

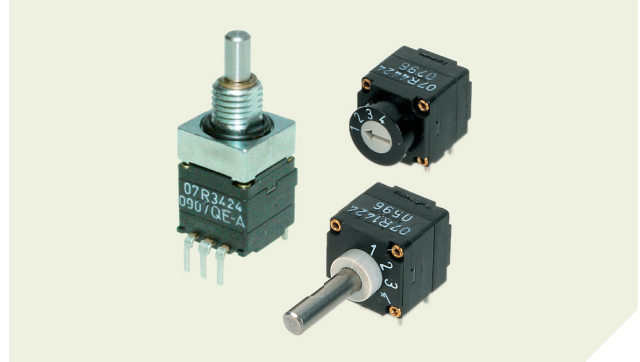
MAIN FEATURES

COST EFFECTIVE, MINIATURE, UP TO 4 POSITIONS

- > PCB mounting (THT, reflow version on request)
- > Up to 3.5 Ncm switching torque
- > Gold plated contacts
- > Washable (sealed contact system)
- > Optional IP68 front panel sealing
- > Operating temperature range: -40° to +85°C
- > Various options and customizations

**PRODUCT VARIETY**

- Vertical or horizontal mounting
- Shorting or non-shorting
- Switching torque 2.2 or 3.5 Ncm
- Front panel sealing IP60 or IP68
- Number of positions
- Bushing style
- Shaft style and length

TYPE 07R**POSSIBLE CUSTOMIZATIONS**

- Shaft dimension and shape
- Bushing dimension
- Switching torque
- Others

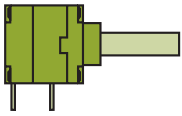
TYPICAL APPLICATIONS

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

1 PREFERENCE TYPES SELECTION CHARTS

¹ For other types/options, see type key.

HORIZONTAL



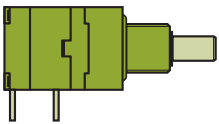
BASIC STYLE WITHOUT THREADED BUSHING

SWITCHING MODE	FUNCTION (POLES & POSITIONS)	ORDER NUMBER
Shorting	1 x 4	07R1423
Non-shorting	1 x 4	07R1424
Shorting	1 x 5 (4 electrical positions)	07R1513
Non-shorting	1 x 5 (4 electrical positions)	07R1514



SCREWDRIVER WITH BEZEL / FRONT PANEL OPERATION

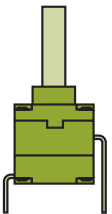
SWITCHING MODE	FUNCTION (POLES & POSITIONS)	ORDER NUMBER
Shorting	1 x 4	07R4423
Non-shorting	1 x 4	07R4424
Shorting	1 x 5 (4 electrical positions)	07R4513
Non-shorting	1 x 5 (4 electrical positions)	07R4514



BASIC STYLE WITH THREADED BUSHING, IP68

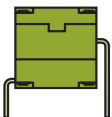
SWITCHING MODE	FUNCTION (POLES & POSITIONS)	ORDER NUMBER
Shorting	1 x 4	07R1423-30000
Non-shorting	1 x 4	07R1424-30000
Shorting	1 x 5 (4 electrical positions)	07R1513-30000
Non-shorting	1 x 5 (4 electrical positions)	07R1514-30000

VERTICAL



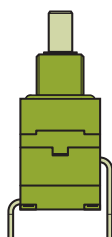
BASIC STYLE WITHOUT THREADED BUSHING

SWITCHING MODE	FUNCTION (POLES & POSITIONS)	ORDER NUMBER
Shorting	1 x 4	07R3423
Non-shorting	1 x 4	07R3424
Shorting	1 x 5 (4 electrical positions)	07R3513
Non-shorting	1 x 5 (4 electrical positions)	07R3514



SCREWDRIVER WITHOUT BEZEL

SWITCHING MODE	FUNCTION (POLES & POSITIONS)	ORDER NUMBER
Shorting	1 x 4	07R2423
Non-shorting	1 x 4	07R2424
Shorting	1 x 5 (4 electrical positions)	07R2513
Non-shorting	1 x 5 (4 electrical positions)	07R2514



