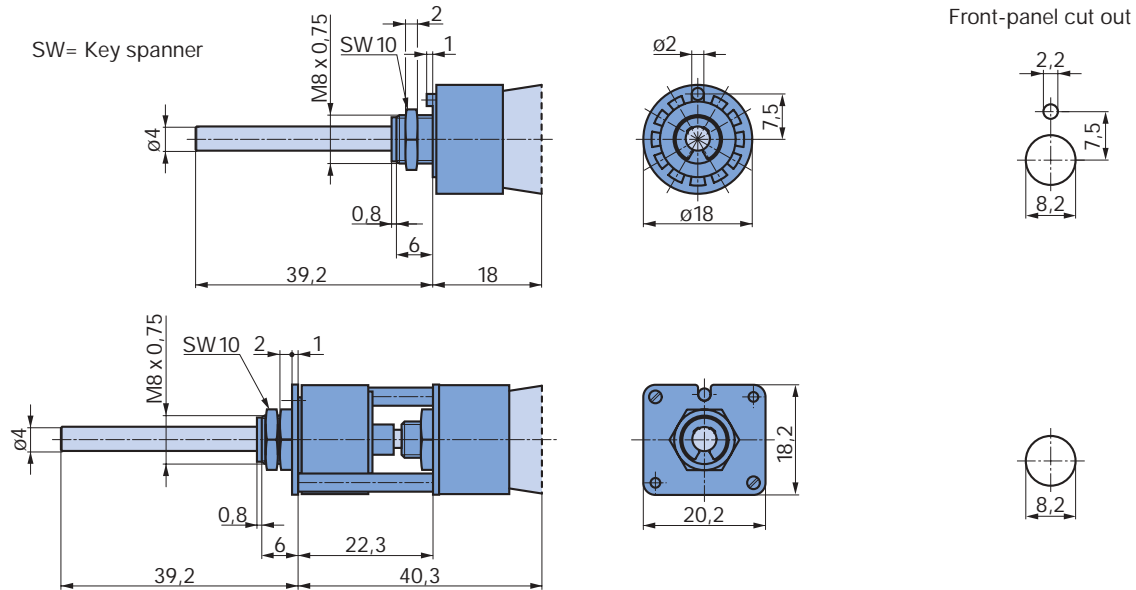
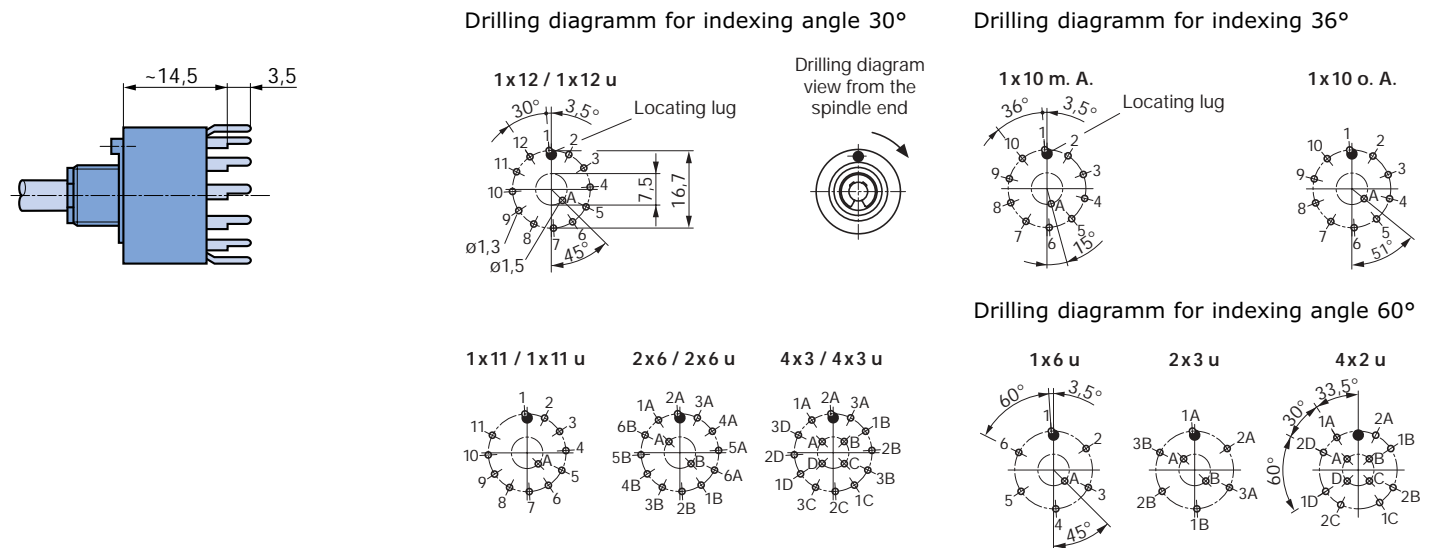


