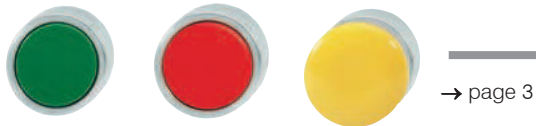


	Program B3	2	
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			Push Buttons 3
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			Key Operated Rotary Switches 4
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Actuators and Lens Caps 22mm IP67 (IP65),  Type12

Push Buttons



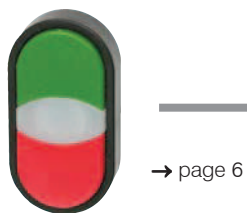
EMERGENCY STOP Buttons



Illuminated Operators



Double Push Buttons with Indicator Lamp IP65



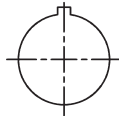
Lens Caps



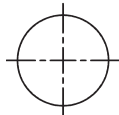
→ page 7

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



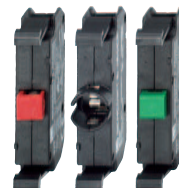
Thickness  
1 - 6 mm  
→ page 8



Connectors  
Lamp Holders



Actuator insert  
→ page 8



→ page 8



LED  
24-230V



Filament  
6-130V



Glow-discharge  
230V  
→ page 9

# Actuators 22mm IP67, Type12

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

## Push Buttons, Actuator Caps markable



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
green	I		B3D GN-I	BS3D GN-I	BC3D GN-I	10	0,014
green	II		B3D GN-II	BS3D GN-II	BC3D GN-II	10	0,014
green	→		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
weiß			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



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
weiß			B3DR WS	BS3DR WS	BC3DR WS	10	0,014
black			B3DR SW	BS3DR SW	BC3DR SW	10	0,014

## Mushroom Head Ø28mm



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

## Mushroom Head Ø40mm



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



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



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

# Actuators 22mm IP67, Type12

Ring	Colour	Symbol / high	 <b>Alu</b>	 <b>Black</b>	 <b>Chrome</b>	Pack pcs.	Weight kg/pc.
------	--------	---------------	--	--	---	-----------	---------------

## EMERGENCY STOP Push Buttons, according to EN418, push to trip, pull to release Ø40mm



red	26mm	<b>BS3P44 RT</b>	<b>BS3P44 RT</b>	<b>BS3P44 RT</b>	10	0,028
red	38mm	<b>BS3P45 RT</b>	<b>BS3P45 RT</b>	<b>BS3P45 RT</b>	10	0,028

## EMERGENCY STOP Push Buttons, according to EN418, release by key, Ø40mm



red	38mm	<b>BS3P44S3</b>	<b>BS3P44S3</b>	<b>BS3P44S3</b>	1	0,050
-----	------	-----------------	-----------------	-----------------	---	-------

Spare Key

lock Ronis R455		<b>B4-R455</b>			1	0,0077
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## EMERGENCY STOP Push Buttons, release by turning, Ø28mm



red		<b>B3P3 RT</b>	<b>BS3P3 RT</b>	<b>BC3P3 RT</b>	10	0,017
red	0	<b>B3P3 RT-0</b>	<b>BS3P3 RT-0</b>	<b>BC3P3 RT-0</b>	10	0,017

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



red	0	<b>B3P34 RT-0</b>	<b>BS3P34 RT-0</b>	<b>BC3P34 RT-0</b>	10	0,020
red illuminated		<b>B3P34L RT</b>	<b>BS3P34L RT</b>	<b>BC3P34L RT</b>	10	0,020

## EMERGENCY STOP Push Buttons, release by turning, Ø70mm



red		<b>BS3P34P RT</b>	<b>BS3P34P RT</b>	<b>BS3P34P RT</b>	1	0,062
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Type

Pack Weight pcs. kg/pc.

