



Ø 22,5mm

**Program B3**

Push Buttons

EMERGENCY STOP Buttons

Key Operated Rotary Switches



Rotary Knobs and Swing Knobs

Illuminated Rotary Knobs and Swing Knobs

Illuminated Push Buttons



Double Push Buttons

Lens Caps

Monoblock-Multi-LEDs



Push Button-Sets

Illuminated Push Button-Sets

Pilot Lights



Connectors

Insert Actuator

Contact Blocks and Lamp Holders



Lamps, LED Lamps

Accessories

Label Holder, Legend Plates, Actuator Caps



Ø 30,5mm

**Program B5**

Push Buttons

Rotary Knobs and Swing Knobs



Key Operated Rotary Switches

Illuminated Push Buttons

Lens Caps



Connectors

Contact Blocks and Lamp Holders

Lamps, Accessories

**Units for Surface Mounting**

Assembled Units IP65

**Enclosures BG.**

Contact Blocks and Lamp Holders

for Enclosures BG..

**Push Buttons for Enclosures**

Extensions for Push Buttons

**Technical Data**, Approvals

Dimensions

# Actuators and Lens Caps 22mm IP67 (IP65), Type 12

## Push Buttons



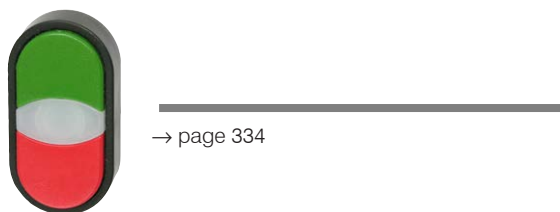
## EMERGENCY STOP Buttons



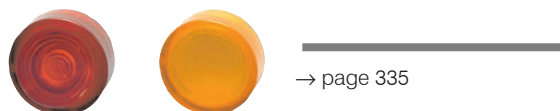
## Illuminated Operators



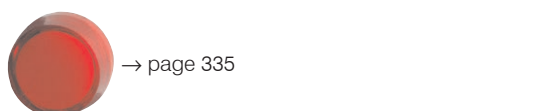
## Double Push Buttons with Indicator Lamp, IP65



## Lens Caps

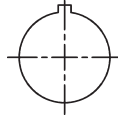


## Mono Block Multi Chip LED IP65, IEC 60947, EN 60947

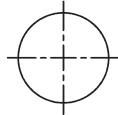


Mounting hole  
Ø 22,5mm

with key way



without key way



→ page 332



→ page 340

Wrench for Actuators  
Lens Caps and  
Mono Block Multi Chip LED  
J7049



## Connectors



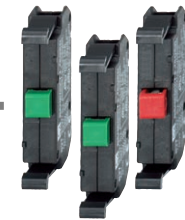
Thickness  
**0,5 - 4 mm**  
→ page 340

or

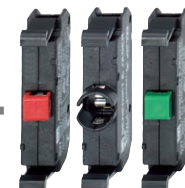


Thickness  
**1 - 6 mm**  
→ page 340

## Contacts Lamp Holders



Actuator insert  
→ page 338



→ page 340



LED  
24-230V



Filament  
6-130V



Glow-discharge  
230V  
→ page 339

# Actuators 22mm IP67, Type 12

Ring	Colour	Symbol	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
							
							
							

## Push Buttons, Actuator Caps markable see page 337



red		B3D RT	BS3D RT	BC3D RT	10	0,014
red	0	B3D RT-0	BS3D RT-0	BC3D RT-0	10	0,014
green		B3D GN	BS3D GN	BC3D GN	10	0,014
grün	I	B3D GN-I	BS3D GN-I	BC3D GN-I	10	0,014
grün	II	B3D GN-II	BS3D GN-II	BC3D GN-II	10	0,014
grün	→	B3D GN-PF	BS3D GN-PF	BC3D GN-PF	10	0,014
yellow		B3D GE	BS3D GE	BC3D GE	10	0,014
blue		B3D BL	BS3D BL	BC3D BL	10	0,014
white		B3D WS	BS3D WS	BC3D WS	10	0,014
black		B3D SW	BS3D SW	BC3D SW	10	0,014
black	→	B3D SW-PF	BS3D SW-PF	BC3D SW-PF	10	0,014

## Push Buttons, Maintained, Actuator Caps markable see page 339



red		B3DR RT	BS3DR RT	BC3DR RT	10	0,014
green		B3DR GN	BS3DR GN	BC3DR GN	10	0,014
yellow		B3DR GE	BS3DR GE	BC3DR GE	10	0,014
blue		B3DR BL	BS3DR BL	BC3DR BL	10	0,014
white		B3DR WS	BS3DR WS	BC3DR WS	10	0,014
black		B3DR SW	BS3DR SW	BC3DR SW	10	0,014

## Mushroom Head Ø28mm



red		B3P1 RT	BS3P1 RT	BC3P1 RT	10	0,017
red	0	B3P1 RT-0	BS3P1 RT-0	BC3P1 RT-0	10	0,017
green		B3P1 GN	BS3P1 GN	BC3P1 GN	10	0,017
yellow		B3P1 GE	BS3P1 GE	BC3P1 GE	10	0,017
blue		B3P1 BL	BS3P1 BL	BC3P1 BL	10	0,017
black		B3P1 SW	BS3P1 SW	BC3P1 SW	10	0,017

## Mushroom Head Ø40mm



red	0	B3P14 RT-0	BS3P14 RT-0	BC3P14 RT-0	10	0,020
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## Mushroom Head Ø40mm






red		BS3P44T RT	BS3P44T RT	BS3P44T RT	10	0,028
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## Foot and Palm switch Ø70mm



red		BS3P14P RT	BS3P14P RT	BS3P14P RT	1	0,062
grey		BS3P14P GR	BS3P14P GR	BS3P14P GR	1	0,062

## Actuators 22mm IP67, Type 12

Ring	Colour	Symbol/ high	 Alu	 Black	 Chrome	Pack pcs.	Weight kg/pc
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### EMERGENCY STOP Push Buttons, according to EN ISO 13850, push to trip, pull to release Ø40mm



red	30mm	BS3P44 RT	BS3P44 RT	BS3P44 RT	10	0,028
red	38mm	BS3P45 RT	BS3P45 RT	BS3P45 RT	10	0,028

### EMERGENCY STOP Push Buttons, according to EN ISO 13850, release by key, Ø40mm



red	38mm	BS3P44S3	BS3P44S3	BS3P44S3	1	0,050
Spare Key	lock Ronis R455			B4-R455	1	0,007

### EMERGENCY STOP Push Buttons, release by turning, Ø28mm



red		B3P3 RT	BS3P3 RT	BC3P3 RT	10	0,017
red	0	B3P3 RT-0	BS3P3 RT-0	BC3P3 RT-0	10	0,017
red	0	B3P3 RT-0-RGE <sup>2)</sup>	BS3P3 RT-0-RGE <sup>2)</sup>	BC3P3 RT-0-RGE <sup>2)</sup>	10	0,017

### EMERGENCY STOP Push Buttons, release by turning, Ø40mm



red	0	B3P34 RT-0	BS3P34 RT-0	BC3P34 RT-0	10	0,020
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red	Pfeile	B3P34 RT-PF	BS3P34 RT-PF	BC3P34 RT-PF	10	0,020
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red illuminated		B3P34L RT	BS3P34L RT	BC3P34L RT	10	0,020
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### EMERGENCY STOP Push Buttons, release by turning, Ø70mm



red		BS3P34P RT	BS3P34P RT	BS3P34P RT	1	0,062
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### Yellow Disk Ø70mm, Thickness 1mm <sup>1)</sup>



neutral		B3-7603	1	0,004
with marking NOT-HALT-symbol		B3-7603-S	1	0,004
with marking NOT-AUS		B3-7603-1	1	0,004
with marking EMERGENCY STOP		B3-7603-2	1	0,004
2-side markings: NOT-AUS / EMERGENCY STOP		B3-7603-12	1	0,004
2-side markings: ARRET D`URGENCE / NØDSTOP		B3-7603-34	1	0,004
2-side markings: ARRET D`URGENCE / NOODSTOP		B3-7603-35	1	0,004

### Protection cover against unintentional manipulation, Thickness 1mm



for Push Buttons Ø28mm and Ø40mm	yellow	B3-SK GE	1	0,04
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### Sealing cap

for Buttons BS3P45RT und BS3P44S3	transparent	B3-PH GE	1	0,03
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1) Not for enclosure BG.. 2) Front ring yellow

# Actuators 22mm Type 12

Ring	Knob	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
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## Rotary Knobs and Swing Knobs, black IP65



Rotary



Swing

maintained 60°						
	Rotary	B3KN2	BS3KN2	BC3KN2	10	0,020
	Swing	B3KRN2	BS3KRN2	BC3KRN2	10	0,020
maintained 60°						
	Rotary	B3KN29	BS3KN29	BC3KN29	10	0,020
spring return 60°						
	Rotary	B3KN8	BS3KN8	BC3KN8	10	0,020
	Swing	B3KRN8	BS3KRN8	BC3KRN8	10	0,020
spring return 60°						
	Rotary	B3KN1	BS3KN1	BC3KN1	10	0,020
	Swing	B3KRN1	BS3KRN1	BC3KRN1	10	0,020
maintained 60°						
	Rotary	B3KN3	BS3KN3	BC3KN3	10	0,020
	Swing	B3KRN3	BS3KRN3	BC3KRN3	10	0,020
maintained/spring return 60°						
	Rotary	B3KN6	BS3KN6	BC3KN6	10	0,020
spring return/maintained 60°						
	Rotary	B3KN7	BS3KN7	BC3KN7	10	0,020
maintained 120°						
	Rotary	B3KN9	BS3KN9	BC3KN9	10	0,020
maintained 90° according to EN81						
	Rotary	B3KN10	BS3KN10	BC3KN10	10	0,020
maintained 90°						
	Rotary	B3KN11	BS3KN11	BC3KN11	10	0,020

## Illuminated Rotary Knobs and Swing Knobs, clear IP67, lamp max. 1,2W, lamps see page 339



Rotary



Swing

maintained 90°						
	Rotary	B3KL2	BS3KL2	BC3KL2	10	0,016
spring return 60°						
	Rotary	B3KL1	BS3KL1	BC3KL1	10	0,016
	Swing	B3KRL1	BS3KRL1	BC3KRL1	10	0,016
maintained 60°						
	Rotary	B3KL3	BS3KL3	BC3KL3	10	0,016
	Swing	B3KRL3	BS3KRL3	BC3KRL3	10	0,016
maintained/spring return 60°						
	Rotary	B3KL6	BS3KL6	BC3KL6	10	0,016
O - I						
		B3E	BS3E	BC3E	10	0,017

## Toggle IP65



# Actuators 22mm IP65, Type 12

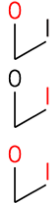
Ring	Key removeable in	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
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## Key Operated Rotary Switches with lock Ronis 455



B3SAR 0

maintained 60°



B3SAR 0	BS3SAR 0	BC3SAR 0	1	0,044
B3SAR 1	BS3SAR 1	BC3SAR 1	1	0,044
B3SAR 01	BS3SAR 01	BC3SAR 01	1	0,044



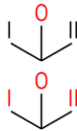
B3SARR 0

spring return 60°



B3SAT 0	BS3SAT 0	BC3SAT 0	1	0,044
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maintained 60°



B3SARR 0	BS3SARR 0	BC3SARR 0	1	0,044
B3SARR 102	BS3SARR 102	BC3SARR 102	1	0,044

spring return/maintained 60°



B3SATR 02	BS3SATR 02	BC3SATR 02	1	0,044
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spring return 60°



B3SATT 0	BS3SATT 0	BC3SATT 0	1	0,044
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Spare Key lock Ronis R455

B4-R455	1	0,007
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Colour Symbol

Pack  
pcs. Weight  
kg/pc.