# Rotary Switches Type 01

## With solder eyelets



## With pins for PCB mounting



## Description

Rotary switch with bridge contact principle

Overall diameter  
18 mm

Threaded bushing  
M6 x 0,75 with 3 mm diameter shaft  
M8 x 0,75 with 4 mm diameter shaft  
M10 x 0,75 with 6 mm diameter shaft

Indexing angle  
30° = 12 switching positions  
36° = 10 switching positions  
60° = 16 switching positions

On switches with fixed end-stop, adjustable stops can be set, by means of a plastic pin, on any position between 2 and the maximum (to be ordered separately).

Number of poles per wafer  
1, 2 or 4 (poles)

Switching mode  
Shorting or non-shorting

Contact material  
Gold flash and Gold plated 3 µm

Terminals  
Solder eyelets or PCB mountable

# Rotary Switches Type 01

## Technical information

### Mechanical data

#### *Indexing mechanism*

30° = 12 positions  
shorting or non-shorting

36° = 10 positions  
shorting

60° = 6 positions  
non-shorting

#### *Switching torque with 1 wafer, 1 pole*

Standard:  
4 Ncm ± 25%  
Special:  
2 Ncm ± 25%  
6 Ncm ± 25%

*Max. admissible tightening torque  
for nuts (shaft diameter 4 mm)*  
max. 300 Ncm

*Vibration resistance*  
10–2000 Hz/10 g

*Mechanical life*  
> 25000 switching cycles

*Temperature range*  
– 40 °C to + 85 °C

### Material data

#### *Housing*

plastic with metal threaded bush

#### *Shaft*

stainless steel

#### *Insulation material*

Wafers: HF-ceramic  
Rotor: polybutylene (PBTB)

#### *Contact material*

Rivet (copper) and  
segment (brass)

- gold flash  
10 µm silver coated, gold flashed  
approx. 0,2 µm
- 3 µm gold plated  
3 µm gold plating on 3 µm nickel  
layer

#### *Wiper (brass)*

- gold flash  
10 µm silver plated, gold flashed  
approx. 0,2 µm
- 3 µm gold plated

### Soldering data

#### *Handsoldering*

Ceramic wafer ≤ 10 s/≤ 350 °C

#### *Machine soldering*

Wave ≤ 5 s/≤ 260 °C

### Electrical data

#### *Application data*

Voltage < 42 V  
Current < 2 A

#### *Switching capacity with resistive load:*

2 V/1,0 A AC/DC  
24 V/0,5 A AC/DC  
42 V/0,4 A AC/DC

#### *Switching mode*

shorting or non-shorting

#### *Contact and lead resistance*

< 10 mΩ in new condition

#### *Insulation resistance measured*

*with 500 VDC, for 1 min*  
> 10<sup>11</sup> Ω contact to contact  
> 10<sup>11</sup> Ω contact to earth

