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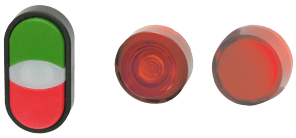
Ø 22,5mm



Ø 30,5mm

Actuators and Lens Caps 22mm IP67 (IP65), c UL us Type 12

Push Buttons

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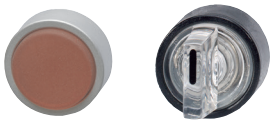
IP65

→ page 331, 332

EMERGENCY STOP Buttons

→ page 330

Illuminated Operators



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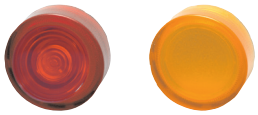
Double Push Buttons with Indicator Lamp, IP65

→ page 332

Lens Caps



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Mounting hole Ø 22,5mm

with key way

without key way

→ page 330

→ page 336

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

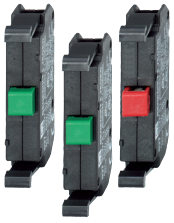
Connectors

Thickness
0,5 - 4 mm
→ page 336

or

Thickness
1 - 6 mm
→ page 336

Contacts Lamp Holders



Actuator insert
→ page 336

→ page 336

LED
24-230V

Filament
6-130V

Glow-discharge
230V
→ page 337

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

→ page 333

Actuators 22mm IP67, cULus 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

Mushroom Head Ø40mm

red		BS3P44T RT	BS3P44T RT	BS3P44T RT	10	0,028

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, cULus Type 12

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

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 [2]	BS3P3 RT-0-RGE [2]	BC3P3 RT-0-RGE [2]	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
red	Pfeile	B3P34 RT-PF	BS3P34 RT-PF	BC3P34 RT-PF	10	0,020

red illuminated		B3P34L RT	BS3P34L RT	BC3P34L RT	10	0,020

EMERGENCY STOP Push Buttons, release by turning, Ø70mm

red		BS3P34P RT	BS3P34P RT	BS3P34P RT	1	0,062

Yellow Disk Ø70mm, Thickness 1mm [1]

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 manupulation, Thickness 1mm

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

Sealing cap

for Push Buttons BS3P45RT and BS3P44S3	transparent	B3-PH GE	1	0,03

1) Not for enclosure BG.. 2) Front ring yellow

Actuators 22mm c UL us Type 12

Ring

Knob	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.

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

Toggle IP65

O - I	B3E	BS3E	BC3E	10	0,017

Actuators 22mm IP65, Type 12

Ring

Key Operated Rotary Switches with lock Ronis 455

Key removeable in	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
maintained 60°					
0 I	B3SAR 0	BS3SAR 0	BC3SAR 0	1	0,044
0 I	B3SAR 1	BS3SAR 1	BC3SAR 1	1	0,044
0 I	B3SAR 01	BS3SAR 01	BC3SAR 01	1	0,044
spring return 60°					
0 I	B3SAT 0	BS3SAT 0	BC3SAT 0	1	0,044
maintained 60°					
I 0 II	B3SARR 0	BS3SARR 0	BC3SARR 0	1	0,044
I 0 II	B3SARR 102	BS3SARR 102	BC3SARR 102	1	0,044
spring return/maintained 60°					
I 0 II	B3SATR 02	BS3SATR 02	BC3SATR 02	1	0,044
spring return 60°					
I 0 II	B3SATT 0	BS3SATT 0	BC3SATT 0	1	0,044
Spare Key lock Ronis R455			B4-R455	1	0,007

B3SAR 0

B3SARR 0

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

Colour	Symbol				Pack pcs.	Weight kg/pc.
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 [1]	BS3DT G/R	BC3DT G/R	10	0,016
white black		B3DT W/S [1]	BS3DT W/S	BC3DT W/S	10	0,016
green red	I 0	B3DT GI/RO [1]	BS3DT GI/RO	BC3DT GI/RO	10	0,016
white black	I 0	B3DT WI/SO [1]	BS3DT WI/SO	BC3DT WI/SO	10	0,016

with non-standard marking on request

1) Plastic ring in alu design.

Lens Caps 22mm c UL us Type 12

suitable for Alu, Black and Chrome

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

Colour	Type	Pack pcs.	Weight kg/pc.
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

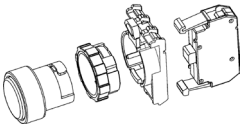
Monoblock LEDs IP65, IEC 60947, EN 60947 (6 years middle lifetime) [1)]

Colour	Voltage	Power VA	Power W	Type	Pack pcs.	Weight kg/pc
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

1) Ambient temperatures on request.

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

Push Buttons, IP67



Actuator Colour	Symbol	with	Type	Pack pcs.	Weight kg/pc.
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	I	+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

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

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

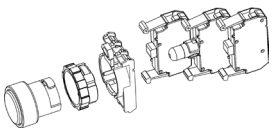
Key Operated Rotary Switch with lock Ronis 455, IP65

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

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

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

Illuminated Push Buttons, IP67



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

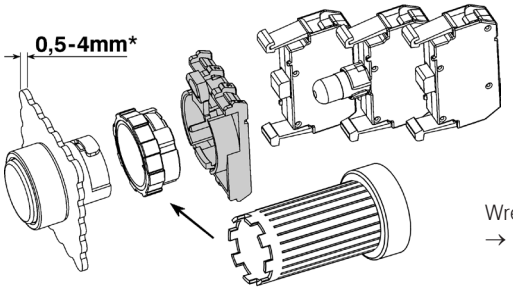
white	+connector +socket BA9S	-	B3R WS/0	1	0,037
green	+connector +socket BA9S	-	B3R GN/0	1	0,037
red	+connector +socket BA9S	-	B3R RT/0	1	0,037
yellow	+connector +socket BA9S	-	B3R GE/0	1	0,037

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

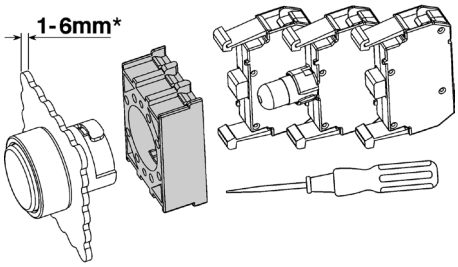
Connectors

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



Wrench
→ page 331

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.
Contact blocks, screw terminals				
max. 690V AC	1 NC [1] (→)	B3T01 [2]	10	0,010
max. 690V AC	1 NO [1]	B3T10 [2]	10	0,010

Contact blocks, RAST 5 terminals (note coding)				
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

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

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= / 1 mA and for difficult ambient conditions.

