

Control Stations

solutions...



Control stations with mushroom heads
pre-assembled



Standard Control stations with buttons
1, 2 or 3 buttons



Empty Enclosures
1, 2, 3, 4 or 5 holes



Custom Pre-Assembled Enclosures
1, 2, 3, 4 or 5 holes

► ADVANTAGES

"All types of control station applications can be achieved"

- Multipurpose, pre-equipped with pushbuttons, emergency stops, selector switches, key switches, etc.
- Enclosures for custom assembly 1,2,3,4 or 5 holes
- Up to 3 blocks per position
- Innovative design

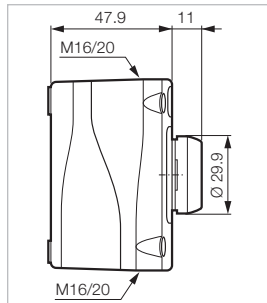
Control Stations \varnothing 22



▶ CONTROL STATIONS - NON-ILLUMINATED

 Technical Info (p. 103)

SPRING RETURN - FLUSH

Part Number



- Green NO 
- Red NC 

Marking

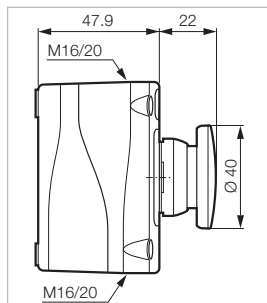





LBX10110

LBX10610

LBX10110

MUSHROOM HEAD \varnothing 40 - SPRING RETURN



- Green NO 
- Red NC 
- Red NO 

Marking



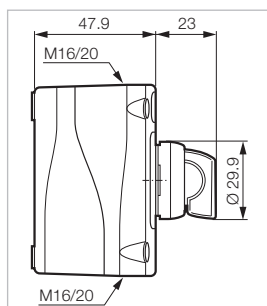
LBX107210

LBX10210


LBX130028

LBX10210

SELECTOR SWITCH - WITH HANDLE



2 Maintained positions - 90°

- Black NO 

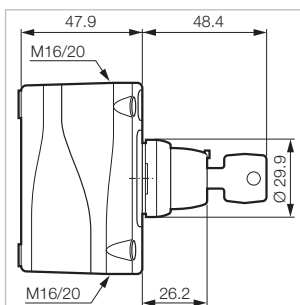
Marking



LBX12510


LBX12510

SELECTOR SWITCH - WITH KEY



Supplied with 2 keys profile n° 455

2 Maintained positions - 90°
Key free in position 0-1

- Black NO 

Marking



LBX12610

LBX12610

Control Stations \varnothing 22

▶ CONTROL STATIONS - NON-ILLUMINATED

 Technical Info (p.103)

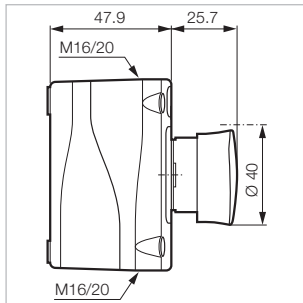
MUSHROOM HEAD \varnothing 40 - MAINTAINED





Push-turn to reset

Part Number






LBX10510



● Red	NC		EMERGENCY STOP	LBX10510
● Red	NC + NO		EMERGENCY STOP	LBX130006
● Red	2 NC		EMERGENCY STOP	LBX130005
● Red	NO		EMERGENCY STOP	LBX130007

WITH STOP STOP STOP TEXT ON BUTTON HEAD

● Red	NC		EMERGENCY STOP	LBX10510S
● Red	NC + NO		EMERGENCY STOP	LBX130010
● Red	2 NC		EMERGENCY STOP	LBX130009

For contact blocks attached to operator please contact us.



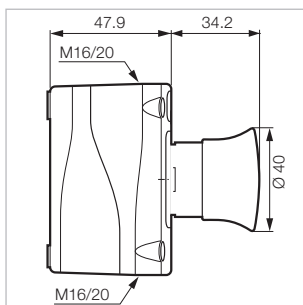
LBX130009




MUSHROOM HEAD \varnothing 40 - MAINTAINED

Push-pull to reset






LBX101910



● Red	NC		EMERGENCY STOP	LBX101910
● Red	NC + NO		EMERGENCY STOP	LBX130004
● Red	2 NC		EMERGENCY STOP	LBX130003

WITH STOP STOP STOP TEXT ON BUTTON HEAD

● Red	NC		EMERGENCY STOP	LBX101910S
● Red	NC + NO		EMERGENCY STOP	LBX130074
● Red	2 NC		EMERGENCY STOP	LBX130075

For contact blocks attached to operator please contact us.



