

CONTROL COMPONENTS

RAFIX FS TECHNOLOGY - CONTACT BLOCKS



2

RAFIX FS Technology - Contact blocks

Contact
blocks

The contact blocks of the RAFIX FS technology are available as PCB version or as „QC“ (Quick Connect) version for direct connection. Both variants can be combined with the appropriate actuators of the following product families: RAFIX 22 FS⁺, RAFIX 22 FSR and RAFIX 30 FS⁺.

CONTROL COMPONENTS

RAFIX FS TECHNOLOGY - CONTACT BLOCKS

Content

RAFIX 22 FS Contact blocks PCB gold	2 - 241
RAFIX FS Contact block PCB gold, Universal, with light conductor	2 - 242
RAFIX FS Contact block PCB gold, Universal	2 - 243
RAFIX FS Contact block PCB gold, E-Stop, with light conductor	2 - 243
RAFIX FS Contact block PCB gold, E-Stop	2 - 244
RAFIX FS Contact block PCB gold, E-Stop, „Plus 1“	2 - 244
RAFIX 22 FS⁺ Contact blocks PCB silver	2 - 246
RAFIX 22 FS ⁺ Contact block PCB silver, Universal, with light conductor	2 - 247
RAFIX FS Contact block PCB silver, Universal	2 - 248
RAFIX 22 FS ⁺ Contact block PCB silver, E-Stop, with light conductor	2 - 248
RAFIX 22 FS ⁺ Contact block PCB silver, E-Stop	2 - 249
RAFIX 22 FS⁺ Contact blocks QC gold	2 - 252
RAFIX 22 FS ⁺ Contact block QC gold, Universal, with light conductor	2 - 253
RAFIX 22 FS ⁺ Contact block QC gold, E-Stop, with light conductor	2 - 253
RAFIX 22 FS ⁺ Contact block QC gold, E-Stop, „Plus 1“	2 - 254
RAFIX 22 FS⁺ Contact blocks QC silver	2 - 255
RAFIX 22 FS ⁺ Contact block QC silver, Universal, with light conductor	2 - 256
RAFIX 22 FS ⁺ Contact block QC silver, E-Stop, with light conductor	2 - 257
RAFIX FS Short-travel adapters	2 - 258
RAFIX FS Short-travel adapter	2 - 258

2

Contact
blocks

RAFIX FS Technology Contact Blocks

Combination with actuators

The RAFIX FS contact blocks can be combined with appropriate actuators from the following product families:

- RAFIX 22 FS⁺
- RAFIX 22 FSR
- RAFIX 30 FS⁺

PCB contact blocks



PCB contact blocks are arranged with other components on a common printed circuit board. The unit can then be attached behind the front panel with the actuators and signal indicators. This allows the contact blocks to "float" right below the actuators on the printed circuit board, leaving plenty of room for other components.

In the centre channel of the contact blocks, either light conductors are integrated to allow usage of SMT LEDs, or 3 mm THT LEDs can be mounted to provide illumination.

PCB mounting depths

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

QC contact blocks



QC contact blocks can be easily snapped into the actuators without tools. Male quick-connect terminals are used directly for wiring in a conventional manner. This is a fast and efficient variant for applications where a printed circuit board is not cost-effective.

QC mounting depths

- 26.8 mm for RAFIX 22 FS⁺ and RAFIX 22 FSR
- 32.8 mm for RAFIX 30 FS⁺

Contact materials / data (PCB & QC)



The Au / Ag versions of the PCB and QC variants are distinguished by the colouring scheme of the housing:

- Gold contacts for low voltages up to 35 V / 100 mA: grey housing
- Silver contacts up to 250 V / 4 A: black housing

Contact assignments (PCB & QC)



The assignments are indicated with different plunger colours:

- Normally-closed contact (NC) = red
- Normally-open contact (NO) = green
- NC + NO for emergency stop = yellow

The following contact assignments are available:

- 1 normally-closed contact (1 NC)
- 1 normally-open contact (1 NO)
- 2 normally-closed contacts (2 NC)
- 2 normally-open contacts (2 NO)
- 1 normally-closed contact and 1 normally-open contact (1 NC + 1 NO)
- 2 normally-closed contacts and 1 normally-open contact (2 NC + 1 NO), only emergency stop "Plus 1"

Universal / emergency stop versions (PCB & QC)



The universal and emergency stop versions differ in terms of the position of the plungers:

- Universal = plunger outside
- Emergency stop = plunger inside

As a result, only the following combinations are possible:

- Universal contact blocks with pushbutton, selector switch and keylock switch
- Emergency stop contact blocks with emergency stop and mushroom pushbutton

Illumination / LED types (for PCB version only)



- Version with light conductor for SMT LED
- Version without light conductor for 3 mm THT LED

