

Actuators and Lens Caps 22mm IP67 (IP65),  Type12

Push Buttons



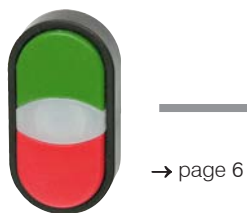
EMERGENCY STOP Buttons



Illuminated Operators



Double Push Buttons with Indicator Lamp IP65



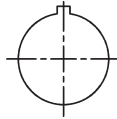
Lens Caps



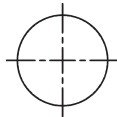
→ page 7

Mounting hole
Ø 22,5mm

with key way



without key way



→ page 4



→ page 10

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



Connectors

Thickness
0,5 - 4 mm
→ page 8

or



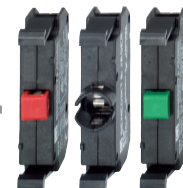
Thickness
1 - 6 mm
→ page 8



Connectors
Lamp Holders



Actuator insert
→ page 8



→ page 8



LED
24-230V



Filament
6-130V



Glow-discharge
230V
→ page 9

Actuators 22mm Type12

Ring

Knob

Alu

Black

Chrome

Pack Weight
pcs. 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
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
	Swing					
spring return/maintained 60°						
	Rotary	B3KN7	BS3KN7	BC3KN7	10	0,020
	Swing					
maintained 120°						
	Rotary	B3KN9	BS3KN9	BC3KN9	10	0,020
	Swing					
maintained 90° entsprechend EN81						
	Rotary	B3KN10	BS3KN10	BC3KN10	10	0,020

Illuminated Rotary Knobs and Swing Knobs, clear IP67, lamp max. 1,2W, lamps see page 13



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
	Swing					

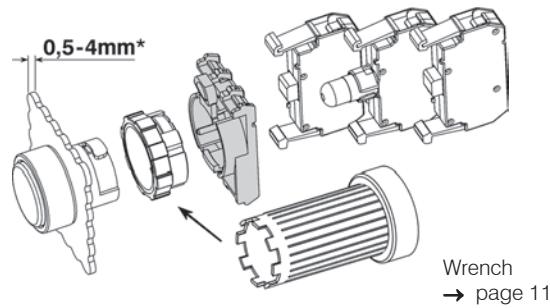
Toggle IP65



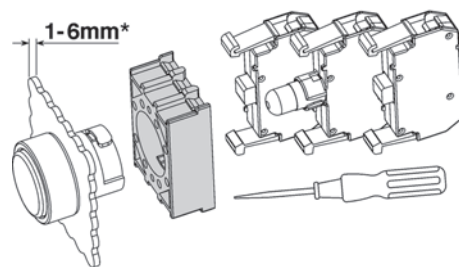
O - I	B3E	BS3E	BC3E	10	0,017
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Connectors

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



Connector B3M		B3M	10	0,013
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*) 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	21 22	B3T01 ²⁾	10	0,010
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max. 690V AC	1 NO	13 14	B3T10 ²⁾	10	0,010
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Actuator insert	to actuate the center contact block		P642	10	0,001
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Lamp holders, socket BA9s



max. 440V AC/DC	direct connection, for lamps max. 1,9W (take care for active power consumption)	X1 X2	B3F	10	0,012
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Lamp holders for lamp test circuits, socket BA9s





max. 440V AC	direct connection, for lamps max. 1,7W (active power consumption)	X5 X2 X1	B3FT	10	0,020
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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.
LED lamps ²⁾ 10 years lifetime						
	20-30V AC/DC	17mA / 0,4W	for red lens caps	B3-L24 RTB	10	0,005
	20-30V AC/DC	17mA / 0,4W	for green lens caps	B3-L24 GNB	10	0,005
	20-30V AC/DC	17mA / 0,4W	for yellow lens caps	B3-L24 GEB	10	0,005
	20-30V AC/DC	17mA / 0,4W	for blue lens caps	B3-L24 BLB	10	0,005
	20-30V AC/DC	17mA / 0,4W	for white lens caps	B3-L24 WSB	10	0,005
	90-120V AC/DC	7mA / 0,8W	for red lens caps	B3-L110 RTB	10	0,005
90-120V AC/DC	7mA / 0,8W	for green lens caps	B3-L110 GNB	10	0,005	
90-120V AC/DC	7mA / 0,8W	for yellow lens caps	B3-L110 GEB	10	0,005	
	90-120V AC/DC	7mA / 0,8W	for blue lens caps	B3-L110 BLB	10	0,005
	90-120V AC/DC	7mA / 0,8W	for white lens caps	B3-L110 WSB	10	0,005
	200-250V AC/DC	4mA / 0,9W	for red lens caps	B3-L230 RTB	10	0,005
	200-250V AC/DC	4mA / 0,9W	for green lens caps	B3-L230 GNB	10	0,005
	200-250V AC/DC	4mA / 0,9W	for yellow lens caps	B3-L230 GEB	10	0,005
	200-250V AC/DC	4mA / 0,9W	for blue lens caps	B3-L230 BLB	10	0,005
200-250V AC/DC	4mA / 0,9W	for white lens caps	B3-L230 WSB	10	0,005	