## Illuminated Push Buttons IP67, lamp max. 1,9W, lamps see page 339



red	B3DL RT	BS3DL RT	BC3DL RT	10	0,014
green	B3DL GN	BS3DL GN	BC3DL GN	10	0,014
yellow	B3DL GE	BS3DL GE	BC3DL GE	10	0,014
blue	B3DL BL	BS3DL BL	BC3DL BL	10	0,014
white	B3DL WS	BS3DL WS	BC3DL WS	10	0,014

## Illuminated Push Buttons, Maintained IP67, lamp max. 1,9W, lamps see page 339



red	B3DLR RT	BS3DLR RT	BC3DLR RT	10	0,014
green	B3DLR GN	BS3DLR GN	BC3DLR GN	10	0,014
yellow	B3DLR GE	BS3DLR GE	BC3DLR GE	10	0,014
blue	B3DLR BL	BS3DLR BL	BC3DLR BL	10	0,014
white	B3DLR WS	BS3DLR WS	BC3DLR WS	10	0,014

## Double Push Buttons, with indicator lamp white, lamp max. 1,9W, lamps see page 339



green red	B3DT G/R <sup>1)</sup>	BS3DT G/R	BC3DT G/R	10	0,016
white black	B3DT W/S <sup>1)</sup>	BS3DT W/S	BC3DT W/S	10	0,016
green red	I 0 B3DT GI/RO <sup>1)</sup>	BS3DT GI/RO	BC3DT GI/RO	10	0,016
white black	I 0 B3DT WI/SO <sup>1)</sup>	BS3DT WI/SO	BC3DT WI/SO	10	0,016

with non-standard marking on request

1) Plastic ring in alu design

# Lens Caps 22mm Type 12

suitable for Alu, Black and Chrome

Colour

Type

Pack pcs.

Weight kg/pc.

Lens Caps IP67 with fresnel lens, lamp max. 1,9W, lamps see page 339, laser marking on request



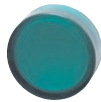
red	B3R RT	10	0,009
green	B3R GN	10	0,009
yellow	B3R GE	10	0,009
blue	B3R BL	10	0,009
clear	B3R KL	10	0,009
white	B3R WS	10	0,009

Lens Caps Low IP67 with fresnel lens, lamp max. 1,9W, lamps see page 339, laser marking on request



red	B3RN RT	10	0,008
green	B3RN GN	10	0,008
yellow	B3RN GE	10	0,008
blue	B3RN BL	10	0,008
clear	B3RN KL	10	0,008
white	B3RN WS	10	0,008

Lens Caps IP67, lamp max. 1,9W, lamps see page 337, laser marking on request



red	B3RF RT	10	0,009
green	B3RF GN	10	0,009
yellow	B3RF GE	10	0,009
blue	B3RF BL	10	0,009
white	B3RF WS	10	0,009

Colour

Voltage

Power VA

W

Type

Pack pcs.

Weight kg/pc

Monoblock LEDs IP65, IEC 60947, EN 60947 (6 years middle lifetime)



red	20-30V AC/DC	0,4	0,4	B3-MB24 RTB	10	0,022
green	20-30V AC/DC	0,4	0,4	B3-MB24 GNB	10	0,022
yellow	20-30V AC/DC	0,4	0,4	B3-MB24 GEB	10	0,022
blue	20-30V AC/DC	0,4	0,4	B3-MB24 BLB	10	0,022
white	20-30V AC/DC	0,4	0,4	B3-MB24 WSB	10	0,022
red	110-130V AC 110V DC	1,2	1,2	B3-MB110 RTB	10	0,022
green	110-130V AC 110V DC	1,2	1,2	B3-MB110 GNB	10	0,022
yellow	110-130V AC 110V DC	1,2	1,2	B3-MB110 GEB	10	0,022
blue	110-130V AC 110V DC	1,2	1,2	B3-MB110 BLB	10	0,022
white	110-130V AC 110V DC	1,2	1,2	B3-MB110 WSB	10	0,022
red	170-250V AC	4,0	1,0	B3-MB230 RTB	10	0,022
green	170-250V AC	4,0	1,0	B3-MB230 GNB	10	0,022
yellow	170-250V AC	4,0	1,0	B3-MB230 GEB	10	0,022
blue	170-250V AC	4,0	1,0	B3-MB230 BLB	10	0,022
white	170-250V AC	4,0	1,0	B3-MB230 WSB	10	0,022
red	400V AC		0,5	B3-MB400 RTB	10	0,022
green	400V AC		0,5	B3-MB400 GNB	10	0,022
yellow	400V AC		0,5	B3-MB400 GEB	10	0,022
blue	400V AC		0,5	B3-MB400 BLB	10	0,022
white	400V AC		0,5	B3-MB400 WSB	10	0,022

## Push Button 22mm-Sets, with Contact Block and Connector

Actuator Colour	Symbol	with	Type	Pack pcs.	Weight kg/pc.
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### Push Buttons, IP67



black		+connector +1NO	BS3D SW/10	1	0,037
green		+connector +1NO	BS3D GN/10	1	
yellow		+connector +1NO	BS3D GE/10	1	0,037
blue		+connector +1NO	BS3D BL/10	1	0,037
red		+connector +1NC	BS3D RT/01	1	
green		+connector +1NO	BS3D GN-I/10	1	0,037
red		+connector +1NC	BS3D RT-0/01	1	0,037

### Double Push Buttons, IP65



green/ red		+connector +1NO +1NC	BS3DT G/R/11	1	0,049
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### EMERGENCY STOP Push Buttons, IP67 Ø40mm



pull to release acc. EN ISO 13850		+connector +1NO +1NC	BS3P44 RT/11	1	0,061
key release acc. EN ISO 13850		+connector +1NO +1NC	BS3P44S3 RT/11	1	0,083
twist release		+connector +1NO +1NC	BS3P34 RT-0/11	1	0,053

### Rotary Knobs, IP65



		+connector +1NO	BS3KN2/10	1	0,043
		+connector +1NO +1NC	BS3KN2/11	1	0,053
		+connector +2NO	BS3KN3/20	1	0,053
		+connector +2NO	BS3KN1/20	1	0,053

### Key Operated Rotary Switch with lock Ronis 455, IP65



	key removeable in 0-position	+connector +1NO	BS3SAR 0/10	1	0,057
	key removeable in all positions	+connector +1NO	BS3SAR 01/10	1	0,057
	key removeable in 0-position	+connector +1NO	BS3SAT 0/10	1	0,057



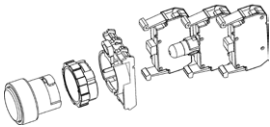
	key removeable in all positions	+connector +2NO	BS3SARR 102/20	1	0,067
	key removeable in 0-position	+connector +2NO	BS3SARR 0/20	1	0,067



# Illuminated Push Button 22mm-Sets, with Contact Block, Connector and LED

Actuator Colour      with      LED      Type      Pack pcs.      Weight kg/pc.

## Illuminated Push Buttons, IP67



white	+connector +1NO +1NC +LED	20-30V AC/DC	BS3DL WS/11/L24	1	0,054
green	+connector +1NO +1NC +LED	20-30V AC/DC	BS3DL GN/11/L24	1	0,054
red	+connector +1NO +1NC +LED	20-30V AC/DC	BS3DL RT/11/L24	1	0,054
yellow	+connector +1NO +1NC +LED	20-30V AC/DC	BS3DL GE/11/L24	1	0,054
blue	+connector +1NO +1NC +LED	20-30V AC/DC	BS3DL BL/11/L24	1	0,054
white	+connector +1NO +1NC +LED	90-120V AC/DC	BS3DL WS/11/L110	1	0,054
green	+connector +1NO +1NC +LED	90-120V AC/DC	BS3DL GN/11/L110	1	0,054
red	+connector +1NO +1NC +LED	90-120V AC/DC	BS3DL RT/11/L110	1	0,054
yellow	+connector +1NO +1NC +LED	90-120V AC/DC	BS3DL GE/11/L110	1	0,054
blue	+connector +1NO +1NC +LED	90-120V AC/DC	BS3DL BL/11/L110	1	0,054
white	+connector +1NO +1NC +LED	200-250V AC/DC	BS3DL WS/11/L230	1	0,054
green	+connector +1NO +1NC +LED	200-250V AC/DC	BS3DL GN/11/L230	1	0,054
red	+connector +1NO +1NC +LED	200-250V AC/DC	BS3DL RT/11/L230	1	0,054
yellow	+connector +1NO +1NC +LED	200-250V AC/DC	BS3DL GE/11/L230	1	0,054
blue	+connector +1NO +1NC +LED	200-250V AC/DC	BS3DL BL/11/L230	1	0,054

## Double Push Buttons with Pilot Light, IP65



green/ red	+connector +1NO +1NC +LED	20-30V AC/DC	BS3DT G/R/11/L24	1	0,066
green/ red	+connector +1NO +1NC +LED	90-120V AC/DC	BS3DT G/R/11/L110	1	0,066
green/ red	+connector +1NO +1NC +LED	200-250V AC/DC	BS3DT G/R/11/L230	1	0,066

## Pilot Lights, IP67 with socket BA9S (without lamp)



white	+connector +socket BA9S	-	B3R WS/0	1	0,037
green	+connector +socket BA9S	-	B3R GN/0	1	0,037
red	+connector +socket BA9S	-	B3R RT/0	1	0,037
yellow	+connector +socket BA9S	-	B3R GE/0	1	0,037

