RAFIX

22 QR



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

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

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

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



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Housings for flush pushbuttons

RAFIX 22 QR plastic front ring with thermoflex protective cap

Protective cover, suitable for pushbuttons with flush lens

Legend label to clip into label holder 5.07.620.xxx

Insulating housing IP65 for RAFIX 22 QR

Lenses for flush pushbuttons

Emergency stop label plate

Front ring

Coupling

Ring nut

Label holder

Blanking cap

Lamp tester

Marking tag





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

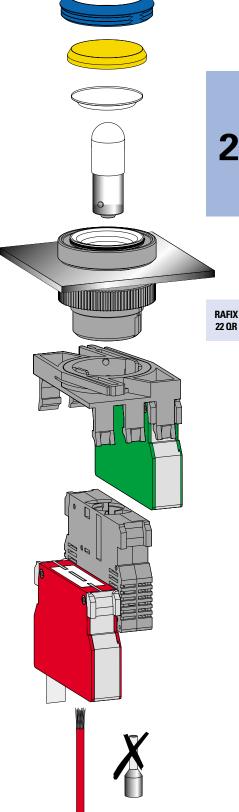
The lamps of pushbuttons and signal lamps can be replaced from the front. This method saves time and increases safety since it eliminates the need for accessing the machine/control station interior and handling live cables for lamp replacement. After unscrewing the front ring, the lens can be removed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



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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





Insert the wire.

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.

IP 65 to DIN).



Insert the wire.

Tighten the screw.

Done.







Remove the screwdriver.

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

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

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

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Control Components

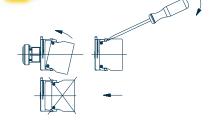
The RAFIX 22 QR control component range meets all the technical requirements and current standards for control units. The system is of modular design. Actuators, contact blocks and lamp sockets can be combined freely. This means that you may

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

34+1

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).

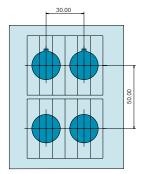


Assembly Disassembly

Approvals

Approvals				● = appı	roved, \bigcirc = pending
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

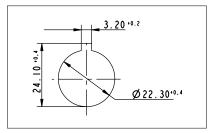




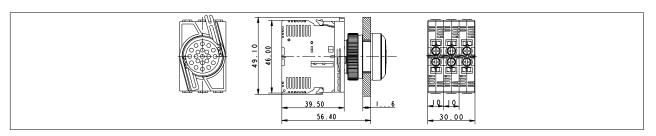
Panel cut-out according to IEC 60947-5-1

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



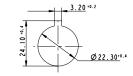
2 - 87 **Control Components**

RAFIX 22 QR pushbutton









Pict.: transparent green

with contact block

Panel cut-out to IEC 60947-5-1

Technical data

RAFIX

22 QR

General information

see order block Form of lens see order block Colour of lens 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

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

Mechanical characteristics

Operating travel 4 mm Operating force max. approx. 5 N for 1 switching element

Robustness min.

Other specifications Operating life

(operations) 1 million momentary/ 0.5 million latching Degree of protection

from front side IP65 Ambient temp. operating min. Ambient temp, operating max.

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

Resistance at variable environment

-25 °C

100 N

+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		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	E	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	0	1.20.128.015/0000	2 - 133
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V	CI CI	1.90.060.133/0000	5 - 8
LED BA 9s (MBC/MCC) superbright, white, 24 V		1.90.690.345/0000	5 - 19

RAFIX 22 QR

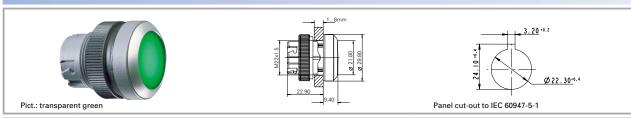


Accessories RAFIX 22 QR pushbutton

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		Order no	o. 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

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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

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

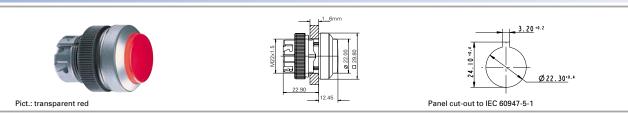
Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

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.

Control components

Stock items are marked by bold printed order numbers.

