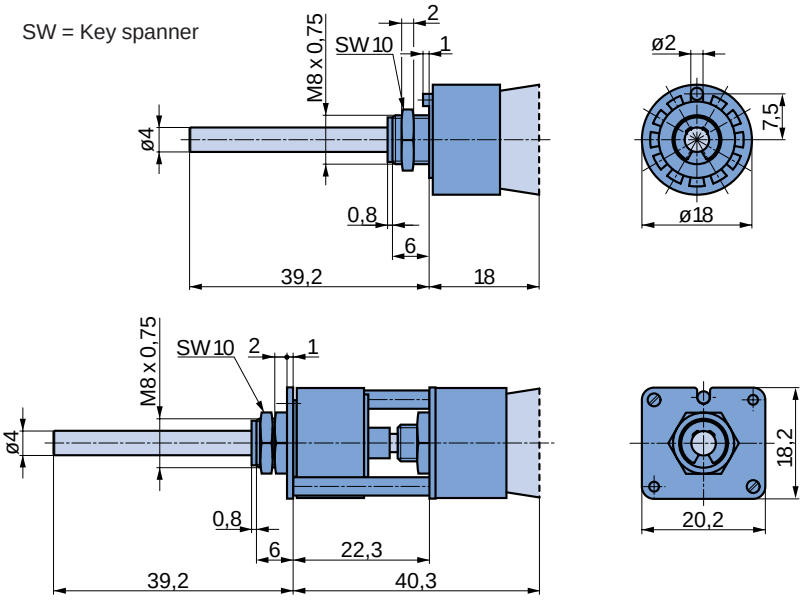
Rotary Switches Type 01

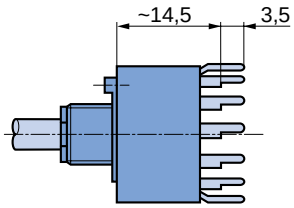
With solder tags for cables

SW = Key spanner



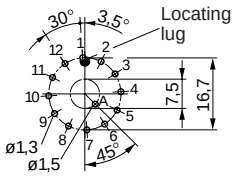
Front-panel cut out

With pins for printed circuits

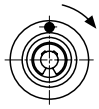


Drilling diagram for indexing angle 30°

1x12 / 1x12 u

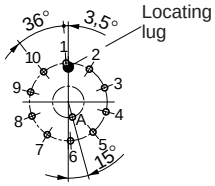


Drilling diagram view from the spindle end

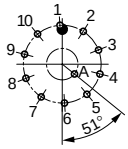


Drilling diagram for indexing angle 36°

1x10 m. A.

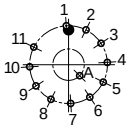


1x10 o. A.

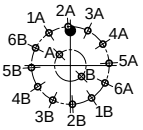


Drilling diagram for indexing angle 60°

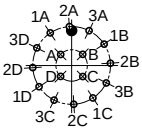
1x11 / 1x11 u



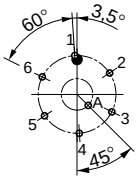
2x6 / 2x6 u



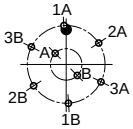
4x3 / 4x3 u



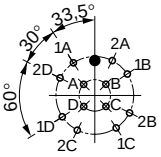
1x6 u



2x3 u



4x2 u



Description

Rotary switch with bridge contact principle

Overall diameter
18 mm

Central mounting
Threaded bushing
M 6 x 0,75 with 3 mm diameter shaft
M 8 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° = 6 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
Silver and Gold plated 3 µm

Terminals
Solder lug or PCB mountable

1 mm = 0.04 inch 1 inch = 25.4 mm

Rotary Switches Type 01

Technical Data

Mechanical data

Mechanism indexing

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 (~ 0,4 kp cm) ± 25%
Special:
2 Ncm (~ 0,2 kp cm) ± 25%
6 Ncm (~ 0,6 kp cm) ± 25%

Max. admissible tightening torque for nuts (shaft diameter 4 mm)

max. 300 Ncm (~ 30 kp cm)

Vibration resistance

10 – 2000 Hz / 10 g

Mechanical life

> 25 000 switching cycles

Temperature range

– 40 °C to + 85 °C

Material

Mechanism: plastic with metal threaded bush
Shaft: stainless steel

Insulation material

Wafers: HF-ceramic
Rotor: polybutylene (PBTB)

