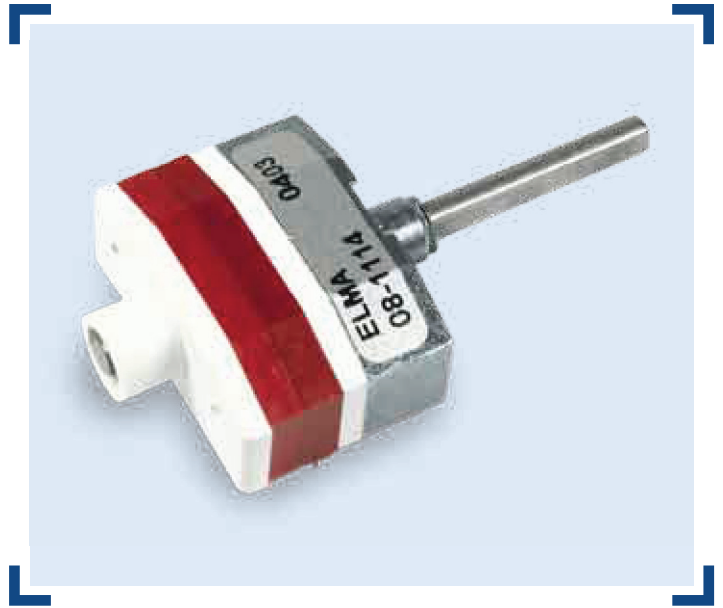
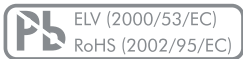


Selector Switch Type 08

- Compact and versatile 12 positions multi wafer switch
- For PCB mounting
- 25,000 switching cycles with up to 9.0 Ncm switching torque
- Gold plated contacts: 3 micron
- Robust metal housing with metal shaft
- Operating temperature range: -40 to +85°C
- Various options and customization



Standard Product Variety

- From 1 x 12 to 4 x 3 poles/positions per wafer
- Up to 8 wafers
- Shorting or non-shorting
- 3.0, 6.0 or 9.0 Ncm switching torque
- Configurable end stops

Possible Customization

- Shaft dimensions and shape
- Switching torque
- Hollow shaft, inner shaft
- Others

Typical Applications

- Industrial controls
- Avionics, instrumentation, test systems
- Medical and audio equipment

Selector Switch Type 08

Preference Types Selection Chart¹

Contact Arrangement		Number of Wafers	Function (Poles x Positions)	Shorting	Non-Shorting
Common Contact Half	Discrete Contact Half				
		1	1 x 12, endless rotating	08-1103	08-1104
		2	2 x 12, endless rotating	08-2103	08-2104
		3	3 x 12, endless rotating	08-3103	08-3104
		4	4 x 12, endless rotating	08-4103	08-4104
		1	1 x 12	08-1113	08-1114
		2	2 x 12	08-2113	08-2114
		3	3 x 12	08-3113	08-3114
		4	4 x 12	08-4113	08-4114
		1	2 x 6	08-1263	08-1264
		2	4 x 6	08-2263	08-2264
		3	6 x 6	08-3263	08-3264
		4	8 x 6	08-4263	08-4264
		1	3 x 4	08-1343	08-1344
		2	6 x 4	08-2343	08-2344
		3	9 x 4	08-3343	08-3344
		4	12 x 4	08-4343	08-4344
		1	4 x 3	08-1433	08-1434
		2	8 x 3	08-2433	08-2434
		3	12 x 3	08-3433	08-3434
		4	16 x 3	08-4433	08-4434

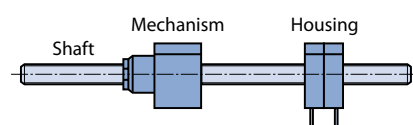
* Common interconnection to be made on PCB.

Stop and Fixing screws

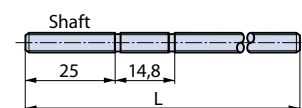
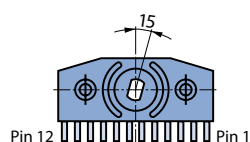
Configurable stop screws can be set on any position between 2 and the maximum. Stop screws have to be ordered separately.		Packaging Unit	Order Number
	Stop screw M1.2	10 pcs.	4224-11
	Stop screw M1.2	100 pcs.	4224-10
	Fixing screw M2 x 9	10 pcs.	4224-01

Available in Kit Form

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



View of wafer from front side



Housing

Functions (Poles x Positions)	Shorting	Non-Shorting
1 x 12	4217-10	4218-10
2 x 6	4217-11	4218-11
3 x 4	4217-13	4218-13
4 x 3	4217-12	4218-12

Switch Mechanism

Number of Poles	Positions	Torque	Order Number
≤ 6	12	6.0 Ncm	4214-10
> 6	12	9.0 Ncm	4214-12

Shaft Including Assembly Material

Length L	No. of Housings	Order Number
75 mm	3	4211-05
100 mm	5	4211-10
125 mm	7	4211-15
150 mm	9	4211-20

¹ For other types/options, see type key.

Specifications

Mechanical Data

Resolution: 12 positions max. (30° indexing)
 Switching torque (new condition): 3.0, 6.0 or 9.0 Ncm (+/- 25%)
 Rotational life: 25,000 switching cycles min.
 Fastening torque of nut: 200 Ncm max.

