

# RAFIX FS switching element universal PCB, silver, for THT LED, 2 NC



## 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+:

**The NC contacts of these switching elements are forcibly separated according to IEC 60947-5-1.**

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



## technical data

### > general

Disassembly possible	no
Color	black
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

### direct links

> [RAFI eCatalog](#)

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
Minimum order quantity (MOQ)	30 pcs.
Pollution degree acc. to DIN EN 61010-1	Pollution degree 3
RoHS compliant	Yes
REACH compliant	Yes
Country of origin	HU
<b>&gt; mounting diameters</b>	
Outside dimension, length	17.3 mm
Outside dimension, width	17.3 mm
Outside dimension, height	17.15 mm
Mounting depth	9.2 mm
<b>&gt; mechanical data</b>	
Terminal on the rear	THT
Fixing	Soldering
Contact function	2 NC
Contact system	Bridge contact
Contact material	Silver
Solderability	Yes
<b>&gt; electrical data</b>	
Rated insulation voltage	250 V
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)

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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

**> Specifications according to IEC 60947-5-1**

Rated surge voltage	2,500 V
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**Use according to UL:**

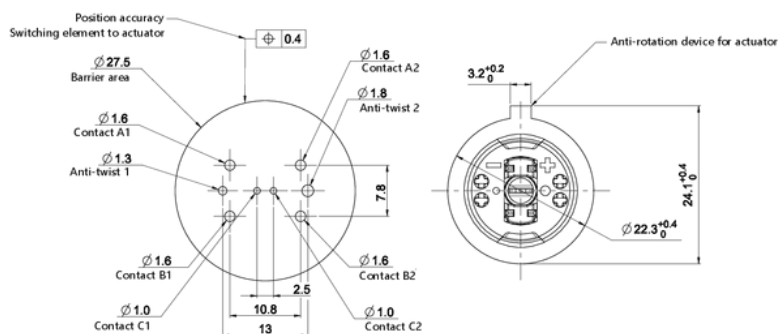
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RAFIX control devices are defined at RAFI as modular elements, consisting of an actuating element, if necessary a coupling and an individual contact or lighting unit.

Actuating elements (such as pushbuttons, emergency stop actuators, etc.) have the intended tactility, reset and function only when assembled with the appropriate switching elements.

drawings

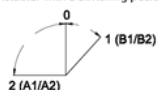
System drawing



Assembly side PCB THT

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

Actuator with 3 switching positions



Actuator with 2 switching positions