Contact material
Rivet (copper) and segment (brass)

Ag
10 µm silver coated, gold flashed
approx. 0,2 µm
Au 3 µm
3 µm gold plating on 3 µm nickel layer

Wiper (brass)

Ag
10 µm silver plated, gold flashed
approx. 0,2 µm
Au 3 µm
6 µm gold plated

Soldering

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 V DC, for 1 min

> 10^{11} Ω contact to contact
> 10^{11} Ω contact to earth

Capacitance

1 pF contact to contact

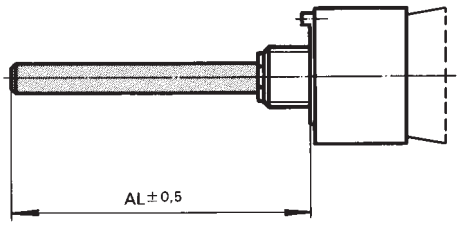
Test voltage at 50 Hz and 60% relative humidity, for 1 min

750 rms contact to contact
750 rms contact to earth
500 rms with more than one circuit

Special Options
to Rotary Switches Type 01

Ordering an option

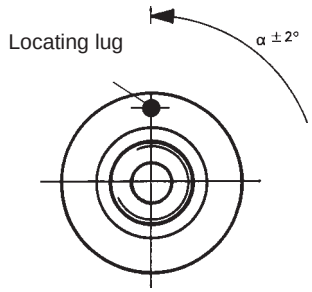
To order a special option please use the order form.
Please specify your requirements and fax it to your local contact or to Elma.



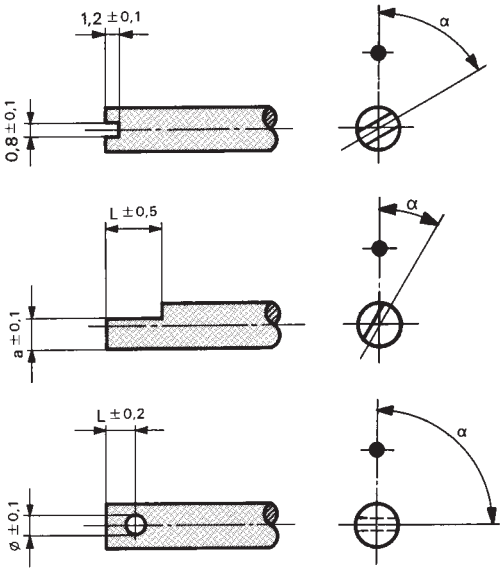
Special shaft lenght

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

Special types of shaft



Angle in ° from locating lug.
Switch on position 1

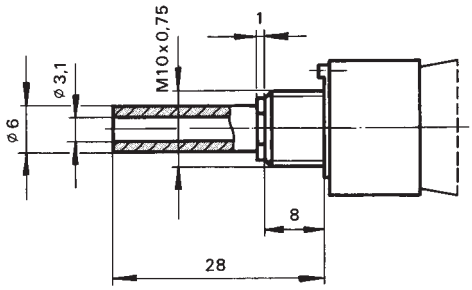


e. g. 60 °

e. g. 30 °

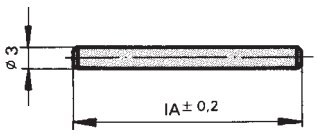
e. g. 90 °

Specially machined shafts are available. Please specify dimensions on page 57.



Hollow shaft

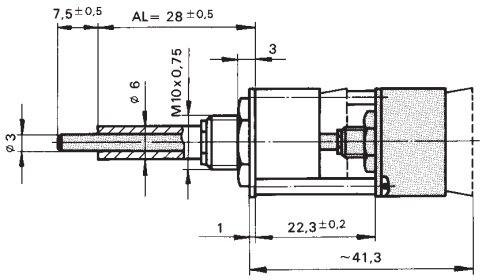
Hollow shaft to allow concentric operation of either two switches or, for example, a switch and a potentiometer, the inner shaft (ø 3 mm) must be ordered separately.
Please complete order form.



