

















<b>Program B3</b>		2	
		$\varnothing 22,5\text{mm}$	
			Push Buttons 3
			EMERGENCY STOP Buttons 4
			Key Operated Rotary Switches 4
			Rotary Knobs and Swing Knobs 5
			Illuminated Rotary Knobs and Swing Knobs 5
			Illuminated Push Buttons 6
			Double Push Buttons 6
			Lens Caps 7
			Monoblock-Multi-LED 7
			Connector 8
			Insert Actuator 8
			Contact Blocks and Lamp Holders 8
			Lamps, LED Lamps 9
			Accessories 9
			Label Holder, Legend Plates, Actuator Caps 10, 11

<b>Program B5</b>		12	
		$\varnothing 30,5\text{mm}$	
			Push Buttons 13
			Rotary Knobs and Swing Knobs 14
			Key Operated Rotary Switches 15
			Rotary Knobs and Swing Knobs 15
			Lens Caps 15
			Connector 16
			Contact Blocks and Lamp Holders 16
			Lamps, Accessories 17

<b>Units for Surface Mounting</b>		19	
			Assembled Units IP65 19
			<b>Enclosures BG..</b> 20
			Contact Blocks and Lamp Holders for Enclosures BG.. 20
			<b>Push Buttons for Enclosures</b> 22
			Extensions for Push Buttons 22
			<b>Technical Data, Approvals</b> 23
			Dimensions 24-28

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

## Push Buttons



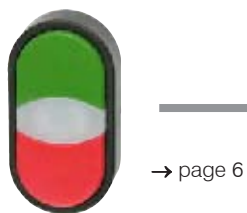
## EMERGENCY STOP Buttons



## Illuminated Operators



## Double Push Buttons with Indicator Lamp IP65

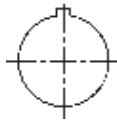


## Lens Caps

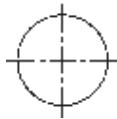


Mounting hole  
Ø 22,5mm

with key way



without key way



→ page 4



→ page 10

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



## Connectors



→ page 8

or

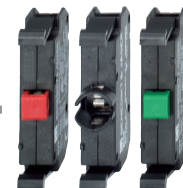


→ page 8

## Connectors Lamp Holders



Actuator insert  
→ page 8



→ page 8



LED  
24-230V



Filament  
6-130V



Glow-discharge  
230V  
→ page 9

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



# Actuators 22mm IP67, Type12

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

## Push Buttons, Actuator Caps markable



red			<b>B3D RT</b>	<b>BS3D RT</b>	<b>BC3D RT</b>	10	0,014
red	0		<b>B3D RT-0</b>	<b>BS3D RT-0</b>	<b>BC3D RT-0</b>	10	0,014
green			<b>B3D GN</b>	<b>BS3D GN</b>	<b>BC3D GN</b>	10	0,014
green	I		<b>B3D GN-I</b>	<b>BS3D GN-I</b>	<b>BC3D GN-I</b>	10	0,014
green	II		<b>B3D GN-II</b>	<b>BS3D GN-II</b>	<b>BC3D GN-II</b>	10	0,014
green	→		<b>B3D GN-PF</b>	<b>BS3D GN-PF</b>	<b>BC3D GN-PF</b>	10	0,014
yellow			<b>B3D GE</b>	<b>BS3D GE</b>	<b>BC3D GE</b>	10	0,014
blue			<b>B3D BL</b>	<b>BS3D BL</b>	<b>BC3D BL</b>	10	0,014
weiß			<b>B3D WS</b>	<b>BS3D WS</b>	<b>BC3D WS</b>	10	0,014
black			<b>B3D SW</b>	<b>BS3D SW</b>	<b>BC3D SW</b>	10	0,014
black	→		<b>B3D SW-PF</b>	<b>BS3D SW-PF</b>	<b>BC3D SW-PF</b>	10	0,014

## Push Buttons, Maintained, Actuator Caps markable



red			<b>B3DR RT</b>	<b>BS3DR RT</b>	<b>BC3DR RT</b>	10	0,014
green			<b>B3DR GN</b>	<b>BS3DR GN</b>	<b>BC3DR GN</b>	10	0,014
yellow			<b>B3DR GE</b>	<b>BS3DR GE</b>	<b>BC3DR GE</b>	10	0,014
blue			<b>B3DR BL</b>	<b>BS3DR BL</b>	<b>BC3DR BL</b>	10	0,014
weiß			<b>B3DR WS</b>	<b>BS3DR WS</b>	<b>BC3DR WS</b>	10	0,014
black			<b>B3DR SW</b>	<b>BS3DR SW</b>	<b>BC3DR SW</b>	10	0,014

## Mushroom Head Ø28mm



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

## Mushroom Head Ø40mm



red	0		<b>B3P14 RT-0</b>	<b>BS3P14 RT-0</b>	<b>BC3P14 RT-0</b>	10	0,020
-----	---	--	-------------------	--------------------	--------------------	----	-------

## Mushroom Head Ø40mm




red			<b>BS3P44T RT</b>	<b>BS3P44T RT</b>	<b>BS3P44T RT</b>	10	0,028
-----	--	--	-------------------	-------------------	-------------------	----	-------

## Foot and Palm switch Ø70mm



red			<b>BS3P14P RT</b>	<b>BS3P14P RT</b>	<b>BS3P14P RT</b>	1	0,062
grey			<b>BS3P14P GR</b>	<b>BS3P14P GR</b>	<b>BS3P14P GR</b>	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
-----	------	-----------------	-----------------	-----------------	---	-------

<b>Spare Key</b> lock Ronis R455	<b>B4-R455</b>	1	0,0077
----------------------------------	----------------	---	--------

### 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
-----	--	-------------------	-------------------	-------------------	---	-------

Type	Pack pcs.	Weight 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
-----------------------------------------	-----------------	---	------