Electrical Data

Function: From 1 x 12 to 4 x 3 poles/positions per wafer
 (max. 8 wafers)
 Switching mode: Shorting or non-shorting
 Load current: 1.5 A max. (resistive load)
 Switching voltage: 42 VDC max.
 Contact resistance (new condition): 20 mOhms max.
 Insulation resistance: 10¹³ Ohms min. (contact to contact/housing)
 Switching capacitance: 1 pF max. (contact to contact)
 Dielectric withstanding voltage: 500 VDC during 60 seconds

Material Data

Shaft: Stainless steel
 Bushing/housing: Zinc diecast, zinc plated and passivated
 Contact plating: AuCo (hard gold); 3 µm
 Insulation material: Wafer: PA6/6T, rotor: Polyacetal (POM)
 Soldering leads: Alloy copper, tin plated

Environmental Data

Operating temperature range: -40 to +85°C
 IP sealing: IP60 shaft/front panel sealing
 Vibration: 10 Grms max. @ 10 to 2000 Hz
 Flammability: UL94-HB

Packaging Sizes

Tray: 10 pcs.

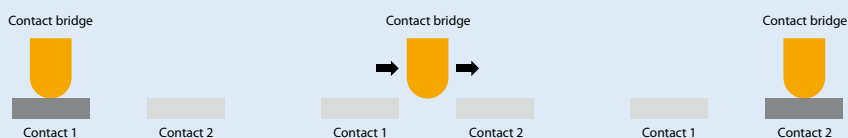
Soldering Conditions

Hand soldering: 300°C max. during 3 s max.
 Wave soldering: 280°C max. peak temperature during 5 s max.

Switching Modes

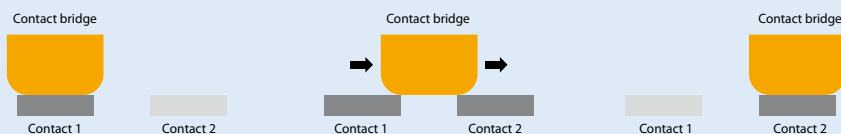
Non-Shorting

(break before make)



Shorting

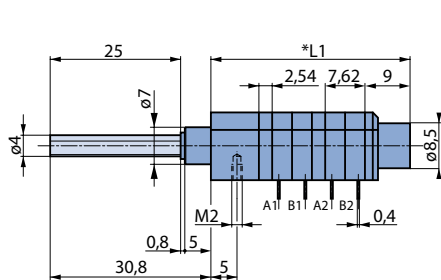
(make before break)



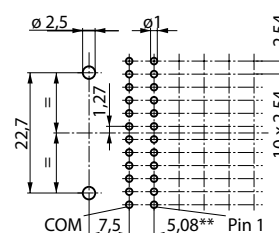
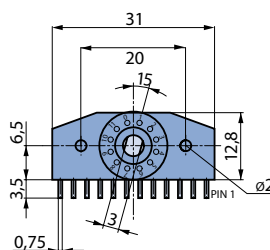
Selector Switch Type 08

Drawings

Switch with 2 Wafers

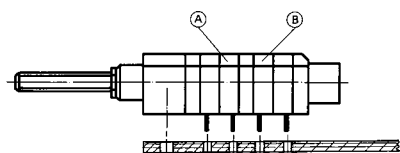


Ax = Common wafer of x
Bx = Discrete contact wafer of x

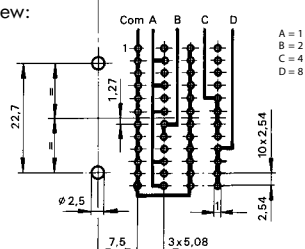


* L - 1 wafer 28 mm
2 wafers 38.16 mm
3 wafers 48.32 mm
4 wafers 58.48 mm
per additional wafer + 10.16 mm
** All further steps are in 5.08 mm pitch

Switch with BCD Coding



Bottom view:



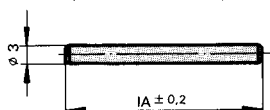
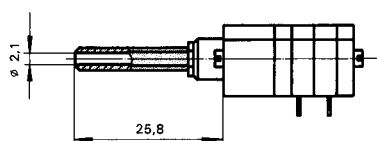
BCD Coding

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) is being done with a stop screw M1.2 x 2.5.

BCD Coding

	8	4	2	1
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Hollow Shaft System

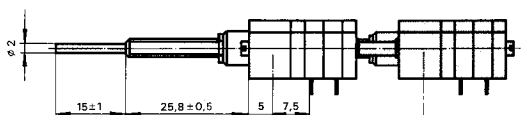


Hollow Shaft

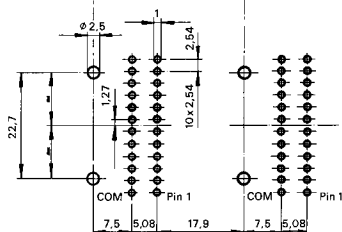
Available for switches up to 4 wafers; inner shaft (Ø 2 mm) to be ordered separately.

Inner Shaft

Must be ordered separately for switches with hollow shaft.



Top view:



Switch 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 indicate type of each switch.

Selector Switch Type 08

Type Key

0	8	-	X	X	X	X	-	X	X	X	X	X
---	---	---	---	---	---	---	---	---	---	---	---	---

Number of Wafers

Number of Poles per Wafer

Factory set character

Switching Mode
3 - Shorting
4 - Non-shorting

Torque
- - 6.0 Ncm
M - 3.0 Ncm
N - 9.0 Ncm

Factory Set End Stop

00 - 12 pos.
11 - 11 pos.
10 - 10 pos.
09 - 9 pos.
08 - 8 pos.
07 - 7 pos.
06 - 6 pos.
05 - 5 pos.
04 - 4 pos.
03 - 3 pos.
02 - 2 pos.

Shaft Length (AL)

000 - 33.6 mm
xxx - Custom¹
(e.g. 18.5mm = 185)

¹ Customized Shaft Length
Please state shaft length (AL) measured from mounting face.