Filament lamps

12V	1,2W	for all lens caps	B4-G12	50	0,005
24V	1,2W	for all lens caps	B4-G24	50	0,005
42V	1,2W	for all lens caps	B4-G42	50	0,005
48V	1,2W	for all lens caps	B4-G48	50	0,005
60V	1,2W	for all lens caps	B4-G60	50	0,005
110/120V ¹⁾	1,5/1,8W	for all lens caps	B4-G130	50	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



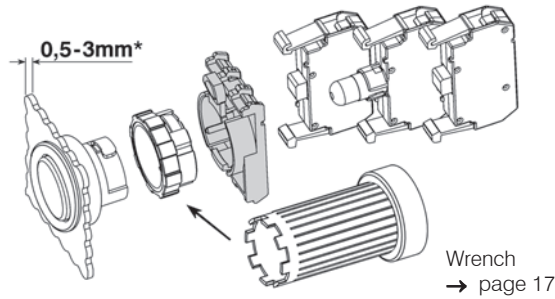
			Type	VPE Stk.	Gewicht kg/Stk.
Wrench	for mounting of actuators and lens caps B(S)3..		J7049	1	0,018
Marking plate	for marking of contact blocks B3T. and lamp holders B3F		P672-1	10	0,001
Lamp Installer	used to install or replace lamps BA9s		B4-7408	1	0,010
Spare Key	for B(S)3SA.. and BS3P44S3, Ronis R455		B4-R455	1	0,007
	for B(S)3SB.., Ronis R786		B4-R786	1	0,007
Hole Plug	black, for fixing holes Ø22,5mm		B3-DU SW	10	0,007
	grey		B3-DU GR	10	0,007
Sealing Cover	protection against coarse contamination	ambient temp. 0° - +50° C	P279-1	1	0,003
		petrol-resistant, <i>not for B3D..R.. (maintained)</i> ambient temp. -25° - +55° C	P279-3	1	0,003
		for double push buttons, petrol-resistant ambient temp. -25° - +55° C	P279-DT	1	0,003
Protection cover	against unintentional manipulation				
	Thickness 1mm	yellow	B3-SK GE	1	0,04
	Thickness 1mm	grey	B3-SK GR	1	0,04
Protection ring with thread	against unintentional manipulation				
	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

