



#### **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.

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RAFIX 22 QR



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## **RAFIX 22 QR**



# 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 greyThe terminals associated with a contact pair are colour coded on the
- connection side and marked with the respective contact numbers.

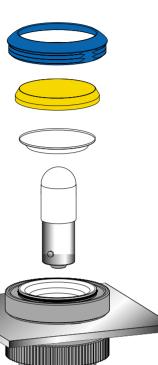
The lamps of pushbuttons and signal lamps can be replaced from the front. This method saves time and increases safety since it eliminates the need for accessing the machine/ control station interior and handling live cables for lamp replacement. After unscrewing the front ring, the lens can be removed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



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RAFIX 22 QR



## 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.

## 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.

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## 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).

## Assembly

Screw terminals

#### **Cage clamp terminals**





Insert the wire.

Done.





Tighten the screw.

Insert the wire.



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.

**Control Components** 

## **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).

34-1

Assembly

Disassembly

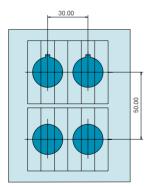
• = approved,  $\bigcirc$  = pending

SOLUTIONS WITH PASSION

	GL
RAFIX	
22 QR	0

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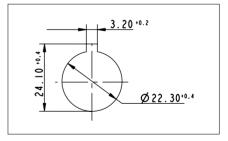
••					
Part no.	BG zert.	VDE 0660	10/15	ULc	GL
1.20 124	0	0	•	•	0
1.20 125	0	0	•	•	0
1.30 243	0			•	
1.71 213		0	•	•	0
1.71 214		0	•	•	0



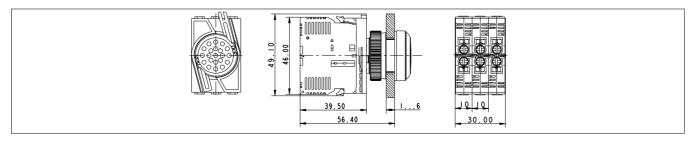
#### Panel cut-out according to IEC 60947-5-1

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

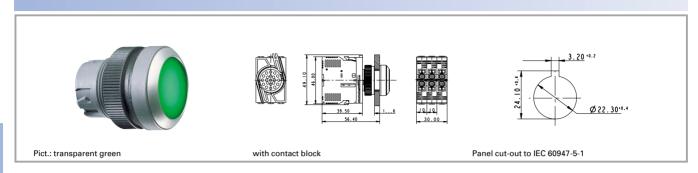
With a grid spacing of 30 mm horizontally and 50 mm vertically, the collars of the square actuators touch each other. We revommend to use the same grid spacing also for the round collar shapes (IEC 947).



### **Dimensioned drawing**



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



### **Technical data**

**General information** Form of lens Colour of lens Colout of front ring Form of collar

#### Dimensions

Length of collar Width of collar Overall height Mounting depth with contact block without cable Mounting hole Key grid Diameter of collar

**Mechanical characteristics** 

Mechanical design

Mounting Contact function Illuminability

**Operating travel** 

ring nut see order block see order block

4 mm

see order block

56.4 mm

22.3 mm

50 x 30 mm

see order block

Robustness min.

Operating force max.

Other specifications Operating life (operations)

Degree of protection from front side Ambient temp. operating min. 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 cou- pling, without lamp socket, screw terminals, 1 NO	<b>N</b>	1.20.124.002/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with cou- pling and lamp socket, screw terminals, 1 NC + 1 NO	<b>N</b>	1.20.124.027/0000	2 - 127
RAFIX 22 QR contact block with gold contacts, with cou- pling and lamp socket, screw terminals, 1 NO	<b>S</b>	1.20.124.122/0000	2 - 131
RAFIX 22 QR contact block with silver contacts, with cou- pling and lamp socket, cage clamp terminals, 1 NO, 1 NC	<b>S</b>	1.20.125.025/0000	2 - 127
Contact block with RJ 12 connector, 2 NO, white LED	(in )	1.20.128.015/0000	2 - 133
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V		1.90.060.133/0000	5 - 8
LED BA 9s (MBC/MCC) superbright, white, 24 V		1.90.690.345/0000	5 - 19

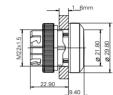
#### **Accessories RAFIX 22 QR pushbutton**

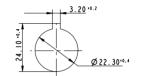


For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".

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







Panel cut-out to IEC 60947-5-1

Illuminability Colour of lens Order no. momentary Order no. latching Plastic front ring Metallized front ring **Plastic front ring** Metallized front ring 1.30.240.001/10xx 1.30.240.021/1000 1.30.240.011/10xx 1.30.240.031/1000 transparent white yes ves transparent red 1.30.240.001/13xx 1.30.240.021/1300 1.30.240.011/13xx 1.30.240.031/1300 1.30.240.031/1400 ves transparent yellow 1.30.240.001/14xx 1.30.240.021/1400 1.30.240.011/14xx yes transparent green 1.30.240.001/15xx 1.30.240.021/1500 1.30.240.011/15xx 1.30.240.031/1500 transparent blue 1.30.240.011/16xx yes 1.30.240.001/16xx 1.30.240.021/1600 1.30.240.031/1600 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 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 opaque blue 1.30.240.101/06xx 1.30.240.121/0600 1.30.240.111/06xx 1.30.240.131/0600 no 1.30.240.131/0700 no opaque slate-grey 1.30.240.101/07xx 1.30.240.121/0700 1.30.240.111/07xx

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.

**Stock items** are marked by **bold printed** order numbers.





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

Pict.: transparent red		M2241.5	1Smm	Panel cut-out to IEC 6094	<u>3.20</u> ·0.2 Ø22.30 <sup>.0.4</sup> 7-5-1
Illuminability	Colour of lens	Order no.	momentary	Order ne	o. 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.

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

Pict:: transparent red		5112ZZM	2.90 12.60	Panel cut-out to IEC 603	<u>3.20</u> <sup>+0.2</sup> Ø22.30 <sup>+0.4</sup> 947-5-1
llluminability	Colour of lens	Order no.	momentary	Order ı	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.

