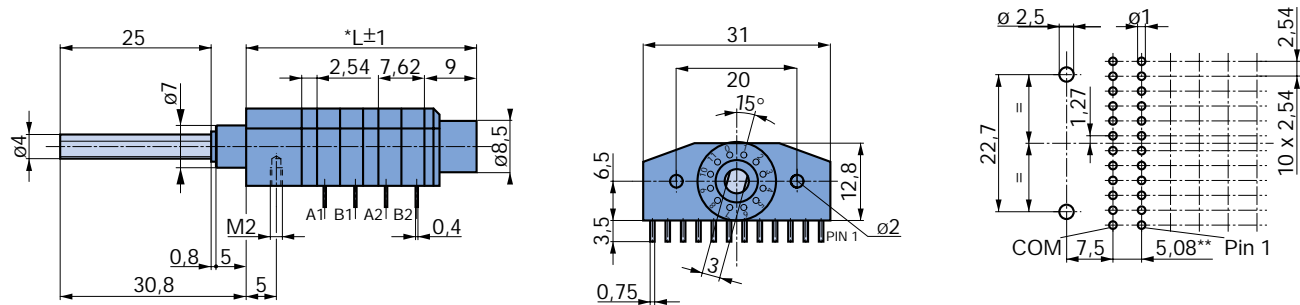


Rotary Switches Type 08

Switches with 2 wafers



Ax = Common wafer of x
 Bx = Discrete contact wafer of x

*L =	1 wafer	28 mm
	2 wafers	38,16 mm
	3 wafers	48,32 mm
	4 wafers	58,48 mm
	one additional wafer	+ 10,16 mm

** All further steps are in 5,08 mm pitch

Description

Rotary switch with bridge contact principle

Overall dimension
 31 x 12,8 mm

Two-hole mounting
 With screw M2 at the PCB

Panel mounting
 M7 x 0,75 on special order

Spindle
 ø 4 mm with flat on two sides

Indexing angle
 30° = 12 switching positions
 with or without end-stop

Adjustable stop screws can be set on any position between 2 and the maximum. Stop screws have to be ordered separately.

Number of poles per wafer
 1, 2, 3 or 4 poles

Switching mode
 Shorting or non-shorting

Contact material
 gold plated 3 µm

Terminals
 PCB mounting

Options supplied
 as assembled switch or in kit form

Mounted switch

If required the switch may be shortened by removing wafer spacers in increments of 2.54 mm (0.1 inch). Due to the spring loaded end piece its functioning remains unaffected.

Available in kit-form

Mechanism, switching module and spindle are supplied separately. This gives more possibilities to place the switch on the PC-board.

Ordering numbers on page 34.

If you wish a special spindle length, please complete order form on page 130.

Rotary Switches Type 08

Technical information

Mechanical data

Indexing mechanism
30° = 12 positions
shorting or non-shorting

Switching torque with 1 wafer, 1 pole
6 Ncm ± 25%
≤ 6 wipers
9 Ncm ± 25%
> 6 wipers
On request:
3 Ncm ± 25%

Vibration resistance
10–2000 Hz/10 g

Mechanical life
> 25000 switching cycles

Temperature range
– 40 °C to + 85 °C

Material data

Housing
pressure cast, zinc plated and passivated

Shaft
stainless steel

Insulation material
Wafers: PA 6/6 T
Rotor: Polyacetal (POM)

Contact material
Stator (brass)
• 3 µm gold plated
3 µm gold plating on 3 µm nickel layer

Wiper (beryllium-copper)
• 3 µm gold plated

Soldering data

Handsoldering
Plastic wafer ≤ 5 s/≤ 260 °C

Machine soldering
Wave ≤ 5 s/≤ 260 °C

Electrical data

Application data
Voltage < 42 V
Current < 2 V

Switching capacity with resistive load
1 V/1,5 A AC/DC
24 V/0,3 A AC/DC
42 V/0,2 A AC/DC