Label Holder and Legend Plates for Push Buttons B3, 22mm

				Type	Pack pcs.	Weight kg/pc.																																																																																																																																																																																																																																																																	
Marking 1 or 2 lines																																																																																																																																																																																																																																																																							
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<table border="1"> <thead> <tr> <th>marking</th> <th>Type</th> <th>marking</th> <th>Type</th> <th>Pack pcs.</th> <th>Weight kg/pc.</th> </tr> </thead> <tbody> <tr> <td colspan="6">Legend plate alu, for label holder P751</td> </tr> <tr> <td></td> <td>blank</td> <td>BK4-9736</td> <td></td> <td>100</td> <td>0,0002</td> </tr> <tr> <td></td> <td>I</td> <td>BK4-I</td> <td>II</td> <td>BK4-II</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>III</td> <td>BK4-III</td> <td>IV</td> <td>BK4-IV</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>V</td> <td>BK4-V</td> <td></td> <td></td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>→</td> <td>BK4---></td> <td>←</td> <td>BK4-<--</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>0 I</td> <td>BK4-0-I</td> <td>H 0 A</td> <td>BK4-H 0 A</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>0 I</td> <td>BK4-0__I</td> <td>1 0 2</td> <td>BK4-1 0 2</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>START</td> <td>BK4-START</td> <td>STOP</td> <td>BK4-STOP</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>EIN</td> <td>BK4-EIN</td> <td>AUS</td> <td>BK4-AUS</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>BETRIEB</td> <td>BK4-BETRIEB</td> <td>STÖRUNG</td> <td>BK4-STÖRUNG</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>VOR</td> <td>BK4-VOR</td> <td>ZURÜCK</td> <td>BK4-ZURÜCK</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>HEBEN</td> <td>BK4-HEBEN</td> <td>SENKEN</td> <td>BK4-SENKEN</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>LINKS</td> <td>BK4-LINKS</td> <td>RECHTS</td> <td>BK4-RECHTS</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>MEHR</td> <td>BK4-MEHR</td> <td>WENIGER</td> <td>BK4-WENIGER</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>SCHNELL</td> <td>BK4-SCHNELL</td> <td>LANGSAM</td> <td>BK4-LANGSAM</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>HELLER</td> <td>BK4-HELLER</td> <td>DUNKLER</td> <td>BK4-DUNKLER</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>AUF</td> <td>BK4-AUF</td> <td>ZU</td> <td>BK4-ZU</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>AB</td> <td>BK4-AB</td> <td>HALT</td> <td>BK4-HALT</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td>EILGANG</td> <td>BK4-EILGANG</td> <td>TIPPEN</td> <td>BK4-TIPPEN</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td colspan="6">Legend plate with non-standard marking (e. g.: BK4-MOTOR-START)</td> </tr> <tr> <td></td> <td colspan="3">Text 1 line, max. 11 letters, letter height 3mm</td> <td>BK4-...</td> <td>1</td> <td>0,0002</td> </tr> <tr> <td></td> <td colspan="3">Text 2 lines, max. 2 x 11 letters, letter height 3mm</td> <td>BK4-...-...</td> <td>1</td> <td>0,0002</td> </tr> <tr> <td colspan="7">Legend plate yellow, for label holder P751-3</td> </tr> <tr> <td colspan="4">Legend plate yellow without marking</td> <td>BK4-10827</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td colspan="3">Legend plate yellow with marking NOT-AUS</td> <td>BK4-10827-1</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td colspan="3">Legend plate yellow with marking EMERGENCY STOP</td> <td>BK4-10827-2</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td></td> <td colspan="3">Legend plate yellow with marking ARRET D`URGENCE</td> <td>BK4-10827-3</td> <td>10</td> <td>0,0002</td> </tr> <tr> <td colspan="7">Marking 3 or 4 lines</td> </tr> <tr> <td rowspan="3"></td> <td colspan="4">Label holder for legend plate BK8, black, Thickness 0,8mm</td> <td>P761</td> <td>10</td> <td>0,002</td> </tr> <tr> <td colspan="4">Label holder for legend plate BK8, yellow, Thickness 0,8mm</td> <td>P761-3</td> <td>10</td> <td>0,002</td> </tr> <tr> <td colspan="4">Label holder for BK8, for double push buttons only</td> <td>P761-DT</td> <td>10</td> <td>0,002</td> </tr> <tr> <td colspan="7">Legend plate BK8 with for label holder P761 (with marking e. g.: BK8-WATER-PUMP-START)</td> </tr> <tr> <td></td> <td colspan="4">Legend plate without marking</td> <td>BK8-9736</td> <td>10</td> <td>0,0004</td> </tr> <tr> <td></td> <td colspan="3">Text 3 lines, max. 3 x 11 letters, letter height 3mm</td> <td>BK8-...-...-...</td> <td>10</td> <td>0,0004</td> </tr> <tr> <td></td> <td colspan="3">Text 4 lines, max. 4 x 11 letters, letter height 3mm</td> <td>BK8-...-...-...-...</td> <td>10</td> <td>0,0004</td> </tr> </tbody> </table>							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	0,002	Label holder for legend plate BK8, yellow, Thickness 0,8mm				P761-3	10	0,002	Label holder for BK8, for double push buttons only				P761-DT	10	0,002	Legend plate BK8 with 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
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	EIN	BK4-EIN	AUS	BK4-AUS	10	0,0002																																																																																																																																																																																																																																																																	
	BETRIEB	BK4-BETRIEB	STÖRUNG	BK4-STÖRUNG	10	0,0002																																																																																																																																																																																																																																																																	
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	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	0,002																																																																																																																																																																																																																																																																
	Label holder for legend plate BK8, yellow, Thickness 0,8mm				P761-3	10	0,002																																																																																																																																																																																																																																																																
	Label holder for BK8, for double push buttons only				P761-DT	10	0,002																																																																																																																																																																																																																																																																
Legend plate BK8 with 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																																																																																																																																																																																																																																																																	

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 (→)	21 ├──┤ 22	B3T01 ²⁾	10	0,010
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max. 690V AC	1 NO	13 ├──┤ 14	B3T10 ²⁾	10	0,010
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Actuator insert	to actuate the center contact block		P642	10	0,001
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Lamp holders, socket BA9s



max. 440V AC/DC	direct connection, for lamps max. 1,9W (take care for active power consumption)	x1 ⊗ x2	B3F	10	0,012
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Lamp holders for lamp test circuits, socket BA9s



max. 440V AC	direct connection, for lamps max. 1,7W (active power consumption)	x5 x2 ├──┤ x1	B3FT	10	0,020
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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⁾ 10 years lifetime



20-30V AC/DC	17mA / 0,4W	for red lens caps	B3-L24 RTB	10	0,005
20-30V AC/DC	17mA / 0,4W	for green lens caps	B3-L24 GNB	10	0,005
20-30V AC/DC	17mA / 0,4W	for yellow lens caps	B3-L24 GEB	10	0,005
20-30V AC/DC	17mA / 0,4W	for blue lens caps	B3-L24 BLB	10	0,005
20-30V AC/DC	17mA / 0,4W	for white lens caps	B3-L24 WSB	10	0,005
90-120V AC/DC	7mA / 0,8W	for red lens caps	B3-L110 RTB	10	0,005
90-120V AC/DC	7mA / 0,8W	for green lens caps	B3-L110 GNB	10	0,005
90-120V AC/DC	7mA / 0,8W	for yellow lens caps	B3-L110 GEB	10	0,005
90-120V AC/DC	7mA / 0,8W	for blue lens caps	B3-L110 BLB	10	0,005
90-120V AC/DC	7mA / 0,8W	for white lens caps	B3-L110 WSB	10	0,005
200-250V AC/DC	4mA / 0,9W	for red lens caps	B3-L230 RTB	10	0,005
200-250V AC/DC	4mA / 0,9W	for green lens caps	B3-L230 GNB	10	0,005
200-250V AC/DC	4mA / 0,9W	for yellow lens caps	B3-L230 GEB	10	0,005
200-250V AC/DC	4mA / 0,9W	for blue lens caps	B3-L230 BLB	10	0,005
200-250V AC/DC	4mA / 0,9W	for white lens caps	B3-L230 WSB	10	0,005

