

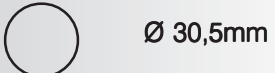






# Push Buttons









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Pushing the **boundaries**

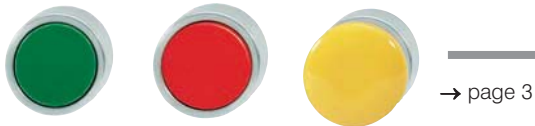
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Actuators and Lens Caps 22mm IP67 (IP65),  Type12

Push Buttons



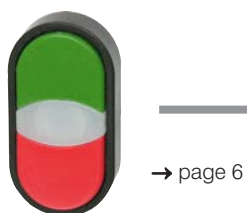
EMERGENCY STOP Buttons



Illuminated Operators



Double Push Buttons with Indicator Lamp IP65



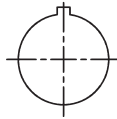
Lens Caps



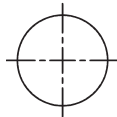
→ page 7

Mounting hole  
Ø 22,5mm

with key way



without key way



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.
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## 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.
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## 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
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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 Weight  
pcs. kg/pc.

## 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

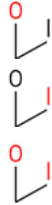
Ring	key removeable in				Pack Weight pcs. kg/pc.
		Alu	Black	Chrome	

## Key Operated Rotary Switch with lock Ronis 455



B3SAR 0

maintained 60°



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



B3SARR 0

spring return 60°



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



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

spring return /maintained 60°



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



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

B4-R455	1	0,007
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Colour      Symbol      pcs. kg/pc.

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



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 13



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 13



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

with non-standard marking on request

1) Plastic ring in alu design

**suitable for Alu, Black and Chrome**

Colour	Type	Pack	Weight
		pcs.	kg/pc.

**Lens Caps IP67 with fresnel lens, lamp max. 1,9W, lamps see page 13**



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

**Lens Caps IP67, lamp max. 1,9W, lamps see page 13**

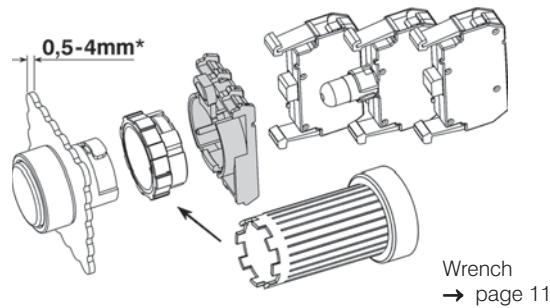


red	<b>B3RF RT</b>	10	0,009
green	<b>B3RF GN</b>	10	0,009
yellow	<b>B3RF GE</b>	10	0,009
blue	<b>B3RF BL</b>	10	0,009
white	<b>B3RF WS</b>	10	0,009

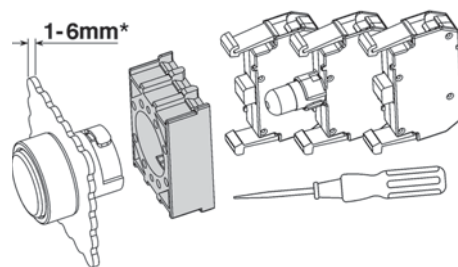


## Connectors

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.
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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
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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.
<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																																																																																																																																																																																																																												
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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
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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																																																																																																																																																																																																																											
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## Actuator Caps

marking      **Type** -suffix for marking      marking      **Type** -suffix for marking.      Pack Weight pcs. kg/pc.

### Actuator Caps with markings, the Type must be completed with the code for colours (see below)



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

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

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

### Code for colours

Colour	for buttons	for illuminated buttons	Colour	for buttons	for illuminated buttons
red	DK RT-..	DKL RT-..	blue	DK BL-..	DKL BL-..
green	DK GN-..	DKL GN-..	white	DK WS-..	DKL WS-..
yellow	DK GE-..	DKL GE-..	black	DK SW-..	-

