



General data

RAFIX 22QR control component range

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

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

Content

RAFIX 22 QR pushbutton RAFIX 22 QR pushbutton, flush lens, round collar RAFIX 22 QR pushbutton, protruding lens, round collar RAFIX 22 QR pushbutton, protruding front ring, round collar RAFIX 22 QR pushbutton, flush lens, square collar RAFIX 22 QR pushbutton, protruding lens, square collar RAFIX 22 QR pushbutton, protruding front ring, square collar RAFIX 22 QR pushbutton, protruding front ring, square collar	2-88 2-89 2-90 2-91 2-92 2-93 2-94
RAFIX 22 QR selector switch RAFIX 22 QR selector switch, round collar, short handle RAFIX 22 QR selector switch, round collar, long handle RAFIX 22 QR selector switch, square collar, short handle RAFIX 22 QR selector switch, square collar, long handle	2 - 96 2 - 97 2 - 98 2 - 99 2 - 100
RAFIX 22 QR keylock switch RAFIX 22 QR keylock switch, round collar RAFIX 22 QR keylock switch, square collar	2 - 102 2 - 103 2 - 104
RAFIX 22 QR mushroom-headed pushbutton RAFIX 22 QR mushroom-headed pushbutton 40 mm, round collar RAFIX 22 QR mushroom-headed pushbutton 40 mm, illuminated, round collar RAFIX 22 QR mushroom-headed pushbutton 60 mm, round collar RAFIX 22 QR mushroom-headed pushbutton 40 mm, square collar RAFIX 22 QR mushroom-headed pushbutton 40 mm, illuminated, square collar RAFIX 22 QR mushroom-headed pushbutton 60 mm, square collar	2 - 106 2 - 107 2 - 107 2 - 108 2 - 108 2 - 109 2 - 109
Control components	2 - 83

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



2 - 110

2 - 111

RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, with indication to EN 60947-1 RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, with keylock RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, illuminated RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418, illuminated	2 - 112 2 - 112 2 - 113 2 - 113
RAFIX 22 QR toggle switch RAFIX 22 QR, toggle switch, round collar RAFIX 22 QR, toggle switch, square collar	2 - 114 2 - 115 2 - 115
RAFIX 22 QR twin pushbutton RAFIX 22 QR twin pushbutton, oval collar RAFIX 22 QR twin pushbutton, rectangular collar	2 - 116 2 - 117 2 - 117
RAFIX 22 QR potentiometer drive RAFIX 22 QR potentiometer drive, round collar RAFIX 22 QR potentiometer drive, square collar	2 - 118 2 - 119 2 - 119
RAFIX 22 QR buzzer RAFIX 22 QR buzzer, round collar RAFIX 22 QR buzzer, square collar	2 - 120 2 - 121 2 - 121
RAFIX 22 QR signal indicator RAFIX 22 QR signal indicator, round collar RAFIX 22 QR signal indicator, square collar	2 - 122 2 - 123 2 - 123
RAFIX 22 QR contact blocks with silver contacts RAFIX 22 QR contact block with silver contacts RAFIX 22 QR contact block assembly, with coupling, without lamp socket, silver contacts RAFIX 22 QR contact block assembly, with coupling and lamp socket, silver contacts RAFIX 22 QR contact blocks with gold contacts RAFIX 22 QR contact block with gold contacts RAFIX 22 QR contact block assembly, with coupling, without lamp socket, gold contacts RAFIX 22 QR contact block assembly, with coupling and lamp socket, gold contacts	2 - 124 2 - 125 2 - 126 2 - 127 2 - 128 2 - 129 2 - 130 2 - 131
Contact blocks with coupling, gold contacts, RJ 12 connector, integrated LED Contact block with coupling, gold contacts, RJ 12 connector, integrated LED	2 - 132 2 - 133
RAFIX 22 QR lamp sockets BA 9s (MBC/MCC), screw terminals and cage clamp terminals RAFIX 22 QR lamp socket, without coupling RAFIX 22 QR lamp socket assembly, with coupling	2 - 134 2 - 135 2 - 136
RAFIX 22 QR lamp sockets with integrated LED, screw terminals RAFIX 22 QR lamp socket with integrated LED, without coupling	2 - 138 2 - 139
RAFIX 22 QR special accessories Housings for flush pushbuttons Lenses for flush pushbuttons Front ring RAFIX 22 QR plastic front ring with thermoflex protective cap Label holder Legend label to clip into label holder 5.07.620.xxx Coupling	2 - 140 2 - 140 2 - 141 2 - 142 2 - 142 2 - 143 2 - 143 2 - 143

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RAFIX 22 QR

Blanking cap

Marking tag

Protective cover, suitable for pushbuttons with flush lens

Insulating housing IP65 for RAFIX 22 QR Emergency stop label plate

Ring nut Lamp tester 2 - 144 2 - 144 2 - 144

2 - 145

2 - 145

2 - 146 2 - 146





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

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

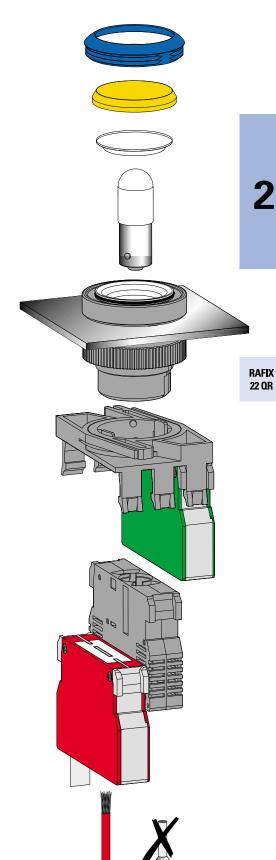
The lamps of pushbuttons and signal lamps can be replaced from the front. This method saves time and increases safety since it eliminates the need for accessing the machine/control station interior and handling live cables for lamp replacement. After unscrewing the front ring, the lens can be removed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



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



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



Control Components 2 - 85



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.

R.I 12-terminal

Just plug in the cable with a RJ 12 connector.

Assembly

Screw terminals

Cage clamp terminals







Open the terminal.

Your advantage:

This offers your savings in three ways:

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



Tighten the screw.



Insert the wire.

RAFIX 22 QR

Sealed for life against humidity and dirt

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

the housing (degree of protection IP 65 to DIN).

Done.



Remove the screwdriver.