LBX101910S

Control Stations \varnothing 22

▶ CONTROL STATIONS - NON-ILLUMINATED

 Technical Info (p. 103)

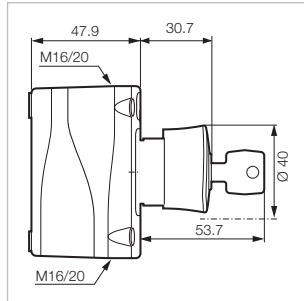
MUSHROOM HEAD \varnothing 40 - MAINTAINED

Key to reset




Part Number



LBX11210



Supplied with 2 keys profile n° 455

● Red	NC		EMERGENCY STOP	LBX11210
● Red	NC + NO		EMERGENCY STOP	LBX130071
● Red	2 NC		EMERGENCY STOP	LBX130072

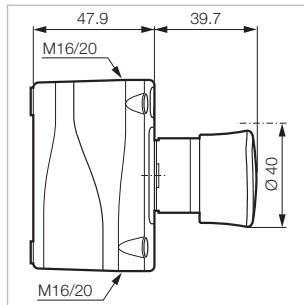
For contact blocks attached to operator please contact us.

MUSHROOM HEAD \varnothing 40 EN 418 / ISO 13850




Push-turn to reset






LBX17301



Compliant with the requirements of emergency stop:
EN 418 / ISO 13850

● Red	NC		EMERGENCY STOP	LBX17301
● Red	NC + NO		EMERGENCY STOP	LBX17311
● Red	2 NC		EMERGENCY STOP	LBX17302

WITH EN13850 SYMBOL ON BUTTON HEAD

● Red	NC		EMERGENCY STOP	LBX130065
● Red	NC + NO		EMERGENCY STOP	LBX130057
● Red	2 NC		EMERGENCY STOP	LBX130066

WITH EMO TEXT ON BUTTON HEAD (WITHOUT EMERGENCY STOP ON ENCLOSURE)

● Red	NC		LBX130067
● Red	NC + NO		LBX130068
● Red	2 NC		LBX130069

For contact blocks attached to operator please contact us.



LBX130057



LBX130069

Control Stations Ø 22

▶ CONTROL STATIONS - NON-ILLUMINATED

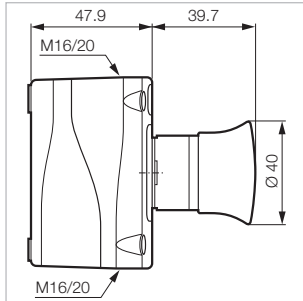
 Technical Info (p. 103)

MUSHROOM HEAD Ø 40 EN 418 / ISO 13850




Push-pull to reset



LBX15101



Compliant with the requirements of emergency stop:
EN 418 / ISO 13850

● Red	NC		EMERGENCY STOP	LBX15301
● Red	NC + NO		EMERGENCY STOP	LBX15311
● Red	2 NC		EMERGENCY STOP	LBX15302

For contact blocks attached to operator please contact us.

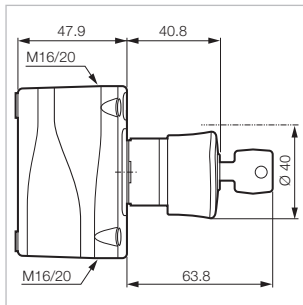
MUSHROOM HEAD Ø 40 EN 418 / ISO 13850

Key to reset




Part Number



LBX11302



Compliant with the requirements of emergency stop:
EN 418 / ISO 13850
Supplied with 2 keys profile n° 455

● Red	NC		EMERGENCY STOP	LBX11301
● Red	NC + NO		EMERGENCY STOP	LBX11311
● Red	2 NC		EMERGENCY STOP	LBX11302

For contact blocks attached to operator please contact us.