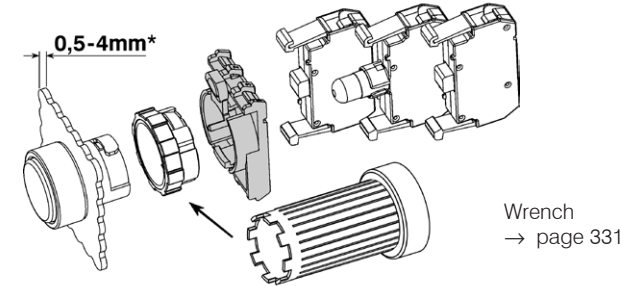
## Pilot Lights with LEDs, IP67



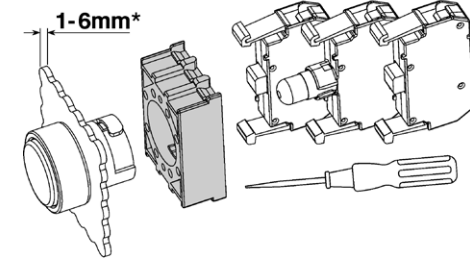
white	+connector +socket BA9S	20-30V AC/DC	B3R WS/L24	1	0,042
green	+connector +socket BA9S	20-30V AC/DC	B3R GN/L24	1	0,042
red	+connector +socket BA9S	20-30V AC/DC	B3R RT/L24	1	0,042
yellow	+connector +socket BA9S	20-30V AC/DC	B3R GE/L24	1	0,042
white	+connector +socket BA9S	90-120V AC/DC	B3R WS/L110	1	0,042
green	+connector +socket BA9S	90-120V AC/DC	B3R GN/L110	1	0,042
red	+connector +socket BA9S	90-120V AC/DC	B3R RT/L110	1	0,042
yellow	+connector +socket BA9S	90-120V AC/DC	B3R GE/L110	1	0,042
white	+connector +socket BA9S	200-250V AC/DC	B3R WS/L230	1	0,042
green	+connector +socket BA9S	200-250V AC/DC	B3R GN/L230	1	0,042
red	+connector +socket BA9S	200-250V AC/DC	B3R RT/L230	1	0,042
yellow	+connector +socket BA9S	200-250V AC/DC	B3R GE/L230	1	0,042

# Connectors

Specification	Description	Type	Pack pcs.	Weight kg/pc.
Connector B3S		B3S	10	0,013






Connector B3M		B3M	10	0,013
---------------	--	-----	----	-------






\*) inclusive Thickness from Label Holder and Yellow Disk

## Contact Blocks and Lamp Holders for Panel Mounting


for voltage	Description	Type	Pack pcs.	Weight kg/pc.
max. 690V AC	1 NC <sup>1)</sup> 	B3T01 <sup>2)</sup>	10	0,010
max. 690V AC	1 NO <sup>1)</sup> 	B3T10 <sup>2)</sup>	10	0,010




for voltage	Description	Type	Pack pcs.	Weight kg/pc.
max. 690V~	1 NC 	B3RT01	10	0,010
max. 690V~	1 NO 	B3RT10	10	0,010
Actuator insert	to actuate the center contact block	P642	10	0,001




max. 440V AC/DC	direct connection, for lamps max. 1,9W (active power consumption)	B3F	10	0,012
-----------------	---	-----	----	-------



max. 440V AC	direct connection, for filament and glow-discharge lamps max. 1,7W (active power consumption)	B3FT	10	0,020
max. 250V	direct connection of LED	B3FTD	10	0,020



1)  NC contact has a positive opening according to IEC/EN 60947-5-1  
 2) Contact blocks with gold contacts (B3T..G) on request suitable for 17V= /1mA and for difficult ambient conditions.

## Lamps

Socket BA9s Lamp voltage	Type	Pack pcs.	Weight kg/pc.
-----------------------------	------	--------------	------------------

### LED lamps<sup>2)</sup> (6 years middle lifetime, for equivalent lens caps only)



24V 10mA AC/DC +-10%	for red lens caps	B3-L24 RTB	50	0,005
24V 10mA AC/DC +-10%	for green lens caps	B3-L24 GNB	50	0,005
24V 10mA AC/DC +-10%	for yellow lens caps	B3-L24 GEB	50	0,005
24V 10mA AC/DC +-10%	for blue lens caps	B3-L24 BLB	50	0,005
24V 10mA AC/DC +-10%	for white lens caps	B3-L24 WSB	50	0,005
110V 3,2mA AC/DC +-10%	for red lens caps	B3-L110 RTB	50	0,005
110V 3,2mA AC/DC +-10%	for green lens caps	B3-L110 GNB	50	0,005
110V 3,2mA AC/DC +-10%	for yellow lens caps	B3-L110 GEB	50	0,005
110V 3,2mA AC/DC +-10%	for blue lens caps	B3-L110 BLB	50	0,005
110V 3,2mA AC/DC +-10%	for white lens caps	B3-L110 WSB	50	0,005
220V 1,7mA AC/DC +-10%	for red lens caps	B3-L230 RTB	50	0,005
220V 1,7mA AC/DC +-10%	for green lens caps	B3-L230 GNB	50	0,005
220V 1,7mA AC/DC +-10%	for yellow lens caps	B3-L230 GEB	50	0,005
220V 1,7mA AC/DC +-10%	for blue lens caps	B3-L230 BLB	50	0,005
220V 1,7mA AC/DC +-10%	for white lens caps	B3-L230 WSB	50	0,005

### Filament lamps



	Power consumption		Type	Pack pcs.	Weight kg/pc.
24V	1,2W	for all lens caps	B4-G24	100	0,005
42V	1W	for all lens caps	B4-G42	100	0,005
48V	1,2W	for all lens caps	B4-G48	100	0,005
60V	1,2W	for all lens caps	B4-G60	100	0,005
110/120V 1)	1,5/1,8W	for all lens caps	B4-G130	100	0,005

### Glow-discharge lamps



220-250V AC	0,3W	for clear, red, yellow lens caps	B4-GL230K	100	0,005
220-250V AC	0,3W	for green, blue lens caps	B4-GL230G	100	0,005

### Accessories



	Type	Pack pcs.	Weight kg/pc.
Wrench for mounting of actuators and lens caps B(S)3..	J7049	1	0,018
Marking plate for marking of contact blocks B3T. and lamp holders B3F	P672-1	10	0,001
Lamp Installer used to install or replace lamps BA9s	B4-7408	1	0,010
Spare Key for B(S)3SA.. and BS3P44S3, Ronis R455 for B(S)3SB.., Ronis R786	B4-R455 B4-R786	1 1	0,007 0,007
Hole Plug black, for fixing holes grey Ø22,5mm	B3-DU SW B3-DU GR	10 10	0,007 0,007
Sealing Cover protection against coarse contamination for single and double push buttons, except B3D..R..(maintained) petrol-resistant, ambient temp. 0°...+50°C	P279-1	1	0,003
for all single push buttons silicone, ambient temp. -25°...+60 °C	P279-5	1	0,003
for double push buttons silicone, ambient temp. -25°...+60 °C	P279-DT	1	0,003
Protection cover against unintentional manipulation Thickness 1mm Thickness 1mm	yellow grey B3-SK GE B3-SK GR	1 1	0,04 0,04
Protection ring with thread against unintentional manipulation has to be mounted instead of the existing ring	black chrome alu P921-1 P921-2 P921-3	1 1 1	0,012 0,012 0,012

1) Voltage marking 130V / 2W max. rated voltage 120V / 1,8W

2) suitable for B3FT lamp test lamp holders

## Label Holders and Legend Plates for Push Buttons B3, 22mm

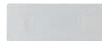
### Marking 1 or 2 lines



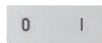
	Type	Pack pcs.	Weight kg/pc.
Label holder for legend plate BK4, black, Thickness 0,8mm	P751	100	0,001
Label holder for legend plate BK4, yellow, Thickness 0,8mm	P751-3	10	0,001

marking	Type	marking	Type	Pack pcs.	Weight kg/pc.
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#### Legend plate alu, for label holder P751



blank	BK4-9736			100	0,0002
I	BK4-I	II	BK4-II	10	0,0002
III	BK4-III	IV	BK4-IV	10	0,0002
V	BK4-V			10	0,0002



→	BK4--->	←	BK4-<--	10	0,0002
0 I	BK4-0-I	H 0 A	BK4-H 0 A	10	0,0002
0 I	BK4-0__I	1 0 2	BK4-1 0 2	10	0,0002



START	BK4-START	STOP	BK4-STOP	10	0,0002
EIN	BK4-EIN	AUS	BK4-AUS	10	0,0002
BETRIEB	BK4-BETRIEB	STÖRUNG	BK4-STÖRUNG	10	0,0002



VOR	BK4-VOR	ZURÜCK	BK4-ZURÜCK	10	0,0002
HEBEN	BK4-HEBEN	SENKEN	BK4-SENKEN	10	0,0002
LINKS	BK4-LINKS	RECHTS	BK4-RECHTS	10	0,0002

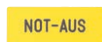
MEHR	BK4-MEHR	WENIGER	BK4-WENIGER	10	0,0002
SCHNELL	BK4-SCHNELL	LANGSAM	BK4-LANGSAM	10	0,0002
HELLER	BK4-HELLER	DUNKLER	BK4-DUNKLER	10	0,0002

AUF	BK4-AUF	ZU	BK4-ZU	10	0,0002
AB	BK4-AB	HALT	BK4-HALT	10	0,0002
EILGANG	BK4-EILGANG	TIPPEN	BK4-TIPPEN	10	0,0002

#### Legend plate with non-standard marking (e. g.: BK4-MOTOR-START)

Text 1 line, max. 11 letters, letter height 3mm	BK4-...	1	0,0002
Text 2 lines, max. 2 x 11 letters, letter height 3mm	BK4-...-...	1	0,0002

#### Legend plate yellow, for label holder P751-3



Legend plate yellow without marking	BK4-10827	10	0,0002
Legend plate yellow with marking NOT-AUS	BK4-10827-1	10	0,0002
Legend plate yellow with marking EMERGENCY STOP	BK4-10827-2	10	0,0002
Legend plate yellow with marking ARRET D`URGENCE	BK4-10827-3	10	0,0002

### Marking 3 or 4 lines



Label holder for legend plate BK8, black, Thickness 0,8mm	P761	10	0,0013
Label holder for legend plate BK8, yellow, Thickness 0,8mm	P761-3	10	0,0013
Label holder for BK8, for double push buttons only	P761-DT	10	0,0013

#### Legend plate BK8 for label holder P761 (with marking e. g.: BK8-WATER-PUMP-START)



Legend plate without marking	BK8-9736	10	0,0004
Text 3 lines, max. 3 x 11 letters, letter height 3mm	BK8-...-...-...	10	0,0004
Text 4 lines, max. 4 x 11 letters, letter height 3mm	BK8-...-...-...-...	10	0,0004

