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#### **General data**

#### **RAFIX 22QR control component range**

- For a mounting hole diameter of 22.3 mm to IEC 60947
- 250V/10A max.
- Water-jet proof IP65
- 2 collar shapes
- The lamps of the pushbuttons can also be replaced from the front
- The contact blocks (silver or gold contacts) snap onto the actuators with a coupling
- Screw, cage clamp, quick connect terminals or RJ12 connector
- 3 NC + 3 NO max.

The specified data apply only if actuators/signal indicators are combined with contact blocks and lamp sockets within the same product range.

#### Content

Control components

RAFIX 22 QR pushbutton RAFIX 22 QR pushbutton, flush lens, round collar RAFIX 22 QR pushbutton, protruding lens, round collar RAFIX 22 QR pushbutton, protruding front ring, round collar RAFIX 22 QR pushbutton, flush lens, square collar RAFIX 22 QR pushbutton, protruding lens, square collar RAFIX 22 QR pushbutton, protruding front ring, square collar	2 - 88 2 - 89 2 - 90 2 - 91 2 - 92 2 - 93 2 - 94
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RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418

RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418



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RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, with indication to EN 60947-1 RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, with keylock RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, illuminated RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, illuminated	2 - 112 2 - 112 2 - 113 2 - 113
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RAFIX 22 QR

Ring nut Lamp tester

Marking tag

Protective cover, suitable for pushbuttons with flush lens

Insulating housing IP65 for RAFIX 22 QR

Emergency stop label plate

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**Contact blocks marked with different** colours for ease of identification in stock and when connecting.

- · NC contacts: red
- NO contacts: green
- NC/NO contacts: red/green
- Lamp socket: black
- Silver contacts:
- basic housing colour is black
- · Gold contacts:
- basic housing colour is grey
- The terminals associated with a contact pair are colour coded on the connection side and marked with the respective contact numbers.

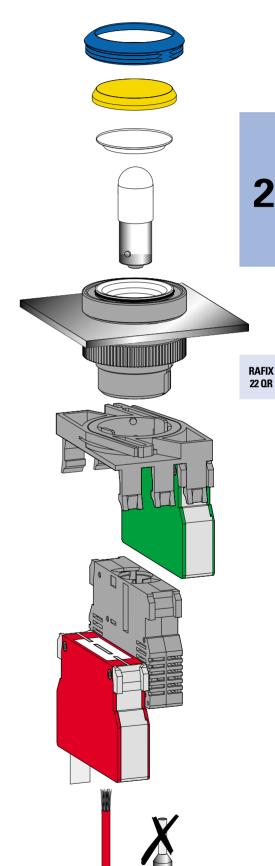
The lamps of pushbuttons and signal lamps can be replaced from the front. This method saves time and increases safety since it eliminates the need for accessing the machine/ control station interior and handling live cables for lamp replacement. After unscrewing the front ring, the lens can be removed and the lamp replaced.



The components feature a removable locating lug. If installed without locating lug, the ring nut with claw can be used. Accurate alignment of the actuator can be achieved behind the front panel. The cast-on collar seal can not get lost nor be twisted during installation and allows single-person assembly: the actuator is held in the mounting hole by the cast-on seal and can then be fixed by screwing from the rear.



First, snap the lamp socket and contact blocks into the coupling. Then snap the assembly on to the actuator. To release it, the bayonet must be pressed (prevents inadvertent releasing at the same time).



**Control Components** 2 - 85

22 QR

# 2

# **Terminals**

The RAFIX 22 QR contact blocks are available in different connection styles as required for your application:

Screw terminals

The terminals are open and the captive screws are mounted in the terminal recess.

- Quick connect/solder terminals 6.3 x 0.8 mm
- · Cage clamp terminals

Simply insert a screwdriver to open the terminal, insert the cable and remove the screwdriver to close the terminal.

• RJ 12-terminal

Just plug in the cable with a RJ 12 connector.

# **Assembly**

**Screw terminals** 

Cage clamp terminals







Open the terminal.

# Your advantage:

This offers your savings in three ways:

- Drastically reduced assembly time thanks to wire insertion from the rear, i.e. no more bending and lateral insertion of the wires required.
- You save material: No wire end sleeves are required.
- You save the time previously required for mounting the wire end sleeves.



Tighten the screw.



Insert the wire.

RAFIX 22 QR

# Sealed for life against humidity and dirt

The special seal reliably prevents moisture, oil and dust from penetrating to the contact block. In contrast to other sealing types which move up and down the shaft,

this special seal is firmly seated on the housing (degree of protection IP 65 to DIN).



Done.



Remove the screwdriver.



Versatility of design for customized panels

The RAFIX 22 QR system does not only have a particularly low profile and is also available in many different versions. Your design options for your customized panels are nearly unlimited thanks to the interchangeable front rings and lenses. In this way you can achieve an attractive design while ensuring safe operation of your equipment at the same time.

RAFIX 22 QR components are available either with a round or with a square collar.

#### **RAFIX 22 QR**

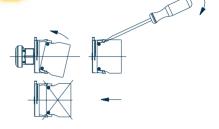
The RAFIX 22 QR control component range meets all the technical requirements and current standards for control units. The system is of modular design. Actuators, contact blocks and lamp sockets can be combined freely. This means that you may

implement modifications of design or configuration even at the last minute. An additional positive effect is the reduction of stockholding costs.



# Sequence of assembly/disassembly at screw, cage clamp and quick connect terminals

- Fix the actuator in the front panel with the ring nut.
- Snap the individual elements (a maximum three contact blocks or two contact blocks together with a lamp socket) in the coupling. You can install them on any assembling axis.
- Insert the lamp or LED into the lamp socket.
- Snap the coupling with the contact blocks on to the actuator.
- · Connect the cables.
- Disassembly is performed in reverse order. To remove the coupling from the actuator, the latch lever must be pressed (by hand or with a screwdriver).



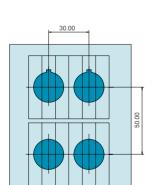
Assembly

Disassembly

● = approved, ○ = pending

#### **Approvals**

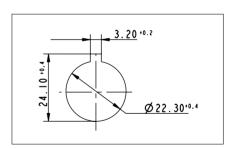
• •				• •	
Part no.	BG zert.	VDE 0660	10/15	ULc	GL
1.20 124	0	0	•	•	0
1.20 125	0	0	•	•	0
1.30 243	0			•	
1.71 213		0	•	•	0
1.71 214		0	•	•	0



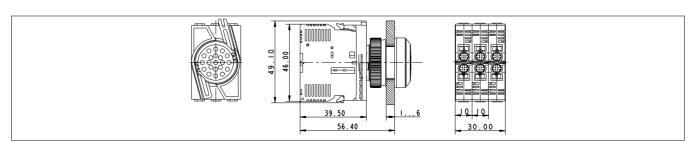
# Panel cut-out according to IEC 60947-5-1

All actuators are provided with a locating lug which may be removed using a screwdriver for installation into mounting holes if required.

With a grid spacing of 30 mm horizontally and 50 mm vertically, the collars of the square actuators touch each other. We revommend to use the same grid spacing also for the round collar shapes (IEC 947).

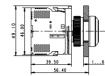


#### **Dimensioned drawing**

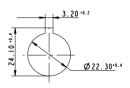


Control Components 2 - 87









Pict.: transparent green

with contact block

Panel cut-out to IEC 60947-5-1

#### **Technical data**

**General information** Form of lens see order block Colour of lens see order block Colout of front ring see order block Form of collar see order block

**Dimensions** 

Length of collar see order block Width of collar see order block Overall height see order block Mounting depth with contact block without cable 56.4 mm Mounting hole 22.3 mm Key grid 50 x 30 mm Diameter of collar see order block

Mechanical design

Description

Mounting ring nut Contact function see order block see order block Illuminability

**Mechanical characteristics** 

Operating travel 4 mm Operating force max.

Robustness min.

Other specifications

Operating life (operations)

Degree of protection from front side Ambient temp. operating

Ambient temp. operating max. Storage temperature min.

Storage temperature max. Resistance to constant environment

Resistance at variable environment

approx. 5 N for 1 switching element

100 N

1 million momentary/ 0.5 million latching

IP65

-25 °C

+70 °C -40 °C +80 °C

> according to IEC 600 68-2-3 and 2-30

according to

IEC 600 68-2-14 and 2-33

### **Accessories RAFIX 22 QR pushbutton**

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NO	S	1.20.124.002/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with coupling and lamp socket, screw terminals, 1 NC + 1 NO		1.20.124.027/0000	2 - 127
RAFIX 22 QR contact block with gold contacts, with coupling and lamp socket, screw terminals, 1 NO		1.20.124.122/0000	2 - 131
RAFIX 22 QR contact block with silver contacts, with coupling and lamp socket, cage clamp terminals, 1 NO, 1 NC		1.20.125.025/0000	2 - 127
Contact block with RJ 12 connector, 2 NO, white LED	(i)	1.20.128.015/0000	2 - 133
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V	KI KI	1.90.060.133/0000	5 - 8
LED BA 9s (MBC/MCC) superbright, white, 24 V		1.90.690.345/0000	5 - 19



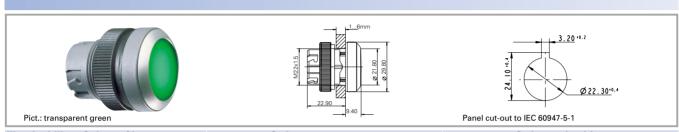


#### **Accessories RAFIX 22 QR pushbutton**

Description	Photo	Order no.	Page
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23
Label holder, round collar, with adhesive tape and release liner on back		5.07.620.010/0000	2 - 143

For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".

### RAFIX 22 QR pushbutton, flush lens, round collar



Illuminability Colour of lens		Order no.	momentary	omentary Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
yes	transparent white	1.30.240.001/10xx	1.30.240.021/1000	1.30.240.011/10xx	1.30.240.031/1000
yes	transparent red	1.30.240.001/13xx	1.30.240.021/1300	1.30.240.011/13xx	1.30.240.031/1300
yes	transparent yellow	1.30.240.001/14xx	1.30.240.021/1400	1.30.240.011/14xx	1.30.240.031/1400
yes	transparent green	1.30.240.001/15xx	1.30.240.021/1500	1.30.240.011/15xx	1.30.240.031/1500
yes	transparent blue	1.30.240.001/16xx	1.30.240.021/1600	1.30.240.011/16xx	1.30.240.031/1600
no	opaque black	1.30.240.101/01xx	1.30.240.121/0100	1.30.240.111/01xx	1.30.240.131/0100
no	opaque white	1.30.240.101/02xx	1.30.240.121/0200	1.30.240.111/02xx	1.30.240.131/0200
no	opaque red	1.30.240.101/03xx	1.30.240.121/0300	1.30.240.111/03xx	1.30.240.131/0300
no	opaque yellow	1.30.240.101/04xx	1.30.240.121/0400	1.30.240.111/04xx	1.30.240.131/0400
no	opaque green	1.30.240.101/05xx	1.30.240.121/0500	1.30.240.111/05xx	1.30.240.131/0500
no	opaque blue	1.30.240.101/06xx	1.30.240.121/0600	1.30.240.111/06xx	1.30.240.131/0600
no	opaque slate-grey	1.30.240.101/07xx	1.30.240.121/0700	1.30.240.111/07xx	1.30.240.131/0700

Technical data see page 2 - 88

#### Accessories:

Front ring, plastic with thermoflex protective cap, black: 5.05.004.914/0100

Front ring, plastic with protective cap, slate grey: 5.05.004.914/0700

Front ring, plastic with thermoflex protective cap, silver grey: 5.05.004.914/0800

Schutzklappe, selbstschließend: 5.05.511.194/0000

Protective cover, latching: 5.05.511.195/0000

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

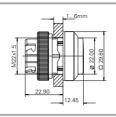
Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

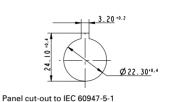
Order numbers 1.30.240.001/--08, 1.30.240.011/--08 and 1.30.240.101/--08 (with silver grey plastic front ring) are stock items.