## Yellow Disk Ø70mm, Thickness 1mm



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

## Protection cover against unintentional manipulation, Thickness 1mm
















for Push Buttons Ø28mm and Ø40mm yellow		<b>B3-SK GE</b>			1	0,04
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# Actuators 22mm Type12

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





## Rotary Knobs and Swing Knobs, black IP65



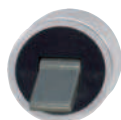
maintained 60°						
	Rotary	<b>B3KN2</b>	<b>BS3KN2</b>	<b>BC3KN2</b>	10	0,020
	Swing	<b>B3KRN2</b>	<b>BS3KRN2</b>	<b>BC3KRN2</b>	10	0,020
spring return 60°						
	Rotary	<b>B3KN8</b>	<b>BS3KN8</b>	<b>BC3KN8</b>	10	0,020
	Swing	<b>B3KRN8</b>	<b>BS3KRN8</b>	<b>BC3KRN8</b>	10	0,020
spring return 60°		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

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



maintained 90°						
	Rotary	<b>B3KL2</b>	<b>BS3KL2</b>	<b>BC3KL2</b>	10	0,016
	Swing					
spring return 60°						
	Rotary	<b>B3KL1</b>	<b>BS3KL1</b>	<b>BC3KL1</b>	10	0,016
	Swing	<b>B3KRL1</b>	<b>BS3KRL1</b>	<b>BC3KRL1</b>	10	0,016
maintained 60°						
	Rotary	<b>B3KL3</b>	<b>BS3KL3</b>	<b>BC3KL3</b>	10	0,016
	Swing	<b>B3KRL3</b>	<b>BS3KRL3</b>	<b>BC3KRL3</b>	10	0,016
maintained /spring return 60°						
	Rotary	<b>B3KL6</b>	<b>BS3KL6</b>	<b>BC3KL6</b>	10	0,016
	Swing					

## Toggle IP65



O - I	<b>B3E</b>	<b>BS3E</b>	<b>BC3E</b>	10	0,017
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# Actuators 22mm IP65, Type12

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

## Key Operated Rotary Switch with lock Ronis 455



B3SAR 0

maintained 60°



<b>B3SAR 0</b>	<b>BS3SAR 0</b>	<b>BC3SAR 0</b>	1	0,044
<b>B3SAR 1</b>	<b>BS3SAR 1</b>	<b>BC3SAR 1</b>	1	0,044
<b>B3SAR 01</b>	<b>BS3SAR 01</b>	<b>BC3SAR 01</b>	1	0,044



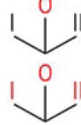
B3SARR 0

spring return 60°



<b>B3SAT 0</b>	<b>BS3SAT 0</b>	<b>BC3SAT 0</b>	1	0,044
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maintained 60°



<b>B3SARR 0</b>	<b>BS3SARR 0</b>	<b>BC3SARR 0</b>	1	0,044
<b>B3SARR 102</b>	<b>BS3SARR 102</b>	<b>BC3SARR 102</b>	1	0,044

spring return /maintained 60°



<b>B3SATR 02</b>	<b>BS3SATR 02</b>	<b>BC3SATR 02</b>	1	0,044
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spring return 60°



<b>B3SATT 0</b>	<b>BS3SATT 0</b>	<b>BC3SATT 0</b>	1	0,044
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<b>Spare Key</b> lock Ronis R455		<b>B4-R455</b>	1	0,007
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Colour      Symbol      pcs. kg/pc.

## Illuminated Push Buttons IP67, lamp max. 1,9W, lamps see page 13



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

## Illuminated Push Buttons, Maintained IP67, lamp max. 1,9W, lamps see page 13



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

## Double Push Buttons, with indicator lamp white, lamp max. 1,9W, lamps see page 13



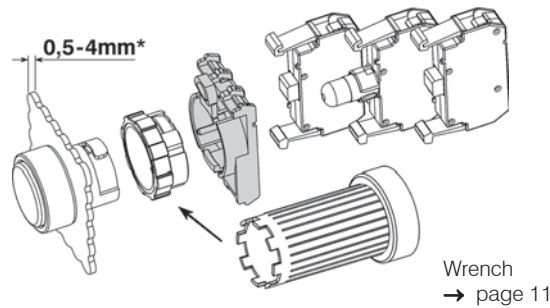
green red	<b>B3DT G/R</b> 1)	<b>BS3DT G/R</b>	<b>BC3DT G/R</b>	10	0,016
white black	<b>B3DT W/S</b> 1)	<b>BS3DT W/S</b>	<b>BC3DT W/S</b>	10	0,016
green red	I O <b>B3DT GI/RO</b> 1)	<b>BS3DT GI/RO</b>	<b>BC3DT GI/RO</b>	10	0,016
white black	I O <b>B3DT WI/SO</b> 1)	<b>BS3DT WI/SO</b>	<b>BC3DT WI/SO</b>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

with non-standard marking on request

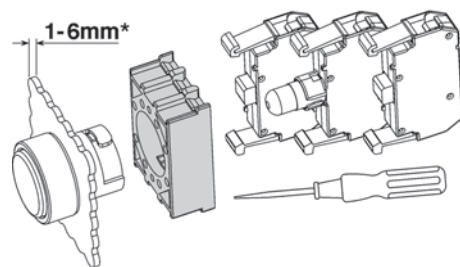
1) Plastic ring in alu design

## Connectors

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



<b>Connector B3M</b>		<b>B3M</b>	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.
-------------	-------------	------	-----------	---------------

