

Contact blocks with quick-connect terminals



System

RAFI offers contact blocks with quick-connect terminals for the tried and tested RAFIX 22 FS actuators. The contact block snaps into the actuator with a gentle >>>click<<< and is thereby fitted permanently.

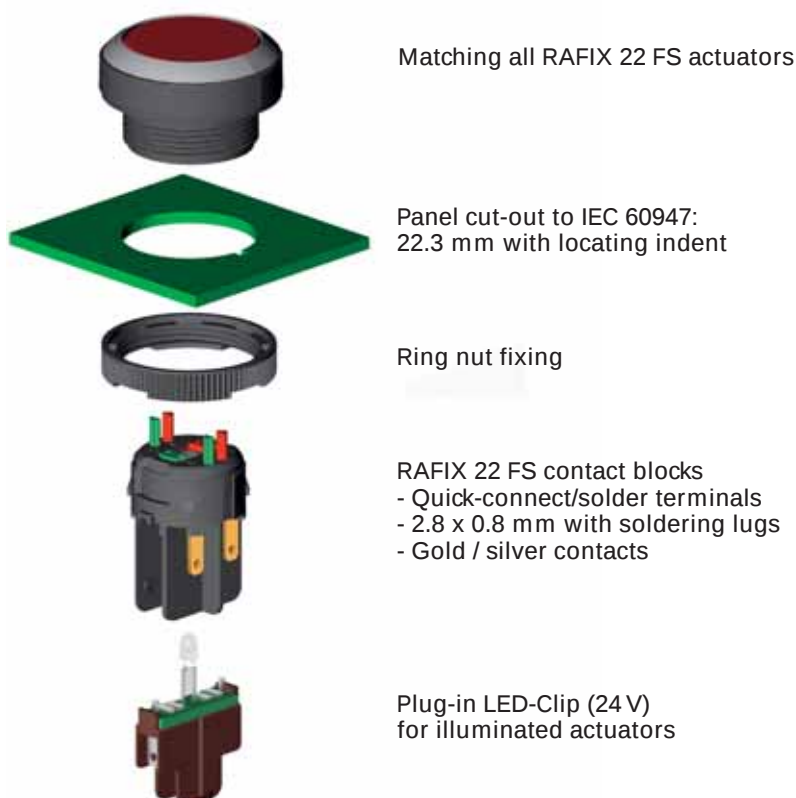
Concept

For those applications where designing a PCB layout is too expensive or not possible at all, a new option has been made available by complementing the series. Catch noses provided on the new contact block snap precisely into the actuator. The screw neck of the actuator is provided with indents safeguarding a reliable union.

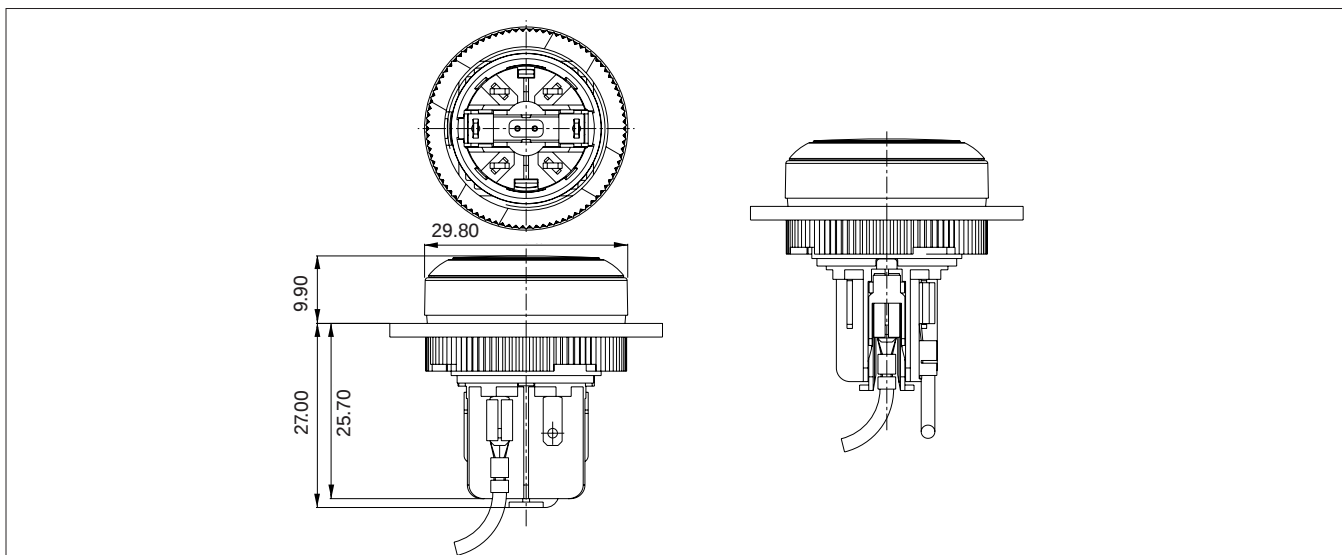
The contacts of the contact block are easily connected by conventional quick-connect terminals on the rear end. A fin arranged at the centre of the contact block with quick-connect terminals helps to ensure good insulation. It serves as a guide for the additional LED-Clip at the same time if illumination is desired.

