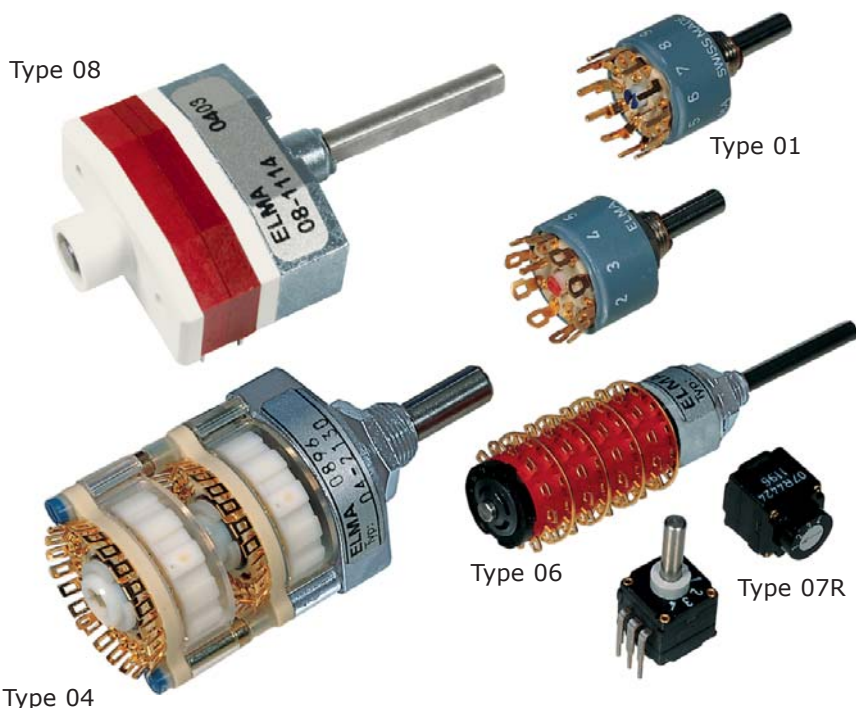


# Rotary Switches Overview

- with steel spindle-shaft and high grade plastic housing-suitable for hand or wave soldering
- for rugged applications

Our ability to adapt existing components to your application, makes Elma your preferred solution partner.



## Technical Data

Designation	Type 01	Type 04	Type 06	Type 07R	Type 08
<b>Dimension</b>	Ø 18 mm	Ø 32 mm	Ø 17 mm	10 x 10 mm	31 x 13 mm
<b>Number of positions</b>	12	24	12	4	12
<b>Function (Pole x Position)</b>	1 x 12 2 x 6 3 x 4 4 x 3 1 x 10 1 x 6 2 x 3 4 x 2	1 x 24 2 x 11 3 x 7 4 x 5 6 x 3	1 x 12 2 x 6 3 x 4 4 x 3	1 x 4	1 x 12 2 x 6 3 x 4 4 x 3
<b>Max. number of wafers</b>	2	any	8	1	8
<b>Indexing angle</b>	30°, 36°, 60°	15°, 30°	30°	36°	30°
<b>Processing</b>	hand and wave soldering	hand and wave soldering	hand soldering	wave soldering reflow (on req.)	wave soldering
<b>Assembly on print (PCB)</b>	vertical	vertical	-	horizontal/vertical	horizontal
<b>Contact material</b>	gold flash, gold 3µm	gold flash, gold 3µm	gold flash, gold 3µm	gold 3µm	gold 3µm
<b>Life expectancy (switching cycles)</b>	> 25 000	> 25 000	> 25 000	> 40 000	> 25 000
<b>max. switch load</b>	2V/1,0A 24V/0,5A 42V/0,4A	2V/2,0A 24V/0,6A 42V/0,4A	1V/1,5A 24V/0,3A 42V/0,2A	<24V/5VA 2V/0,2A 24V/0,2A 42V/0,12A	1V/1,5A 24V/0,3A 42V/0,2A
	page 20-21	page 22-23	page 24-25	page 26-27	page 28-29
<b>Technical Data</b>	page 90-95	page 96-102	page 103-107	page 109-113	page 114-119

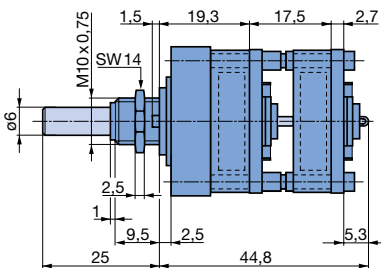
# Rotary Switches Type 04

- 24 position switch
- life expectancy > 25 000 switching cycles
- steel spindle-shaft and metal bush for rugged applications
- modular system allows easy adaptation of standard products
- gold flash contact standard