### Contact blocks



max. 690V AC	1 NC	 21 22	<b>B3T01</b> <sup>2)</sup>	10	0,010
--------------	------	--------------	----------------------------	----	-------

max. 690V AC	1 NO	 13 14	<b>B3T10</b> <sup>2)</sup>	10	0,010
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<b>Actuator insert</b>	to actuate the center contact block	<b>P642</b>	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	<b>B3F</b>	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	<b>B3FT</b>	10	0,020
--------------	---	-----------------	-------------	----	-------

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

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

## Lamps

	Socket BA9s Lamp voltage	Power consumption		Type	Pack pcs.	Weight kg/pc.
<b>LED lamps</b> <sup>2)</sup> 10 years lifetime						
	20-30V AC/DC	17mA / 0,4W	for red lens caps	<b>B3-L24 RTB</b>	10	0,005
	20-30V AC/DC	17mA / 0,4W	for green lens caps	<b>B3-L24 GNB</b>	10	0,005
	20-30V AC/DC	17mA / 0,4W	for yellow lens caps	<b>B3-L24 GEB</b>	10	0,005
	20-30V AC/DC	17mA / 0,4W	for blue lens caps	<b>B3-L24 BLB</b>	10	0,005
	20-30V AC/DC	17mA / 0,4W	for white lens caps	<b>B3-L24 WSB</b>	10	0,005
	90-120V AC/DC	7mA / 0,8W	for red lens caps	<b>B3-L110 RTB</b>	10	0,005
90-120V AC/DC	7mA / 0,8W	for green lens caps	<b>B3-L110 GNB</b>	10	0,005	
90-120V AC/DC	7mA / 0,8W	for yellow lens caps	<b>B3-L110 GEB</b>	10	0,005	
	90-120V AC/DC	7mA / 0,8W	for blue lens caps	<b>B3-L110 BLB</b>	10	0,005
	90-120V AC/DC	7mA / 0,8W	for white lens caps	<b>B3-L110 WSB</b>	10	0,005
	200-250V AC/DC	4mA / 0,9W	for red lens caps	<b>B3-L230 RTB</b>	10	0,005
	200-250V AC/DC	4mA / 0,9W	for green lens caps	<b>B3-L230 GNB</b>	10	0,005
	200-250V AC/DC	4mA / 0,9W	for yellow lens caps	<b>B3-L230 GEB</b>	10	0,005
	200-250V AC/DC	4mA / 0,9W	for blue lens caps	<b>B3-L230 BLB</b>	10	0,005
200-250V AC/DC	4mA / 0,9W	for white lens caps	<b>B3-L230 WSB</b>	10	0,005	

## Filament lamps

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

## Glow-discharge lamps



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

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

2) suitable for B3FT lamp test lamp holders

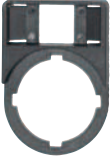







## Accessories



			Type	VPE Stk.	Gewicht kg/Stk.
<b>Wrench</b>	for mounting of actuators and lens caps B(S)3..		<b>J7049</b>	1	0,018
<b>Marking plate</b>	for marking of contact blocks B3T. and lamp holders B3F		<b>P672-1</b>	10	0,001
<b>Lamp Installer</b>	used to install or replace lamps BA9s		<b>B4-7408</b>	1	0,010
<b>Spare Key</b>	for B(S)3SA.. and BS3P44S3, Ronis R455		<b>B4-R455</b>	1	0,007
	for B(S)3SB.., Ronis R786		<b>B4-R786</b>	1	0,007
<b>Hole Plug</b>	black, for fixing holes Ø22,5mm		<b>B3-DU SW</b>	10	0,007
	grey		<b>B3-DU GR</b>	10	0,007
<b>Sealing Cover</b>	protection against coarse contamination	ambient temp. 0° - +50° C	<b>P279-1</b>	1	0,003
		petrol-resistant, <i>not for B3D..R.. (maintained)</i> ambient temp. -25° - +55° C	<b>P279-3</b>	1	0,003
		for double push buttons, petrol-resistant ambient temp. -25° - +55° C	<b>P279-DT</b>	1	0,003
<b>Protection cover</b>	against unintentional manipulation				
	Thickness 1mm	yellow	<b>B3-SK GE</b>	1	0,04
	Thickness 1mm	grey	<b>B3-SK GR</b>	1	0,04
<b>Protection ring with thread</b>	against unintentional manipulation				
	has to be mounted instead of the existing ring	black	<b>P921-1</b>	1	0,012
		chrome	<b>P921-2</b>	1	0,012
		alu	<b>P921-3</b>	1	0,012