Filament lamps



12V	1,2W	for all lens caps	B4-G12	50	0,005
24V	1,2W	for all lens caps	B4-G24	50	0,005
42V	1,2W	for all lens caps	B4-G42	50	0,005
48V	1,2W	for all lens caps	B4-G48	50	0,005
60V	1,2W	for all lens caps	B4-G60	50	0,005
110/120V ¹⁾	1,5/1,8W	for all lens caps	B4-G130	50	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

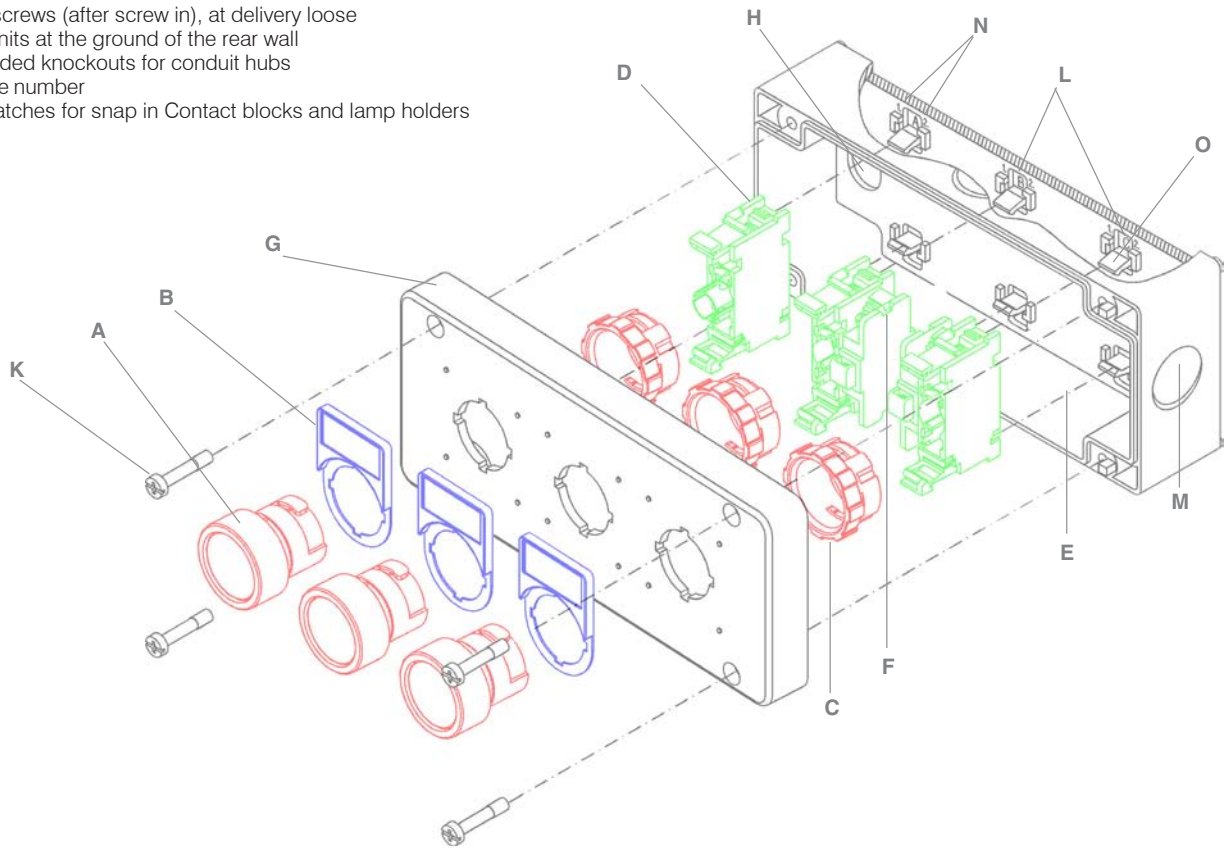
Accessories



		Type	VPE Stk.	Gewicht kg/Stk.
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
Protectiv cover sealable	against unintentional manipulation of buttons B5, (<i>not for mushroom heads, rotary and swing knobs</i>)	B5-SAP	1	0,008
Label holder	for legend plate BK5, black	P942-1	10	0,002
Legend plate	alu without marking Text 1 or 2 lines, max. 4 x 13 letters, letter height 3mm	BK5-11374	10	0,002
Adapter	to convert actuator Actuators 22mm to 30mm			
	alu	B5	10	0,017
	black	BS5	10	0,017
	chrome	BC5	10	0,017