# Actuators 22mm Type12

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

## Rotary Knobs and Swing Knobs, black IP65



Rotary



Swing

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
spring return/maintained 60°						
	Rotary	<b>B3KN7</b>	<b>BS3KN7</b>	<b>BC3KN7</b>	10	0,020
maintained 120°						
	Rotary	<b>B3KN9</b>	<b>BS3KN9</b>	<b>BC3KN9</b>	10	0,020
maintained 90° entsprechend EN81						
	Rotary	<b>B3KN10</b>	<b>BS3KN10</b>	<b>BC3KN10</b>	10	0,020

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



Rotary



Swing

maintained 90°						
	Rotary	<b>B3KL2</b>	<b>BS3KL2</b>	<b>BC3KL2</b>	10	0,016
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

## Toggle IP65



O - I	<b>B3E</b>	<b>BS3E</b>	<b>BC3E</b>	10	0,017
-------	------------	-------------	-------------	----	-------

# Actuators 22mm IP65, Type12

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

## 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

spring return 60°



B3SAT 0

BS3SAT 0

BC3SAT 0

1 0,044

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

spring return 60°



B3SATT 0

BS3SATT 0

BC3SATT 0

1 0,044

Spare Key lock Ronis R455

B4-R455

1 0,007



B3SARR 0

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

with non-standard marking on request

1) Plastic ring in alu design

**suitable for Alu, Black and Chrome**

Colour	Type	Pack pcs.	Weight kg/pc.
--------	------	-----------	---------------

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



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 Low IP67 with fresnel lens, lamp max. 1,9W, lamps see page 13, laser marking on request**



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

**Lens Caps IP67, lamp max. 1,9W, lamps see page 13, laser marking on request**



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

Colour	voltage	power VA	W	Type	Pack pcs.	Weight kg/pc.
--------	---------	----------	---	------	-----------	---------------

**Monoblock Multi-LED IP65, IEC 60947, EN 60947**

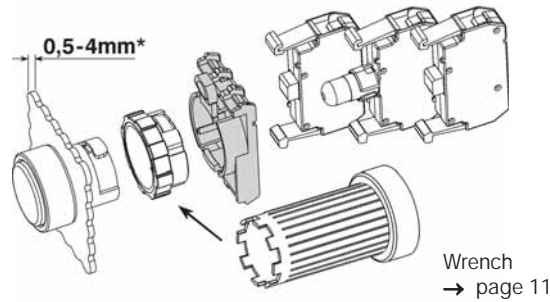


red	20-30V AC/DC	1,6	1,5	<b>B3-MB24 RTB</b>	10	0,022
green	20-30V AC/DC	0,4	0,4	<b>B3-MB24 GNB</b>	10	0,022
yellow	20-30V AC/DC	1,6	1,5	<b>B3-MB24 GEB</b>	10	0,022
blue	20-30V AC/DC	0,4	0,4	<b>B3-MB24 BLB</b>	10	0,022
white	20-30V AC/DC	1,6	1,5	<b>B3-MB24 WSB</b>	10	0,022
red	110-130V AC 110V DC	1,7	1,6	<b>B3-MB110 RTB</b>	10	0,022
green	110-130V AC 110V DC	1,7	1,6	<b>B3-MB110 GNB</b>	10	0,022
yellow	110-130V AC 110V DC	1,7	1,6	<b>B3-MB110 GEB</b>	10	0,022
blue	110-130V AC 110V DC	1,7	1,6	<b>B3-MB110 BLB</b>	10	0,022
white	110-130V AC 110V DC	1,7	1,6	<b>B3-MB110 WSB</b>	10	0,022
red	170-250V AC	4,1	1,0	<b>B3-MB230 RTB</b>	10	0,022
green	170-250V AC	4,1	1,0	<b>B3-MB230 GNB</b>	10	0,022
yellow	170-250V AC	4,1	1,0	<b>B3-MB230 GEB</b>	10	0,022
blue	170-250V AC	4,1	1,0	<b>B3-MB230 BLB</b>	10	0,022
white	170-250V AC	4,1	1,0	<b>B3-MB230 WSB</b>	10	0,022

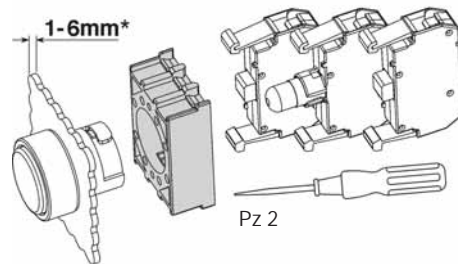


## Connectors

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
----------------------	--	------------	----	-------



\*) inclusive Thickness from Label Holder and Yellow Disk

## Contact Blocks and Lamp Holders for Panel Mounting

for voltage	Description	Type	Pack pcs.	Weight kg/pc.
max. 690V AC	1 NC	<b>B3T01</b> <sup>2)</sup>	10	0,010
max. 690V AC	1 NO	<b>B3T10</b> <sup>2)</sup>	10	0,010
	<b>Actuator insert</b> to actuate the center contact block	<b>P642</b>	10	0,001

### Contact blocks



### Lamp holders, socket BA9s

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



### Lamp holders for lamp test circuits, socket BA9s

max. 440V AC	direct connection, for filament and glow-discharge lamps max. 1,7W (active power consumption)	 <b>B3FT</b>	10	0,020
max. 250V	direct connection of LED	 <b>B3FTD</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 <sup>2)</sup> 10 years lifetime</b>						
	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

## 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 <sup>3)</sup>		<b>P279-1</b>	1	0,003
	petrol-resistant <sup>3)</sup>		<b>P279-3</b>	1	0,003
	ambient temp. -25° - +55° C				
	for double push buttons, petrol-resistant		<b>P279-DT</b>	1	0,003
	ambient temp. -25° - +55° C				
<b>Protection cover</b>	against unintentional manupulation				
	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 manupulation				
	has to be mounted instead	black	<b>P921-1</b>	1	0,012
	of the existing ring	chrome	<b>P921-2</b>	1	0,012
		alu	<b>P921-3</b>		

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

2) suitable for B3FT lamp test lamp holders

3) not for B3D..R.. (maintained)

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

### Marking 1 or 2 lines



	Type	Pack pcs.	Weight kg/pc.
<b>Label holder</b> for legend plate BK4, black, Thickness 0,8mm		100	0,002
<b>Label holder</b> for legend plate BK4, yellow, Thickness 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
-------------------------------------------------	--------------------	----	--------