Versatility of design for customized panels

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

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

Control Components

RAFIX 22 QR

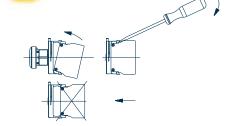
The RAFIX 22 QR control component range meets all the technical requirements and current standards for control units. The system is of modular design. Actuators, contact blocks and lamp sockets can be combined freely. This means that you may

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



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

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



Assembly

Disassembly

Approvals

Part no.	BG zert.	VDE 0660	115	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

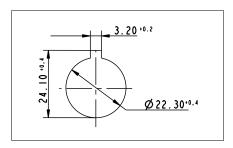
ullet = approved, \bigcirc = pending

Part no.	BG zert.	VDE 0660	115	ULc	GL
1.20 124	0	0	•	•	0
1.20 125	0	0	•	•	0
1.30 243	0			•	
1.71 213		0	•	•	0
1.71 214.——		0	•	•	0

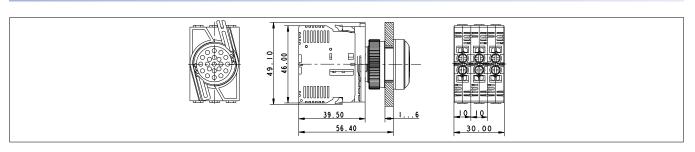
Panel cut-out according to IEC 60947-5-1

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

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

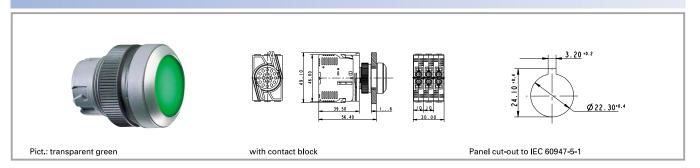


Dimensioned drawing



Control Components 2 - 87

RAFIX 22 QR pushbutton



Technical data

General information		Operating force max.	approx. 5 N for
Form of lens	see order block	operating force max.	1 switching element
Colour of lens	see order block	Robustness min.	100 N
Colout of front ring	see order block		
Form of collar	see order block	Other specifications	
		Operating life	
Dimensions		(operations)	1 million momentary/
Length of collar	see order block		0.5 million latching
Width of collar	see order block	Degree of protection	
Overall height	see order block	from front side	IP65
Mounting depth with		Ambient temp, operating	
contact block without cable	56.4 mm	min,	-25 °C
Mounting hole	22.3 mm	Ambient temp. operating	
Key grid	50 x 30 mm	max.	+70 °C
Diameter of collar	see order block	Storage temperature min.	-40 °C
		Storage temperature max.	+80 °C
Mechanical design		Resistance to constant	
Mounting	ring nut	environment	according to
Contact function	see order block		IEC 600 68-2-3 and 2-30
Illuminability	see order block	Resistance at variable	
		environment	according to
Mechanical characteristics			IEC 600 68-2-14 and 2-33
Operating travel	4 mm		

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		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	S	1.20.125.025/0000	2 - 127
Contact block with RJ 12 connector, 2 NO, white LED		1.20.128.015/0000	2 - 133
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V	(三)	1.90.060.133/0000	5 - 8
LED BA 9s (MBC/MCC) superbright, white, 24 V		1.90.690.345/0000	5 - 19

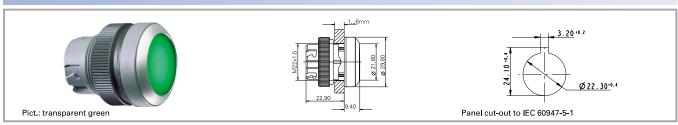


Accessories RAFIX 22 QR pushbutton

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

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

RAFIX 22 QR pushbutton, flush lens, round collar



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

Technical data see page 2 - 88

Accessories

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

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

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

Schutzklappe, selbstschließend: 5.05.511.194/0000

Protective cover, latching: 5.05.511.195/0000

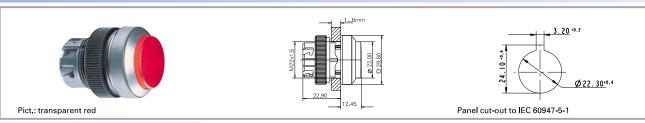
xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

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

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



RAFIX 22 QR pushbutton, protruding lens, round collar



Illuminability Colour of lens		Order no. momentary		Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
yes	transparent white	1.30.240.201/10xx	1.30.240.221/1000	1.30.240.211/10xx	1.30.240.231/1000
yes	transparent red	1.30.240.201/13xx	1.30.240.221/1300	1.30.240.211/13xx	1.30.240.231/1300
yes	transparent yellow	1.30.240.201/14xx	1.30.240.221/1400	1.30.240.211/14xx	1.30.240.231/1400
yes	transparent green	1.30.240.201/15xx	1.30.240.221/1500	1.30.240.211/15xx	1.30.240.231/1500
yes	transparent blue	1.30.240.201/16xx	1.30.240.221/1600	1.30.240.211/16xx	1.30.240.231/1600
no	opaque black	1.30.240.301/01xx	1.30.240.321/0100	1.30.240.311/01xx	1.30.240.331/0100
no	opaque white	1.30.240.301/02xx	1.30.240.321/0200	1.30.240.311/02xx	1,30,240,331/0200
no	opaque red	1.30.240.301/03xx	1.30.240.321/0300	1.30.240.311/03xx	1.30.240.331/0300
no	opaque yellow	1.30.240.301/04xx	1.30.240.321/0400	1.30.240.311/04xx	1.30.240.331/0400
no	opaque green	1.30.240.301/05xx	1.30.240.321/0500	1.30.240.311/05xx	1.30.240.331/0500
no	opaque blue	1.30.240.301/06xx	1.30.240.321/0600	1.30.240.311/06xx	1.30.240.331/0600
no	opaque slate-grey	1.30.240.301/07xx	1.30.240.321/0700	1.30.240.311/07xx	1.30.240.331/0700

Technical data see page 2 - 88

Accessories:

Legend insert without legend: 5.70.802.000/2000

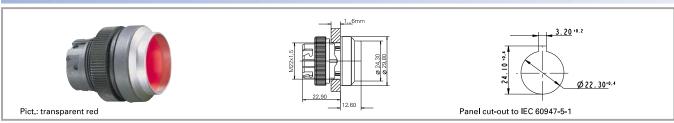
xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08

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

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



RAFIX 22 QR pushbutton, protruding front ring, round collar



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

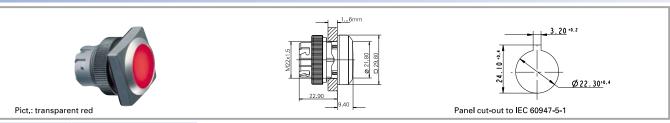
Technical data see page 2 - 88

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

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



RAFIX 22 QR pushbutton, flush lens, square collar



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

Technical data see page 2 - 88

Accessories:

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

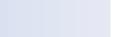
Front ring, plastic with protective cap, slate grey: 5.05.004.914/0700

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

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

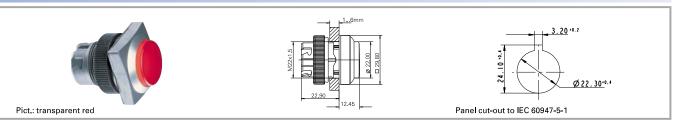
Pushbuttons with plastic front ring and white lens are also available with the following front ring colours: red = 03, yellow = 04, green = 05, blue = 06. Other colour combinations on request.