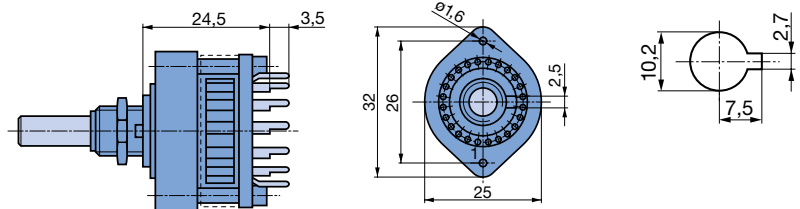
## With solder eyelets

SW = key spanner

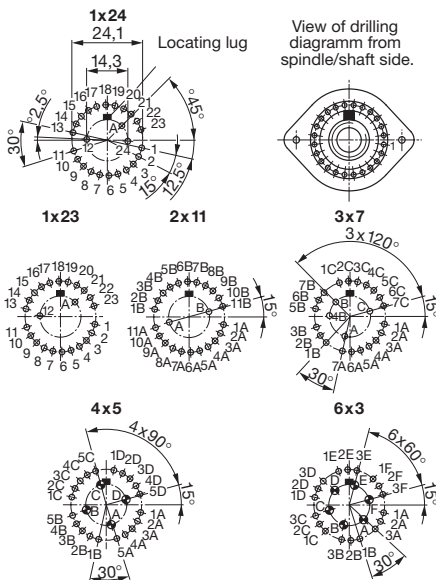


## With solder pins for PCB mounting

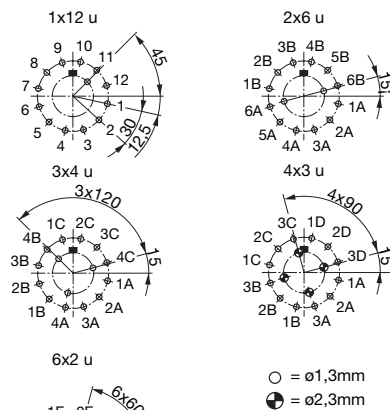
Front panel cut out



Drilling diagram for indexing angle 15°



Drilling diagram for indexing angle 30°



## Possible modifications on request

- special type of shaft (length, diameter, form)
- special torque
- waterproof
- special end stop
- shortened bush
- hollow shaft/inner shaft

Stop screws M 1,4	(package of 10 pieces)	4124-21
Stop screws M 1,4	(package of 100 pieces)	4124-20
Bushing Nut	(package of 10 pieces)	4124-41

## Indexing angle 15°, shorting (non-shorting on request)

Contact arrangement	Construction	Function (Pole x Position)	with solder eyelets		with pins for PCB	
			gold flash	gold 3 µm	gold flash	gold 3 µm
	1—H	1 x 24 o.A.	04-1100	04-1103	04-1100-20	04-1103-20
	2—HH	2 x 24 o.A.	04-2100	04-2103	—	—
	3—HHH	3 x 24 o.A.	04-3100	04-3103	—	—
	4—HHHH	4 x 24 o.A.	04-4100	04-4103	—	—
	1—H	1 x 24	04-1130	04-1133	04-1130-20	04-1133-20
	2—HH	2 x 24	04-2130	04-2133	—	—
	3—HHH	3 x 24	04-3130	04-3133	—	—
	4—HHHH	4 x 24	04-4130	04-4133	—	—
	1—H	2 x 11	04-1210	04-1213	04-1210-20	04-1213-20
	2—HH	4 x 11	04-2210	04-2213	—	—
	3—HHH	6 x 11	04-3210	04-3213	—	—
	4—HHHH	8 x 11	04-4210	04-4213	—	—
	1—H	3 x 7	04-1370	04-1373	04-1370-20	04-1373-20
	2—HH	6 x 7	04-2370	04-2373	—	—
	3—HHH	9 x 7	04-3370	04-3373	—	—
	4—HHHH	12 x 7	04-4370	04-4373	—	—
	1—H	4 x 5	04-1450	04-1453	04-1450-20	04-1453-20
	2—HH	8 x 5	04-2450	04-2453	—	—
	3—HHH	12 x 5	04-3450	04-3453	—	—
	4—HHHH	16 x 5	04-4450	04-4453	—	—
	1—H	6 x 3	04-1630	04-1633	04-1630-20	04-1633-20
	2—HH	12 x 3	04-2630	04-2633	—	—
	3—HHH	18 x 3	04-3630	04-3633	—	—
	4—HHHH	24 x 3	04-4630	04-4633	—	—

