

# **Push buttons and signalling devices**



**BREMAS**

BETTER SWITCHES

More than 50 years of experience  
in the design and manufacture  
of high quality electromechanical components.



BETTER SWITCHES



**+39 02 95651611**

Customer service



**www.bremas.it**  
**www.bremaserse.com**

News and online catalogues

**info@bremas.it**

Technical attendance service



**Bremas Ersce SpA**  
Via Castellazzo, 9 - I-20040 Cambiago (MI)

Headquarters

# Quality makes



# our products great



With over 50 years of experience we are specialist in the manufacturing of cam switches, disconnect switches, position and safety switches, power tools switches, relay sockets and push buttons.

We design and build extremely reliable and efficient products: our company is managed in full accordance with UNI EN ISO 9001 and all our products are verified in our laboratory under the most stringent standards to guarantee performance, durability and safety.

We have a state of the art R&D department committed to develop new, better products. We have gained a wide experience in designing custom products for different industrial sectors: our technicians constantly interact with customers to develop solutions which can offer significant added value.





## ■ Push buttons and LED indicators

### BP Series Ø 22

Technical data	6
Push buttons - Not illuminated	
Flush head	7
Extended head	7
Push buttons - Illuminated	
Flush head	7
Extended head	7
Double Push buttons	8
Emergency mushrooms	9
Selector switches - Not illuminated	
2 positions - Short handle	10
3 positions - Short handle	10
2 positions - Long handle	11
3 positions - Long handle	11
Selector switches - Illuminated	
2 positions - Short handle	12
3 positions - Short handle	12
Selectors key operated - 2 and 3 positions	13
Contact Blocks	14
LED elements	14
Accessories for push buttons	15
BM - BP series - Product with symbols	38



### BM Series Ø 22

Technical data	6
Push buttons	
Flush head	16
Extended head	17
Mushroom push buttons	
Momentary	18
Turn to release	19
Selector switches	
2 positions - Short handle	20
3 positions - Short handle	20
2 positions - Long handle	21
3 positions - Long handle	21
Selectors key operated - 2 and 3 positions	22
LED indicators	23
Multi-voltage LED indicators	24
Buzzers	24
BM - BP series - Product with symbols	38



## ■ Signal towers

Technical data	26
Bases	27
Sound modules	27
Lense modules	28



## ■ Push button stations

Technical data	30
BM series box	
Single push button	31
Double push buttons	32
Triple push buttons	32
BP series box	
Emergency stations with mushroom push button	33
Accessories for push button stations	34
BM - BP series - Product with symbols	38



## ■ Foot switches

PS - PC series - Foot switches	40
--------------------------------	----



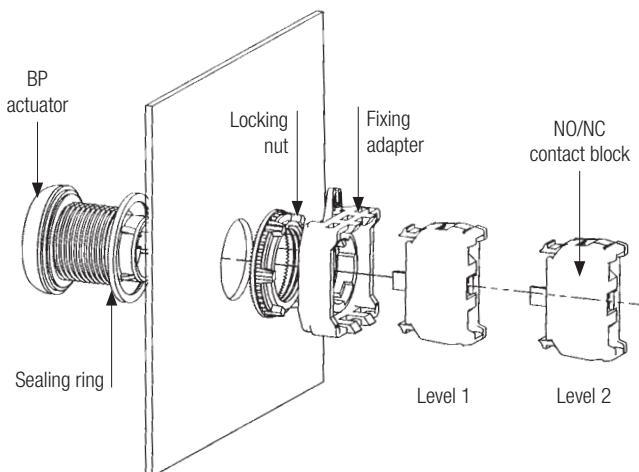
Push buttons  
and LED indicators

BP - BM - BL - BB  
Series

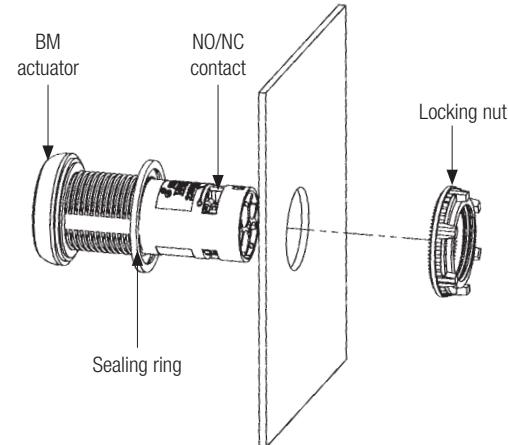
## ■ BP series Ø22

Note:

- Maximum 2 levels, each with 3 elements
- Example of 1 level: 3NO/NC or 2NO/NC + 1 LED HOLDER
- Example of 2 levels: 3NO/NC + 3NO/NC, 2NO/NC + 2NO/NC + 1 LED HOLDER



## ■ BM series Ø22

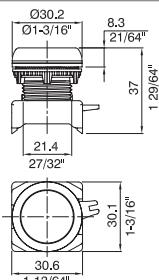


### Technical data

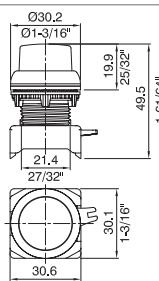
General				BP series	BM series	BL series
				IEC/EN 60947-5-1, cULus, CE		
Standards						
Rated insulation voltage	IEC947-5-1	Ui	V AC	600V	600V	600V
Rated thermal current	IEC947-5-1	Ith	A	10	10	-
Operating frequency		Hz		50/60	50/60	50/60
Rated operating current	IEC947-5-1 / EN60947-5-1					
AC-15 Control of A.C. electromagnetic loads		230V	Ie	6	6	14-20mA
		500V	Ie	2	2	14-28mA
DC-13 Control of D.C. electromagnetics		24V	Ie	A	1,5	1,5
Short-circuit protection						
Fuse type gG/gL		500V	A	10	10	10
Contact resistance	IEC255-7 cat.3		mΩ	< 20	< 20	< 20
Dielectric strength		50/60Hz for 1 sec.	VAC	2.5KV	2.5KV	2.5KV
Rated conditional short-circuit current	IEC947-5-1		A	10A	10A	>0.5A
Oversupply category/degree of pollution	IEC947-5-1			II/3	II/3	II/3
Insulation resistance at 500V DC				> 50MΩ	> 50MΩ	>1MΩ
MV drop at 16A DC				> 200MV	> 200MV	-
Protection degree	IEC/EN60529	Above panel		IP65	IP65	IP65
		Terminals		IP20	IP20	IP20
Mechanical life	Push-buttons, Emergency mushrooms (Momentary)	Operations		1.000.000	1.000.000	-
	Selectors, Emergency mushrooms (Push-Pull)	Operations		500.000	500.000	-
	Emergency mushrooms (Turn to release)	Operations		100.000	100.000	-
Electrical life	at 250VAC 6A with resistance load			500.000 cycles	500.000 cycles	100.000 hours
Terminals	Screws			Screw washer	Screw washer	Screw washer
	Tightening torque	Nm		0,6 ÷ 0,8	0,6 ÷ 0,8	0,6 ÷ 0,8
	Solid and flexible wires	Min-Max mm²		(2x) 1-2,5	(2x) 1-2,5	0,5-2,5
		Min-Max AWG		18-14	18-14	21-14
<b>Climatic conditions</b>						
Operating ambient temperature		°C		-30° ÷ +60°	-30° ÷ +60°	-30° ÷ +60°
Storage ambient temperature		°C		-30° ÷ +70°	-30° ÷ +70°	-30° ÷ +70°
Climatic proofing	Damp heat, constant, to IEC 60068			2-78	2-78	2-78
	Damp heat, cyclic, to IEC 60068			2-30	2-30	2-30
Contact travel				 Stroke (mm)		

## ■ Push buttons, not illuminated - IP65

Flush head, momentary function

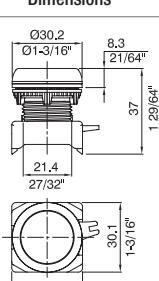
	Dimensions	Color of actuator	Code	Pack
		●	BPR1	1
		●	BPR2	1
		●	BPR3	1
		●	BPR4	1
		●	BPR5	1
		●	BPR6	1