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



SOLUTIONS WITH PASSION

RAFIX 22 QR pushbutton, protruding lens, square 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	1.30.240.251/10xx	1.30.240.271/1000	1.30.240.261/10xx	1.30.240.281/1000
yes	transparent red	1.30.240.251/13xx	1.30.240.271/1300	1.30.240.261/13xx	1.30.240.281/1300
yes	transparent yellow	1.30.240.251/14xx	1.30.240.271/1400	1.30.240.261/14xx	1.30.240.281/1400
yes	transparent green	1.30.240.251/15xx	1.30.240.271/1500	1.30.240.261/15xx	1.30.240.281/1500
yes	transparent blue	1.30.240.251/16xx	1.30.240.271/1600	1.30.240.261/16xx	1.30.240.281/1600
no	opaque black	1.30.240.351/01xx	1.30.240.371/0100	1.30.240.361/01xx	1.30.240.381/0100
no	opaque white	1.30.240.351/02xx	1.30.240.371/0200	1.30.240.361/02xx	1.30.240.381/0200
no	opaque red	1.30.240.351/03xx	1.30.240.371/0300	1.30.240.361/03xx	1.30.240.381/0300
no	opaque yellow	1.30.240.351/04xx	1.30.240.371/0400	1.30.240.361/04xx	1.30.240.381/0400
no	opaque green	1.30.240.351/05xx	1.30.240.371/0500	1.30.240.361/05xx	1.30.240.381/0500
no	opaque blue	1.30.240.351/06xx	1.30.240.371/0600	1.30.240.361/06xx	1.30.240.381/0600
no	opaque slate-grey	1.30.240.351/07xx	1.30.240.371/0700	1.30.240.361/07xx	1.30.240.381/0700

Technical data see page 2 - 88

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

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

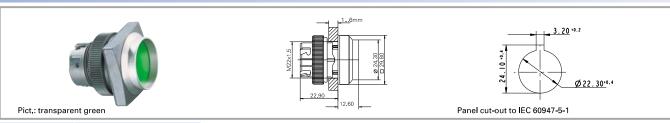
Order numbers 1.30.240.251/--08 and 1.30.240.261/--08 (with silver grey plastic front ring) are stock items.

RAFIX

22 QR



RAFIX 22 QR pushbutton, protruding front ring, 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	1.30.240.451/10xx	1.30.240.471/1000	-	-
yes	transparent red	1.30.240.451/13xx	1.30.240.471/1300	_	-
yes	transparent yellow	1.30.240.451/14xx	1.30.240.471/1400	-	-
yes	transparent green	1.30.240.451/15xx	1.30.240.471/1500	-	-
yes	transparent blue	1.30.240.451/16xx	1.30.240.471/1600	-	-
no	opaque black	1.30.240.551/01xx	1.30.240.571/0100	-	-
no	opaque white	1.30.240.551/02xx	1.30.240.571/0200	-	-
no	opaque red	1.30.240.551/03xx	1.30.240.571/0300	-	-
no	opaque yellow	1.30.240.551/04xx	1.30.240.571/0400	-	-
no	opaque green	1.30.240.551/05xx	1.30.240.571/0500	-	-
no	opaque blue	1.30.240.551/06xx	1.30.240.571/0600	-	-
no	opaque slate-grey	1.30.240.551/07xx	1.30.240.571/0700	-	-

Technical data see page 2 - 88

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

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

RAFIX

22 QR

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	
Actuator	handle
Marking of handle	white
Colout of front ring	see order block
Form of collar	see order block
Dimensions	
Length of collar	see order block
AAC JUL - C - III -	and the second second

see order block Width of collar Overall height 22,2 mm Mounting depth with contact block without cable 56.4 mm Mounting hole 22.3 mm 50 x 30 mm Key grid 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
D	

Ш Protection class

Other specifications

Operating life Degree of protection IP65 from front side Ambient temp, operating -27 °C min. Ambient temp, operating max.

Storage temperature min. Storage temperature max. Resistance to constant

Resistance at variable

environment

environment

0.5 million

+70 °C -40 °C +80 °C

according to

IEC 600 68-2-3 and 2-30

according to

IEC 600 68-2-14 and 2-33

Accessories RAFIX 22 QR selector switch

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO	8	1.20.124.017/0000	2 - 126
RAFIX 22 QR contact block with 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

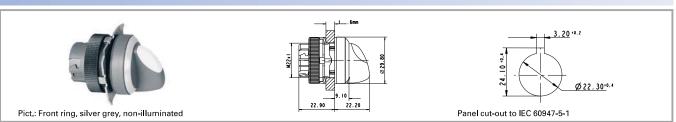


Accessories RAFIX 22 QR selector switch

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, FIONE IIII	Field. From thing, silver grey, non-informated				
Illuminability	Contact function	Rotating angle	Rotating angle	Orde	er no.
			ungic	Plastic front ring	Metal front ring
no	momentary	1 x 40°	ů>	1.30.242.501/02xx	1.30.242.502/0200
no	momentary	2 x 40°	0	1.30.242.526/02xx	1.30.242.527/0200
no	latching	1 x 90°, form L	Ľ,	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°	\bigcirc	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°	\downarrow	1.30.242.026/22xx	1.30.242.027/2200
yes	latching	1 x 90°, form L	<u></u>	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°	\bigcirc	1.30.242.301/22xx	1.30.242.302/2200
yes	latching	2 x 90°	2 0	1.30.242.126/22xx	1.30.242.127/2200

Technical data see page 2 - 96

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

Included: Ring nut with claw.

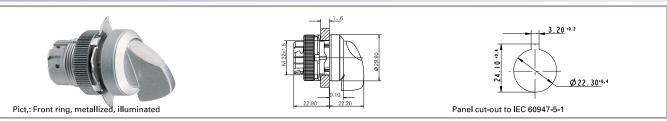
Other contact versions on request

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

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



RAFIX 22 QR selector switch, round collar, long handle



Illuminability	Contact function	Rotating angle	Rotating	Order no.		
			angle	Plastic front ring	Metal front ring	
no	momentary	1 x 40°	Ď	1.30.242.511/02xx	1.30.242.512/0200	
no	momentary	2 x 40°	0	1.30.242.536/02xx	1.30.242.537/0200	
no	latching	1 x 90°, form L	ا ا	1.30.242.611/02xx	1.30.242.612/0200	
no	latching	1 x 90°, form V	0 1	1.30.242.711/02xx	1.30.242.712/0200	
no	latching	2 x 60°	\bigcirc	1.30.242.811/02xx	1.30.242.812/0200	
no	latching	2 x 90°	2	1.30.242.636/02xx	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°	$\stackrel{}{\diamondsuit}$	1.30.242.036/22xx	1.30.242.037/2200	
yes	latching	1 x 90°, form L	Ů,	1.30.242.111/22xx	1.30.242.112/2200	
yes	latching	1 x 90°, form V		1.30.242.211/22xx	1.30.242.212/2200	
yes	latching	2 x 60°	\bigcirc	1.30.242.311/22xx	1.30.242.312/2200	
yes	latching	2 × 90°	2 0	1.30.242.136/22xx	1.30.242.137/2200	

Technical data see page 2 - 96

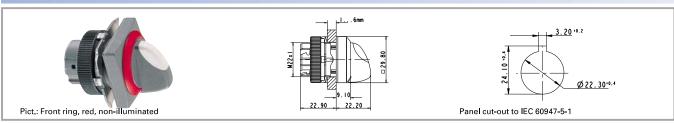
xx = Front ring colour: black = 01, slate grey = 07, silver grey = 08; other colours on request.