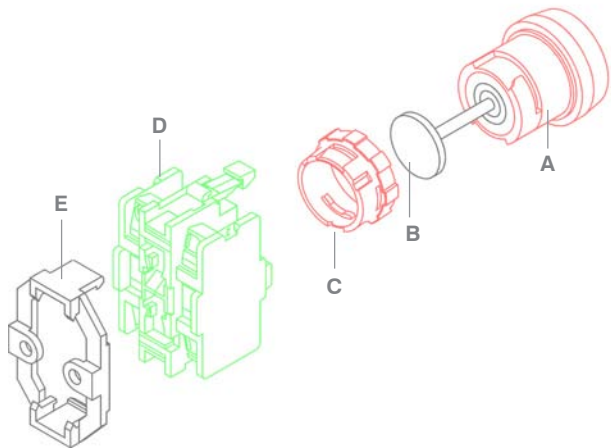
Assembled Stations BG.. IP67 Type12

- A Actuators or Lens caps, see page 3 - 6
- B Legend plates with label holder
- C Ring and nut (included with actuator or lens cap)
- D Contact blocks and lamp holders, see page 20
- 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 3 - 6, Ø 30mm see page 13 - 15
- B Extension B4V...
- C Ring and nut (included with actuator or lens cap)
- D Contact block B4.. see page 20
- E Base B4U for base and DIN-rail mounting of contact blocks



Type

Pack Weight
pcs. kg/pc.













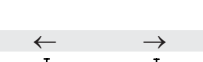
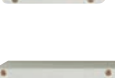
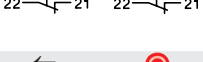



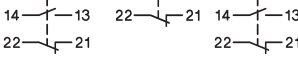

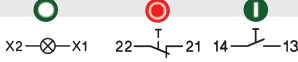










Mounting Plate for base and DIN-rail mounting of contact blocks



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

Assembled Stations IP67 (IP65) Typ12

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

		Diagram	Type	Pack pcs.	Weight kg/pc.
	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 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 EN418 unlock by pull		BG10P44-11	1	0,145
	EMERGENCY STOP key operated button Ø40mm according to EN418 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, Type12





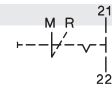

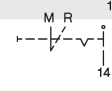


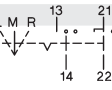


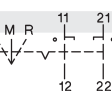

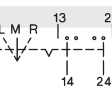
Number of units	Description	Type	Pack pcs.	Weight kg/pc.
1	3 knockouts Ø20,5mm (M20 or PG13,5)	BG1	1	0,108
2	3 knockouts Ø20,5mm (M20 or PG13,5)	BG2	1	0,145
3	3 knockouts Ø20,5mm (M20 or PG13,5)	BG3	1	0,188

Buttons and Lens Caps B3.. see page 3 to 6

Contacts	Lamp voltage	Wiring diagram	actuators with 2 or 3 switch positions	Type	Pack pcs.	Weight kg/pc.
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
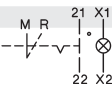

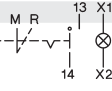


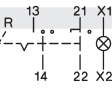


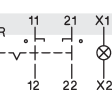

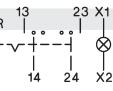
Contact blocks for enclosures BG..




1NC ¹⁾ 				B4TU01	10	0,015
1NO				B4TU10	10	0,015
1NO+1NC ¹⁾ 				B4TU11	10	0,022
2NC ¹⁾ 				B4TU02	10	0,022
2NO				B4TU20	10	0,022

Contact blocks with lamp holder, socket BA9s for LED or lamps, for enclosures BG..



1NC ¹⁾ 	max. 440V AC/DC			B4TU01F	10	0,020
1NO	max. 440V AC/DC			B4TU10F	10	0,020
1NO+1NC ¹⁾ 	max. 440V AC/DC			B4TU11F	10	0,027
2NC ¹⁾ 	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

max. 440V AC/DC	direct connection, for lamps max. 1,9W (take care for active power consumption)		X1 X2	B4FU	10	0,013
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1)  NC contact has a positive opening according to IEC/EN 60947-5-1

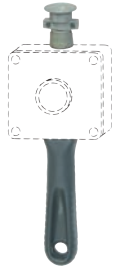
Accessories for Plastic enclosed buttons



		Type	Pack pcs.	Weight kg/pc.
Wrench	for mounting of actuators and lens caps B(S)3..	J7049	1	0,018



Couple Part	to couple enclosures BKLG or assembled stations BG..	B4-8852	1	0,018
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Suspension Eye	for hanging stations	B4-9929	1	0,188
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Handle and Cable Inlet	to change enclosures BG.. or assembled stations BG.. into a hanging station	B4-9149	1	0,064
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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								01		 NO Green NC Red
20		11						02		
30		21		12				03		
40		31		22		13		04		