## RAFIX 22 QR pushbutton, protruding lens, round collar







Pict.:	transparent red	
	•	

Illuminability	Colour of lens	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	transparent white	1.30.240.201/10xx	1.30.240.221/1000	1.30.240.211/10xx	1.30.240.231/1000	
yes	transparent red	1.30.240.201/13xx	1.30.240.221/1300	1.30.240.211/13xx	1.30.240.231/1300	
yes	transparent yellow	1.30.240.201/14xx	1.30.240.221/1400	1.30.240.211/14xx	1.30.240.231/1400	
yes	transparent green	1.30.240.201/15xx	1.30.240.221/1500	1.30.240.211/15xx	1.30.240.231/1500	
yes	transparent blue	1.30.240.201/16xx	1.30.240.221/1600	1.30.240.211/16xx	1.30.240.231/1600	
no	opaque black	1.30.240.301/01xx	1.30.240.321/0100	1.30.240.311/01xx	1.30.240.331/0100	
no	opaque white	1.30.240.301/02xx	1.30.240.321/0200	1.30.240.311/02xx	1.30.240.331/0200	
no	opaque red	1.30.240.301/03xx	1.30.240.321/0300	1.30.240.311/03xx	1.30.240.331/0300	
no	opaque yellow	1.30.240.301/04xx	1.30.240.321/0400	1.30.240.311/04xx	1.30.240.331/0400	
no	opaque green	1.30.240.301/05xx	1.30.240.321/0500	1.30.240.311/05xx	1.30.240.331/0500	
no	opaque blue	1.30.240.301/06xx	1.30.240.321/0600	1.30.240.311/06xx	1.30.240.331/0600	
no	opaque slate-grey	1.30.240.301/07xx	1.30.240.321/0700	1.30.240.311/07xx	1.30.240.331/0700	

Technical data see page 2 - 88

#### Accessories:

Legend insert without legend: 5.70.802.000/2000

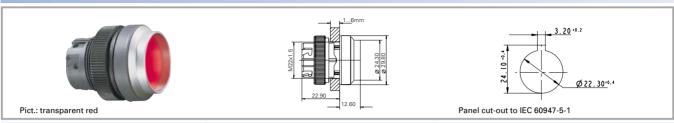
xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

Order numbers 1.30.240.201/--08 and 1.30.240.211/--08 (with silver grey plastic front ring) are stock items.



### RAFIX 22 QR pushbutton, protruding front ring, round collar



Illuminability	Colour of lens	Order no.	Order no. momentary Order		no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	transparent white	1.30.240.401/10xx	1.30.240.421/1000	-	-	
yes	transparent red	1.30.240.401/13xx	1.30.240.421/1300	-	-	
yes	transparent yellow	1.30.240.401/14xx	1.30.240.421/1400	-	-	
yes	transparent green	1.30.240.401/15xx	1.30.240.421/1500	-	-	
yes	transparent blue	1.30.240.401/16xx	1.30.240.421/1600	-	-	
no	opaque black	1.30.240.501/01xx	1.30.240.521/0100	-	-	
no	opaque white	1.30.240.501/02xx	1.30.240.521/0200	-	-	
no	opaque red	1.30.240.501/03xx	1.30.240.521/0300	-	-	
no	opaque yellow	1.30.240.501/04xx	1.30.240.521/0400	-	-	
no	opaque green	1.30.240.501/05xx	1.30.240.521/0500	-	-	
no	opaque blue	1.30.240.501/06xx	1.30.240.521/0600	-	-	
no	opaque slate-grey	1.30.240.501/07xx	1.30.240.521/0700	-	-	

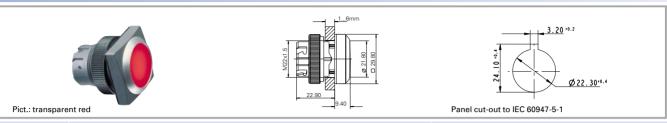
Technical data see page 2 - 88

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

The protruding collar offers protection against inadvertent operation and thereby fulfils the safety requirements of various machinery manufacturers, particularly from the printing industry.



## RAFIX 22 QR pushbutton, flush lens, square collar



Illuminability	Colour of lens	Order no.	momentary	Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
yes	transparent white	1.30.240.051/10xx	1.30.240.071/1000	1.30.240.061/10xx	1.30.240.081/1000
yes	transparent red	1.30.240.051/13xx	1.30.240.071/1300	1.30.240.061/13xx	1.30.240.081/1300
yes	transparent yellow	1.30.240.051/14xx	1.30.240.071/1400	1.30.240.061/14xx	1.30.240.081/1400
yes	transparent green	1.30.240.051/15xx	1.30.240.071/1500	1.30.240.061/15xx	1.30.240.081/1500
yes	transparent blue	1.30.240.051/16xx	1.30.240.071/1600	1.30.240.061/16xx	1.30.240.081/1600
no	opaque black	1.30.240.151/01xx	1.30.240.171/0100	1.30.240.161/01xx	1.30.240.181/0100
no	opaque white	1.30.240.151/02xx	1.30.240.171/0200	1.30.240.161/02xx	1.30.240.181/0200
no	opaque red	1.30.240.151/03xx	1.30.240.171/0300	1.30.240.161/03xx	1.30.240.181/0300
no	opaque yellow	1.30.240.151/04xx	1.30.240.171/0400	1.30.240.161/04xx	1.30.240.181/0400
no	opaque green	1.30.240.151/05xx	1.30.240.171/0500	1.30.240.161/05xx	1.30.240.181/0500
no	opaque blue	1.30.240.151/06xx	1.30.240.171/0600	1.30.240.161/06xx	1.30.240.181/0600
no	opaque slate-grey	1.30.240.151/07xx	1.30.240.171/0700	1.30.240.161/07xx	1.30.240.181/0700

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#### Accessories:

Front ring, plastic with thermoflex protective cap, black: 5.05.004.914/0100

Front ring, plastic with protective cap, slate grey: 5.05.004.914/0700

Front ring, plastic with thermoflex protective cap, silver grey: 5.05.004.914/0800

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

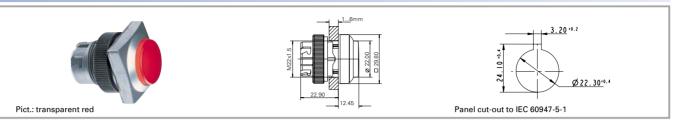
Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

Order numbers 1.30.240.051/--08, 1.30.240.061/--08 and 1.30.240.151/--08 (with silver grey plastic front ring) are stock items.





### RAFIX 22 QR pushbutton, protruding lens, square collar



Illuminability	Colour of lens	Order no.	momentary	Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	transparent white	1.30.240.251/10xx	1.30.240.271/1000	1.30.240.261/10xx	1.30.240.281/1000	
yes	transparent red	1.30.240.251/13xx	1.30.240.271/1300	1.30.240.261/13xx	1.30.240.281/1300	
yes	transparent yellow	1.30.240.251/14xx	1.30.240.271/1400	1.30.240.261/14xx	1.30.240.281/1400	
yes	transparent green	1.30.240.251/15xx	1.30.240.271/1500	1.30.240.261/15xx	1.30.240.281/1500	
yes	transparent blue	1.30.240.251/16xx	1.30.240.271/1600	1.30.240.261/16xx	1.30.240.281/1600	
no	opaque black	1.30.240.351/01xx	1.30.240.371/0100	1.30.240.361/01xx	1.30.240.381/0100	
no	opaque white	1.30.240.351/02xx	1.30.240.371/0200	1.30.240.361/02xx	1.30.240.381/0200	
no	opaque red	1.30.240.351/03xx	1.30.240.371/0300	1.30.240.361/03xx	1.30.240.381/0300	
no	opaque yellow	1.30.240.351/04xx	1.30.240.371/0400	1.30.240.361/04xx	1.30.240.381/0400	
no	opaque green	1.30.240.351/05xx	1.30.240.371/0500	1.30.240.361/05xx	1.30.240.381/0500	
no	opaque blue	1.30.240.351/06xx	1.30.240.371/0600	1.30.240.361/06xx	1.30.240.381/0600	
no	opaque slate-grey	1.30.240.351/07xx	1.30.240.371/0700	1.30.240.361/07xx	1.30.240.381/0700	

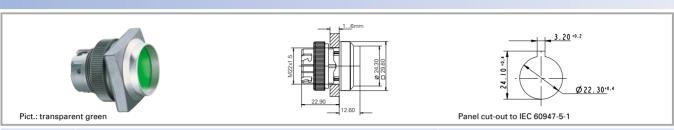
Technical data see page 2 - 88

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

Order numbers 1.30.240.251/--08 and 1.30.240.261/--08 (with silver grey plastic front ring) are stock items.

## RAFIX 22 QR pushbutton, protruding front ring, square collar



Illuminability	Colour of lens	Order no.	Order no. momentary Order no. latching		o. latching
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
yes	transparent white	1.30.240.451/10xx	1.30.240.471/1000	-	-
yes	transparent red	1.30.240.451/13xx	1.30.240.471/1300	-	-
yes	transparent yellow	1.30.240.451/14xx	1.30.240.471/1400	-	-
yes	transparent green	1.30.240.451/15xx	1.30.240.471/1500	-	-
yes	transparent blue	1.30.240.451/16xx	1.30.240.471/1600	-	-
no	opaque black	1.30.240.551/01xx	1.30.240.571/0100	-	-
no	opaque white	1.30.240.551/02xx	1.30.240.571/0200	-	-
no	opaque red	1.30.240.551/03xx	1.30.240.571/0300	-	-
no	opaque yellow	1.30.240.551/04xx	1.30.240.571/0400	-	-
no	opaque green	1.30.240.551/05xx	1.30.240.571/0500	-	-
no	opaque blue	1.30.240.551/06xx	1.30.240.571/0600	-	-
no	opaque slate-grey	1.30.240.551/07xx	1.30.240.571/0700	-	-

Technical data see page 2 - 88

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

The protruding collar offers protection against inadvertent operation and thereby fulfils the safety requirements of various machinery manufacturers, particularly in the industry.

### **RAFIX 22 QR selector switch**



#### **General data**

The illuminated selector switches are provided with translucent handle markings. These are opaque on the non-illuminated versions.

#### **Technical data**

General information		Electrical characteristics	
Actuator	handle	Protection class	II
Marking of handle	white		
Colout of front ring	see order block	Other specifications	
Form of collar	see order block	Operating life	0.5 million
		Degree of protection	
Dimensions		from front side	IP65
Length of collar	see order block	Ambient temp. operating	
Width of collar	see order block	min.	-27 °C
Overall height	22.2 mm	Ambient temp. operating	
Mounting depth with		max.	+70 °C
contact block without cable	56.4 mm	Storage temperature min.	-40 °C
Mounting hole	22.3 mm	Storage temperature max.	+80 °C
Key grid	50 x 30 mm	Resistance to constant	
Diameter of collar	see order block	environment	according to
			IEC 600 68-2-3 and 2-30
Mechanical design		Resistance at variable	
Mounting	ring nut	environment	according to
Contact function	see order block		IEC 600 68-2-14 and 2-33

#### **Mechanical characteristics**

Illuminability

Rotating angle

Operating force max. approx. 5 N for 1 switching element

Torque max. 2 Nm

### **Accessories RAFIX 22 QR selector switch**

see order block

see order block

Description		Photo	Order no.	Page
	ontact block with silver contacts, with cou- lamp socket, screw terminals, 1 NC + 1 NO	ST.	1.20.124.017/0000	2 - 126
	ontact block with silver contacts, with cou- o socket, screw terminals, 1 NC + 1 NO		1.20.124.027/0000	2 - 127
	ontact block with gold contacts, with coupling et, screw terminals, 1 NC + 1 NO, 1 NC + 1 NO		1.20.124.128/0000	2 - 131
Contact block v tor, 1 NC + 1 No	with coupling, gold contacts, RJ 12 connec- O, white LED	10:	1.20.128.013/0000	2 - 133



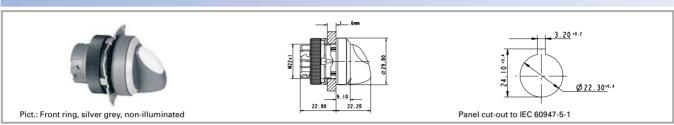


#### **Accessories RAFIX 22 QR selector switch**

Description	Photo	Order no.	Page
Label holder, round collar, with adhesive tape and release liner on back		5.07.620.010/0000	2 - 143

For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".