<b>Legend plate</b> yellow with marking ARRET D`URGENCE	<b>BK4-10827-3</b>	10	0,0002
---------------------------------------------------------	--------------------	----	--------

### Marking 3 or 4 lines



<b>Label holder</b> for legend plate BK8, black, Thickness 0,8mm	<b>P761</b>	10	0,002
------------------------------------------------------------------	-------------	----	-------

<b>Label holder</b> for legend plate BK8, yellow, Thickness 0,8mm	<b>P761-3</b>	10	0,002
-------------------------------------------------------------------	---------------	----	-------

<b>Label holder</b> 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
------------------------------------------------------	----------------------------	----	--------

# Actuator Caps with Laser Marking

## Code for colours

Colour	for buttons		for illuminated buttons	
	B3D(R)	B5D(R)	B3DL(R)	B5DL(R)
red	DK RT-..		DKL RT-..	
green	DK GN-..		DKL GN-..	
yellow	DK GE-..		DKL GE-..	
blue	DK BL-..		DKL BL-..	
white	DK WS-..		DKL WS-..	
black	DK SW-..	-		

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

Actuator Caps with text, the Type must be completed with the code for colours



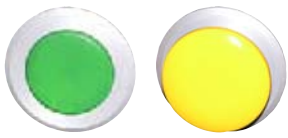
START	...-START	NOT AUS	...-NOT-AUS	10	0,001
EIN	...-EIN	STOP	...-STOP	10	0,001
		AUS	...-AUS	10	0,001
BETRIEB	...-BETRIEB	STÖRUNG	...-STÖRUNG	10	0,001
ANLAUF	...-ANLAUF	HALT	...-HALT	10	0,001
VOR	...-VOR	ZURÜCK	...-ZURÜCK	10	0,001
HEBEN	...-HEBEN	SENKEN	...-SENKEN	10	0,001
LINKS	...-LINKS	RECHTS	...-RECHTS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

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

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

# Actuators and Lens Caps 30mm IP67 (IP65)

## Push Buttons



→ page 13



IP65

→ page 14, 15

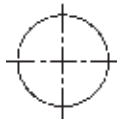
## EMERGENCY STOP Buttons



→ page 13

## Mounting hole

Ø 30,5mm



→ page 13

## Illuminated Operators



→ page 15



→ page 17

## Lens Caps



→ page 15

## Connectors



Thickness  
0,5 - 3 mm  
→ page 16

## Connectors Lamp Holders



Actuator insert  
→ page 16



→ page 16



LED  
24-230V



Filament  
6-130V



Glow-discharge  
230V

→ page 17

Wrench  
J7049



## Actuators 30mm IP67

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

### Push Buttons, Actuator Caps markable



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

### Push Buttons, Maintained, Actuator Caps markable



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

### Mushroom Head, Ø28mm



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

### Mushroom Head, Ø40mm



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

### EMERGENCY STOP Push Buttons, Ø 28mm, release by turning, with yellow ring



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

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



red	0		<b>B5P34 RT-0</b>	<b>BS5P34 RT-0</b>	<b>BC5P34 RT-0</b>	10	0,035
-----	---	--	-------------------	--------------------	--------------------	----	-------

### Yellow Disk for EMERGENCY-STOP Push Buttons, Ø70mm, Thickness 1mm



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

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
--------	--------------	---------------	---------------	----	-------

spring return /maintained 60°



Rotary	<b>B5KN7</b>	<b>BS5KN7</b>	<b>BC5KN7</b>	10	0,035
--------	--------------	---------------	---------------	----	-------

maintained 120°



Rotary	<b>B5KN9</b>	<b>BS5KN9</b>	<b>BC5KN9</b>	10	0,035
--------	--------------	---------------	---------------	----	-------

maintained 90°

according to EN81



Rotary	<b>B5KN10</b>	<b>BS5KN10</b>	<b>BC5KN10</b>	10	0,035
--------	---------------	----------------	----------------	----	-------

### 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
--------	--------------	---------------	---------------	----	-------

spring return 60°



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

maintained 60°



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

maintained /spring return 60°



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



Swing

### Toggle IP65



O - I

**B5E**

**BS5E**

**BC5E**

10 0,032

## Actuators and Lens Caps 30mm IP65

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

### Key Operated Rotary Switch with lock Ronis 455



B3SAR 0

maintained 60°



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



B3SARR 0

spring return 60°



B5SAT 0	BS5SAT 0	BC5SAT 0	1	0,059
---------	----------	----------	---	-------

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
-----------	------------	------------	---	-------

spring return 60°



B5SATT 0	BS5SATT 0	BC5SATT 0	1	0,059
----------	-----------	-----------	---	-------

<b>Spare Key</b> lock Ronis R455	<b>B4-R455</b>		1	0,007
----------------------------------	----------------	--	---	-------

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

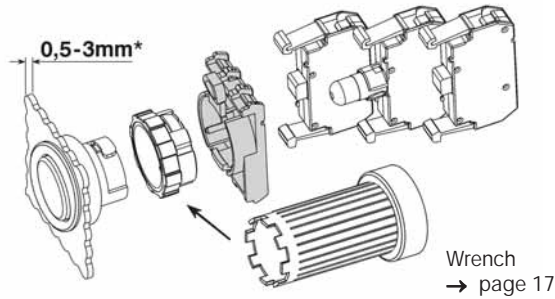


red	B5R RT	BS5R RT	BC5R RT	10	0,029
green	B5R GN	BS5R GN	BC5R GN	10	0,029
yellow	B5R GE	BS5R GE	BC5R GE	10	0,029
blue	B5R BL	BS5R BL	BC5R BL	10	0,029
clear	B5R KL	BS5R KL	BC5R KL	10	0,029
white	B5R WS	BS5R WS	BC5R WS	10	0,029