Extended head, momentary function

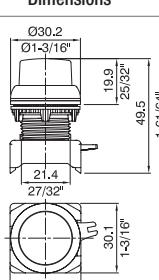
	Dimensions	Color of actuator	Code	Pack
		●	BPS1	1
		●	BPS2	1
		●	BPS3	1
		●	BPS4	1
		●	BPS5	1
		●	BPS6	1

## ■ Push buttons, illuminated - IP65

Flush head, momentary function

	Dimensions	Color of actuator	Code	Pack
		●	BPRL2	1
		●	BPRL3	1
		●	BPRL4	1
		●	BPRL5	1
		●	BPRL6	1

Extended head, momentary function

	Dimensions	Color of actuator	Code	Pack
		●	BPSL2	1
		●	BPSL3	1
		●	BPSL4	1
		●	BPSL5	1
		●	BPSL6	1

Note:

- Antirotating ring included
- Black collar is available on request
- Led elements for illuminated push buttons must be ordered separately
- Other colors are available on request

standard article



## ■ Double push buttons, not illuminated - IP65

Flush head, momentary function

Dimensions	Symbols / Colors of actuators	Code	Pack
		BP2UD	1
		BP2LR	1
		BP2AL	1
		BP2IO	1
		BP2IOW	1

## ■ Double push buttons, illuminated - IP65

Flush head, momentary function

Dimensions	Symbols / Colors of actuators	Voltage	Code	Pack
		NO LED	BP2LAL	1
		24V AC/DC	BP2LAL24	1
		110V AC	BP2LAL110	1
		240V AC	BP2LAL240	1
		NO LED	BP2LI0	1
		24V AC/DC	BP2LI024	1
		110V AC	BP2LI0110	1
		240V AC	BP2LI0240	1

Note:

- Antirotating ring included
- Black collar is available on request
- Other colors are available on request

standard article

## ■ Emergency mushroom, not illuminated - IP65

### Flush head

	Dimensions	Type	Color of actuator	Code	Pack
		Turn to release	●	BPFB240	1
		Release by turning with key	●	BPFBC240	1
		Push-Pull	●	BPFBT240	1
		Momentary	●	BPFBM240	1
		Momentary	●	BPFBM340	1
		Momentary	●	BPFBM440	1
		Momentary	●	BPFBM140	1

### Note:

- Emergency mushrooms in accordance with EN ISO 13850
- Antirotating ring included
- Black collar is available on request
- Other colors are available on request

standard article

## ■ Selector switches, not illuminated - IP65

### 2 positions, short handle

	Dimensions	Function	Color of actuator	Code	Pack
		↓ 0° +45°	●	BPSN1CD	1
		↓ 0° +45°	●	BPSN2CD	1
		↗ 0° +45°	●	BPSN1CDRD	1
		↙ -45° +45°	●	BPSN1A	1

### 3 positions, short handle

	Dimensions	Function	Color of actuator	Code	Pack
		↔ -45° 0° +45°	●	BPSN1E	1
		↔ -45° 0° +45°	●	BPSN2E	1
		↔ -45° 0° +45°	●	BPSN1ERC	1
		↔ -45° 0° +45°	●	BPSN2ERC	1
		↔ -45° 0° +45°	●	BPSN1ERD	1
		↔ -45° 0° +45°	●	BPSN2ERD	1
		↔ -45° 0° +45°	●	BPSN1ERS	1
		↔ -45° 0° +45°	●	BPSN2ERS	1

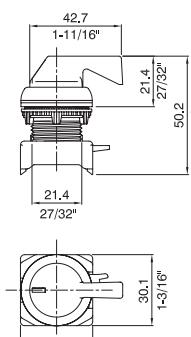
#### Note:

- Antirotating ring included
- Black collar is available on request
- Other colors and operating style are available on request

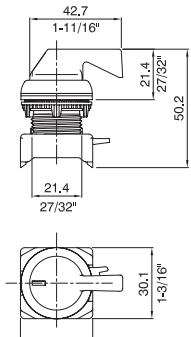
standard article

## ■ Selector switches, not illuminated - IP65

### 2 positions, long handle

	Dimensions	Function	Color of actuator	Code	Pack
	 <p>42.7 1-11/16"</p> <p>21.4 27/32"</p> <p>27/32"</p> <p>50.2 1-31/32"</p> <p>30.1 1-3/16"</p> <p>30.6 1-13/64"</p>	↓ 0° +45°	●	BPSNL1CD	1
		↗ 0° +45°	●	BPSNL1CDRD	1
		↙ -45° +45°	●	BPSNL1A	1

### 3 positions, long handle

	Dimensions	Function	Color of actuator	Code	Pack
	 <p>42.7 1-11/16"</p> <p>21.4 27/32"</p> <p>27/32"</p> <p>50.2 1-31/32"</p> <p>30.1 1-3/16"</p> <p>30.6 1-13/64"</p>	↔ -45° 0° +45°	●	BPSNL1E	1
		↔ -45° 0° +45°	●	BPSNL1ERC	1
		↔ -45° 0° +45°	●	BPSNL1ERD	1
		↔ -45° 0° +45°	●	BPSNL1ERS	1

#### Note:

- Antirotating ring included
- Black collar is available on request
- Other colors and operating style are available on request

standard article 

## ■ Selector switches, illuminated - IP65

### 2 positions, short handle

	Dimensions	Function	Color of actuator	Code	Pack
	<p>Dimensions: 21.2 (53/64"), 21.4 (27/32"), 22.1 (7/8"), 51, 2-1/16", 30.1, 30.6 (1-13/64").</p>	↓ 0° +45°	●	BPSL6CD	1
		↓ 0° +45°	●	BPSL2CD	1
		↓ 0° +45°	●	BPSL3CD	1
		▷ 0° +45°	●	BPSL6CDRD	1
		▷ 0° +45°	●	BPSL2CDRD	1
		▷ 0° +45°	●	BPSL3CDRD	1

### 3 positions, short handle

	Dimensions	Function	Color of actuator	Code	Pack
	<p>Dimensions: 21.2 (53/64"), 21.4 (27/32"), 22.1 (7/8"), 51, 2-1/16", 30.1, 30.6 (1-13/64").</p>	↓↓ 0° +45°	●	BPSL6E	1
		↓↓ 0° +45°	●	BPSL2E	1
		↓↓ 0° +45°	●	BPSL3E	1
		◀▷ 0° +45°	●	BPSL6ERC	1
		◀▷ 0° +45°	●	BPSL2ERC	1
		◀▷ 0° +45°	●	BPSL3ERC	1
		▷ 0° +45°	●	BPSL6ERD	1
		▷ 0° +45°	●	BPSL2ERD	1
		▷ 0° +45°	●	BPSL3ERD	1
		◀ 0° +45°	●	BPSL6EGS	1
		◀ 0° +45°	●	BPSL2EGS	1
		◀ 0° +45°	●	BPSL3EGS	1

Note:

- Antirotating ring included
- Black collar is available on request
- Other colors and operating style are available on request

standard article

## ■ Selector key-operated - IP65

### 2 positions

Dimensions	Function	Code	Pack
	0° +45°, Key removable in 0	BPSC1CDRDV	1
	0° +45°, Key removable in 0	BPSC1CD45V	1
	0° +90°, Key removable in 0	BPSC1CD90V	1
	0° +45°, Key removable in 1	BPSC1CD45VA	1
	0° +90°, Key removable in 1	BPSC1CD90VA	1

### 3 positions

Dimensions	Function	Code	Pack
	-45° 0° +45°, Key removable in 0	BPSC1EV	1
	-45° 0° +45°, Key removable in 0	BPSC1ERCV	1
	-45° 0° +45°, Key removable in 0	BPSC1ERDV	1
	-45° 0° +45°, Key removable in 0	BPSC1ERSV	1
	-45° 0° +45°, Key removable in 1	BPSC1ERDVA	1
	-45° 0° +45°, Key removable in 1	BPSC1EVA	1
	-45° 0° +45°, Key removable in 2	BPSC1ERSVB	1
	-45° 0° +45°, Key removable in 1-0	BPSC1EVB	1
	-45° 0° +45°, Key removable in 1-0-2	BPSC1EVC	1