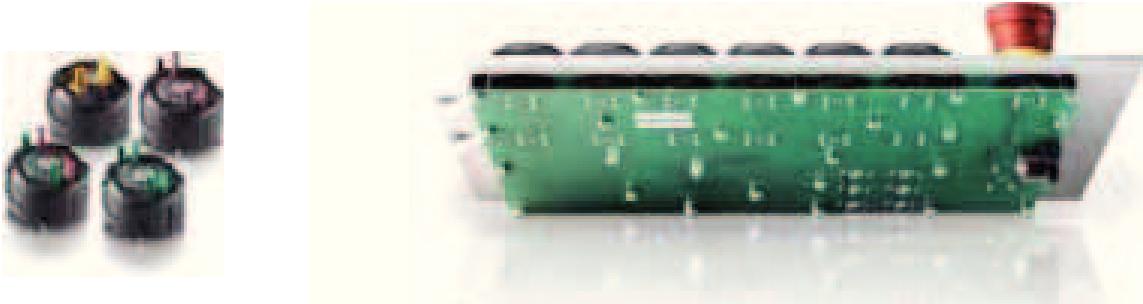
2

Contact blocks

CONTROL COMPONENTS

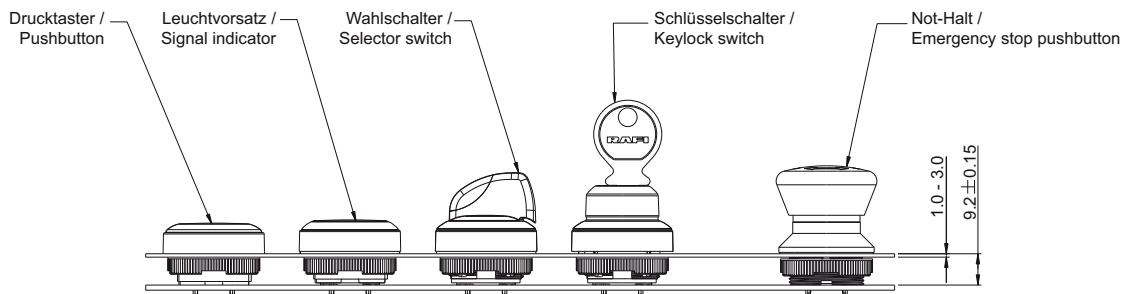
RAFIX FS TECHNOLOGY - CONTACT BLOCKS

RAFIX 22 FS⁺ PCB

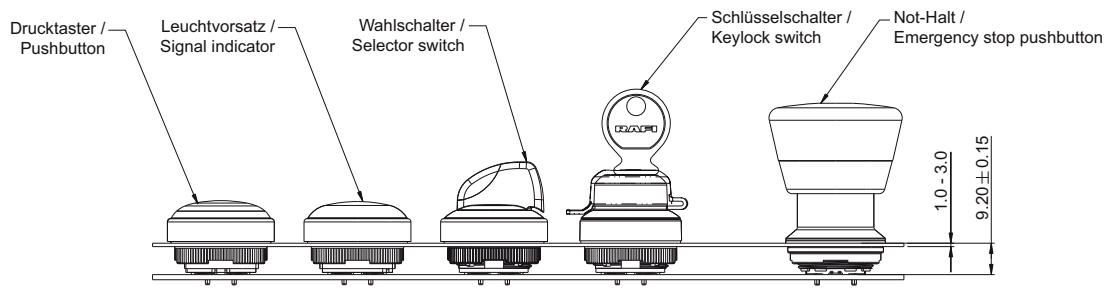


2

Dimensional drawing RAFIX 22 FS⁺, PCB

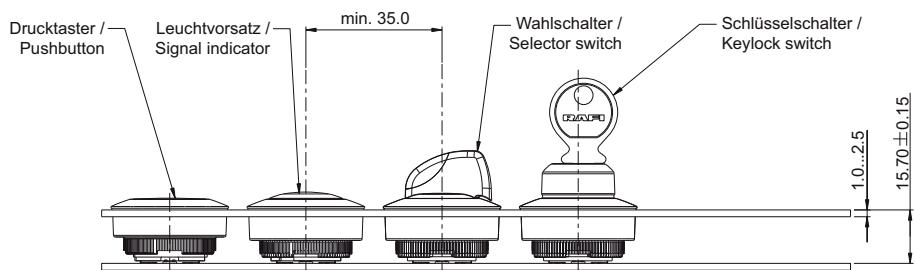


Dimensional drawing RAFIX 22 FSR, PCB



Contact blocks

Dimensional drawing RAFIX 30 FS⁺, PCB



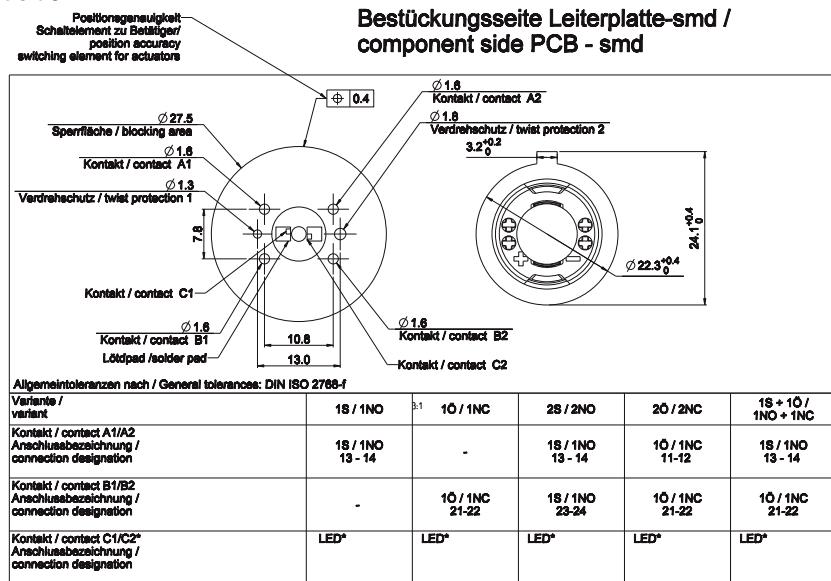
CONTROL COMPONENTS

RAFIX FS TECHNOLOGY - CONTACT BLOCKS

RAFIX 22 FS⁺ PCB

PCB hole pattern SMT LED

View on component side

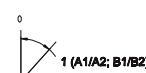
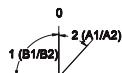