The new contact blocks with quick-connect terminals makes the RAFIX 22 FS series complete and perfect. Any external control components can be integrated into the system *very easily* and *without needing any tools* and you save space, effort and material.

Design



Reliable assembly method



Essential features

- Depth behind panel only 27 mm including LED-Clip and cable lugs
- Quick-connect/solder terminals 2.8 x 0.8 mm
- The contact block engages permanently with the actuator only at the time of final assembly
- Compatible with all RAFIX 22 FS actuators: Pushbuttons, selector switches, keylock switches, emergency stop buttons and signal indicators, with all advantages this series offers:
 - Large actuating and indicating areas
 - Round or square collar shape
 - Panel cut-out to IEC 60947: 22.3 mm with locating indent
 - Degree of protection IP 65 (water-jet proof)
- Protection against contact for quick-connect terminals and cable lugs: Short-circuit proof even when the connection cables are under tensile strain
- Gold contacts for 100% reliable switching of low voltage (min. 5V / 1 mA) or
- Silver contacts (max. 250 V/4 A) for mains voltage
- Contact arrangements: 1 NC, 1 NO, 2 NC, 2 NO, 1 NC + 1 NO
- Illumination with replaceable superbright LED-Clips in various LED colours, with quick-connect terminals 2.8 x 0.8 mm
- Actuators / contact blocks, signal indicators / lamp sockets and LED-Clips are stocked separately and only assembled at final assembly. This ensures utmost flexibility and most economic stockkeeping for this product range.

RAFIX 22 FS, Contact blocks with quick-connect terminals, gold contacts


Pict.: Universal, Au-contact, 2 NC



Pict.: Emergency stop, Au-contact, 1 NC + 1 NO



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General data

The contact blocks are inserted into the actuators and latch there permanently. Emergency stop pushbuttons require special contact blocks which you can recognise by the plungers being in the interior. In addition, the emergency stop contact blocks and actuators feature two assembly guides which prevent rotation during assembly. We recommend to choose the LED colour in the same colour as the lens of the actuator in order to ensure satisfactory illumination.

Technical data
General information

Lamp LED-Clip

Dimensions

 Diameter 17.3 mm
 Recommended key grid 30 mm
 Mounting depth 27 mm

Mechanical design

 Mounting soldering in PCB
 Contact system bridgecontact self cleaning
 Contact materials Au
 Contact arrangement see order block
 NC contact
 forcibly actuated acc. to IEC 947-5-1 yes
 Terminals quick-connect/solder terminals 2.8 x 0.8 mm
 Robustness 100 N

Electrical characteristics acc. to IEC 60947, AC-15, DC-13

 Operating voltage min. 5 V
 Operating current min. 1 mA
 Rated power max. 250 mW

Other specifications

 Operating life 1 million at 10 mA/24 V DC
 Switching reliability at 24V/5mA DC 10 x 10⁻⁶
 Approvals acc. to IEC 60947-5-1/-5, 60204, 60073
 Approvals, other cURus (UL + CSA)
 Ambient temp. operating min. -25 °C
 Ambient temp. operating max. +70 °C
 Storage temperature min. -40 °C
 Storage temperature max. +80 °C
 Colour of plunger see order block
 Robustness acc. to IEC 60947-5-5 (TÜV)
 Shock resistance acc. to IEC 600 68-2-27 15 g bei 11 ms amplitude half sinusoidal
 Resistance to vibrations acc. to IEC 600 68-2-6 5 g at 10 ... 500 Hz
 Resistance to constant environment IEC 600 68-2-3 und 2-30
 Resistance at variable environment IEC 600 68-2-14 und 2-33
 Salt spray IEC 600 68-2-11
 Colour of housing grey

 RAFIX
22 FS

Typical accessories RAFIX 22 FS contact blocks

Discription	Photo	Order no.	Additional acces- sories see page
LED-Clip, LED red		5.05.511.359/0300	38
LED-Clip, LED blue		5.05.511.359/0600	38
LED-Clip, LED green		5.05.511.359/0500	38
LED-Clip, LED white		5.05.511.359/0200	38
LED-Clip, LED yellow		5.05.511.359/0400	38

For additional accessories, refer to the chapter "RAFIX 22 FS special accessories".