# Actuators and Lens Caps 30mm IP67 (IP65)

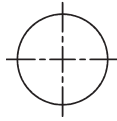
## Push Buttons



## EMERGENCY STOP Buttons



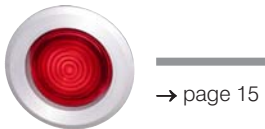
Mounting hole  
Ø 30,5mm



## Illuminated Operators



## Lens Caps



## Connectors

## Connectors Lamp Holders






→ page 17


Wrench  
J7049





## Actuators 30mm IP67


Ring	Colour	Symbol	Alu	Black	Chrome	Pack pcs.	Weight kg/pc.
<b>Push Buttons, Actuator Caps markable</b>							
	red		<b>B5D RT</b>	<b>BS5D RT</b>	<b>BC5D RT</b>	10	0,029
	red	0	<b>B5D RT-0</b>	<b>BS5D RT-0</b>	<b>BC5D RT-0</b>	10	0,029
	green		<b>B5D GN</b>	<b>BS5D GN</b>	<b>BC5D GN</b>	10	0,029
	green	I	<b>B5D GN-I</b>	<b>BS5D GN-I</b>	<b>BC5D GN-I</b>	10	0,029
	green	II	<b>B5D GN-II</b>	<b>BS5D GN-II</b>	<b>BC 5D GN-II</b>	10	0,029
	green	→	<b>B5D GN-PF</b>	<b>BS5D GN-PF</b>	<b>BC5D GN-PF</b>	10	0,029
	yellow		<b>B5D GE</b>	<b>BS5D GE</b>	<b>BC5D GE</b>	10	0,029
	blue		<b>B5D BL</b>	<b>BS5D BL</b>	<b>BC5D BL</b>	10	0,029
	white		<b>B5D WS</b>	<b>BS5D WS</b>	<b>BC 5D WS</b>	10	0,029
	black		<b>B5D SW</b>	<b>BS5D SW</b>	<b>BC5D SW</b>	10	0,029
	black	→	<b>B5D SW-PF</b>	<b>BS5D SW-PF</b>	<b>BC5D SW-PF</b>	10	0,029


<b>Push Buttons, Maintained, Actuator Caps markable</b>							
	red		<b>B5DR RT</b>	<b>BS5DR RT</b>	<b>BC5DR RT</b>	10	0,029
	green		<b>B5DR GN</b>	<b>BS5DR GN</b>	<b>BC5DR GN</b>	10	0,029
	yellow		<b>B5DR GE</b>	<b>BS5DR GE</b>	<b>BC5DR GE</b>	10	0,029
	blue		<b>B5DR BL</b>	<b>BS5DR BL</b>	<b>BC5DR BL</b>	10	0,029
	white		<b>B5DR WS</b>	<b>BS5DR WS</b>	<b>BC5DR WS</b>	10	0,029
	black		<b>B5DR SW</b>	<b>BS5DR SW</b>	<b>BC5DR SW</b>	10	0,029

<b>Mushroom Head, Ø28mm</b>							
	red		<b>B5P1 RT</b>	<b>BS5P1 RT</b>	<b>BC5P1 RT</b>	10	0,032
	red	0	<b>B5P1 RT-0</b>	<b>BS5P1 RT-0</b>	<b>BC5P1 RT-0</b>	10	0,032
	green		<b>B5P1 GN</b>	<b>BS5P1 GN</b>	<b>BC5P1 GN</b>	10	0,032
	yellow		<b>B5P1 GE</b>	<b>BS5P1 GE</b>	<b>BC5P1 GE</b>	10	0,032
	blue		<b>B5P1 BL</b>	<b>BS5P1 BL</b>	<b>BC5P1 BL</b>	10	0,032
	black		<b>B5P1 SW</b>	<b>BS5P1 SW</b>	<b>BC5P1 SW</b>	10	0,032

<b>Mushroom Head, Ø40mm</b>							
	red	0	<b>B5P14 RT-0</b>	<b>BS5P14 RT-0</b>	<b>BC5P14 RT-0</b>	10	0,035

<b>EMERGENCY STOP Push Buttons, Ø 28mm, release by turning, with yellow ring</b>							
	red		<b>B5P3 RT</b>	<b>BS5P3 RT</b>	<b>BC5P3 RT</b>	10	0,032
	red	0	<b>B5P3 RT-0</b>	<b>BS5P3 RT-0</b>	<b>BC5P3 RT-0</b>	10	0,032

<b>EMERGENCY STOP Push Buttons, Ø 40mm, release by turning</b>							
	red	0	<b>B5P34 RT-0</b>	<b>BS5P34 RT-0</b>	<b>BC5P34 RT-0</b>	10	0,035

<b>Yellow Disk for EMERGENCY-STOP Push Buttons, Ø70mm, Thickness 1mm</b>							
	neutral			<b>B5-7603</b>		1	0,004
	with marking NOT-AUS			<b>B5-7603-1</b>		1	0,004
	with marking EMERGENCY STOP			<b>B5-7603-2</b>		1	0,004



## Actuators 30mm

Ring

Knob

Alu

Black

Chrome

Pack Weight  
pcs. kg/pc.



### Rotary Knobs and Swing Knobs, black IP65



Rotary

maintained 60°



Rotary	<b>B5KN2</b>	<b>BS5KN2</b>	<b>BC5KN2</b>	10	0,035
Swing	<b>B5KRN2</b>	<b>BS5KRN2</b>	<b>BC5KRN2</b>	10	0,035

spring return 60°



Rotary	<b>B5KN8</b>	<b>BS5KN8</b>	<b>BC5KN8</b>	10	0,035
Swing	<b>B5KRN8</b>	<b>BS5KRN8</b>	<b>BC5KRN8</b>	10	0,035

spring return 60°



Rotary	<b>B5KN1</b>	<b>BS5KN1</b>	<b>BC5KN1</b>	10	0,035
Swing	<b>B5KRN1</b>	<b>BS5KRN1</b>	<b>BC5KRN1</b>	10	0,035



Swing

maintained 60°



Rotary	<b>B5KN3</b>	<b>BS5KN3</b>	<b>BC5KN3</b>	10	0,035
Swing	<b>B5KRN3</b>	<b>BS5KRN3</b>	<b>BC5KRN3</b>	10	0,035

maintained /spring return 60°



Rotary	<b>B5KN6</b>	<b>BS5KN6</b>	<b>BC5KN6</b>	10	0,035
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spring return /maintained 60°