#### RAFIX 22 QR selector switch, round collar, short handle



Illermain alailitee	Contact function	Datating angle	Dototina	Oud	I
illuminability	Contact function	Rotating angle	Rotating angle	Order no.	
			ungic	Plastic front ring	Metal front ring
no	momentary	1 x 40°	<u></u>	1.30.242.501/02xx	1.30.242.502/0200
no	momentary	2 x 40°	•	1.30.242.526/02xx	1.30.242.527/0200
no	latching	1 x 90°, form L	0	1.30.242.601/02xx	1.30.242.602/0200
no	latching	1 x 90°, form V	0 1	1.30.242.701/02xx	1.30.242.702/0200
no	latching	2 x 60°		1.30.242.801/02xx	1.30.242.802/0200
no	latching	2 x 90°	2 0	1.30.242.626/02xx	1.30.242.627/0200
yes	momentary	1 x 40°		1.30.242.001/22xx	1.30.242.002/2200
yes	momentary	2 x 40°	, ,	1.30.242.026/22xx	1.30.242.027/2200
yes	latching	1 x 90°, form L		1.30.242.101/22xx	1.30.242.102/2200
yes	latching	1 x 90°, form V	0 1	1.30.242.201/22xx	1.30.242.202/2200
yes	latching	2 × 60°		1.30.242.301/22xx	1.30.242.302/2200
yes	latching	2 x 90°	2	1.30.242.126/22xx	1.30.242.127/2200

Technical data see page 2 - 96

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08; other colours on request.

Included: Ring nut with claw.

Other contact versions on request

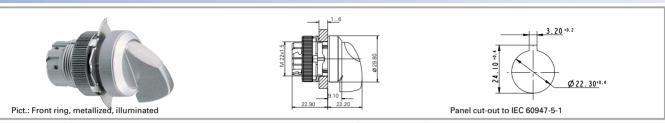
On keylock switches with 3 switching positions (e.g. 2 x 90 degrees), either the left-hand or right-hand contact block is activated, depending on the sense of rotation. A third contact block arranged in the centre would be actuated with either sense of rotation.

The following selector switches with silver grey plastic front ring are stock items: Illuminated: 1.30.252.001/2208, 1.30.252.026/2208, 1.30.252.101/2208, 1.30.252.201/2208, 1.30.252.301/2208 Non-illuminated: 1.30.252.501/0208, 1.30.252.526/0208, 1.30.252.601/0208, 1.30.252.701/0208, 1.30.252.801/0208

Control components



### RAFIX 22 QR selector switch, round collar, long handle



Illuminability	,		Rotating angle	Order no.	
			angle	Plastic front ring	Metal front ring
no	momentary	1 x 40°	ů>	1.30.242.511/02xx	1.30.242.512/0200
no	momentary	2 x 40°	$\stackrel{\circ}{\longleftrightarrow}$	1.30.242.536/02xx	1.30.242.537/0200
no	latching	1 x 90°, form L	Ů,	1.30.242.611/02xx	1.30.242.612/0200
no	latching	1 x 90°, form V	0 1	1.30.242.711/02xx	1.30.242.712/0200
no	latching	2 x 60°	$\bigcirc$	1.30.242.811/02xx	1.30.242.812/0200
no	latching	2 x 90°	2 1	1.30.242.636/02xx	1.30.242.637/0200
yes	momentary	1 x 40°		1.30.242.011/22xx	1.30.242.012/2200
yes	momentary	2 x 40°	, de la constant de l	1.30.242.036/22xx	1.30.242.037/2200
yes	latching	1 x 90°, form L	Ľ,	1.30.242.111/22xx	1.30.242.112/2200
yes	latching	1 x 90°, form V	0 1	1.30.242.211/22xx	1.30.242.212/2200
yes	latching	2 x 60°		1.30.242.311/22xx	1.30.242.312/2200
yes	latching	2 x 90°	2	1.30.242.136/22xx	1.30.242.137/2200

Technical data see page 2 - 96

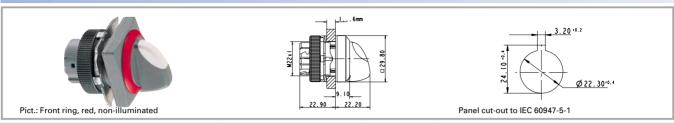
xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08; other colours on request.

Included: Ring nut with claw.

At selector switches with 3 switching positions (e.g. 2 x 90 degrees), either the left-hand or right-hand contact block is activated, depending on the sense of rotation. A third contact block arranged in the centre would be actuated with either sense of rotation. Other contact versions on request.



### RAFIX 22 QR selector switch, square collar, short handle



Illuminability	Contact function	Rotating angle	Rotating angle	Ord	er no.
			angle	Plastic front ring	Metal front ring
no	momentary	1 x 40°	)	1.30.242.551/02xx	1.30.242.552/0200
no	momentary	2 x 40°	•	1.30.242.576/02xx	1.30.242.577/0200
no	latching	1 x 90°, form L	0	1.30.242.651/02xx	1.30.242.652/0200
no	latching	1 x 90°, form V	0 1	1.30.242.751/02xx	1.30.242.752/0200
no	latching	2 x 60°	$\bigcirc$	1.30.242.851/02xx	1.30.242.852/0200
no	latching	2 x 90°	2	1.30.242.676/02xx	1.30.242.677/0200
yes	momentary	1 x 40°		1.30.242.051/22xx	1.30.242.052/2200
yes	momentary	2 x 40°		1.30.242.076/22xx	1.30.242.077/2200
yes	latching	1 x 90°, form L	Č 1	1.30.242.151/22xx	1.30.242.152/2200
yes	latching	1 x 90°, form V	0 1	1.30.242.251/22xx	1.30.242.252/2200
yes	latching	2 x 60°		1.30.242.351/22xx	1.30.242.352/2200
yes	latching	2 x 90°	, o	1.30.242.176/22xx	1.30.242.177/2200

Technical data see page 2 - 96

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08; other colours on request.

Included: Ring nut with claw.

At selector switches with 3 switching positions (e.g. 2 x 90 degrees), either the left-hand or right-hand contact block is activated, depending on the sense of rotation.

A third contact block arranged in the centre would be actuated with either sense of rotation.

Other contact versions on request.

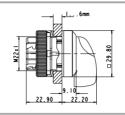
The following selector switches with silver grey plastic front ring are stock items:

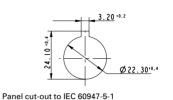
Illuminated: 1.30.242.051/2208, 1.30.242.076/2208, 1.30.242.151/2208, 1.30.242.251/2208, 1.30.242.351/2208 Non-illuminated: 1.30.242.551/0208, 1.30.242.576/0208, 1.30.242.651/0208, 1.30.242.751/0208, 1.30.242.851/0208



## RAFIX 22 QR selector switch, square collar, long handle







Illuminability	uminability Contact function Rotating angle		Rotating angle	Order no.		
			aligie	Plastic front ring	Metal front ring	
no	momentary	1 x 40°	°	1.30.242.561/02xx	1.30.242.562/0200	
no	momentary	2 x 40°		1.30.242.586/02xx	1.30.242.587/0200	
no	latching	1 x 90°, form L	Ů 1	1.30.242.661/02xx	1.30.242.662/0200	
no	latching	1 x 90°, form V	0 1	1.30.242.761/02xx	1.30.242.762/0200	
no	latching	2 x 60°	$\bigcirc$	1.30.242.861/02xx	1.30.242.862/0200	
no	latching	2 x 90°	2	1.30.242.686/02xx	1.30.242.687/0200	
yes	momentary	1 x 40°		1.30.242.061/22xx	1.30.242.062/2200	
yes	momentary	2 x 40°		1.30.242.086/22xx	1.30.242.087/2200	
yes	latching	1 x 90°, form L	Ů,	1.30.242.161/22xx	1.30.242.162/2200	
yes	latching	1 x 90°, form V	0 1	1.30.242.261/22xx	1.30.242.262/2200	
yes	latching	2 x 60°	$\bigcirc$	1.30.242.361/22xx	1.30.242.362/2200	
yes	latching	2 x 90°	2 0	1.30.242.186/22xx	1.30.242.187/2200	

Technical data see page 2 - 96

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08; other colours on request.

Included: Ring nut with claw.

At selector switches with 3 switching positions (e.g. 2 x 90 degrees), either the left-hand or right-hand contact block is activated, depending on the sense of rotation. A third contact block arranged in the centre would be actuated with either sense of rotation. Other contact versions on request.

### **RAFIX 22 QR keylock switch**



#### **Technical data**

Symmetric key

Rotating angle Key removal position

General information		Mechanical characteristics	
Form of lens	see order block	Operating force max.	approx. 5 N for
Colout of front ring	see order block		1 switching element
Form of collar	see order block	Torque max.	2 Nm
Dimensions		Electrical characteristics	
Length of collar	see order block	Protection class	II
Width of collar	see order block		
Overall height	30.6 mm	Other specifications	
Mounting depth with		Operating life	0.3 million momentary /
contact block without cable	56.4 mm		50000 latching
Mounting hole	22.3 mm	Degree of protection	
Key grid	50 x 30 mm	from front side	IP65
Diameter of collar	see order block	Ambient temp. operating	
		min.	-25 °
Mechanical design		Ambient temp. operating	
Mounting	ring nut	max.	+70 °
Contact function	see order block	Storage temperature min.	-40 °C
Illuminability	no	Storage temperature max.	+80 °C
Lock	Ronis	Resistance to constant	
Wafers	4	environment	according to
Lock type	455		IEC 600 68-2-3 and 2-30
Main key	no	Resistance at variable	

environment

### Accessories RAFIX 22 QR keylock switch

no

see order block

see order block

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO		1.20.124.017/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, cage clamp terminals, 1 NO	Ø	1.20.125.002/0000	2 - 126
Contact block with coupling, gold contacts, RJ 12 connector, 1 NC + 1 NO, without LED		1.20.128.003/0000	2 - 133
Label holder, round collar, with adhesive tape and release liner on back		5.07.620.010/0000	2 - 143
Spare key for RAFIX 22 QR		5.58.017.001/0000	

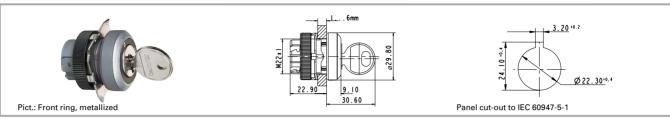
For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".

according to

IEC 600 68-2-14 and 2-33



#### RAFIX 22 QR keylock switch, round collar



Tiota Tront in	Tulio da				
Contact function	Rotating angle	Key removal position Rotating angle		Orde	er no.
Turiction			aligie	Plastic front ring	Metal front ring
momentary	1 x 40°	0	<b>&gt;</b>	1.30.245.001/xxxx	1.30.245.002/0000
momentary	2 x 40°	0	$\stackrel{\circ}{\smile}$	1.30.245.101/xxxx	1.30.245.102/0000
latching	1 x 90°, form L	0	) 1	1.30.245.201/xxxx	1.30.245.202/0000
latching	1 x 90°, form L	0+1	0	1.30.245.221/xxxx	1.30.245.222/0000
latching	1 x 90°, form V	0	0 1	1.30.245.301/xxxx	1.30.245.302/0000
latching	1 x 90°, form V	0+1	0 1	1.30.245.321/xxxx	1.30.245.322/0000
latching	2 x 60°	0+1+2	$\bigcirc$	1.30.245.731/xxxx	1.30.245.732/0000
latching	2 x 90°	0	2	1.30.245.401/xxxx	1.30.245.402/0000
latching	2 x 90°	0+1+2		1.30.245.431/xxxx	1.30.245.432/0000

Technical data see page 2 - 102

xxxx = Front ring colour: black = 0100, slate grey = 0700, silver grey = 0800. Other versions on request.

Other versions on request.

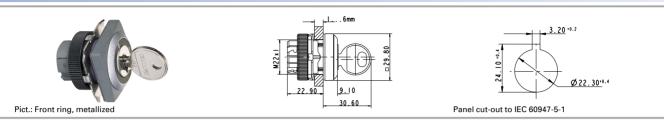
Included: Ring nut with claw.

On selector switches with 3 switching positions (e.g. 2 x 90 degrees), either the left-hand or right-hand contact block is activated, depending on the sense of rotation. A third contact block arranged in the centre would be actuated with either sense of rotation.