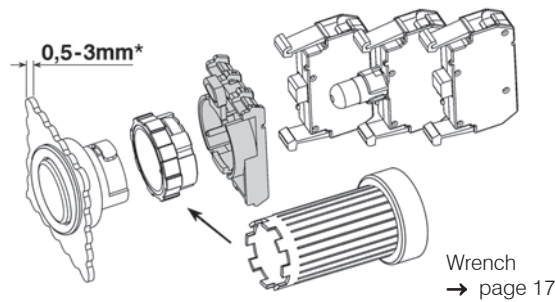


## Label Holder and Legend Plates for Push Buttons B3, 22mm

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

## Connectors

Specification	Description	Type	Pack pcs.	Weight kg/pc.
<b>Connector B3S</b>		<b>B3S</b>	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	<b>B3T01</b> <sup>2)</sup>	10	0,010
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max. 690V AC	1 NO	13 ├──┘ 14	<b>B3T10</b> <sup>2)</sup>	10	0,010
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<b>Actuator insert</b>	to actuate the center contact block		<b>P642</b>	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	<b>B3F</b>	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	<b>B3FT</b>	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 <sup>2)</sup> 10 years lifetime



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

### Filament lamps



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

### Glow-discharge lamps

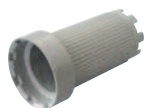


220-250V AC	0,3W	for clear, red, yellow lens caps	<b>B4-GL230K</b>	100	0,005
220-250V AC	0,3W	for green, blue lens caps	<b>B4-GL230G</b>	100	0,005