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

### Contact blocks



### Lamp holders, socket BA9s

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



### Lamp holders for lamp test circuits, socket BA9s

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

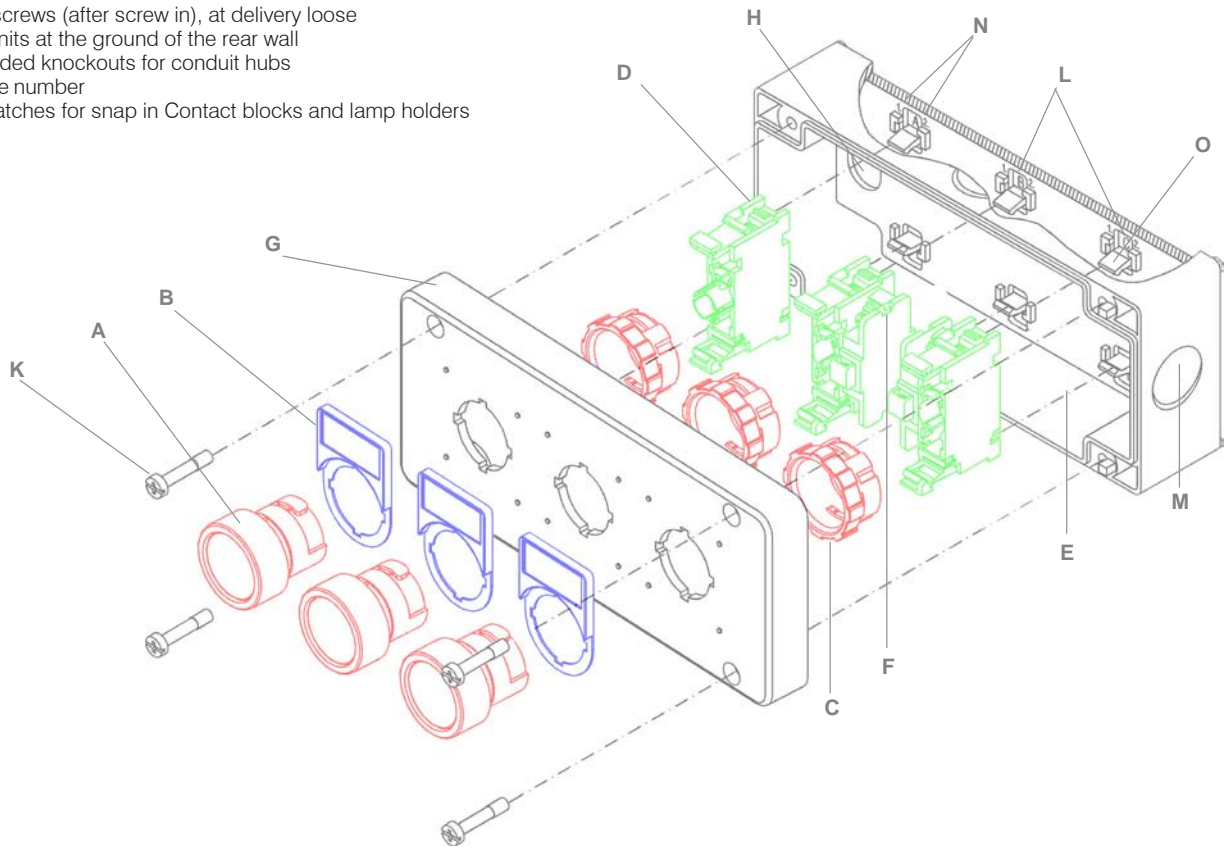
## Accessories



		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

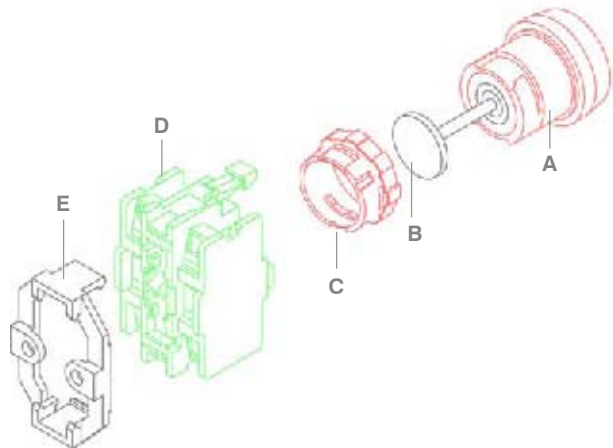
## Assembled Stations BG.. IP67 (H) Type12

- A Actuators or Lens caps, see page 3 - 6
- B Legend plates with label holder
- C Ring and nut (included with actuator or lens cap)
- D Contact blocks and lamp holders, see page 20
- E Rear shroud
- F Function number
- G Cover
- H Pre-moulded knockouts in rear wall
- K Captive screws (after screw in), at delivery loose
- L Sign of units at the ground of the rear wall
- M Pre-moulded knockouts for conduit hubs
- N Sequence number
- O Spring-catches for snap in Contact blocks and lamp holders



## Buttons for base mounting

- A Actuator Ø 22mm see page 3 - 6, Ø 30mm see page 13 - 15
- B Extension B4V...
- C Ring and nut (included with actuator or lens cap)
- D Contact block B4.. see page 20
- E Base B4U for base and DIN-rail mounting of contact blocks



Type

Pack Weight  
pcs. kg/pc.














