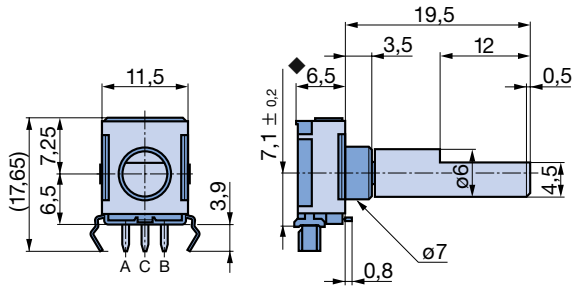


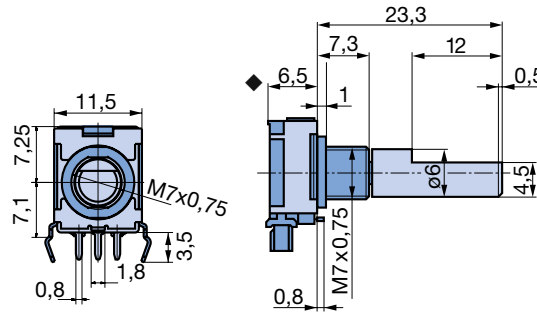
Mechanical Encoders

Incremental Encoder Type E27

Horizontal

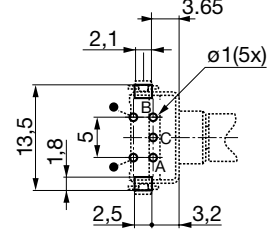


for panel mounting (nut supplied)

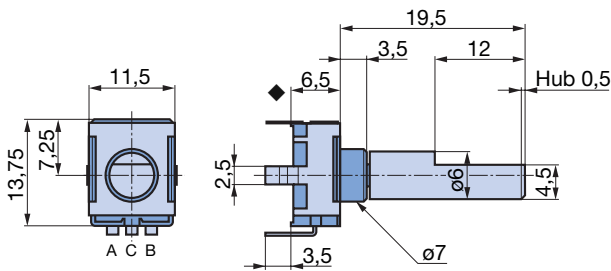


Drilling diagram
View from component side

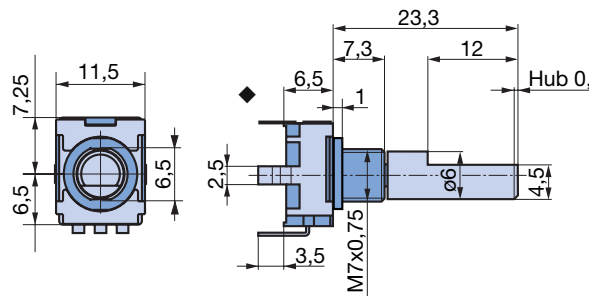
Drilling diagram
View from component side



Vertical



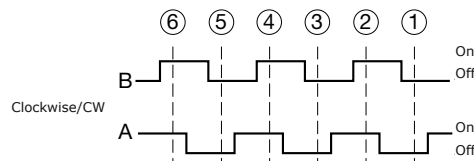
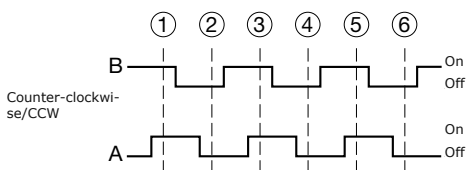
for panel mounting (nut supplied)



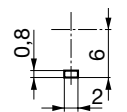
◆ Applicable only on the version with integrated push button function. Height of switch housing is reduced to 5,3 mm from 6,5 mm for the version without integrated push button function.

* Applicable only with integrated push button function.

Puls diagram



Front-panel cut out locating lug



Mechanical Encoders

Incremental Encoder Type E27

Technical information encoder

Mechanical data

Indexing mechanism
22,5° = 16 positions
12° = 30 positions
(without stop)

Switching torque (new)
Standard:
1,5Ncm / 2,5Ncm +/- 50%

Max. admissible tightening torque for nuts
max. 50 Ncm

Vibration resistance
10 – 500 Hz / 50 g

Temperature range
Storage temperature:
– 55 °C to + 90 °C
Operating temperature:
– 40 °C to + 85 °C

Mechanical life
> 100 000 (1,5Ncm)
> 10000 (2,5Ncm)