Switching mode
shorting or non-shorting

Contact and lead resistance
< 20 mΩ in new condition

Insulation resistance measured with 500 V DC, for 1 min
≥ 10¹³ Ω contact to contact
≥ 10¹³ Ω contact to earth

Capacitance
1 pF contact to contact
4 pF between 2 wafers

Test voltage at 50 Hz and 60% relative humidity, for 1 min
1000 V rms contact to contact
1000 V rms contact to earth

Rotary Switches Type 08

Ordering an option

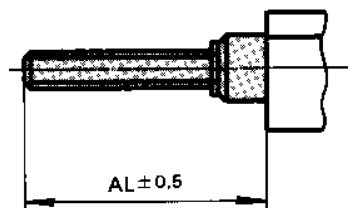
To order a special option please use the order form on page 130. Please specify your requirements and fax it to your local contact or to Elma.

Number of switching modules

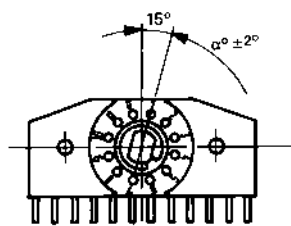
Up to 5 switching modules with 1 mechanism is standard. Special options range from 5 to 12 modules, 2 poles each and mechanism with increased torque. > 12 modules on request.

Special shaft length

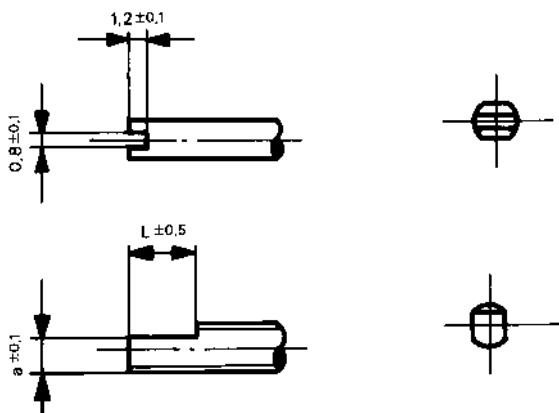
To order, state the shaft length AL as shown in diagram, measured from mounting face. Please specify shaft length on page 130.



Special types of shaft

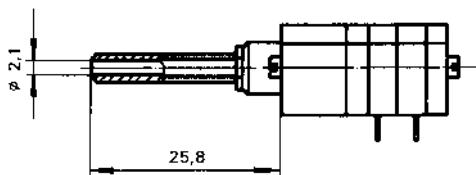


Switch on position 1



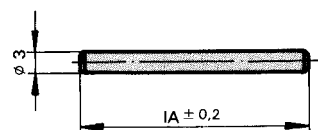
Specially machined shafts are available. Please specify dimensions on page 130.

Hollow shaft



Available for switches up to 4 wafers; inner shaft (ø 2 mm) to be ordered separately. Please complete order form on page 130.

Inner shaft

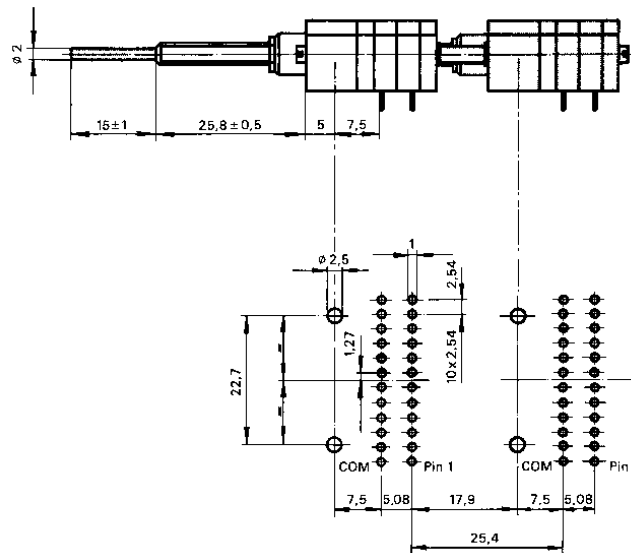


Must be ordered separately for switches with hollow shaft. Please complete order form on page 130.