RAFIX 22 FS contact blocks with quick-connect terminals

    Pict.: Universal, Au-contact, 2 NC Pict.: Universal, Au-contact, 2 NO Pict.: Universal, Au-contact, 1 NC + 1 NO Pict.: Emergency stop, Au-contact, 2 NC				
Contact arrangement	Type	Colour of housing	Colour of plunger	Order no.
1 NC	Universal	grey	red	120.126.101/0000
1 NO	Universal	grey	green	120.126.102/0000
1 NC + 1 NO	Universal	grey	red and green	120.126.103/0000
2 NC	Universal	grey	red	120.126.104/0000
2 NO	Universal	grey	green	120.126.105/0000
1 NC	Emergency stop	grey	red	120.126.501/0000
1 NC + 1 NO	Emergency stop	grey	yellow	120.126.503/0000
2 NC	Emergency stop	grey	red	120.126.504/0000

Caution: Emergency stop contact blocks can only be used with emergency stop pushbuttons. Universal contact blocks are not suitable for emergency stop pushbuttons.

RAFIX 22 FS contact blocks with silver contacts


Pict.: Universal, Ag-contact, 2 NC



Pict.: Emergency stop, Ag-contact, 1 NC + 1 NO



2

General data

The contact blocks are inserted into the actuators and latch there permanently. Emergency stop pushbuttons require special contact blocks which you can recognise by the plungers being in the interior. In addition, the emergency stop contact blocks and actuators feature two assembly guides which prevent rotation during assembly. We recommend to choose the LED colour in the same colour as the lens of the actuator in order to ensure satisfactory illumination.

Technical data
General information

Lamp LED-Clip

Dimensions

 Diameter 17.3 mm
 Recommended key grid 30 mm
 Mounting depth 27 mm

Mechanical design

 Mounting soldering in PCB
 Betätigungselement
 Contact system bridgecontact self
 cleaning
 Contact materials Ag
 Contact arrangement see order block
 NC contact forcibly
 actuated acc. to
 IEC 60947-5-1 yes
 Terminals quick-connect/solder
 terminals 2.8 x 0.8 mm
 Robustness 100 N

Electrical characteristics acc. to IEC 60947, AC-15, DC-13

 Rated insulation voltage 250 V
 AC/DC 2,500 V
 Rated peak voltage 2,500 V
 Rated operating current
 I_E , AC15 B300 3 A/120 V; 1,5 A/240 V;
 I_{the}: 5 A
 Rated operating current
 I_E , DC13 Q300 550 mA/120 V; 270 mA/240
 V; I_{the}: 2,5 A

Other specifications

 Operating life at 250V / 1A 1,000,000
 Operating life at 250V / 2A 100,000
 Operating life at 250V / 4A 30,000

 Switching reliability at
 24V/5mA DC 10 x 10⁻⁶
 Ambient temp. operating
 min. -25 °C
 Ambient temp. operating
 max. +70 °C
 Storage temperature min. -40 °C
 Storage temperature max. +80 °C
 Colour of plunger see order block
 Approvals acc. to IEC 60947-5-1/-5, 60204, 60073
 Approvals, other
 pending: cURus (UL + CSA)
 Marine approvals on request
 Robustness acc. to IEC 60947-5-5
 (TÜV)
 Shock resistance acc. to
 IEC 600 68-2-27 15 g at 11 ms, amplitude
 half sinusoidal
 Resistance to vibrations
 acc. to IEC 600 68-2-6 5 g bei 0 ... 500 Hz
 Konstantklimafestigkeit IEC 600 68-2-3 und 2-30
 Wechselklimafestigkeit IEC 600 68-2-14 und 2-33
 Salznebel IEC 600 68-2-11
 Flame class acc. to UL 94 V 0
 Hot wire ignition acc. to
 IEC 695-2-1 yes
 Colour of housing black

Typical accessories RAFIX 22 FS contact blocks

Bezeichnung	Photo	Order no.	Additional accessories see page
LED-Clip, LED red		5.05.511.359/0300	38
LED-Clip, LED blue		5.05.511.359/0600	38
LED-Clip, LED green		5.05.511.359/0500	38
LED-Clip, LED white		5.05.511.359/0200	38
LED-Clip, LED yellow		5.05.511.359/0400	38

For additional accessories, refer to the chapter "RAFIX 22 FS special accessories".

RAFIX 22 FS contact blocks with quick-connect terminals, silver contacts

				
Pict.: Universal, Ag-contact, 2 NC	Pict.: Universal, Ag-contact, 2 NO	Pict.: Universal, Ag-contact, 1 NC + 1 NO	Pict.: Emergency stop, Ag-contact, 2 NC	
Contact arrangement	Type	Colour of housing	Colour of plunger	Order no.
1 NC	Universal	black	red	1.20.126.301/0000
1 NO	Universal	black	green	1.20.126.302/0000
1 NC + 1 NO	Universal	black	red and green	1.20.126.303/0000
2 NC	Universal	black	red	1.20.126.304/0000
2 NO	Universal	black	green	1.20.126.305/0000
1 NC	Emergency stop	black	red	1.20.126.701/0000
1 NC + 1 NO	Emergency stop	black	yellow	1.20.126.703/0000
2 NC	Emergency stop	black	red	1.20.126.704/0000

Caution: Emergency stop contact blocks can only be used with emergency stop pushbuttons. Universal contact blocks are not suitable for emergency stop pushbuttons.