Material data

Retention Clip
Tinned steel

Shaft
Aluminium

Insulation
Thermoplast UL-94-VO

Fixed contacts
Alloy nickel cromings gold plated

Sliding contacts
Alloy copper, gold plated

Pins
Tinned

Soldering data

Handsoldering
Plastic wafer ≤ 3 s / ≤ 300 °C

Machine soldering
Wave ≤ 4 s / ≤ 260 °C
Reflow ≤ 5 s / ≤ 260 °C (on request)

Electrical data

Output signal
Encoder: increment
Push button: pulse

Encoder
16 position: 8 pulses / 360°
30 position: 15 pulses / 360°

Switching voltage
 ≤ 5 V

Switching current
min. 1 mA
max. 10 mA

Contact bouncing (new)
max. 2 ms at 60 U/min

Difference of phase (new)
min. 6 ms at 60 U/min

Insulation resistance 250 V DC
 ≥ 100 M Ω

Contact resistance
< 100 m Ω in new condition
< 500 m Ω after 100 000 rotations

Various

IP protection degree
IP 65 with O-Ring
IP 50 without O-Ring

Technical information push-button

Mechanical data

Push-button travel
0,5 mm (+ 0,4/- 0,3 mm)

Operating force
3 N or 6 N +/- 50%

Push/pull strength on shaft
max. 50 N/10 s

Temperature range
Storage temperature:
– 55 °C to + 90 °C
Operating temperature:
– 40 °C to + 85 °C

Life
> 100 000 travels

Electrical data

Switching voltage
 ≤ 16 V

Switching current
min. 10 mA
max. 300 mA

Insulation resistance at 250 V
 ≥ 100 M Ω

Contact resistance
< 100 m Ω in new condition
< 200 m Ω after 100 000 travels

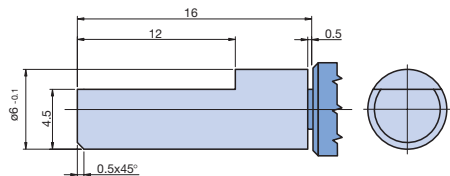
Special Options

Incremental Encoder Type E27

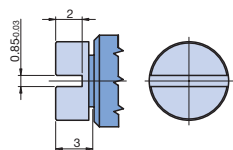
Special Options to Incremental Encoder Type E27

To order a special option please use the order form. Please specify your requirements and fax it to your local contact or to Elma.

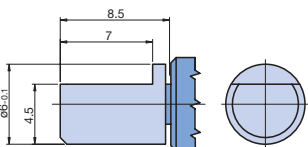
Special shafts (existing ones)