Rotary	<b>B5KN7</b>	<b>BS5KN7</b>	<b>BC5KN7</b>	10	0,035
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maintained 120°



Rotary	<b>B5KN9</b>	<b>BS5KN9</b>	<b>BC5KN9</b>	10	0,035
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maintained 90°  
according to EN81



Rotary	<b>B5KN10</b>	<b>BS5KN10</b>	<b>BC5KN10</b>	10	0,035
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### Illuminated Rotary Knobs and Swing Knobs IP67, clear, lamp max. 1,2W, lamps see page 13



Rotary

maintained 90°



Rotary	<b>B5KL2</b>	<b>BS5KL2</b>	<b>BC5KL2</b>	10	0,031
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spring return 60°



Rotary	<b>B5KL1</b>	<b>BS5KL1</b>	<b>BC5KL1</b>	10	0,031
Swing	<b>B5KRL1</b>	<b>BS5KRL1</b>	<b>BC5KRL1</b>	10	0,031

maintained 60°



Rotary	<b>B5KL3</b>	<b>BS5KL3</b>	<b>BC5KL3</b>	10	0,031
Swing	<b>B5KRL3</b>	<b>BS5KRL3</b>	<b>BC5KRL3</b>	10	0,031

maintained /spring return 60°



Rotary	<b>B5KL6</b>	<b>BS5KL6</b>	<b>BC5KL6</b>	10	0,031
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Swing

### Toggle IP65



O - I

**B5E**

**BS5E**

**BC5E**

10 0,032

## Actuators and Lens Caps 30mm IP65

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



B3SAR 0

maintained 60°



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



B3SARR 0

spring return 60°



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



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

tastend/maintained 60°



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



B5SATT 0	BS5SATT 0	BC5SATT 0	1	0,059
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Spare Key lock Ronis R455

B4-R455	1	0,007
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Colour

pcs. kg/pc.

### Illuminated Push Buttons IP67, lamp max. 1,9W, lamps see page 17



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 17



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

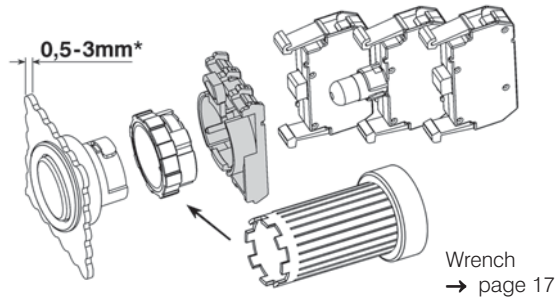
### Lens Caps with fresnel lens IP67, lamp max. 1,9W, lamps see page 17



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.
<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
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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 <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