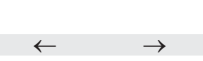

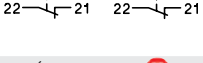

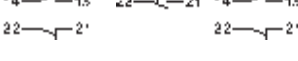

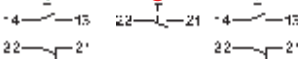












## Mounting Plate for base and DIN-rail mounting of contact blocks



<b>Mounting Plate</b>	for base and DIN-rail mounting of contact blocks and lamp holders B4.U...	<b>B4U</b>	10	0,010
<b>Ring and Nut</b>	for mounting former actuators and lens caps B4...	<b>B3UP</b>	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>ON push button green</b>		<b>BG10 GN</b>	1	0,135
	<b>OFF push button red</b>		<b>BG10 RT</b>	1	0,135
	<b>Pilot light green</b>		<b>BG01 GN</b>	1	0,135
	<b>Pilot light red</b>		<b>BG01 RT</b>	1	0,135
	<b>Key operated 0 - I <sup>1)</sup></b> lock Ronis R455 60° maintained		<b>BG10SAR 0</b>	1	0,165
	<b>Key operated I - 0 - II <sup>1)</sup></b> lock Ronis R455 60° maintained		<b>BG10SARR 0</b>	1	0,172
	<b>2 push buttons 0 - I</b>		<b>BG20</b>	1	0,200
	<b>2 push buttons ← →</b>		<b>BG20PF</b>	1	0,200
	<b>3 push buttons ← 0 →</b>		<b>BG30PF</b>	1	0,283
	<b>3 push buttons I - 0 - II</b>		<b>BG30</b>	1	0,283
	<b>2 push buttons 0 - I with pilot light green</b>		<b>BG21 GN</b>	1	0,270
	<b>Foot and palm button</b> mushroom Ø70mm		<b>BG10P14P GR</b>	1	0,187
<b>Plastic enclosed EMERGENCY STOP buttons</b>					
	<b>EMERGENCY STOP button</b> head Ø40mm unlock by turning		<b>BG10P34-11</b>	1	0,145
	<b>EMERGENCY STOP mushroom button</b> Ø40mm according to EN418 unlock by pull		<b>BG10P44-11</b>	1	0,145
	<b>EMERGENCY STOP key operated button</b> Ø40mm according to EN418 unlock by key		<b>BG10P44S3-11</b>	1	0,178
	<b>EMERGENCY STOP mushroom button</b> Ø70mm unlock by turning		<b>BG10P34P-11</b>	1	0,187

1) IP65

## Enclosures BG.. IP67, Type12



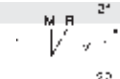


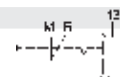


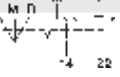





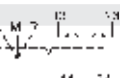
	Number of units	Description	Type	Pack pcs.	Weight kg/pc.
	1	3 knockouts Ø20,5mm (M20 or PG13,5)	<b>BG1</b>	1	0,108
	2	3 knockouts Ø20,5mm (M20 or PG13,5)	<b>BG2</b>	1	0,145
	3	3 knockouts Ø20,5mm (M20 or PG13,5)	<b>BG3</b>	1	0,188

## 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.
----------	--------------	----------------	----------------------------------------	------	-----------	---------------



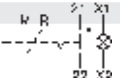


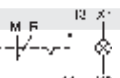


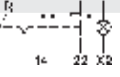





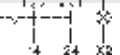
### Contact blocks for enclosures BG..




	1NC <sup>1)</sup>				<b>B4TU01</b>	10	0,015
	1NO				<b>B4TU10</b>	10	0,015
	1NO+1NC <sup>1)</sup>				<b>B4TU11</b>	10	0,022
	2NC <sup>1)</sup>				<b>B4TU02</b>	10	0,022
	2NO				<b>B4TU20</b>	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			<b>B4TU01F</b>	10	0,020
	1NO	max. 440V AC/DC			<b>B4TU10F</b>	10	0,020
	1NO+1NC <sup>1)</sup>	max. 440V AC/DC			<b>B4TU11F</b>	10	0,027
	2NC <sup>1)</sup>	max. 440V AC/DC			<b>B4TU02F</b>	10	0,027
	2NO	max. 440V AC/DC			<b>B4TU20F</b>	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)		<b>B4FU</b>	10	0,013
--	-----------------	---------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------	----	-------

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

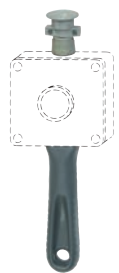
## Accessories for Plastic enclosed buttons



		Type	Pack pcs.	Weight kg/pc.
<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
--------------------	------------------------------------------------------	----------------	---	-------



<b>Suspension Eye</b>	for hanging stations	<b>B4-9929</b>	1	0,188
<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

## Push Buttons for Enclosures 22mm IP65

### Push buttons grey RAL7035



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



Reset push button	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
Reset push button with stop function	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
Start push button	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
Stop push button	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
Mushroom head lockable Ø28mm	red		19,5-38,5	<b>B3GP-31,5</b>	10	0,023
	red		38,5-60	<b>B3GP-60</b>	10	0,026

### Extensions for push buttons



Specification	Diameter Ø mm	Length mm	Type	Pack pcs.	Weight kg/pc.
self adjusting pin, for B(S, C)3D.. and B(S, C)3P..	15	19,5 - 38,5	<b>B4V31,5</b>	10	0,001
	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
Rated insulation voltage $U_i$	V AC	690 <sup>1)</sup>	500
<b>Utilization category AC12</b> Control of resistive loads and solid stateloads with isolation by opto couplers			
Rated current $I_n$	220-240V A 380-415V A 500V A 690V A	10 10 10 10	10 10 10 -
<b>Utilization category AC15</b> Control of electromagnetic load (>72VA)			
Rated current $I_n$	220-240V A 380-415V A 500V A 690V A	6 5 3 2	6 5 3 -
<b>Utilization category DC12</b> L/R = 1ms Control of resistive loads and solid stateloads with isolation by opto couplers			
Rated current $I_n$	24V A 60V A 110V A 220V A	10 6 2,5 0,8	10 6 2,5 0,8
<b>Utilization category DC14</b> L/R = 15ms Control of electromagnetic loads having economy resistors in circuit			
Rated current $I_n$	24V A 60V A 110V A 220V A	8 1 2 0,5	8 1 2 0,5
<b>Utilization category DC13</b> L/R = 300ms Control of electromagnets			
Rated current $I_n$	24V A 60V A 110V A 220V A	2 5 0,5 0,2	2 5 0,5 0,2
Making capacity	A	60	60
Breaking capacity $\cos\phi = 0,7-1$	40-60Hz A	50	50
Mechanical life	millions of operations	10	10
Contact life (AC15)			
100VA	millions of operations	10	10
300VA	millions of operations	3	3
800VA	millions of operations	1	1
1200VA	millions of operations	0,5	0,5
Maximum frequency of operations	ops. per hour	600	600
Short circuit protection	slow, gL (gG) A	25	25
Type		B3F	B4F
Rated insulation voltage $U_i$	V AC	440 <sup>2)</sup>	440 <sup>2)</sup>
Lamp base		BA9s	