#### Note:

- Antirotating ring included
- Black collar is available on request
- Other operating style are available on request

standard article

## ■ Contact elements

Dimensions	Contacts	Code	Pack
	1NO	BPC10B	10
	1NC	BPC01B	10

## ■ Led elements

Dimensions	Rated Voltage	LED color	Code	Pack
	24VAC/DC	●	BPLH224	10
	24VAC/DC	●	BPLH324	10
	24VAC/DC	●	BPLH424	10
	24VAC/DC	●	BPLH524	10
	24VAC/DC	●	BPLH624	10
	110VAC	●	BPLH2110	10
	110VAC	●	BPLH3110	10
	110VAC	●	BPLH4110	10
	110VAC	●	BPLH5110	10
	110VAC	●	BPLH6110	10
	240VAC	●	BPLH2240	10
	240VAC	●	BPLH3240	10
	240VAC	●	BPLH4240	10
	240VAC	●	BPLH5240	10
	240VAC	●	BPLH6240	10

### Note:

- Contact blocks and LED holder are provided with screw terminals
- Other colors are available on request
- Led elements: 100.000 operating hours

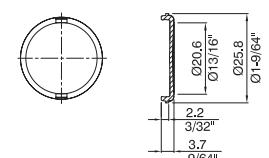
standard article

# BP Series - Accessories

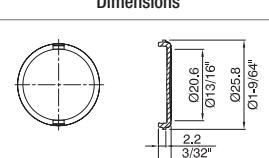
IEC 60947-5 

## ■ Accessories for push buttons

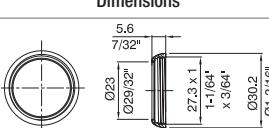
### Lens cap for flush push buttons - not illuminated

	Dimensions	Color	Code	Pack
		●	BPLPR6	10
		●	BPLPR1	10
		●	BPLPR2	10
		●	BPLPR3	10
		●	BPLPR4	10
		●	BPLPR5	10
		●	BPLPR8	10

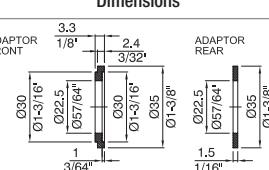
### Lens cap for flush push buttons - illuminated

	Dimensions	Color	Code	Pack
		Colourless	BPLPRL0	10
		●	BPLPRL9	10
		●	BPLPRL2	10
		●	BPLPRL3	10
		●	BPLPRL4	10
		●	BPLPRL5	10
		●	BPLPRL8	10

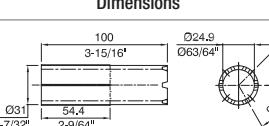
### Collar for flush/extended push buttons

	Dimensions	Type	Code	Pack
		Collar chrome plated ABS	BPCP	10
		Collar black ABS	BPCPN	10

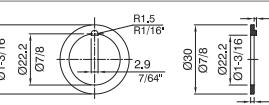
### Adaptor ring for 30 to 22mm in panel cutout conversion

	Dimensions	Type	Code	Pack
		Front & rear (Grey)	BPARG1	10
		Rear (Grey)	BPARG2	10
		Front & rear (Black)	BPARB1	10
		Rear (Black)	BPARB2	10
		Front & rear (Cr. Plated)	BPARC1	10
		Rear (Cr. Plated)	BPARC2	10

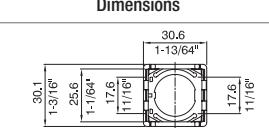
### Fixing device for operator Ø22

	Dimensions	Type	Code	Pack
		Fixing device	BPC22	10

### Antirotating ring

	Dimensions	Type	Code	Pack
		Antirotating ring	BPATR	10

### Fixing adapters

	Dimensions	Type	Code	Pack
		Fixing adapter (BP series)	BPFA	10
		Fixing adapter (BL series multivoltage led)	BPFAL	10

### Center Indication strip for double push button

	Type	Code	Pack
	Center ind. strip colourless, (illuminated)	BPIP2L0	10
	Center ind. strip black (non illuminated)	BPIP2L1	10

### Other accessories

	Type	Code	Pack
	Lens plug	BPLPL	10
	Legend plate	BPLEP	10

## ■ Push buttons - IP65

Flush head, momentary function

Dimensions	Contacts	Color of actuator	Code	Pack
	1NO	●	BMPR210	1
	1NO	●	BMPR310	1
	1NO	●	BMPR410	1
	1NO	●	BMPR110	1
	1NO	●	BMPR510	1
	1NO	●	BMPR610	1
	1NC	●	BMPR201	1
	1NC	●	BMPR301	1
	1NC	●	BMPR401	1
	1NC	●	BMPR101	1
	1NC	●	BMPR501	1
	1NC	●	BMPR601	1
	1NO+1NC	●	BMPR211	1
	1NO+1NC	●	BMPR311	1
	1NO+1NC	●	BMPR411	1
	1NO+1NC	●	BMPR111	1
	1NO+1NC	●	BMPR511	1
	1NO+1NC	●	BMPR611	1
	2NO	●	BMPR220	1
	2NO	●	BMPR320	1
	2NO	●	BMPR420	1
	2NO	●	BMPR120	1
	2NO	●	BMPR520	1
	2NO	●	BMPR620	1
	2NC	●	BMPR202	1
	2NC	●	BMPR302	1
	2NC	●	BMPR402	1
	2NC	●	BMPR102	1
	2NC	●	BMPR502	1
	2NC	●	BMPR602	1

Note:

- Antirotating ring included
- Black collar is available on request
- IP20 terminal protection
- Other colors are available on request

standard article

## ■ Push buttons - IP65

### Flush head, momentary function

Dimensions	Contacts	Color of actuator	Code	Pack
	1NO	●	BMPS210	1
	1NO	●	BMPS310	1
	1NO	●	BMPS410	1
	1NO	●	BMPS110	1
	1NO	●	BMPS510	1
	1NO	●	BMPS610	1
	1NC	●	BMPS201	1
	1NC	●	BMPS301	1
	1NC	●	BMPS401	1
	1NC	●	BMPS101	1
	1NC	●	BMPS501	1
	1NC	●	BMPS601	1
	1NO+1NC	●	BMPS211	1
	1NO+1NC	●	BMPS311	1
	1NO+1NC	●	BMPS411	1
	1NO+1NC	●	BMPS111	1
	1NO+1NC	●	BMPS511	1
	1NO+1NC	●	BMPS611	1
	2NO	●	BMPS220	1
	2NO	●	BMPS320	1
	2NO	●	BMPS420	1
	2NO	●	BMPS120	1
	2NO	●	BMPS520	1
	2NO	●	BMPS620	1
	2NC	●	BMPS202	1
	2NC	●	BMPS302	1
	2NC	●	BMPS402	1
	2NC	●	BMPS102	1
	2NC	●	BMPS502	1
	2NC	●	BMPS602	1

#### Note:

- Antirotating ring included
- Black collar is available on request
- IP20 terminal protection
- Other colors are available on request

standard article

## Mushroom push buttons - IP65

### Momentary function

Dimensions	Contacts	Color of actuator	Code	Pack
	1NO	●	BMPF210	1
	1NO	●	BMPF310	1
	1NO	●	BMPF410	1
	1NO	●	BMPF110	1
	1NC	●	BMPF201	1
	1NC	●	BMPF301	1
	1NC	●	BMPF401	1
	1NC	●	BMPF101	1
	1NO+1NC	●	BMPF211	1
	1NO+1NC	●	BMPF311	1
	1NO+1NC	●	BMPF411	1
	1NO+1NC	●	BMPF111	1
	2NO	●	BMPF220	1
	2NO	●	BMPF320	1
	2NO	●	BMPF420	1
	2NO	●	BMPF120	1
	2NC	●	BMPF202	1
	2NC	●	BMPF302	1
	2NC	●	BMPF402	1
	2NC	●	BMPF102	1