Die Schaltung der Kontakte erfolgt nach folgendem Schema: / The contact circuits are carried out according to the following scheme:

* LED Belegung bei Beleuchtung des Betätigers / LED pinning to illuminate an actuator

Betätigter mit 3 Schaltstellungen
Actuator with 3 switch positions

Betätigter mit 2 Schaltstellungen
Actuator with 2 switch positions



Solder pad design SMT LED

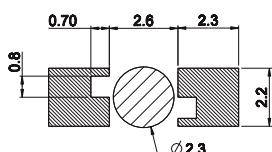
View on component side

Contact blocks

Empfohlenes Lötpaddesign

bei Verwendung
pointLED OSRAM
Selektionsklasse: T1-U1

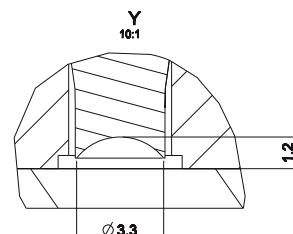
recommended solder pad
for using
pointLED OSRAM
selectionclass: T1-U1



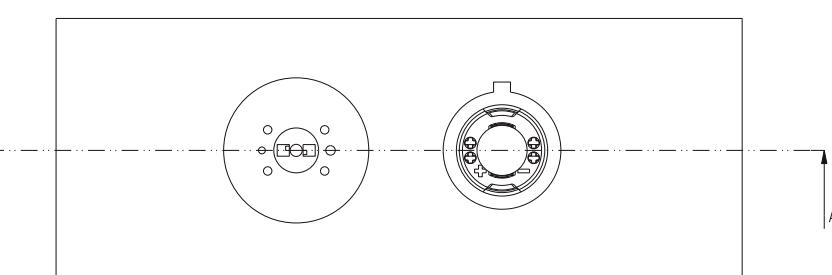
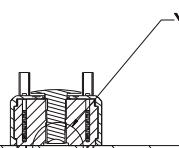
■ Lötpolplack/Solder resist

○ Kein Lötpolplack; kein Kupfer
No solder resist; no cooper pad

Allgemeiner Bauraum / general space
LED Type 1206
max. Höhe: siehe Schaubild "x" /
max. high: view figure "x"



A-A



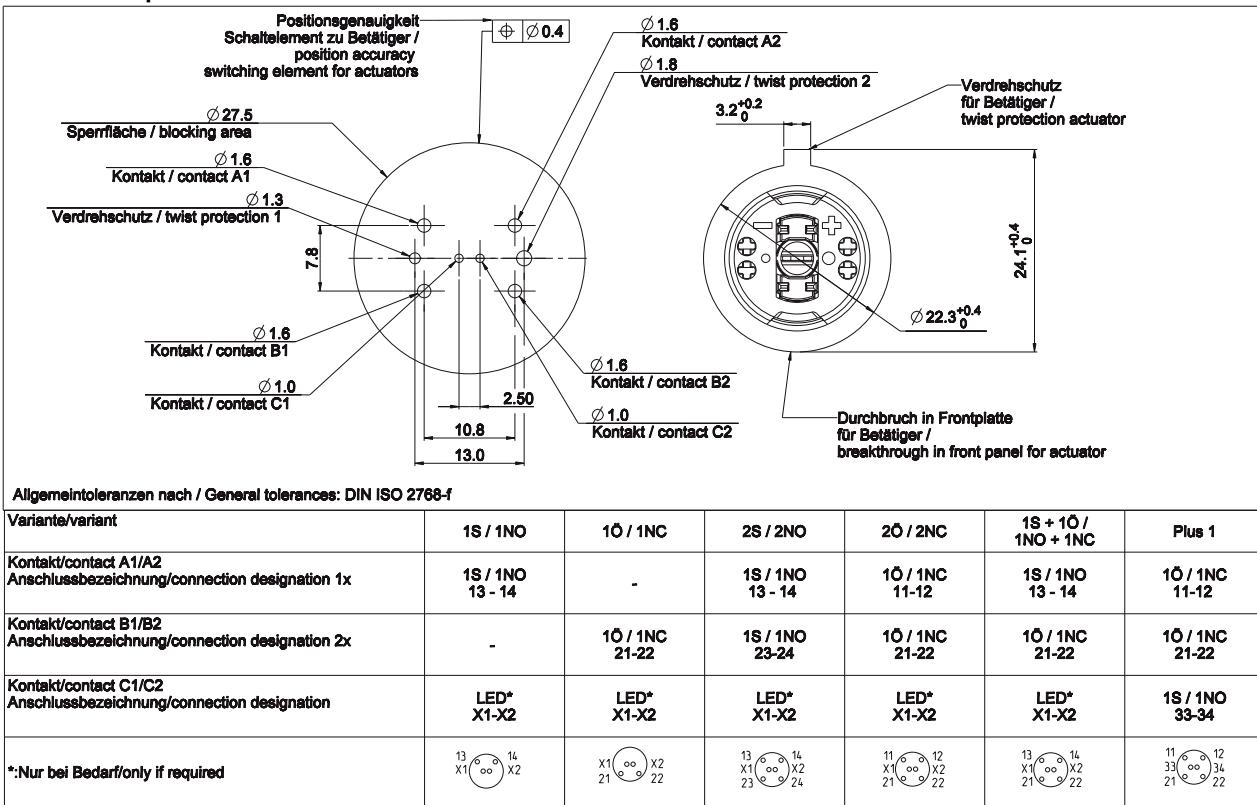
CONTROL COMPONENTS

RAFIX FS TECHNOLOGY - CONTACT BLOCKS

RAFIX 22 FS⁺ PCB, THT

PCB hole pattern THT LED

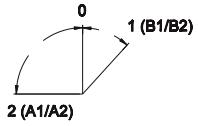
View on component side



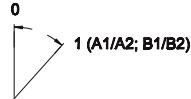
Die Schaltung der Kontakte erfolgt nach folgendem Schema: /
The contact circuits are carried out according to the following scheme:

Contact blocks

Betätigern mit 3 Schaltstellungen
Actuator with 3 switch positions



Betätigern mit 2 Schaltstellungen
Actuator with 2 switch positions



RAFIX 22 FS

Contact blocks

PCB gold

→ Illumination information

The PCB contact blocks are included into the PCB layout and arranged next to other components. They are located directly behind the actuators at a distance of only 9.2 mm behind the front panel.

When actuators shall be illuminated there are 2 alternative LED technologies.

THT LEDs: Can be assembled and soldered together with the PCB contact blocks.

SMT LEDs: Can be pre-assembled and soldered with other SMT components. Then they are covered by the PCB contact blocks with light conductor.

Technical Data

→ General information

Lamp optional	see order block
---------------	-----------------

→ Mechanical design

Mounting	soldering in PCB
Contact system	bridge-contact self cleaning
Contact materials	Au
Contact arrangement	see order block
NC contact forcibly actuated acc. to IEC 60947-5-1	yes
Terminals	THT solder terminals with locating lug

→ Electrical characteristics

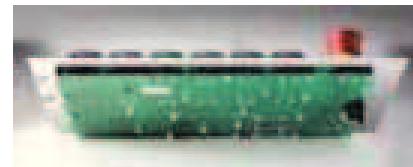
Operating voltage AC / DC min.	5 V
Operating voltage AC / DC max.	35 V
Operating current AC / DC min.	1 mA
Operating current AC / DC max.	100 mA
Rated power max.	250 mW

→ Other specifications

Operating life at 10 mA / 24 V DC	see order block
B10	see order block
Switching reliability at 24V / 5mA DC	10×10^6
Ambient temp. operating max.	+85 °C
Ambient temp. operating min.	-40 °C
Storage temperature min.	-40 °C
Storage temperature max.	+85
Color of plunger	see order block
Robustness	acc. to IEC 60947-5-5 (TÜV)
Shock resistance acc. to IEC 60068-2-27	15 g at 11 ms, amplitude half sinusoidal
Resistance to vibrations acc. to IEC 60068-2-6	5 g at 10 ... 500 Hz
Environmental resistance	acc. to IEC 60068-2-14, -30, -33 and -78
Solderability / solder heat resistance	DIN EN 60068-2-20
Solder techniques	wave solder bath / manual soldering
Color of housing	grey
ROHS compliant	yes
REACH compliant	yes



2



Approvals



IEC 60947-5-x,
60904, 60073



UL 508

Contact
blocks

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB GOLD

2

Accessories RAFIX 22 FS - Contact block PCB gold

→ Description	Photo	Order no.	Additional accessories see page
LED 3 mm		-	-
LED base for 3 mm THT LED, used in signal indicators, for RAFIX FS PCB		-	2 - 263
SMT LED		-	2 - 263
Spacers, round		-	2 - 265, 4 - 97, 5 - 32
Spacers, triangular		-	4 - 98, 5 - 33



RAFIX FS Contact block PCB gold, Universal, with light conductor

Technical data see page 2 - 241



Contact blocks

→ Contact arrangement	Lamp optional	Operating life at 10 mA / 24 V DC	B10	Color of plunger	Order no.
1 NO	SMT LED	1,000,000	1,300,000	green	1.20.126.002/9000
1 NC	SMT LED	1,000,000	1,300,000	red	1.20.126.001/9000
2 NO	SMT LED	1,000,000	1,300,000	green	1.20.126.005/9000
2 NC	SMT LED	1,000,000	1,300,000	red	1.20.126.004/9000
1 NC + 1 NO	SMT LED	1,000,000	1,300,000	red and green	1.20.126.003/9000

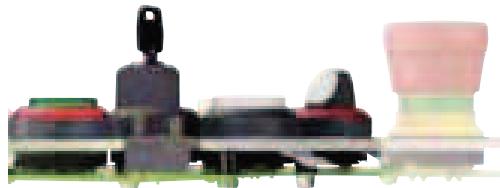
Caution: can not be used with emergency stop and mushroom headed pushbuttons.

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB GOLD

RAFIX FS Contact block PCB gold, Universal

Technical data see page 2 - 241



2

→ Contact arrangement	Lamp optional	Operating life at 10 mA / 24 V DC	B10	Color of plunger	Order no.
1 NO	THT LED	1,000,000	1,300,000	green	1.20.126.002/0000
1 NC	THT LED	1,000,000	1,300,000	red	1.20.126.001/0000
2 NO	THT LED	1,000,000	1,300,000	green	1.20.126.005/0000
2 NC	THT LED	1,000,000	1,300,000	red	1.20.126.004/0000
1 NC + 1 NO	THT LED	1,000,000	1,300,000	red and green	1.20.126.003/0000

Caution: can not be used with emergency stop and mushroom headed pushbuttons.