Included: Ring nut with claw.

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



RAFIX 22 QR selector switch, square collar, short handle



Illuminability	Contact function	Rotating angle	Rotating	Ord	er no.
			angle	Plastic front ring	Metal front ring
no	momentary	1 x 40°	°>	1.30.242.551/02xx	1.30.242.552/0200
no	momentary	2 x 40°	•	1.30.242.576/02xx	1.30.242.577/0200
no	latching	1 x 90°, form L	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	L L	1.30.242.151/22xx	1.30.242.152/2200
yes	latching	1 x 90°, form V	0 1	1.30.242.251/22xx	1.30.242.252/2200
yes	latching	2 x 60°	\bigcirc	1.30.242.351/22xx	1.30.242.352/2200
yes	latching	2 x 90°		1.30.242.176/22xx	1.30.242.177/2200

Technical data see page 2 - 96

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

Included: Ring nut with claw.

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

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

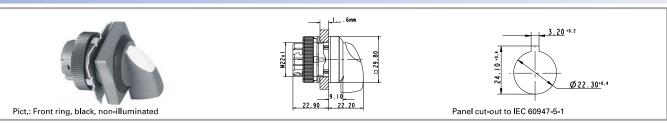
The following selector switches with silver grey plastic front ring are stock items:

Illuminated: 1.30.242.051/2208, 1.30.242.076/2208, 1.30.242.151/2208, 1.30.242.251/2208, 1.30.242.351/2208

Non-illuminated: 1.30.242.551/0208, 1.30.242.576/0208, 1.30.242.651/0208, 1.30.242.751/0208, 1.30.242.851/0208



RAFIX 22 QR selector switch, square collar, long handle



Illuminability	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
no	momentary	2 x 40°		1.30.242.586/02xx	1.30.242.587/0200
no	latching	1 x 90°, form L	Ľ,	1.30.242.661/02xx	1.30.242.662/0200
no	latching	1 x 90°, form V	0 1	1.30.242.761/02xx	1.30.242.762/0200
no	latching	2 x 60°	\bigcirc	1.30.242.861/02xx	1.30.242.862/0200
no	latching	2 x 90°	2	1.30.242.686/02xx	1.30.242.687/0200
yes	momentary	1 x 40°		1.30.242.061/22xx	1.30.242.062/2200
yes	momentary	2 x 40°	ightharpoons	1.30.242.086/22xx	1.30.242.087/2200
yes	latching	1 x 90°, form L	Ů	1.30.242.161/22xx	1.30.242.162/2200
yes	latching	1 x 90°, form V		1.30.242.261/22xx	1.30.242.262/2200
yes	latching	2 x 60°	\bigcirc	1.30.242.361/22xx	1.30.242.362/2200
yes	latching	2 x 90°	2	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

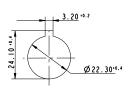
22 QR



RAFIX 22 QR keylock switch







Pict.: Front ring, metallized

operating element and contact block

Panel cut-out to IEC 60947-5-1

Technical data

General information

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

Dimensions

Length of collar see order block Width of collar see order block Overall height 30.6 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 nο Lock Ronis Wafers Lock type 455 Main key no 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 Torque max. 2 Nm

Electrical characteristics

П Protection class

Other specifications

0.3 million momentary / Operating life 50000 latching

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

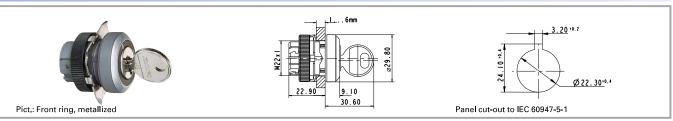
Accessories RAFIX 22 QR keylock switch

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC + 1 NO	9	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		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



	9,				
Contact function	Rotating angle	Key removal position Rotating angle		Order no.	
Tunction			angle	Plastic front ring	Metal front ring
momentary	1 x 40°	0		1.30.245.001/xxxx	1.30.245.002/0000
momentary	2 x 40°	0	$\stackrel{\circ}{\longleftrightarrow}$	1.30.245.101/xxxx	1.30.245.102/0000
latching	1 x 90°, form L	0		1.30.245.201/xxxx	1.30.245.202/0000
latching	1 x 90°, form L	0+1		1.30.245.221/xxxx	1.30.245.222/0000
latching	1 x 90°, form V	0	0 1	1.30.245.301/xxxx	1.30.245.302/0000
latching	1 x 90°, form V	0+1	0 1	1.30.245.321/xxxx	1.30.245.322/0000
latching	2 x 60°	0+1+2	\bigcirc	1.30.245.731/xxxx	1.30.245.732/0000
latching	2 x 90°	0	2	1.30.245.401/xxxx	1.30.245.402/0000
latching	2 x 90°	0+1+2	, The state of the	1.30.245.431/xxxx	1.30.245.432/0000

Technical data see page 2 - 102

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

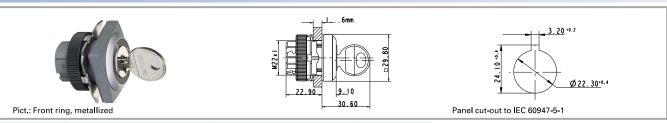
Other versions on request.

Included: Ring nut with claw.

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

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

RAFIX 22 QR keylock switch, square collar



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

Technical data see page 2 - 102

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

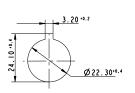
Included: Ring nut with claw.

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

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

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





Panel cut-out to IEC 60947-5-1

Technical data

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

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

Mechanical design

Mounting Contact function Illuminability

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

Robustness min.

Electrical characteristics Protection class

Other specifications

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

Resistance at variable environment

approx. 5 N for 1 switching element

100 N

Ш

Operating life 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	S	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

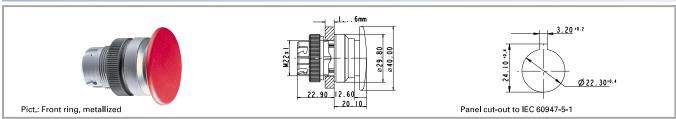
For other contact blocks, refer to the chapter "Contact blocks"; for additional accessories, refer to "RAFIX 22 QR special accessories".