#### Note:

- Emergency mushrooms in accordance with EN ISO 13850
- Antirotating ring included
- Black collar is available on request
- IP20 terminal protection

standard article

## Mushroom push buttons - IP65

Turn to release

Dimensions	Contacts	Color of actuator	Code	Pack
	1NO	●	BMPFB210	1
	1NO	●	BMPFB310	1
	1NO	●	BMPFB410	1
	1NO	●	BMPFB110	1
	1NC	●	BMPFB201	1
	1NC	●	BMPFB301	1
	1NC	●	BMPFB401	1
	1NC	●	BMPFB101	1
	1NO+1NC	●	BMPFB211	1
	1NO+1NC	●	BMPFB311	1
	1NO+1NC	●	BMPFB411	1
	1NO+1NC	●	BMPFB111	1
	2NO	●	BMPFB220	1
	2NO	●	BMPFB320	1
	2NO	●	BMPFB420	1
	2NO	●	BMPFB120	1
	2NC	●	BMPFB202	1
	2NC	●	BMPFB302	1
	2NC	●	BMPFB402	1
	2NC	●	BMPFB102	1

Note:

- Emergency mushrooms in accordance with EN ISO 13850
- Antirotating ring included
- Black collar is available on request
- IP20 terminal protection

standard article

## ■ Selector switches - IP65

### 2 positions, short handle

Dimensions	Function	Contacts	Color of actuator	Code	Pack
	↙ 0° +45°	1NO	●	BMSN110	1
	↙ -45° +45°	1NO	●	BMSN1A10	1
	↗ 0° +45°	1NO	●	BMSN1CDRD10	1
	↙ 0° +45°	1NC	●	BMSN101	1
	↙ -45° +45°	1NC	●	BMSN1A01	1
	↗ 0° +45°	1NC	●	BMSN1CDRD01	1
	↙ 0° +45°	1NO+1NC (Left 1NO)	●	BMSN111	1
	↙ -45° +45°	1NO+1NC (Left 1NO)	●	BMSN1A11	1
	↗ 0° +45°	1NO+1NC (Left 1NO)	●	BMSN1CDRD11	1
	↙ 0° +45°	2NO	●	BMSN120	1
	↙ -45° +45°	2NO	●	BMSN1A20	1
	↗ 0° +45°	2NO	●	BMSN1CDRD20	1
	↙ 0° +45°	2NC	●	BMSN102	1
	↙ -45° +45°	2NC	●	BMSN1A02	1
	↗ 0° +45°	2NC	●	BMSN1CDRD02	1

### 3 positions, short handle

Dimensions	Function	Contacts	Color of actuator	Code	Pack
	↙ ↘ -45° 0° +45°	1NO+1NC (Left 1NO)	●	BMSN1E11NOS	1
	↙ ↘ -45° 0° +45°	1NO+1NC (Left 1NO)	●	BMSN1RC11NOS	1
	↙ ↗ -45° 0° +45°	1NO+1NC (Right 1NO)	●	BMSN1E11NOD	1
	↙ ↗ -45° 0° +45°	1NO+1NC (Right 1NO)	●	BMSN1RC11NOD	1
	↙ ↘ -45° 0° +45°	2NO	●	BMSN1E20	1
	↙ ↘ -45° 0° +45°	2NO	●	BMSN1RC20	1
	↙ ↗ -45° 0° +45°	2NC	●	BMSN1E02	1
	↙ ↗ -45° 0° +45°	2NC	●	BMSN1RC02	1

#### Note:

- Antirotating ring included
- Black collar is available on request
- IP20 terminal protection
- Other colors are available on request

standard article

## ■ Selector switches - IP65

### 2 positions, long handle

Dimensions		Function	Contacts	Color of actuator	Code	Pack	
		↓	0° +45°	1NO	●	BMSNL1CD10	1
		↗	0° +45°	1NO	●	BMSNL1ERC10	1
		↙	0° +45°	1NC	●	BMSNL1CD01	1
		↖	0° +45°	1NC	●	BMSNL1ERC01	1
		↙	0° +45°	1NO+1NC (Left 1NO)	●	BMSNL1CD11	1
		↖	0° +45°	1NO+1NC (Left 1NO)	●	BMSNL1ERC11	1
		↙	0° +45°	2NO	●	BMSNL1CD20	1
		↖	0° +45°	2NO	●	BMSNL1ERC20	1
		↙	0° +45°	2NC	●	BMSNL1CD02	1
		↖	0° +45°	2NC	●	BMSNL1ERC02	1

### 3 positions, long handle

Dimensions		Function	Contacts	Color of actuator	Code	Pack	
		↓↓	-45° 0° +45°	1NO+1NC (Left 1NO)	●	BMSNL1E11NOS	1
		↓↑	-45° 0° +45°	1NO+1NC (Left 1NO)	●	BMSNL1RC11NOS	1
		↓↓	-45° 0° +45°	1NO+1NC (Right 1NO)	●	BMSNL1E11NOD	1
		↓↑	-45° 0° +45°	1NO+1NC (Right 1NO)	●	BMSNL1RC11NOD	1
		↓↓	-45° 0° +45°	2NO	●	BMSNL1E20	1
		↓↑	-45° 0° +45°	2NO	●	BMSNL1RC20	1
		↓↓	-45° 0° +45°	2NC	●	BMSNL1E02	1
		↓↑	-45° 0° +45°	2NC	●	BMSNL1RC02	1

#### Note:

- Antirotating ring included
- Black collar is available on request
- IP20 terminal protection
- Other colors are available on request

standard article

## ■ Selector key operated - IP65

### 2 positions

Dimensions	Function	Contacts	Code	Pack
	↙ 0° +45°, Key removable in 0	1NO	<b>BMSC1CD10</b>	1
	↘ 0° +45°, Key removable in 0	1NO	<b>BMSC1CDR10</b>	1
	↙ 0° +45°, Key removable in 0	1NC	<b>BMSC1CD01</b>	1
	↘ 0° +45°, Key removable in 0	1NC	<b>BMSC1CDR01</b>	1
	↙ 0° +45°, Key removable in 0	1NO+1NC (Left 1NO)	<b>BMSC1CD11</b>	1
	↘ 0° +45°, Key removable in 0	1NO+1NC (Left 1NO)	<b>BMSC1CDR11</b>	1
	↙ 0° +45°, Key removable in 0	2NO	<b>BMSC1CD20</b>	1
	↘ 0° +45°, Key removable in 0	2NO	<b>BMSC1CDR20</b>	1
	↙ 0° +45°, Key removable in 0	2NC	<b>BMSC1CD02</b>	1
	↘ 0° +45°, Key removable in 0	2NC	<b>BMSC1CDR02</b>	1

### 3 positions

Dimensions	Function	Contacts	Code	Pack
	↙ ↘ -45° 0° +45°, Key removable in 0	1NO+1NC (Left 1NO)	<b>BMSC1E11NOS</b>	1
	↙ ↘ -45° 0° +45°, Key removable in 0	1NO+1NC (Left 1NO)	<b>BMSC1RC11NOS</b>	1
	↙ ↘ -45° 0° +45°, Key removable in 0	1NO+1NC (Right 1NO)	<b>BMSC1E11NOD</b>	1
	↙ ↘ -45° 0° +45°, Key removable in 0	1NO+1NC (Right 1NO)	<b>BMSC1RC11NOD</b>	1
	↙ ↘ -45° 0° +45°, Key removable in 0	2NO	<b>BMSC1E20</b>	1
	↙ ↘ -45° 0° +45°, Key removable in 0	2NO	<b>BMSC1RC20</b>	1
	↙ ↘ -45° 0° +45°, Key removable in 0	2NC	<b>BMSC1E02</b>	1
	↙ ↘ -45° 0° +45°, Key removable in 0	2NC	<b>BMSC1RC02</b>	1

Note:

- Antirotating ring included
- Black collar is available on request
- IP20 terminal protection

standard article

## ■ Led indicators - IP65

### With integrated LED

Dimensions	Rated Voltage*	Color of actuator	Code	Pack
    	12V AC/DC	●	BLI2012	10
Ø29.6 Ø1-11/64"	24V AC/DC		BLI2024	10
10 25/64"	48V AC/DC		BLI2048	10
21.5 27/32"	110V AC		BLI2110	10
7.6 19/64"	110V DC		BLI2110D	10
4	240V AC		BLI2240	10
5 1/2	220V DC		BLI2220D	10
    	12V AC/DC	●	BLI3012	10
Ø29.6 Ø1-11/64"	24V AC/DC		BLI3024	10
10 25/64"	48V AC/DC		BLI3048	10
21.5 27/32"	110V AC		BLI3110	10
7.6 19/64"	110V DC		BLI3110D	10
4	240V AC		BLI3240	10
5 1/2	220V DC		BLI3220D	10
    	12V AC/DC	●	BLI4012	10
Ø29.6 Ø1-11/64"	24V AC/DC		BLI4024	10
10 25/64"	48V AC/DC		BLI4048	10
21.5 27/32"	110V AC		BLI4110	10
7.6 19/64"	110V DC		BLI4110D	10
4	240V AC		BLI4240	10
5 1/2	220V DC		BLI4220D	10
    	12V AC/DC	●	BLI5012	10
Ø29.6 Ø1-11/64"	24V AC/DC		BLI5024	10
10 25/64"	48V AC/DC		BLI5048	10
21.5 27/32"	110V AC		BLI5110	10
7.6 19/64"	110V DC		BLI5110D	10
4	240V AC		BLI5240	10
5 1/2	220V DC		BLI5220D	10
    	12V AC/DC	●	BLI6012	10
Ø29.6 Ø1-11/64"	24V AC/DC		BLI6024	10
10 25/64"	48V AC/DC		BLI6048	10
21.5 27/32"	110V AC		BLI6110	10
7.6 19/64"	110V DC		BLI6110D	10
4	240V AC		BLI6240	10
5 1/2	220V DC		BLI6220D	10

\* operating voltage: -20% ÷ +10% of rated voltage

#### Note:

- IP20 terminal protection
- Other colors are available on request

standard article



## ■ Multi-voltage LED indicator - IP65

With integrated LED



Dimensions	Rated Voltage*	Color of actuator	Code	Pack
	24V ÷ 240V AC/DC	●	BLU2	8
	24V ÷ 240V AC/DC	●	BLU3	8
	24V ÷ 240V AC/DC	●	BLU4	8
	24V ÷ 240V AC/DC	●	BLU5	8
	24V ÷ 240V AC/DC	●	BLU6	8

\* operating voltage -20% to + 10% of rated voltage

Note:

- IP20 terminal protection
- Other colors are available on request

standard article



IEC 60947-5

## ■ Buzzer - IP65



Dimensions	Rated Voltage	Code	Pack
	12V AC/DC	BBU012	10
	24V AC/DC	BBU024	10
	30V AC/DC	BBU030	10
	48V AC/DC	BBU048	10
	64V AC/DC	BBU064	10
	110V AC	BBU110	10
	240V AC	BBU240	10

Note:

- IP20 terminal protection
- Continuous sound (80dB ± 5dB at 1 meter)

standard article



## Signal towers

BT  
Series

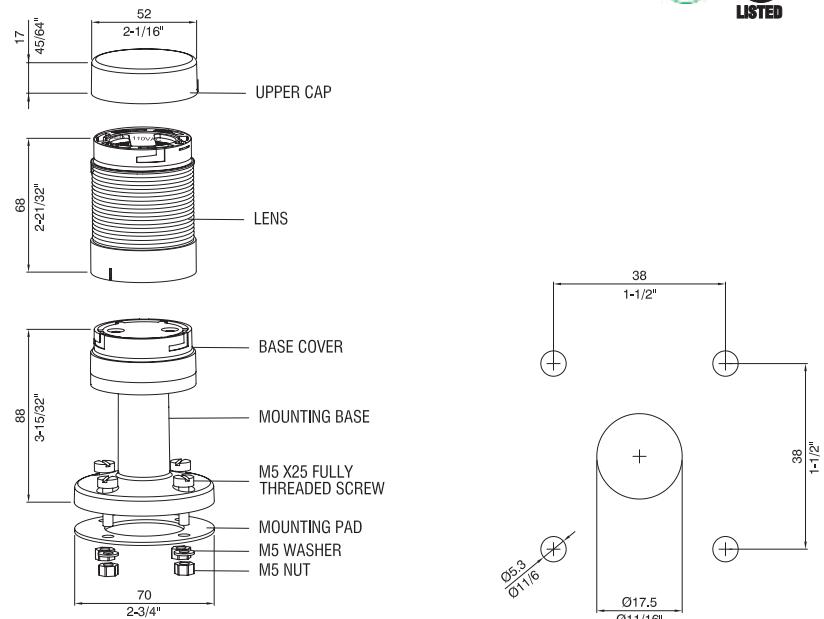


## BT Series - Technical specifications

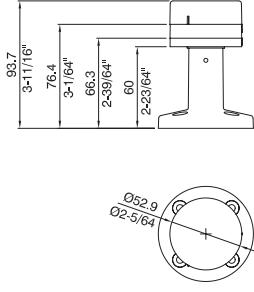
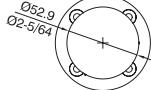
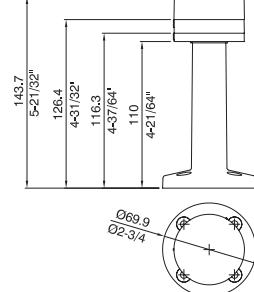
### Technical data

General		Bases - BTB	Lense Modules - BTL	Sound Modules - BTM
Standards		IEC/EN 60947-5-1, cULus, CE		
Rated impulse withstand voltage	Uimp VAC	-	2000	2000
Mounting position		As required	-	-
Mechanical shock resistance	acc. to 60068-2-27	g	>15	-
HV tests for 60 sec.		kV	-	2KV
Overvoltage category/degree of pollution			-	II/3
Protection degree			IP65	IP65
		NEMA (1,2,3,3R,4, 4X, 12,13)	NEMA (1,2,3,3R,4, 4X, 12,13)	NEMA (1,2,3,3R,4, 4X, 12,13)
Max number of signal elements		4	4	1
Terminals	Solid and flexible wires	mm <sup>2</sup>	0,5-1,5	-
		AWG	20-16	-
Type of light		-	Continuous - blinking - revolving	-
Light elements		-	LED type SMD	-
Flashing frequency		-	1Hz	-
Transmission angle		-	360°	360°
Current - power consumption	12-24V AC/DC	mA	40-60	14-22
	110V AC	mA	10-20	14-22
	240V AC	mA	10-20	14-22
Voltage levels		-	24VAC/DC ± 10%	24VAC/DC ± 10%
		-	110VAC ± 10%	110VAC ± 10%
		-	240VAC ± 10%	240VAC ± 10%
Sound pressure	dB	-	-	80dB ± 5dB at 1 meter
Types of sound		-	-	Continuous or pulsed tone
Lifespan	h	-	100.000	-
Weight	g	106	309	62
Climatic conditions				
Operating ambient temperature	°C	-30° ÷ +60°	-30° ÷ +60°	-30° ÷ +60°
Storage ambient temperature	°C	-30° ÷ +70°	-30° ÷ +70°	-30° ÷ +70°
Climatic proofing	Damp heat, constant, to IEC 60068	2-78	2-78	2-78
	Damp heat, cyclic, to IEC 60068	2-30	2-30	2-30

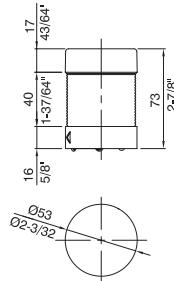
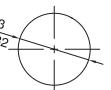
## ■ Signal towers - IP65



### Bases

	Dimensions	Type	Code	Pack
	  	Base 60mm, plastic type	BTBA60	1
	  	Base 110mm, plastic type	BTBA110	1

### Sound modules

	Dimensions	Type of sound	Rated Voltage	Code	Pack
	  	Continuous	24V AC/DC	BTMS24C	1
		Pulsed	24V AC/DC	BTMS24I	1
		Continuous	110V AC	BTMS110C	1
		Pulsed	110V AC	BTMS110I	1
		Continuous	240V AC	BTMS240C	1
		Pulsed	240V AC	BTMS240I	1