BASIC STYLE WITH THREADED BUSHING, IP68

SWITCHING MODE	FUNCTION (POLES & POSITIONS)	ORDER NUMBER
Shorting	1 x 4	07R3423-30000
Non-shorting	1 x 4	07R3424-30000
Shorting	1 x 5 (4 electrical positions)	07R3513-30000
Non-shorting	1 x 5 (4 electrical positions)	07R3514-30000

SPECIFICATIONS

MECHANICAL DATA

Resolution:	5 positions max. (36° indexing)
Switching torque (new condition):	2.2 or 3.5 Ncm (+/- 25%)
Rotational life:	10'000 cycles min.
End-Stop strength:	45 Ncm min.
Fastening torque of nut:	100 Ncm max.

ELECTRICAL DATA

Function:	1 pole, 2 to 4 positions (5 pos. indexing has 4 electrical positions; pos. 0 has no connection)
Switching mode:	Shorting or non-shorting
Load current:	0.2 A max. (resistive load)
Switching voltage:	42 VDC max.
Contact resistance (new condition):	50 mΩ max.
Insulation resistance (new condition):	10 ¹¹ Ω min. (contact to contact / housing)
Dielectric withstanding voltage:	500 VDC during 60 seconds

MATERIAL DATA

Shaft:	Stainless steel
Housing:	Zinc diecast, fiber enforced high performance plastic
Nut:	Brass
Contact system:	CuBe alloy, AuCo plated (hard gold)
Soldering leads:	CuBe alloy, tin plated
O-rings:	NBR (nitrile), 70 shore

ENVIRONMENTAL DATA

Operating/storage temperature range:	-40° to +85°C
IP sealing:	IP60, optional IP68 (2 bar, 1 h) shaft/front panel sealing Washable (sealed contact system)
Vibration:	10 G _{rms} max. @ 10 to 2000 Hz
Flammability:	UL94-HB

PACKAGING QUANTITY

Tray:	50 or 200 pcs. (antistatic tray: 100 pcs.)
-------	--------------------------------------------

SOLDERING CONDITIONS

Hand soldering:	280°C max. during 2 sec max.
Wave soldering:	280°C max. peak temperature during 2 sec max.

SWITCHING MODES

For information about switching modes please see **technical explanations** at the end of the catalog

PIN TO POSITION DIAGRAM

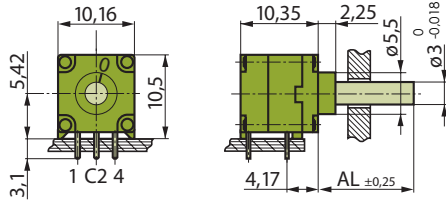
PIN					
	8	4	2	1	
Position	0				
1					
2					
3					
4					

On
 Off

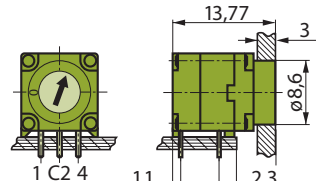
DRAWINGS

Tolerances unless otherwise specified DIN ISO 2768-1 (m)

