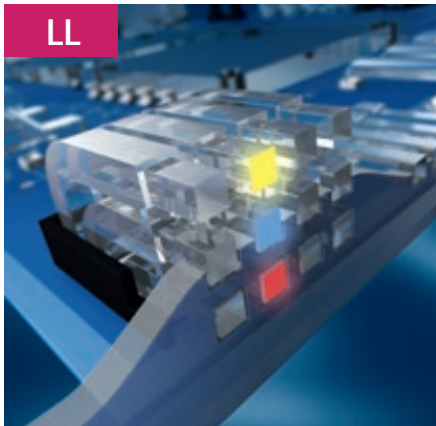
Macro Budapest Kft.  
Tétényi ut. 8.  
H - 1115 Budapest  
Tel.: +36 1 2065701  
Fax: +36 1 2030341  
Internet: www.macrobp.hu  
E-Mail: office@macrobudapest.hu

**U.S.A. · U.S.A.**

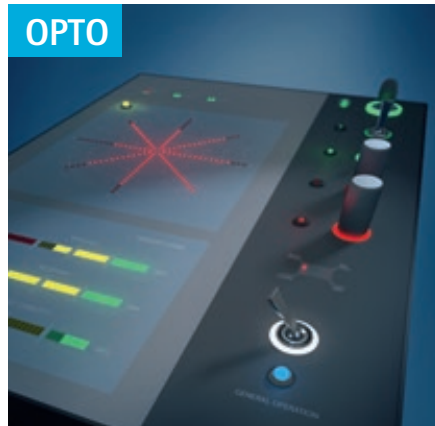
Elma Electronic Inc.  
44350 Grimmer Blvd.  
Fremont, CA 94538 USA  
Tel.: +1 510 656-3400  
Fax: +1 510 656-3783  
Internet: www.elma.com  
E-Mail: sales@elma.com

# Gesamt-Programm

# Standard Component Ranges



**LL**  
Lichtleitersysteme  
Light Guide Systems



**OPTO**  
Optoelektronische Bauelemente  
Opto Electronic Components



**EM**  
Elektromechanische Bauelemente  
Electromechanical Components



**G**  
Griffe · Gehäuse- und Schrankzubehör  
Handles · Enclosure Accessories



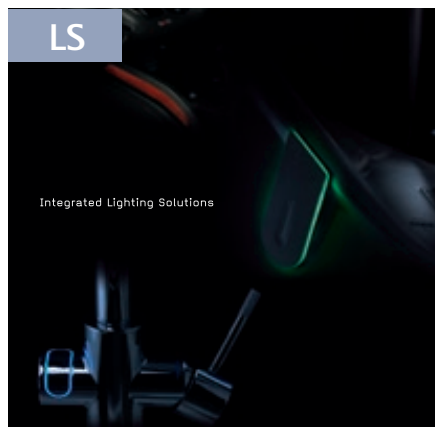
**K**  
Knöpfe · Mech. Bauelemente  
Control Knobs · Mech. Components



**TK**  
Tastaturkomponenten  
Keypad Components



**LV**  
M-Tube · Tunable White  
Customised Light Design



**LS**  
Integrated Lighting Solutions  
Lighting Solutions

Unter [www.mentor.de.com/info](http://www.mentor.de.com/info) können unsere Unterlagen als PDF-Datei heruntergeladen oder in gedruckter Form bestellt.  
Our brochures can be downloaded as PDF files and printed versions ordered at [www.mentor.de.com/info](http://www.mentor.de.com/info).

## COMPONENTS AND SOLUTIONS

Das MENTOR Standardprogramm bietet mehr als 3.000 mechanische, elektronische und optoelektronische Bauelemente sowie vielfältige Möglichkeiten für individuelle Ausführung auf Kundenwunsch. Im Mittelpunkt des Bereichs Solutions stehen innovative Lichtkonzepte und eine Vielzahl kundenspezifischer Systeme und Teilsysteme.

*The MENTOR standard component range provides more than 3,000 mechanical, electronic and optoelectronic components as well as a myriad of possibilities for customised versions. Alongside our standard range, a core competency of MENTOR is the provision of complete solutions in the areas of innovative lighting systems and the management of light emitted from today's powerful LEDs.*



**MENTOR GmbH & Co.**  
Präzisions-Bauteile KG

Otto-Hahn-Str. 1  
D-40699 Erkrath

Fon +49 211 20002-0  
Fax +49 211 20002-41  
info@mentor.de.com

[www.mentor.de.com](http://www.mentor.de.com)



Standorte der Firmengruppe MENTOR  
*Locations of the MENTOR Group*

MENTOR GmbH & Co. Präzisions-Bauteile KG · D-Erkrath  
MENTOR Electronics & Technology Ltd. · CN-Shanghai  
MENTOR Tunisie SCS · TN-Zeramdine  
MENTOR Poland Sp. z o.o. · PL-Jelcz-Laskowice  
Albert Weidmann Licht-Elektronik GmbH · D-Pforzheim  
Bureau de liaison France · F-Colmar Cedex