2



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

Pict: transparent red		MZZAL5	22.90 9.40	Panel cut-out to IEC 6094	<u>3.20</u> <sup>•0.2</sup> Ø22.30 <sup>•0.4</sup>
Illuminability	Colour of lens	Order no.	momentary	Order no	o. 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

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

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

Pict.: transparent red		M22AL5	2.90 12.45	Panel cut-out to IEC 6094	<u>3.20</u> <sup>•0.2</sup> Ø <u>22.30</u> <sup>•0.4</sup> 7-5-1
Illuminability	Colour of lens		momentary		o. 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.

2

RAFIX 22 QR



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

Pict.: transparent green Illuminability Colour of lens	F	. momentary Metallized front ring	Panel cut-out to IEC 609- Order n Plastic front ring	47-5-1 o. latching Metallized front rir
			3.20 *0.2 Ø 22.30*0.4	

		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**



## 2

#### General data

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

#### **Technical data**

#### General information

Actuator Marking of handle Colout of front ring Form of collar

#### Dimensions

Length of collar Width of collar Overall height Mounting depth with contact block without cable Mounting hole Key grid Diameter of collar

Mechanical design

Mounting Contact function Illuminability Rotating angle

Torque max.

handle white see order block see order block

see order block see order block 22.2 mm

56.4 mm 22.3 mm 50 x 30 mm see order block

ring nut see order block see order block see order block

#### **Mechanical characteristics** Operating force max.

approx. 5 N for 1 switching element 2 Nm

#### **Electrical characteristics** Protection class

#### Other specifications Operating life Degree of protection from front side Ambient temp. operating min. Ambient temp. operating

max. Storage temperature min. Storage temperature max. Resistance to constant environment

Resistance at variable environment

0.5 million

Ш

-27 °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 selector switch

RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO1.20.124.017/00002 - 126RAFIX 22 QR contact block with silver contacts, with coupling and lamp socket, screw terminals, 1 NC + 1 NO1.20.124.027/00002 - 127RAFIX 22 QR contact block with gold contacts, with coupling and lamp socket, screw terminals, 1 NC + 1 NO1.20.124.027/00002 - 131RAFIX 22 QR contact block with gold contacts, with coupling and lamp socket, screw terminals, 1 NC + 1 NO, 1 NC + 1 NO1.20.124.128/00002 - 131Contact block with coupling, gold contacts, RJ 12 connec-1.20.128.013/00002 - 133	Description	Photo	Order no.	Page
pling and lamp socket, screw terminals, 1 NC + 1 NO RAFIX 22 QR contact block with gold contacts, with coupling and lamp socket, screw terminals, 1 NC + 1 NO, 1 NC + 1 NO Image: Screw terminals, 1 NC + 1 NC + 1 NO Image: Screw terminals, 1 NC + 1 NC		<b>N</b>	1.20.124.017/0000	2 - 126
and lamp socket, screw terminals, 1 NC + 1 NO, 1 NC + 1 NO			1.20.124.027/0000	2 - 127
Contact block with coupling gold contacts BJ 12 connec-		<b>S</b>	1.20.124.128/0000	2 - 131
tor, 1 NC + 1 NO, white LED	Contact block with coupling, gold contacts, RJ 12 connec- tor, 1 NC + 1 NO, white LED		1.20.128.013/0000	2 - 133

RAFIX

22 QR

#### **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**

Pict.: Front rin	g, silver grey, non-illuminated		65.62	Panel cut-out to IEC 6094	<u>3.20</u> ••.2 Ø <u>22.30</u> ·•.4 7-5-1
Illuminability	Contact function	Rotating angle	Rotating	Ord	er no.
			angle	Plastic front ring	Metal front ring
no	momentary	1 x 40°	Ď	1.30.242.501/02xx	1.30.242.502/0200
no	momentary	2 x 40°	$\checkmark$	1.30.242.526/02xx	1.30.242.527/0200
no	latching	1 x 90°, form L		1.30.242.601/02xx	1.30.242.602/0200
no	latching	1 x 90°, form V		1.30.242.701/02xx	1.30.242.702/0200
no	latching	2 x 60°	$\bigcirc$	1.30.242.801/02xx	1.30.242.802/0200
no	latching	2 x 90°	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.30.242.626/02xx	1.30.242.627/0200
yes	momentary	1 x 40°	$\triangleright$	1.30.242.001/22xx	1.30.242.002/2200
yes	momentary	2 × 40°	$\checkmark$	1.30.242.026/22xx	1.30.242.027/2200
yes	latching	1 x 90°, form L	Ľ,	1.30.242.101/22xx	1.30.242.102/2200
yes	latching	1 x 90°, form V		1.30.242.201/22xx	1.30.242.202/2200
yes	latching	2 x 60°	$\bigcirc$	1.30.242.301/22xx	1.30.242.302/2200
yes	latching	2 x 90°		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 RAFIX 22 QR

Stock items are marked by **bold printed** order numbers.





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

Pict:: Front ring, metallized, illuminated					
Illuminability	Contact function	Rotating angle	Rotating	Ord	er no.
			angle	Plastic front ring	Metal front ring
no	momentary	1 x 40°	°	1.30.242.511/02xx	1.30.242.512/0200
no	momentary	2 x 40°	$\checkmark$	1.30.242.536/02xx	1.30.242.537/0200
no	latching	1 x 90°, form L		1.30.242.611/02xx	1.30.242.612/0200
no	latching	1 x 90°, form V		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	1.30.242.636/02xx	1.30.242.637/0200
yes	momentary	1 x 40°	Ď	1.30.242.011/22xx	1.30.242.012/2200
yes	momentary	2 x 40°		1.30.242.036/22xx	1.30.242.037/2200
yes	latching	1 x 90°, form L	Ď,	1.30.242.111/22xx	1.30.242.112/2200
yes	latching	1 x 90°, form V		1.30.242.211/22xx	1.30.242.212/2200
yes	latching	2 x 60°	$\bigcirc$	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.