RAFIX FS Contact block PCB gold, E-Stop, with light conductor

Technical data see page 2 - 241



Contact blocks

→ Contact arrangement	Lamp optional	Operating life at 10 mA / 24 V DC	B10	Color of plunger	Order no.
1 NO	SMT LED	1,000,000	1,300,000	green	1.20.126.402/9000
1 NC	SMT LED	1,000,000	1,300,000	red	1.20.126.401/9000
2 NO	SMT LED	1,000,000	1,300,000	green	1.20.126.405/9000
2 NC	SMT LED	1,000,000	1,300,000	red	1.20.126.404/9000
1 NC + 1 NO	SMT LED	1,000,000	1,300,000	yellow	1.20.126.403/9000

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB GOLD

-Table (continued) -

RAFIX FS - Contact block PCB gold, E-Stop, with light conductor

Caution: E-stop contact blocks can only be used with emergency stop and mushroom headed pushbuttons.

2



RAFIX FS Contact block PCB gold, E-Stop

Technical data see page 2 - 241



→ Contact arrangement	Lamp optional	Operating life at 10 mA / 24 V DC	B10	Color of plunger	Order no.
1 NO	THT LED	1,000,000	1,300,000	green	1.20.126.402/0000
1 NC	THT LED	1,000,000	1,300,000	red	1.20.126.401/0000
2 NO	THT LED	1,000,000	1,300,000	green	1.20.126.405/0000
2 NC	THT LED	1,000,000	1,300,000	red	1.20.126.404/0000
1 NC + 1 NO	THT LED	1,000,000	1,300,000	yellow	1.20.126.403/0000

Caution: E-stop contact blocks can only be used with emergency stop and mushroom headed pushbuttons.

Contact blocks



RAFIX FS Contact block PCB gold, E-Stop, „Plus 1“

Technical data see page 2 - 241



→ Contact arrangement	Lamp	Operating life at 10 mA / 24 V DC	B10	Color of plunger	Order no.
2 NC + 1 signal contact	-	50,000	65,000	red	1.20.126.414/0000

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB GOLD

-Table (continued) -

RAFIX FS - Contact block PCB gold, E-Stop, „Plus 1“

Caution: E-stop contact blocks „Plus 1“ can only be used with emergency stop pushbuttons „Plus 1“

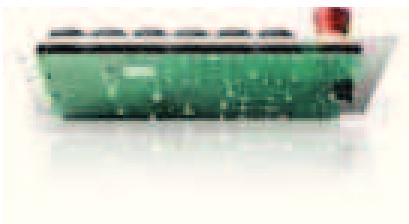
2

Contact
blocks

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB SILVER

2



Approvals



IEC 60947-5-x,
60904, 60073



UL 508



Contact
blocks

RAFIX 22 FS⁺ Contact blocks PCB silver

→ Illumination information

The PCB contact blocks are included into the PCB layout and arranged next to other components. They are located directly behind the actuators at a distance of only 9.2 mm behind the front panel.

When actuators shall be illuminated there are 2 alternative LED technologies.

THT LEDs: Can be assembled and soldered together with the PCB contact blocks.

SMT LEDs: Can be pre-assembled and soldered with other SMT components. Then they are covered by the PCB contact blocks with light conductor.

Technical Data

→ General information

Lamp optional	see order block
---------------	-----------------

→ Mechanical design

Mounting	soldering in PCB
Contact system	bridge-contact self cleaning
Contact materials	Ag
Contact arrangement	see order block
NC contact forcibly actuated acc. to IEC 60947-5-1	yes
Terminals	THT solder terminals with locating lug

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

Rated insulation voltage AC / DC	250 V
Rated peak voltage	2500 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
Max. fuse protection	microfuse 5 x 20 mm, 6.3 A, inert

→ Other specifications

Operating life at 250V / 1A	1,000,000
B10 at 250V / 1A	1,300,000
Operating life at 250V / 2A	100,000
B10 at 250V / 2A	130,000
Operating life at 250V / 4A	30,000
B10 at 250V / 4A	40,000
Switching reliability at 24V / 5mA DC	10 x 10 ⁻⁶
Ambient temp. operating max.	+85 °C
Ambient temp. operating min.	-40 °C
Storage temperature min.	-40 °C
Storage temperature max.	+85 °C
Color of plunger	see order block
Robustness	acc. to IEC 60947-5-5 (TÜV)
Shock resistance acc. to IEC 60068-2-27	50 g at 11 ms, amplitude half sinusoidal
Resistance to vibrations acc. to IEC 60068-2-6	5 g at 10 ... 500 Hz
Environmental resistance	acc. to IEC 60068-2-14, -30, -33 and -78
Solderability / solder heat resistance	DIN EN 60068-2-20
Solder techniques	wave solder bath / manual soldering
Flame class acc. to UL 94	V 0
Hot wire ignition acc. to IEC 60695-2-1	yes
Color of housing	black
ROHS compliant	yes
REACH compliant	yes

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB SILVER

Accessories RAFIX 22 FS⁺ - Contact block PCB silver

→ Description	Photo	Order no.	Additional accessories see page
LED 3 mm		-	-
LED base for 3 mm THT LED, used in signal indicators, for RAFIX FS PCB		-	2 - 263
SMT LED		-	2 - 263
Spacers, round		-	2 - 265, 4 - 97, 5 - 32
Spacers, triangular		-	4 - 98, 5 - 33

2

RAFIX 22 FS⁺ Contact block PCB silver, Universal, with light conductor

Technical data see page 2 - 246



Contact blocks

→ Contact arrangement	Lamp optional	Color of plunger	Order no.
1 NO	SMT LED	green	1.20.126.202/9000
1 NC	SMT LED	red	1.20.126.201/9000
2 NO	SMT LED	green	1.20.126.205/9000
2 NC	SMT LED	red	1.20.126.204/9000
1 NC + 1 NO	SMT LED	red and green	1.20.126.203/9000

Caution: can not be used with emergency stop and mushroom headed pushbuttons.