Inner shaft

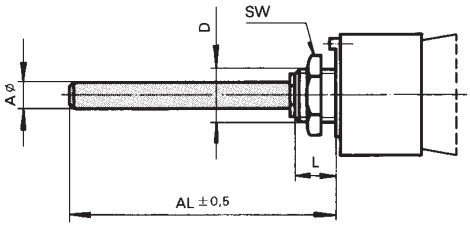
Must be ordered separately for switches with hollow shaft. Please complete order form..

Special Options
to Rotary Switches 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.

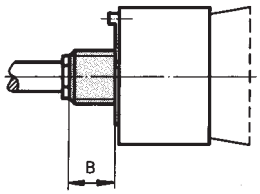


Special shaft diameters

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

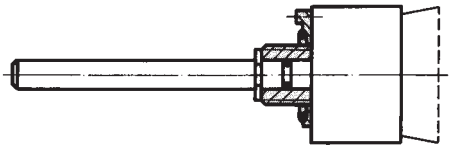
Aø	D	SW	L	AL Standard	AL max.
3 mm	M 6 x 0,75	10 mm	6,0 mm	59 mm	80 mm
6 mm	M 10 x 0,75	14 mm	8,0 mm	28 mm	28 mm

Please complete order form..



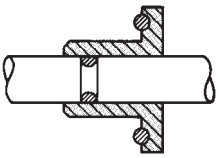
Shortened bushing

Please state dimension B (Dimension B = min. 3 mm)
Specify dimensions on order form.

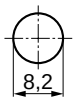


Waterproof version

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.



Front-panel cut out



Order form for Special Options to Rotary Switches Type 01

Copy – Fill in – Fax ☐ Quote request ☐ Order

Company Customer No.

Address

Phone

Name Fax

e-mail

Quantity Requested delivery date

Similar to order No. Function = Pol x Pos.

Number of wafers 1 ☐ 2 ☐ Special stop from Pos. to Pos.

With solder tags for cables ☐ Contact material silver (Ag) ☐ gold /Au 3 µm) ☐

With pins for printed circuits ☐ Switching torque (1 wafer/1 pole)
Standard 4 Ncm ☐ spec. 2 Ncm ☐ spec. 6 Ncm ☐

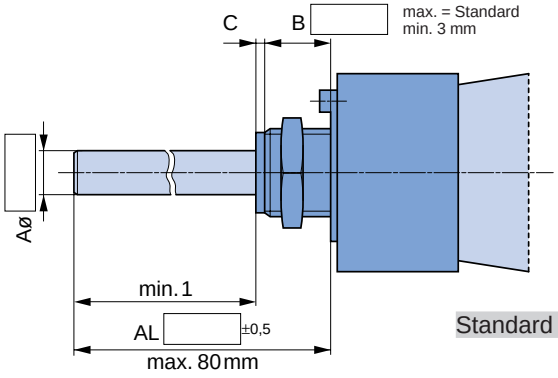
Waterproof version IP68 (Front panel side) ☐

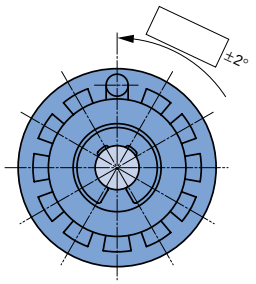
Indexing angle 30 ° shorting ☐
Indexing angle 30 ° non-shorting ☐
Indexing angle 60 ° non-shorting ☐
Indexing angle 36 ° shorting ☐

Shaft diameter 4 mm Standard ☐
Shaft diameter 3 mm special ☐
Shaft diameter 6 mm special ☐

Switch with 2 drive shafts ☐ Switch with hollow shaft (only ø 6mm) ☐ Inner shaft length mm

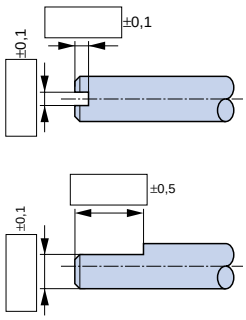
Special shaft length/ Shortened bushing





Switch in Pos. 1

Machined shaft



Standard dimensions	Aø	B	C	AL	AL max.
	3 mm	6	0,8	59 mm	80 mm
	4 mm	6	0,8	39,2 mm	80 mm
	6 mm	8	1	28 mm	28 mm

Sketch

(Please contact me for the following requirements)

ELMA
Innovative in Electronics

1 mm = 0.04 inch 1 inch = 25.4 mm

Ordering Code to Rotary Switches Type 01