The following keylock switches with silver grey plastic front ring are stock items: 1.30.245.001/0800, 1.30.245.201/0800, 1.30.245.221/0800, 1.30.245.301/0800, 1.30.245.321/0800, 1.30.245.731/0800



### RAFIX 22 QR keylock switch, square collar



Contact function	• • • • • • • • • • • • • • • • • • • •	Rotating angle	Order no.		
Tunction			ungic	Plastic front ring	Metal front ring
momentary	1 x 40°	0	°>	1.30.245.051/xxxx	1.30.245.052/0000
momentary	2 x 40°	0	, o	1.30.245.151/xxxx	1.30.245.152/0000
latching	1 x 90°, form L	0	Ů,	1.30.245.251/xxxx	1.30.245.252/0000
latching	1 x 90°, form L	0+1	0	1.30.245.271/xxxx	1.30.245.272/0000
latching	1 x 90°, form V	0	0 1	1.30.245.351/xxxx	1.30.245.352/0000
latching	1 x 90°, form V	0+1	0 1	1.30.245.371/xxxx	1.30.245.372/0000
latching	2 x 60°	0+1+2		1.30.245.781/xxxx	1.30.245.782/0000
latching	2 x 90°	0	2	1.30.245.451/xxxx	1.30.245.452/0000
latching	2 x 90°	0+1+2	2	1.30.245.481/xxxx	1.30.245.482/0000

Technical data see page 2 - 102

xxxx = Front ring colour: black = 0100, slate grey = 0700, silver grey = 0800. Other versions on request.

Included: Ring nut with claw.

On keylock switches with 3 switching positions (e.g. 2 x 90 degrees), either the left-hand or right-hand contact block is activated, depending on the sense of rotation. A third contact block arranged in the centre would be actuated with either sense of rotation.

The following keylock switches with silver grey plastic front ring are stock items:

1.30.245.051/0800, 1.30.245.251/0800, 1.30.245.271/0800, 1.30.245.351/0800, 1.30.245.371/0800, 1.30.245.781/0800

### **RAFIX 22 QR mushroom-headed pushbutton**



#### **Technical data**

<b>General information</b> Actuator	mushroom	Mechanical characteristics Operating force max.	approx. 5 N for
Colour of mushroom	see order block	Operating force max.	1 switching element
Colout of front ring	see order block	Robustness min.	100 N
Form of collar	see order block	1105001110001111111	10011
		Electrical characteristics	
Dimensions		Protection class	II
Length of collar	see order block		
Width of collar	see order block	Other specifications	
Overall height	20.10 mm	Operating life	1,000,000
Mounting depth	56.4 mm	Degree of protection	
Mounting hole	22.3 mm	from front side	IP65
Key grid	50 x 30 mm	Storage temperature min.	-40 °C
Diameter of collar	see order block	Storage temperature max.	80 °C
		Resistance to constant	
Mechanical design		environment	according to
Mounting	ring nut		IEC 600 68-2-3 and 2-30
Contact function	see order block	Resistance at variable	
Illuminability	see order block	environment	according to IEC 600 68-2-14 and 2-33

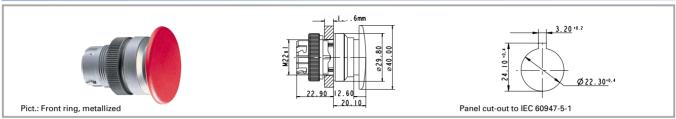
#### Accessories RAFIX 22 QR mushroom-headed pushbutton

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO	8	1.20.124.017/0000	2 - 126
RAFIX 22 QR contact block with gold contacts, with coupling, without lamp socket, cage clamp terminals, 1 NO	<b>S</b>	1.20.125.102/0000	2 - 130
Contact block with coupling, gold contacts, RJ 12 connector, 1 NO, without LED		1.20.128.002/0000	2 - 133
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".



### RAFIX 22 QR mushroom-headed pushbutton 40 mm, round collar

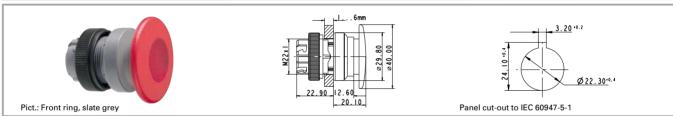


Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
no	opaque black	1.30.246.501/01xx	1.30.246.502/0100	1.30.246.511/01xx	1.30.246.512/0100	
no	opaque red	1.30.246.501/03xx	1.30.246.502/0300	1.30.246.511/03xx	1.30.246.512/0300	

Technical data see page 2 - 106

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08 Order number 1.30.246.501/0308 (with silver grey plastic front ring) is a **stock item**.

#### RAFIX 22 QR mushroom-headed pushbutton 40 mm, illuminated, round collar



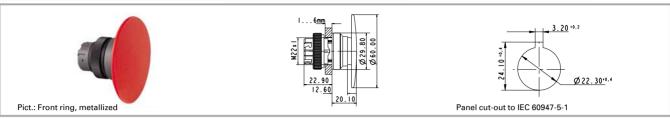
Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	opaque red/ transparent red	1.30.246.001/03xx	1.30.246.002/0300	1.30.246.011/03xx	1.30.246.012/0300	

Technical data see page 2 - 106

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08 Order number **1.30.246.001/0308** (with silver grey plastic front ring) is a **stock item**.



### RAFIX 22 QR mushroom-headed pushbutton 60 mm, round collar

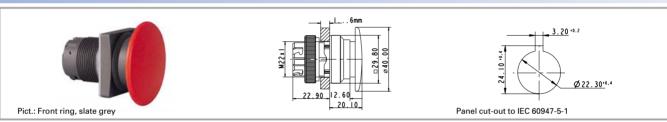


Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
no	opaque red	1.30.246.601/03xx	1.30.246.602/0300	-	-	

Technical data see page 2 - 106

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

### RAFIX 22 QR mushroom-headed pushbutton 40 mm, square collar



Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
no	opaque black	1.30.246.551/01xx	1.30.246.552/0100	1.30.246.561/01xx	1.30.246.562/0100	
no	opaque red	1.30.246.551/03xx	1.30.246.552/0300	1.30.246.561/03xx	1.30.246.562/0300	

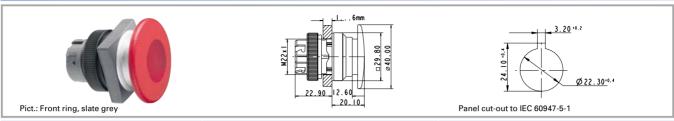
Technical data see page 2 - 106

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

Order number 1.30.246.551/0308 (with silver grey plastic front ring) is a stock item.



## RAFIX 22 QR mushroom-headed pushbutton 40 mm, illuminated, square collar



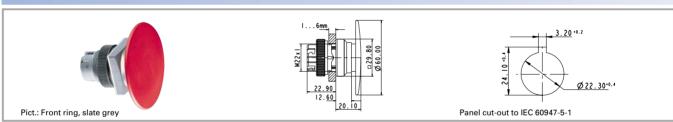
Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	opaque red/ transparent red	1.30.246.051/03xx	1.30.246.052/0300	1.30.246.061/03xx	1.30.246.062/0300	

Technical data see page 2 - 106

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

Order number 1.30.246.051/0308 (with silver grey plastic front ring) is a stock item.

### RAFIX 22 QR mushroom-headed pushbutton 60 mm, square collar

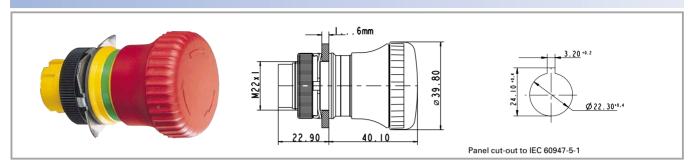


Illuminability	Colour of mushroom	Order no. momentary		Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
no	opaque red	1.30.246.651/03xx	1.30.246.652/0300	-	-

Technical data see page 2 - 106

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

### RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418



#### **General data**

The emergency stop pushbuttons comply with IEC 60 204, IEC 60 073, IEC 60 947 and VDE 0113 Part 1. They are designed dupe-proof according to EN 418 with a positive mechanical movement sequence. A certain operating force must be exerted at the action point in order to prevent inadvertent operation. The pushbutton latches when pressed. The special shape of the actuator prevents the emergency stop pushbutton from being blocked. This means that the emergency stop process - once initiated - cannot be impeded by any jamming objects.

#### **Technical data**

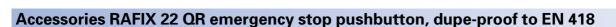
RAFIX	
22 QR	

General information Actuator	mushroom	<b>Mechanical characteristics</b> Operating force max.	approx. 5 N for
Colour of mushroom Form of collar	see order block round	Robustness min. Robustness	1 switching element 100 N acc. IEC 60947-5-5
Dimensions		Hobdothood	400.120 00047 0 0
Overall height	see order block	Other specifications	
Mounting depth with		Operating life	see order block
contact block without cable	see order block	Degree of protection	
Mounting hole	see order block	from front side	see order block
Key grid	50 x 30 mm	Ambient temp. operating	05.00
Diameter of collar	see order block	min.	-25 °C
Machanical decian		Ambient temp. operating	+70 °C
Mechanical design Mounting	ring nut	max. Storage temperature min.	+70 °C -40 °C
Contact function	ring nut latching	Storage temperature max.	+80 °C
Illuminability	see order block	Resistance to constant	+00 C
Reset	see order block	environment	according to
	555 5. 45. 5.55.K		IEC 600 68-2-3 and 2-30
		Resistance at variable	
		environment	according to IEC 600 68-2-14 and 2-33

## Accessories RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC	9	1.20.124.001/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 2 NC	9	1.20.124.019/0000	2 - 126
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

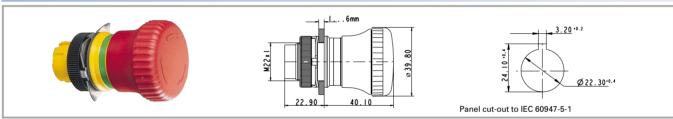




Description	Photo	Order no.	Page
Emergency stop label, yellow, round 60 mm, PVC adhesive, without legend	0	5.76.204.100/0400	2 - 146
Emergency stop label, yellow, round 60 mm, PVC adhesive, with legend "NOT-AUS"	0	5.76.204.101/0400	2 - 146
Emergency stop label, yellow, round 60 mm, PVC adhesive, with legend "ARRET D'URGENCE"	0	5.76.204.102/0400	2 - 146
Emergency stop label, yellow, round 60 mm, PVC adhesive, with legend "EMERGENCY-STOP"	0	5.76.204.103/0400	2 - 146
Emergency stop label, yellow 36 x 64 mm, PVC adhesive, without legend		5.76.205.011/0400	2 - 146
Emergency stop label, yellow, round 60 mm, rigid PVC, with legend "EMERGENCY-STOP/ARRET D'URGENCE"	0	5.76.207.002/0400	2 - 146

For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".

### RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418



Degree of protection from front side	Reset	Colour of mushroom	Illuminability	Operating life	Order no.
IP65	by clockwise rotation	opaque red	no	100000	1.30.243.501/0300

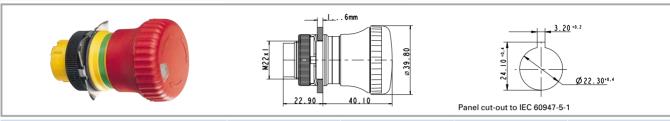
Technical data see page 2 - 110

Included: Ring nut with claw.

Switching position indication: In the non-operated condition, a green ring is visible on the side.



# RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, with indication to EN 60947-1



Degree of protection from front side	Reset	Colour of mushroom	Illuminability	Operating life	Order no.
IP65	by clockwise rotation	opaque red	no	100000	1.30.243.601/0300

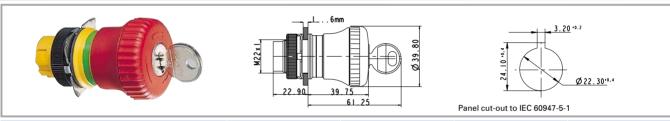
Technical data see page 2 - 110

Included: Ring nut with claw.

Switching position indication: In the non-operated condition, a green ring is visible on the side.

This switching position is visible in addition from the front; a mechanical indicator integrated into the mushroom head changes from green to red when actuated.

### RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, with keylock



Degree of protection from front side	Reset	Colour of mushroom	Illuminability	Operating life	Order no.
IP40	by clockwise rotation	opaque red	no	50000	1.30.243.701/0300

Technical data see page 2 - 110

#### Accessories:

Spare key for RAFIX 22 QR: 5.58.017.001/0000

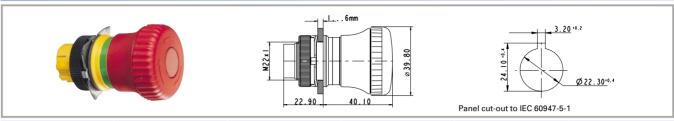
Included: Ring nut with claw, 2 keys.