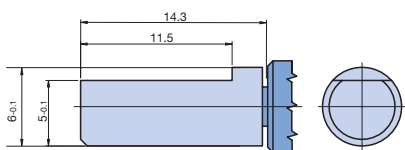
Standard (D-shaft) No. 1



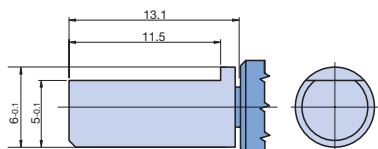
With slot for screw driver No. 2



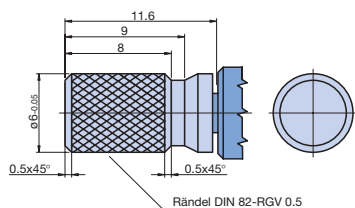
D-shaft 8 mm No. 3



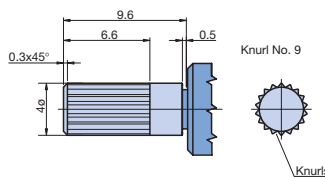
D-shaft 13,8 mm No. 5



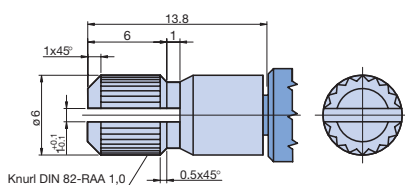
D-shaft 12,6 mm No. 6



Cross-knurl No. 7

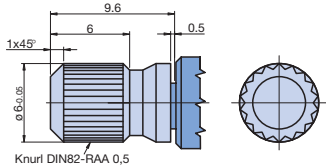


Knurl No. 8

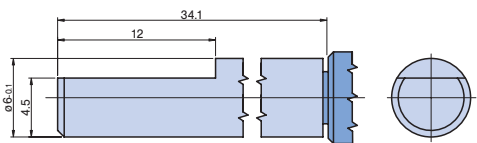


Knurl No. 9

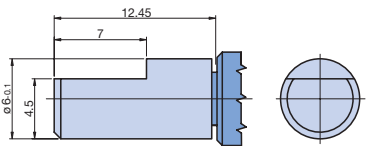
Special Options Type E27



Knurl No. H



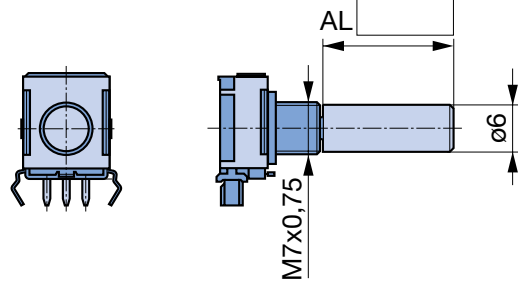
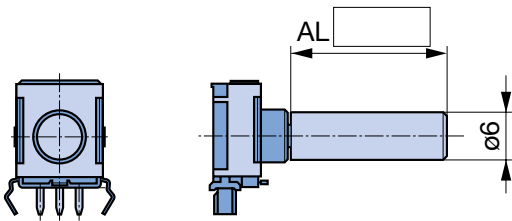
D-Shaft 33,6 mm No. I