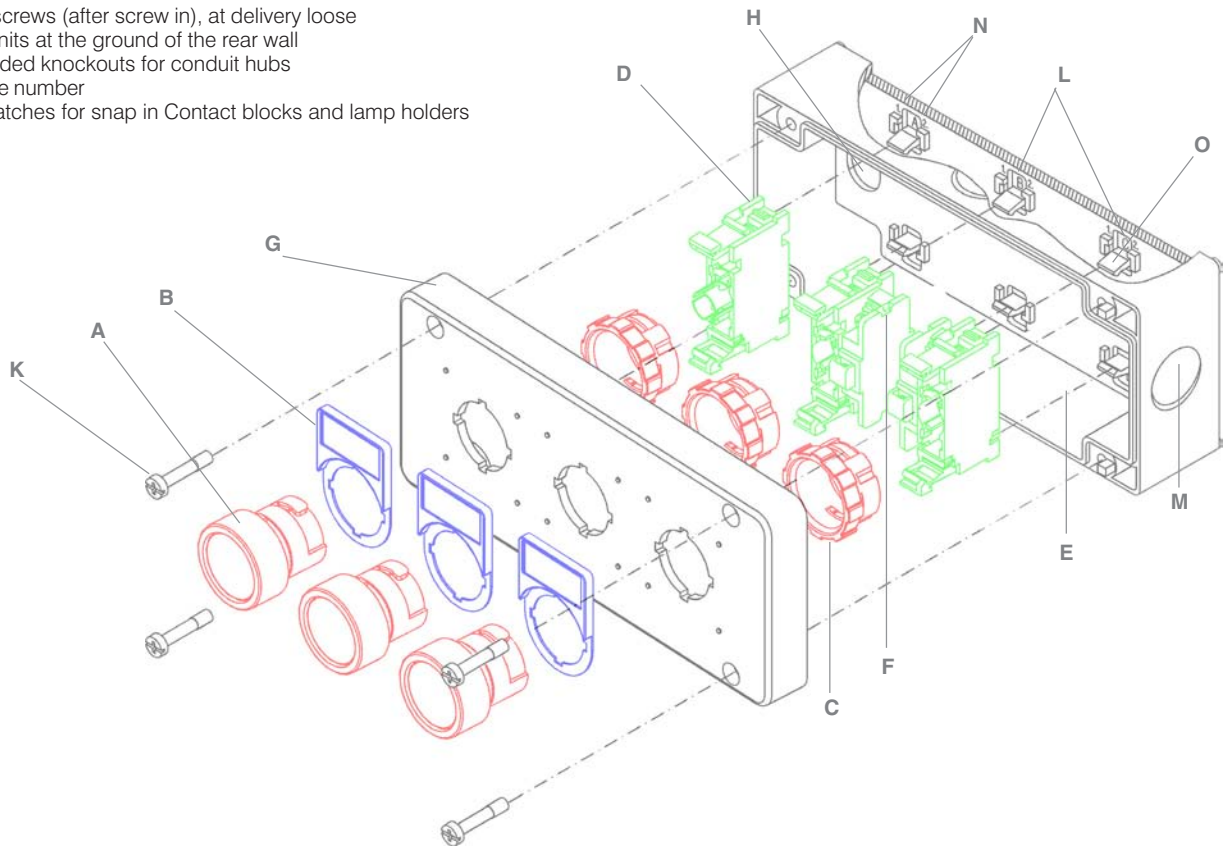
## Accessories



		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

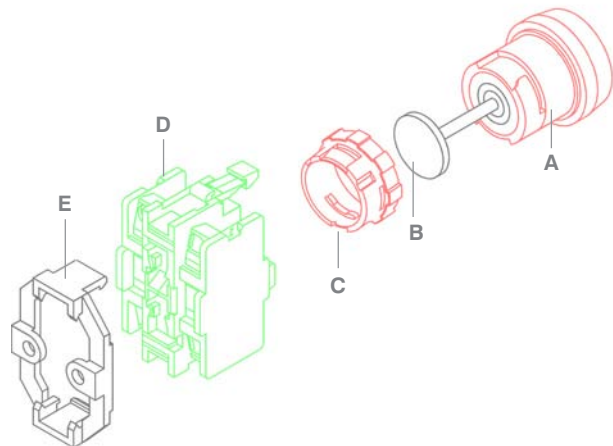
## Assembled Stations BG.. IP67 Type12

- 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  $\varnothing$  22mm see page 3 - 6,  $\varnothing$  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.














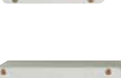
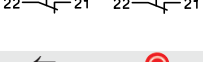



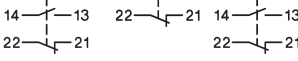

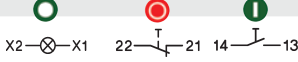










### Mounting Plate for base and DIN-rail mounting of contact blocks



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





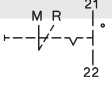

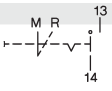


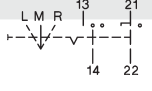


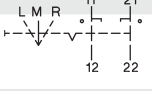

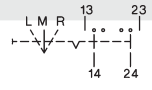
Number of units	Description	Type	Pack pcs.	Weight kg/pc.
1	3 knockouts Ø20,5mm (M20 or PG13,5)	BG1	1	0,108
2	3 knockouts Ø20,5mm (M20 or PG13,5)	BG2	1	0,145
3	3 knockouts Ø20,5mm (M20 or PG13,5)	BG3	1	0,188

## 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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
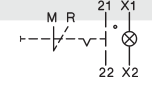

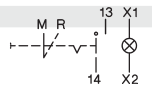





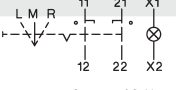

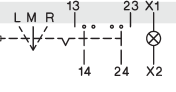
### Contact blocks for enclosures BG..




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

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



1NC <sup>1)</sup> 	max. 440V AC/DC			B4TU01F	10	0,020
1NO	max. 440V AC/DC			B4TU10F	10	0,020
1NO+1NC <sup>1)</sup> 	max. 440V AC/DC			B4TU11F	10	0,027
2NC <sup>1)</sup> 	max. 440V AC/DC			B4TU02F	10	0,027
2NO	max. 440V AC/DC			B4TU20F	10	0,027

### Lamp holder, socket BA9s for LED or lamps

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

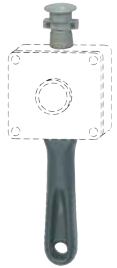
## Accessories for Plastic enclosed buttons



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




<b>Couple Part</b>	to couple enclosures BKLG or assembled stations BG..	<b>B4-8852</b>	1	0,018
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<b>Suspension Eye</b>	for hanging stations	<b>B4-9929</b>	1	0,188
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<b>Handle and Cable Inlet</b>	to change enclosures BG.. or assembled stations BG.. into a hanging station	<b>B4-9149</b>	1	0,064
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## Push Buttons for Enclosures 22mm IP65

Specification	Colour	Symbol	Length mm	Type	Pack pcs.	Weight kg/pc.
<b>Push buttons grey RAL7035</b>						
	<b>Reset push button</b>	blue	R	8-22	<b>B2GRB-22</b>	10 0,005
		blue	R	22-60	<b>B2GRB-60</b>	10 0,016
	<b>Reset push button with stop function</b>	red	0/R	8-22	<b>B2GR-22</b>	10 0,005
		red	0/R	22-60	<b>B2GR-60</b>	10 0,016
	<b>Start push button</b>	green	I	8-22	<b>B2GI-22</b>	10 0,005
		green	I	22-60	<b>B2GI-60</b>	10 0,016
	<b>Stop push button</b>	red	0	8-22	<b>B2G0-22</b>	10 0,005
		red	0	22-60	<b>B2G0-60</b>	10 0,016
	<b>Mushroom head lockable Ø28mm</b>	red	0	8-22	<b>B2GP-22</b>	10 0,005
		red	0	22-60	<b>B2GP-60</b>	10 0,016