NAFIX 22 ON Selector Switch, square conar, short handle							
Pict.: Front ring	g, red, non-illuminated		0 29.80	Panel cut-out to IEC 6094	<u>3.20</u> <sup>+0.2</sup> Ø22.30 <sup>+0.4</sup> 7-5-1		
llluminability	Contact function	Rotating angle	Rotating angle	Ord Plastic front ring	er no. Metal front ring		
			0				
no	momentary	1 x 40°	Ď	1.30.242.551/02xx	1.30.242.552/0200		
no	momentary	2 x 40°	$\checkmark$	1.30.242.576/02xx	1.30.242.577/0200		
no	latching	1 x 90°, form L		1.30.242.651/02xx	1.30.242.652/0200		
no	latching	1 x 90°, form V		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°	$\triangleright$	1.30.242.051/22xx	1.30.242.052/2200		
yes	momentary	2 x 40°	$\checkmark$	1.30.242.076/22xx	1.30.242.077/2200		
yes	latching	1 x 90°, form L		1.30.242.151/22xx	1.30.242.152/2200		
yes	latching	1 x 90°, form V		1.30.242.251/22xx	1.30.242.252/2200		
yes	latching	2 × 60°	$\bigcirc$	1.30.242.351/22xx	1.30.242.352/2200		
yes	latching	2 x 90°	2	1.30.242.176/22xx	1.30.242.177/2200		

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

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 22 QR

2



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

Pict: Front ring, black, non-illuminated $\frac{1}{22.90}$ , $\frac{1}{22.20}$ , $\frac{1}{22.20}$ , $\frac{1}{22.20}$ , $\frac{1}{22.30^{-0.4}}$					
Illuminability	Contact function	Rotating angle	Rotating angle	Ord	ler no.
			angle	Plastic front ring	Metal front ring
no	momentary	1 x 40°	Ď	1.30.242.561/02xx	1.30.242.562/0200
no	momentary	2 × 40°	$\checkmark$	1.30.242.586/02xx	1.30.242.587/0200
no	latching	1 x 90°, form L		1.30.242.661/02xx	1.30.242.662/0200
no	latching	1 x 90°, form V		1.30.242.761/02xx	1.30.242.762/0200
no	latching	2 × 60°	$\bigcirc$	1.30.242.861/02xx	1.30.242.862/0200
no	latching	2 × 90°	2	1.30.242.686/02xx	1.30.242.687/0200
yes	momentary	1 x 40°	$\triangleright$	1.30.242.061/22xx	1.30.242.062/2200
yes	momentary	2 × 40°	$\checkmark$	1.30.242.086/22xx	1.30.242.087/2200
yes	latching	1 x 90°, form L		1.30.242.161/22xx	1.30.242.162/2200
yes	latching	1 x 90°, form V		1.30.242.261/22xx	1.30.242.262/2200
yes	latching	2 × 60°	$\bigcirc$	1.30.242.361/22xx	1.30.242.362/2200
yes	latching	2 × 90°	2	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.

2



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



2

## Technical data

**General information** Form of lens Colout of front ring Form of collar

#### Dimensions

Length of collar Width of collar Overall height Mounting depth with contact block without cable Mounting hole Key grid Diameter of collar

#### **Mechanical design**

Mounting Contact function Illuminability Lock Wafers Lock type Main key Symmetric key Rotating angle Key removal position see order block see order block see order block

see order block see order block 30.6 mm

56.4 mm 22.3 mm 50 x 30 mm see order block

ring nut see order block no 4 455 no no see order block see order block Operating force max. Torque max. Electrical characteristics Protection class Other specifications

**Mechanical characteristics** 

Operating life Degree of protection from front side Ambient temp. operating

min. 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 2 Nm

Ш

0.3 million momentary / 50000 latching

IP65

-25 °

+70 ° -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 keylock switch**

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with cou- pling, without lamp socket, screw terminals, 1 NC + 1 NO	<b>N</b>	1.20.124.017/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with cou- pling, without lamp socket, cage clamp terminals, 1 NO	<b>N</b>	1.20.125.002/0000	2 - 126
Contact block with coupling, gold contacts, RJ 12 connector, 1 NC + 1 NO, without LED	(k) (line - 1)	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".



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

			T S S W S S S S S S S S S S S S S S S S		3.20 <sup>-10.2</sup>		
Pict.: Front ring	g, metallized	22.90 9.		Panel cut-out to IEC 6094	<u>Ø22.30'</u> ⁰.⁴ 47-5-1		
Contact function	Rotating angle	Key removal position	Rotating angle		ler no.		
				Plastic front ring	Metal front ring		
momentary	1 x 40°	0	Ď	1.30.245.001/xxxx	1.30.245.002/0000		
momentary	2 × 40°	0	$\checkmark$	1.30.245.101/xxxx	1.30.245.102/0000		
latching	1 x 90°, form L	0		1.30.245.201/xxxx	1.30.245.202/0000		
latching	1 x 90°, form L	0+1	Ĺ,	1.30.245.221/xxxx	1.30.245.222/0000		
latching	1 x 90°, form V	0		1.30.245.301/xxxx	1.30.245.302/0000		
latching	1 x 90°, form V	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 × 90°	0		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

2

#### **RAFIX 22 QR keylock switch, square collar**

Pict.: Front ring, metallized		-22.90 9	6mm	Panel cut-out to IEC 6094	<u>, 3. 20</u> <sup>-0.2</sup> <u>Ø22. 30</u> <sup>-0.4</sup> 17-5-1
Contact function	Rotating angle	Key removal position	Rotating angle		ler no.
			3	Plastic front ring	Metal front ring
momentary	1 x 40°	0	Ď	1.30.245.051/xxxx	1.30.245.052/0000
momentary	2 x 40°	0	$\checkmark$	1.30.245.151/xxxx	1.30.245.152/0000
latching	1 x 90°, form L	0		1.30.245.251/xxxx	1.30.245.252/0000
latching	1 x 90°, form L	0+1		1.30.245.271/xxxx	1.30.245.272/0000
latching	1 x 90°, form V	0		1.30.245.351/xxxx	1.30.245.352/0000
latching	1 x 90°, form V	0+1		1.30.245.371/xxxx	1.30.245.372/0000
latching	2 x 60°	0+1+2	$\bigcirc$	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		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**



2

### **Technical data**

**General information** Actuator Colour of mushroom Colout of front ring Form of collar

#### Dimensions

Length of collar Width of collar Overall height Mounting depth Mounting hole Key grid Diameter of collar

#### Mechanical design Mounting Contact function Illuminability

mushroom see order block see order block see order block

see order block see order block 20.10 mm 56.4 mm 22.3 mm 50 x 30 mm see order block

ring nut see order block see order block Mechanical characteristics Operating force max. Robustness min.