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_n	220-240V A 380-415V A 500V A 690V A	10 10 10 10	10 10 10 -
Utilization category AC15 Control of electromagnetic load (>72VA)			
Rated current I_n	220-240V A 380-415V A 500V A 690V A	6 5 3 2	6 5 3 -
Utilization category DC12 L/R = 1ms Control of resistive loads and solid stateloads with isolation by opto couplers			
Rated current I_n	24V A 60V A 110V A 220V A	10 6 2,5 0,8	10 6 2,5 0,8
Utilization category DC14 L/R = 15ms Control of electromagnetic loads having economy resistors in circuit			
Rated current I_n	24V A 60V A 110V A 220V A	8 1 2 0,5	8 1 2 0,5
Utilization category DC13 L/R = 300ms Control of electromagnets			
Rated current I_n	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 ²⁾	440 ²⁾
Lamp base		BA9s	

Type		B3., B4.
Protection degree (according to IEC 947-1) in assembled state, from the front from rear		IP65 IP00
Ambient temperature	°C	-20 to +50
Cable cross-section		
	solid, mm ² flexible, mm ² flexible with multicore cable end, mm ² 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.
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)	14 - 18AWG	14 - 18AWG
Torque	9 lb/in.	9 lb/in.

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

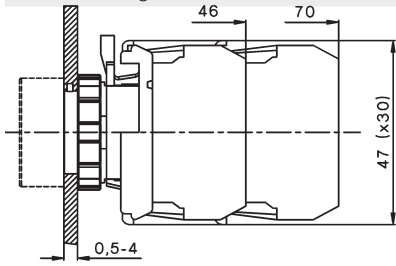
- Not provided for test till now

1) suitable for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry): $U_{imp} = 6kV$. Data for other conditions on request
2) suitable for: earthed-neutral systems, overvoltage category I to III, pollution degree 3 (standard-industry): $U_{imp} = 4kV$

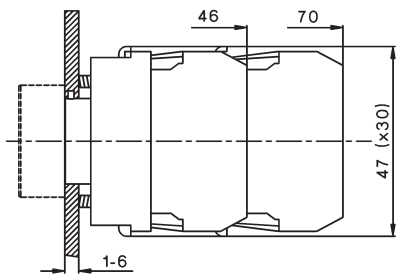
Dimensions

Actuators and Lens Caps 22mm

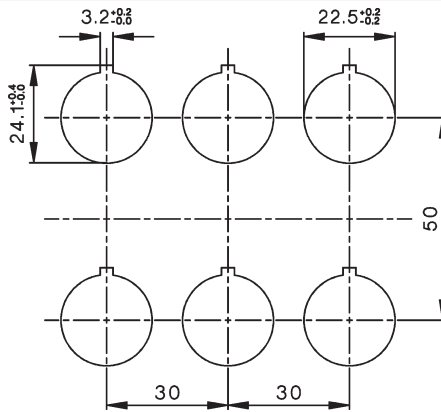
Panel mounting B3S



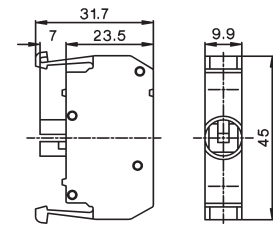
Panel mounting B3M



Mounting holes



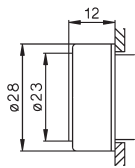
Contact blocks and Lampenhalter B3...



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.

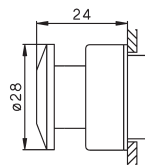
Actuators and Lens caps

Flush Head
Illuminated Flush Head



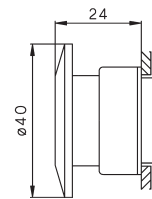
B3D(R), B3DL(R)
BS3D(R), BS3DL(R)
BC3D(R), BC3DL(R)

Mushroom Head Ø28mm
Emergency Stop Ø28mm



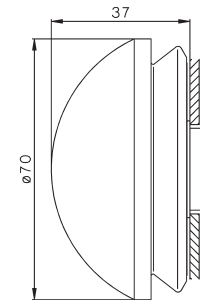
B3P1 bis B3P3
BS3P1 bis BS3P3
BC3P1 bis BC3P3

Mushroom Head Ø40mm
Emergency Stop Ø40mm



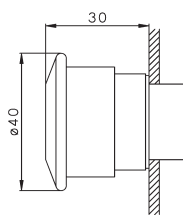
B3P14, B3P34
BS3P14, BS3P34
BC3P14, BC3P34