Switching position indication: In the non-operated condition, a green ring is visible on the side.

Once actuated, the emergency stop pushbutton can only be reset with the key.



## RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, illuminated



Degree of protection from front side	Reset	Colour of mushroom	Illuminability	Operating life	Order no.
IP65	by clockwise rotation	opaque red/ translucent red	yes	100000	1.30.243.001/0300

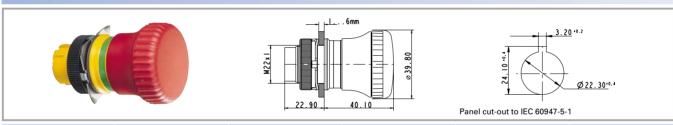
Technical data see page 2 - 110

Included: Ring nut with claw.

Switching position indication: In the non-operated condition, a green ring is visible on the side.



### RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418



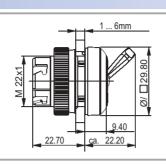
Degree of protection from front side	Reset	Colour of mushroom	Illuminability	Operating life	Order no.
IP65	by pulling	opaque red	no	100000	1.30.243.901/0300

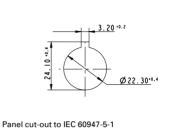
Technical data see page 2 - 110

Included: Ring nut with claw.

Switching position indication: In the non-operated condition, a green ring is visible on the side.







Technical data

**General information** 

Form of lens toggle
Colour of toggle opaque white
Front ring see order block
Form of collar see order block

**Dimensions** 

Length of collar see order block
Witdth of collar see order block
Overall height 22 mm
Mounting depth 56.4 mm
Mounting hole 22.3 mm

Mechanical design

Mounting ring nut

**Dimensions** 

Key grid 50 x 30 mm Diameter of collar see order block

Mechanical design

Contact function latching lllmuniability no

**Mechanical characteristics**Robustness min.

Electrical characteristics

Protection class

Other specifications

Operating life
Degree of protection
Storage temperature min.
Storage temperature max.
Resistance to constant
environment

Resistance at variable environment

100 N

Ш

100000 IP54 -40 °C 80 °C

according to IEC 60068-2-3 and 2-30

according to

IEC 60068-2-14 and 2-33

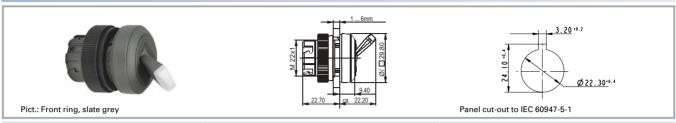
## Accessories RAFIX 22 QR toggle switch

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with gold contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO		1.20.124.117/0000	2 - 130
RAFIX 22 QR contact block with gold contacts, with coupling, without lamp socket, cage clamp terminals, 1 NO		1.20.125.102/0000	2 - 130
Contact block with coupling, gold contacts, RJ 12 connector, 1 NO, without LED		1.20.128.002/0000	2 - 133
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23





### RAFIX 22 QR, toggle switch, round collar



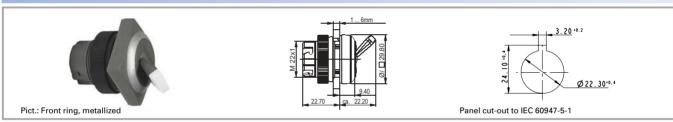
Illuminal	bility Colour of toggle	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
no	opaque white	-	-	1.30.247.501/02xx	1.30.247.502/0200	

Technical data see page 2 - 114

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08



# NEW RAFIX 22 QR, toggle switch, square collar



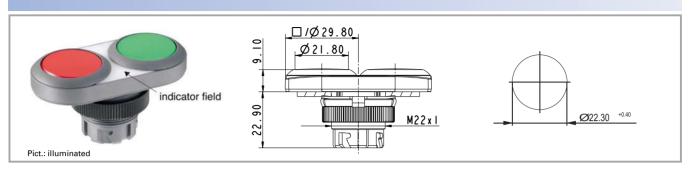
Illuminability	Colour of toggle	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
no	opaque white	-	-	1.30.247.551/02xx	1.30.247.552/0200	

Technical data see page 2 - 114

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08



### **RAFIX 22 QR twin pushbutton**



#### **General data**

Lens legends are oriented for vertical installation of the twin pushbutton. Only the signal indicator is illuminated on twin pushbuttons prepared for illumination. This area is opaque slate grey on versions which cannot be illuminated.

#### **Technical data**

RAFIX
IIAIIA
22 NR

General information	
Legending	see order block
Colour of lens	opaque green/opaque red
Colout of front ring	see order block
Form of collar	see order block

**Dimensions** Length of collar 59.6 mm Width of collar 29.8 mm Overall height 9.1 mm Mounting depth with contact block without cable 56.4 mm Mounting hole 22.3 mm 50 x 30 mm Key grid

Mechanical design

Mounting ring nut Contact function momentary Illuminability see order block **Mechanical characteristics** Operating force max.

Robustness min.

Other specifications Degree of protection

from front side

Ambient temp. operating min. Ambient temp, operating max. Storage temperature max. Resistance to constant environment

Resistance at variable environment

approx. 5 N for 1 switching element

100 N

**IP65** 

-25 °C

+70 °C

+80 °C

according to IEC 600 68-2-3 and 2-30

according to

IEC 600 68-2-14 and 2-33

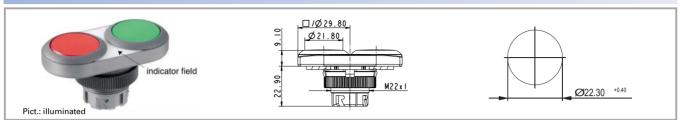
### **Accessories RAFIX 22 QR twin pushbutton**

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling and lamp socket, screw terminals, 1 NO, 1 NC	0	1.20.124.025/0000	2 - 127
RAFIX 22 QR contact block with gold contacts, with coupling and lamp socket, cage clamp terminals, 1 NO, 1 NC	<b>©</b>	1.20.125.125/0000	2 - 131
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".



### RAFIX 22 QR twin pushbutton, oval collar



Illuminability	Colour of lens	Legending	ing Order no.	
			Plastic front ring	Metal front ring
yes	opaque green/opaque red	none	1.30.241.001/22xx	1.30.241.021/2200
yes	opaque green/opaque red	red 0, green l	1.30.241.002/22xx	1.30.241.022/2200
no	opaque green/opaque red	none	1.30.241.101/07xx	1.30.241.121/0700
no	opaque green/opaque red	red 0, green I	1.30.241.102/07xx	1.30.241.122/0700

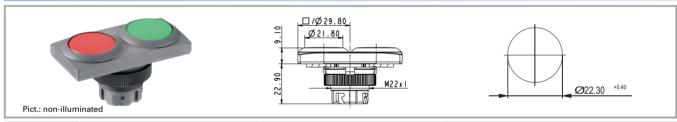
Technical data see page 2 - 116

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

Either the left-hand or right-hand contact block is actuated, depending on the button pressed. For illuminated versions the centre position of the coupling is reserved for the lamp socket. A third contact block arranged in the centre would be actuated by either button.

#### RAFIX 22 QR

## RAFIX 22 QR twin pushbutton, rectangular collar



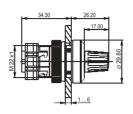
Illuminability	Colour of lens	Legending	Order no.		
			Plastic front ring	Metal front ring	
yes	opaque green/opaque red	none	1.30.241.051/22xx	1.30.241.071/2200	
yes	opaque green/opaque red	red 0, green I	1.30.241.052/22xx	1.30.241.072/2200	
no	opaque green/opaque red	none	1.30.241.151/07xx	1.30.241.171/0700	
no	opaque green/opaque red	red 0, green l	1.30.241.152/07xx	1.30.241.172/0700	

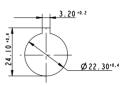
Technical data see page 2 - 116

xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

Either the left-hand or right-hand contact block is actuated, depending on the button pressed. For illuminated versions the centre position of the coupling is reserved for the lamp socket. A third contact block arranged in the centre would be actuated by either button.







Pict.: slate grey with potentiometer Panel cut-out to IEC 60947-5-1

**RAFIX** 

22 QR

#### **Technical data**

#### **General information**

Actuator knob size Colour of handle see order block Front ring see order block Form of collar see order block

#### **Dimensions**

Key grid

Length of collar see order block see order block Width of collar Overall height 26 mm according to Mounting depth potentiometer Mounting hole 22.3 mm

#### Mechanical design

Diameter of collar

Mounting ring nut

#### **Mechanical characteristics**

100 N Robustness min.

#### Other specifications

Degree of protection IP65 from front side Storage temperature min. Storage temperature max. Resistance to constant

Resistance at variable

environment

environment

-40 °C +80 °C

according to

IEC 600 68-2-3 and 2-30

according to

IEC 600 68-2-14 and 2-33

#### Accessories RAFIX 22 QR potentiometer drive

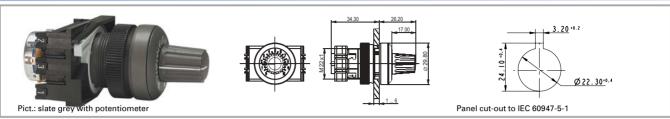
50 x 30 mm

see order block

Description	Photo	Order no.	Page
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23



# **RAFIX 22 QR potentiometer drive, round collar**



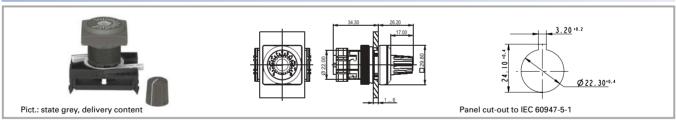
Front ring	Colour of handle	Order no.
metal	opaque slate-grey	1.30.248.051/0000
plastic slate-grey	opaque slate-grey	1.30.248.001/0700
plastic silber	opaque slate-grey	1.30.248.001/0800
metal	opaque black	1.30.248.061/0000
plastic slate-grey	opaque black	1.30.248.011/0700
plastic silber	opaque black	1.30.248.011/0800

Technical data see page 2 - 118

For potentiometers with 6 mm shaft diameter and 50 mm shaft length. Potentiometer not included.

#### RAFIX 22 QR

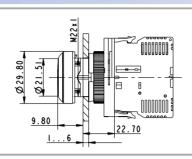
### RAFIX 22 QR potentiometer drive, square collar

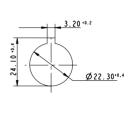


Front ring	Colour of handle	Order no.			
metal	opaque slate-grey	1.30.248.071/0000			
plastic slate-grey	opaque slate-grey	1.30.248.021/0700			
plastic silber	opaque slate-grey	1.30.248.021/0800			
metal	opaque black	1.30.248.081/0000			
plastic slate-grey	opaque black	1.30.248.031/0700			
plastic silber	opaque black	1.30.248.031/0800			

Technical data see page 2 - 118

For potentiometers with 6 mm shaft diameter and 50 mm shaft length. Potentiometer not included.