**Electrical characteristics** Protection class

#### Other specifications

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

Resistance at variable environment

approx. 5 N for 1 switching element 100 N

II

1,000,000

IP65 -40 °C 80 °C

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

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

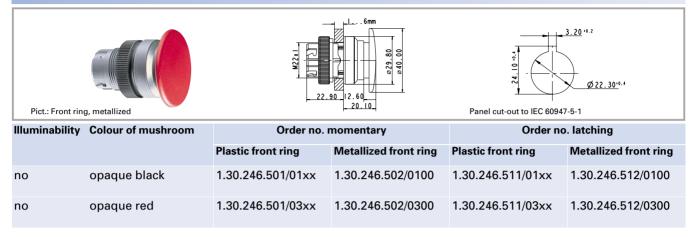
#### Accessories RAFIX 22 QR mushroom-headed pushbutton

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with cou- pling, without lamp socket, screw terminals, 1 NC + 1 NO	<b>N</b>	1.20.124.017/0000	2 - 126
RAFIX 22 QR contact block with gold contacts, with cou- pling, 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 A A	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".



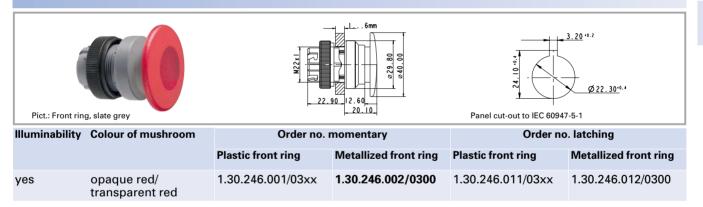
#### RAFIX 22 QR mushroom-headed pushbutton 40 mm, round collar



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**.

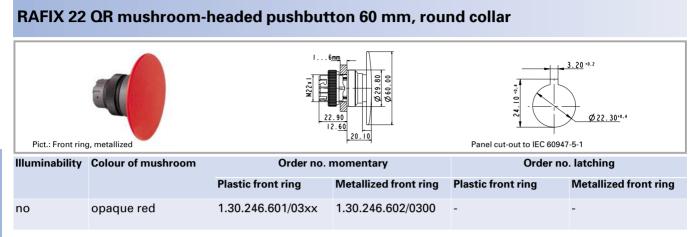
#### RAFIX 22 QR mushroom-headed pushbutton 40 mm, illuminated, round collar



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**.





## 2

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

Pict.: Front rin	g, slate grey	Image: state stat			Ø 22.30 <sup>-0.4</sup>
Illuminability	Colour of mushroom	Order no. momentary		Order no	o. 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

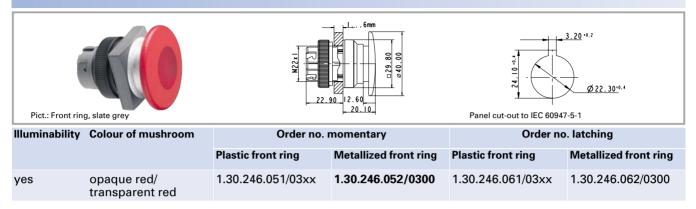
Technical data see page 2 - 106

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**

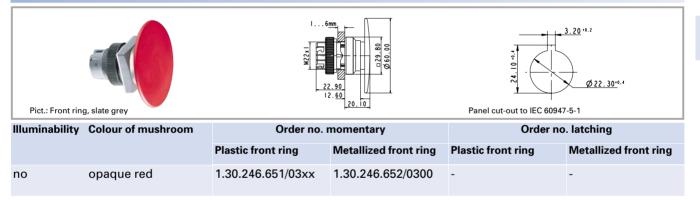


Technical data see page 2 - 106

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



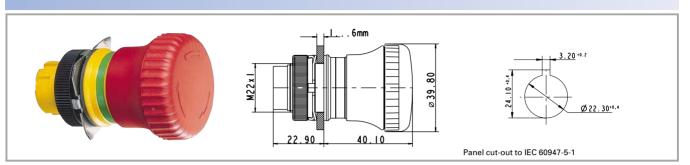
Technical data see page 2 - 106

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

RAFIX 22 QR



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



## 2

#### 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 General information 22 OR Actuator

Actuator Colour of mushroom Form of collar

#### Dimensions

Overall height Mounting depth with contact block without cable Mounting hole Key grid Diameter of collar

Mechanical design Mounting

Contact function Illuminability Reset mushroom see order block round

see order block

see order block see order block 50 x 30 mm see order block

ring nut latching see order block see order block

#### **Mechanical characteristics** Operating force max.

Robustness min. Robustness

#### Other specifications

Operating life Degree of protection from front side Ambient temp. operating min. 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 acc. IEC 60947-5-5

see order block

see order block

-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 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	<b>S</b>	1.20.124.001/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 2 NC	<b>S</b>	1.20.124.019/0000	2 - 126
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

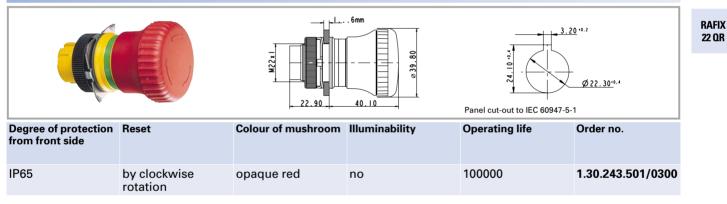
## SOLUTIONS WITH PASSION

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

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



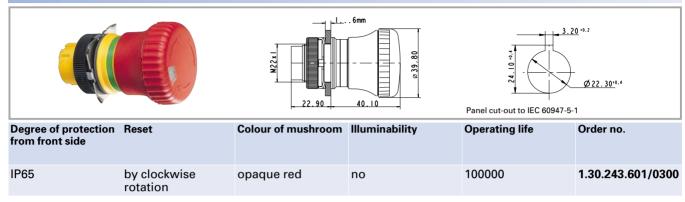
Technical data see page 2 - 110

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



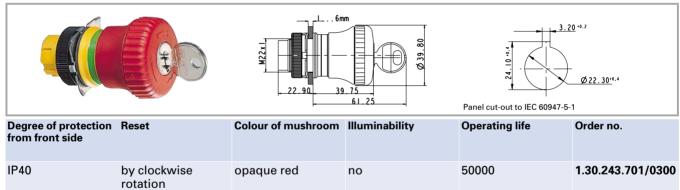
Technical data see page 2 - 110

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



Technical data see page 2 - 110

#### Accessories:

Spare key for RAFIX 22 QR: 5.58.017.001/0000

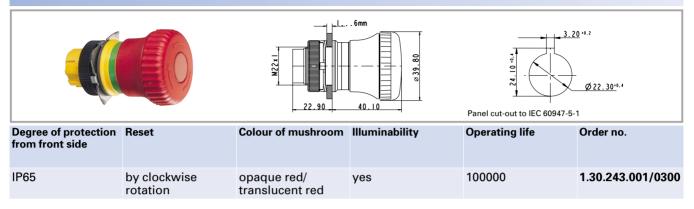
Included: Ring nut with claw, 2 keys.