RAFIX

22 QR



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

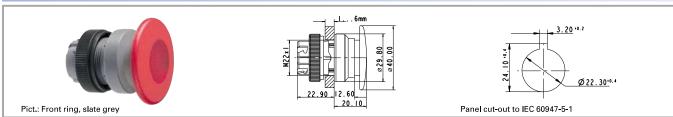


Illuminability	Colour of mushroom	Order no. momentary Plastic front ring Metallized front ring		Order no. latching		
				Plastic front ring	Metallized front ring	
no	opaque black	1.30.246.501/01xx	1.30.246.502/0100	1.30.246.511/01xx	1.30.246.512/0100	
no	opaque red	1.30.246.501/03xx	1.30.246.502/0300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

Technical data see page 2 - 106

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

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



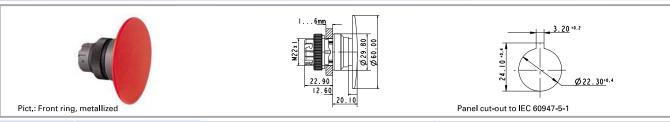
Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	opaque red/ transparent red	1.30.246.001/03xx	1.30.246.002/0300	1.30.246.011/03xx	1.30.246.012/0300	

Technical data see page 2 - 106

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



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

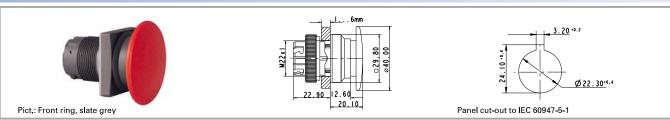


Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
no	opaque red	1.30.246.601/03xx	1.30.246.602/0300	-	-	

Technical data see page 2 - 106

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

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



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

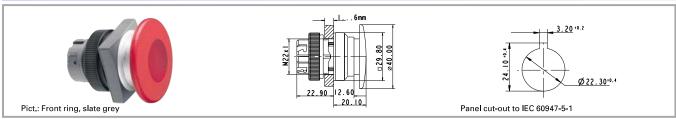
Technical data see page 2 - 106

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

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



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



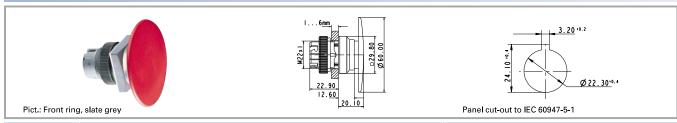
Illuminability	Colour of mushroom	Order no. momentary		Order no. latching		
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring	
yes	opaque red/ transparent red	1.30.246.051/03xx	1.30.246.052/0300	1.30.246.061/03xx	1.30.246.062/0300	

Technical data see page 2 - 106

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

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

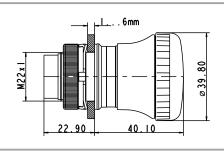
RAFIX 22 QR mushroom-headed pushbutton 60 mm, square collar

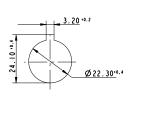


Illuminability	Colour of mushroom	Order no. momentary		Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
no	opaque red	1.30.246.651/03xx	1.30.246.652/0300	-	-

Technical data see page 2 - 106

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





Panel cut-out to IEC 60947-5-1

General data

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

Technical data

RAFIX 22 QR

General information Actuator	mushroom
Colour of mushroom Form of collar	see order block round
Dimensions	
Overall height	see order block
Mounting depth with	

contact block without cable see order block see order block Mounting hole Key grid 50 x 30 mm Diameter of collar see order block

Mechanical design Mounting

ring nut Contact function latching Illuminability see order block Reset see order block

Mechanical characteristics Operating force max.

1 switching element Robustness min. 100 N acc. IEC 60947-5-5 Robustness

Other specifications

Operating life see order block Degree of protection from front side see order block Ambient temp, operating -25 °C min.

Ambient temp, operating +70 °C max. -40 °C Storage temperature min. Storage temperature max. +80 °C

Resistance to constant environment

Resistance at variable environment

according to

approx. 5 N for

IEC 600 68-2-3 and 2-30

according to

IEC 600 68-2-14 and 2-33

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

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 1 NC	8	1.20.124.001/0000	2 - 126
RAFIX 22 QR contact block with silver contacts, with coupling, without lamp socket, screw terminals, 2 NC	8	1.20.124.019/0000	2 - 126
Fixing spanner for ring nut and front ring		5.05.800.062/0000	5 - 23

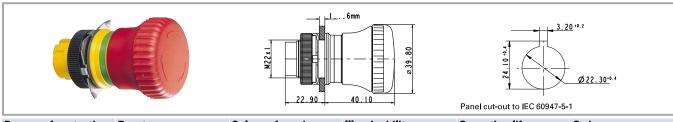


Accessories RAFIX 22 QR emergency stop pushbutton, dupe-proof to EN 418

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



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

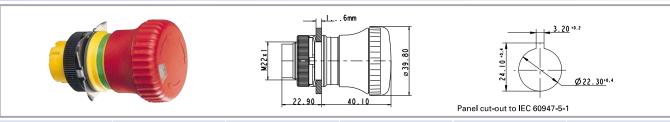
Technical data see page 2 - 110

Included: Ring nut with claw

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



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



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

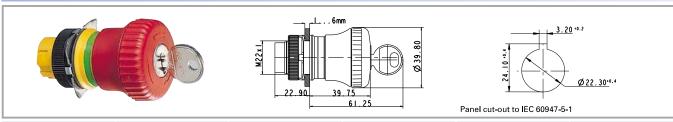
Technical data see page 2 - 110

Included: Ring nut with claw.

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

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

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



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

Technical data see page 2 - 110

Accessories:

Spare key for RAFIX 22 QR: 5.58.017.001/0000

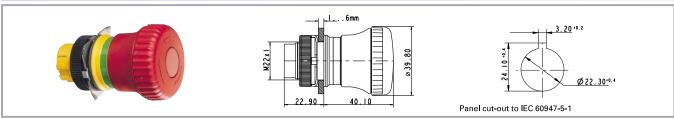
Included: Ring nut with claw, 2 keys.

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

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



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



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

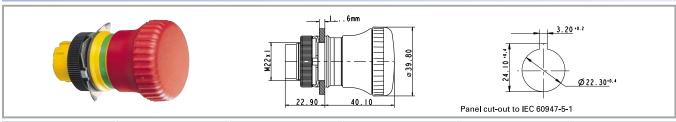
Technical data see page 2 - 110

Included: Ring nut with claw.

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



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



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

Technical data see page 2 - 110

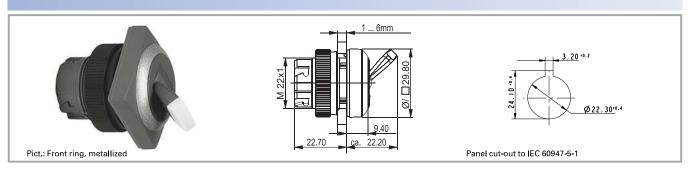
Included: Ring nut with claw.

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

22 QR

RAFIX

RAFIX 22 QR toggle switch



Technical data

General information

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

Dimensions

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

Mechanical design

Mounting ring nut

Dimensions

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

Mechanical design

Contact function latching IIImuniabilitiy no

Mechanical characteristics Robustness min.