Panel cut-out to IEC 60947-5-1

#### **Technical data**

**General information** 

Form of lens Colour of lens Form of collar Sound

--

Dimensions
Length of collar
Width of collar
Overall height
Mounting depth
Mounting hole

Key grid Diameter of collar

Mechanical design Mounting

Acoustic characteristics

Sonic pressure, 1 m distance min.

r of collar see order block

ring nut

9.8 mm

56.4 mm

22.3 mm

50 x 30 mm

flat lens

opaque slate-grey

see order block

**Electrical characteristics** 

Operating voltage DC Input current Sound frequency

**Mechanical characteristics** 

Robustness min. 100 N

Other specifications

Degree of protection from front side Storage temperature min. Storage temperature max. Resistance to constant

environment

Resistance at variable environment

-40 °C +80 °C

IP65

according to

see order block

see order block

see order block

IEC 600 68-2-3 and 2-30

according to

IEC 600 68-2-14 and 2-33

#### **Accessories RAFIX 22 QR buzzer**

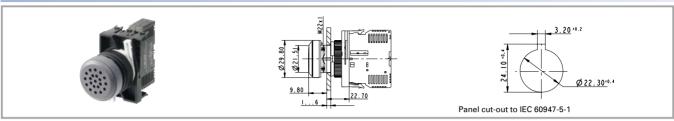
Description	Photo	Order no.	Page
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

**RAFIX** 

22 QR



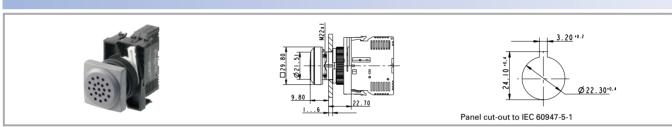
### **RAFIX 22 QR buzzer, round collar**



Operating voltage DC	Input current	Sound	Sonic pressure, 1 m distance min.	Sound frequency	Order no.
12 V	25 mA	continuos beep	70 dB		1.30.249.002/0000
24 V	25 mA	continuos beep	70 dB		1.30.249.001/0000

Technical data see page 2 - 120

### **RAFIX 22 QR buzzer, square collar**



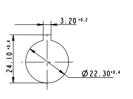
Operating voltage DC	Input current	Sound	Sonic pressure, 1 m distance min.	Sound frequency	Order no.
12 V	25 mA	continuos beep	70 dB		1.30.249.022/0000
24 V	25 mA	continuos beep	70 dB		1.30.249.021/0000

Technical data see page 2 - 120





red



Panel cut-out to IEC 60947-5-1

П

# 2

**RAFIX** 

22 QR

#### **Technical data**

**General information** 

Form of lens flat lens Colour of lens see order block Form of collar see order block **Dimensions** Length of collar see order block Width of collar see order block Overall height 9.4 mm Mounting depth 56.4 mm Mounting hole 22.3 mm 50 x 30 mm Key grid see order block Diameter of collar

Mechanical design

Mounting Illuminability ring nut

# **Electrical characteristics**Protection class

Other specifications
Degree of protection
from front side IP65
Ambient temp. operating
min. -25 °C
Ambient temp. operating
max. +70 °C
Storage temperature min. -40 °C
Storage temperature max. +80 °C
Resistance to constant

Resistance at variable environment

environment

according to IEC 600 68-2-3 and 2-30

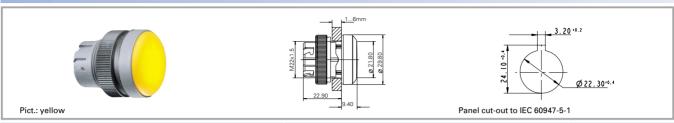
according to IEC 600 68-2-14 and 2-33

#### Accessories RAFIX 22 QR signal indicator

Description	Photo	Order no.	Page
RAFIX 22 QR lamp socket assembly, screw terminals, with coupling		1.71.213.001/0000	2 - 136
RAFIX 22 QR lamp socket assembly, screw terminals, with coupling, diode and series resistor 130 V		1.71.213.004/0000	2 - 136
RAFIX 22 QR lamp socket assembly, cage clamp terminals, with coupling		1.71.214.001/0000	2 - 136
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23
Legend insert without legend		5.70.803.000/2000	



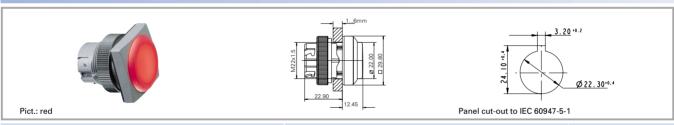
# **RAFIX 22 QR signal indicator, round collar**



Colour of lens	Form of collar	Order no.
transparent colourless	round	1.74.505.501/1000
transparent red	round	1.74.505.501/1300
transparent yellow	round	1.74.505.501/1400
transparent green	round	1.74.505.501/1500
transparent blue	round	1.74.505.501/1600

Technical data see page 2 - 122

# **RAFIX 22 QR signal indicator, square collar**



Colour of lens	Form of collar	Order no.
transparent colourless	square	1.74.505.551/1000
transparent red	square	1.74.505.551/1300
transparent yellow	square	1.74.505.551/1400
transparent green	square	1.74.505.551/1500
transparent blue	square	1.74.505.551/1600

Technical data see page 2 - 122

# Z

#### RAFIX 22 QR

#### **RAFIX 22 QR contact blocks with silver contacts**







Silver contacts, 2 NC, screw terminals

#### Silver contacts, 1NC+1NO, lamp socket, 1NC+1NO

3 mm

5 ... 1000 mm/s

10 A/250 V; 7,5 A/400 V

#### **General data**

Most of the values specified apply to all terminal versions. Any deviating values specific to the cage clamp or quick-connect version are given in parentheses ().

Positive opening travel

Electrical characteristics acc. to IEC 61058

Operating speed

Resistive load AC

#### **Technical data**

**Dimensions** 

Difficusions	00.5
Length	39.5 mm
Width	10 mm
Height	46 mm
Mounting depth without	
cable	56.4 mm
Mechanical design	
Mounting	snap on coupling and
	actuator
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	see order block
Terminal marking	colour encoded
Robustness	100 N
Operating force	approx. 5 N for 1 contact element
Wire range solid wires	
without wire end sleeves	2 x 0.75 2.5 mm <sup>2</sup>
Wire range stranded	
wires without end sleeves	2 x 1.0 1.5
	(2 x 0.08 2.5) mm <sup>2</sup>
Stripping length, solid	
or stranded	8 mm
Wire range with wire end	
sleeves	2 x 0.75 1.5 mm <sup>2</sup>
Electrical characteristics acc.	to IEC 60947
AC/DC	400 V
Rated peak voltage	6000 V
,	

10 A

V/3.5 A

3

125 V/10 A, 250 V/6 A, 400

24V/2.75A, 60V/1.1A, 125V/0.55A, 250V/0.275A

Motor load AC	6 A/250 V; 4 A/400 V (5 A/250 V)
Peak input current filament lamp AC	36 A
Peak capacity input current AC	100 A
Protection class	II
Lamp characteristics	DA O -
Lamp characteristics	BA 9 s
Other specifications	
Operating life at 10	
A/250 V AC	500000 (70000)
Switching reliability at	10 106
24V/5mA DC	10 x 10 <sup>-6</sup>
Approvals	ENEC, cURus (UL + CSA)
Robustness	acc. IEC 60947-5-5
Corresponding to CE	acc. EU-guideline N 72/73
Shock resistance acc. to	
IEC 600 68-2-27	50 g at 11 ms, amplitude
B 11 1 1 1 1	half sinusoidal
Resistance to vibrations	10+ 10
acc. to IEC 600 68-2-6	10 g at 40 500 Hz
Ambient temp. operating min.	-25 °C
Ambient temp. operating	-25 C
max.	+70°C (+50°C)
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Flame class acc. to UL 94	V 0
Hot wire ignition acc.	
to IEC 60695-2-1	yes
Resistance to constant	
environment	IEC 600 68-2-3 and 2-30
Resistance at variable	150 000 00 0 11
environment	IEC 600 68-2-14 and 2-33
	Control componer

2 - 124

I<sub>e</sub> AC 12

I<sub>e</sub> AC-15

I<sub>e</sub> DC-13 Q300

Degree of pollution

Rated operating current

Rated operating current

Rated operating current



# Accessories RAFIX 22 QR contact blocks with silver contacts, screw terminals and cage clamp terminals

Description	Photo	Order no.	Page
Coupling with reference numbers 1-3-2, for contact blocks with single contacts		5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	THE STATE OF THE S	5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals		5.40.010.131/0000	2 - 145

#### **RAFIX 22 QR contact block with silver contacts**



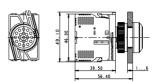
Terminals	Contact arrangement	Contact materials	Lamp characteristics	Order no.
screw terminals	1 NC	Ag		5.00.100.139/0000
screw terminals	1 NO	Ag		5.00.100.140/0000
screw terminals	2 NC	Ag		5.00.100.141/0000
screw terminals	2 NO	Ag		5.00.100.142/0000
screw terminals	1 NC + 1 NO	Ag		5.00.100.143/0000
clamp cage	1 NC	Ag		5.00.100.144/0000
clamp cage	1 NO	Ag		5.00.100.145/0000
solder/quick connector 6.3 x 0.8 mm	1 NC	Ag		5.00.100.194/0000
solder/quick connector 6.3 x 0.8 mm	1 NO	Ag		5.00.100.196/0000

NEW

Technical data see page 2 - 124

#### RAFIX 22 QR contact block assembly, with coupling, without lamp socket, silver contacts







Pict.: Silver contacts, 1 NO

Terminals	Contact arrangement	Contact materials	Lamp characteristics	Order no.
screw terminals	1 NC	Ag		1.20.124.001/0000
screw terminals	1 NO	Ag		1.20.124.002/0000
screw terminals	1 NC, 1 NC	Ag		1.20.124.003/0000
screw terminals	1 NO , 1 NO	Ag		1.20.124.004/0000
screw terminals	1 NO , 1 NC	Ag		1.20.124.005/0000
screw terminals	1 NC + 1 NO	Ag		1.20.124.017/0000
screw terminals	1 NC + 1 NO , 1 NC + 1 NO	Ag		1.20.124.018/0000
screw terminals	2 NC	Ag		1.20.124.019/0000
screw terminals	2 NO	Ag		1.20.124.020/0000
clamp cage	1 NC	Ag		1.20.125.001/0000
clamp cage	1 NO	Ag		1.20.125.002/0000
clamp cage	1 NC, 1 NC	Ag		1.20.125.003/0000
clamp cage	1 NO , 1 NO	Ag		1.20.125.004/0000
clamp cage	1 NO , 1 NC	Ag		1.20.125.005/0000

Technical data see page 2 - 124

Contact arrangement example (1 NO = 1 normally open contact, 1 NC = 1 normally closed contact)

<sup>1</sup> NO, 1 NC = Two separate contact blocks are mounted on the coupling: One with a normally open contact and one with a normally closed contact

<sup>1</sup> NC + 1 NO = One contact block with double contacts (1 normally closed and 1 normally open) is mounted on the coupling.



#### RAFIX 22 QR contact block assembly, with coupling and lamp socket, silver contacts









Pict.: lamp socket

Terminals	Contact arrangement	Contact materials	Lamp characteristics	Order no.
screw terminals	1 NC	Ag	BA 9 s	1.20.124.021/0000
screw terminals	1 NO	Ag	BA 9 s	1.20.124.022/0000
screw terminals	1 NC, 1 NC	Ag	BA 9 s	1.20.124.023/0000
screw terminals	1 NO , 1 NO	Ag	BA 9 s	1.20.124.024/0000
screw terminals	1 NO , 1 NC	Ag	BA 9 s	1.20.124.025/0000
screw terminals	1 NC + 1 NO	Ag	BA 9 s	1.20.124.027/0000
screw terminals	1 NC + 1 NO , 1 NC + 1 NO	Ag	BA 9 s	1.20.124.028/0000
screw terminals	2 NC	Ag	BA 9 s	1.20.124.029/0000
screw terminals	2 NO	Ag	BA 9 s	1.20.124.030/0000
clamp cage	1 NC	Ag	BA 9 s	1.20.125.021/0000
clamp cage	1 NO	Ag	BA 9 s	1.20.125.022/0000
clamp cage	1 NC, 1 NC	Ag	BA 9 s	1.20.125.023/0000
clamp cage	1 NO , 1 NO	Ag	BA 9 s	1.20.125.024/0000
clamp cage	1 NO , 1 NC	Ag	BA 9 s	1.20.125.025/0000

Technical data see page 2 - 124

#### Accessories

Filament lamp, BA 9s base (MBC/MCC), 12 - 15 V: 1.90.060.132/0000 Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V: 1.90.060.133/0000 Filament lamp, BA 9s base (MBC/MCC), 110 - 130 V: 1.90.060.137/0000 LED BA 9s (MBC/MCC) superbright, red, 24 V: 1.90.690.341/0000 LED BA 9s (MBC/MCC) superbright, green, 24 V: 1.90.690.342/0000 LED BA 9s (MBC/MCC) superbright, yellow, 24 V: 1.90.690.343/0000 LED BA 9s (MBC/MCC) superbright, blue, 24 V: 1.90.690.344/0000

LED BA 9s (MBC/MCC) superbright, white, 24 V: 1.90.690.345/0000

#### Contact arrangement example (1 NO = 1 normally open contact, 1 NC = 1 normally closed contact)

1 NO, 1 NC = Two separate contact blocks are mounted on the coupling: One with a normally open contact and one with a normally closed contact

1 NC + 1 NO = One contact block with double contacts (1 normally closed and 1 normally open) is mounted on the coupling.

BA 9s (MBC/MCC) = Lamp socket snaps onto coupling centre. More technical data see "Lamp sockets".