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

2) suitable for B3FT lamp test lamp holders

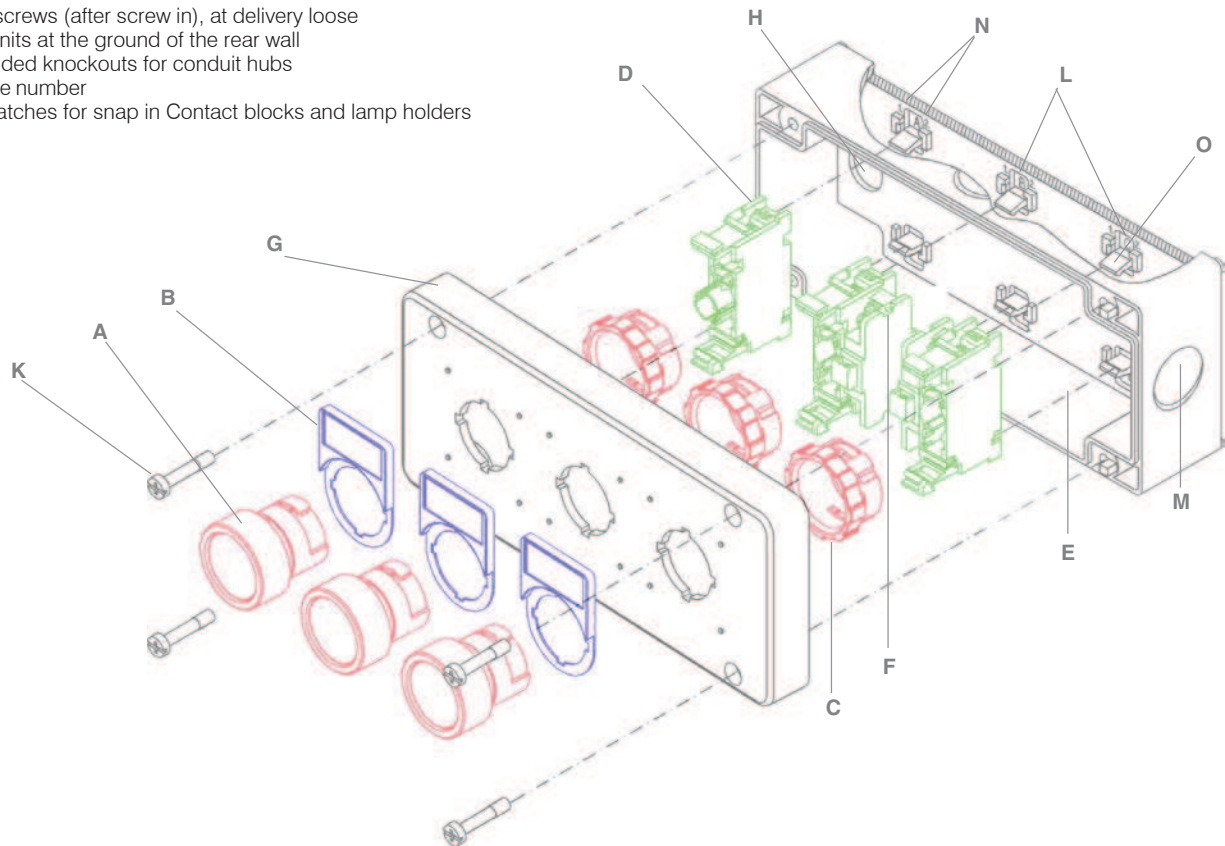
## Accessories



		Type	VPE Stk.	Gewicht kg/Stk.
<b>Wrench</b>	for mounting of actuators and lens caps B(S)3..	<b>J7049</b>	1	0,018
<b>Marking plate</b>	for marking of contact blocks B3T. and lamp holders B3F	<b>P672-1</b>	10	0,001
<b>Lamp Installer</b>	used to install or replace lamps BA9s	<b>B4-7408</b>	1	0,010
<b>Spare Key</b>	for B(S)3SA.. and BS3P44S3, Ronis R455 for B(S)3SB.. , Ronis R786	<b>B4-R455</b> <b>B4-R786</b>	1 1	0,007 0,007
<b>Protectiv cover sealable</b>	against unintentional manipulation of buttons B5, ( <i>not for mushroom heads, rotary and swing knobs</i> )	<b>B5-SAP</b>	1	0,008
<b>Label holder</b>	for legend plate BK5, black	<b>P942-1</b>	10	0,002
<b>Legend plate</b>	alu without marking Text 1 or 2 lines, max. 4 x 13 letters, letter height 3mm	<b>BK5-11374</b>	10	0,002
<b>Adapter</b>	to convert actuator Actuators 22mm to 30mm			
	alu	<b>B5</b>	10	0,017
	black	<b>BS5</b>	10	0,017
	chrome	<b>BC5</b>	10	0,017