Lamps

LED lamps [2] [3] (6 years middle lifetime, for equivalent lens caps only)

Socket BA9s Lamp voltage		Type	Pack pcs.	Weight kg/pc.
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 [3]

	Power consumption				
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

Glow-discharge lamps [3]

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		B4-R455	1	0,007
	for B(S)3SB.., Ronis R786		B4-R786	1	0,007
Hole Plug	black, for fixing holes		**B3-DU SW**	10	0,007
	grey	Ø22,5mm	**B3-DU GR**	10	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 manupulation				
	Thickness 1mm	yellow	B3-SK GE	1	0,04
	Thickness 1mm	grey	B3-SK GR	1	0,04
Protection ring with thread	against unintentional manupulation has to be mounted instead of the existing ring	black	P921-1	1	0,012
		chrome	P921-2	1	0,012
		alu	P921-3	1	0,012

1) Voltage marking 130V / 2W max. rated voltage 120V /1,8W.
2) Suitable for B3FT lamp test holders.
3) Ambient temperatures on request.

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.
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 Markings

Codes for colours

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

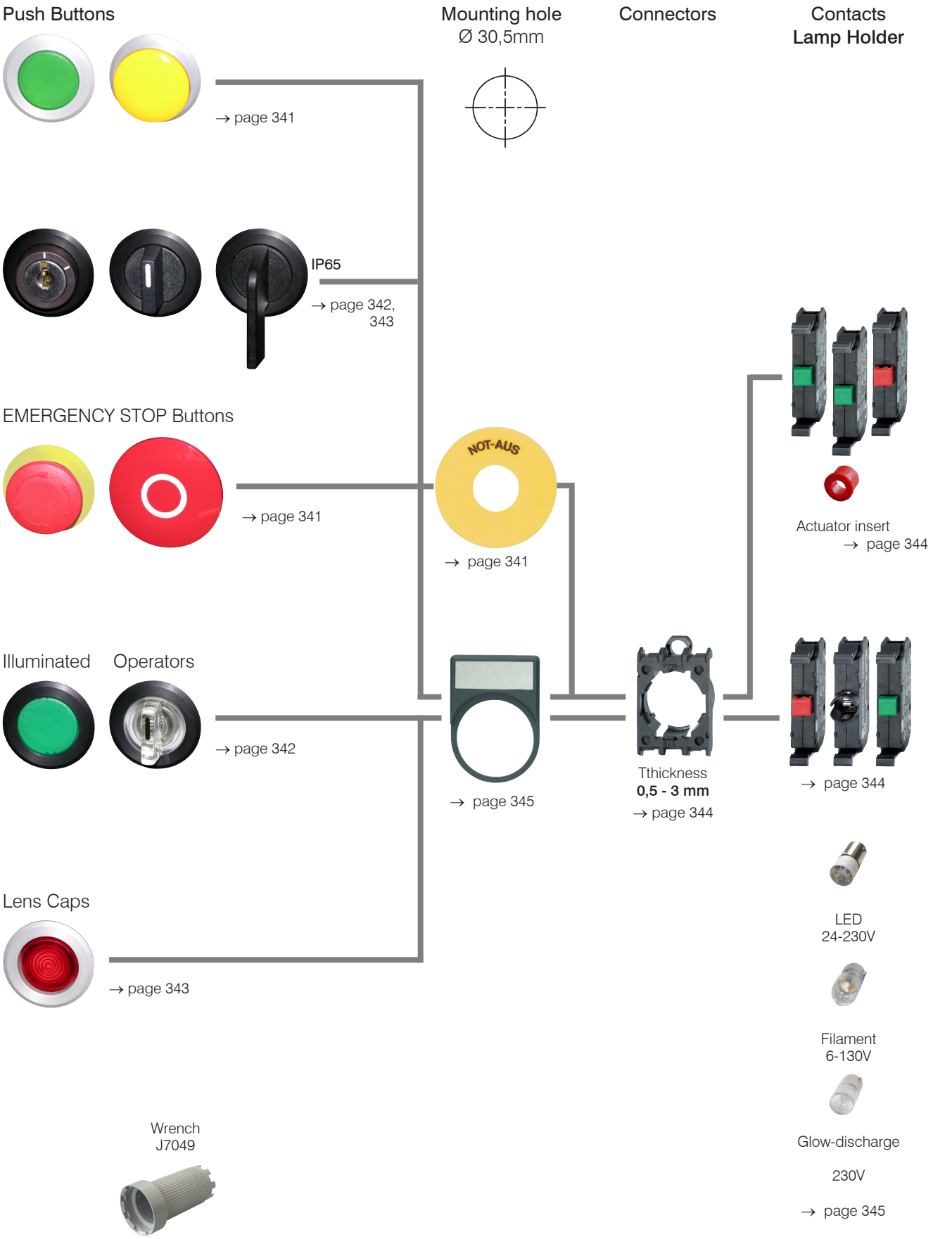
Actuator Caps with text, the Suffix must be completed with the colour code

Marking	Suffix for Marking	Marking	Suffix for Marking	Pack pcs.	Weight kg/pc.
		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 ISO 7000, the Suffix must be completed with the colour code