Special Options Type 08

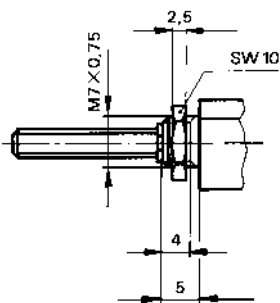
Switches with 2 drive shafts

Consisting of a hollow outer plus an inner shaft, the inner shaft driving a maximum of 3 wafers with 4 wipers each. Please give type description of each switch on page 130.



Mechanism with threaded bushing

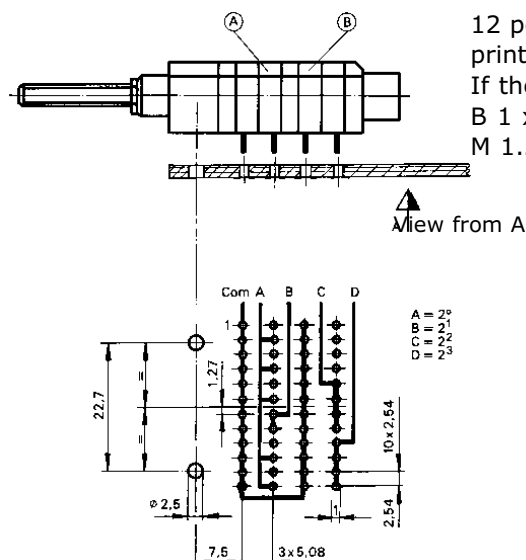
Tightening torque with central mounting max. 200 Ncm. Please complete order form on page 130.



BC coding

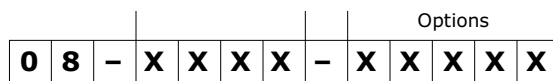
12 positions; the coding will be made according to the opposite layout on the printed circuit.

If the switch will be composed of component parts the housings A 3 x 4 and B 1 x 12 have to be ordered. Limiting detent to 10 (BCD) with a stop screw M 1.2 x 2.5 can easily be done. Please complete order form on page 130.



Ordering code Type 08

This code specifies the function of the switch



Switch Type

Number of wafers

Number of poles

Factory set character

3 = Gold flash 3 µm shorting
4 = Gold flash 3 µm non-shorting

Md = Switching torque
AL = Shaft length
BG = special end stop

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 30,8
z. B. 18,5mm = 185
(AL= shaft length)