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



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

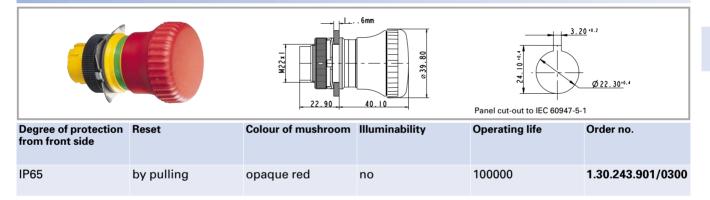


Technical data see page 2 - 110

Included: Ring nut with claw.

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

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



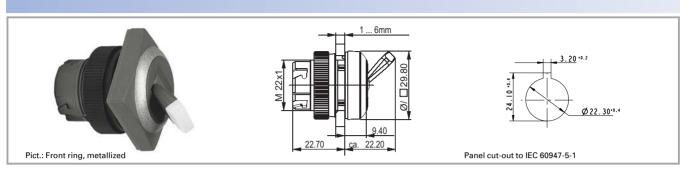
Technical data see page 2 - 110

Included: Ring nut with claw.

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

SOLUTIONS WITH PASSION

#### **RAFIX 22 QR toggle switch**



## **Technical data**

**General information** Form of lens Colour of toggle Front ring Form of collar

Dimensions Length of collar Witdth of collar **Overall height** Mounting depth Mounting hole

Mechanical design Mounting

Dimensions Key grid Diameter of collar

Mechanical design **Contact function** Illmuniabilitiy

toggle opaque white see order block see order block

see order block see order block 22 mm 56.4 mm 22.3 mm

ring nut

50 x 30 mm see order block

latching no

100 N Robustness min. **Electrical characteristics** Protection class Ш **Other specifications Operating life** Degree of protection Storage temperature min. Storage temperature max. Resistance to constant environment

**Mechanical characteristics** 

Resistance at variable environment

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

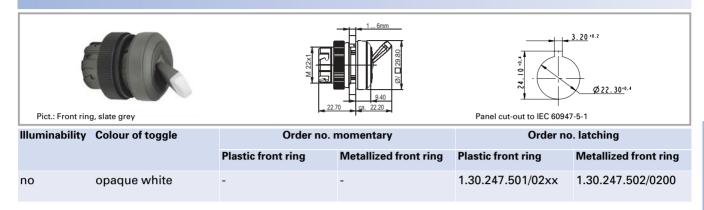
Description	Photo	Order no.	Page
RAFIX 22 QR contact block with gold contacts, with cou- pling, without lamp socket, screw terminals, 1 NC + 1 NO	<b>S</b>	1.20.124.117/0000	2 - 130
RAFIX 22 QR contact block with gold contacts, with cou- pling, without lamp socket, cage clamp terminals, 1 NO	<b>N</b>	1.20.125.102/0000	2 - 130
Contact block with coupling, gold contacts, RJ 12 connector, 1 NO, without LED	(e) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f	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

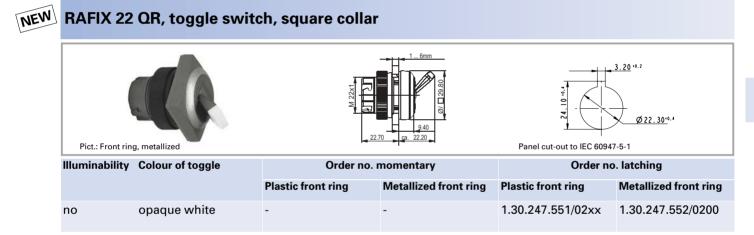
SOLUTIONS WITH PASSION

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



Technical data see page 2 - 114

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

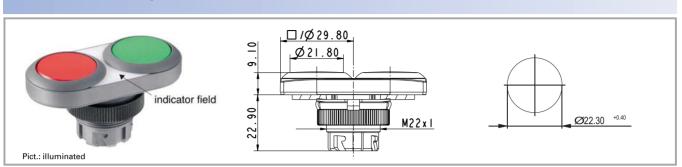


Technical data see page 2 - 114

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



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



2

RAFIX

22 QR

#### **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**

#### **General information**

Legending Colour of lens Colout of front ring Form of collar

#### Dimensions

Length of collar Width of collar Overall height Mounting depth with contact block without cable Mounting hole Key grid

Mechanical design

Mounting Contact function Illuminability see order block opaque green/opaque red see order block see order block

59.6 mm 29.8 mm 9.1 mm

56.4 mm 22.3 mm 50 x 30 mm

ring nut momentary 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 cou- pling and lamp socket, screw terminals, 1 NO, 1 NC		1.20.124.025/0000	2 - 127
RAFIX 22 QR contact block with gold contacts, with cou- pling and lamp socket, cage clamp terminals, 1 NO, 1 NC	<b>S</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

Pict.: illuminat	indicator field	field		
Illuminability	Colour of lens	Legending	Orde	er 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 l	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 twin pushbutton, rectangular collar

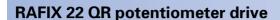
Pict.: non-illun	$\overrightarrow{Pict: non-illuminated} \overrightarrow{Pict} \overrightarrow{M22x1}$			
Illuminability Colour of lens		Legending	Order no.	
			Plastic front ring	Metal front ring
yes	opaque green/opaque red	none	1.30.241.051/22xx	1.30.241.071/2200
yes	opaque green/opaque red	red 0, green l	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

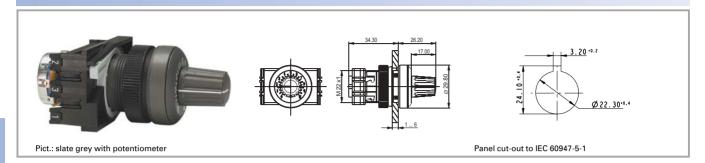
Technical data see page 2 - 116

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.