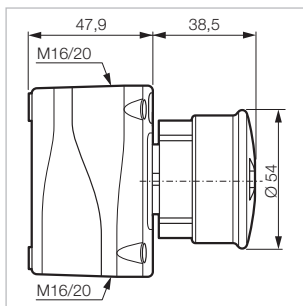
MUSHROOM HEAD Ø 54 EN 418 / ISO 13850

Push-pull to reset with flag indicator







Part Number









LBX14201



Compliant with the requirements of emergency stop:
EN 418 / ISO 13850
Double position indicator: head and collar

● Red	NC			LBX14101
● Red	NC + NO			LBX14111
● Red	2 NC			LBX14102

● Red	NC		STOP - 	LBX14201
● Red	NC + NO		STOP - 	LBX14211
● Red	2 NC		STOP - 	LBX14202

For contact blocks attached to operator please contact us.

Control Stations ø 22

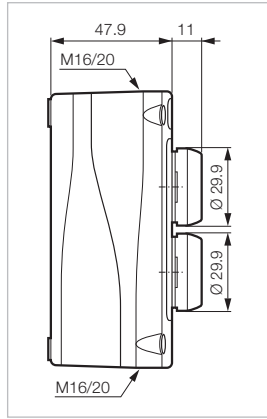
▶ CONTROL STATIONS - NON-ILLUMINATED

 Technical Info (p. 103)

SPRING RETURN - FLUSH



LBX20120



- Green
- Red

- NO
- NC



Marking

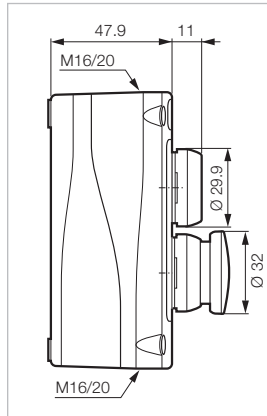


LBX20120

SPRING RETURN - FLUSH/MUSHROOM



LBX210660



- Green
- Red

- NO
- NC



Marking

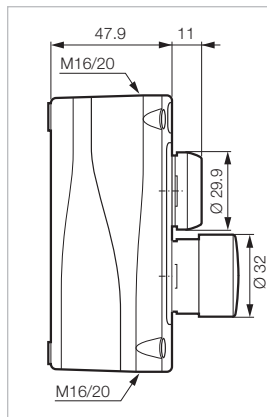


LBX210660

SPRING RETURN/MAINTAINED - FLUSH/MUSHROOM (PUSH-TURN)



LBX210770



- Green
- Red

- NO
- NC



Marking



LBX210770

Control Stations \varnothing 22

▶ CONTROL STATIONS - NON-ILLUMINATED

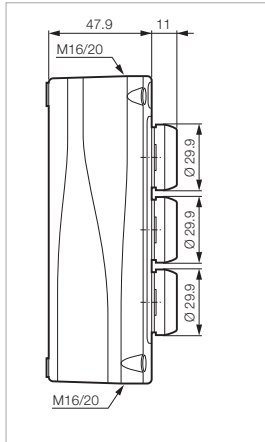
 Technical Info (p. 103)

SPRING RETURN - FLUSH

Part Number



LBX323870



● Red
● Green
● Red

24VAC/DC Pilot Light

NO $\begin{matrix} 3 & 4 \\ | & / \end{matrix}$
 NC $\begin{matrix} 1 & 2 \\ | & / \end{matrix}$

Marking



LBX30008

● Red
● Green
● Red

130VAC/DC Pilot Light

NO $\begin{matrix} 3 & 4 \\ | & / \end{matrix}$
 NC $\begin{matrix} 1 & 2 \\ | & / \end{matrix}$

Marking

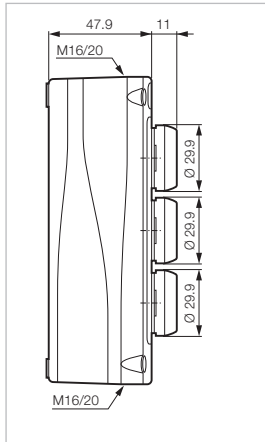


LBX323870

SPRING RETURN - FLUSH



LBX30430



● Green
● Red
● Green

NO $\begin{matrix} 3 & 4 \\ | & / \end{matrix}$
 NC $\begin{matrix} 1 & 2 \\ | & / \end{matrix}$
 NO $\begin{matrix} 3 & 4 \\ | & / \end{matrix}$

