

# RAFIX FS switching element universal PCB, silver, for THT LED, 1 NC + 1 NO



### fields of application

- > Measurement-control-regulation
- > Electrical engineering
- > Mechanical and system engineering
- Signalling systems
- Vehicle construction
- > Agricultural and forestry machinery
- Construction machinery
- > Handheld terminals
- > Industrial robots



## description

These switching elements have external plungers and therefore can only be combined with pushbuttons, selector switches and keylock switches.

The PCB switching elements are positioned on a PCB shared with other components. These can subsequently be mounted behind the front panel together with the actuators and signal indicators. The switching elements "float" directly underneath the actuators on the PCB behind the front panel and leave plenty of space for other components.

In the center channel of the switching element, there are either light conductors for the use of SMT-LEDs, or 3 mm THT LEDs can be installed for illumination.

PCB mounting depths

- 9.2 mm for RAFIX 22 FS+ and RAFIX 22 FSR
- 15.7 mm for RAFIX 30 FS+:

PCB contact block for RAFIX 22 FS+, RAFIX FSR and RAFIX 30 FS

Only suitable for pushbuttons, selector and key switches, not for mushroom pushbutton and emergency stop

Silver contacts (= black housing)

Mounting: Soldering on printed circuit board

Version with light guide for SMT LED, without light guide for THT LED

marking:

- normally closed contacts = red plungers
- normally open contacts = green plungers
- N/C and N/O contacts = yellow plungers

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technical data sheet

## 1.20.126.203/0000

## technical data



> general		
Disassembly possible	no	direct links
Color	black	RAFI eCatalog
Operating temperature, min.	-40 °C	
Operating temperature, max.	85 °C	
Storage temperature, min.	-40 °C	
Storage temperature, max.	85 °C	
illuminated	Yes	
Luminous elements	LED	
Lamp socket	THT LED	
Soldering	Manual / wave	
Solder heat resistance according to standard	DIN EN 60068-2-20	
Packaging unit	30 pcs.	
net weight	2.2 g	
Operating life electrical	1,000,000 (1A / 250V AC) cycles	
	100,000 (2A / 250V AC) cycles	
	30,000 (4A / 250V AC) cycles	
B10 electrical	1.300.000 (1A / 250V AC) cycles	
	130.000 (2A / 250V AC) cycles	
	40.000 (4A / 250V AC) cycles	
Environment resistance	IEC 60068-2-14	
	IEC 60068-2-30	
	IEC 60068-2-33 IEC 60068-2-78	
Shock resistance according to		
standard IEC 60068-2-27	50 g at 11 ms amplitude semi-sinusoidal	
Vibration resistance according to standard IEC 60068-2-6	5 g at 10 - 500 Hz	
MOQ order	30 pcs.	
RoHS compliant	Yes	
REACH compliant	Yes	
> mounting diameters		
Outside dimension, length	17.3 mm	
Outside dimension, width	17.3 mm	
Outside dimension, height	16.9 mm	
Mounting depth	9.2 mm	
> mechanical data		
Contact function	1 NC + 1 NO	
Contact system	Bridge contact	
Contact material	Silver	
Fixing	Soldering	
Solderability	Yes	
Terminal on the rear	THT	
> electrical data		
Rated insulation voltage	250 V	

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Rated surge voltage	2,500 V
Rated voltage, min.	10 V
Rated voltage, max.	250 V
Operating current, min.	1 mA
Rated current, min.	0.01 A
Rated current, max.	4 A
Rated power, min.	0.5 W
Category of use AC-15 / B300	120 V / 3 A (IEC 60947) 240 V / 1,5 A (IEC 60947)
Categories of use	AC-15 / B300 DC-13 / Q300
Category of use DC-13 / Q300	120 V / 0,55 A (IEC 60947) 240 V / 0,27 A (IEC 60947)
Conditional short circuit current	1,000 A

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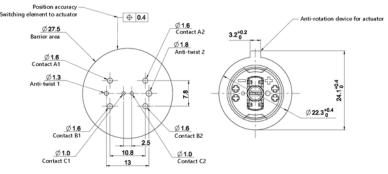
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## drawings

#### System drawing



Assembly side PCB THT

Variant	1NO	1NC	2NO	2NC	1NO+1NC	Plus 1
Contact A1/A2	1NO	-	1NO	1NC	1NO	1NC
Connection designation 1x	13 - 14		13 - 14	11-12	13 - 14	11-12
Contact B1/B2		1NC	1NO	1NC	1NC	1NC
Connection designation 2x		21-22	23-24	21-22	21-22	21-22
Contact C1/C2	LED*	LED*	LED*	LED*	LED*	1NO
Connection designation 1x	X1-X2	X1-X2	X1-X2	X1-X2	X1-X2	33-34
* Only if required	13 X1 000 14 X2	X1 00 X2 21 22	13 X1 23	x1 x1 21	13 X1 21 22	11 33 21 21 21 21

Actuator with 3 switching positions

Actuator with 2 switching positions

0 1 (B1/B2) 2 (A1/A2)

1 (A1/A2; B1/B2)

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