SOLUTIONS WITH PASSION





2

## **Technical data**

**General information** Actuator Colour of handle Front ring Form of collar

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

Mounting hole Key grid Diameter of collar

Mechanical design Mounting knob size see order block see order block see order block

see order block see order block 26 mm according to potentiometer 22.3 mm 50 x 30 mm see order block **Mechanical characteristics** Robustness min.

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

Resistance at variable environment

100 N

IP65 -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

ring nut

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

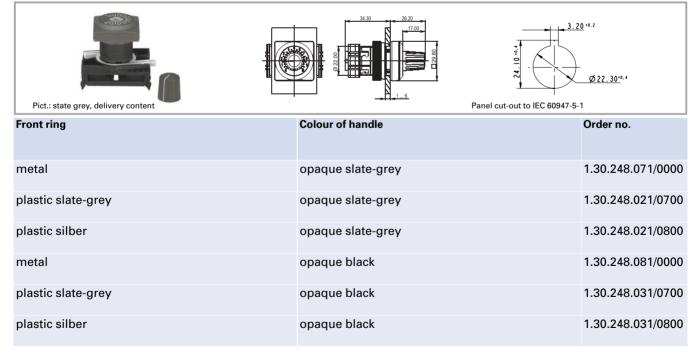
### **RAFIX 22 QR potentiometer drive, round collar**

Fict.: slate grey with potentiometer		9 22. 30 <sup>-0.4</sup> Panel cut-out to IEC 60947-5-1
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 potentiometer drive, square collar

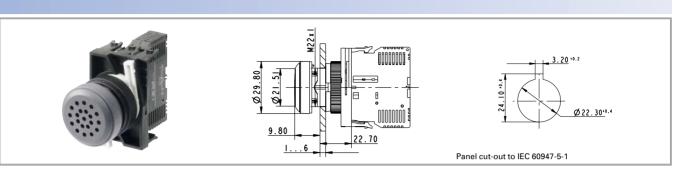


Technical data see page 2 - 118

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



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



## 2

RAFIX

22 QR

## 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. flat lens opaque slate-grey see order block see order block

see order block see order block 9.8 mm 56.4 mm 22.3 mm 50 x 30 mm see order block

see order block

ring nut

Electrical characteristics Operating voltage DC Input current Sound frequency

Mechanical characteristics Robustness min.

#### Other specifications

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

Resistance at variable environment

see order block see order block see order block

100 N

IP65 -40 °C +80 °C

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

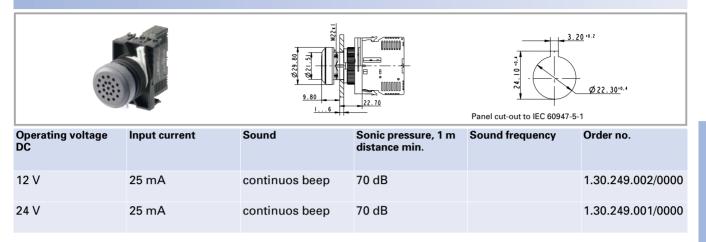
according to IEC 600 68-2-14 and 2-33

### Accessories RAFIX 22 QR buzzer





## RAFIX 22 QR buzzer, round collar



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

RAFIX 22 QR

2



### **RAFIX 22 QR signal indicator**



2

### **Technical data**

**General information** Form of lens Colour of lens Form of collar

Dimensions

Length of collar Width of collar Overall height Mounting depth Mounting hole Key grid Diameter of collar

Mechanical design Mounting Illuminability flat lens see order block see order block

see order block see order block 9.4 mm 56.4 mm 22.3 mm 50 x 30 mm see order block

ring nut yes **Electrical characteristics Protection class** Ш Other specifications Degree of protection IP65 from front side Ambient temp. operating min. -25 °C Ambient temp. operating +70 °C max. -40 °C Storage temperature min. Storage temperature max. +80 °C Resistance to constant environment according to IEC 600 68-2-3 and 2-30 Resistance at variable

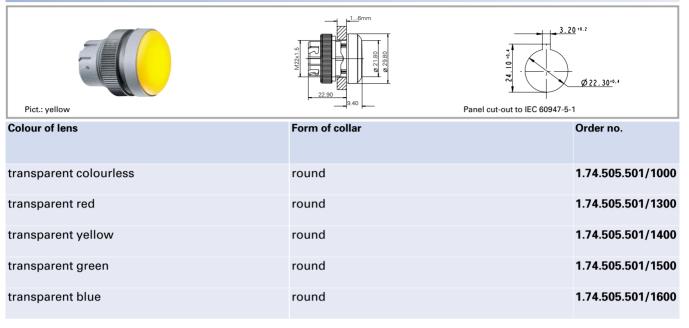
environment according to IEC 600 68-2-14 and 2-33

### Accessories RAFIX 22 QR signal indicator

Description	Photo	Order no.	Page
RAFIX 22 QR lamp socket assembly, screw terminals, with coupling	Ŵ	1.71.213.001/0000	2 - 136
RAFIX 22 QR lamp socket assembly, screw terminals, with coupling, diode and series resistor 130 V	Ŵ	1.71.213.004/0000	2 - 136
RAFIX 22 QR lamp socket assembly, cage clamp terminals, with coupling	Ŵ	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	

SOLUTIONS WITH PASSION

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



Technical data see page 2 - 122

RAFIX 22 QR signal indicato	r, square collar	
Pict.: red	12.45	Ø 22.30 <sup>-0.4</sup> Panel cut-out to IEC 60947-5-1
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 nage 2 - 122		