Symbol	Suffix for Marking	ISO 7000 reference no.	Symbol	Suffix for Marking	ISO 7000 reference no.	Pack pcs.	Weight kg/pc.
	...-100	-		**...-101**	-	10	0,001
	...-102	-		**...-103**	-	10	0,001
	...-200	0011		**...-201**	0244	10	0,001
	...-202	-		**...-203**	-	10	0,001
	...-204	0355		**...-205**	-	10	0,001
	...-300	-		**...-301**	-	10	0,001
	...-302	-		**...-303**	-	10	0,001
	...-304	-		**...-305**	0259	10	0,001
	...-306	-		**...-307**	-	10	0,001
	...-400	-		**...-401**	0018	10	0,001
	...-402	0019		**...-403**	0020	10	0,001
	...-404	0021		**...-405**	0022	10	0,001
	...-406	0023		**...-407**	0910	10	0,001
	...-408	-		**...-409**	0096	10	0,001
	...-410	0017		**...-411**	0033	10	0,001
	...-412	0032		**...-413**	-	10	0,001

Actuators and Lens Caps 30mm IP67 (IP65)



Actuators 30mm IP67

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

Rotary Knobs and Swing Knobs, black IP65

Rotary

Swing

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

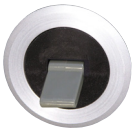
Illuminated Rotary Knobs and Swing Knobs IP67, clear, lamp max. 1,2W, lamps see page 347

Rotary

Swing

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

Toggle IP65



O - I	B5E	BS5E	BC5E	10	0,032

Actuators and Lens Caps 30mm IP65

Ring

Key Operated Rotary Switch with lock Ronis 455

key removeable in	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
maintained 60°					
0 I	B5SAR 0	BS5SAR 0	BC5SAR 0	1	0,059
0 I	B5SAR 1	BS5SAR 1	BC5SAR 1	1	0,059
0 I	B5SAR 01	BS5SAR 01	BC5SAR 01	1	0,059
spring return 60°					
0 I	B5SAT 0	BS5SAT 0	BC5SAT 0	1	0,059
maintained 60°					
0 I II	B5SARR 0	BS5SARR 0	BC5SARR 0	1	0,059
0 I II	B5SARR 102	BS5SARR 102	BC5SARR 102	1	0,059
spring return/maintained 60°					
0 I II	B5SATR 02	BS5SATR 02	BC5SATR 02	1	0,059
spring return 60°					
0 I II	B5SATT 0	BS5SATT 0	BC5SATT 0	1	0,059
Spare Keylock Ronis R455		B4-R455		1	0,007

B3SAR 0

B3SARR 0

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

Colour				Pack pcs.	Weight kg/pc.
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

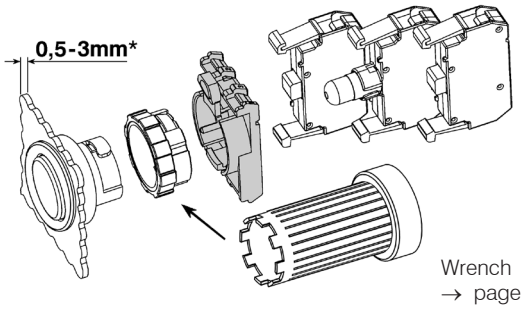
red	B5DLR RT	BS5DLR RT	BC5DLR RT	10	0,029
green	B5DLR GN	BS5DLR GN	BC5DLR GN	10	0,029
yellow	B5DLR GE	BS5DLR GE	BC5DLR GE	10	0,029
blue	B5DLR BL	BS5DLR BL	BC5DLR BL	10	0,029
white	B5DLR WS	BS5DLR WS	BC5DLR WS	10	0,029

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



Wrench
→ page 341

*) inclusive Thickness from Label Holder and Yellow Disk

Contact Blocks and Lamp Holders for Panel Mounting

Contact blocks

for voltage	Description		Type	Pack pcs.	Weight kg/pc.
max. 690V AC	1 NC	21 / 22	B3T01 [2]	10	0,010
max. 690V AC	1 NO	13 / 14	B3T10 [2]	10	0,010
max. 690V~	1 NC [1]	21 / 22	B3RT01 [2]	10	0,010
max. 690V~	1 NO	13 / 14	B3RT10 [2]	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)	X1 / X2	B3F	10	0,012

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)	X5 X2 / X1	B3FT	10	0,020
max. 250V	direct connection of LED	X5 X2 / X1	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

LED lamps [2) 3)] (6 years middle lifetime, for equivalent lens caps only)

Socket BA9s Lamp voltage	Power consumption		Type	Pack pcs.	Weight kg/pc.
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 [3)]

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

Glow-discharge lamps [3)]