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

	<b>Reset push button</b>	blue	R	19,5-38,5	<b>B3GRB-31,5</b>	10 0,023
		blue	R	38,5-60	<b>B3GRB-60</b>	10 0,026
	<b>Reset push button with stop function</b>	red	0/R	19,5-38,5	<b>B3GR-31,5</b>	10 0,023
		red	0/R	38,5-60	<b>B3GR-60</b>	10 0,026
	<b>Start push button</b>	green	I	19,5-38,5	<b>B3GI-31,5</b>	10 0,023
		green	I	38,5-60	<b>B3GI-60</b>	10 0,026
	<b>Stop push button</b>	red	0	19,5-38,5	<b>B3G0-31,5</b>	10 0,023
		red	0	38,5-60	<b>B3G0-60</b>	10 0,026
	<b>Mushroom head lockable Ø28mm</b>	red		19,5-38,5	<b>B3GP-31,5</b>	10 0,023
		red		38,5-60	<b>B3GP-60</b>	10 0,026

Specification	Diameter Ø mm	Length mm	Type	Pack pcs.	Weight kg/pc.
<b>Extensions for push buttons</b>					
	self adjusting pin, for B(S, C)3D..	15	19,5 - 38,5	<b>B4V31,5</b>	10 0,001
	and B(S, C)3P..	18,5	38,5 - 60	<b>B4V60</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 10 380-415V A 10 500V A 10 690V A 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 6 380-415V A 5 500V A 3 690V A 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 10 60V A 6 110V A 2,5 220V A 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 8 60V A 1 110V A 2 220V A 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 2 60V A 5 110V A 0,5 220V A 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> 0,5 - 2,5 flexible, mm <sup>2</sup> 0,5 - 2,5 flexible with multicore cable end, mm <sup>2</sup> number 0,5 - 1,5
Cables per clamp	2
<b>Mounting hole (according to IEC 947-1)</b>	Ø mm 22,5 Ø mm 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.
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

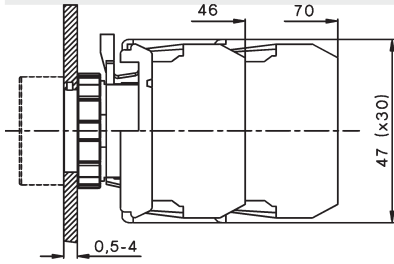
- Not provided for test till now

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):  $U_{imp} = 4kV$

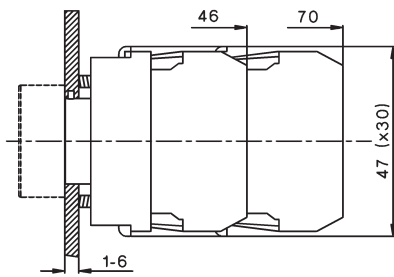
# Dimensions

## Actuators and Lens Caps 22mm

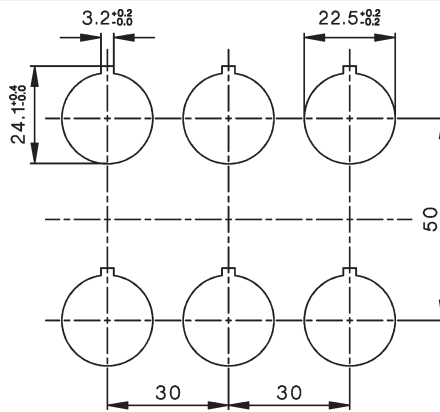
Panel mounting B3S



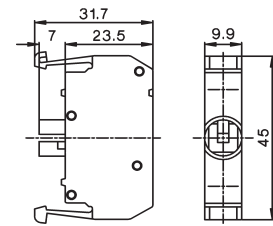
Panel mounting B3M



Mounting holes



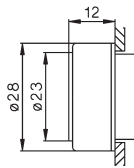
Contact blocks and Lampenhalter B3...



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.