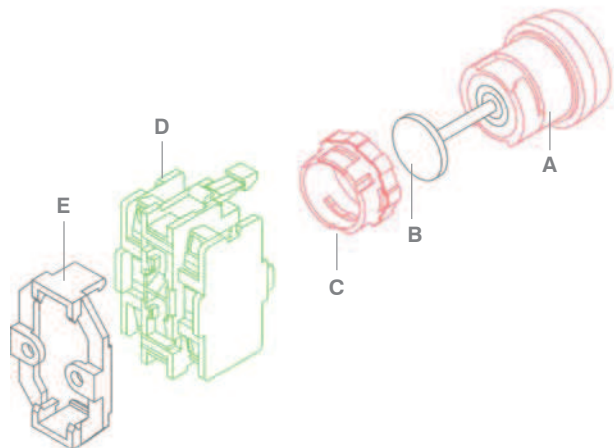
## Assembled Stations BG.. IP67 Type12

- 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



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



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

# Technical Data

## Terminal markings for control units according to DIN EN 50013

Distinc. number	Contact elements	Distinc. number	Contact elements	Distinc. number	Contact elements	Distinc. number	Contact elements	Distinc. number	Contact elements	Colour code
10								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
<b>Rated insulation voltage <math>U_i</math></b>	V AC	690 <sup>1)</sup>	500
<b>Utilization category AC12</b> Control of resistive loads and solid stateloads with isolation by opto couplers			
<b>Rated current <math>I_n</math></b>	220-240V A 380-415V A 500V A 690V A	10 10 10 10	10 10 10 -
<b>Utilization category AC15</b> Control of electromagnetic load (>72VA)			
<b>Rated current <math>I_n</math></b>	220-240V A 380-415V A 500V A 690V A	6 5 3 2	6 5 3 -
<b>Utilization category DC12</b> L/R = 1ms Control of resistive loads and solid stateloads with isolation by opto couplers			
<b>Rated current <math>I_n</math></b>	24V A 60V A 110V A 220V A	10 6 2,5 0,8	10 6 2,5 0,8
<b>Utilization category DC14</b> L/R = 15ms Control of electromagnetic loads having economy resistors in circuit			
<b>Rated current <math>I_n</math></b>	24V A 60V A 110V A 220V A	8 1 2 0,5	8 1 2 0,5
<b>Utilization category DC13</b> L/R = 300ms Control of electromagnets			
<b>Rated current <math>I_n</math></b>	24V A 60V A 110V A 220V A	2 5 0,5 0,2	2 5 0,5 0,2
<b>Making capacity</b>	A	60	60
<b>Breaking capacity</b> $\cos\phi = 0,7-1$	40-60Hz A	50	50
<b>Mechanical life</b>	millions of operations	10	10
<b>Contact life (AC15)</b>			
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
<b>Maximum frequency of operations</b>	ops. per hour	600	600
<b>Short circuit protection</b>	slow, gL (gG) A	25	25
<b>Type</b>		<b>B3F</b>	<b>B4F</b>
<b>Rated insulation voltage <math>U_i</math></b>	V AC	440 <sup>2)</sup>	440 <sup>2)</sup>
<b>Lamp base</b>		BA9s	

Type		B3., B4.
<b>Protection degree (according to IEC 947-1)</b> in assembled state, from the front from rear		IP65 IP00
<b>Ambient temperature</b>	°C	-20 to +50
<b>Cable cross-section</b>		
	solid, mm <sup>2</sup> flexible, mm <sup>2</sup> flexible with multicore cable end, mm <sup>2</sup> number	0,5 - 2,5 0,5 - 2,5 0,5 - 1,5 2
<b>Cables per clamp</b>		
<b>Mounting hole (according to IEC 947-1)</b>	Ø mm Ø mm	22,5 30,5
<b>Mounting position</b>		optional
<b>Terminal screws</b>		Pozidriv No. 2 screws M3,5

## Data according to cULus

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

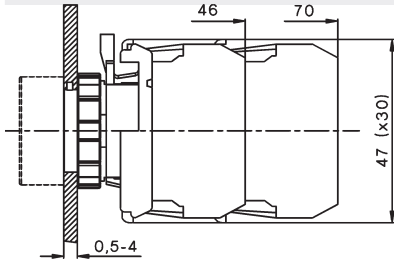
- Not provided for test till now

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):  $U_{imp} = 4kV$

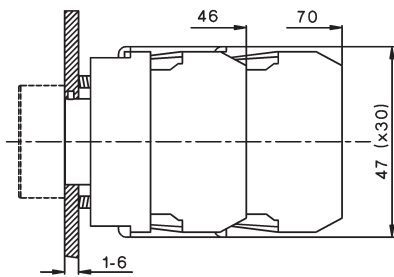
# Dimensions

## Actuators and Lens Caps 22mm

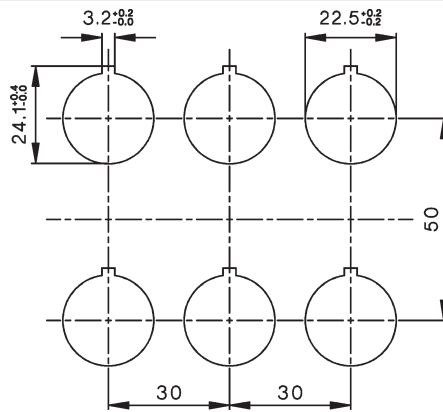
Panel mounting B3S



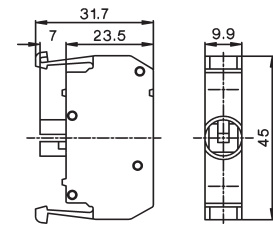
Panel mounting B3M



Mounting holes



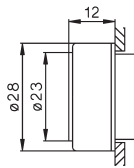
Contact blocks and Lampenhalter B3...



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.