**RAFIX** 

22 QR

#### **RAFIX 22 QR contact blocks with gold contacts**







Gold contacts, 1 NO, cage clamp terminals

Assembly: Gold contacts, 1NC + 1NO

#### **General data**

Most of the values specified apply to all terminal and cage clamp terminal versions. Any deviating values specific to the cage clamp or quick connect version are given in parentheses ().

#### **Technical data**

Di	m	Δn	ei.	nn	c

Length 39.5 mm Width 10 mm 46 mm Height

Mounting depth without

cable 56.4 mm

Mechanical design

Mounting snap on coupling and

actuator

bridgecontact self Contact system

cleaning Contact materials

Contact arrangement see order block

NC contact forcibly

actuated acc. to IEC 60947-5-1 yes

**Terminals** see order block Terminal marking colour encoded

Robustness 100 N

Operating force approx. 5 N for 1 contact

element

Wire range solid wires

without wire end sleeves 2 x 0.75 ... 2.5 mm<sup>2</sup>

Wire range stranded

wires without wire end sleeves

2 x 1,0 ... 1,5 mm<sup>2</sup>

Stripping length, solid

or stranded 8 mm

Wire range with wire end

sleeves 2 x 0,75 ... 1,5 mm<sup>2</sup> **Electrical characteristics** 

Operating voltage AC/DC 1 ... 42 V Operating current AC/DC 0,01 ... 100 mA Rated power max. 1W (ohmic load)

Lamp characteristics

Lamp socket BA9s

Other specifications Operating life

24 V DC

Switching reliability at

24V/5mA DC Robustness

Corresponding to CE

Shock resistance acc. to

IEC 600 68-2-27

Resistance to vibrations acc. to IEC 600 68-2-6

Ambient temp. operating

min.

Ambient temp. operating

max.

Storage temperature min. Storage temperature max.

Resistance to constant

environment

Resistance at variable environment

1 million at 10 mA/

10 x 10<sup>-6</sup>

acc. IEC 60947-5-5

acc. EU-guideline N

72/73

50 g at 11 ms, amplitude

half sinusoidal

10 g at 40 ... 500 Hz

-25 °C

+70 °C

-40 °C

+80 °C

IEC 600 68-2-3 and 2-30

IEC 600 68-2-14 and 2-33

#### Accessories RAFIX 22 QR contact blocks with gold contacts, screw terminals and cage clamp terminals

Description	Photo	Order no.	Page
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V		1.90.060.133/0000	5 - 8





# Accessories RAFIX 22 QR contact blocks with gold contacts, screw terminals and cage clamp terminals

Description	Photo	Order no.	Page
Neon lamp BA 9s (MBC/MCC), 220 V AC (red)	4	1.90.560.102/0000	5 - 9
LED BA 9s (MBC/MCC) superbright, white, 24 V		1.90.690.345/0000	5 - 19
Coupling with reference numbers 1-3-2, for contact blocks with single contacts	111	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	III	5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals	<b>J</b>	5.40.010.131/0000	2 - 145

### **RAFIX 22 QR contact block with gold contacts**



**Terminals Contact arrangement Contact materials** Lamp socket Order no. screw terminals 2 NC Au 5.00.100.161/0000 screw terminals 2 NO Au 5.00.100.162/0000 5.00.100.163/0000 screw terminals 1 NC + 1 NO Au screw terminals 1 NC Au 5.00.100.164/0000 1 NO 5.00.100.165/0000 screw terminals Au 1 NC 5.00.100.159/0000 clamp cage Au clamp cage 1 NO Au 5.00.100.160/0000 solder/quick connector Au 5.00.100.193/0000 1 NC 6.3 x 0.8 mm solder/quick connector 1 NO Au 5.00.100.195/0000 6.3 x 0.8 mm



Technical data see page 2 - 128

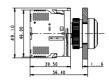




## RAFIX 22 QR contact block assembly, with coupling, without lamp socket, gold contacts









Pict.: Gold contacts, 1NC + 1NO

Terminals	Contact arrangement	Contact materials	Lamp socket	Order no.
screw terminals	1 NC	Au		1.20.124.101/0000
screw terminals	1 NO	Au		1.20.124.102/0000
screw terminals	1 NC, 1 NC	Au		1.20.124.103/0000
screw terminals	1 NO , 1 NO	Au		1.20.124.104/0000
screw terminals	1 NO , 1 NC	Au		1.20.124.105/0000
screw terminals	1 NC + 1 NO	Au		1.20.124.117/0000
screw terminals	1 NC + 1 NO , 1 NC + 1 NO	Au		1.20.124.118/0000
screw terminals	2 NC	Au		1.20.124.119/0000
screw terminals	2 NO	Au		1.20.124.120/0000
clamp cage	1 NC	Au		1.20.125.101/0000
clamp cage	1 NO	Au		1.20.125.102/0000
clamp cage	1 NC, 1 NC	Au		1.20.125.103/0000
clamp cage	1 NO , 1 NO	Au		1.20.125.104/0000
clamp cage	1 NO , 1 NC	Au		1.20.125.105/0000

Technical data see page 2 - 128

Contact arrangement example (1 NO = 1 normally open contact, 1 NC = 1 normally closed contact)

<sup>1</sup> NO, 1 NC = Two separate contact blocks are mounted on the coupling: One with a normally open contact and one with a normally closed contact

<sup>1</sup> NC + 1 NO = One contact block with double contacts (1 normally closed and 1 normally open) are mounted on the coupling.

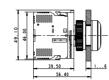




#### RAFIX 22 QR contact block assembly, with coupling and lamp socket, gold contacts









Pict.: Silver contacts, 1NC+1NO, lamp socket, 1NC+1NO

Terminals	Contact arrangement	Contact materials	Lamp socket	Order no.
screw terminals	1 NC	Au	BA 9 s	1.20.124.121/0000
screw terminals	1 NO	Au	BA 9 s	1.20.124.122/0000
screw terminals	1 NC, 1 NC	Au	BA 9 s	1.20.124.123/0000
screw terminals	1 NO , 1 NO	Au	BA 9 s	1.20.124.124/0000
screw terminals	1 NO , 1 NC	Au	BA 9 s	1.20.124.125/0000
screw terminals	1 NC + 1 NO	Au	BA 9 s	1.20.124.127/0000
screw terminals	1 NC + 1 NO , 1 NC + 1 NO	Au	BA 9 s	1.20.124.128/0000
screw terminals	2 NC	Au	BA 9 s	1.20.124.129/0000
screw terminals	2 NO	Au	BA 9 s	1.20.124.130/0000
clamp cage	1 NC	Au	BA 9 s	1.20.125.121/0000
clamp cage	1 NO	Au	BA 9 s	1.20.125.122/0000
clamp cage	1 NC, 1 NC	Au	BA 9 s	1.20.125.123/0000
clamp cage	1 NO , 1 NO	Au	BA 9 s	1.20.125.124/0000
clamp cage	1 NO , 1 NC	Au	BA 9 s	1.20.125.125/0000

Technical data see page 2 - 128

#### Accessories

Filament lamp, BA 9s base (MBC/MCC), 12 - 15 V: 1.90.060.132/0000 Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V: 1.90.060.133/0000 Filament lamp, BA 9s base (MBC/MCC), 110 - 130 V: 1.90.060.137/0000 LED BA 9s (MBC/MCC) superbright, red, 24 V: 1.90.690.341/0000 LED BA 9s (MBC/MCC) superbright, green, 24 V: 1.90.690.342/0000 LED BA 9s (MBC/MCC) superbright, yellow, 24 V: 1.90.690.343/0000 LED BA 9s (MBC/MCC) superbright, blue, 24 V: 1.90.690.344/0000 LED BA 9s (MBC/MCC) superbright, white, 24 V: 1.90.690.345/0000

#### Contact arrangement example (1 NO = 1 normally open contact, 1 NC = 1 normally closed contact)

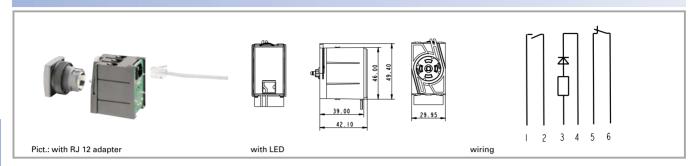
1 NO, 1 NC = **Two separate contact blocks** are mounted on the coupling: One with a normally open contact and one with a normally closed contact

1 NC + 1 NO = One contact block with double contacts (1 normally closed and 1 normally open) is mounted on the coupling.

BA 9s (MBC/MCC) = Lamp socket snaps onto coupling centre. Technical data see "Lamp sockets".



### Contact blocks with coupling, gold contacts, RJ 12 connector, integrated LED



#### **Technical data**

#### Dimensions

Length 49.4 mm
Width 29.95 mm
Height 42.1 mm
Mounting depth 62 mm

#### Mechanical design

Mounting snap on actuator
Contact system bridgecontact self
cleaning
Contact materials Au
Contact arrangement see order block

NC contact forcibly
actuated acc. to
IEC 60947-5-1 yes
Terminals RJ-12
Terminal marking RJ-12 plug
Mounting grid 30 x 50
Robustness 100 N

#### **Electrical characteristics**

Operating voltage AC/DC 24 V

Operating current AC/DC 0,01 ... 50 mA

# Other specifications Operating life

Switching reliability at 24V/5mA DC
Ambient temp. operating min.
Ambient temp. operating without LED max.
Ambient temp. operating with LED max.
Storage temperature min.
Storage temperature max.
Integrated LED

LED colour Resistance to constant environment

Resistance at variable environment

1000000 at 50 mA/24 V DC

10 x 10<sup>-6</sup>

-25 °C

+70 °C

+50 °C

-30 °C +80 °C

see order block see order block

IEC 600 68-2-3 and 2-30

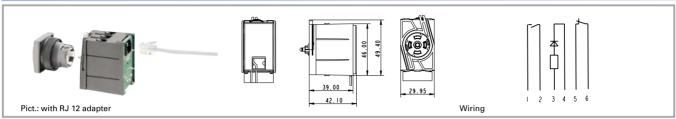
IEC 600 68-2-14 and 2-33

**RAFIX** 

22 QR



# Contact block with coupling, gold contacts, RJ 12 connector, integrated LED



Contact arrangement	Operating voltage AC/DC	Integrated LED	LED colour	Order no.
1 NO	24 V	no		1.20.128.002/0000
1 NO	24 V	yes	white	1.20.128.012/0000
1 NO	24 V	yes	green	1.20.128.042/0000
1 NC + 1 NO	24 V	no		1.20.128.003/0000
1 NC + 1 NO	24 V	yes	white	1.20.128.013/0000
1 NC + 1 NO	24 V	yes	red	1.20.128.023/0000
2 NC	24 V	no		1.20.128.004/0000
2 NC	24 V	yes	white	1.20.128.014/0000
2 NC	24 V	yes	red	1.20.128.024/0000
2 NO	24 V	no		1.20.128.005/0000
2 NO	24 V	yes	white	1.20.128.015/0000
2 NO	24 V	yes	green	1.20.128.045/0000

Technical data see page 2 - 132

Other contact arrangement versions available on request.

#### RAFIX 22 QR lamp sockets BA 9s (MBC/MCC), screw terminals and cage clamp terminals



#### **Technical data**

Dimensions	;
Lenath	

cable

46 mm Width 10 mm Height 39.5 mm Mounting depth without

#### Mechanical design

Mounting snap on coupling and actuator **Terminals** see order block X1 = anode, X2 = cathode Terminal marking

56.4 mm

BA9s

2 W

see order block

see order block

#### Lamp characteristics

Lamp socket Operating voltage AC/DC Lamp power max. Lamp voltage

Other specifications

**Approvals** Robustness Shock resistance acc. to IEC 600 68-2-27

Resistance to vibrations acc. to IEC 600 68-2-6 Resistance to constant environment Resistance at variable environment Ambient temp, operating min.

Ambient temp. operating max.