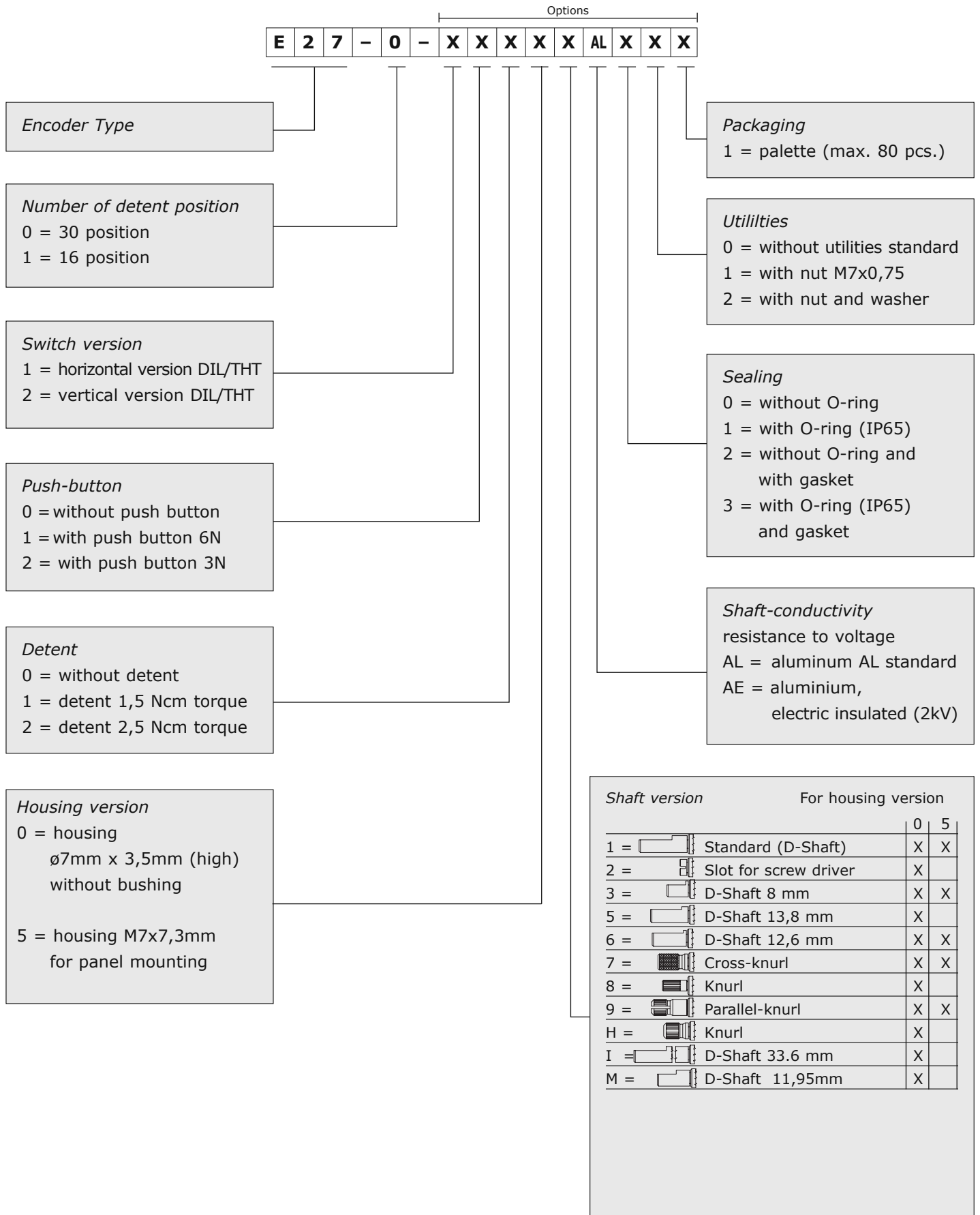
D-Shaft 11,95 mm No. M

Special machined shafts

Specially machined shafts are available. Please specify dimensions on order form.



Ordering Code Type E27



Order Form for Special Options for Incremental Encoder Type E27

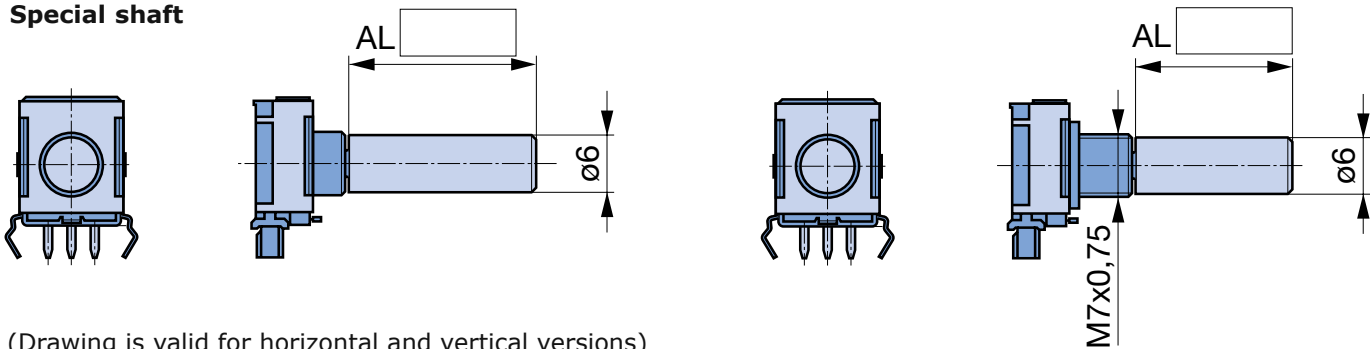
Copy – Fill in – Fax

Quote request

Order

Company		Customer No.	
Address			
		Phone	
Name		Fax	
		e-mail	
Quantity		Requested delivery date	
Similar to order No.		With push-button actuation <input type="checkbox"/>	
		Without push-button actuation <input type="checkbox"/>	
Horizontal version <input type="checkbox"/>		Vertical version <input type="checkbox"/>	
Pulses per rotation <input type="checkbox"/> 30		Pulses per rotation <input type="checkbox"/> 16	
Indexing			
Switching torque Standard 1,5 Ncm <input type="checkbox"/>			
Switching torque Spezial 2,5 Ncm <input type="checkbox"/>			
Without Indexing <input type="checkbox"/>			
For panel mounting		O-ring on shaft <input type="checkbox"/>	
M7 x 0,75 <input type="checkbox"/>		IP protection degree.....	
Shaft version			
No. 1	Standard (D-Shaft) <input type="checkbox"/>	No. A	Shaft with hole 9,8 mm <input type="checkbox"/>
No. 2	With slot for screwdriver <input type="checkbox"/>	No. B	Shaft 6,5 mm <input type="checkbox"/>
No. 3	D-Shaft 8 mm <input type="checkbox"/>	No. E	Shaft 6,7 mm <input type="checkbox"/>
No. 5	D-Shaft 13,8 mm <input type="checkbox"/>	No. G	Shaft 13 mm <input type="checkbox"/>
No. 6	D-Shaft 12,6 mm <input type="checkbox"/>	No. H	Knurl <input type="checkbox"/>
No. 7	Cross-knurl- <input type="checkbox"/>	No. I	D-Shaft 33,6 mm <input type="checkbox"/>
No. 8	Knurl <input type="checkbox"/>	No. Z	D-Shaft 11,95 <input type="checkbox"/>
No. 9	Knurl <input type="checkbox"/>	No. Q	Shaft 1/4" <input type="checkbox"/>

Special shaft



(Drawing is valid for horizontal and vertical versions)

Sketch (additional technical requirements / comments)

--