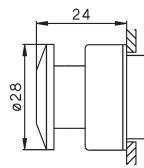
## Actuators and Lens caps

Flush Head  
Illuminated Flush Head



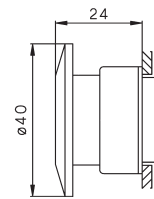
B3D(R), B3DL(R)  
BS3D(R), BS3DL(R)  
BC3D(R), BC3DL(R)

Mushroom Head Ø28mm  
Emergency Stop Ø28mm



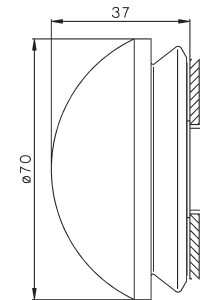
B3P1 bis B3P3  
BS3P1 bis BS3P3  
BC3P1 bis BC3P3

Mushroom Head Ø40mm  
Emergency Stop Ø40mm



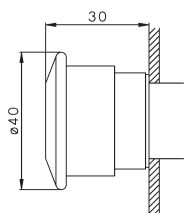
B3P14, B3P34  
BS3P14, BS3P34  
BC3P14, BC3P34

Mushroom Head Ø70mm  
Emergency Stop Ø70mm



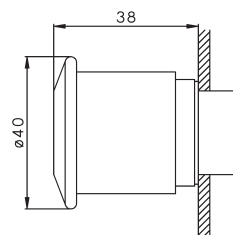
BS3P14P  
BS3P34P

Push-and pull button Ø40mm



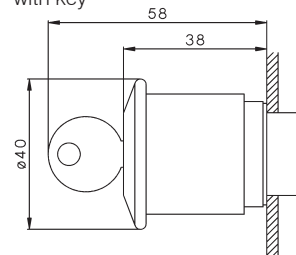
BS3P44

Push-and pull button Ø40mm



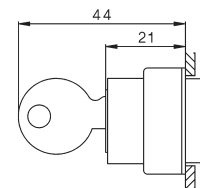
BS3P45

Push-and pull button Ø40mm  
with key



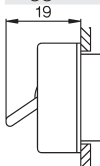
BS3P44S3

Lockable Push button



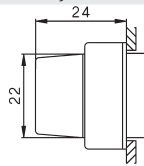
B3SAR., B3SAT.  
BS3SAR., BS3SAT.  
BC3SAR., BC3SAT.

Toggle



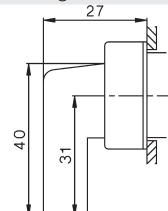
B3E  
BS3E  
BC3E

Rotary Knob



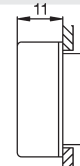
B3KN, B3KL  
BS3KN, BS3KL  
BC3KN, BC3KL

Swing Knob



B3KRL, B3KRN  
BS3KRL, BS3KRN  
BC3KRL, BC3KRN

Lens Cap

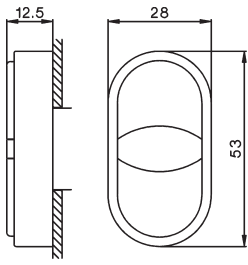


B3R(F)

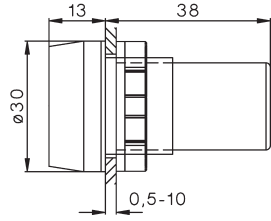
# Dimensions

## Actuators and Lens Caps 22mm

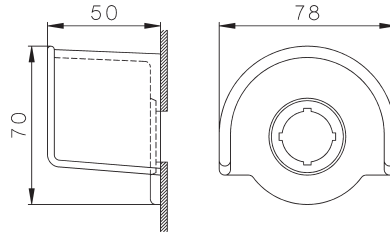
Double push button



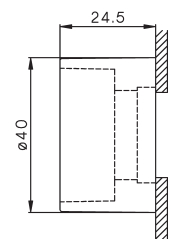
Monoblock Multi-LED



Protection cover



Protection ring w. thread



**B3DT**

**B3-MB...**

**B3-SK ..**

**P921-**

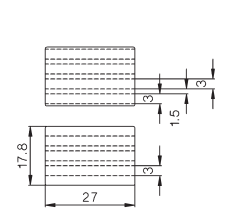
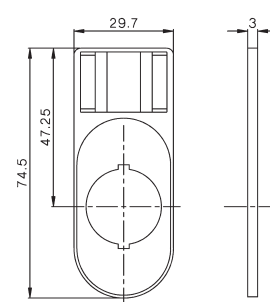
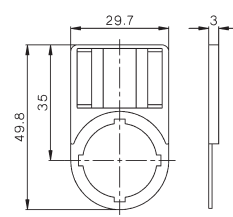
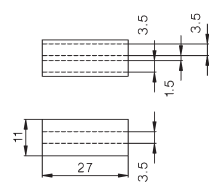
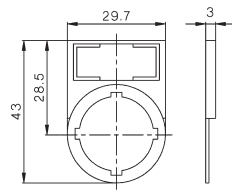
Label holder