Marking

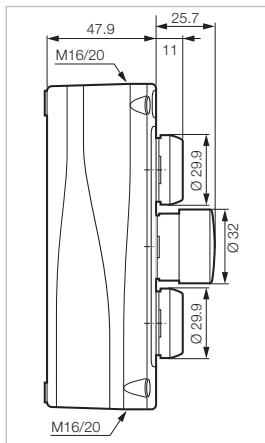


LBX30430

SPRING RETURN /MAINTAINED - FLUSH/MUSHROOM (PUSH-TURN)



LBX308830



● Green
● Red
● Green

NO $\begin{matrix} 3 & 4 \\ | & / \end{matrix}$
 NC $\begin{matrix} 1 & 2 \\ | & / \end{matrix}$
 NO $\begin{matrix} 3 & 4 \\ | & / \end{matrix}$

Marking



LBX308830

Control Stations \varnothing 22

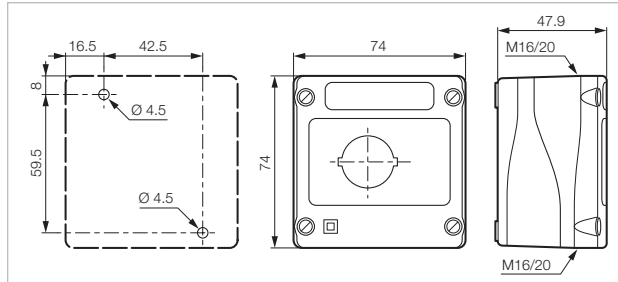
▶ EMPTY ENCLOSURES

 Technical Info (p. 103)