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

Data according to cULus

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

## Approvals

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

o In standard version approved

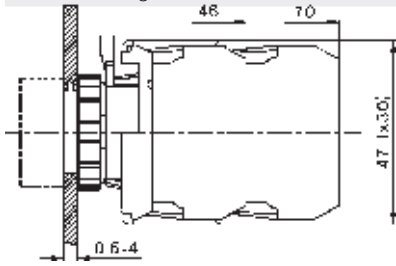
- Not provided for test till now

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

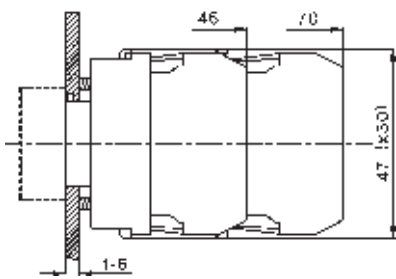
# Dimensions

## Actuators and Lens Caps 22mm

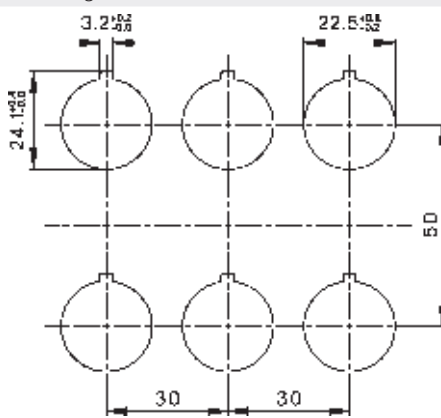
Panel mounting B3S



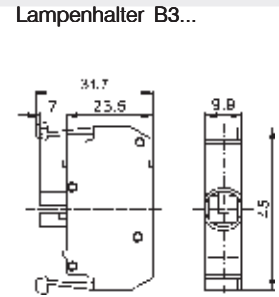
Panel mounting B3M



Mounting holes



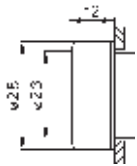
Contact blocks and Lampenhalter B3...



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

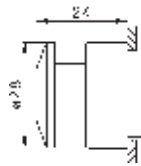
## Actuators and Lens caps

Flush Head  
Illuminated Flush Head



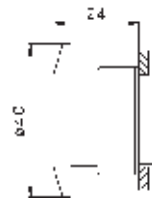
B3D(R), B3DL(R)  
BS3D(R), BS3DL(R)  
BC3D(R), BC3DL(R)

Mushroom Head Ø28mm  
Emergency Stop Ø28mm



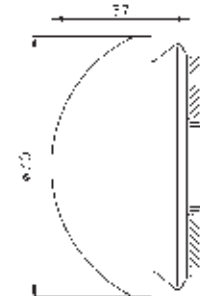
B3P1 bis B3P3  
BS3P1 bis BS3P3  
BC3P1 bis BC3P3

Mushroom Head Ø40mm  
Emergency Stop Ø40mm



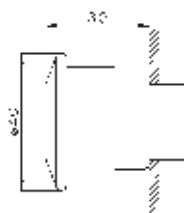
B3P14, B3P34  
BS3P14, BS3P34  
BC3P14, BC3P34

Mushroom Head Ø70mm  
Emergency Stop Ø70mm



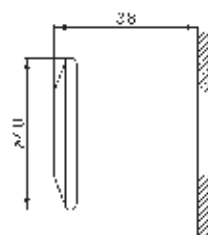
BS3P14P  
BS3P34P

Push-and pull button Ø40mm



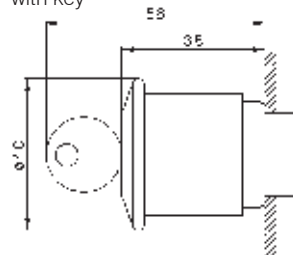
BS3P44

Push-and pull button Ø40mm



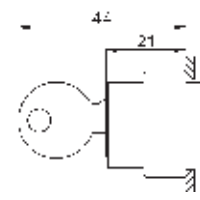
BS3P45

Push-and pull button Ø40mm  
with key



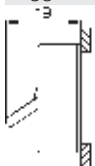
BS3P44S3

Lockable Push button



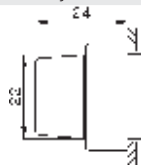
B3SAR., B3SAT.  
BS3SAR., BS3SAT.  
BC3SAR., BC3SAT.

Toggle



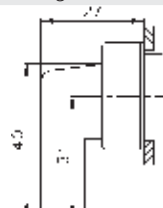
B3E  
BS3E  
BC3E

Rotary Knob



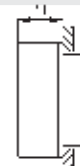
B3KN, B3KL  
BS3KN, BS3KL  
BC3KN, BC3KL

Swing Knob



B3KRL, B3KRN  
BS3KRL, BS3KRN  
BC3KRL, BC3KRN

Lens Cap

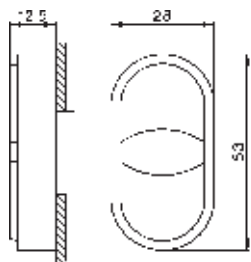


B3R(F)

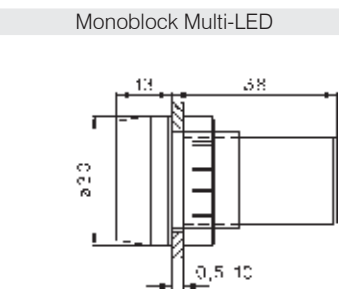
# Dimensions

## Actuators and Lens Caps 22mm

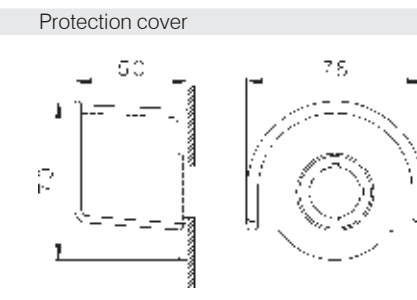
Double push button      Monoblock Multi-LED      Protection cover      Protection ring w. thread