# Actuator Caps with Laser Marking

## Code for colours

Colour	for buttons		for illuminated buttons	
	B3D(R)	B5D(R)	B3DL(R)	B5DL(R)
red	B3D(R)	B5D(R)	B3DL(R)	B5DL(R)
green	BS3D(R)	BS5D(R)	BS3DL(R)	BS5DL(R)
yellow	BC3D(R)	BC5D(R)	BC3DL(R)	BC5DL(R)
blue	DK RT..	DKL RT..	DKL GN..	
white	DK GN..	DKL GE..	DKL BL..	
black	DK GE..	DKL WS..	DKL WS..	
	DK BL..			
	DK WS..			
	DK SW..			

marking	Type	-suffix for marking	marking	Type	-suffix for marking.	Pack pcs.	Weight kg/pc
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Actuator Caps with text, the Type must be completed with the code for colours



			NOT AUS	...-NOT-AUS	10	0,001
START	...-START		STOP	...-STOP	10	0,001
EIN	...-EIN		AUS	...-AUS	10	0,001
BETRIEB	...-BETRIEB		STÖRUNG	...-STÖRUNG	10	0,001
ANLAUF	...-ANLAUF		HALT	...-HALT	10	0,001
VOR	...-VOR		ZURÜCK	...-ZURÜCK	10	0,001
HEBEN	...-HEBEN		SENKEN	...-SENKEN	10	0,001
LINKS	...-LINKS		RECHTS	...-RECHTS	10	0,001
MEHR	...-MEHR		WENIGER	...-WENIGER	10	0,001
SCHNELL	...-SCHNELL		LANGSAM	...-LANGSAM	10	0,001
HELLER	...-HELLER		DUNKLER	...-DUNKLER	10	0,001
AUF	...-AUF		ZU	...-ZU	10	0,001
AB	...-AB		LAUF	...-LAUF	10	0,001
EILGANG	...-EILGANG		TIPPEN	...-TIPPEN	10	0,001

Actuator Caps with symbols according to DIN 30600, the Type must be completed with the code for colours

	...-100		...-101	10	0,001
	...-102		...-103	10	0,001
	...-200		...-201	10	0,001
	...-202		...-203	10	0,001
	...-204		...-205	10	0,001
	...-300		...-301	10	0,001
	...-302		...-303	10	0,001
	...-304		...-305	10	0,001
	...-306		...-307	10	0,001
	...-400		...-401	10	0,001
	...-402		...-403	10	0,001
	...-404		...-405	10	0,001
	...-406		...-407	10	0,001
	...-408		...-409	10	0,001
	...-410		...-411	10	0,001
	...-412		...-413	10	0,001

# Actuators and Lens Caps 30mm IP67 (IP65)

## Push Buttons

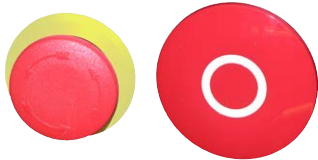


→ page 343



IP65  
→ page 344,  
345

## EMERGENCY STOP Buttons



→ page 343

## Illuminated Operators



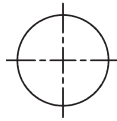
→ page 345

## Lens Caps



→ page 345

Mounting hole  
Ø 30,5mm



→ page 343



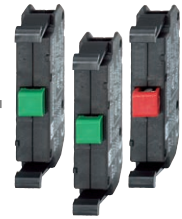
→ page 347

## Connectors

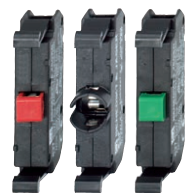


Thickness  
**0,5 - 3 mm**  
→ page 346

## Contacts Lamp Holder



Actuator insert  
→ page 346



→ page 346



LED  
24-230V



Filament  
6-130V



Glow-discharge  
230V

→ page 347

Wrench  
J7049



## Actuators 30mm IP67

Ring	Colour	Symbol	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
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### Push Buttons, Actuator Caps markable



red			B5D RT	BS5D RT	BC5D RT	10	0,029
red	0		B5D RT-0	BS5D RT-0	BC5D RT-0	10	0,029
green			B5D GN	BS5D GN	BC5D GN	10	0,029
green	I		B5D GN-I	BS5D GN-I	BC5D GN-I	10	0,029
green	II		B5D GN-II	BS5D GN-II	BC 5D GN-II	10	0,029
green	→		B5D GN-PF	BS5D GN-PF	BC5D GN-PF	10	0,029



yellow			B5D GE	BS5D GE	BC5D GE	10	0,029
blue			B5D BL	BS5D BL	BC5D BL	10	0,029
white			B5D WS	BS5D WS	BC 5D WS	10	0,029
black			B5D SW	BS5D SW	BC5D SW	10	0,029
black	→		B5D SW-PF	BS5D SW-PF	BC5D SW-PF	10	0,029

### Push Buttons, Maintained, Actuator Caps markable



red			B5DR RT	BS5DR RT	BC5DR RT	10	0,029
green			B5DR GN	BS5DR GN	BC5DR GN	10	0,029
yellow			B5DR GE	BS5DR GE	BC5DR GE	10	0,029
blue			B5DR BL	BS5DR BL	BC5DR BL	10	0,029
white			B5DR WS	BS5DR WS	BC5DR WS	10	0,029
black			B5DR SW	BS5DR SW	BC5DR SW	10	0,029

### Mushroom Heads, Ø28mm



red			B5P1 RT	BS5P1 RT	BC5P1 RT	10	0,032
red	0		B5P1 RT-0	BS5P1 RT-0	BC5P1 RT-0	10	0,032
green			B5P1 GN	BS5P1 GN	BC5P1 GN	10	0,032
yellow			B5P1 GE	BS5P1 GE	BC5P1 GE	10	0,032
blue			B5P1 BL	BS5P1 BL	BC5P1 BL	10	0,032
black			B5P1 SW	BS5P1 SW	BC5P1 SW	10	0,032

### Mushroom Heads, Ø40mm



red	0		B5P14 RT-0	BS5P14 RT-0	BC5P14 RT-0	10	0,035
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### EMERGENCY STOP Push Buttons, Ø 28mm, release by turning, with yellow ring



red			B5P3 RT-RGE			10	0,032
red	0		B5P3 RT-0-RGE			10	0,032

### EMERGENCY STOP Push Buttons, Ø 40mm, release by turning



red	0		B5P34 RT-0	BS5P34 RT-0	BC5P34 RT-0	10	0,035
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### Yellow Disk for EMERGENCY-STOP Push Buttons, Ø70mm, Thickness 1mm



neutral				B5-7603		1	0,004
with marking NOT-HALT-symbol				B5-7603-S		1	0,004



with marking NOT-AUS				B5-7603-1		1	0,004
with marking EMERGENCY STOP				B5-7603-2		1	0,004

## Actuators 30mm

Ring	Knob	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
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### Rotary Knobs and Swing Knobs, black IP65



Rotary

maintained 60°						
	Rotary	<b>B5KN2</b>	<b>BS5KN2</b>	<b>BC5KN2</b>	10	0,035
	Swing	<b>B5KRN2</b>	<b>BS5KRN2</b>	<b>BC5KRN2</b>	10	0,035
spring return 60°						
	Rotary	<b>B5KN8</b>	<b>BS5KN8</b>	<b>BC5KN8</b>	10	0,035
	Swing	<b>B5KRN8</b>	<b>BS5KRN8</b>	<b>BC5KRN8</b>	10	0,035
spring return 60°						
	Rotary	<b>B5KN1</b>	<b>BS5KN1</b>	<b>BC5KN1</b>	10	0,035
	Swing	<b>B5KRN1</b>	<b>BS5KRN1</b>	<b>BC5KRN1</b>	10	0,035
spring return 60°						
	Rotary	<b>B5KN3</b>	<b>BS5KN3</b>	<b>BC5KN3</b>	10	0,035
	Swing	<b>B5KRN3</b>	<b>BS5KRN3</b>	<b>BC5KRN3</b>	10	0,035
maintained/spring return 60°						
	Rotary	<b>B5KN6</b>	<b>BS5KN6</b>	<b>BC5KN6</b>	10	0,035
spring return/maintained 60°						
	Rotary	<b>B5KN7</b>	<b>BS5KN7</b>	<b>BC5KN7</b>	10	0,035
maintained 120°						
	Rotary	<b>B5KN9</b>	<b>BS5KN9</b>	<b>BC5KN9</b>	10	0,035
maintained 90° according to EN81						
	Rotary	<b>B5KN10</b>	<b>BS5KN10</b>	<b>BC5KN10</b>	10	0,035



Swing

### Illuminated Rotary Knobs and Swing Knobs IP67, clear, lamp max. 1,2W, lamps see page 347



Rotary

maintained 90°						
	Rotary	<b>B5KL2</b>	<b>BS5KL2</b>	<b>BC5KL2</b>	10	0,031
spring return 60°						
	Rotary	<b>B5KL1</b>	<b>BS5KL1</b>	<b>BC5KL1</b>	10	0,031
	Swing	<b>B5KRL1</b>	<b>BS5KRL1</b>	<b>BC5KRL1</b>	10	0,031
maintained 60°						
	Rotary	<b>B5KL3</b>	<b>BS5KL3</b>	<b>BC5KL3</b>	10	0,031
	Swing	<b>B5KRL3</b>	<b>BS5KRL3</b>	<b>BC5KRL3</b>	10	0,031
maintained/spring return 60°						
	Rotary	<b>B5KL6</b>	<b>BS5KL6</b>	<b>BC5KL6</b>	10	0,031



Swing


### Toggle IP65



O - I	<b>B5E</b>	<b>BS5E</b>	<b>BC5E</b>	10	0,032
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## Actuators and Lens Caps 30mm IP65

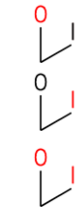
Ring	key removeable in	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
						
						
						

### Key Operated Rotary Switch with lock Ronis 455



B3SAR 0

maintained 60°



B5SAR 0	BS5SAR 0	BC5SAR 0	1	0,059
B5SAR 1	BS5SAR 1	BC5SAR 1	1	0,059
B5SAR 01	BS5SAR 01	BC5SAR 01	1	0,059



B3SARR 0

spring return 60°



B5SAT 0	BS5SAT 0	BC5SAT 0	1	0,059
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maintained 60°



B5SARR 0	BS5SARR 0	BC5SARR 0	1	0,059
B5SARR 102	BS5SARR 102	BC5SARR 102	1	0,059

spring return/maintained 60°



B5SATR 02	BS5SATR 02	BC5SATR 02	1	0,059
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spring return 60°



B5SATT 0	BS5SATT 0	BC5SATT 0	1	0,059
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Spare Keylock Ronis R455

B4-R455			1	0,007
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Colour

Pack  
pcs. Weight  
kg/pc.