## Indexing angle 30°, non-shorting

packing unit : 10 pieces

Contact arrangement	Construction	Function (Pole x Position)	with solder eyelets		with pins for PCB	
			gold flash	gold 3 µm	gold flash	gold 3 µm
	1—H	1 x 12 u.o.A.	04-1101	04-1104	04-1101-20	04-1104-20
	2—HH	2 x 12 u.o.A.	04-2101	04-2104	—	—
	3—HHH	3 x 12 u.o.A.	04-3101	04-3104	—	—
	4—HHHH	4 x 12 u.o.A.	04-4101	04-4104	—	—
	1—H	1 x 12 u.	04-1121	04-1124	04-1121-20	04-1124-20
	2—HH	2 x 12 u.	04-2121	04-2124	—	—
	3—HHH	3 x 12 u.	04-3121	04-3124	—	—
	4—HHHH	4 x 12 u.	04-4121	04-4124	—	—
	1—H	2 x 6 u.	04-1261	04-1264	04-1261-20	04-1264-20
	2—HH	4 x 6 u.	04-2261	04-2264	—	—
	3—HHH	6 x 6 u.	04-3261	04-3264	—	—
	4—HHHH	8 x 6 u.	04-4261	04-4264	—	—
	1—H	3 x 4 u.	04-1341	04-1344	04-1341-20	04-1344-20
	2—HH	6 x 4 u.	04-2341	04-2344	—	—
	3—HHH	9 x 4 u.	04-3341	04-3344	—	—
	4—HHHH	12 x 4 u.	04-4341	04-4344	—	—
	1—H	4 x 3 u.	04-1431	04-1434	04-1431-20	04-1434-20
	2—HH	8 x 3 u.	04-2431	04-2434	—	—
	3—HHH	12 x 3 u.	04-3431	04-3434	—	—
	4—HHHH	16 x 3 u.	04-4431	04-4434	—	—
	1—H	6 x 2 u.	04-1621	04-1624	04-1621-20	04-1624-20
	2—HH	12 x 2 u.	04-2621	04-2624	—	—
	3—HHH	18 x 2 u.	04-3621	04-3624	—	—
	4—HHHH	24 x 2 u.	04-4621	04-4624	—	—
PCB wafer switch	1—H	0 - 9 BCD u.				04P1913

Contact arrangement from the spindle side u. = non-shorting, o.A. = without end stop, can **not** be adjusted subsequently!  
**1 mm = 0.04 inch, 1 inch = 25.4 mm**

packing unit : 10 pieces

## Indexing angle 30°, shorting

Contact arrangement from spindle/shaft side common contact half	discrete contact half	Function (Pole x Position)	Number of wafers	gold flash	gold 3 μm
		1 x 12 o.A.	1	06-1100	06-1103
		2 x 12 o.A.	2	06-2100	06-2103
		3 x 12 o.A.	3	06-3100	06-3103
		4 x 12 o.A.	4	06-4100	06-4103
		1 x 12	1	06-1110	06-1113
		2 x 12	2	06-2110	06-2113
		3 x 12	3	06-3110	06-3113
		4 x 12	4	06-4110	06-4113
		2 x 6	1	06-1260	06-1263
		4 x 6	2	06-2260	06-2263
		6 x 6	3	06-3260	06-3263
		8 x 6	4	06-4260	06-4263
		3 x 4	1	06-1340	06-1343
		6 x 4	2	06-2340	06-2343
		9 x 4	3	06-3340	06-3343
		12 x 4	4	06-4340	06-4343
		4 x 3	1	06-1430	06-1433
		8 x 3	2	06-2430	06-2433
		12 x 3	3	06-3430	06-3433
		16 x 3	4	06-4430	06-4433
		Binary code 0-11	2	06-2910	06-2913

packing unit : 10 pieces

## Indexing angle 30°, non-shorting

Contact arrangement from spindle/shaft side common contact half	discrete contact half	Function (Pole x Position)	Number of wafers	gold flash	gold 3 μm
		1 x 12 u.o.A.	1	06-1101	06-1104
		2 x 12 u.o.A.	2	06-2101	06-2104
		3 x 12 u.o.A.	3	06-3101	06-3104
		4 x 12 u.o.A.	4	06-4101	06-4104
		1 x 12 u.	1	06-1111	06-1114
		2 x 12 u.	2	06-2111	06-2114
		3 x 12 u.	3	06-3111	06-3114
		4 x 12 u.	4	06-4111	06-4114
		2 x 6 u.	1	06-1261	06-1264
		4 x 6 u.	2	06-2261	06-2264
		6 x 6 u.	3	06-3261	06-3264
		8 x 6 u.	4	06-4261	06-4264
		3 x 4 u.	1	06-1341	06-1344
		6 x 4 u.	2	06-2341	06-2344
		9 x 4 u.	3	06-3341	06-3344
		12 x 4 u.	4	06-4341	06-4344
		4 x 3 u.	1	06-1431	06-1434
		8 x 3 u.	2	06-2431	06-2434
		12 x 3 u.	3	06-3431	06-3434
		16 x 3 u.	4	06-4431	06-4434
		Binary code 0-11 u.	2	06-2911	06-2914

packing unit : 10 pieces

Contact arrangement from the spindle side u. = non-shorting, o.A. = without end stop, can **not** be adjusted subsequently!