Electrical characteristics

Protection class Ш

Other specifications

Operating life Degree of protection Storage temperature min. 80 °C Storage temperature max. Resistance to constant environment

Resistance at variable

environment

100 N

100000 IP54 -40 °C

according to

according to

IEC 60068-2-14 and 2-33

IEC 60068-2-3 and 2-30

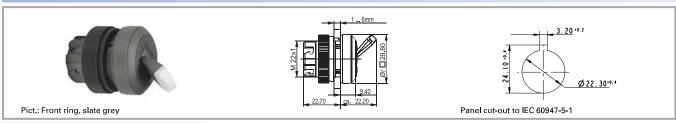
Accessories RAFIX 22 QR toggle switch

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





RAFIX 22 QR, toggle switch, round collar



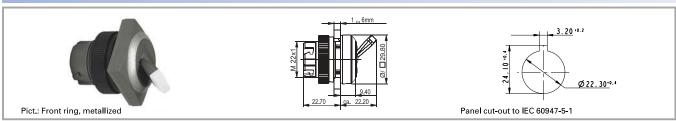
Illuminability	Colour of toggle	Order no. momentary		Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
no	opaque white	-	-	1.30.247.501/02xx	1.30.247.502/0200

Technical data see page 2 - 114

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



RAFIX 22 QR, toggle switch, square collar



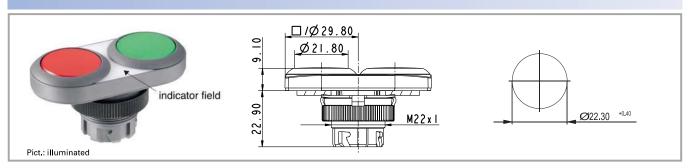
Illuminability	Colour of toggle	Order no. momentary		Order no. latching	
		Plastic front ring	Metallized front ring	Plastic front ring	Metallized front ring
no	opaque white	-	-	1.30.247.551/02xx	1.30.247.552/0200

Technical data see page 2 - 114

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



RAFIX 22 QR twin pushbutton



General data

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

Technical data

RAFIX 22 QR

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

Length of collar 59.6 mm Width of collar 29.8 mm Overall height 9.1 mm Mounting depth with 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

Robustness min.

Other specifications

Degree of protection from front side Ambient temp, operating min. Ambient temp, operating

max. Storage temperature max. Resistance to constant environment

Resistance at variable environment

Operating force max.

approx. 5 N for 1 switching element 100 N

IP65

-25 °C

+70 °C +80 °C

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

according to

IEC 600 68-2-14 and 2-33

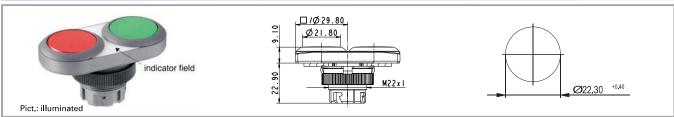
Accessories RAFIX 22 QR twin pushbutton

Description	Photo	Order no.	Page
RAFIX 22 QR contact block with silver contacts, with coupling and lamp socket, screw terminals, 1 NO, 1 NC	0	1.20.124.025/0000	2 - 127
RAFIX 22 QR contact block with gold contacts, with cou- pling and lamp socket, cage clamp terminals, 1 NO, 1 NC		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	Order no.	
			Plastic front ring	Metal front ring
yes	opaque green/opaque red	none	1.30.241.001/22xx	1.30.241.021/2200
yes	opaque green/opaque red	red 0, green l	1.30.241.002/22xx	1.30.241.022/2200
no	opaque green/opaque red	none	1.30.241.101/07xx	1.30.241.121/0700
no	opaque green/opaque red	red 0, green I	1.30.241.102/07xx	1.30.241.122/0700

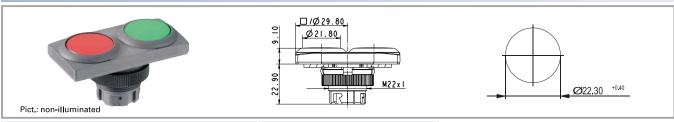
Technical data see page 2 - 116

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

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

RAFIX 22 QR

RAFIX 22 QR twin pushbutton, rectangular collar



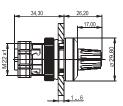
Illuminability	Colour of lens	Legending	Order no.	
			Plastic front ring	Metal front ring
yes	opaque green/opaque red	none	1.30,241,051/22xx	1.30.241.071/2200
yes	opaque green/opaque red	red 0, green I	1.30.241.052/22xx	1.30.241.072/2200
no	opaque green/opaque red	none	1.30.241.151/07xx	1.30.241.171/0700
no	opaque green/opaque red	red 0, green I	1.30.241.152/07xx	1.30,241,172/0700

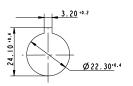
Technical data see page 2 - 116

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.







Panel cut-out to IEC 60947-5-1

RAFIX

22 QR

Technical data

Pict.: slate grey with potentiometer

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

Resistance at variable

environment

IP65 -40 °C +80 °C

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

according to

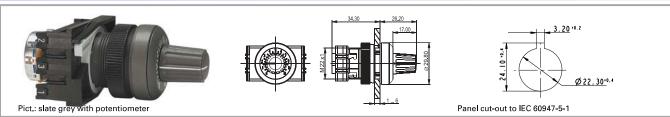
IEC 600 68-2-14 and 2-33

Accessories RAFIX 22 QR potentiometer drive

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



RAFIX 22 QR potentiometer drive, round collar



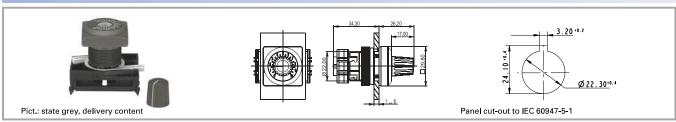
Front ring	Colour of handle	Order no.
metal	opaque slate-grey	1.30.248.051/0000
plastic slate-grey	opaque slate-grey	1.30.248.001/0700
plastic silber	opaque slate-grey	1.30.248.001/0800
metal	opaque black	1.30.248.061/0000
plastic slate-grey	opaque black	1.30.248.011/0700
plastic silber	opaque black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

Technical data see page 2 - 118

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

RAFIX 22 QR

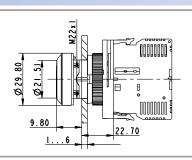
RAFIX 22 QR potentiometer drive, square collar

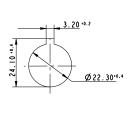


Front ring	Colour of handle	Order no.
metal	opaque slate-grey	1.30.248.071/0000
plastic slate-grey	opaque slate-grey	1.30.248.021/0700
plastic silber	opaque slate-grey	1.30.248.021/0800
metal	opaque black	1.30.248.081/0000
plastic slate-grey	opaque black	1.30.248.031/0700
plastic silber	opaque black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

Technical data see page 2 - 118

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





Panel cut-out to IEC 60947-5-1

Technical data

General information

Form of lens Colour of lens Form of collar Sound

opaque slate-grey see order block see order block

flat lens

Dimensions

RAFIX

22 QR

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

Mechanical characteristics

Robustness min.

Other specifications

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

environment

Resistance at variable environment

see order block see order block see order block

100 N

IP65 -40 °C +80 °C

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

according to

IEC 600 68-2-14 and 2-33

Accessories RAFIX 22 QR buzzer

Description

Fixing spanner for ring nut and front ring

Photo

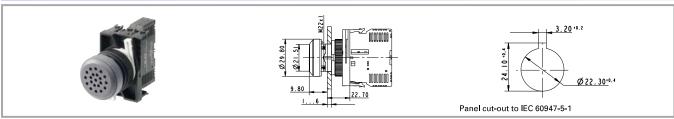
Order no.