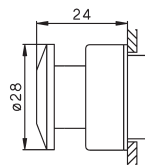
## Actuators and Lens caps

Flush Head  
Illuminated Flush Head



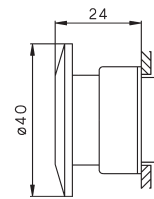
B3D(R), B3DL(R)  
BS3D(R), BS3DL(R)  
BC3D(R), BC3DL(R)

Mushroom Head Ø28mm  
Emergency Stop Ø28mm



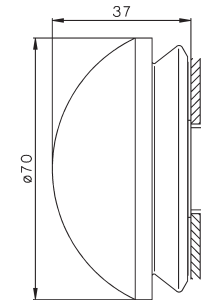
B3P1 bis B3P3  
BS3P1 bis BS3P3  
BC3P1 bis BC3P3

Mushroom Head Ø40mm  
Emergency Stop Ø40mm



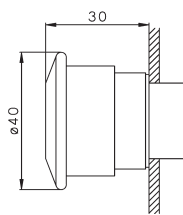
B3P14, B3P34  
BS3P14, BS3P34  
BC3P14, BC3P34

Mushroom Head Ø70mm  
Emergency Stop Ø70mm



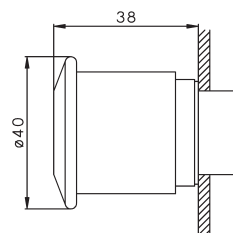
BS3P14P  
BS3P34P

Push-and pull button Ø40mm



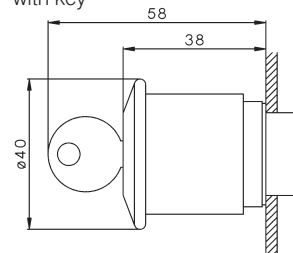
BS3P44

Push-and pull button Ø40mm



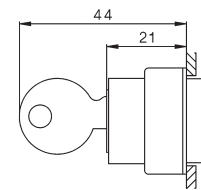
BS3P45

Push-and pull button Ø40mm  
with key



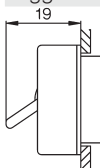
BS3P44S3

Lockable Push button



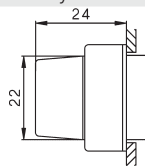
B3SAR., B3SAT.  
BS3SAR., BS3SAT.  
BC3SAR., BC3SAT.

Toggle



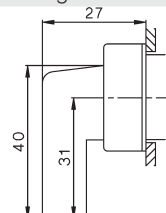
B3E  
BS3E  
BC3E

Rotary Knob



B3KN, B3KL  
BS3KN, BS3KL  
BC3KN, BC3KL

Swing Knob



B3KRL, B3KRN  
BS3KRL, BS3KRN  
BC3KRL, BC3KRN

Lens Cap

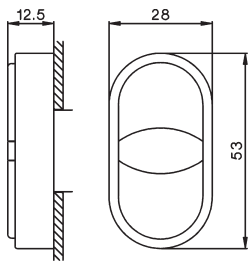


B3R(F)

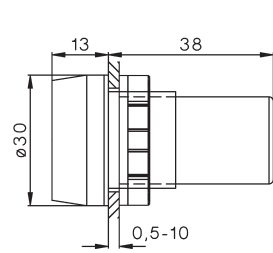
# Dimensions

## Actuators and Lens Caps 22mm

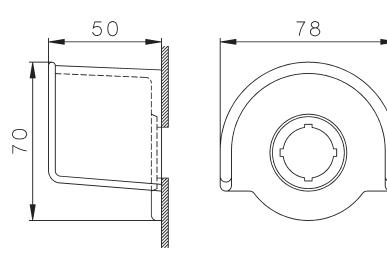
Double push button



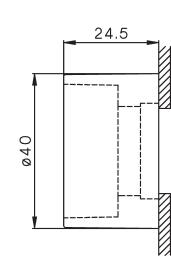
Monoblock Multi-LED



Protection cover

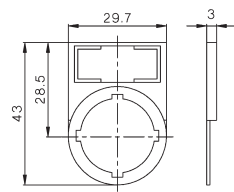


Protection ring w. thread



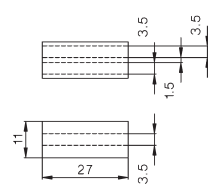
B3DT

Label holder



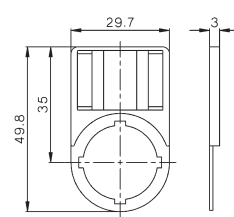
B3-MB...

Legend plate



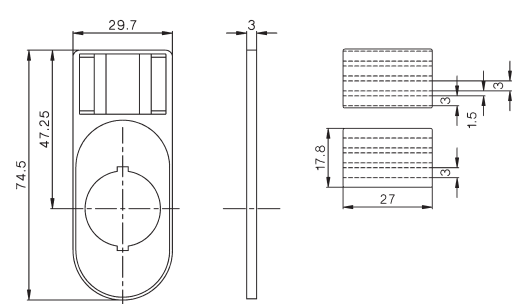
B3-SK ..

Label holder



P921-

Legend plate



P751

BK4-...

P761

P761-DT

BK8-...