Legend plate

Label holder

Label holder

Legend plate



**P751**

**BK4-...**

**P761**

**P761-DT**

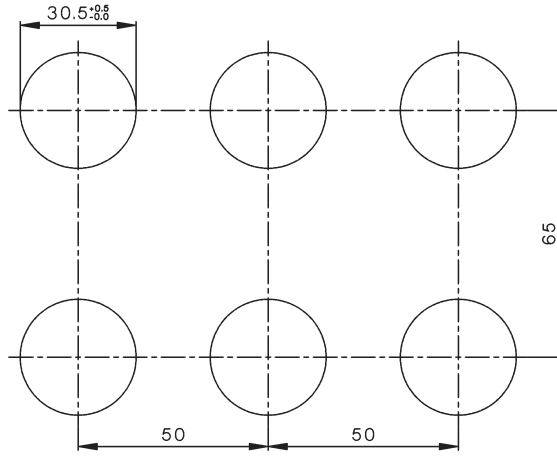
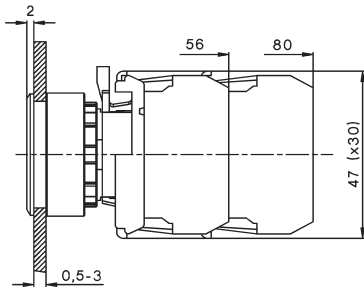
**BK8-...**

# Dimensions

## Actuators and Lens Caps 30mm

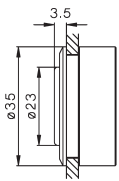
Panel mounting B3S

Mounting holes



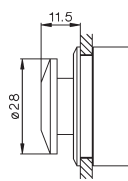
## Actuators and Lens caps

Flush Head  
Illuminated Flush Head



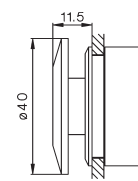
B5D(R), B5DL(R)  
BS5D(R), BS5DL(R)

Mushroom Head Ø28mm  
Emergency Stop Ø28mm



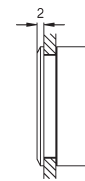
B5P1 to B5P3  
BS5P1 to BS5P3

Mushroom Head Ø40mm  
Emergency Stop Ø40mm



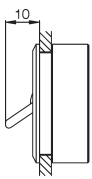
B5P14, B5P34  
BS5P14, BS5P34

Lens Cap



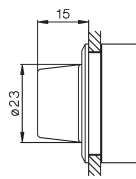
B5RF

Toggle



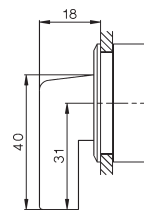
B5E  
BS5E

Rotary Knob



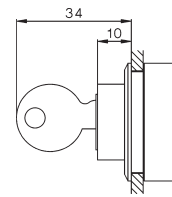
B5KN, B5KL  
BS5KN, BS5KL

Swing Knob



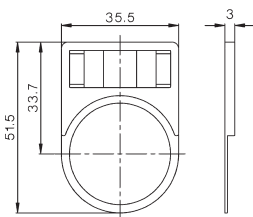
B5KRL, B5KRN  
BS5KRL, BS5KRN

Lockable Push button



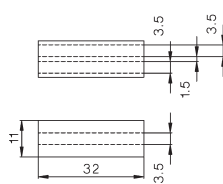
B5SAR., B5SAT.  
BS5SAR., BS5SAT.

Label holder



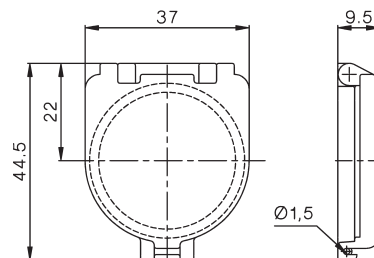
P761

Legend plate



BK5-...

Protectiv cover



B5-SAP