RAFIX 22 QR pushbutton, protruding lens, round collar



Order no. momentary Illuminability Colour of lens Order no. latching **Plastic front ring** Metallized front ring Metallized front ring **Plastic front ring** transparent white 1.30.240.201/10xx 1.30.240.221/1000 1.30.240.211/10xx 1.30.240.231/1000 ves ves transparent red 1.30.240.201/13xx 1.30.240.221/1300 1.30.240.211/13xx 1.30.240.231/1300 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 ves transparent blue 1.30.240.201/16xx 1.30.240.221/1600 1.30.240.211/16xx 1.30.240.231/1600 yes 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 opaque yellow 1.30.240.321/0400 1.30.240.331/0400 no 1.30.240.301/04xx 1.30.240.311/04xx 1.30.240.321/0500 no opaque green 1.30.240.301/05xx 1.30.240.311/05xx 1.30.240.331/0500 nο opaque blue 1.30.240.301/06xx 1.30.240.321/0600 1.30.240.311/06xx 1.30.240.331/0600 1.30.240.311/07xx opaque slate-grey 1.30.240.301/07xx 1.30.240.321/0700 1.30.240.331/0700 no

Technical data see page 2 - 88

Accessories:

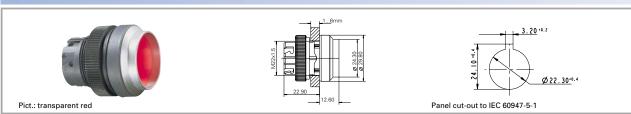
Legend insert without legend: 5.70.802.000/2000

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.	momentary	Order no	o. 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	-	-

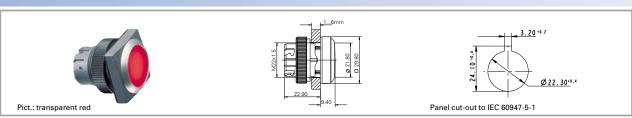
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xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

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

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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

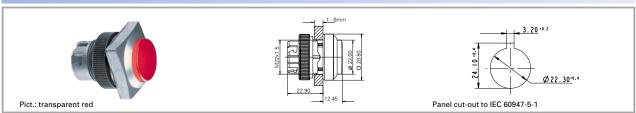
Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

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.

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RAFIX 22 QR

RAFIX 22 QR pushbutton, protruding lens, square 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	1.30.240.251/10xx	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	

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

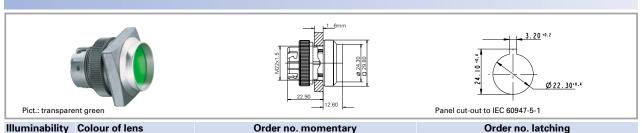
Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

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

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RAFIX 22 QR pushbutton, protruding front ring, square collar



Plastic front ring Metallized front ring Metallized front ring **Plastic 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 transparent yellow 1.30.240.451/14xx 1.30.240.471/1400 yes yes transparent green 1.30.240.451/15xx 1.30.240.471/1500 transparent blue 1.30.240.451/16xx 1.30.240.471/1600 yes 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 opaque yellow 1.30.240.551/04xx 1.30.240.571/0400 no no opaque green 1.30.240.551/05xx 1.30.240.571/0500 nο opaque blue 1.30.240.551/06xx 1.30.240.571/0600

Technical data see page 2 - 88

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

opaque slate-grey

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

1.30.240.571/0700

1.30.240.551/07xx

2

RAFIX 22 QR

no

RAFIX

22 QR

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 handle Actuator Marking of handle white 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 22.2 mm 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

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

Mechanical characteristics

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

Torque max. 2 Nm **Electrical characteristics**

Protection class Ш

Other specifications

Operating life 0.5 million Degree of protection from front side IP65

Ambient temp, operating min.

Ambient temp. operating max.

Storage temperature min. Storage temperature max. +80 °C

Resistance to constant environment

Resistance at variable environment

-27 °C

+70 °C -40 °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

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 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 NC + 1 NO, 1 NC + 1 NO		1.20.124.128/0000	2 - 131
Contact block with coupling, gold contacts, RJ 12 connector, 1 NC + 1 NO, white LED		1.20.128.013/0000	2 - 133

2 - 96

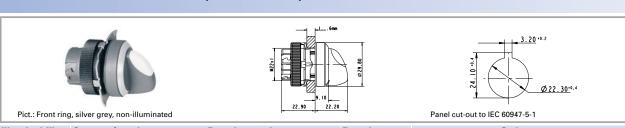
Stock items are marked by bold printed order numbers.

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



FICE. FIGHT III	g, silver grey, non-inuminated			ranei cut-out to iEC 003	47-5-1	
Illuminability	ninability Contact function Rotating angle		Rotating angle	Ore	Order no.	
			aligie	Plastic front ring	Metal front ring	
no	momentary	1 x 40°	>	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) 1	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	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	0	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 x 60°		1.30.242.301/22xx	1.30.242.302/2200	
ves	latching	2 × 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.

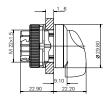
Included: Ring nut with claw.