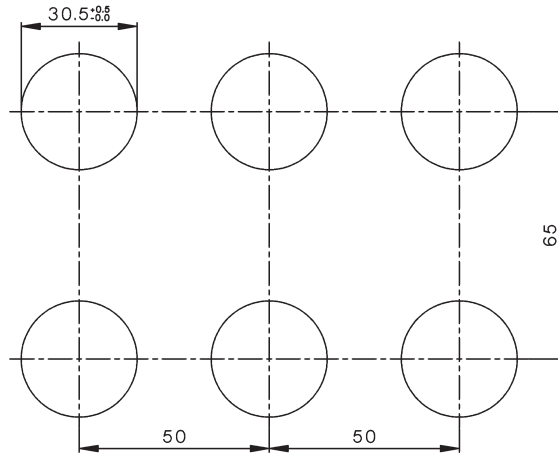
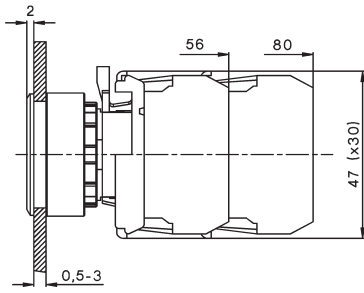


# Dimensions

## Actuators and Lens Caps 30mm

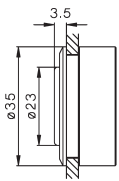
Panel mounting B3S

Mounting holes



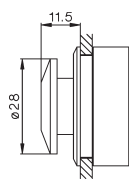
## Actuators and Lens caps

Flush Head  
Illuminated Flush Head



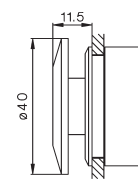
B5D(R), B5DL(R)  
BS5D(R), BS5DL(R)

Mushroom Head Ø28mm  
Emergency Stop Ø28mm



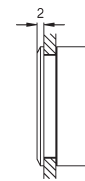
B5P1 to B5P3  
BS5P1 to BS5P3

Mushroom Head Ø40mm  
Emergency Stop Ø40mm



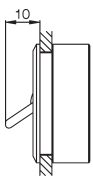
B5P14, B5P34  
BS5P14, BS5P34

Lens Cap



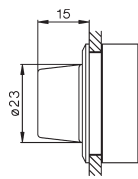
B5RF

Toggle



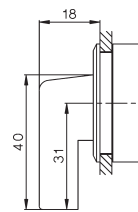
B5E  
BS5E

Rotary Knob



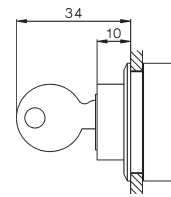
B5KN, B5KL  
BS5KN, BS5KL

Swing Knob



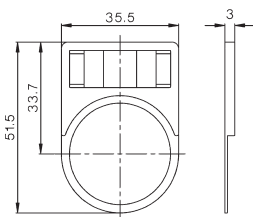
B5KRL, B5KRN  
BS5KRL, BS5KRN

Lockable Push button



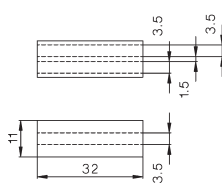
B5SAR., B5SAT.  
BS5SAR., BS5SAT.

Label holder



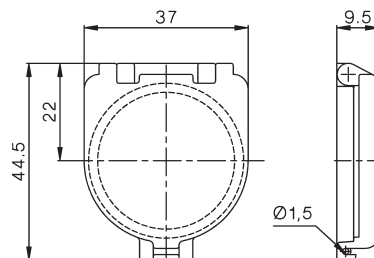
P761

Legend plate



BK5-...