HORIZONTAL, BASIC STYLE WITHOUT THREADED BUSHING

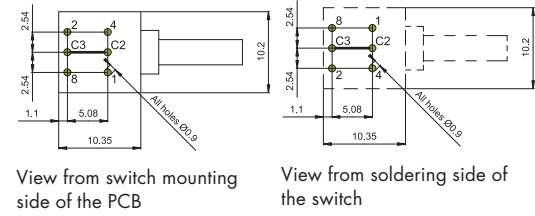


HORIZONTAL, SCREWDRIVER WITH BEZEL

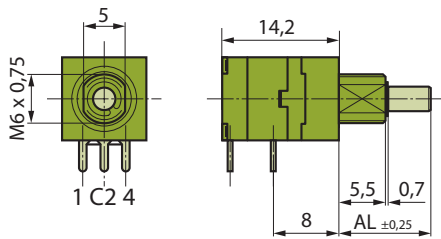


DRILLING DIAGRAM

Commons (C2, C3) must be connected together on the PCB

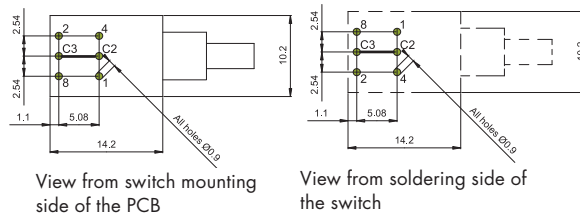


HORIZONTAL, BASIC STYLE WITH THREADED BUSHING

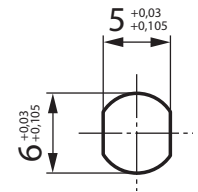


DRILLING DIAGRAM

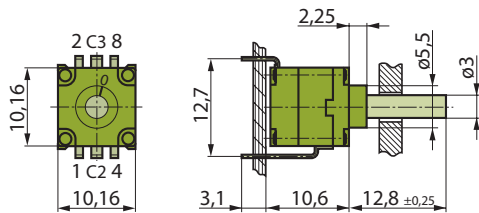
Commons (C2, C3) must be connected together on the PCB



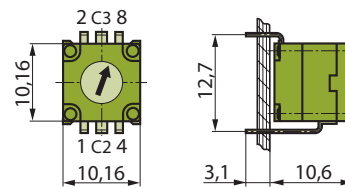
FRONT PANEL CUT OUT



VERTICAL, BASIC STYLE WITHOUT THREADED BUSHING

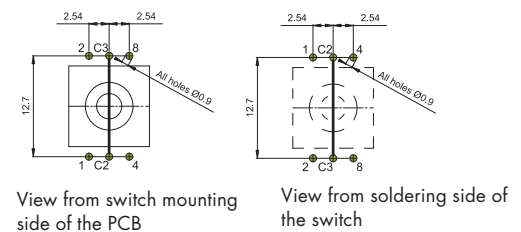


VERTICAL, SCREWDRIVER WITHOUT BEZEL

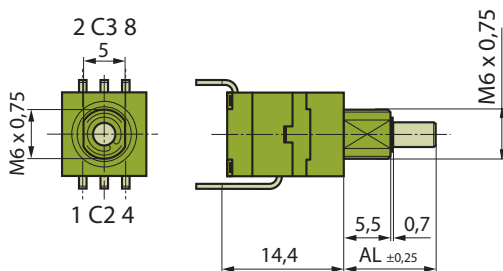


DRILLING DIAGRAM

Commons (C2, C3) must be connected together on the PCB

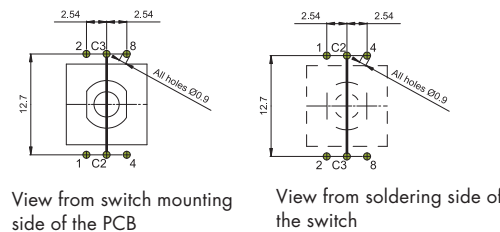


VERTICAL, BASIC STYLE WITH THREADED BUSHING

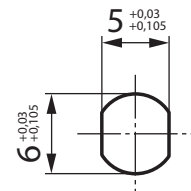


DRILLING DIAGRAM

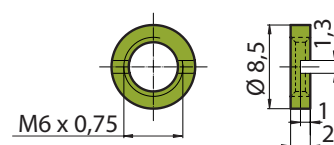
Commons (C2, C3) must be connected together on the PCB



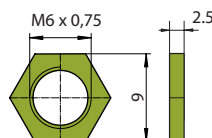
FRONT PANEL CUT OUT



SLOTTED NUT



HEX NUT (SUPPLIED)



Order number (50 pcs. bag)
- Brass: 4424-28
- Stainless steel (cross slot): 4424-31

Spare part:
Order number (50 pcs. bag)
- Brass: 4424-22

TYPE KEY

07R - - - - - - - - - -

STYLE

- 0** Horizontal; screwdriver without bezel
- 1** Horizontal; basic style
- 2** Vertical; screwdriver without bezel
- 3** Vertical; basic style
- 4** Horizontal; screwdriver with bezel
- 5** Vertical; screwdriver with bezel

NUMBER OF POSITIONS AND CONTACTS

- 2** 2 pos. (1-2)
- 3** 3 pos. (1-3)
- 4** 4 pos. (1-4)
- 5** 5 pos. (0-4, 0 has no connection)

1 TO 4/5 POSITIONS

- 1** 5 pos. (factory set for 5 pcs.)
- 2** 1 to 4 pos. (factory set for 2, 3 and 4 pos.)