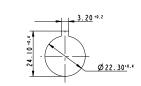
Other contact versions on request

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, 1.30.252.201/2208, 1.30.252.501/0208, 1.30.252.5

2





Panel cut-out to IEC 60947-5-1

2

RAFIX

22 QR

Illuminability	bility Contact function Rotating angle Rotating			Ord	Order no.	
			angle	Plastic front ring	Metal front ring	
no	momentary	1 x 40°	ŷ	1.30.242.511/02xx	1.30.242.512/0200	
no	momentary	2 x 40°	$\stackrel{\circ}{\bigcirc}$	1.30.242.536/02xx	1.30.242.537/0200	
no	latching	1 x 90°, form L	Ľ,	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 0	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°	$\stackrel{\circ}{\longrightarrow}$	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°	\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

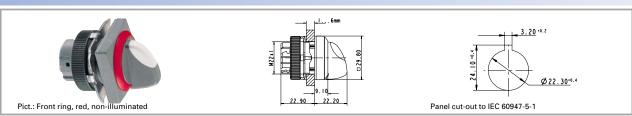
xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08; other colours on request.

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.



RAFIX 22 QR selector switch, square collar, short handle



T ICC T TOTIC TING	g, rea, non-manimatea			Tuner cut out to 120 000+	, 9 1
Illuminability	Contact function	Rotating angle	Rotating angle	Ord	er no.
			aligie	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	Ů,	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	<u></u>	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 x 60°	\bigcirc	1.30.242.351/22xx	1.30.242.352/2200
yes	latching	2 x 90°	2 0	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.

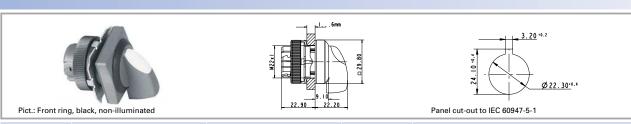
A third contact block arranged in the centre would be actuated with either sense of rotation.

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

2

RAFIX 22 QR selector switch, square collar, long handle



Illuminability Contact function **Rotating angle** Rotating Order no. angle Plastic front ring Metal front ring no momentary 1 x 40° 1.30.242.561/02xx 1.30.242.562/0200 2 x 40° no momentary 1.30.242.586/02xx 1.30.242.587/0200 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 x 60° 1.30.242.862/0200 1.30.242.861/02xx no no latching $2 \times 90^{\circ}$ 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 $2 \times 40^{\circ}$ 1.30.242.086/22xx 1.30.242.087/2200 latching 1 x 90°, form L 1.30.242.161/22xx 1.30.242.162/2200 yes 1 x 90°, form V 1.30.242.261/22xx yes latching 1.30.242.262/2200 yes latching 2 x 60° 1.30.242.361/22xx 1.30.242.362/2200 yes latching 2 x 90° 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.

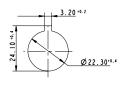
RAFIX

22 QR

RAFIX 22 QR keylock switch







Panel cut-out to IEC 60947-5-1

Technical data

General information

see order block Form of lens Colout of front ring see order block Form of collar see order block

Dimensions Length of collar

Width of collar see order block Overall height 30.6 mm Mounting depth with contact block without cable 56.4 mm 22.3 mm Mounting hole Key grid 50 x 30 mm Diameter of collar see order block

see order block

Mechanical design

Mounting ring nut Contact function see order block Illuminability nο Lock Ronis Wafers 4 Lock type 455 Main key nο Symmetric key no

Rotating angle see order block Key removal position see order block

Mechanical characteristics

approx. 5 N for Operating force max. 1 switching element 2 Nm

Torque max.

Electrical characteristics

Protection class

Other specifications

Operating life 0.3 million momentary / 50000 latching

Ш

IP65

-25°

+70° -40 °C

+80 °C

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

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

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

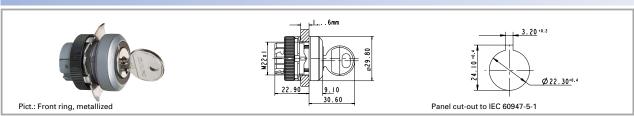
Accessories RAFIX 22 QR keylock switch

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with 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		1.20.125.002/0000	2 - 126
Contact block with coupling, gold contacts, RJ 12 connector, 1 NC + 1 NO, without LED	(i)	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



Faller current to IEC 00047-0-1					
Contact function	Rotating angle	Key removal position	Rotating angle	Ord	er no.
Tunction			angle	Plastic front ring	Metal front ring
momentary	1 x 40°	0	Ď	1.30.245.001/xxxx	1.30.245.002/0000
momentary	2 x 40°	0	$\stackrel{}{\diamondsuit}$	1.30.245.101/xxxx	1.30.245.102/0000
latching	1 x 90°, form L	0	Ů,	1.30.245.201/xxxx	1.30.245.202/0000
latching	1 x 90°, form L	0+1	Ů,	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	1.30.245.401/xxxx	1.30.245.402/0000
latching	2 x 90°	0+1+2	, o	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.

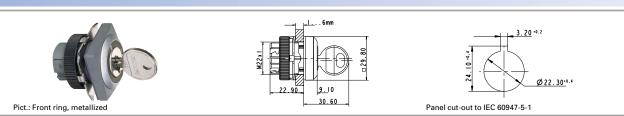
On selector switches with 3 switching positions (e.g. 2×90 degrees), either the left-hand or right-hand contact block is activated, depending on the sense of rotation. A third contact block arranged in the centre would be actuated with either sense of rotation.