#### *Capacitance*

1 pF contact to contact

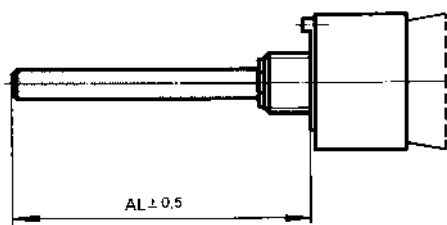
#### *Test voltage at 50 Hz and 60% rela-*

*tive humidity, for 1 min*  
750 rms contact to contact  
750 rms contact to earth  
500 rms with more than one circuit

# Special Options Type 01

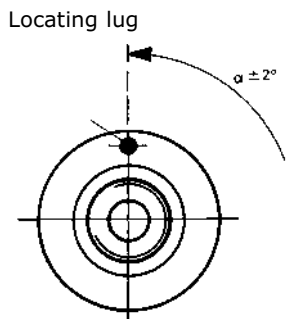
## Ordering an option

To order a special option please use the order form on page 99.  
Please specify your requirements and fax it to your local contact or to Elma.



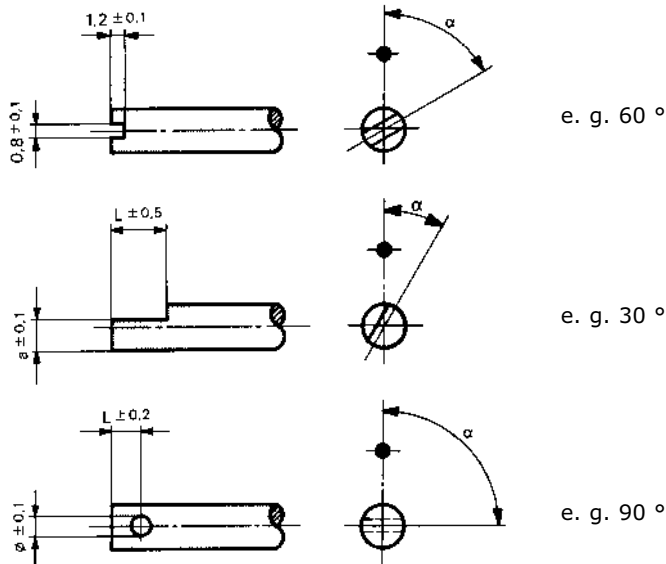
### Special shaft length

To order, state the shaft length AL as shown in diagram, measured from mounting face. Please specify shaft length on page 99.



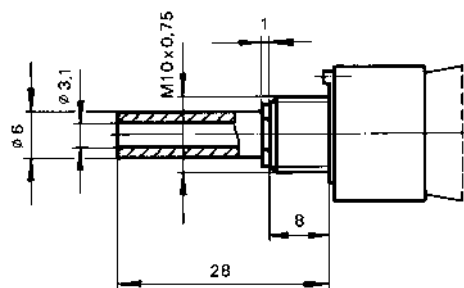
Angle in ° from locating lug.  
Switch on position 1

### Special types of shaft



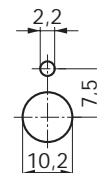
Specially machined shafts are available. Please specify dimensions on page 99.

### Hollow shaft

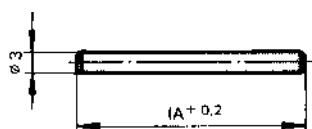


Hollow shaft to allow concentric operation of either two switches or, for example, a switch and a potentiometer. The inner shaft (ø 3 mm) must be ordered separately.

Please complete order form on page 99. Front-panel cut out



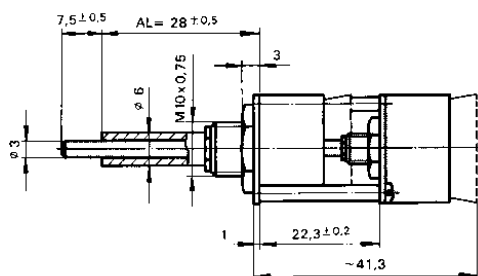
### Inner shaft



Must be ordered separately for switches with hollow shaft. Please complete order form on page 99.