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

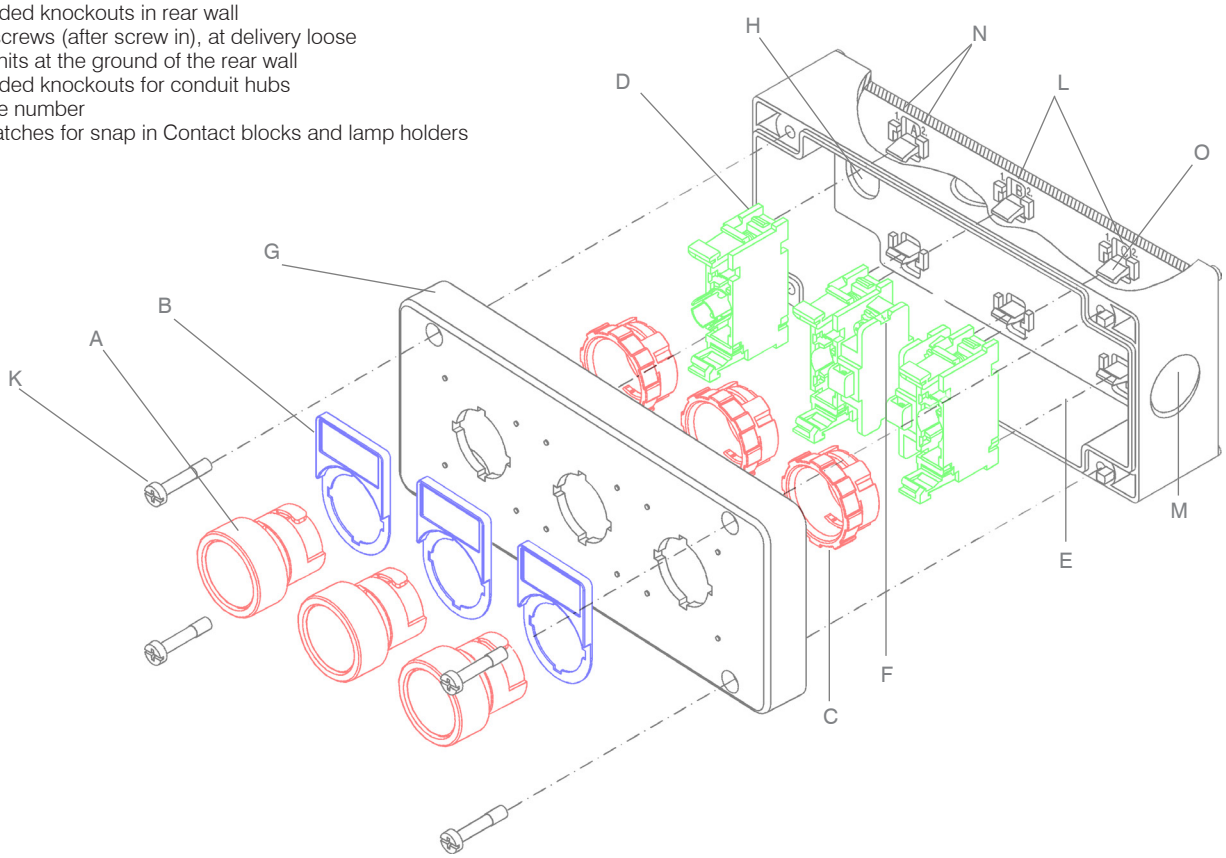
1) Voltage marking 130V / 2W max. rated voltage 120V /1,8W.
2) Suitable for B3FT lamp test holders.
3) Ambient temperatures on request.

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	B4-R455	1	0,007
	for B(S)3SB.. , Ronis R786	B4-R786	1	0,007
Protectiv cover sealable	against unintentional manupulation of buttons B5, *(not for mushroom heads, rotary and swing knobs)*	B5-SAP	1	0,008
Label holder for legend plate BK5, black, 1 or 2 lines		P942-1	10	0,0013
Legend plate BK5 with for label holder P942-1 (with marking e. g.: BK5-MOTOR-START)				
Legend plate alu without marking for label holder P42-1		BK5-11374	10	0,0003
	Text 1 or 2 lines, max. 2 x 13 letters, letter height 3mm			
Label holder for legend plate BK10, black, 3 or 4 lines		P1043	10	0,0015
Legend plate BK10 with for label holder P1043 (with marking e. g.: BK10-WATER-PUMP-START)				
Legend plate alu without marking for label holder P1043		BK10-11724	10	0,0005
	Text 3 or 4 lines, max. 4 x 13 letters, letter height 3mm			
Adapter to convert Actuators 22mm to 30mm				
	alu	B5	10	0,017
	black	BS5	10	0,017
	chrome	BC5	10	0,017

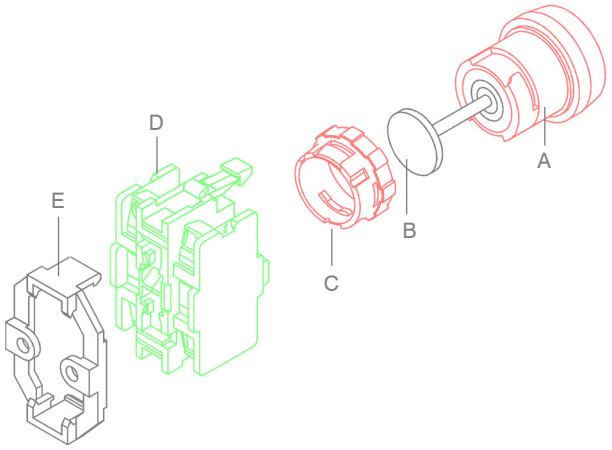
Assembled Stations BG.. IP67 cULus Type 12

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

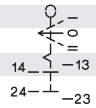
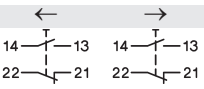
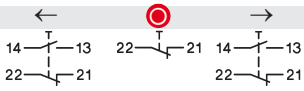
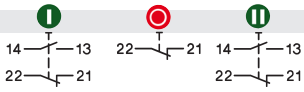
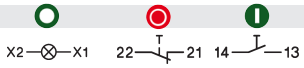


Mounting Plate for base and DIN-rail mounting of contact blocks

		Type	Pack pcs.	Weight kg/pc.
Mounting Plate	for base and DIN-rail mounting of contact blocks and lamp holders B4.U...	B4U	10	0,010
Ring and Nut	for mounting former actuators and lens caps B4...	B3UP	10	0,004