Technical data see page 2 - 122

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









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

### 2

### **General data**

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

### **Technical data**

D	im	lei	ns	i

Dimensions	00 F	Positive opening travel	3 mm
Length	39.5 mm	Operating speed	5 1000 mm/s
Width	10 mm		
Height	46 mm	Electrical characteristics acc	
Mounting depth without		Resistive load AC	10 A/250 V; 7,5 A/400 V
cable	56.4 mm	Motor load AC	6 A/250 V; 4 A/400 V (5 A/250 V)
Mechanical design		Peak input current	
Mounting	snap on coupling and	filament lamp AC	36 A
-	actuator	Peak capacity input	
Contact system	bridgecontact self	current AC	100 A
	cleaning	Protection class	
Contact materials	Ag		
Contact arrangement	see order block	Lamp characteristics	
NC contact forcibly	See of def block	Lamp characteristics	BA9s
actuated acc. to IEC 60947-5-	1 1/05		BA 3 3
Terminals	see order block	Other specifications	
	colour encoded	Operating life at 10	
Terminal marking			F00000 (70000)
Robustness	100 N	A/250 V AC	500000 (70000)
Operating force	approx. 5 N for 1 contact	Switching reliability at	10 10-6
	element	24V/5mA DC	10 x 10 <sup>-6</sup>
Wire range solid wires		Approvals	ENEC, cURus (UL + CSA)
without wire end sleeves	2 x 0.75 2.5 mm²	Robustness	acc. IEC 60947-5-5
Wire range stranded		Corresponding to CE	acc. EU-guideline N
wires without end sleeves	2 x 1.0 1.5		72/73
	(2 x 0.08 2.5) mm²	Shock resistance acc. to	
Stripping length, solid		IEC 600 68-2-27	50 g at 11 ms, amplitude
or stranded	8 mm		half sinusoidal
Wire range with wire end		Resistance to vibrations	
sleeves	2 x 0.75 1.5 mm²	acc. to IEC 600 68-2-6	10 g at 40 500 Hz
		Ambient temp. operating	-
Electrical characteristics acc	. to IEC 60947	min.	-25 °C
Rated insulation voltage		Ambient temp. operating	
AC/DC	400 V	max.	+70°C (+50°C)
Rated peak voltage	6000 V	Storage temperature min.	-40 °C
Rated operating current		Storage temperature max.	+80 °C
I <sub>e</sub> AC 12	10 A	Flame class acc. to UL 94	VO
Rated operating current	1077	Hot wire ignition acc.	• •
I <sub>e</sub> AC-15	125 V/10 A, 250 V/6 A, 400	to IEC 60695-2-1	Vec
	V/3.5 A		yes
Poted operating automat	V/3.3 A	Resistance to constant	
Rated operating current	24)//2 764 60)//4 4 4	environment	IEC 600 68-2-3 and 2-30
I <sub>e</sub> DC-13 Q300	24V/2.75A, 60V/1.1A,	Resistance at variable	
December of a sile time	125V/0.55A, 250V/0.275A	environment	IEC 600 68-2-14 and 2-33
Degree of pollution	3		

# SOLUTIONS WITH PASSION

# 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	NT A	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	<b>H</b>	5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals	J	5.40.010.131/0000	2 - 145

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

Pict.: Silver contacts, 2 NC, screw	w terminals Silver cor	ntacts, 1 NC, screw terminals	Au contacts, quick connecto	r, 1S
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

Technical data see page 2 - 124

RAFIX 22 QR



# 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)

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.



### 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".

SOLUTIONS WITH PASSION

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



# 2

### **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 ().

**Electrical characteristics** 

### **Technical data**

Dimensions
Difficitions

Dimensions		Electrical characteristics	
Length	39.5 mm	Operating voltage AC/DC	1 42 V
Width	10 mm	Operating current AC/DC	0,01 100 mA
Height	46 mm	Rated power max.	1W (ohmic load)
Mounting depth without			
cable	56.4 mm	Lamp characteristics	
		Lamp socket	BA 9 s
Mechanical design			
Mounting	snap on coupling and	Other specifications	
-	actuator	Operating life	1 million at 10 mA/
Contact system	bridgecontact self		24 V DC
	cleaning	Switching reliability at	
Contact materials	Au	24V/5mA DC	10 x 10⁻ <sup>6</sup>
Contact arrangement	see order block	Robustness	acc. IEC 60947-5-5
NC contact forcibly		Corresponding to CE	acc. EU-guideline N
actuated acc. to IEC 60947-5-	1 yes	1 0	72/73
Terminals	see order block	Shock resistance acc. to	
Terminal marking	colour encoded	IEC 600 68-2-27	50 g at 11 ms, amplitude
Robustness	100 N		half sinusoidal
Operating force	approx. 5 N for 1 contact	Resistance to vibrations	
	element	acc. to IEC 600 68-2-6	10 g at 40 500 Hz
Wire range solid wires		Ambient temp. operating	0
without wire end sleeves	2 x 0,75 2,5 mm²	min.	-25 °C
Wire range stranded		Ambient temp. operating	
wires without wire end sleeve	es	max.	+70 °C
	2 x 1,0 1,5 mm²	Storage temperature min.	-40 °C
Stripping length, solid		Storage temperature max.	+80 °C
or stranded	8 mm	Resistance to constant	
Wire range with wire end		environment	IEC 600 68-2-3 and 2-30
sleeves	2 x 0,75 1,5 mm²	Resistance at variable	
	-, - ,	environment	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		1.90.060.133/0000	5 - 8

Stock items are marked by **bold printed** order numbers.

# SOLUTIONS WITH PASSION

# 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)	<b>4</b>	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	I	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	<b>H</b>	5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals	1	5.40.010.131/0000	2 - 145

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

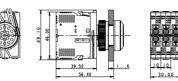
	nA IA 22 an oontaot block with gold contacts						
	Pict.: Gold contacts, 1 NC, screw terminals Gold co		contacts, 1 NO, cage clamp terminals	Gold contacts, quick con	Fold contracts quick connector 1NO		
j	Terminals	Contact arrangement	Contact materials	Lamp socket	Order no.		
	screw terminals	2 NC	Au		5.00.100.161/0000		
	screw terminals	2 NO	Au		5.00.100.162/0000		
	screw terminals	1 NC + 1 NO	Au		5.00.100.163/0000		
	screw terminals	1 NC	Au		5.00.100.164/0000		
	screw terminals	1 NO	Au		5.00.100.165/0000		
	clamp cage	1 NC	Au		5.00.100.159/0000		
	clamp cage	1 NO	Au		5.00.100.160/0000		
]	solder/quick connector 6.3 x 0.8 mm	1 NC	Au		5.00.100.193/0000		
		1 NO	Au		5.00.100.195/0000		

Technical data see page 2 - 128



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





Pict.: Gold contacts, 1NC + 1NO

Pict.: Gold contacts, TNC +	INO			
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)

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) are mounted on the coupling.