- = Standard Md 6 Ncm
M = Md (torque) 3 Ncm
N = Md (torque) 9 Ncm

Order Form for Special Options **ELMA** for Rotary Switches Type 08

ELMA
Your Solution Partner

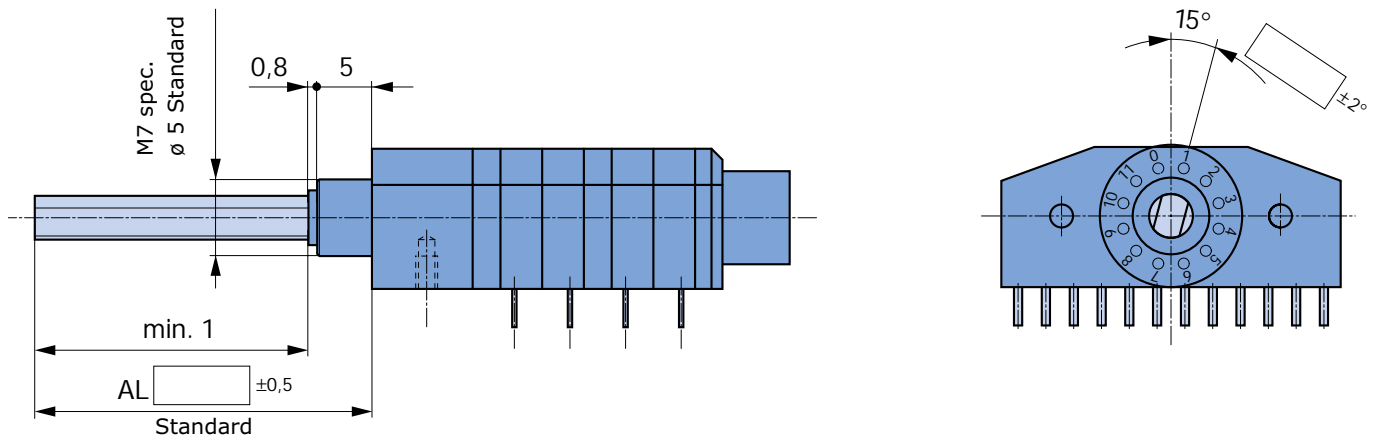
Copy – Fill in – Fax

Quote request

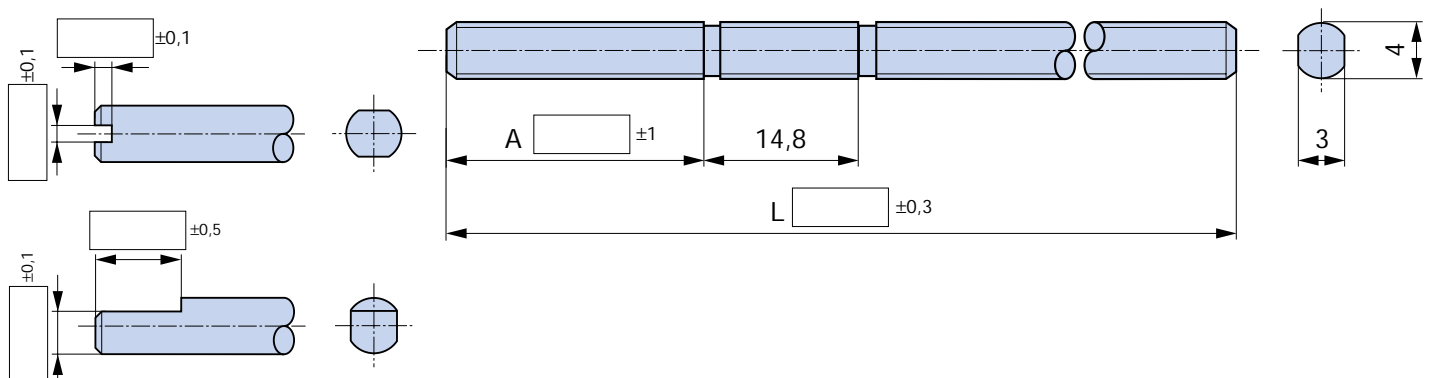
Order

Company		Customer No.	
Address			
Name		Phone	
		Fax	
		e-mail	
Quantity		Requested delivery date	
Similar to order No.		Function = Pol x Pos.	
BCD-Code <input type="checkbox"/>		Special stop from Pos. to Pos.	
Number of wafers			
Contact material		Contact material 3 µm gold plated <input type="checkbox"/>	
Indexing angle 30 ° shorting <input type="checkbox"/>		Indexing angle 30 ° non-shorting <input type="checkbox"/>	
Switching torque standard <input type="checkbox"/>		6 Ncm < 6 poles	
Switching torque standard <input type="checkbox"/>		9 Ncm > 6 poles	
Switching torque standard <input type="checkbox"/>		3 Ncm	
Switch with 2 drive shafts <input type="checkbox"/>		Switch with hollow shaft ø 6mm <input type="checkbox"/>	
		Inner shaft length <input type="checkbox"/>	
Mechanism with threaded bushing M 7 x 0,75 (panel mounting)		<input type="checkbox"/>	
Shaft incl. assembling material (fill in dimensions A and L above)		<input type="checkbox"/>	

Special shaft length



Shaft incl. assembling material



1 mm = 0.04 inch

1 inch = 25.4 mm