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB SILVER

2



RAFIX FS Contact block PCB silver, Universal

Technical data see page 2 - 246



→ Contact arrangement	Lamp optional	Color of plunger	Order no.
1 NO	THT LED	green	1.20.126.202/0000
1 NC	THT LED	red	1.20.126.201/0000
2 NO	THT LED	green	1.20.126.205/0000
2 NC	THT LED	red	1.20.126.204/0000
1 NC + 1 NO	THT LED	red and green	1.20.126.203/0000

Caution: can not be used with emergency stop and mushroom headed pushbuttons.

Contact blocks



RAFIX 22 FS⁺ Contact block PCB silver, E-Stop, with light conductor

Technical data see page 2 - 246



→ Contact arrangement	Lamp optional	Color of plunger	Order no.
1 NO	SMT LED	green	1.20.126.602/9000
1 NC	SMT LED	red	1.20.126.601/9000
2 NO	SMT LED	green	1.20.126.605/9000
2 NC	SMT LED	red	1.20.126.604/9000
1 NC + 1 NO	SMT LED	yellow	1.20.126.603/9000

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS PCB SILVER

-Table (continued) -

RAFIX 22 FS⁺ - Contact block PCB silver, E-Stop, with light conductor

Caution: E-stop contact blocks can only be used with emergency stop and mushroom headed pushbuttons.

RAFIX 22 FS⁺ Contact block PCB silver, E-Stop

Technical data see page 2 - 246



2

→ Contact arrangement	Lamp optional	Color of plunger	Order no.
1 NO	THT LED	green	1.20.126.602/0000
1 NC	THT LED	red	1.20.126.601/0000
2 NO	THT LED	green	1.20.126.605/0000
2 NC	THT LED	red	1.20.126.604/0000
1 NC + 1 NO	THT LED	yellow	1.20.126.603/0000

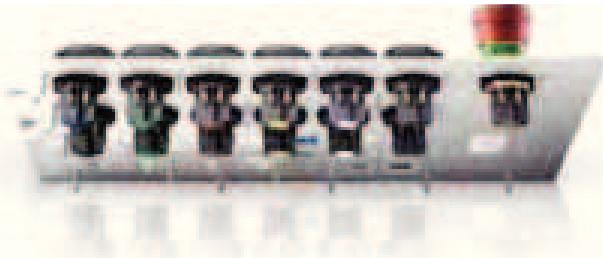
Caution: E-stop contact blocks can only be used with emergency stop and mushroom headed pushbuttons.

Contact
blocks

BEFEHLSGERÄTE

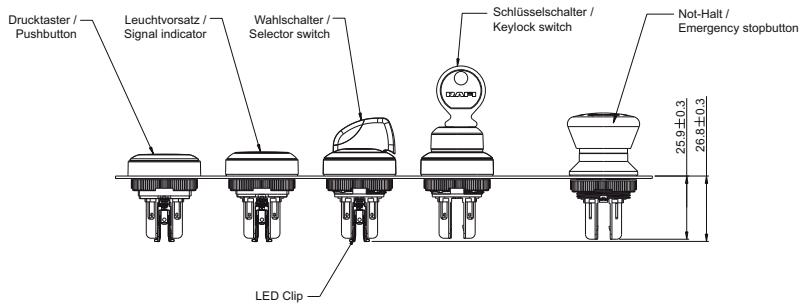
RAFIX FS TECHNOLOGY - CONTACT BLOCKS

RAFIX 22 FS⁺ QC

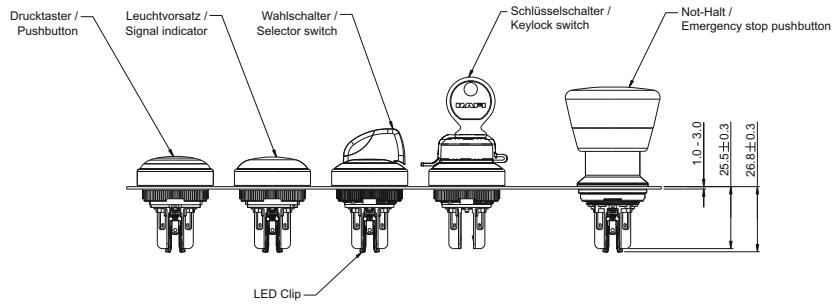


2

Dimensional drawing RAFIX 22 FS⁺, QC

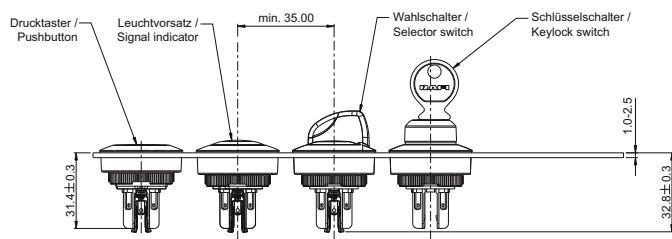


Dimensional drawing RAFIX 22 FSR, QC



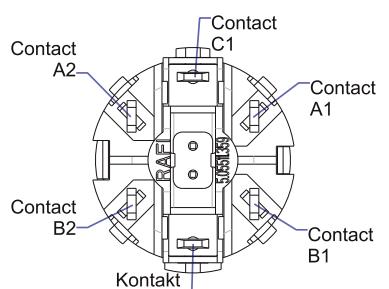
Contact
blocks

Dimensional drawing RAFIX 30 FS⁺, QC

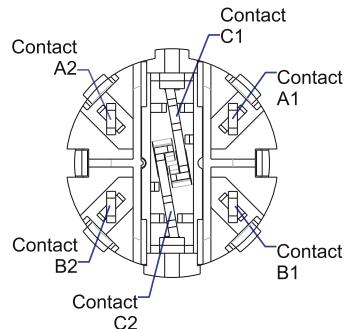


RAFIX 22 FS⁺ QC

Dimensional drawing with QC contact blocks



Contact block with LED-Clip
(sight from below)