Assembled Stations IP67 (IP65) c UL us 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	Pack pcs.	Weight kg/pc.
Plastic enclosed buttons and Pilot Lights					
	ON push button green		BG10 GN	1	0,135
	OFF push button red		BG10 RT	1	0,135
	Pilot light green Pilot light red		BG01 GN BG01 RT	1 1	0,135 0,135
	Key operated 0 - I [1] lock Ronis R455 60° maintained		BG10SAR 0	1	0,165
	Key operated I - 0 - II [1] 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
Plastic enclosed EMERGENCY STOP buttons					
	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, cULus 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 [1]		21 22	M R 21 22	B4TU01	10	0,015
1NO		13 14	M R 13 14	B4TU10	10	0,015
1NO+1NC [1]		13 21 14 22	L M R 13 21 14 22	B4TU11	10	0,022
2NC [1]		11 21 12 22	L M R 11 21 12 22	B4TU02	10	0,022
2NO		13 23 14 24	L M R 13 23 14 24	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 [1]	max. 440V AC/DC	21 X1 22 X2	M R 21 X1 22 X2	B4TU01F	10	0,020
1NO	max. 440V AC/DC	13 X1 14 X2	M R 13 X1 14 X2	B4TU10F	10	0,020
1NO+1NC [1]	max. 440V AC/DC	13 21 X1 14 22 X2	L M R 13 21 X1 14 22 X2	B4TU11F	10	0,027
2NC [1]	max. 440V AC/DC	11 21 X1 12 22 X2	L M R 11 21 X1 12 22 X2	B4TU02F	10	0,027
2NO	max. 440V AC/DC	13 23 X1 14 24 X2	L M R 13 23 X1 14 24 X2	B4TU20F	10	0,027

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

			Type	Pack pcs.	Weight kg/pc.
max. 440V AC/DC	direct connection, for lamps max. 1,9W (take care for active power consumption)	X1 X2	B4FU	10	0,013

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.
Wrench and lens caps B(S)3..	for mounting of actuators	J7049	1	0,018
Couple Part	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.
Reset push button	blue	R	8-22	B2GRB-22	10	0,005
	blue	R	22-60	B2GRB-60	10	0,016
Reset push button with stop function	red	0/R	8-22	B2GR-22	10	0,005
	red	0/R	22-60	B2GR-60	10	0,016
Start push button	green	I	8-22	B2GI-22	10	0,005
	green	I	22-60	B2GI-60	10	0,016
Stop push button	red	0	8-22	B2G0-22	10	0,005
	red	0	22-60	B2G0-60	10	0,016
Mushroom head lockable Ø28mm	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

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

Extensions for push buttons

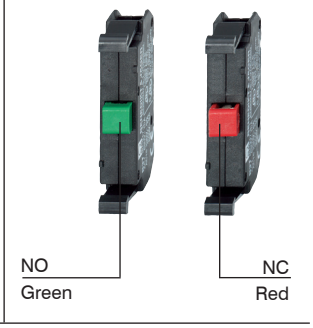
Specification	Diameter Ø mm	Length mm	Type	Pack pcs.	Weight kg/pc.
self adjusting pin, for B(S, C)3D.. and B(S, C)3P..	15	19,5 - 38,5	B4V31,5	10	0,001
	18,5	38,5 - 60	B4V60	10	0,004

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
10	13 / 14							01	21 / 22
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

Colour code



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

Type			B3T	B4T
Rated insulation voltage U_i		V AC	690 [1]	500
Utilization category AC12 Control of resistive loads and solid stateloads with isolation by opto couplers Rated current I_e	220-240V	A	10	10
	380-415V	A	10	10
	500V	A	10	10
	690V	A	10	-
Utilization category AC15 Control of electromagnetic load (>72VA) Rated current I_e	220-240V	A	6	6
	380-415V	A	5	5
	500V	A	3	3
	690V	A	2	-
Utilization category DC12 L/R = 1ms Control of resistive loads and solid stateloads with isolation by opto couplers Rated current I_e	24V	A	10	10
	60V	A	6	6
	110V	A	2,5	2,5
	220V	A	0,8	0,8
Utilization category DC14 L/R = 15ms Control of electromagnetic loads having economy resistors in circuit Rated current I_e	24V	A	8	8
	60V	A	1	1
	110V	A	2	2
	220V	A	0,5	0,5
Utilization category DC13 L/R = 300ms Control of electromagnets Rated current I_e	24V	A	2	2
	60V	A	5	5
	110V	A	0,5	0,5
	220V	A	0,2	0,2
Making capacity		A	60	60
Breaking capacity cosj = 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 [2]	440 [2]
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 +60 [3]
Cable cross-section			
	solid, mm²		0,5 - 2,5
	flexible, mm²		0,5 - 2,5
	flexible with multicore cable end, mm²		0,5 - 1,5
Cables per clamp		number	2
Mounting hole (according to IEC 947-1)		Ø mm	22,5
		Ø mm	30,5
Mounting position			optional
Terminal screws			Pozidriv No. 2 screws M3,5

Data according to cULus

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

Approvals

Country Type	USA, Canada UL	Europe	Register of Shipping Great Britain LRS	CENELEC CB-Certificates
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	-	-

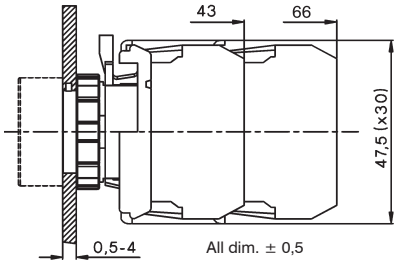
o In standard version approved - Not provided for test till now

1) Suitable for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry): U_{imp} = 6kV.
Data for other conditions on request.
2) Suitable for: earthed-neutral systems, overvoltage category I to III, pollution degree 3 (standard-industry): U_{imp} = 4kV
3) Ambient temperatures for lamps find on pages 337, 341, 349.

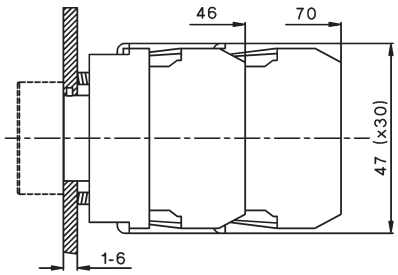
Dimensions

Actuators and Lens Caps 22mm

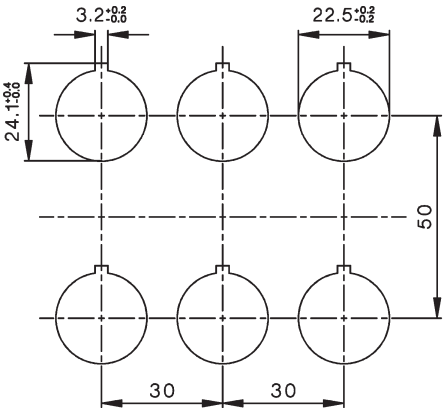
Panel mounting B3S



Panel mounting B3M

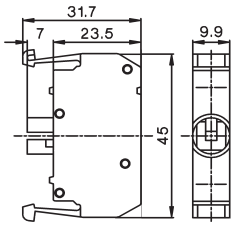


Mounting holes



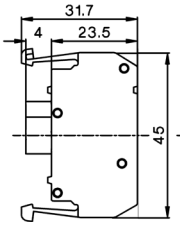
Dimensions of minimum space requirements according to IEC. Take to consideration the field of traverse of swing knobs (27mm) and the diameter of mushroom heads.

