RAFIX FS switching element universal PCB, silver, for SMT LED, 1 NC + 1 NO, with light guide



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

general

Feature	with light guide
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	SMT 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, width	17.75 mm
Outside dimension, height	17.35 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

direct links

RAFI eCatalog

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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

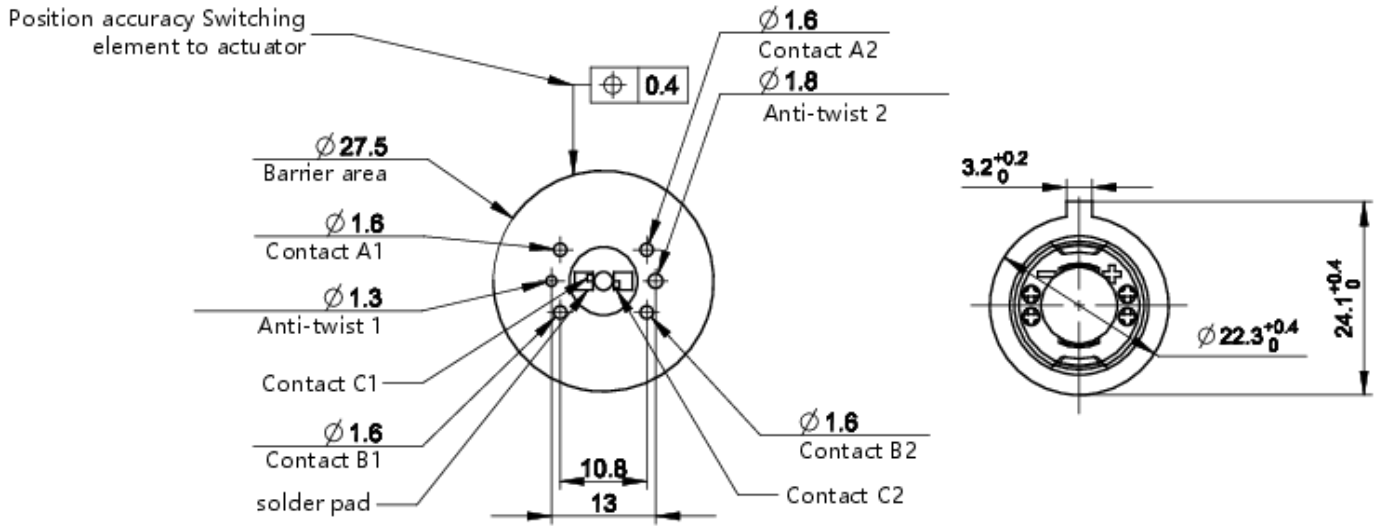
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drawings

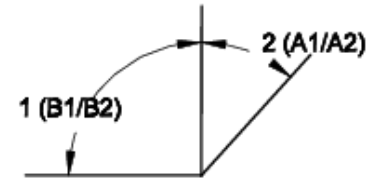
System drawing



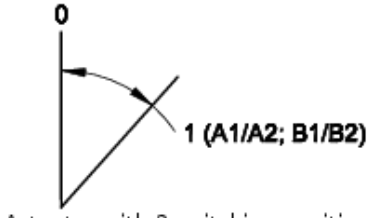
System drawing

Variant	1S / 1NO	1Ö / 1NC	2S / 2NO	2Ö / 2NC	1S + 1Ö / 1NO + 1NC
Contact A1/A2 Connection designation	1S / 1NO 13 - 14	-	1S / 1NO 13 - 14	1Ö / 1NC 11-12	1S / 1NO 13 - 14
Contact B1/B2 Connection designation	-	1Ö / 1NC 21-22	1S / 1NO 23-24	1Ö / 1NC 21-22	1Ö / 1NC 21-22
Contact C1/C2* Connection designation	LED*	LED*	LED*	LED*	LED*

*LED assignment when actuator is illuminated



Actuator with 3 switching positions



Actuator with 2 switching positions

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