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

-

100

	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:

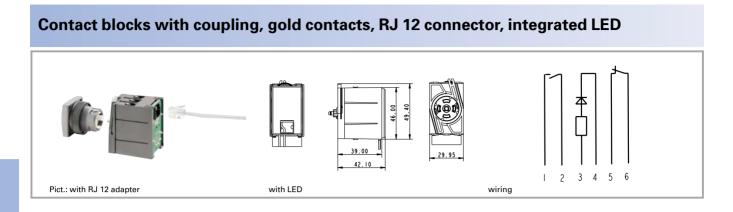
Filament lamp, BA 9s base (MBC/MCC), 12 - 15 V: **1.90.060.132/0000** Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V: **1.90.060.133/0000** Filament lamp, BA 9s base (MBC/MCC), 110 - 130 V: **1.90.060.137/0000** LED BA 9s (MBC/MCC) superbright, red, 24 V: **1.90.690.341/0000** LED BA 9s (MBC/MCC) superbright, 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: **1.90.690.343/0000** 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".



2

### **Technical data**

**Dimensions** Length Width Height Mounting depth

Mechanical design Mounting Contact system

RAFIX 22 QR Contact materials Contact arrangement NC contact forcibly actuated acc. to IEC 60947-5-1 Terminals Terminal marking Mounting grid Robustness

### **Electrical characteristics**

Operating voltage AC/DC Operating current AC/DC 49.4 mm 29.95 mm 42.1 mm 62 mm

snap on actuator bridgecontact self cleaning Au see order block

yes RJ-12 RJ-12 plug 30 x 50 100 N

24 V 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



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

Pict.: with RJ 12 adapter		39.00 42.10	Wiring	5 6
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



# 2

RAFIX

22 QR

### **Technical data**

DimensionsLengthWidthHeightCable

Mechanical design Mounting

Terminals Terminal marking

Lamp characteristics Lamp socket Operating voltage AC/DC Lamp power max. Lamp voltage 46 mm 10 mm 39.5 mm

56.4 mm

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

BA 9 s see order block 2 W see order block

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

Other specifications

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 - 40 °C - 80 °C V 0

yes

# 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>4</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	11	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	NT N	5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals	Ĵ	5.40.010.131/0000	2 - 145

### RAFIX 22 QR lamp socket, without coupling



Terminals	Diode and resistor	Approvals	Lamp socket	Operating voltage AC/DC	Lamp voltage	Order no.
screw terminals	no	ENEC 10/15; ULc	BA9s	6 250 V	6 250 V	5.00.070.074/0000
screw terminals	yes	ENEC 10/15; ULc	BA 9 s	250 V	130 V	5.00.070.080/0000
clamp cage	no	ENEC 10/15; ULc	BA 9 sBA 9 s	6 250 V	6 250 V	5.00.070.078/0000
solder/quick connec- tor 6.3 x 0.8 mm	no	ENEC 10/15; ULc	BA 9 s	6 250 V	6 250 V	5.00.070.087/0000

Technical data see page 2 - 134

NEW

RAFIX 22 QR



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

ULc

	~					
Bist Jama and at			9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	4 4 4 4 4 4 4 4 4 4 4 4 4 4		
Pict.: Lamp socket v	vith cage clamp terminals	3				
Terminals	Diode and resistor	Approvals	Lamp socket	Operating voltage AC/DC	Lamp voltage	Order no.
screw terminals	no	ENEC 10/15; ULc	BA9s	6 250 V	6 250 V	1.71.213.001/0000
screw terminals	yes	ENEC 10/15; ULc	BA9s	250 V	130 V	1.71.213.004/0000
clamp cage	no	ENEC 10/15;	BA9s	6 250 V	6 250 V	1.71.214.001/0000

Technical data see page 2 - 134

RAFIX 22 QR



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



2

### **Technical data**

### 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	HIT .	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	<b>N</b>	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

to IEC 60695-2-1

yes



### **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**



### Accessories RAFIX 22 QR special accessories



### Housings for flush pushbuttons

RAFIX 22 QR





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
	<b>U</b> 1		

RAFIX 22 QR



### 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 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

### **RAFIX 22 QR**

SOLUTIONS WITH PASSION

### Label holder

Short text	Feature 1 Feature 2 Order no.	

Label holder, round collar, with adhesive tape and release liner on back<br/>50 x 30 x 3.6 mm5.07.620.010/0000Label holder, square collar, with adhesive tape and release liner on back<br/>50 x 30 x 3.6 mm5.07.620.011/0000

### Legend label to clip into label holder 5.07.620.xxx



# Feature 1 Feature 2 Order no. Coupling with reference numbers 1-3-2, for contact blocks with single contacts 5.05.510.935/0000 5.05.510.935/0000 Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts 6.05.510.936/0000 5.05.510.936/0000

### **RAFIX 22 QR**



### **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**

2





Short text	Featu	re 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

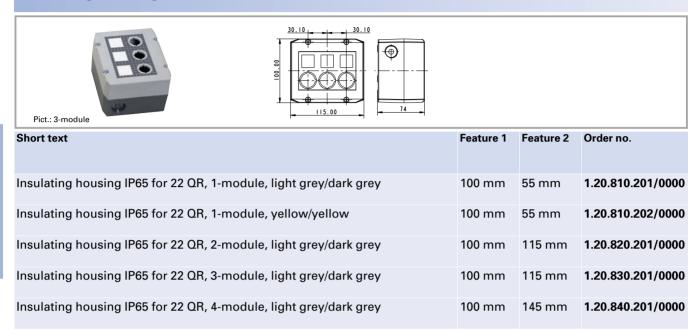
Pict.: protective lid			
Short text	Feature 1	Feature 2	Order no.
Protective cover, latching			5.05.511.195/0000
Protective cover, auto-closing			5.05.511.194/0000

### Marking tag

Short text	Feature 1	Feature 2	Order no.



### Insulating housing IP65 for RAFIX 22 QR



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

RAFIX

22 QR

- 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.

Stock items are marked by **bold printed** order numbers.

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