Storage temperature min. Storage temperature max. Flame class acc. to UL 94 Hot wire ignition acc.

to IEC 60695-2-1

see order block acc. IEC 60947-5-5

50 g at 11 ms, amplitude half sinusoidal

10 g at 40 ... 500 Hz

IEC 600 68-2-3 and 2-30

IEC 600 68-2-14 and 2-33

-25 °C

+70 °C -40 °C +80 °C

yes

V 0

#### Accessories RAFIX 22 QR lamp sockets BA 9s (MBC/MCC), screw terminals and cage clamp terminals

Description	Photo	Order no.	Page
Filament lamp, BA 9s base (MBC/MCC), 12 - 15 V		1.90.060.132/0000	5 - 8
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V		1.90.060.133/0000	5 - 8
Filament lamp, BA 9s base (MBC/MCC), 110 - 130 V		1.90.060.137/0000	5 - 8
Neon lamp BA 9s (MBC/MCC), 220 V AC (red)	<b>←</b>	1.90.560.102/0000	5 - 9
LED BA 9s (MBC/MCC) superbright, red, 24 V		1.90.690.341/0000	5 - 19
LED BA 9s (MBC/MCC) superbright, green, 24 V		1.90.690.342/0000	5 - 19
LED BA 9s (MBC/MCC) superbright, yellow, 24 V		1.90.690.343/0000	5 - 19





#### Accessories RAFIX 22 QR lamp sockets BA 9s (MBC/MCC), screw terminals and cage clamp terminals

Description	Photo	Order no.	Page
LED BA 9s (MBC/MCC) superbright, blue, 24 V		1.90.690.344/0000	5 - 19
LED BA 9s (MBC/MCC) superbright, white, 24 V		1.90.690.345/0000	5 - 19
Coupling with reference numbers 1-3-2, for contact blocks with single contacts	THE PARTY NAMED IN COLUMN TO PARTY NAMED IN CO	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	THE STATE OF THE S	5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals	<b>J</b>	5.40.010.131/0000	2 - 145

#### **RAFIX 22 QR lamp socket, without coupling**

ULc



**Terminals** Diode and Approvals Lamp socket **Operating** Lamp voltage Order no. voltage AC/DC resistor 6 ... 250 V 6 ... 250 V 5.00.070.074/0000 screw terminals no ENEC 10/15; BA9s ULc screw terminals ENEC 10/15; BA9s 250 V 130 V 5.00.070.080/0000 yes ULc ENEC 10/15; BA9sBA9s 6 ... 250 V 6 ... 250 V 5.00.070.078/0000 clamp cage no ULc 5.00.070.087/0000 solder/quick connec-ENEC 10/15; BA 9 s 6 ... 250 V 6 ... 250 V



Technical data see page 2 - 134

tor 6.3 x 0.8 mm



1.71.214.001/0000

# **RAFIX 22 QR lamp socket assembly, with coupling**



ENEC 10/15;

ULc

Operating Diode and Order no. **Terminals Approvals** Lamp socket Lamp voltage voltage AC/DC resistor ENEC 10/15; BA9s 6 ... 250 V 6 ... 250 V 1.71.213.001/0000 screw terminals no 250 V 130 V screw terminals yes ENEC 10/15; BA9s 1.71.213.004/0000 ULc

6 ... 250 V

6 ... 250 V

BA9s

Technical data see page 2 - 134

clamp cage

### RAFIX 22 QR lamp sockets with integrated LED, screw terminals



#### **Technical data**

Dimensions	
Length	46 mm
Width	10 mm
Height	39.5 mm
Mounting depth without	
cable	56.4 mm

# **Mechanical design Mounting**

Diode and resistor LED colour Terminals Terminal marking

**Lamp characteristics**Operating voltage
Max. current, I<sub>F</sub>

snap on coupling and actuator see order block see order block screw terminals X1 = anode, X2 = cathode

see order block see order block

#### Other specifications

Approvals Robustness Shock resistance acc. to IEC 600 68-2-27

Resistance to vibrations acc. to IEC 600 68-2-6 Resistance to constant environment Resistance at variable environment Ambient temp. operating min.

Ambient temp. operating max.
Storage temperature min.
Storage temperature max.
Flame class acc. to UL 94
Hot wire ignition acc.

to IEC 60695-2-1

ENEC 10/15; ULc acc. IEC 60947-5-5

50 g at 11 ms, amplitude half sinusoidal

10 g at 40 ... 500 Hz

IEC 600 68-2-3 and 2-30

IEC 600 68-2-14 and 2-33

-20 °C

+65 °C -40 °C +80 °C

V 0 yes

#### Accessories RAFIX 22 QR lamp sockets with integrated LED, screw terminals

Description	Photo	Order no.	Page
Coupling with reference numbers 1-3-2, for contact blocks with single contacts	The state of the s	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts		5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals	<b>J</b>	5.40.010.131/0000	2 - 145

**RAFIX** 

22 QR



# **RAFIX 22 QR lamp socket with integrated LED, without coupling**



Terminals	Diode and resistor	LED colour	Max. current, I <sub>F</sub>	Operating voltage	Order no.
screw terminals		white	15 mA	AC/DC 24 V	5.00.070.083/0200
screw terminals		red	15 mA	AC/DC 24 V	5.00.070.083/0300
screw terminals		yellow	15 mA	AC/DC 24 V	5.00.070.083/0400
screw terminals		green	15 mA	AC/DC 24 V	5.00.070.083/0500
screw terminals		blue	15 mA	AC/DC 24 V	5.00.070.083/0600
screw terminals		white	16 mA	AC 115 V	5.00.070.085/0200
screw terminals		red	16 mA	AC 115 V	5.00.070.085/0300
screw terminals		yellow	16 mA	AC 115 V	5.00.070.085/0400
screw terminals		green	16 mA	AC 115 V	5.00.070.085/0500
screw terminals		blue	16 mA	AC 115 V	5.00.070.085/0600
screw terminals		white	16 mA	AC 230 V	5.00.070.086/0200
screw terminals		red	16 mA	AC 230 V	5.00.070.086/0300
screw terminals		yellow	16 mA	AC 230 V	5.00.070.086/0400
screw terminals		green	16 mA	AC 230 V	5.00.070.086/0500
screw terminals		blue	16 mA	AC 230 V	5.00.070.086/0600

Technical data see page 2 - 138

# **RAFIX 22 QR special accessories**





light grey/dark grey

2

# **Accessories RAFIX 22 QR special accessories**

Description	Photo	Order no.	Page
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

# **Housings for flush pushbuttons**



Short text	Feature 1	Feature 2	Order no.
Housings for pushbuttons, round collar, flush lens, momentary			1.30.240.601/0000
Housings for pushbuttons, square collar, flush lens, momentary			1.30.240.602/0000

# **Lenses for flush pushbuttons**



Pict.: yellow

Short text	Feature 1	Feature 2	Order no.
Lens, with diffuser	transparent colourless	flat lens	5.04.926.008/1000
Lens, with diffuser	transparent red	flat lens	5.04.926.008/1300
Lens, with diffuser	transparent yellow	flat lens	5.04.926.008/1400
Lens, with diffuser	transparent green	flat lens	5.04.926.008/1500
Lens, with diffuser	transparent blue	flat lens	5.04.926.008/1600
Lens	opaque black	flat lens	5.49.263.019/0100
Lens	opaque white	flat lens	5.49.263.019/0200
Lens	opaque red	flat lens	5.49.263.019/0300
Lens	opaque yellow	flat lens	5.49.263.019/0400
Lens	opaque green	flat lens	5.49.263.019/0500
Lens	opaque blue	flat lens	5.49.263.014/0600
Lens	opaque slate-grey	flat lens	5.49.263.019/0700



# Front ring



Pict.: metal

Short text	Feature 1	Feature 2	Order no.
Front ring, metal			5.45.638.015/6030
Front ring, plastic, black			5.45.639.020/0100
Front ring, plastic, red			5.45.639.020/0300
Front ring, plastic, yellow			5.45.639.020/0400
Front ring, plastic, green			5.45.639.020/0500
Front ring, plastic, blue			5.45.639.020/0600
Front ring, plastic, slate grey			5.45.639.020/0700
Front ring, plastic, silver grey			5.45.639.020/0800

# RAFIX 22 QR

# RAFIX 22 QR plastic front ring with thermoflex protective cap



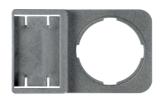
Pict.: slate-grey

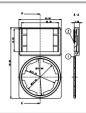
Short text	Feature 1	Feature 2	Order no.
Front ring, plastic with protective cap, slate grey	slate-grey		5.05.004.914/0700
Front ring, plastic with thermoflex protective cap, silver grey	silver- grey		5.05.004.914/0800
Front ring, plastic with thermoflex protective cap, black	black		5.05.004.914/0100



### Label holder







Short text	Feature 1	Feature 2	Order no.
Label holder, round collar, with adhesive tape and release liner on back $50 \times 30 \times 3.6 \text{ mm}$			5.07.620.010/0000
Label holder, square collar, with adhesive tape and release liner on back $50 \times 30 \times 3.6 \text{ mm}$			5.07.620.011/0000

# Legend label to clip into label holder 5.07.620.xxx



Short text	Feature 1	Feature 2	Order no.
Label for label holder, without legend, $16 \times 28 \times 0.9$ mm			5.73.110.000/0000

# Coupling





Short text	Feature 1	Feature 2	Order no.
Coupling with reference numbers 1-3-2, for contact blocks with single contacts			5.05.510.935/0000
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts			5.05.510.936/0000

# Blanking cap





Short text	Feature 1	Feature 2	Order no.
Blanking cap IP65, ring nut, square			5.05.800.065/0000
Blanking cap IP65, ring nut, round			5.05.800.064/0000

# Ring nut





Short text	Feature 1	Feature 2	Order no.
Ring nut (spare part)			5.24.279.012/0100
Ring nut with claw (spare part)			5.02.420.001/0000

# Lamp tester



Short text	Feature 1	Feature 2	Order no.	
Lamp tester			5.03.771.678/0000	



# Protective cover, suitable for pushbuttons with flush lens





Pict.: protective lid

Short text	Feature 1	Feature 2	Order no.
Protective cover, latching			5.05.511.195/0000
Protective cover, auto-closing			5.05.511.194/0000

# Marking tag



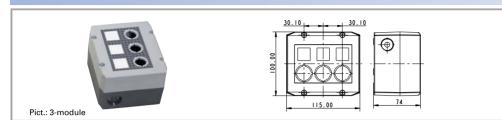
Short text	Feature 1	Feature 2	Order no.
Marking tag for contact blocks/lamp sockets with screw terminals			5.40.010.131/0000

**RAFIX** 

22 QR



### **Insulating housing IP65 for RAFIX 22 QR**



Short text	Feature 1	Feature 2	Order no.
Insulating housing IP65 for 22 QR, 1-module, light grey/dark grey	100 mm	55 mm	1.20.810.201/0000
Insulating housing IP65 for 22 QR, 1-module, yellow/yellow	100 mm	55 mm	1.20.810.202/0000
Insulating housing IP65 for 22 QR, 2-module, light grey/dark grey	100 mm	115 mm	1.20.820.201/0000
Insulating housing IP65 for 22 QR, 3-module, light grey/dark grey	100 mm	115 mm	1.20.830.201/0000
Insulating housing IP65 for 22 QR, 4-module, light grey/dark grey	100 mm	145 mm	1.20.840.201/0000

- Attractive plastic housing to accommodate up to 4 control components
- 2 cable entries prepared: 1-,2-,3-part: M20x1,5, 4-part: M25x1,5
  Degree of protection IP 65 to DIN
- All grey housings with overlay, legending possible with legend inserts
- Wall mounting with 2 screws through housing bottom prepared
- Dimensions: (feature 2) x 100 mm x 74 mm
- Accessories: 50 pre-perforated legend inserts on a DIN A4 sheet for printing with a PC printer

#### **Emergency stop label plate**



Short text	Feature 1	Feature 2	Order no.
Emergency stop label, yellow, round 60 mm, rigid PVC, with legend "NOT-AUS"		60 mm	5.76.207.001/0400
Emergency stop label, yellow, round 60 mm, rigid PVC, with legend "EMERGENCY-STOP/ARRET D'URGENCE"		60 mm	5.76.207.002/0400
Emergency stop label, yellow, round 60 mm, PVC adhesive, without legend		60 mm	5.76.204.100/0400
Emergency stop label, yellow, round 60 mm, PVC adhesive, with legend "NOT-AUS"		60 mm	5.76.204.101/0400
Emergency stop label, yellow, round 60 mm, PVC adhesive, with legend "ARRET D'URGENCE"		60 mm	5.76.204.102/0400
Emergency stop label, yellow, round 60 mm, PVC adhesive, with legend "EMERGENCY-STOP"		60 mm	5.76.204.103/0400
Emergency stop label, yellow 36 x 64 mm, PVC adhesive, without legend	64 mm	36 mm	5.76.205.011/0400

Degree of protection: Rigid PVC: IP 40, adhesive foil: IP65.

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