Note:

- Maximum number of modules: 4
- Other bases type are available on request
- Sound modules has to be used as last unit in the stack

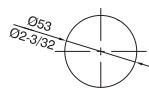
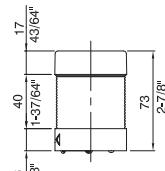
standard article

## ■ Signal towers - IP65

### Lense modules



Dimensions



Type	Rated Voltage	Color	Code	Pack
Continuous Led	24V AC/DC	●	BTLM4C024	1
Continuous Led	24V AC/DC	●	BTLM5C024	1
Continuous Led	24V AC/DC	●	BTLM3C024	1
Continuous Led	24V AC/DC	●	BTLM2C024	1
Continuous Led	24V AC/DC	●	BTLM6C024	1
Flashing Led	24V AC/DC	●	BTLM4F024	1
Flashing Led	24V AC/DC	●	BTLM5F024	1
Flashing Led	24V AC/DC	●	BTLM3F024	1
Flashing Led	24V AC/DC	●	BTLM2F024	1
Flashing Led	24V AC/DC	●	BTLM6F024	1
Rotary Led	24V AC/DC	●	BTLM4R024	1
Rotary Led	24V AC/DC	●	BTLM5R024	1
Rotary Led	24V AC/DC	●	BTLM3R024	1
Rotary Led	24V AC/DC	●	BTLM2R024	1
Rotary Led	24V AC/DC	●	BTLM6R024	1
Continuous Led	110V AC	●	BTLM4C110	1
Continuous Led	110V AC	●	BTLM5C110	1
Continuous Led	110V AC	●	BTLM3C110	1
Continuous Led	110V AC	●	BTLM2C110	1
Continuous Led	110V AC	●	BTLM6C110	1
Flashing Led	110V AC	●	BTLM4F110	1
Flashing Led	110V AC	●	BTLM5F110	1
Flashing Led	110V AC	●	BTLM3F110	1
Flashing Led	110V AC	●	BTLM2F110	1
Flashing Led	110V AC	●	BTLM6F110	1
Rotary Led	110V AC	●	BTLM4R110	1
Rotary Led	110V AC	●	BTLM5R110	1
Rotary Led	110V AC	●	BTLM3R110	1
Rotary Led	110V AC	●	BTLM2R110	1
Rotary Led	110V AC	●	BTLM6R110	1
Continuous Led	240V AC	●	BTLM4C240	1
Continuous Led	240V AC	●	BTLM5C240	1
Continuous Led	240V AC	●	BTLM3C240	1
Continuous Led	240V AC	●	BTLM2C240	1
Continuous Led	240V AC	●	BTLM6C240	1
Flashing Led	240V AC	●	BTLM4F240	1
Flashing Led	240V AC	●	BTLM5F240	1
Flashing Led	240V AC	●	BTLM3F240	1
Flashing Led	240V AC	●	BTLM2F240	1
Flashing Led	240V AC	●	BTLM6F240	1
Rotary Led	240V AC	●	BTLM4R240	1
Rotary Led	240V AC	●	BTLM5R240	1
Rotary Led	240V AC	●	BTLM3R240	1
Rotary Led	240V AC	●	BTLM2R240	1
Rotary Led	240V AC	●	BTLM6R240	1

Note:

- Maximum numbers of modules: 4
- Other colors are available on request

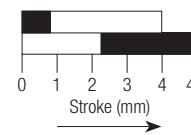
standard article



Push button  
stations

BM - BP  
Series - Box

## Technical data

General				BP series	BM series
Standards				IEC/EN 60947-5-1, CE	
Rated insulation voltage		IEC947-5-1		Ui V AC	600V
Rated thermal current		IEC947-5-1		Ith A	10
Operating frequency				Hz	50/60
Rated operating current		IEC947-5-1 / EN60947-5-1			
AC-15 Control of A.C. electromagnetic loads		230V	Ie A	6	6
		500V	Ie A	2	2
DC-13 Control of D.C. electromagnetics		24V	Ie A	1,5	1,5
Short-circuit protection					
Fuse type gG/gL		500V	A	10	10
Contact resistance		IEC255-7 cat.3	mΩ	< 20	< 20
Dielectric strength		50/60Hz for 1 sec.	VAC	2.5kV	2.5kV
Rated conditional short-circuit current		IEC947-5-1	A	10A	10A
Overvoltage category/degree of pollution		IEC947-5-1		II/3	II/3
Insulation resistance at 500V DC				> 50MΩ	> 50MΩ
MV drop at 16A DC				> 200MV	> 200MV
Protection degree		IEC/EN60529	Above panel Terminals	IP65 IP20	IP65 IP20
Mechanical life		Push-button, Emergency mushrooms (Momentary)	Operations	1.000.000	1.000.000
		Selector, Emergency mushrooms (Push-Pull)	Operations	500.000	500.000
		Emergency mushroom (Turn to release)	Operations	100.000	100.000
Electrical life		at 250VAC 6A with resistance load		500.000 cycles	500.000 cycles
Terminals		Screws		Screw washer	Screw washer
		Tightening torque	Nm	0,6 ÷ 0,8	0,6 ÷ 0,8
		Solid and flexible wires	Min-Max mm² Min-Max AWG	(2x) 1-2,5 18-14	(2x) 1-2,5 18-14
<b>Climatic conditions</b>					
Operating ambient temperature			°C	-30° ÷ +60°	-30° ÷ +60°
Storage ambient temperature			°C	-30° ÷ +70°	-30° ÷ +70°
Climatic proofing		Damp heat, constant, to IEC 60068		2-78	2-78
		Damp heat, cyclic, to IEC 60068		2-30	2-30
Contact travel				 <span style="display: inline-block; width: 10px; height: 10px; background-color: white;"></span> Contact open <span style="display: inline-block; width: 10px; height: 10px; background-color: black;"></span> Contact close	

## Push button stations - IP65

### Single push button stations

	Dimensions	Color of the enclosure	Type	Contacts	Legend	Color of actuator	Code	Pack
	<p>46.5 1-53/64" 65 1-3/16" 30 1-3/16" 8 5/16" 55 2-11/64"</p> <p>65 1-3/16" 30 1-3/16" 8 5/16" 53.5 2-13/64"</p>	● ●	1 red flush head	1NC	STOP	●	BMBSR120	1
		● ●					BMBSR120Y	1
		● ●		1NO	START	●	BMBSR110	1
		● ●					BMBSR110Y	1
	<p>46.5 1-53/64" 65 1-3/16" 40 1-37/64" 20 25/32" 53.5 2-7/64"</p> <p>47 1-27/32" 65 1-3/16" 40 1-37/64" 20 25/32" 53.5 2-7/64"</p>	● ●	1 green flush head	1NC	STOP	●	BMBSR11040	1
		● ●					BMBSR11040Y	1
		● ●	1 mushroom (momentary function)	1NC	STOP	●	BMBSR11040T	1
		● ●					BMBSR11040TY	1
	<p>46.5 1-53/64" 65 1-3/16" 53.5 2-7/64"</p> <p>47 1-27/32" 65 1-3/16" 53.5 2-7/64"</p>	● ●	1 mushroom (turn to release)	1NC	STOP	●	BMBSR110SN	1
		● ●					BMBSR110SNY	1
		● ●	1 selector switch 2 positions no spring return	1NO	OFF-ON	●	BMBSR110SC	1
		● ●					BMBSR110SCY	1
	<p>46.5 1-53/64" 65 1-3/16" 30.2 1-3/16" 8.5 21/64"</p> <p>18 45/64" 56.4 2-7/32"</p>	● ●	1 selector key-operated 2 positions no spring return	1NO	OFF-ON	●	BMBSR110SCY	1
		● ●						

Note:

- Other colors or combinations are available on request

standard article

## Push button stations - IP65

### Double push button stations

	Dimensions	Color of the enclosure	Type	Contacts	Legend	Color of actuator	Code	Pack
	<p>Dimensions:</p> <ul style="list-style-type: none"> <li>Overall height: 145 mm</li> <li>Enclosure height: 55 mm</li> <li>Front panel thickness: 2-11/64"</li> <li>Front panel width: 100 mm</li> <li>Front panel height: 3-5/16" (top) and 53.5 mm (bottom)</li> <li>Front panel depth: 8 mm</li> <li>Front panel thickness: 5/16"</li> <li>Mounting hole diameter: 1-3/16"</li> <li>Mounting hole distance: 30 mm</li> <li>Mounting hole depth: 1-3/16"</li> <li>Mounting hole width: 100 mm</li> <li>Mounting hole height: 40 mm</li> <li>Mounting hole depth: 8 mm</li> <li>Mounting hole thickness: 5/16"</li> </ul>	● ●	1 green flush head PB 1 red flush head PB	1NO+1NC	START-STOP	●	BMBSR210	1
		● ●				●	BMBSR210Y	1
	<p>Dimensions:</p> <ul style="list-style-type: none"> <li>Overall height: 145 mm</li> <li>Enclosure height: 55 mm</li> <li>Front panel thickness: 2-11/64"</li> <li>Front panel width: 100 mm</li> <li>Front panel height: 3-5/16" (top) and 53.5 mm (bottom)</li> <li>Front panel depth: 8 mm</li> <li>Front panel thickness: 5/16"</li> <li>Mounting hole diameter: 1-3/16"</li> <li>Mounting hole distance: 30 mm</li> <li>Mounting hole depth: 1-3/16"</li> <li>Mounting hole width: 100 mm</li> <li>Mounting hole height: 40 mm</li> <li>Mounting hole depth: 8 mm</li> <li>Mounting hole thickness: 5/16"</li> </ul>	● ●	1 green flush head PB 1 mushroom (turn to release)	1NO+1NC	START-STOP	●	BMBSR21040T	1
		● ●				●	BMBSR21040TY	1

### Triple push button stations

	Dimensions	Color of the enclosure	Type	Contacts	Legend	Color of actuator	Code	Pack
	<p>Dimensions:</p> <ul style="list-style-type: none"> <li>Overall height: 145 mm</li> <li>Enclosure height: 55 mm</li> <li>Front panel thickness: 2-11/64"</li> <li>Front panel width: 100 mm</li> <li>Front panel height: 3-5/16" (top) and 53.5 mm (bottom)</li> <li>Front panel depth: 8 mm</li> <li>Front panel thickness: 5/16"</li> <li>Mounting hole diameter: 1-3/16"</li> <li>Mounting hole distance: 30 mm</li> <li>Mounting hole depth: 1-3/16"</li> <li>Mounting hole width: 100 mm</li> <li>Mounting hole height: 40 mm</li> <li>Mounting hole depth: 8 mm</li> <li>Mounting hole thickness: 5/16"</li> </ul>	● ●	2 green flush head PB 1 red flush head PB	2NO+1NC	FORWARD-STOP-REVERSE	●	BMBSR310FW	1
		● ●				●	BMBSR310FWY	1
	<p>Dimensions:</p> <ul style="list-style-type: none"> <li>Overall height: 145 mm</li> <li>Enclosure height: 55 mm</li> <li>Front panel thickness: 2-11/64"</li> <li>Front panel width: 100 mm</li> <li>Front panel height: 3-5/16" (top) and 53.5 mm (bottom)</li> <li>Front panel depth: 8 mm</li> <li>Front panel thickness: 5/16"</li> <li>Mounting hole diameter: 1-3/16"</li> <li>Mounting hole distance: 30 mm</li> <li>Mounting hole depth: 1-3/16"</li> <li>Mounting hole width: 100 mm</li> <li>Mounting hole height: 40 mm</li> <li>Mounting hole depth: 8 mm</li> <li>Mounting hole thickness: 5/16"</li> </ul>	● ●	2 green flush head PB 1 red flush head	2NO+1NC	UP-STOP-DOWN	●	BMBSR310UP	1
		● ●				●	BMBSR310UPY	1
	<p>Dimensions:</p> <ul style="list-style-type: none"> <li>Overall height: 145 mm</li> <li>Enclosure height: 55 mm</li> <li>Front panel thickness: 2-11/64"</li> <li>Front panel width: 100 mm</li> <li>Front panel height: 3-5/16" (top) and 53.5 mm (bottom)</li> <li>Front panel depth: 8 mm</li> <li>Front panel thickness: 5/16"</li> <li>Mounting hole diameter: 1-3/16"</li> <li>Mounting hole distance: 30 mm</li> <li>Mounting hole depth: 1-3/16"</li> <li>Mounting hole width: 100 mm</li> <li>Mounting hole height: 40 mm</li> <li>Mounting hole depth: 8 mm</li> <li>Mounting hole thickness: 5/16"</li> </ul>	● ●	1 red LED indicator 240VAC 1 green flush head PB 1 red flush head PB	1NO+1NC	START-STOP	●	BMBSR310L23	1
		● ●				●	BMBSR310L23Y	1

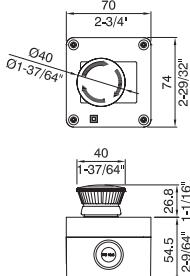
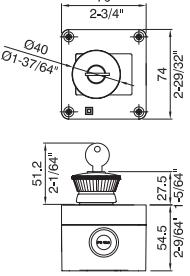
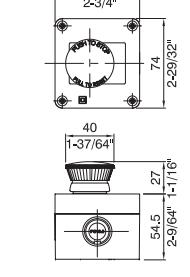
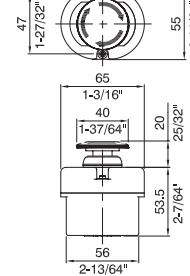
Note:

- Other colors or combinations are available on request

standard article

## Emergency stations - IP65

### Emergency mushroom

	Dimensions	Type	Contacts	Color of actuator	Code	Pack
		Turn to release	2NC	●	BPBSP15040PT02	1
		Turn to release	1NC	●	BPBSP15040PT01	1
		With key	1NC	●	BPBSP15040PC01	1
		Push-pull	2NC	●	BPBSP15040PP02	1
		Push-pull	1NC	●	BPBSP15040PP01	1
		Turn to release	2NC	●	BPBSRY11040PT02	1
		Turn to release	1NC	●	BPBSRY11040PT01	1

standard article

## ■ Accessories for push button stations

### Protecting shroud

	Dimensions	Type	Code	Pack
	Detailed dimensions for Protecting shroud BPP40: Top view shows outer diameter 23.5 [59/64"], height 9.36 [3-15/16"], and side height 23.5 [59/64"]. Side view shows height 33.8 [1-21/64"] and inner height 23.5 [59/64"]. Bottom view shows height 23.5 [59/64"] and inner height 23.5 [59/64"]. A note indicates R27 [1-1/16"].	Protecting shroud	BPP40	1
	Detailed dimensions for Protecting shroud for selector BPPSN: Top view shows outer diameter Ø33.4 [1-5/16"], height 16.8 [43/64"], and side height 11.8 [15/32"]. Side view shows height 14 [14/16"], inner height 14 [14/16"], and inner diameter Ø29.7 [1-21/64"]. Bottom view shows height 14 [14/16"], inner height 14 [14/16"], and inner diameter Ø33.9 [1-21/64"], Ø36.7 [1-21/64"], and Ø35.64 [1-35/64"].	Protecting shroud for selector	BPPSN	1

### Plates

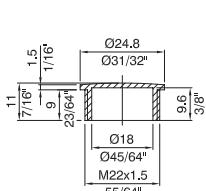
	Dimensions	Type	Text	Code	Pack
	Detailed dimensions for Yellow legend plate BDGS22: Top view shows outer diameter Ø60.0 [2-23/64"], height 1.5 [1/16"], and text "EMERGENCY STOP". Side view shows height 0.6 [1/32"] and inner height 0.224 [7/16"].	Yellow legend plate	EMERGENCY-STOP	BDGS22	10
	Detailed dimensions for Metal plates BPTR: Top view shows outer diameter Ø22.5 [57/64"], height 16.5 [2-13/32"], and text "AUT 0 MAN". Side view shows height 45.5 [1-51/64"] and inner height 33 [1-19/64"]. A note indicates R16.5 [2-13/32"] and R27 [13/16"].	Metal plates	MARCA ARRESTO I-0-2 I-> 0 <-2 CHIUDERE APRE MANUALE AUTOMATICO AUT-0-MAN ON-OFF 0-1 EMERGENZA AVANTI INDIETRO STOP START RESET (BLANK)	BPTR01 BPTR02 BPTR03 BPTR04 BPTR05 BPTR06 BPTR07 BPTR08 BPTR09 BPTR10 BPTR11 BPTR12 BPTR13 BPTR14 BPTR15 BPTR16 BPTR17 BPTR	10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