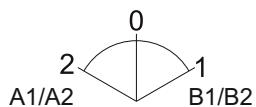


Contact block "Plus 1"
(sight from below)

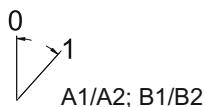
2

Contact arrangement	1NO	1NC	2NO	2NC	1NC + 1NO	Plus 1
Contact A1/A2 Terminal legending	1NO 13 - 14	-	1NO 13 - 14	1NC 11 - 12	1NO 13 - 14	1NC 11 - 12
Contact B1/B2 Terminal legending	-	1NC 21 - 22	1NO 23 - 24	1NC 21 - 22	1NC 21 - 22	1NC 21 - 22
Contact C1/C2 Terminal legending *:only when needed	LED* X1 - X2	1NO 33 - 34				

Contact diagramm for selector and keylock switches



All actuators with 3 switch positions



All actuators with 2 switch positions

Contact
blocks

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS QC GOLD

2



RAFIX 22 FS⁺ Contact blocks QC gold

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

Technical Data

→ General information

Lamp optional see order block

→ Mechanical design

Mounting snap on actuator

Contact system bridge-contact self cleaning

Contact materials Au

Contact arrangement see order block

NC contact forcibly actuated acc. to

IEC 60947-5-1 yes

Terminals quick connect terminals 2.8 x 0.5 mm
mm

→ Electrical characteristics

Operating voltage min. 5 V

Operating voltage max. 35 V

Operating current min. 1 mA

Operating current max. 100 mA

Rated power max. 250 mW

→ Other specifications

Operating life at 10 mA / 24V DC see order block

B10 see order block

Switching reliability at 5mA / 24V DC 10×10^{-6}

Ambient temp. operating min. -40 °C

Storage temperature max. +85 °C

Storage temperature min. -40 °C

Storage temperature max. +85 °C

Color of plunger see order block

Robustness acc. to IEC 60947-5-5 (TÜV)

Shock resistance acc. to IEC 60068-2-27 15 g at 11 ms, amplitude half sinusoidal

Resistance to vibrations acc. to 5 g at 10 ... 500 Hz

IEC 60068-2-6 acc. to IEC 60068-2-14, -30, -33 and -78

Environmental resistance grey

Color of housing yes

ROHS compliant yes

REACH compliant yes

Contact
blocks



IEC 60947-5-x,
60904, 60073



UL 508



Approvals

Accessories RAFIX 22 FS⁺ - Contact block QC gold

→ Description

Photo

Order no.

Additional accessories see page

LED base for contact blocks QC



-

2 - 262

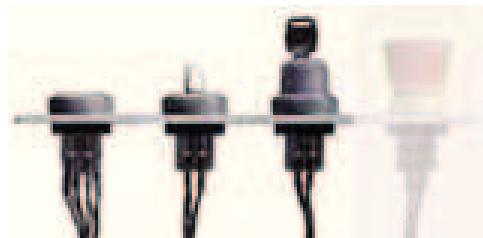
CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS QC GOLD

RAFIX 22 FS⁺

**Contact block QC gold, Universal,
with light conductor**

Technical data see page 2 - 252



2

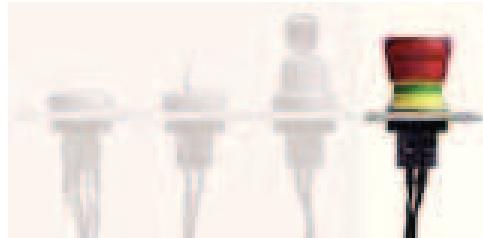
→ Contact arrangement	Lamp optional	Operating life at 10 mA / 24V DC	B10	Color of plunger	Order no.
1 NO	LED-Clip	1,000,000	1,300,000	green	1.20.126.102/9000
1 NC	LED-Clip	1,000,000	1,300,000	red	1.20.126.101/9000
2 NO	LED-Clip	1,000,000	1,300,000	green	1.20.126.105/9000
2 NC	LED-Clip	1,000,000	1,300,000	red	1.20.126.104/9000
1 NC + 1 NO	LED-Clip	1,000,000	1,300,000	red and green	1.20.126.103/9000

Caution: can not be used with emergency stop and mushroom headed pushbuttons.

RAFIX 22 FS⁺

**Contact block QC gold, E-Stop,
with light conductor**

Technical data see page 2 - 252



Contact
blocks

→ Contact arrangement	Lamp optional	Operating life at 10 mA / 24V DC	B10	Color of plunger	Order no.
1 NO	LED-Clip	1,000,000	1,300,000	green	1.20.126.502/9000
1 NC	LED-Clip	1,000,000	1,300,000	red	1.20.126.501/9000
2 NO	LED-Clip	1,000,000	1,300,000	green	1.20.126.505/9000
2 NC	LED-Clip	1,000,000	1,300,000	red	1.20.126.504/9000
1 NC + 1 NO	LED-Clip	1,000,000	1,300,000	yellow	1.20.126.503/9000

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS QC GOLD

-Table (continued) -

RAFIX 22 FS⁺ - Contact block QC gold, E-Stop, with light conductor

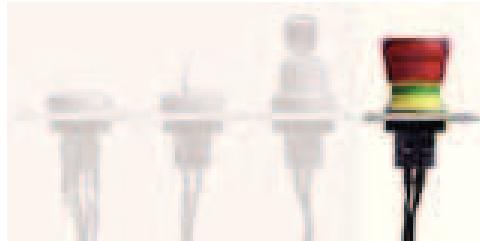
Caution: E-stop contact blocks can only be used with emergency stop and mushroom headed pushbuttons.