Page

5.05.800.062/0000 5 - 23



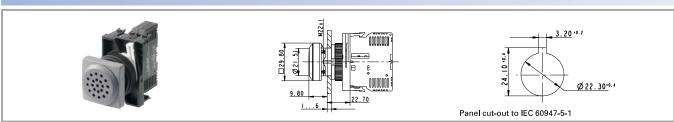
RAFIX 22 QR buzzer, round collar



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

Technical data see page 2 - 120

RAFIX 22 QR buzzer, square collar

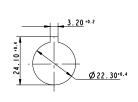


Operating voltage DC	Input current	Sound	Sonic pressure, 1 m distance min.	Sound frequency	Order no.
12 V	25 mA	continuos beep	70 dB		1.30.249.022/0000
24 V	25 mA	continuos beep	70 dB		1.30.249.021/0000

Technical data see page 2 - 120







Panel cut-out to IEC 60947-5-1

2

RAFIX

22 QR

Technical data

General information Form of lens Colour of lens Form of collar

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

see order block

Mechanical design

Mounting Illuminability

ring nut yes **Electrical characteristics**Protection class

Other specifications

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

Ш

IP65 -25 °C

+70 °C -40 °C +80 °C

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

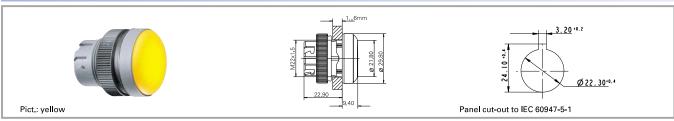
according to IEC 600 68-2-14 and 2-33

Accessories RAFIX 22 QR signal indicator

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



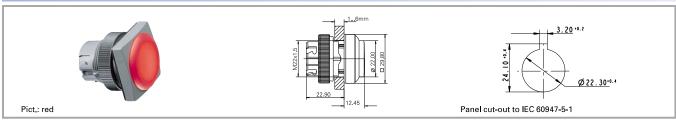
RAFIX 22 QR signal indicator, round collar



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

Technical data see page 2 - 122

RAFIX 22 QR signal indicator, square collar



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

Technical data see page 2 - 122

A/400 V

RAFIX 22 QR

RAFIX 22 QR contact blocks with silver contacts







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

General data

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

Technical data

Dimensions

Length	39.5 mm
Width	10 mm
Height	46 mm
Mounting depth without	
cable	56.4 mm
Mechanical design	
Mounting	snap on coupling and
	actuator
Contact system	bridgecontact self
•	cleaning
Contact materials	Ag
Contact arrangement	see order block
NC contact forcibly	
actuated accito IEC 60947-5-	1 400

oontaot matomato	9
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 Wire range stranded	2 x 0.75 2.5 mm ²
wires without end sleeves	2 x 1.0 1.5 (2 x 0.08 2.5) mm ²
Stripping length, solid	

Stripping length, solid	
or stranded	8 mm
Wire range with wire end	
sleeves	2 x 0.75 1.

sleeves	2 x 0.75 1.5 mm ²			
Electrical characteristics acc. to IEC 60947				
Rated insulation voltage	100.1/			
AC/DC	400 V			
Rated peak voltage	6000 V			
Rated operating current				
I _a AC 12	10 A			
Rated operating current				
I _a AC-15	125 V/10 A, 250 V/6 A, 400			
	V/3.5 A			
Rated operating current				
I。DC-13 Q300	24V/2.75A, 60V/1.1A,			
•	125V/0.55A, 250V/0.275A			
Degree of pollution	3			

Positive opening travel Operating speed	3 mm 5 1000 mm/s
Electrical characteristics acc	to IEC 61058
Resistive load AC	10 A/250 V; 7,5

10 A/250 V; /,5 A/400
6 A/250 V; 4 A/400 V
(5 A/250 V)
36 A
100 A
II

Lamp characteristics Lamp characteristics BA 9 s

Other specifications	
Operating life at 10	
A/250 V AC	500000 (70000)
Switching reliability at	
24V/5mA DC	10 x 10 ⁻⁶
Approvals	ENEC, cURus (UL + CSA)
Robustness	acc. IEC 60947-5-5
Corresponding to CE	acc. EU-guideline N
	72/73
Shock resistance acc. to	
IEC 600 68-2-27	50 g at 11 ms, amplitude

	half sinusoidal
Resistance to vibrations	
acc. to IEC 600 68-2-6	10 g at 40 500 Hz
Ambient temp, operating	
min.	-25 °C
Ambient temp, operating	
max.	+70°C (+50°C)
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Flame class acc. to UL 94	V 0
Hot wire ignition acc.	

yes

to IEC 60695-2-1

environment

environment

Resistance to constant

Resistance at variable

IEC	600	68-2-3	and	2-30

IEC 600 68-2-14 and 2-33

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		5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals		5.40.010.131/0000	2 - 145

RAFIX 22 QR contact block with silver contacts



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

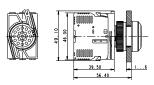
NEW

Technical data see page 2 - 124



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







Terminale

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

Technical data see page 2 - 124

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

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

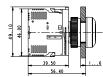
¹ NC + 1 NO = One contact block with double contacts (1 normally closed and 1 normally open) is mounted on the coupling.



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









Pict.: lamp socket

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

Technical data see page 2 - 124

Accessories:

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

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

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

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

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

SOLUTIONS WITH PASSION

RAFIX 22 QR contact blocks with gold contacts







Assembly: Gold contacts, 1NC + 1NO

Pict.: Gold contacts, 1 NC, screw terminals

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

RAFIX	

22 QR

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

cable

Mechanical design

Mounting	snap on coupling and
----------	----------------------

actuator

56.4 mm

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

Operating force approx. 5 N for 1 contact

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 sleeves

2 x 0.75 ... 1.5 mm²

Electrical characteristics

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

Lamp characteristics

Lamp socket BA9s

Other specifications

Operating life 1 million at 10 mA/ 24 V DC

Switching reliability at

24V/5mA DC

Robustness

Corresponding to CE

Shock resistance acc. to

IEC 600 68-2-27

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

Ambient temp, operating

Ambient temp, operating

max.

Storage temperature min. Storage temperature max.