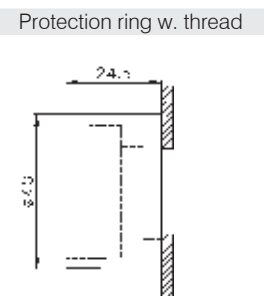
**B3DT**



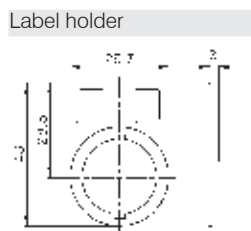
**B3-MB...**



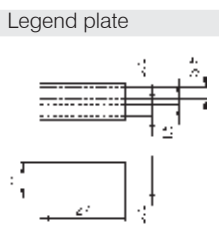
**B3-SK ..**



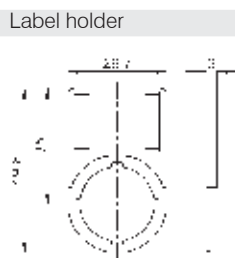
**P921-.**



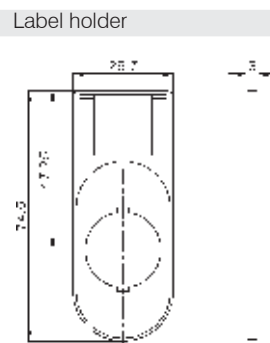
**P751**



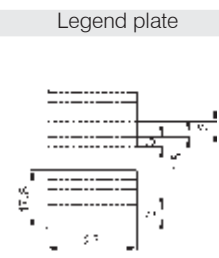
**BK4-...**



**P761**



**P761-DT**



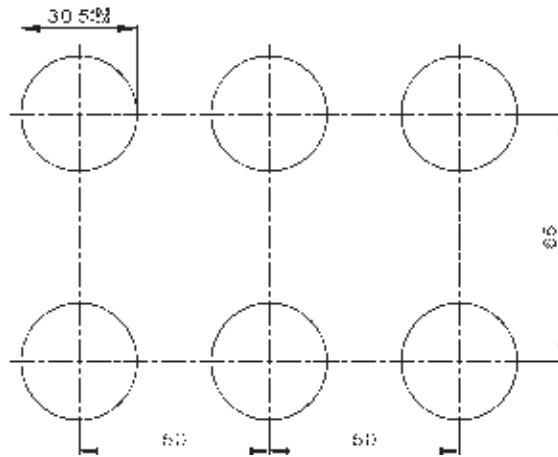
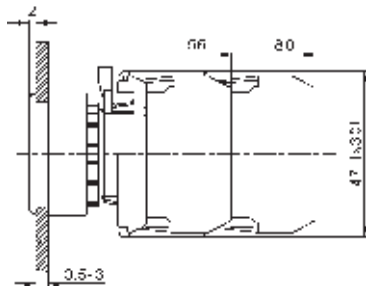
**BK8-...**

# Dimensions

## Actuators and Lens Caps 30mm

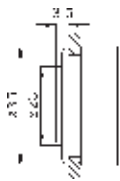
Panel mounting B3S

Mounting holes



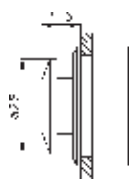
## Actuators and Lens caps

Flush Head  
Illuminated Flush Head



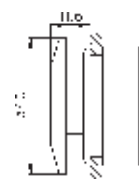
B5D(R), B5DL(R)  
BS5D(R), BS5DL(R)

Mushroom Head Ø28mm  
Emergency Stop Ø28mm



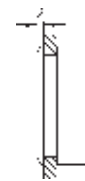
B5P1 to B5P3  
BS5P1 to BS5P3

Mushroom Head Ø40mm  
Emergency Stop Ø40mm



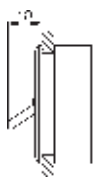
B5P14, B5P34  
BS5P14, BS5P34

Lens Cap



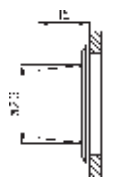
B5RF

Toggle



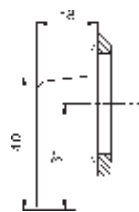
B5E  
BS5E

Rotary Knob



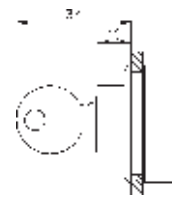
B5KN, B5KL  
BS5KN, BS5KL

Swing Knob



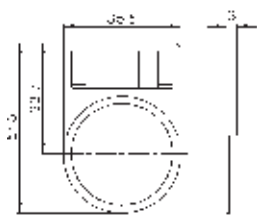
B5KRL, B5KRN  
BS5KRL, BS5KRN

Lockable Push button



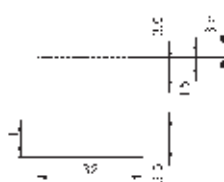
B5SAR., B5SAT.  
BS5SAR., BS5SAT.

Label holder



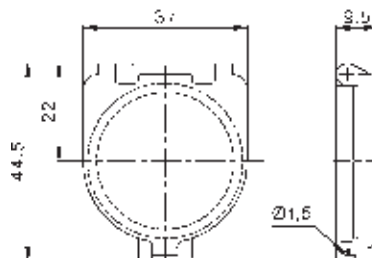
P761

Legend plate



BK5-...