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



Rotating Contact **Rotating angle** Key removal position Order no. function angle 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 1.30.245.151/xxxx 1.30.245.152/0000 latching 1 x 90°, form L 1.30.245.251/xxxx 1.30.245.252/0000 latching 1 x 90°, form L 0 + 11.30.245.271/xxxx 1.30.245.272/0000 latching 1 x 90°, form V 0 1.30.245.351/xxxx 1.30.245.352/0000 1 x 90°, form V latching 0 + 11.30.245.371/xxxx 1.30.245.372/0000 latching 2 x 60° 0+1+21.30.245.781/xxxx 1.30.245.782/0000 latching 2 x 90° 0 1.30.245.451/xxxx 1.30.245.452/0000 latching $2 \times 90^{\circ}$ 0+1+21.30.245.482/0000 1.30.245.481/xxxx

RAFIX 22 QR

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, 1.30.245.371/0800, 1.30.245.271/0800, 1.30.245.371/0800, 1.30.245.27

RAFIX

22 QR

RAFIX 22 QR mushroom-headed pushbutton



Technical data

General information

mushroom Actuator Colour of mushroom 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 20.10 mm Mounting depth 56.4 mm Mounting hole 22.3 mm Key grid 50 x 30 mm Diameter of collar see order block

Mechanical design

Mounting ring nut Contact function see order block Illuminability see order block **Mechanical characteristics**

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

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

100 N

Ш

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

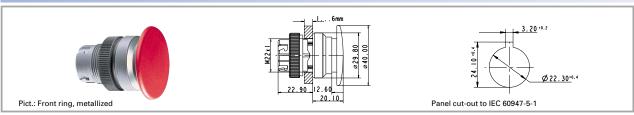
Accessories RAFIX 22 QR mushroom-headed pushbutton

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO	Ö	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		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

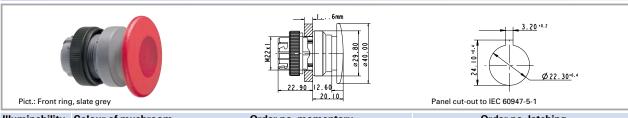


Illuminability	Colour of mushroom	Order no. momentary		Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
no	opaque black	1.30.246.501/01xx	1.30.246.502/0100	1.30.246.511/01xx	1.30.246.512/0100
no	opaque red	1.30.246.501/03xx	1.30.246.502/0300	1.30.246.511/03xx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

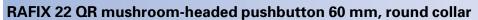
RAFIX 22 QR mushroom-headed pushbutton 40 mm, illuminated, round collar

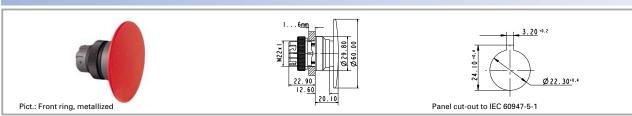


	· • ·					
Illuminability	Colour of mushroom	Order no. ı	Order no. momentary		Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	opaque red/ transparent red	1.30.246.001/03xx	1.30.246.002/0300	1.30.246.011/03xx	1.30.246.012/0300	

Technical data see page 2 - 106

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





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	-	-	

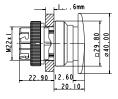
Technical data see page 2 - 106

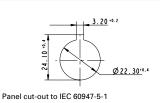
xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

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

RAFIX 22 QR

Pict.: Front ring, slate grey





Illuminability	Colour of mushroom	Order no. momentary		Colour of mushroom Order no. momentary Order no. latching		. 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	

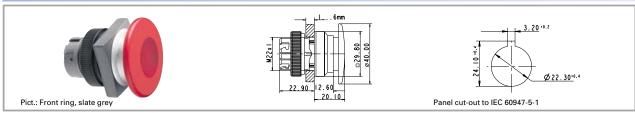
Technical data see page 2 - 106

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



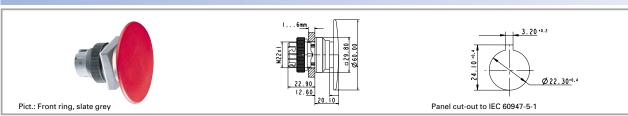
Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	opaque red/ transparent red	1.30.246.051/03xx	1.30.246.052/0300	1.30.246.061/03xx	1.30.246.062/0300	