Resistance to constant environment

Resistance at variable

environment

acc. EU-guideline N 72/73

 10×10^{-6}

50 g at 11 ms, amplitude half sinusoidal

10 g at 40 ... 500 Hz

acc. IEC 60947-5-5

-25 °C

+70 °C

-40 °C

+80 °C

IEC 600 68-2-3 and 2-30

IEC 600 68-2-14 and 2-33

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

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

RAFIX 22 QR



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

Description	Photo	Order no.	Page
Neon lamp BA 9s (MBC/MCC), 220 V AC (red)	4	1.90.560.102/0000	5 - 9
LED BA 9s (MBC/MCC) superbright, white, 24 V		1.90.690.345/0000	5 - 19
Coupling with reference numbers 1-3-2, for contact blocks with single contacts		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	J	5.40.010.131/0000	2 - 145

RAFIX 22 QR contact block with gold contacts



Terminals	Contact arrangement	Contact materials	Lamp socket	Order no.
screw terminals	2 NC	Au		5.00.100.161/0000
screw terminals	2 NO	Au		5.00.100.162/0000
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

NEW

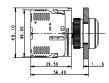
Technical data see page 2 - 128



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

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

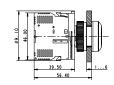
Contact arrangement example (1 NO = 1 normally open contact, 1 NC = 1 normally closed contact)
1 NO, 1 NC = Two separate contact blocks are mounted on the coupling: One with a normally open contact and one with a normally closed contact



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









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

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

Technical data see page 2 - 128

Accessories:

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

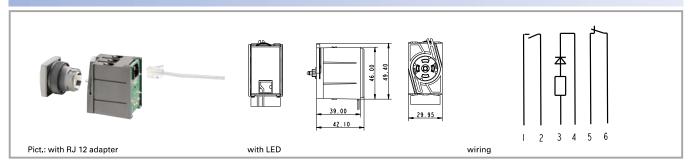
Contact arrangement example (1 NO = 1 normally open contact, 1 NC = 1 normally closed contact)

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

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

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

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



Technical data

Dimensions

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

Mechanical design Mounting

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

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

Electrical characteristics

Operating voltage AC/DC 24 V

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

Other specifications

environment

1000000 at 50 mA/24 V DC Operating life Switching reliability at 24V/5mA DC 10×10^{-6} Ambient temp. operating min. -25 °C Ambient temp. operating without LED max. +70 °C Ambient temp. operating +50 °C with LED max. Storage temperature min. -30 °C +80 °C Storage temperature max. Integrated LED see order block LED colour see order block

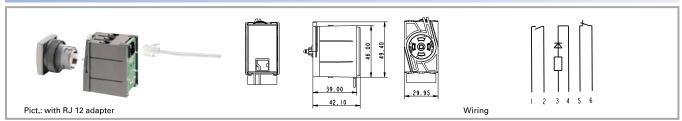
Resistance to constant
environment IEC 600 68-2-3 and 2-30
Resistance at variable

IEC 600 68-2-14 and 2-33

RAFIX 22 QR



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



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

Technical data see page 2 - 132

Other contact arrangement versions available on request.

RAFIX

22 QR



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



Technical data

Dimensions

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

56.4 mm

Mechanical design

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

Terminal marking Lamp characteristics

Lamp socket Operating voltage AC/DC

Lamp power max. Lamp voltage

BA9s

see order block

see order block

Other specifications

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

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

min. Ambient temp, operating

max. Storage temperature min.

Storage temperature max. Flame class acc. to UL 94

Hot wire ignition acc. to IEC 60695-2-1

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 V₀

yes

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

Description	Photo	Order no.	Page
Filament lamp, BA 9s base (MBC/MCC), 12 - 15 V		1.90.060.132/0000	5 - 8
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V		1.90.060.133/0000	5 - 8
Filament lamp, BA 9s base (MBC/MCC), 110 - 130 V	(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	111	5.05.510.935/0000	2 - 143
Coupling with reference numbers 1/2-5/6-3/4, for contact blocks with double contacts	THE STATE OF THE S	5.05.510.936/0000	2 - 143
Marking tag for contact blocks/lamp sockets with screw terminals		5.40.010.131/0000	2 - 145

RAFIX 22 QR 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

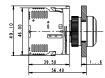
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RAFIX 22 QR lamp socket assembly, with coupling









Pict.: Lamp socket with cage clamp terminals

	· ·					
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	1.71.213.001/0000
screw terminals	yes	ENEC 10/15; ULc	BA 9 s	250 V	130 V	1.71.213.004/0000
clamp cage	no	ENEC 10/15; ULc	BA 9 s	6 250 V	6 250 V	1.71.214.001/0000

Technical data see page 2 - 134

RAFIX 22 QR lamp sockets with integrated LED, screw terminals



Technical data

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

Mechanical design Mounting

actuator
Diode and resistor see order block
LED colour see order block
Terminals screw terminals
Terminal marking X1 = anode, X2 = cathode

snap on coupling and

Lamp characteristics

Operating voltage see order block Max, current, I_F see order block

Other specifications

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

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

min. Ambient temp. operating max.

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

to IEC 60695-2-1

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

50 g at 11 ms, amplitude half sinusoidal

10 g at 40 ... 500 Hz

IEC 600 68-2-3 and 2-30

IEC 600 68-2-14 and 2-33

-20 °C

+65 °C -40 °C +80 °C V 0

yes

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

Description	Photo	Order no.	Page
Coupling with reference numbers 1-3-2, for contact blocks with single contacts		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	J	5.40.010.131/0000	2 - 145

RAFIX

22 QR



RAFIX 22 QR lamp socket with integrated LED, without coupling



Terminals	Diode and resistor	LED colour	Max. current, I _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 ye ll ow	flat lens	5.49.263.019/0400
Lens	opaque green	flat lens	5.49.263.019/0500
Lens	opaque blue	flat lens	5.49.263.014/0600
Lens	opaque slate-grey	flat lens	5.49.263.019/0700



Front ring



Pict.: metal

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

RAFIX 22 QR

RAFIX 22 QR plastic front ring with thermoflex protective cap



Pict.: slate-grey

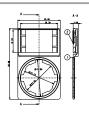
Short text	Feature 1	Feature 2	Order no.
Front ring, plastic with protective cap, slate grey	slate-grey		5.05.004.914/0700
Front ring, plastic with thermoflex protective cap, silver grey	silver- grey		5.05.004.914/0800
Front ring, plastic with thermoflex protective cap, black	black		5.05.004.914/0100



Label holder







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

RAFIX 22 QR

Blanking cap





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

Ring nut





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

Lamp tester



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



Protective cover, suitable for pushbuttons with flush lens





Pict.: protective lid

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

Marking tag



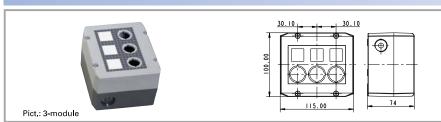
Short text	Feature 1	Feature 2	Order no.
Marking tag for contact blocks/lamp sockets with screw terminals			5.40.010.131/0000

RAFIX

22 QR



Insulating housing IP65 for RAFIX 22 QR



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

- Attractive plastic housing to accommodate up to 4 control components
 2 cable entries prepared: 1-,2-,3-part: M20x1,5, 4-part: M25x1,5
 Degree of protection IP 65 to DIN

- All grey housings with overlay, legending possible with legend inserts
- Wall mounting with 2 screws through housing bottom prepared
- Dimensions: (feature 2) x 100 mm x 74 mm
- Accessories: 50 pre-perforated legend inserts on a DIN A4 sheet for printing with a PC printer

Emergency stop label plate



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

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