1 HOLE Part Number



LBX0100J



Black base

- Grey cover
- Yellow cover
- Yellow cover*
- Black cover

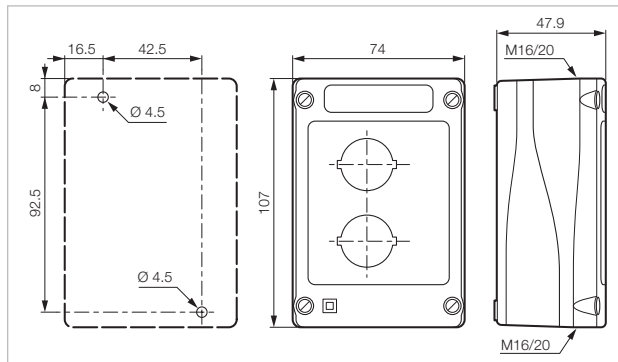
LBX0100
LBX0100J
LBX0100JB
LBX0100NR

* WITH 'EMERGENCY STOP' TEXT

2 HOLES



LBX0200



Black base

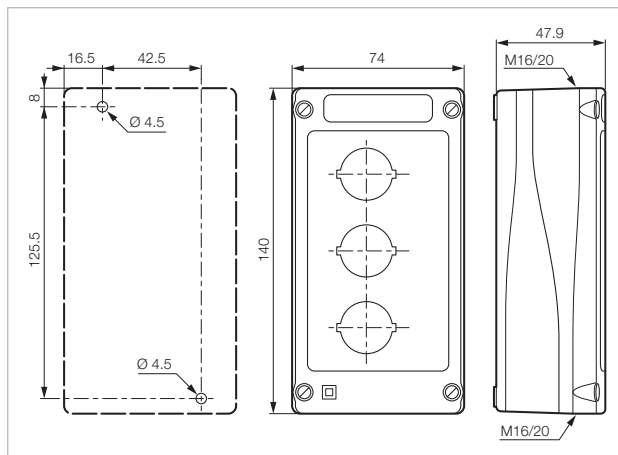
- Grey cover
- Yellow cover

LBX0200
LBX0200J

3 HOLES



LBX0300



Black base

- Grey cover

LBX0300

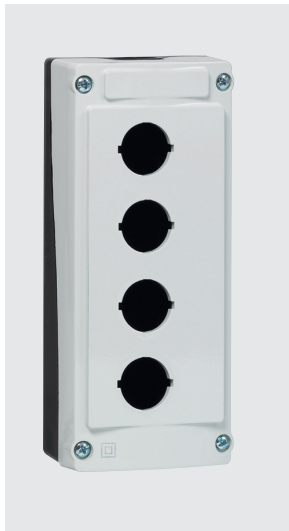
Control Stations \varnothing 22

▶ EMPTY ENCLOSURES

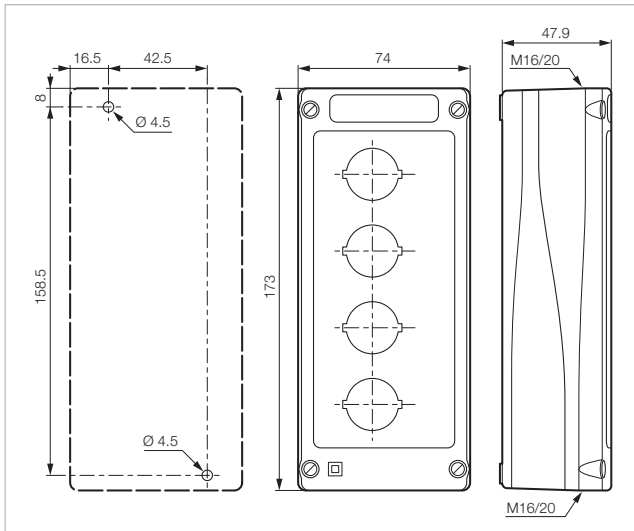
 Technical Info (p. 103)

4 HOLES

Part Number



LBX0400



Black base

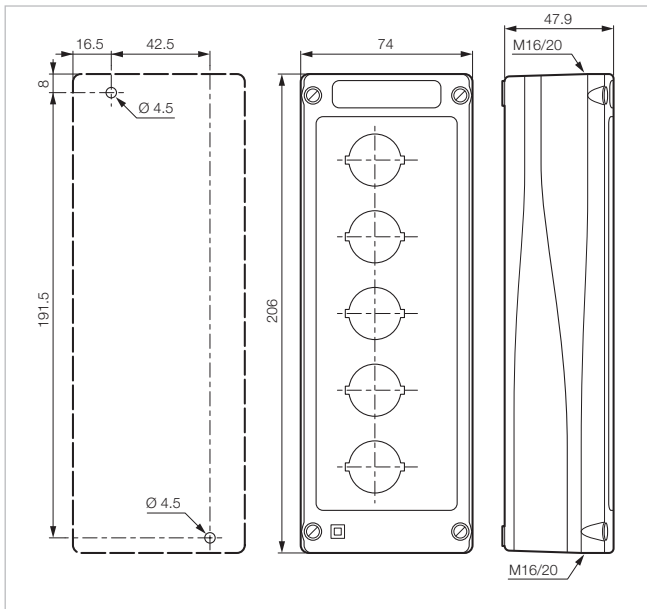
● Grey cover

LBX0400

5 HOLES



LBX0500



Black base

● Grey cover

LBX0500

CABLE GLAND FOR LBX ENCLOSURES



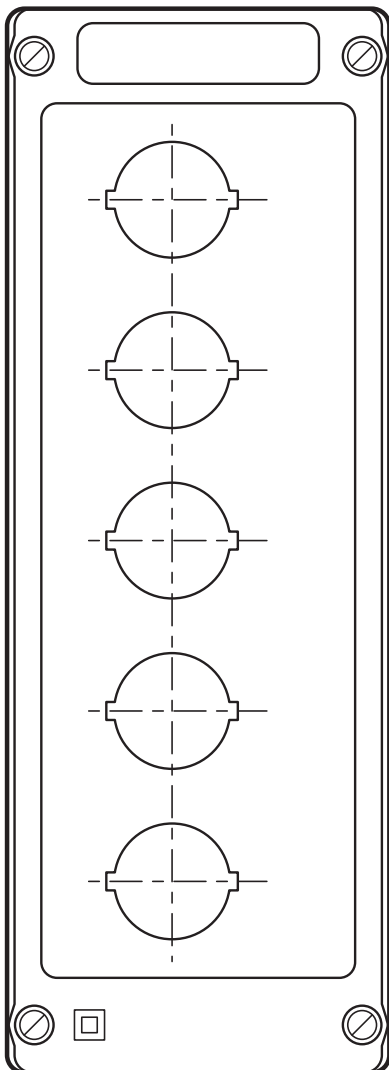
M20-BK

	Size	Cable Thickness	
● Black	M20	6mm - 12mm	M20-BK

► SPECIAL REQUEST FORM

MOUNTING NUMBER OF HOLES	CABLE GLAND	COMMENTS
<div style="text-align: center;">circle number of holes</div> <div style="display: flex; justify-content: space-around; margin-bottom: 10px;"> 1 2 3 4 5 </div> <div style="display: flex; justify-content: space-around;"> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal </div>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <input type="checkbox"/> Top <input type="checkbox"/> Bottom </div> <div style="text-align: center;"> <input type="checkbox"/> Left <input type="checkbox"/> Right </div> </div>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