2



RAFIX 22 FS⁺ Contact block QC gold, E-Stop, „Plus 1“

Technical data see page 2 - 252



→ Contact arrangement	Lamp optional	Operating life at 10 mA / 24V DC	B10	Color of plunger	Order no.
2 NC + 1 NO	LED-Clip	50,000	65,000	red	1.20.126.514/0000

Caution: E-stop contact blocks „Plus 1“ can only be used with emergency stop pushbuttons „Plus 1“.

Contact
blocks

RAFIX 22 FS⁺

Contact blocks

QC silver

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

Technical Data

→ General information

Lamp optional	LED-Clip
---------------	----------

→ Mechanical design

Mounting	snap on actuator
Contact system	bridge-contact self cleaning
Contact materials	Ag
Contact arrangement	see order block
NC contact forcibly actuated acc. to IEC 60947-5-1	yes
Terminals	quick connect terminals 2.8 x 0.5 mm

→ Electrical characteristics acc. to IEC 60947,

AC-15, DC-13

Rated insulation voltage AC / DC	250 V
Rated peak voltage	2500 V
Rated operating current I_{le} , AC15 B300	3 A / 120 V; 1.5 A / 240 V; I_{the} : 5 A
Rated operating current I_{le} , DC13 Q300	550 mA / 120 V; 270 mA / 240 V; I_{the} : 2.5 A
Max. fuse protection	microfuse 5 x 20 mm, 6.3 A, inert

→ Other specifications

Operating life at 250V / 1A	1,000,000
B10 at 250V / 1A	1,300,000
Operating life at 250V / 2A	100,000
B10 at 250V / 2A	130,000
Operating life at 250V / 4A	30,000
B10 at 250V / 4A	40,000
Switching reliability at 24V / 5mA DC	10×10^6
Ambient temp. operating max.	+85 °C
Ambient temp. operating min.	-40 °C
Storage temperature min.	-40 °C
Storage temperature max.	+85 °C
Color of plunger	see order block
Robustness	acc. to IEC 60947-5-5 (TÜV)
Shock resistance acc. to IEC 60068-2-27	15 g at 11 ms, amplitude half sinusoidal
Resistance to vibrations acc. to IEC 60068-2-6	5 g at 10 ... 500 Hz
Environmental resistance	acc. to IEC 60068-2-14, -30, -33 and -78
Flame class acc. to UL 94	V 0
Hot wire ignition acc. to IEC 60695-2-1	yes
Color of housing	black
ROHS compliant	yes
REACH compliant	yes



2

Approvals

IEC 60947-5-x,
60904, 60073

UL 508

Contact
blocks

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS QC SILVER

Accessories RAFIX 22 FS⁺ - Contact block QC silver

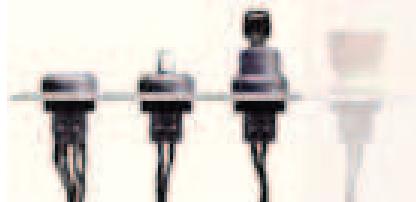
→ Description	Photo	Order no.	Additional accessories see page
Female quick-connect terminal DIN 46340-B 2.8-1-MS		-	2 - 76, 2 - 262, 5 - 27
LED base for contact blocks QC		-	2 - 262

2



RAFIX 22 FS⁺ Contact block QC silver, Universal, with light conductor

Technical data see page 2 - 255



→ Contact arrangement	Lamp optional	Color of plunger	Order no.
1 NO	LED-Clip	green	1.20.126.302/9000
1 NC	LED-Clip	red	1.20.126.301/9000
2 NO	LED-Clip	green	1.20.126.305/9000
2 NC	LED-Clip	red	1.20.126.304/9000
1 NC + 1 NO	LED-Clip	red and green	1.20.126.303/9000

Contact blocks

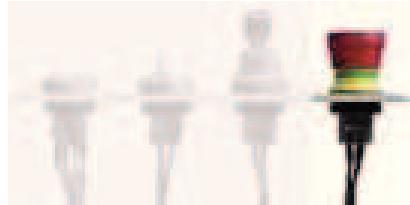
Caution: can not be used with emergency stop and mushroom headed pushbuttons.

CONTROL COMPONENTS

RAFIX FS - CONTACT BLOCKS QC SILVER

RAFIX 22 FS⁺ Contact block QC silver, E-Stop, with light conductor

Technical data see page 2 - 255



2

→ Contact arrangement	Lamp optional	Color of plunger	Order no.
1 NO	LED-Clip	green	1.20.126.702/9000
1 NC	LED-Clip	red	1.20.126.701/9000
2 NO	LED-Clip	green	1.20.126.705/9000
2 NC	LED-Clip	red	1.20.126.704/9000
1 NC + 1 NO	LED-Clip	yellow	1.20.126.703/9000

Caution: E-stop contact blocks can only be used with emergency stop and mushroom headed pushbuttons.

Contact
blocks