### Illuminated Push Buttons IP67, lamp max. 1,9W, lamps see page 347



red	B5DL RT	BS5DL RT	BC5DL RT	10	0,029
green	B5DL GN	BS5DL GN	BC5DL GN	10	0,029
yellow	B5DL GE	BS5DL GE	BC5DL GE	10	0,029
blue	B5DL BL	BS5DL BL	BC5DL BL	10	0,029
white	B5DL WS	BS5DL WS	BC5DL WS	10	0,029

### Illuminated Push Buttons IP67, Maintained, lamp max. 1,9W, lamps see page 347



red	B5DLR RT	BS5DLR RT	BC5DLR RT	10	0,029
green	B5DLR GN	BS5DLR GN	BC5DLR GN	10	0,029
yellow	B5DLR GE	BS5DLR GE	BC5DLR GE	10	0,029
blue	B5DLR BL	BS5DLR BL	BC5DLR BL	10	0,029
white	B5DLR WS	BS5DLR WS	BC5DLR WS	10	0,029

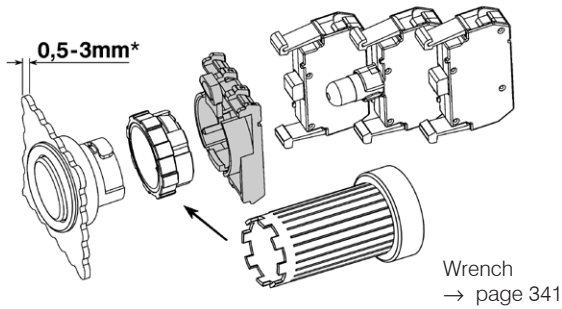
### Lens Caps with fresnel lens IP67, lamp max. 1,9W, lamps see page 347



red	B5R RT	BS5R RT	BC5R RT	10	0,029
green	B5R GN	BS5R GN	BC5R GN	10	0,029
yellow	B5R GE	BS5R GE	BC5R GE	10	0,029
blue	B5R BL	BS5R BL	BC5R BL	10	0,029
clear	B5R KL	BS5R KL	BC5R KL	10	0,029
white	B5R WS	BS5R WS	BC5R WS	10	0,029

## Connectors

Specification	Description	Type	Pack pcs.	Weight kg/pc.
Connector B3S		B3S	10	0,013



\*) inclusive Thickness from Label Holder and Yellow Disk

## Contact Blocks and Lamp Holders for Panel Mounting

for voltage	Description	Type	Pack pcs.	Weight kg/pc.
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### Contact blocks



max. 690V AC	1 NC		B3T01 <sup>2)</sup>	10	0,010
max. 690V AC	1 NO		B3T10 <sup>2)</sup>	10	0,010
max. 690V~	1 NC <sup>1)</sup>		B3RT01 <sup>2)</sup>	10	0,010
max. 690V~	1 NO		B3RT10 <sup>2)</sup>	10	0,010
Actuator insert	to actuate the center contact block		P642	10	0,001

### Lamp holders, socket BA9s



max. 440V AC/DC	direct connection, for lamps max. 1,9W (active power consumption)		B3F	10	0,012
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### Lamp holders for lamp test circuits, socket BA9s



max. 440V AC	direct connection, for filament and glow-discharge lamps max. 1,7W (active power consumption)		B3FT	10	0,020
max. 250V	direct connection of LED		B3FTD	10	0,020

1) NC contact has a positive opening according to IEC/EN 60947-5-1

2) Contact blocks with gold contacts ( B3T..G) on request suitable for 17V= /1mA and for difficult ambient conditions.

## Lamps

Socket BA9s Lamp voltage	Power consumption		Type	Pack pcs.	Weight kg/pc.
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### LED lamps<sup>2)</sup> (6 years middle lifetime, for equivalent lens caps only)



20-30V AC/DC	17mA / 0,4W	for red lens caps	B3-L24 RTB	50	0,005
20-30V AC/DC	17mA / 0,4W	for green lens caps	B3-L24 GNB	50	0,005
20-30V AC/DC	17mA / 0,4W	for yellow lens caps	B3-L24 GEB	50	0,005
20-30V AC/DC	17mA / 0,4W	for blue lens caps	B3-L24 BLB	50	0,005
20-30V AC/DC	17mA / 0,4W	for white lens caps	B3-L24 WSB	50	0,005
90-120V AC/DC	7mA / 0,8W	for red lens caps	B3-L110 RTB	50	0,005
90-120V AC/DC	7mA / 0,8W	for green lens caps	B3-L110 GNB	50	0,005
90-120V AC/DC	7mA / 0,8W	for yellow lens caps	B3-L110 GEB	50	0,005
90-120V AC/DC	7mA / 0,8W	for blue lens caps	B3-L110 BLB	50	0,005
90-120V AC/DC	7mA / 0,8W	for white lens caps	B3-L110 WSB	50	0,005
200-250V AC/DC	4mA / 0,9W	for red lens caps	B3-L230 RTB	50	0,005
200-250V AC/DC	4mA / 0,9W	for green lens caps	B3-L230 GNB	50	0,005
200-250V AC/DC	4mA / 0,9W	for yellow lens caps	B3-L230 GEB	50	0,005
200-250V AC/DC	4mA / 0,9W	for blue lens caps	B3-L230 BLB	50	0,005
200-250V AC/DC	4mA / 0,9W	for white lens caps	B3-L230 WSB	50	0,005

### Filament lamps



24V	1,2W	for all lens caps	B4-G24	100	0,005
42V	1W	for all lens caps	B4-G42	100	0,005
48V	1,2W	for all lens caps	B4-G48	100	0,005
60V	1,2W	for all lens caps	B4-G60	100	0,005
110/120V <sup>1)</sup>	1,5/1,8W	for all lens caps	B4-G130	100	0,005

### Glow-discharge lamps



220-250V AC	0,3W	for clear, red, yellow lens caps	B4-GL230K	100	0,005
220-250V AC	0,3W	for green, blue lens caps	B4-GL230G	100	0,005

1) Voltage marking 130V / 2W max. rated voltage 120V / 1,8W

2) suitable for B3FT lamp test lamp holders

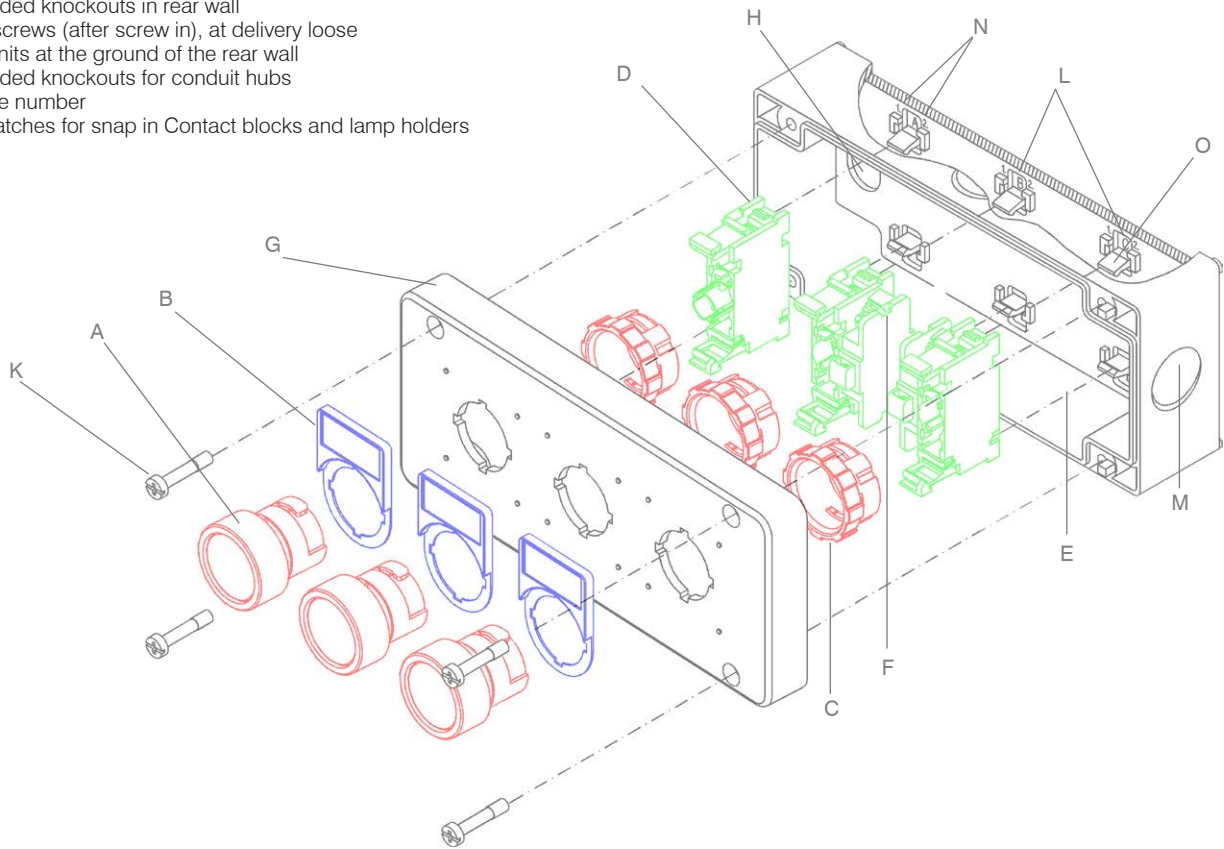
## Accessories



		Type	Pack pcs.	Weight kg/pc.
<b>Wrench</b>	for mounting of actuators and lens caps B(S)3..	J7049	1	0,018
<b>Marking plate</b>	for marking of contact blocks B3T. and lamp holders B3F	P672-1	10	0,001
<b>Lamp Installer</b>	used to install or replace lamps BA9s	B4-7408	1	0,010
<b>Spare Key</b>	for B(S)3SA.. and BS3P44S3, Ronis R455 for B(S)3SB.., Ronis R786	B4-R455 B4-R786	1 1	0,007 0,007
<b>Protectiv cover sealable</b>	against unintentional manipulation of buttons B5, (not for mushroom heads, rotary and swing knobs)	B5-SAP	1	0,008
<b>Label holder for legend plate BK5, black, 1 or 2 lines</b>		P942-1	10	0,0013
<b>Legend plate BK5 with for label holder P942-1</b>	(with marking e. g.: BK5-MOTOR-START)			
<b>Legend plate alu without marking for label holder P42-1</b>	Text 1 or 2 lines, max. 2 x 13 letters, letter height 3mm	BK5-11374	10	0,0003
<b>Label holder for legend plate BK10, black, 3 or 4 lines</b>		P1043	10	0,0015
<b>Legend plate BK10 with for label holder P1043</b>	(with marking e. g.: BK10-WATER-PUMP-START)			
<b>Legend plate alu without marking for label holder P1043</b>	Text 3 or 4 lines, max. 4 x 13 letters, letter height 3mm	BK10-11724	10	0,0005
<b>Adapter to convert Actuators 22mm to 30mm</b>				
	alu	B5	10	0,017
	black	BS5	10	0,017
	chrome	BC5	10	0,017