Mushroom Head Ø70mm
Emergency Stop Ø70mm



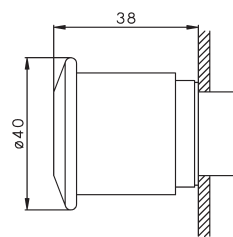
BS3P14P
BS3P34P

Push-and pull button Ø40mm



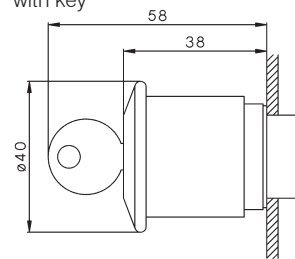
BS3P44

Push-and pull button Ø40mm



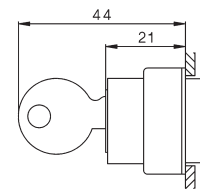
BS3P45

Push-and pull button Ø40mm
with key



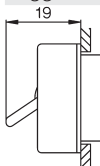
BS3P44S3

Lockable Push button



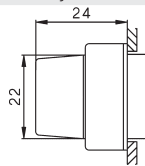
B3SAR., B3SAT.
BS3SAR., BS3SAT.
BC3SAR., BC3SAT.

Toggle



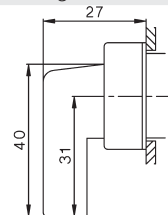
B3E
BS3E
BC3E

Rotary Knob



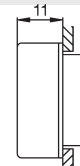
B3KN, B3KL
BS3KN, BS3KL
BC3KN, BC3KL

Swing Knob



B3KRL, B3KRN
BS3KRL, BS3KRN
BC3KRL, BC3KRN

Lens Cap

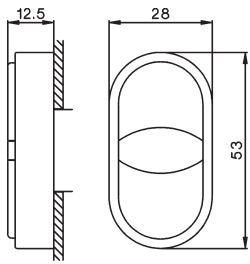


B3R(F)

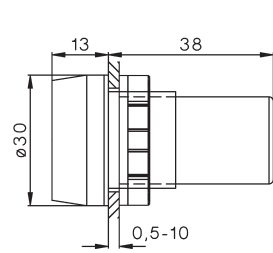
Dimensions

Actuators and Lens Caps 22mm

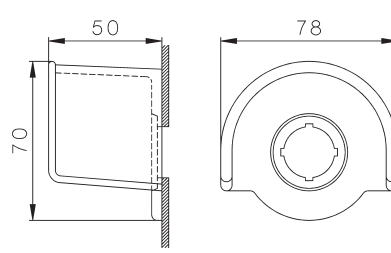
Double push button



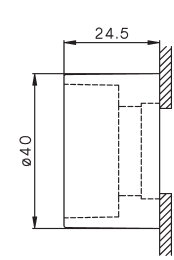
Monoblock Multi-LED



Protection cover



Protection ring w. thread



B3DT

B3-MB...

B3-SK ..

P921-.

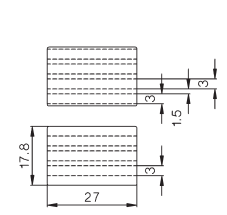
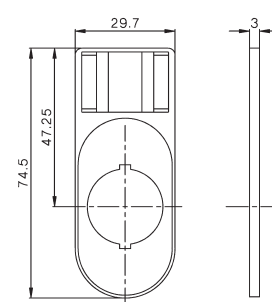
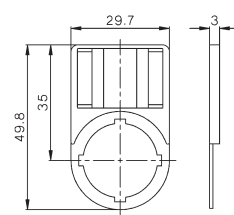
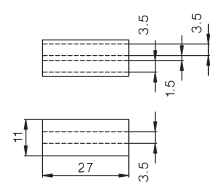
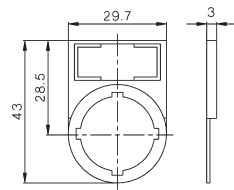
Label holder

Legend plate

Label holder

Label holder

Legend plate



P751

BK4-...

P761

P761-DT

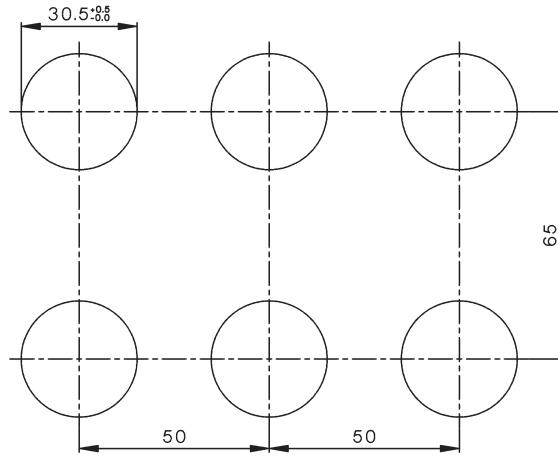
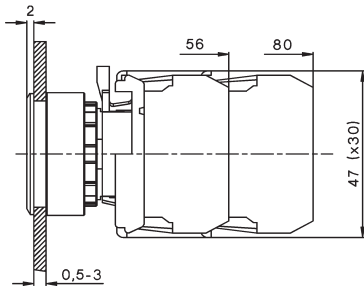
BK8-...

