

# RAFIX FS switching element universal PCB, gold, for SMT LED, 2 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
- Gold contacts (= grey housing)
- > Mounting: Soldering on printed circuit board
- $ar{}$  Version with light guide for SMT LED, without light guide for THT LED
- > marking:
- normally closed contacts = red plungers
- normally open contacts = green plungers

#### RAFI GmbH & Co. KG

technical data sheet

# 1.20.126.005/9000

# technical data



technical data		
> general		
Feature	with light guide	direct links
Disassembly possible	no	> RAFI eCatalog
Color	dark gray	
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	DIN EN 60068-2-20	
to standard		
Packaging unit	30 pcs.	
net weight	2.2 g	
Operating life electrical	1.000.000 (10mA / 24V DC) cycles	
B10 electrical	1.300.000 (10mA / 24V DC) 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	15 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		
Operating force, max.	100 N	
Contact function	2 NO	
Contact system	Bridge contact	
Contact material	Gold	
Fixing	Soldering	
Solderability	Yes	
, Terminal on the rear	THT	
> electrical data		
Rated insulation voltage	50 V	
Rated surge voltage	500 V	
0 0		

The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my change due to further product enhancements. The technical data, illustrations and other information about our products are the mere results of individual technical testing. These descriptions and other product features are only binding if they expressly agreed upon at the time of the conclusion of a binding contract. In all other cases, we reserve the right to make technical changes as well as changes of availability. Pictures and other graphic illustrations are approximations only. All product names may be trademarks or brand names of the RAFI Group or any other sub-supplier of RAFI. The use of such by any third parties for their own purposes may infringe the rights of the respective entity holding those rights. **date**: May 22, 2024 **page**: 2/4

#### RAFI GmbH & Co. KG

technical data sheet





Rated voltage, min.	0.02 V
Rated voltage, max.	35 V
Rated current, min.	0.001 A
Rated current, max.	0.1 A
Rated power, max.	0.25 W
Categories of use	AC-15
	DC-13
Conditional short circuit current	1,000 A

The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my change due to further product enhancements. The technical data, illustrations and other information about our products are the mere results of individual technical testing. These descriptions and other product features are only binding if they expressly agreed upon at the time of the conclusion of a binding contract. In all other cases, we reserve the right to make technical changes as well as changes of availability. Pictures and other graphic illustrations are approximations only. All product names may be trademarks or brand names of the RAFI Group or any other sub-supplier of RAFI. The use of such by any third parties for their own purposes may infringe the rights of the respective entity holding those rights. **date**: May 22, 2024 **page**: 3/4

#### RAFI GmbH & Co. KG

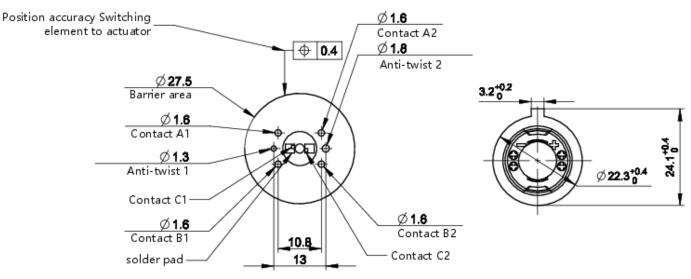
#### technical data sheet





## drawings

#### System drawing



#### System drawing

Variant	1S / 1NO	10 / 1NC	2S / 2NO	2Ö / 2NC	1\$ + 10 / 1NO + 1NC
Contact A1/A2	1S / 1NO	-	1S / 1NO	1Ö / 1NC	1S / 1NO
Connection designation	13 - 14		13 - 14	11-12	13 - 14
Contact B1/B2	-	1Ö / 1NC	18 / 1NO	1Ö / 1NC	10 / 1NC
Connection designation		21-22	23-24	21-22	21-22
Contact C1/C2* Connection designation	LED*	LED*	LED*	LED*	LED*

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

Actuator with 3 switching positions

1 (A1/A2; B1/B2)

Actuator with 2 switching positions

The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my change due to further product enhancements. The technical data, illustrations and other information about our products are the mere results of individual technical testing. These descriptions and other product features are only binding if they expressly agreed upon at the time of the conclusion of a binding contract. In all other cases, we reserve the right to make technical changes as well as changes of availability. Pictures and other graphic illustrations are approximations only. All product names may be trademarks or brand names of the RAFI Group or any other sub-supplier of RAFI. The use of such by any third parties for their own purposes may infringe the rights of the respective entity holding those rights. **date**: May 22, 2024 **page**: 4/4

#### RAFI GmbH & Co. KG

\*LED assignment when actuator is illuminated