SWITCHING MODE

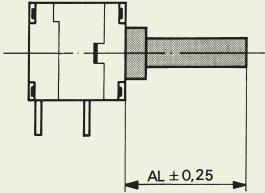
- 3** Shorting
- 4** Non-shorting

SHAFT LENGTH (AL)

- 000** Basic style: 12.8 mm
Threaded bushing: 11.5 mm
- xxx** ¹ Custom
(e.g. 10.5 mm = 105)

¹ Customized shaft length
Shaft length (AL) description measured from mounting face (see picture below).

Max shaft length (AL):
Bushing basic style = 30 mm
Bushing threaded = 26 mm



BUSHING; IP SEALING

- 00** None
- 20** Threaded (nut supplied)
- 30** Threaded; IP68 (nut supplied)

TORQUE; PACKAGING

- 2.2 Ncm; tray (50/200 pcs.)
- V** 2.2 Ncm; antistatic tray (100 pcs.)
- T** 3.5 Ncm; tray (50/200 pcs.)
- S** 3.5 Ncm; antistatic tray (100 pcs.)

TECHNICAL EXPLANATIONS

GENERAL SWITCH KNOWLEDGE

POSITION

A position is the mechanical detent of a switch actuator.

DETENT

A detent is a mechanical positioning device for stopping actuator travel at each successive electrical circuit; for example, a spring-operated ball and groove.

POLE

A pole is a single common electrical input having one or more outputs.

WAFER, DECK OR LAYER

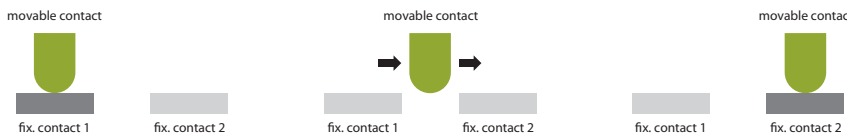
A wafer/deck or layer is a section what the contacts are mounted on.

INDEXING ANGLE

An indexing angle is the number of degrees between each position.
For example: 12 positions for a total of 360 degrees result a 30 degrees indexing angle.

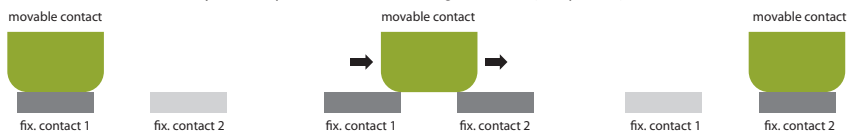
NON-SHORTING CONTACTS "BREAK BEFORE MAKE"

A non-shorting contact is also known as "break before make" and describes the action of one circuit of a pole before interrupting another of the same pole. The switch will be momentarily interrupted before it changes from position 1 to position 2 during actuation (see picture).



SHORTING CONTACTS "MAKE BEFORE BREAK"

A shorting contact is also known as "make before break" and describes the action of one circuit of a pole before interrupting another of the same pole. The switch will momentarily "short" position 1 and 2 during actuation (see picture).



CYCLE

A cycle is the complete sequence of indexing through all successive switch positions and returning to the original position. The rotational life from coded or selector switches are usually specified with cycles.

REVOLUTION

A revolution is the complete sequence of indexing through all successive switch positions in the same direction. The rotational life from encoded switches are usually specified with revolutions.

BENEFITS OF GOLD-PLATED CONTACTS

Gold-plated contacts should be used for longer rotational life, in corrosive environment or in case the switch will not be actuated for a long period of time.