Contact blocks and Lamp Holder B3...



All dim. ± 0,2

Contact block B3T...

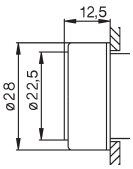


All dim. ± 0,2

Actuators and Lens caps

Flush Head
Illuminated Flush Head

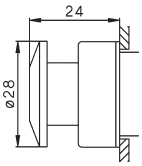
B3D(R), B3DL(R)
BS3D(R), BS3DL(R)
BC3D(R), BC3DL(R)



All dim. ± 0,5

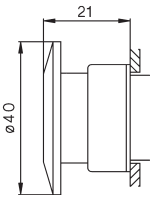
Mushroom Head Ø28mm
Emergency Stop Ø28mm

B3P1 bis B3P3
BS3P1 bis BS3P3
BC3P1 bis BC3P3



Mushroom Head Ø40mm
Emergency Stop Ø40mm

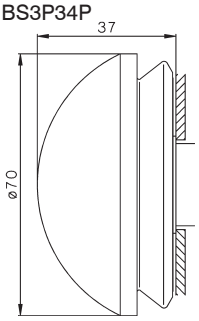
B3P14, B3P34
BS3P14, BS3P34
BC3P14, BC3P34



All dim. ± 0,5

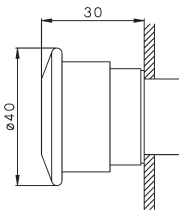
Mushroom Head Ø70mm
Emergency Stop Ø70mm

BS3P14P
BS3P34P



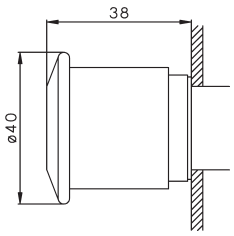
Push-and pull button Ø40mm

BS3P44



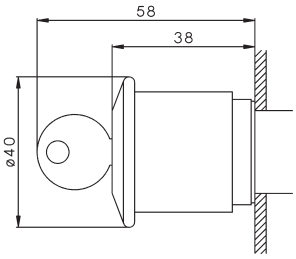
Push-and pull button Ø40mm

BS3P45



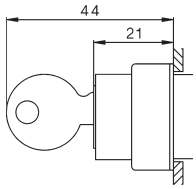
Push-and pull button Ø40mm with key

BS3P44S3



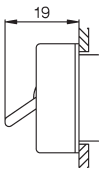
Lockable Push button

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



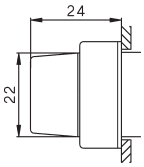
Toggle

B3E
BS3E
BC3E



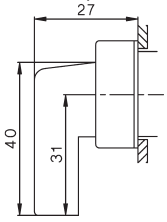
Rotary Knob

B3KN, B3KL
BS3KN, BS3KL
BC3KN, BC3KL



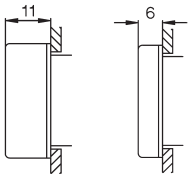
Swing Knob

B3KRL, B3KRN
BS3KRL, BS3KRN
BC3KRL, BC3KRN



Lens Cap

B3R(F) B3RN

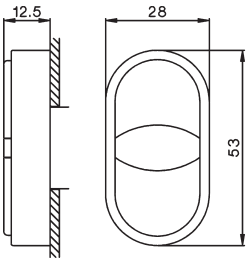


Dimensions

Actuators and Lens Caps 22mm

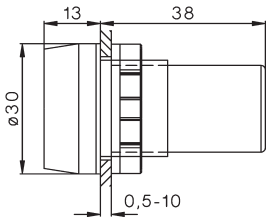
Double push button

B3DT



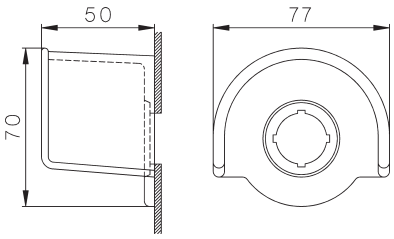
Monoblock Multi-LED

B3-MB...



Protection cover

B3-SK ..

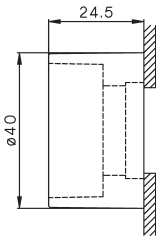


All dim. ± 0,5

All dim. ± 0,5

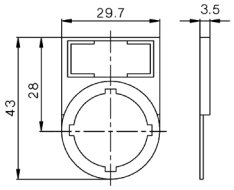
Protection ring w. thread

P921-.



Label holder

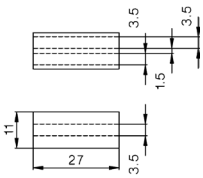
P751



All dim. ± 0,2

Legend plate

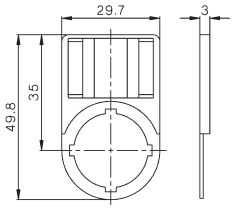
BK4-...