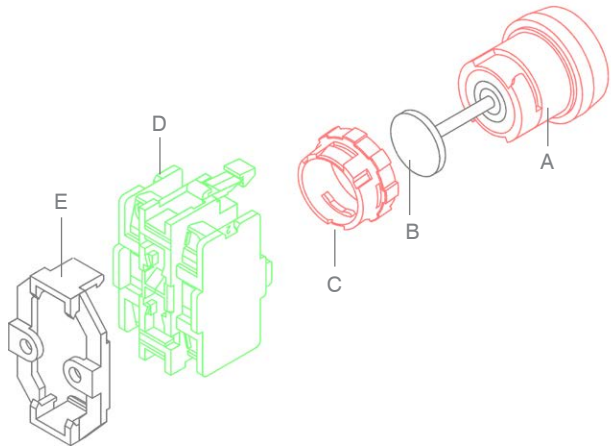
# Assembled Stations BG.. IP67 Type 12

- A Actuators or Lens caps, see page 325 – 328
- B Legend plates with label holder
- C Ring and nut (included with actuator or lens cap)
- D Contact blocks and lamp holders, see page 344
- E Rear shroud
- F Function number
- G Cover
- H Pre-moulded knockouts in rear wall
- K Captive screws (after screw in), at delivery loose
- L Sign of units at the ground of the rear wall
- M Pre-moulded knockouts for conduit hubs
- N Sequence number
- O Spring-catches for snap in Contact blocks and lamp holders



## Buttons for base mounting

- A Actuator Ø 22mm see page 325 – 328, Ø 30mm see page 337 – 339
- B Extension B4V...
- C Ring and nut (included with actuator or lens cap)
- D Contact block B4.. see page 344
- E Base B4U for base and DIN-rail mounting of contact blocks

















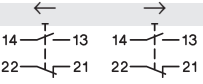

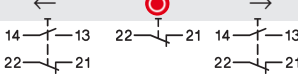

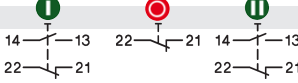

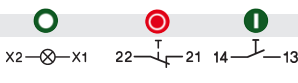










## Mounting Plate for base and DIN-rail mounting of contact blocks



	Type	Pack pcs.	Weight kg/pc.
Mounting Plate	B4U	10	0,010
Ring and Nut	B3UP	10	0,004

# Assembled Stations IP67 (IP65) Type 12

For conduit entries are in top and both small sides only one knockouts for conduit hubs Ø20,5mm, for M20 or PG13,5 provided.

Type	Diagram	Diagram	Pack pcs.	Weight kg/pc.
<b>Plastic enclosed buttons and Pilot Lights</b>				
	ON push button green		BG10 GN	1 0,135
	OFF push button red		BG10 RT	1 0,135
	Pilot light green		BG01 GN	1 0,135
	Pilot light red		BG01 RT	1 0,135
	Key operated 0 - I <sup>1)</sup> lock Ronis R455 60° maintained		BG10SAR 0	1 0,165
	Key operated I - 0 - II <sup>1)</sup> lock Ronis R455 60° maintained		BG10SARR 0	1 0,172
	2 push buttons 0 - I		BG20	1 0,200
	2 push buttons ← →		BG20PF	1 0,200
	3 push buttons ← 0 →		BG30PF	1 0,283
	3 push buttons I - 0 - II		BG30	1 0,283
	2 push buttons 0 - I with pilot light green		BG21 GN	1 0,270
	Foot and palm button mushroom Ø70mm		BG10P14P GR	1 0,187
<b>Plastic enclosed EMERGENCY STOP buttons</b>				
	EMERGENCY STOP button head Ø40mm unlock by turning		BG10P34-11	1 0,145
	EMERGENCY STOP mushroom button Ø40mm according to EN ISO 13850 unlock by pull		BG10P44-11	1 0,145
	EMERGENCY STOP key operated button Ø40mm according to EN ISO 13850 unlock by key		BG10P44S3-11	1 0,178
	EMERGENCY STOP mushroom button Ø70mm unlock by turning		BG10P34P-11	1 0,187

1) IP65

## Enclosures BG.. IP67, Type 12



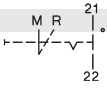

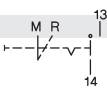


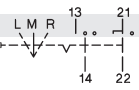


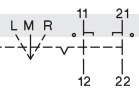




Number of units	Description	Type	Pack pcs.	Weight kg/pc.
1	3 knockouts Ø20,5mm (M20 or PG13,5)	BG1	1	0,108
1 yellow	3 knockouts Ø20,5mm (M20 or PG13,5)	BG1 GE	1	0,108
2	3 knockouts Ø20,5mm (M20 or PG13,5)	BG2	1	0,145
3	3 knockouts Ø20,5mm (M20 or PG13,5)	BG3	1	0,188

## Buttons and Lens Caps B3.. see page 331 -334



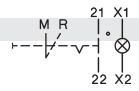

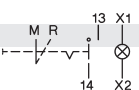


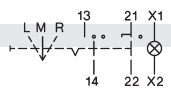


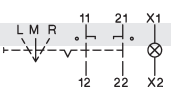

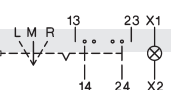
### Contact blocks for enclosures BG..




Contacts	Lamp voltage	Wiring diagram	actuators with 2 or 3 switch positions	Type	Pack pcs.	Weight kg/pc.
1NC <sup>1)</sup> 				B4TU01	10	0,015
1NO				B4TU10	10	0,015
1NO+1NC <sup>1)</sup> 				B4TU11	10	0,022
2NC <sup>1)</sup> 				B4TU02	10	0,022
2NO				B4TU20	10	0,022

### Contact blocks with lamp holder, socket BA9s for LED or lamps, for enclosures BG.., lamps see page 347



Contacts	Lamp voltage	Wiring diagram	actuators with 2 or 3 switch positions	Type	Pack pcs.	Weight kg/pc.
1NC <sup>1)</sup> 	max. 440V AC/DC			B4TU01F	10	0,020
1NO	max. 440V AC/DC			B4TU10F	10	0,020
1NO+1NC <sup>1)</sup> 	max. 440V AC/DC			B4TU11F	10	0,027
2NC <sup>1)</sup> 	max. 440V AC/DC			B4TU02F	10	0,027
2NO	max. 440V AC/DC			B4TU20F	10	0,027

### Lamp holder, socket BA9s for LED or lamps, lamps see page 345

max. 440V AC/DC	direct connection, for lamps max. 1,9W (take care for active power consumption)		B4FU	10	0,013
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1)  NC contact has a positive opening according to IEC/EN 60947-5-1

## Accessories for Plastic enclosed buttons



		Type	Pack pcs.	Weight kg/pc.
<b>Wrench and lens caps B(S)3..</b>	for mounting of actuators	J7049	1	0,018
<b>Couple Part</b>	to couple enclosures BKLG or assembled stations BG..	B4-8852	1	0,018

## Push Buttons for Enclosures 22mm IP65

### Push buttons grey RAL7035



Specification	Colour	Symbol	Length mm	Type	Pack pcs.	Weight kg/pc.
<b>Reset push button</b>	blue	R	8-22	B2GRB-22	10	0,005
	blue	R	22-60	B2GRB-60	10	0,016
<b>Reset push button with stop function</b>	red	0/R	8-22	B2GR-22	10	0,005
	red	0/R	22-60	B2GR-60	10	0,016
<b>Start push button</b>	green	I	8-22	B2GI-22	10	0,005
	green	I	22-60	B2GI-60	10	0,016
<b>Stop push button</b>	red	0	8-22	B2G0-22	10	0,005
	red	0	22-60	B2G0-60	10	0,016
<b>Mushroom head lockable Ø28mm</b>	red	0	8-22	B2GP-22	10	0,005
	red	0	22-60	B2GP-60	10	0,016

### Push buttons with metal ring and self adjusting extension pin



<b>Reset push button</b>	blue	R	19,5-38,5	B3GRB-31,5	10	0,023
	blue	R	38,5-60	B3GRB-60	10	0,026
<b>Reset push button with stop function</b>	red	0/R	19,5-38,5	B3GR-31,5	10	0,023
	red	0/R	38,5-60	B3GR-60	10	0,026
<b>Start push button</b>	green	I	19,5-38,5	B3GI-31,5	10	0,023
	green	I	38,5-60	B3GI-60	10	0,026
<b>Stop push button</b>	red	0	19,5-38,5	B3G0-31,5	10	0,023
	red	0	38,5-60	B3G0-60	10	0,026

Specification	Diameter Ø mm	Length mm	Type	Pack pcs.	Weight kg/pc.
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### Extensions for push buttons



self adjusting pin, for B(S, C)3D.. and B(S, C)3P..	15	19,5 - 38,5	B4V31,5	10	0,001
	18,5	38,5 - 60	B4V60	10	0,004

# Technical Data


Terminal markings for control units according to DIN EN 50013

Distinc. number	Contact elements	Distinc. number	Contact elements	Distinc. number	Contact elements	Distinc. number	Contact elements	Distinc. number	Contact elements	Colour code
10	13 14							01	21 22	 <p>NO Green</p> <p>NC Red</p>
20	13 23 14 24	11	13 21 14 22					02	11 21 12 22	
30	13 23 33 14 24 34	21	13 21 33 14 22 34	12	13 21 31 14 22 32			03	12 22 32 12 22 32	
40	13 23 33 43 14 24 34 44	31	13 21 33 43 14 22 34 44	22	13 21 31 43 14 22 32 44	13	13 21 31 41 14 22 32 42	04	11 21 31 41 12 22 32 42	