Protectiv cover

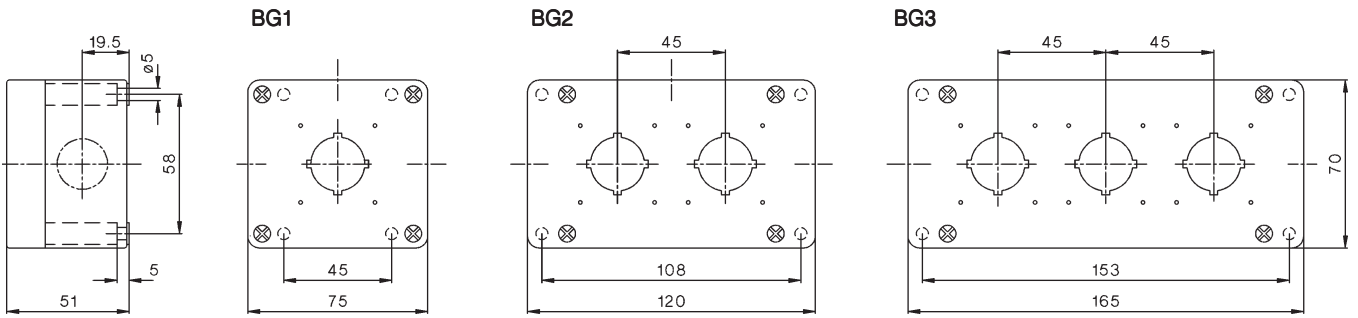


B5-SAP

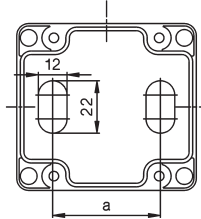
# Dimensions

## Enclosures for Custom Built Stations

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

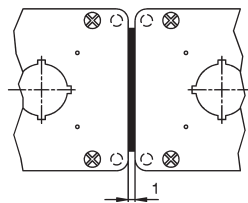


## Conduit entries in the bottom (knockouts)

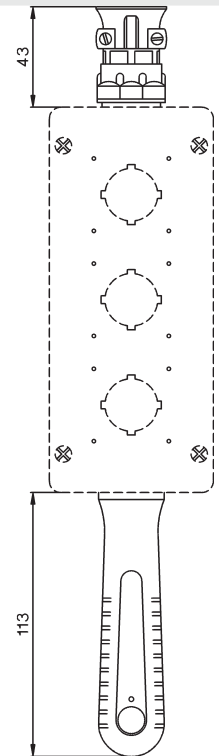


Number of units	Dimension a
1	45
2	90
3	135

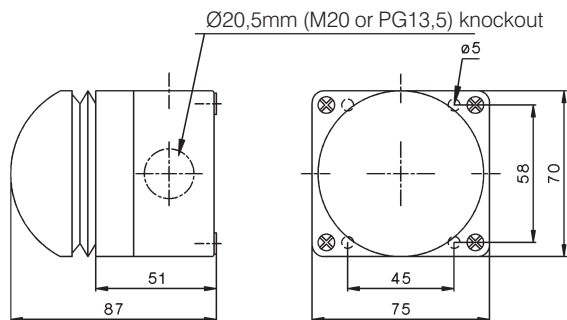
## Coupled Enclosures B4-8852



## Hanging Station B4-9149



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



# Dimensions

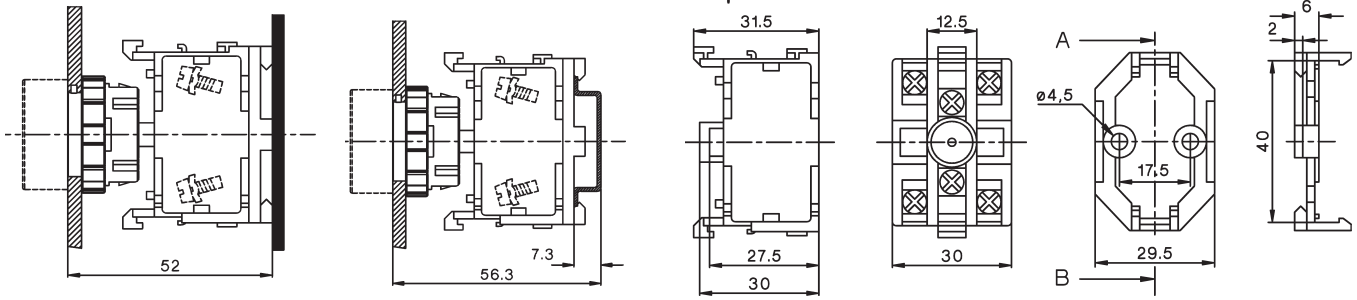
## Actuators 22mm

### Base mounting

### DIN-rail mounting

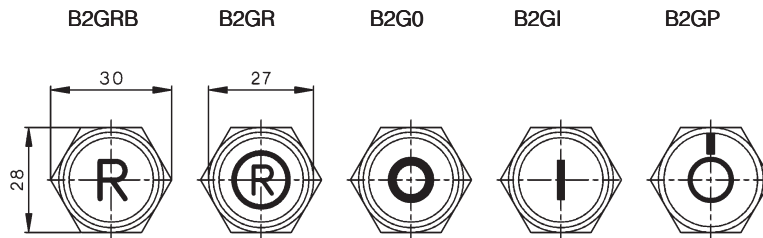
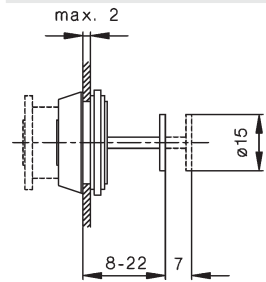
### Contact blocks and Lamp Holders B4.U...

### Base B4U

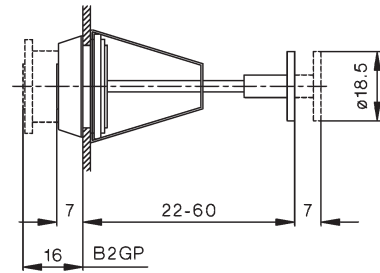


## Push buttons for enclosures

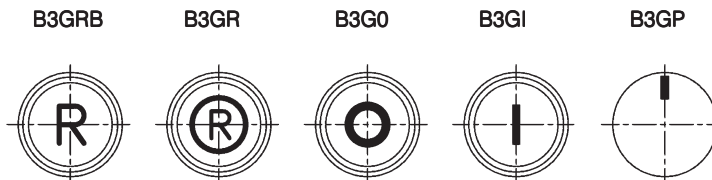
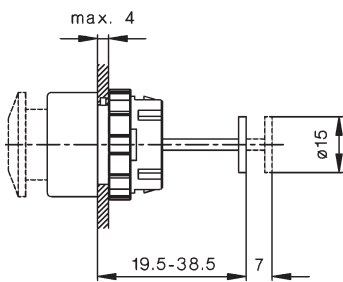
### B2G...-22



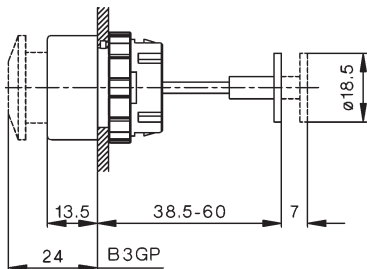
### B2G...-60



### B3G...-31,5



### B3G...-60







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