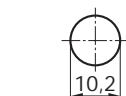
# Special Options Type 01

## Switches with 2 drive shafts



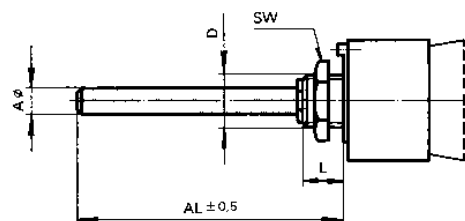
It is possible for two switches to be operated individually by concentric shafts on the same mounting. When ordering, the type number of each switch should be given and specified on order form page 99.

Front-panel cut out



## Special shaft diameters

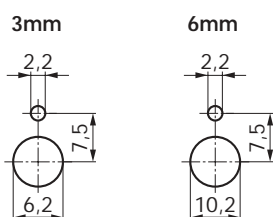
Type 01 switches are also available with the following shaft diameters:



Aφ	D	SW	L	AL Standard	AL max.
3 mm	M 6 x 0,75	10 mm	6,0 mm	59 mm	80 mm
6 mm	M 10 x 0,75	14 mm	8,0 mm	28 mm	28 mm

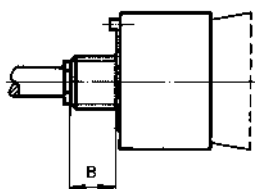
Please complete order form on page 99.

Front-panel cut out



## Shortened bushing

Please state dimension B (Dimension B = min. 3 mm) on page 99.

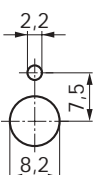
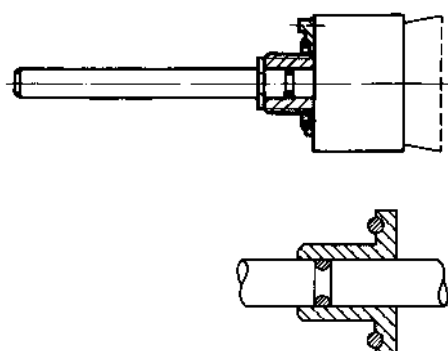


## Waterproof

For 1 wafer switch with 4 mm ø shaft only; to prevent water penetrating behind the front panel and into the mechanism. Waterproof up to 1 bar (IP 68)

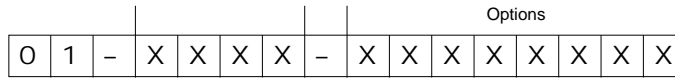
Please complete order form on page 99.

Front-panel cut out



# Ordering Code to Rotary Switches Type 01

This code specifies  
the function of the switch



Switch Type

Number of wafers

Number of poles

Factory set character

0 = gold flash shorting  
1 = gold flash non-shorting  
3 = 3 µm gold shorting  
4 = 3 µm gold non-shorting

- = Standard Md 4 Ncm  
M = Md (torque) 2 Ncm  
N = Md (torque) 6 Ncm

0 = shaft 4 mm Standard  
M = shaft 3 mm  
N = shaft 6 mm

00 = Standard  
11 = BG 11 Pos.  
10 = BG 10 Pos.  
09 = BG 9 Pos.  
08 = BG 8 Pos.  
07 = BG 7 Pos.  
06 = BG 6 Pos.  
05 = BG 5 Pos.  
04 = BG 4 Pos.  
03 = BG 3 Pos.  
02 = BG 2 Pos.  
(BG = special end stop)

000 = Standard AL 59 mm  
3 mm shaft  
= Standard AL 39,2 mm  
4 mm shaft  
= Standard AL 28 mm  
6 mm shaft  
= XXX = AL (shaft length)  
(z.B. 18,5mm = 185)

00 = Standard  
20 = GS (solder pins for PCB)  
30 = WD (waterproof)  
70 = GS/WD  
(solder pins for PCB/ waterproof)

Md = Switching torque  
AL = Shaft length  
BG = Special end stop  
GS = With solder pins for PCB mounting  
WD = Waterproof