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

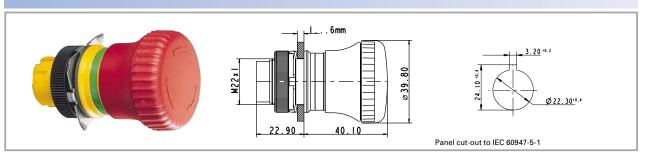


Technical data see page 2 - 106

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		Mechanical characteristics	
Actuator	mushroom	Operating force max.	approx. 5 N for
Colour of mushroom	see order block	, ,	1 switching element
Form of collar	round	Robustness min.	100 N
		Robustness	acc. IEC 60947-5-5
Dimensions			
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	
Diameter of collar	see order block	min.	-25 °C
		Ambient temp, operating	
Mechanical design		max.	+70 °C
Mounting	ring nut	Storage temperature min.	-40 °C
Contact function	latching	Storage temperature max.	+80 °C
Illuminability	see order block	Resistance to constant	
Reset	see order block	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 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	5	1.20.124.001/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 2 NC	5	1.20.124.019/0000	2 - 126
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

2 - 110

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

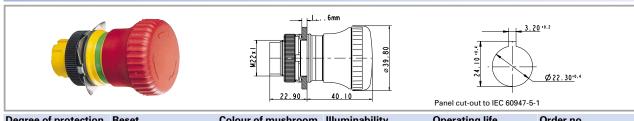


Accessories RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418

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

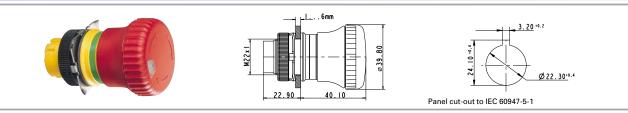
Included: Ring nut with claw.

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

RAFIX

22 QR

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



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

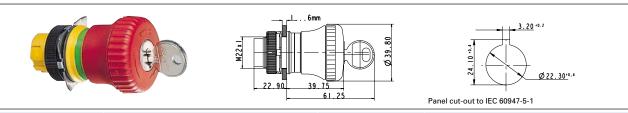
Included: Ring nut with claw.

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

RAFIX 22 QR



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

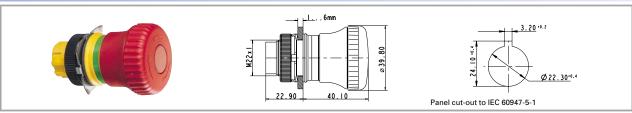
Included: Ring nut with claw, 2 keys.

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

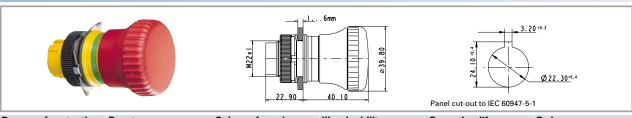
Technical data see page 2 - 110

Included: Ring nut with claw.

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



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



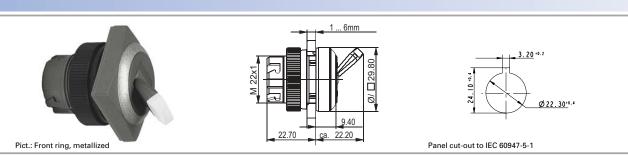
Degree of protection Reset Colour of mushroom Illuminability Operating life Order no. from front side IP65 by pulling 100000 1.30.243.901/0300 opaque red no

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 toggle switch



RAFIX

22 QR

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

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

Mechanical design

Contact function latching Illmuniabilitiy nο

Mechanical characteristics

100 N Robustness min.

Electrical characteristics

Protection class Ш

Other specifications

Operating life 100000 Degree of protection IP54 Storage temperature min. -40 °C 80 °C Storage temperature max. Resistance to constant

environment

Resistance at variable environment

according to

IEC 60068-2-3 and 2-30

according to

IEC 60068-2-14 and 2-33

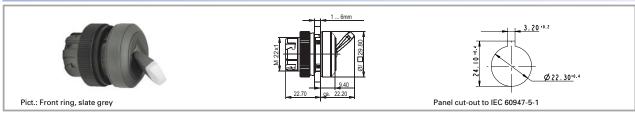
Accessories RAFIX 22 QR toggle switch

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with gold contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO	5	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



NEW RAFIX 22 QR, toggle switch, round collar



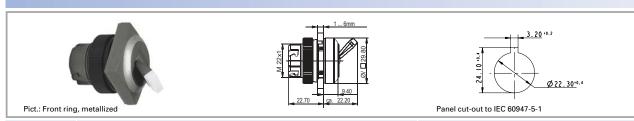
Illu	minability	Colour of toggle	Order no. momentary		Order no. latching	
			Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
no		opaque white	-	-	1.30.247.501/02xx	1.30.247.502/0200

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



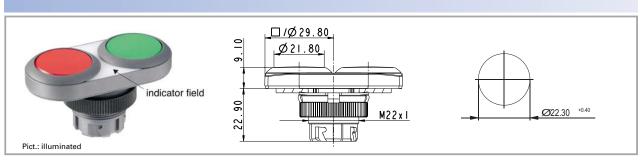
Illuminability Colour of toggle Order no. momentary Order no. latching **Plastic front ring** Metallized front ring **Plastic front ring** Metallized front ring opaque white 1.30.247.551/02xx 1.30.247.552/0200 no