## Data according to IEC 947-5-1, VDE 0660, EN 60947-5-1

Type		B3T	B4T
Rated insulation voltage $U_i$	V AC	690 <sup>1)</sup>	500
<b>Utilization category AC12</b> Control of resistive loads and solid stateloads with isolation by opto couplers			
Rated current $I_e$	220-240V A 380-415V A 500V A 690V A	10 10 10 10	10 10 10 -
<b>Utilization category AC15</b> Control of electromagnetic load (>72VA)			
Rated current $I_e$	220-240V A 380-415V A 500V A 690V A	6 5 3 2	6 5 3 -
<b>Utilization category DC12</b> L/R = 1ms Control of resistive loads and solid stateloads with isolation by opto couplers			
Rated current $I_e$	24V A 60V A 110V A 220V A	10 6 2,5 0,8	10 6 2,5 0,8
<b>Utilization category DC14</b> L/R = 15ms Control of electromagnetic loads having economy resistors in circuit			
Rated current $I_e$	24V A 60V A 110V A 220V A	8 1 2 0,5	8 1 2 0,5
<b>Utilization category DC13</b> L/R = 300ms Control of electromagnets			
Rated current $I_e$	24V A 60V A 110V A 220V A	2 5 0,5 0,2	2 5 0,5 0,2
Making capacity	A	60	60
Breaking capacity $\cos\phi = 0,7-1$	40-60Hz A	50	50
Mechanical life	millions of operations	10	10
Contact life (AC15)			
100VA	millions of operations	10	10
300VA	millions of operations	3	3
800VA	millions of operations	1	1
1200VA	millions of operations	0,5	0,5
Maximum frequency of operations	ops. per hour	600	600
Short circuit protection	slow, gL (gG) A	25	25



Type		B3F	B4F
Rated insulation voltage $U_i$	V AC	440 <sup>2)</sup>	440 <sup>2)</sup>
Lamp base		BA9s	

Type		B3., B4., B5.
Protection degree (according to IEC 947-1) in assembled state, from the front from rear		IP67/IP65 IP20/IP00
Ambient temperature	°C	-40 to +50
Cable cross-section		
	solid, mm <sup>2</sup> flexible, mm <sup>2</sup> flexible with multicore cable end, mm <sup>2</sup> number	0,5 - 2,5 0,5 - 2,5 0,5 - 1,5 2
Cables per clamp		2
Mounting hole (according to IEC 947-1)	Ø mm Ø mm	22,5 30,5
Mounting position		optional
Terminal screws		Pozidriv No. 2 screws M3,5

## Data according to cULus

Type	B3.	B4.
<b>Contact Block</b> for NO and NC	600 V AC max.	600 V AC max.
General use	10A	10A
Heavy pilot duty	A600	A600
<b>Lamp Holder</b> with socket BA9s	240V 2,6W max.	240V 2,6W max.
Wire (Contact and lamp holder)	14 - 18AWG 9 lb/in.	14 - 18AWG 9 lb/in.
Torque		

## Approvals

Country	USA, Canada UL	Europe CE	Register of Shipping Great Britain LRS	CENELEC CB- Certificates
Type				
B3T.	o	o	-	o
B3F.	o	o	-	o
B4TU..	o	o	o	o
B4T..UF	o	o	o	o
B4FU..	o	o	o	o
B3-MB..	-	o	-	-

o In standard version approved

- Not provided for test till now

1) suitable for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry):  $U_{mp} = 6kV$ . Data for other conditions on request

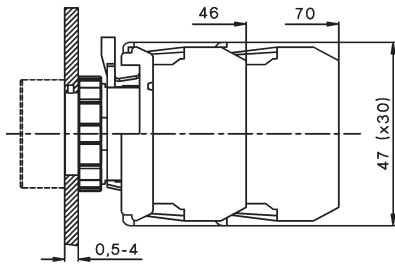
2) suitable for: earthed-neutral systems, overvoltage category I to III, pollution degree 3 (standard-industry):  $U_{mp} = 4kV$



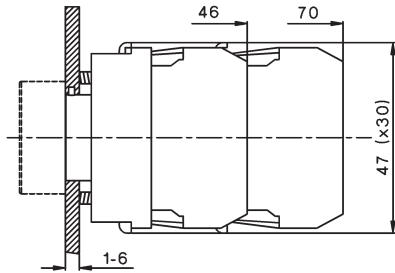
# Dimensions

## Actuators and Lens Caps 22mm

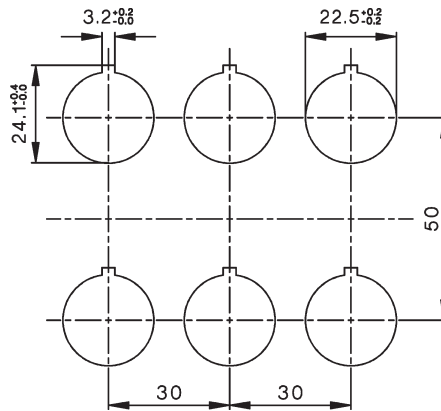
Panel mounting B3S



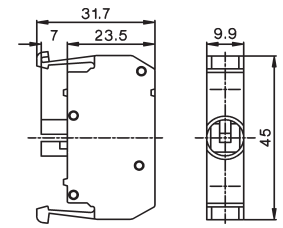
Panel mounting B3M



Mounting holes



Contact blocks and Lamp Holder B3...

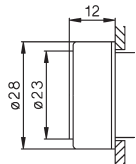


Dimensions of minimum space requirements according to IEC. Take to consideration the field of traverse of swing knobs (27mm) and the diameter of mushroom heads.

## Actuators and Lens caps

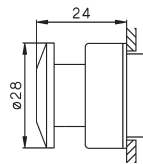
Flush Head  
Illuminated Flush Head

B3D(R), B3DL(R)  
BS3D(R), BS3DL(R)  
BC3D(R), BC3DL(R)



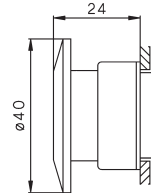
Mushroom Head Ø28mm  
Emergency Stop Ø28mm

B3P1 bis B3P3  
BS3P1 bis BS3P3  
BC3P1 bis BC3P3



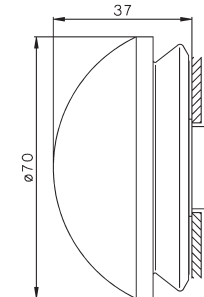
Mushroom Head Ø40mm  
Emergency Stop Ø40mm

B3P14, B3P34  
BS3P14, BS3P34  
BC3P14, BC3P34



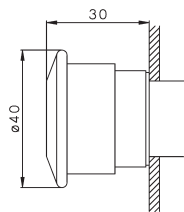
Mushroom Head Ø70mm  
Emergency Stop Ø70mm

BS3P14P  
BS3P34P



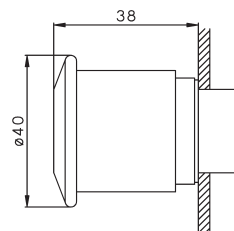
Push-and pull button Ø40mm

BS3P44



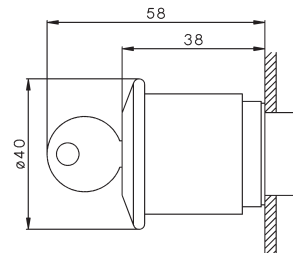
Push-and pull button Ø40mm

BS3P45



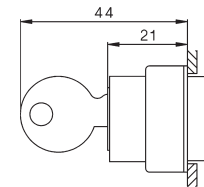
Push-and pull button Ø40mm  
with key

BS3P44S3



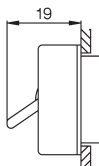
Lockable Push button

B3SAR., B3SAT.  
BS3SAR., BS3SAT.  
BC3SAR., BC3SAT.



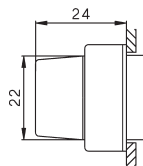
Toggle

B3E  
BS3E  
BC3E



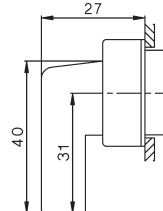
Rotary Knob

B3KN, B3KL  
BS3KN, BS3KL  
BC3KN, BC3KL



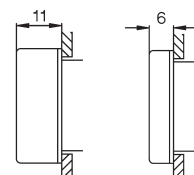
Swing Knob

B3KRL, B3KRN  
BS3KRL, BS3KRN  
BC3KRL, BC3KRN



Lens Cap

B3R(F)    B3RN

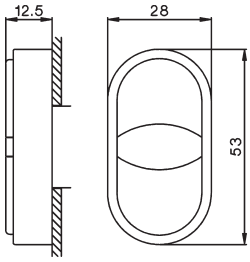


# Dimensions

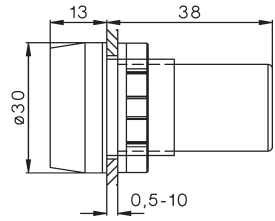
## Actuators and Lens Caps 22mm

Double push button      Monoblock Multi-LED      Protection cover      Protection ring w. thread

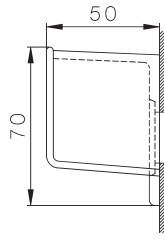
B3DT



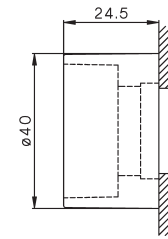
B3-MB...



B3-SK ..



P921-.



Label holder

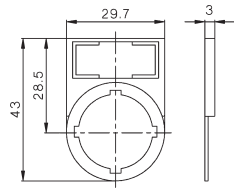
Legend plate

Label holder

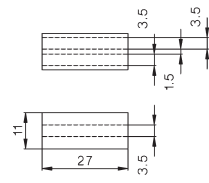
Label holder

Legend plate

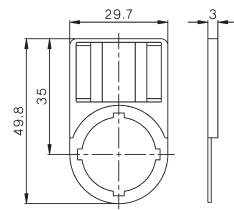
P751



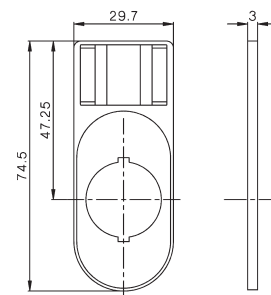
BK4-...



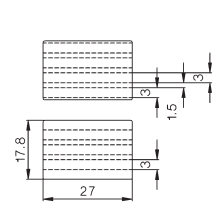
P761



P761-DT



BK8-...