All dim. ± 0,1

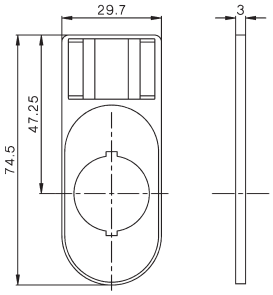
Label holder

P761



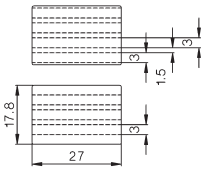
Label holder

P761-DT



Legend plate

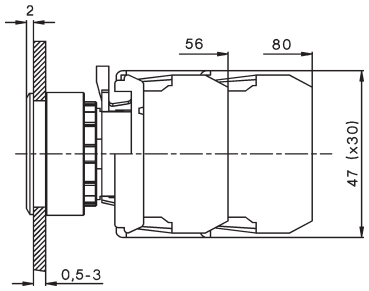
BK8-...



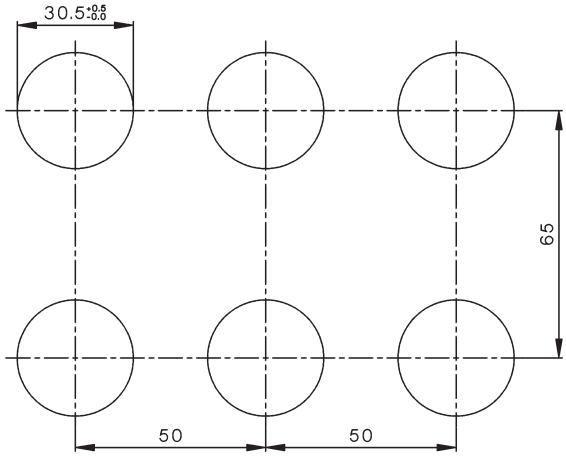
Dimensions

Actuators and Lens Caps 30mm

Panel mounting B3S



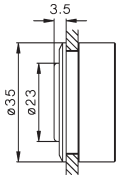
Mounting holes



Actuators and Lens caps

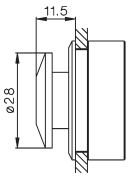
Flush Head
Illuminated Flush Head

B5D(R), B5DL(R)
BS5D(R), BS5DL(R)



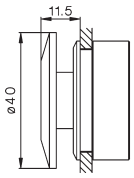
Mushroom Head Ø28mm
Emergency Stop Ø28mm

B5P1 to B5P3
BS5P1 to BS5P3



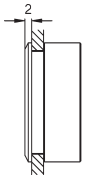
Mushroom Head Ø40mm
Emergency Stop Ø40mm

B5P14, B5P34
BS5P14, BS5P34



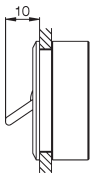
Lens Cap

B5RF



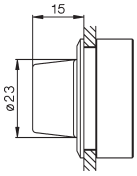
Toggle

B5E
BS5E



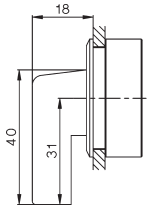
Rotary Knob

B5KN, B5KL
BS5KN, BS5KL



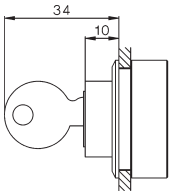
Swing Knob

B5KRL, B5KRN
BS5KRL, BS5KRN



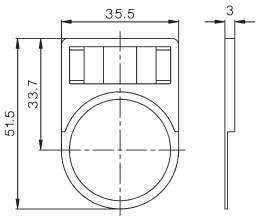
Lockable Push button

B5SAR., B5SAT.
BS5SAR., BS5SAT.



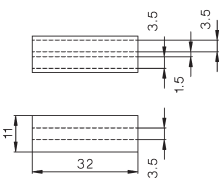
Label holder

P942-1



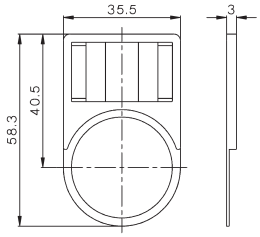
Legend plate

BK5-...



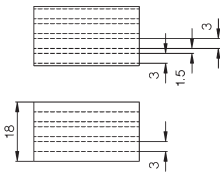
Label holder

P1043



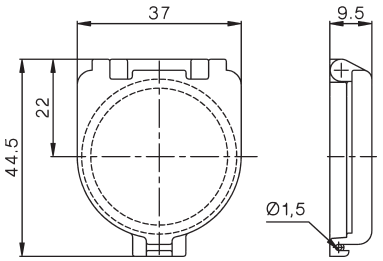
Legend plate

BK10-..



Dimensions

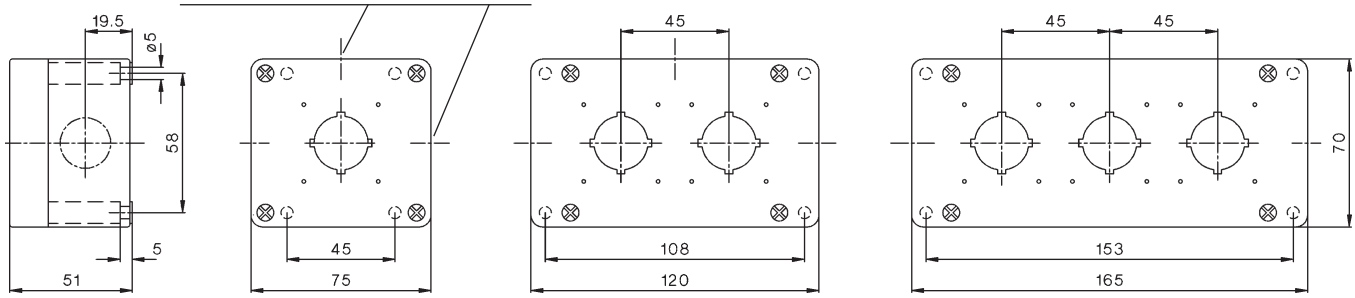
Protective Cover
B5-SAP



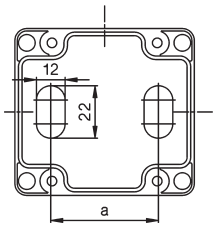
Enclosures for Custom Built Stations

BG1 BG2 BG3

Three conduit entries (knockouts), each on top, left and right side, Ø20,5mm (M20 or PG13,5)