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 22 QR

General information Legending Colour of lens Colout of front ring Form of collar	see order block opaque green/opaque red see order block see order block
Dimensions Length of collar	59.6 mm

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

Mechanical design

Mounting ring nut Contact function momentary Illuminability see order block **Mechanical characteristics**

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

Other specifications

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

Resistance at variable environment

environment

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

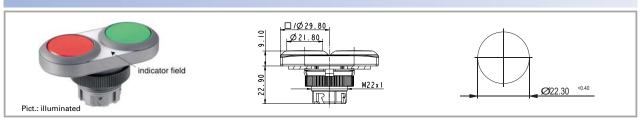
according to IEC 600 68-2-14 and 2-33

Accessories RAFIX 22 QR 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		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	S	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	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

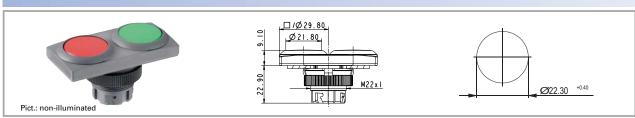
Technical data see page 2 - 116

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

RAFIX 22 QR twin pushbutton, rectangular collar



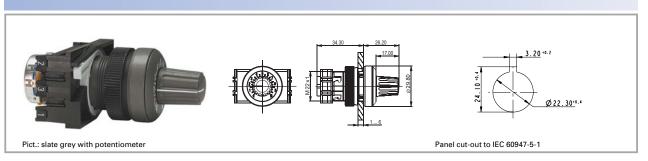
Illuminability	ability Colour of lens Legending		Order no.	
			Plastic front ring	Metal front ring
yes	opaque green/opaque red	none	1.30.241.051/22xx	1.30.241.071/2200
yes	opaque green/opaque red	red 0, green I	1.30.241.052/22xx	1.30.241.072/2200
no	opaque green/opaque red	none	1.30.241.151/07xx	1.30.241.171/0700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

RAFIX 22 QR potentiometer drive



RAFIX

22 QR

Technical data

General information

knob size Actuator Colour of handle see order block 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 26 mm Mounting depth according to potentiometer

Mounting hole 22.3 mm Key grid 50 x 30 mm Diameter of collar see order block

Mechanical design

Mounting ring nut **Mechanical characteristics**

100 N Robustness min.

Other specifications

Degree of protection from front side IP65 -40 °C Storage temperature min. Storage temperature max. +80 °C Resistance to constant

Resistance at variable

environment

environment

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

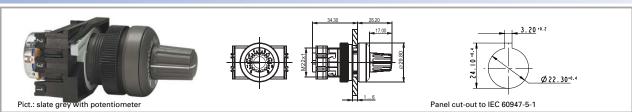
according to

IEC 600 68-2-14 and 2-33

Accessories RAFIX 22 QR potentiometer drive

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



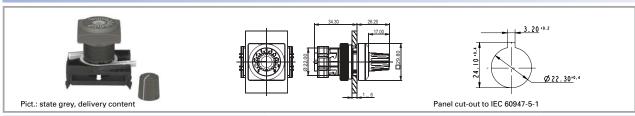
Front ring	Colour of handle	Order no.
metal	opaque slate-grey	1.30.248.051/0000
plastic slate-grey	opaque slate-grey	1.30.248.001/0700
plastic silber	opaque slate-grey	1.30.248.001/0800
metal	opaque black	1.30.248.061/0000
plastic slate-grey	opaque black	1.30.248.011/0700
plastic silber	opaque black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



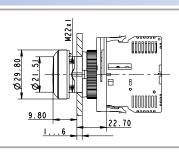
Front ring	Colour of handle	Order no.
metal	opaque slate-grey	1.30.248.071/0000
plastic slate-grey	opaque slate-grey	1.30.248.021/0700
plastic silber	opaque slate-grey	1.30.248.021/0800
metal	opaque black	1.30.248.081/0000
plastic slate-grey	opaque black	1.30.248.031/0700
plastic silber	opaque black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

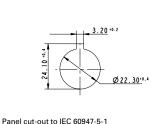
Technical data see page 2 - 118

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

Control components

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





Technical data

General information Form of lens Colour of lens Form of collar Sound

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

Dimensions

Length of collar Width of collar Overall height Mounting depth Mounting hole Key grid Diameter of collar see order block see order block 9.8 mm 56.4 mm 22.3 mm 50 x 30 mm see order block

Mechanical design

Mounting

ring nut

Acoustic characteristics

Sonic pressure, 1 m distance min.

see order block

Electrical characteristics

Operating voltage DC Input current Sound frequency

see order block see order block see order block

Mechanical characteristics

Robustness min. 100 N

Other specifications

Degree of protection from front side IP65 Storage temperature min. -40 °C 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