Protectiv cover

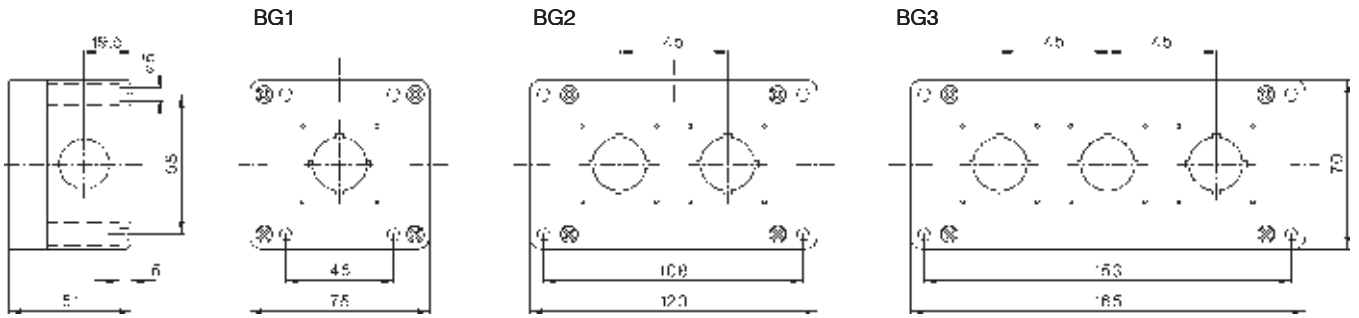


B5-SAP

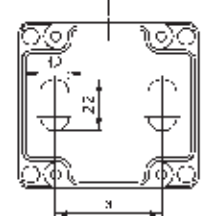
# Dimensions

## Enclosures for Custom Built Stations

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

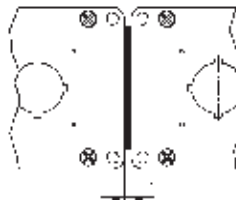


### Conduit entries in the bottom (knockouts)

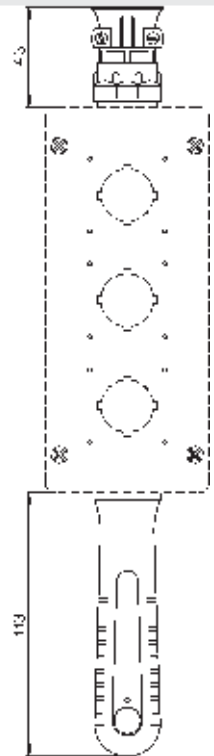


Number of units	Dimension a
1	45
2	90
3	135

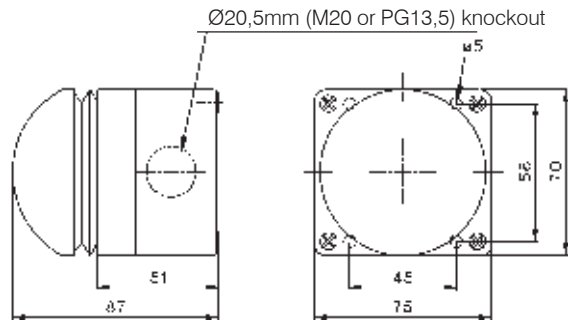
### Coupled Enclosures B4-8852



### Hanging Station B4-9149



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



# Dimensions

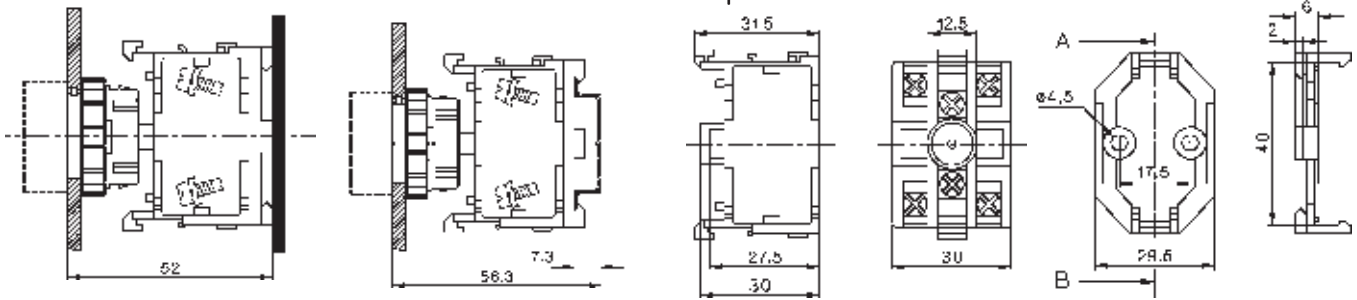
## Actuators 22mm

Base mounting

DIN-rail mounting

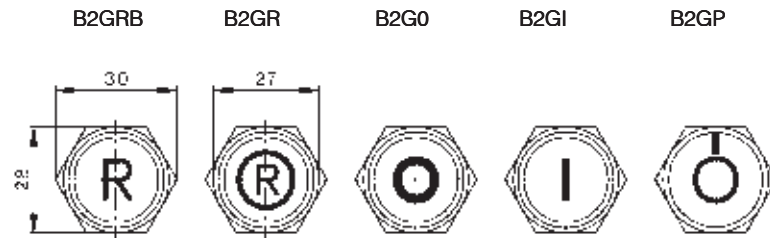
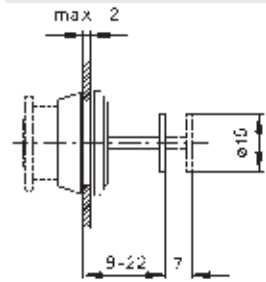
Contact blocks and  
Lamp Holders B4.U...

Base B4U

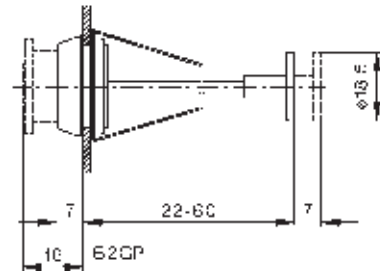


## Push buttons for enclosures

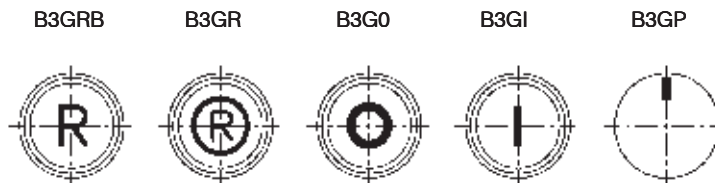
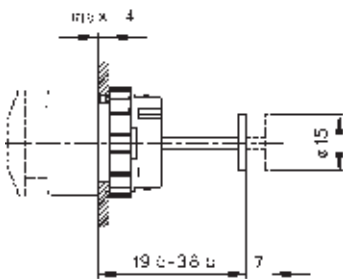
B2G...-22



B2G...-60



B3G...-31,5



B3G...-60