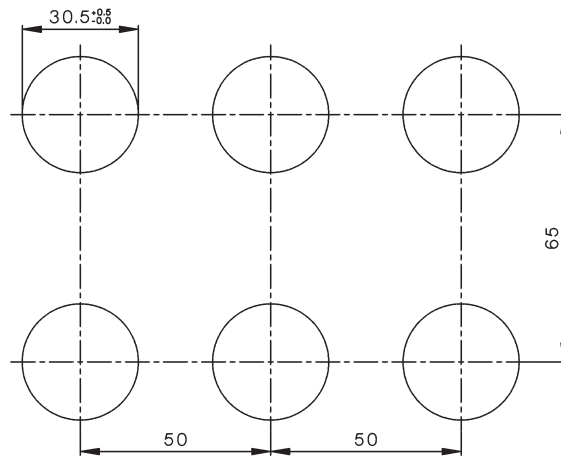
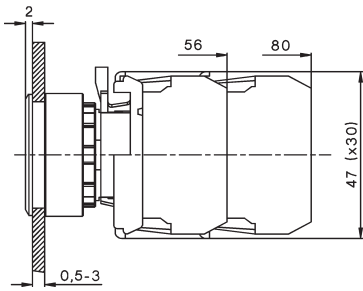


# Dimensions

## Actuators and Lens Caps 30mm

Panel mounting B3S

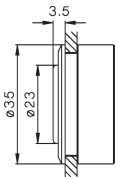
Mounting holes



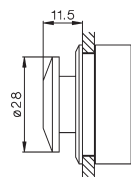
### Actuators and Lens caps

Flush Head Illuminated Flush Head	Mushroom Head Ø28mm Emergency Stop Ø28mm	Mushroom Head Ø40mm Emergency Stop Ø40mm	Lens Cap
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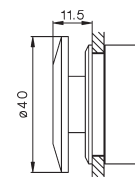
**B5D(R), B5DL(R)  
BS5D(R), BS5DL(R)**



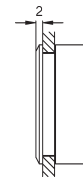
**B5P1 to B5P3  
BS5P1 to BS5P3**



**B5P14, B5P34  
BS5P14, BS5P34**



**B5RF**



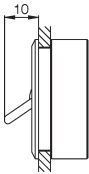
Toggle

Rotary Knob

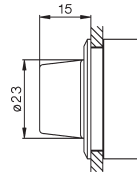
Swing Knob

Lockable Push button

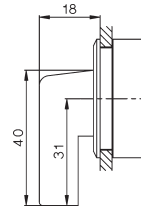
**B5E  
BS5E**



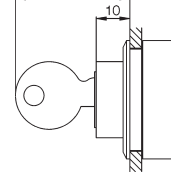
**B5KN, B5KL  
BS5KN, BS5KL**



**B5KRL, B5KRN  
BS5KRL, BS5KRN**



**B5SAR., B5SAT.  
BS5SAR., BS5SAT.**



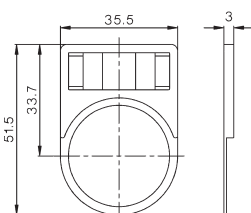
Label holder

Legend plate

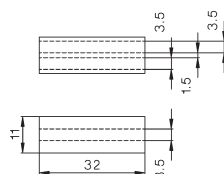
Label holder

Legend plate

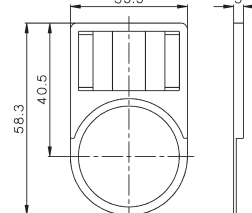
**P942-1**



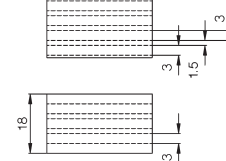
**BK5-...**



**P1043**

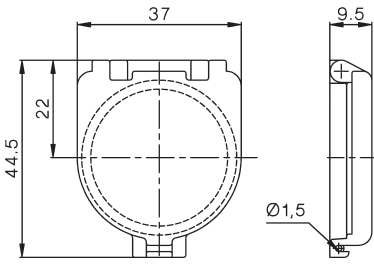


**BK10-..**

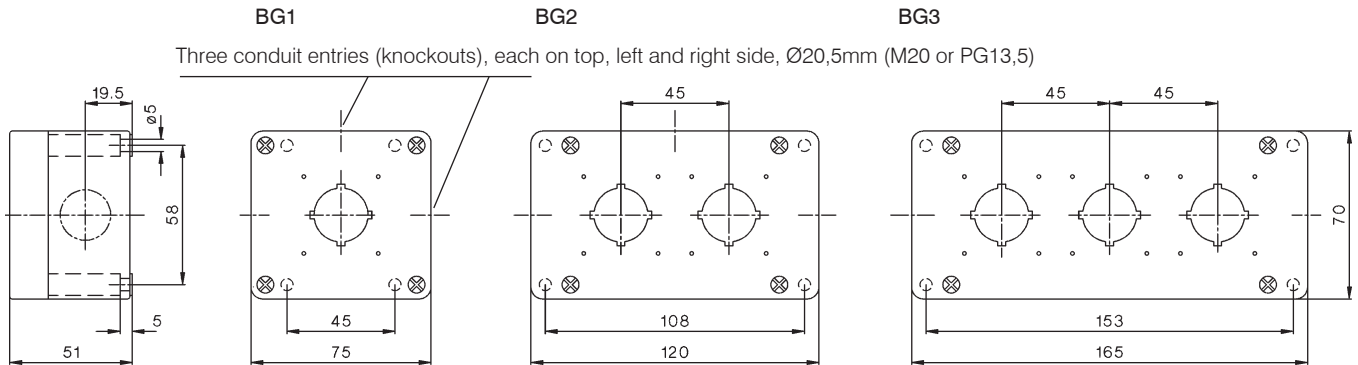


# Dimensions

Protective Cover  
B5-SAP

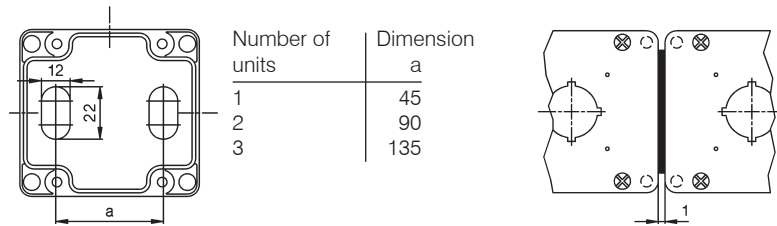


## Enclosures for Custom Built Stations



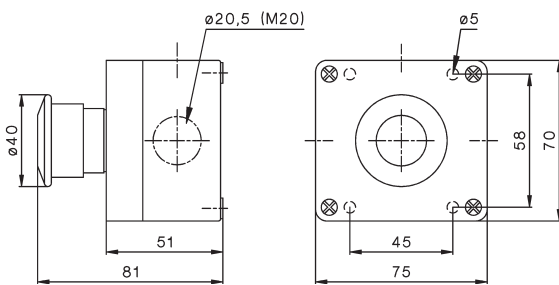
Conduit entries in the bottom  
(knockouts)

Coupled Enclosures  
B4-8852



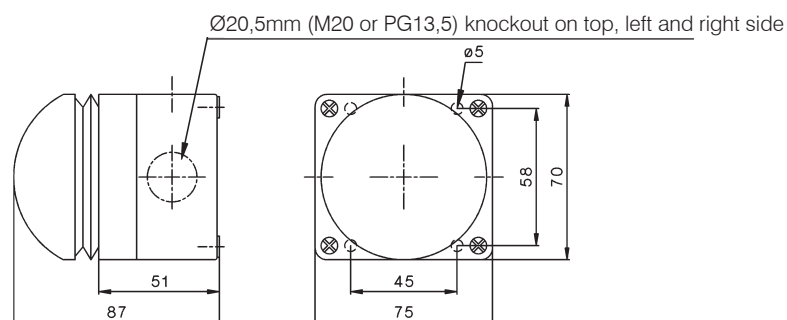
## EMERGENCY STOP Push Button Ø40 mm

BG10P44



## EMERGENCY STOP Push Button Ø70 mm, Foot switch

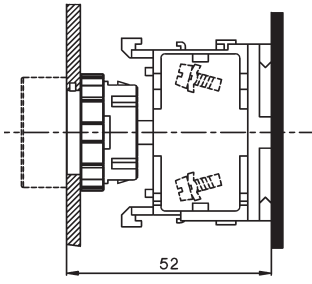
BG10P34P, BG10P14P



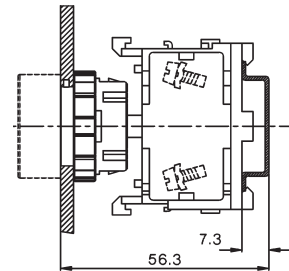
# Dimensions

## Actuators 22mm

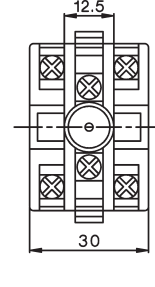
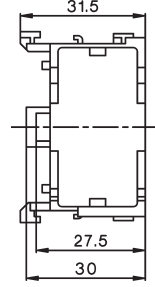
Base mounting



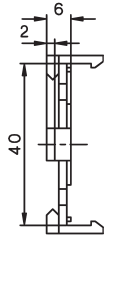
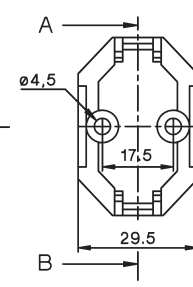
DIN-rail mounting



Contact blocks and Lamp Holders B4.U...

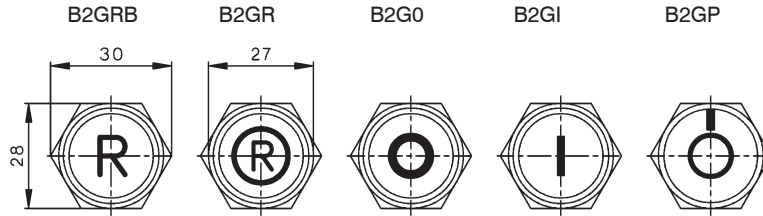
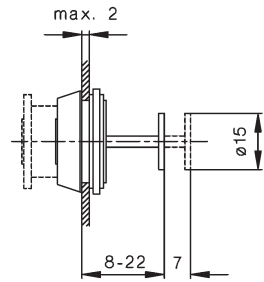


Base B4U

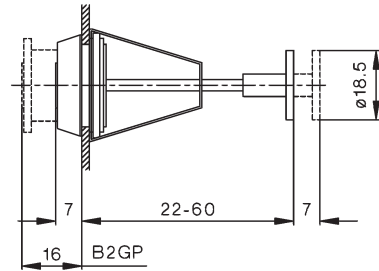


## Push buttons for enclosures

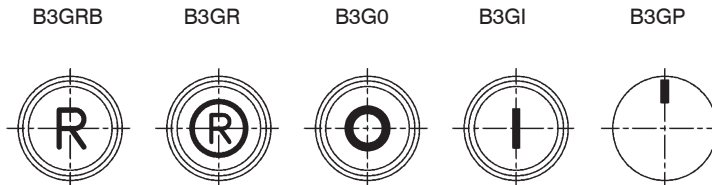
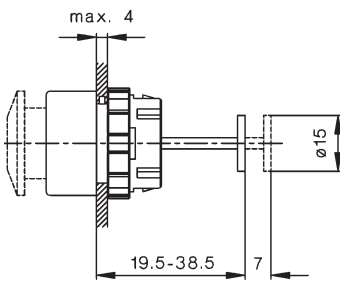
B2G...-22



B2G...-60



B3G...-31,5



B3G...-60