Dimensions

Actuators and Lens Caps 30mm

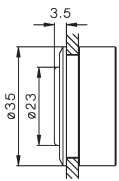
Panel mounting B3S

Mounting holes



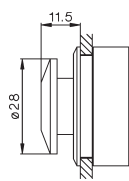
Actuators and Lens caps

Flush Head
Illuminated Flush Head



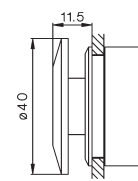
B5D(R), B5DL(R)
BS5D(R), BS5DL(R)

Mushroom Head Ø28mm
Emergency Stop Ø28mm



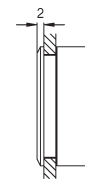
B5P1 to B5P3
BS5P1 to BS5P3

Mushroom Head Ø40mm
Emergency Stop Ø40mm



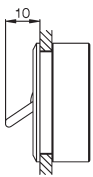
B5P14, B5P34
BS5P14, BS5P34

Lens Cap



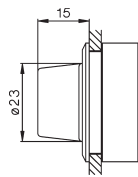
B5RF

Toggle



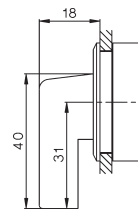
B5E
BS5E

Rotary Knob



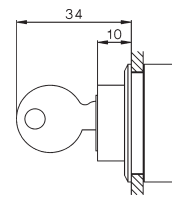
B5KN, B5KL
BS5KN, BS5KL

Swing Knob



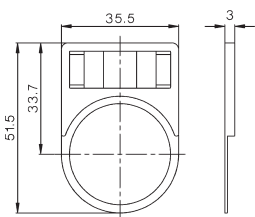
B5KRL, B5KRN
BS5KRL, BS5KRN

Lockable Push button



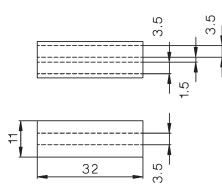
B5SAR., B5SAT.
BS5SAR., BS5SAT.

Label holder



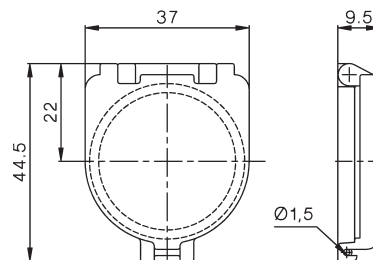
P761

Legend plate



BK5-...

Protectiv cover

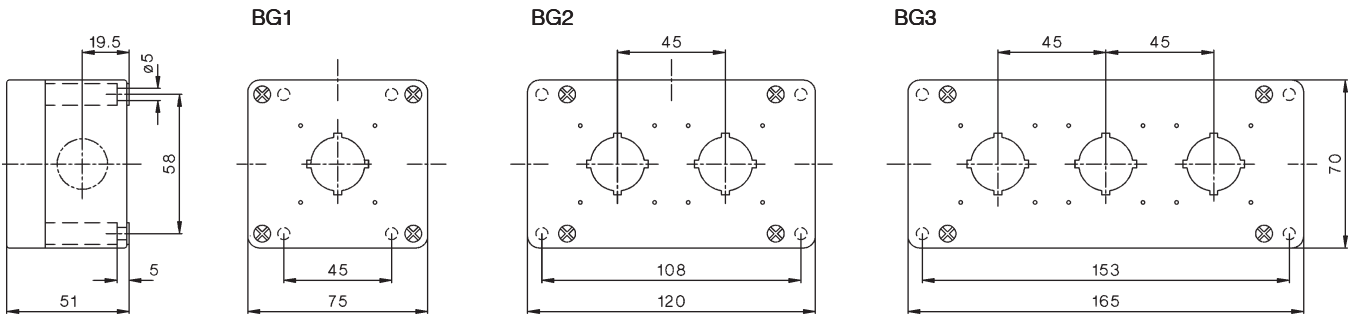


B5-SAP

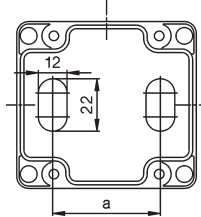
Dimensions

Enclosures for Custom Built Stations

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

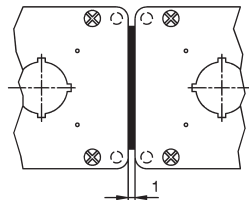


Conduit entries in the bottom (knockouts)

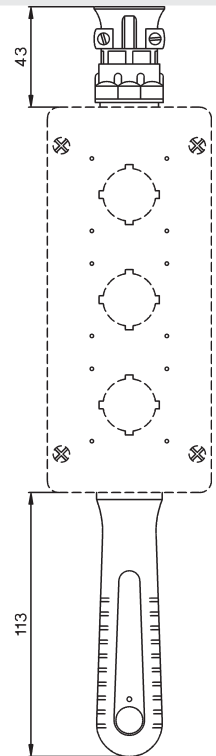


Number of units	Dimension a
1	45
2	90
3	135

Coupled Enclosures B4-8852



Hanging Station B4-9149



EMERGENCY STOP Push Button Ø70 mm, Foot switch BG10P34P, BG10P14P