Note:

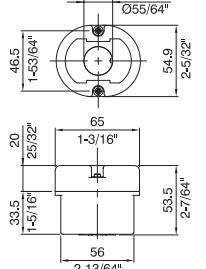
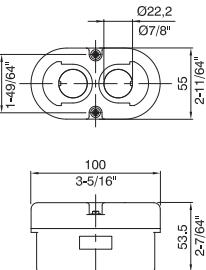
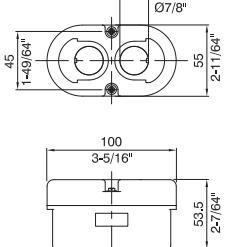
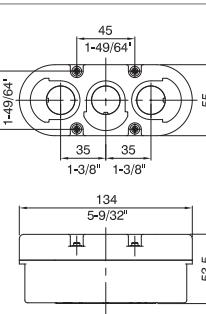
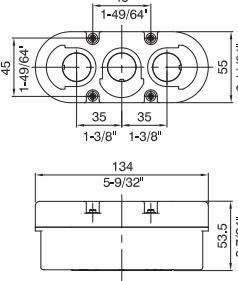
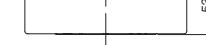
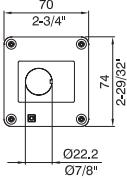
- Other text for metal plates can be ordered on request

standard article

## Blanking plugs

	Dimensions	Type	Code	Pack
		Convex grey	BPBPGC	10
		Flat grey	BPBPGF	10
		Convex black	BPBPCB	10
		Flat black	BPBPF	10
		Convex cr. plated	BPBCC	10
		Flat cr. plated	BPBPCF	10

## Plastic enclosures

	Dimensions	Color of the enclosure	Type	Code	Pack
		● ●	Single push button station enclosure	BS1	1
		● ●		BSY1	1
		● ●	Double push button station enclosure	BS2	1
		● ●		BSY2	1
		● ●	Triple push button station enclosure	BS3	1
		● ●		BSY3	1
		● ●	Single emergency push button station enclosure	BSE1	1

## ■ Accessories for push button stations

### Metal enclosures

	Dimensions	Type	Code	Pack
		Single push button enclosure, 1 hole, L=82mm	SM1V	1
		Double push button station enclosure, 2 vertical holes, L=141mm	SM2V	1
		Triple push button station enclosure, 3 vertical holes, L=193mm	SM3V	1
		Quadruple push button station enclosure, 4 horizontal holes, L=141mm	SM40	1
		Sextuple push button station enclosure, 6 horizontal holes, L=193mm	SM60	1
		Push button station enclosure, without holes, L=82mm	SV1SF	1
		Push button station enclosure, without holes, L=141mm	SV2SF	1
		Push button station enclosure, without holes, L=193mm	SV3SF	1

## Cover with Ø22 mm holes

Code	Color	No. of holes
<b>SM 1 V</b>	■	1
<b>SM 2 V</b>	■	2
<b>SM 3 V</b>	■	3
<b>SM 4 V</b>	■	4
<b>SM 5 V</b>	■	5
<b>SM 6 V</b>	■	6

Color grey RAL 7031

A	B	C	D	E	F	G	Dimensions		Drilling template		No. of holes
							H	I	0	V	
82	82	75	24	1" GAS	-	-	49	67	-	1	
141	82	75	24	1" GAS	52,5	-	108	67	-	2	
193	82	75	24	1" GAS	52,5	-	157	64	-	3	
141	82	75	24	1" GAS	52,5	32	108	67	2	2	
193	82	75	24	1" GAS	52,5	32	157	64	2	3	

O = Number of holes for horizontal line

V = Number of holes for vertical line

## Cover without holes

Code	Color
<b>SV 1 SF</b>	■
<b>SV 2 SF</b>	■
<b>SV 3 SF</b>	■

Color grey RAL 7031

A	B	C	D	E	Dimensions		Drilling template	
					H	I	H	I
82	82	75	24	1" GAS	49	67		
141	82	75	24	1" GAS	108	67		
193	82	75	24	1" GAS	157	64		

## Push buttons, not illuminated - IP65

Flush head, momentary function

	Dimensions	Contacts	Code	Pack
		-	BPR5UD	10
		-	BPR1D	10
		-	BPR6U	10
		-	BPR4A	10
		-	BPR1L	10

Flush head, momentary function

	Dimensions	Contacts	Code	Pack
		1NO	BMPR5A10	10
		1NO+1NC	BMPR5A11	10
		1NO+1NC	BMPR1D11	10
		1NO+1NC	BMPR6U11	10
		1NO	BMPR4A10	10
		1NO+1NC	BMPR4A11	10
		1NO	BMPR1L10	10
		1NO+1NC	BMPR1L11	10

Note:

- Antirotating ring included
- Black collar is available on request



CUSTOMIZED PUSH BUTTONS  
AND SPECIAL SYMBOLS  
ARE AVAILABLE ON REQUEST

standard article



## Foot switches

PS - PC  
Series

## Thermoplastic foot switches - IP54

### Without protection

	Dimensions	Type	Contacts	Code	Pack
	The diagram shows two views of the foot switch. The top view is a side profile with dimensions: height 60 mm, width 25 mm, depth 250 mm, and a mounting hole distance of 63(64) mm. The bottom view is a top-down view with dimensions: width 140 mm and depth 5-33/64" (140 mm).	Without protection, without lock	A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	PS100M20	1

### With protection

	Dimensions	Type	Contacts	Code	Pack
	The diagram shows two views of the foot switch with a yellow protective cover. The top view is a side profile with dimensions: height 60 mm, width 25 mm, depth 250 mm, and a mounting hole distance of 63(64) mm. The bottom view is a top-down view with dimensions: width 140 mm and depth 5-33/64" (140 mm).	With protection, without lock	A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	PCI00M20	1
			A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	PCI00PIM20	1

## Metal foot switches, IP54

### Without protection

	Dimensions	Type	Contacts	Code	Pack
	The diagram shows two views of the metal foot switch. The top view is a side profile with dimensions: height 60 mm, width 25 mm, depth 250 mm, and a mounting hole distance of 63(64) mm. The bottom view is a top-down view with dimensions: width 140 mm and depth 5-33/64" (140 mm).	Without protection, without lock	A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	PSA00M20	1

### With protection

	Dimensions	Type	Contacts	Code	Pack
	The diagram shows two views of the metal foot switch with a black protective cover. The top view is a side profile with dimensions: height 60 mm, width 25 mm, depth 250 mm, and a mounting hole distance of 63(64) mm. The bottom view is a top-down view with dimensions: width 140 mm and depth 5-33/64" (140 mm).	With protection, without lock	A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	PCA00M20	1
			A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	PCA00PIM20	1

## Additional contact blocks

### With IP20 protection

	Type	Contacts	Code	Pack
	Additional contact block 1NO+1NC for foot switches	A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	KIT00	5
		A contact symbol showing two normally open contacts (13, 21) and two normally closed contacts (14, 22) connected in series. A Zb symbol indicates a zero-crossing detector.	ELEM00	5
		A contact symbol showing two normally open contacts (21, 13) and two normally closed contacts (22, 14) connected in series. A Zb symbol indicates a zero-crossing detector.	ELEM01	5

standard article

**www.bremas.it**



**Bremas Ersce SpA**  
Via Castellazzo, 9 - 20040 Cambiago (MI)  
Tel. +39.02.95651611 Fax +39.02.95651639  
[www.bremas.it](http://www.bremas.it) - [info@bremas.it](mailto:info@bremas.it)

ISO 9001 Certified Quality System