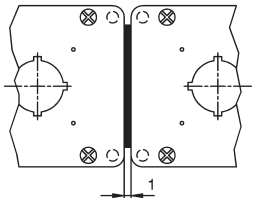


Conduit entries in the bottom
(knockouts)



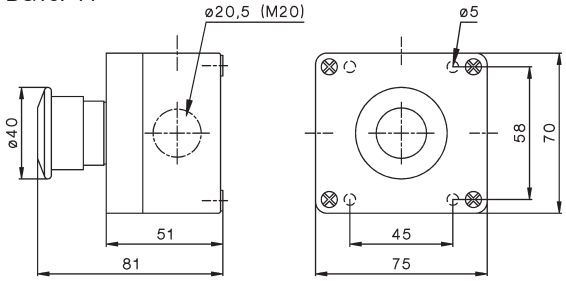
Number of units	Dimension a
1	45
2	90
3	135

Coupled Enclosures
B4-8852



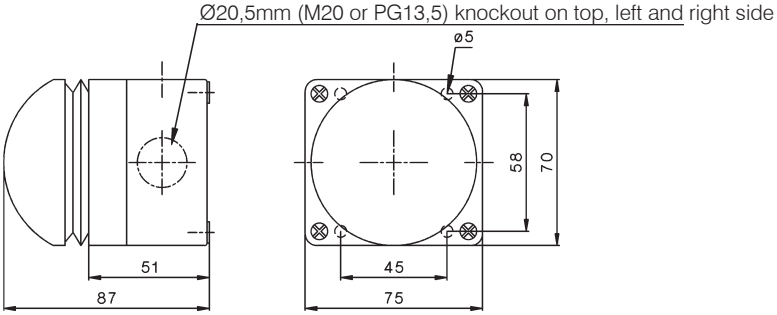
EMERGENCY STOP Push Button Ø40 mm

BG10P44



EMERGENCY STOP Push Button Ø70 mm, Foot switch

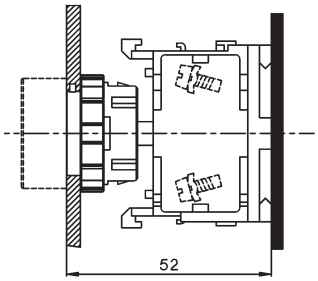
BG10P34P, BG10P14P



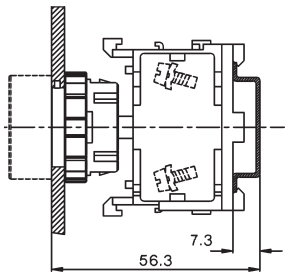
Dimensions

Actuators 22mm

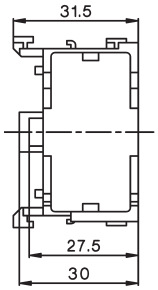
Base mounting

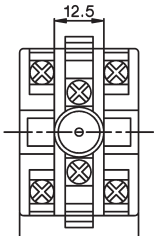


DIN-rail mounting

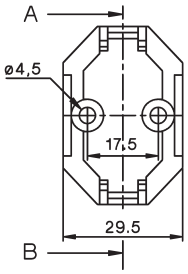


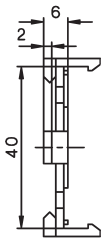
Contact blocks and Lamp Holders B4.U...





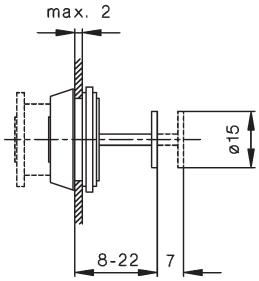
Base B4U

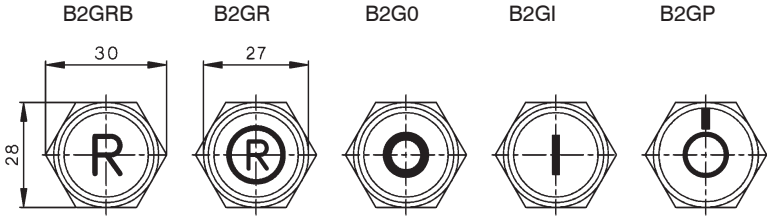




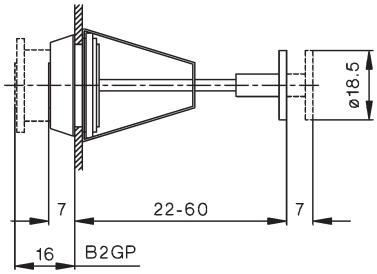
Push buttons for enclosures

B2G..-22

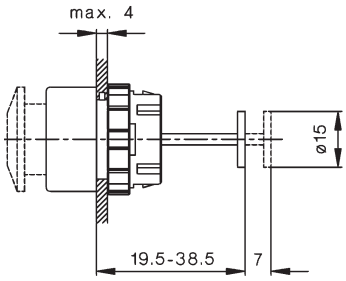


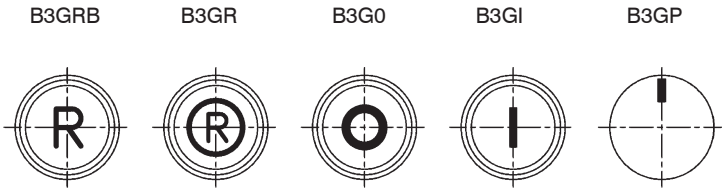
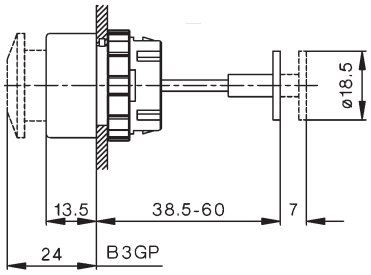


B2G..-60



B3G..-31,5





B3G..-60