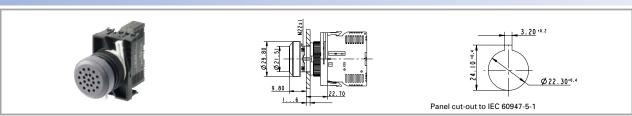
IEC 600 68-2-14 and 2-33

Accessories RAFIX 22 QR 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

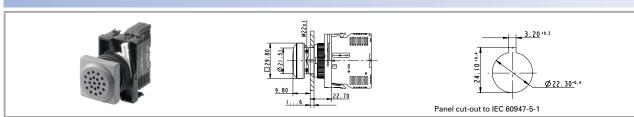
Technical data see page 2 - 120

RAFIX 22 QR buzzer, square collar

Input current

25 mA

25 mA



70 dB

Sound

continuos beep

continuos beep

22.70			
	Panel cut-out to IEC 60947-5-1		
Sonic pressure, 1 m distance min.	Sound frequency	Order no.	
70 dB		1.30.249.022/0000	

1.30.249.021/0000

Technical data see page 2 - 120

Operating voltage DC

12 V

24 V

2 - 121



RAFIX 22 QR signal indicator



RAFIX

22 QR

Technical data

General information Form of lens flat lens Colour of lens see order block Form of collar see order block

see order block

Dimensions Length of collar Width of collar Overall height Mounting depth

see order block 9.4 mm 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 Illuminability yes

Electrical characteristics

П Protection class

Other specifications Degree of protection

from front side IP65 Ambient temp. operating min. -25 °C Ambient temp. operating

+70 °C max. -40 °C Storage temperature min. Storage temperature max. +80 °C

Order no

Resistance to constant environment Resistance at variable

environment

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

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

Dogo

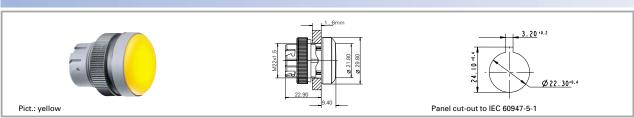
Accessories RAFIX 22 QR signal indicator

Description	Pnoto	Order no.	rage
RAFIX 22 QR lamp socket assembly, screw terminals, with coupling	W	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	

Dhoto



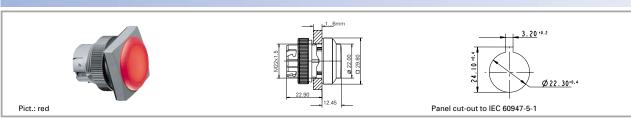
RAFIX 22 QR signal indicator, round collar



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

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

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	imen	sio	ns

Length 39.5 mm Width 10 mm 46 mm Height Mounting depth without

56.4 mm cable

Mechanical design

Mounting snap on coupling and actuator bridgecontact self Contact system cleaning

Contact materials Αg 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 mm² Wire range stranded

wires without end sleeves 2 x 1.0 ... 1.5 (2 x 0.08 ... 2.5) mm²

Stripping length, solid or stranded

Wire range with wire end

2 x 0.75 ... 1.5 mm² sleeves

Electrical characteristics acc. to IEC 60947

Rated insulation voltage AC/DC 400 V Rated peak voltage 6000 V

Rated operating current I_e AC 12 Rated operating current

I_e AC-15 125 V/10 A, 250 V/6 A, 400

10 A

V/3.5 A Rated operating current

I_e DC-13 Q300 24V/2.75A, 60V/1.1A, 125V/0.55A, 250V/0.275A

Degree of pollution

Positive opening travel

Operating speed 5 ... 1000 mm/s

Electrical characteristics acc. to IEC 61058

Resistive load AC 10 A/250 V; 7,5 A/400 V 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 Ш

Lamp characteristics

BA9s Lamp characteristics

Other specifications Operating life at 10

A/250 V AC Switching reliability at 24V/5mA DC Approvals 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. Flame class acc. to UL 94 Hot wire ignition acc. to IEC 60695-2-1 Resistance to constant environment

Resistance at variable environment

500000 (70000)

 10×10^{-6} ENEC, cURus (UL + CSA) 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 (+50°C) -40 °C +80 °C V₀

yes

IEC 600 68-2-3 and 2-30

IEC 600 68-2-14 and 2-33

2 - 124

Control components

RAFIX 22 QR



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	J	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









2

RAFIX 22 QR

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

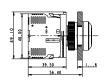
1 NC + 1 NO = One contact block with double contacts (1 normally closed and 1 normally open) is mounted on the coupling.



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: 1.90.690.345/0000 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".

2

RAFIX

22 QR



RAFIX 22 QR contact blocks with gold contacts







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

Dimensions

Length 39.5 mm Width 10 mm Height 46 mm

Mounting depth without

56.4 mm cable

Mechanical design

snap on coupling and Mounting actuator

Contact system bridgecontact self

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

approx. 5 N for 1 contact Operating force

element

8 mm

Wire range solid wires

without wire end sleeves 2 x 0,75 ... 2,5 mm²

Wire range stranded

wires without wire end sleeves

2 x 1,0 ... 1,5 mm²

Stripping length, solid

or stranded

Wire range with wire end

2 x 0,75 ... 1,5 mm² sleeves

Electrical characteristics

Operating voltage AC/DC Operating current AC/DC Rated power max.

Lamp characteristics

Lamp socket

Other specifications

Operating life

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 ... 42 V 0,01 ... 100 mA 1W (ohmic load)

BA9s

1 million at 10 mA/ 24 V DC

10 x 10⁻⁶ 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	(I)	1.90.060.133/0000	5 - 8

Stock items are marked by bold printed order numbers.



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)		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		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		5.40.010.131/0000	2 - 145

RAFIX 22 QR contact block with gold contacts



RAFIX 22 QR

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
solder/quick connector 6.3 x 0.8 mm	1 NO	Au		5.00.100.195/0000

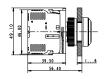
Technical data see page 2 - 128



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









Pict.: Gold contacts, 1NC + 1NO

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

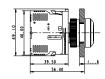
1 NC + 1 NO = **One contact block with double contacts** (1 normally closed and 1 normally open) are mounted on the coupling.

2

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: 1.90.690.345/0000 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

RAFIX

22 QR

Technical data

Dimensions

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

Mechanical design

NC contact forcibly

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

actuated acc. to IEC 60947-5-1 yes ŘJ-12 **Terminals** Terminal marking RJ-12 plug 30×50 Mounting grid 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 -25 °C 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

 10×10^{-6}

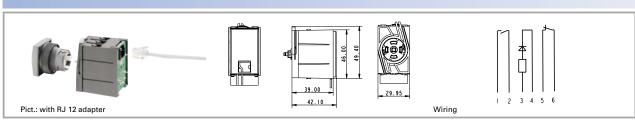
+70 °C

+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 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.

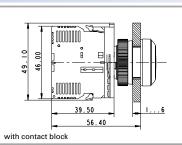
2



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







2

RAFIX

22 QR

Technical data

Dimensions

Length 46 mm Width 10 mm Height 39.5 mm

Mounting depth without cable 56.4 mm

Mechanical design

Mounting

actuator
Terminals see order block

Terminal marking X1 = anode, X2 = cathode

Lamp characteristics

Lamp socket Operating voltage AC/DC

Lamp power max.

Lamp voltage see order block

see order block 2 W

BA9s

snap on coupling and

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 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	(IXI)	1.90.060.133/0000	5 - 8
Filament lamp, BA 9s base (MBC/MCC), 110 - 130 V	(I)	1.90.060.137/0000	5 - 8
Neon lamp BA 9s (MBC/MCC), 220 V AC (red)	4	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	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	117	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

2

RAFIX 22 QR lamp socket, without coupling



RAFIX 22 QR

Terminals	Diode and resistor	Approvals	Lamp socket	Operating voltage AC/DC	Lamp voltage	Order no.
screw terminals	no	ENEC 10/15; ULc	BA 9 s	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 connector 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

RAFIX 22 QR lamp socket assembly, with coupling



Operating voltage AC/DC Diode and Order no. **Terminals Approvals** Lamp socket Lamp voltage resistor BA9s 1.71.213.001/0000 screw terminals no ENEC 10/15; 6 ... 250 V 6 ... 250 V ULc screw terminals yes ENEC 10/15; BA9s 250 V 130 V 1.71.213.004/0000 ULc ENEC 10/15; BA9s 6 ... 250 V 6 ... 250 V 1.71.214.001/0000 clamp cage ULc

Technical data see page 2 - 134

RAFIX 22 QR lamp sockets with integrated LED, screw terminals



2

RAFIX

22 QR

Technical data

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

Mechanical design Mounting

Diode and resistor LED colour Terminals Terminal marking

Lamp characteristics

Operating voltage Max. current, I_F snap on coupling and actuator see order block see order block

screw terminals X1 = anode, X2 = cathode

see order block see order block

56.4 mm

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		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	J	5.40.010.131/0000	2 - 145

RAFIX 22 QR lamp socket with integrated LED, without coupling



Terminals	Diode and resistor	LED colour	Max. current, I _F	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

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

2



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

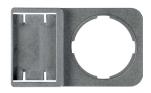


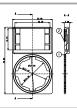
Pict.: slate-grey

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

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 $50 \times 30 \times 3.6$ mm			5.07.620.011/0000

Legend label to clip into label holder 5.07.620.xxx



RAFIX 22 QR

Short text	Feature 1	Feature 2	Order no.
Label for label holder, without legend, 16 x 28 x 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

SOLUTIONS WITH PASSION

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

RAFIX 22 QR





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





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

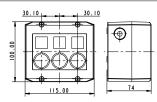
<u>2</u>

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

Short text Feature 2 Order no. Feature 1 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 1.20.840.201/0000 100 mm 145 mm

- 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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Stock items are marked by bold printed order numbers. Control components