DUTY LABEL MARKING <small>(contact us for details)</small>	BLOCKS	SWITCHES	LEGEND PLATES	ENCLOSURE MARKING
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Enter contact block part number in each mounting position. LED modules must be in position 3.

Enter switch part number for each position. For text or symbol on the switch head enter text or symbol code.

Enter legend plate part number for each position. See page 101 for available legend plates. For text or symbol on the legend plate enter text or symbol code.

For silk-screened text or symbol directly on the enclosure enter text or symbol code.

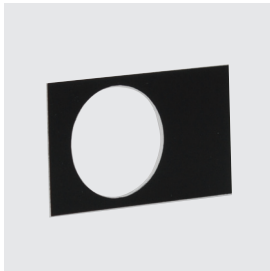
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<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">2</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">1</div>	Switch Part Number: <hr/> Text or Symbol code: <hr/>	Legend Plate Part number: <hr/> Text or Symbol code: <hr/>	Text or Symbol code: <hr/> <hr/> <hr/> <hr/>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">2</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">1</div>	Switch Part Number: <hr/> Text or Symbol code: <hr/>	Legend Plate Part number: <hr/> Text or Symbol code: <hr/>	Text or Symbol code: <hr/> <hr/> <hr/> <hr/>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">2</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">1</div>	Switch Part Number: <hr/> Text or Symbol code: <hr/>	Legend Plate Part number: <hr/> Text or Symbol code: <hr/>	Text or Symbol code: <hr/> <hr/> <hr/> <hr/>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">2</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">1</div>	Switch Part Number: <hr/> Text or Symbol code: <hr/>	Legend Plate Part number: <hr/> Text or Symbol code: <hr/>	Text or Symbol code: <hr/> <hr/> <hr/> <hr/>

See pages 80 to 83 for available text and symbol options. For custom text or symbols please contact us.

▶ LEGEND PLATES FOR LBX ENCLOSURES

INDIVIDUAL LEGEND PLATES

Part Number



LWB13

Plastic - Rectangular shape

WITHOUT ENGRAVING

- Red
- Black
- Yellow
- White
- Blue
- Alu

- LWB11
- LWB13
- LWB14
- LWB15
- LWB16
- LWB19



LWB19H301

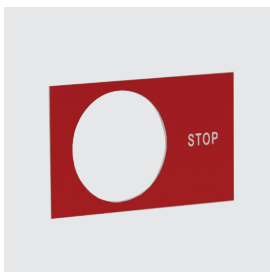
WITH TEXT (see p. 80 to 83) FOR HORIZONTAL MOUNTING

Code to be added at the end of the part number.

For custom text or symbol please contact us.

- Red - white engraving
- Black - white engraving
- Yellow - black engraving
- White - black engraving
- Blue - white engraving
- Alu - black engraving

- LWBH11[] [] [] []
- LWBH13[] [] [] []
- LWBH14[] [] [] []
- LWBH15[] [] [] []
- LWBH16[] [] [] []
- LWBH19[] [] [] []



LWB11V302

WITH TEXT (see p. 80 to 83) FOR VERTICAL MOUNTING

Code to be added at the end of the part number.

For custom text or symbol please contact us.

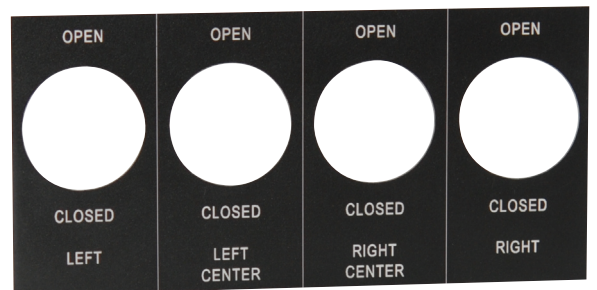
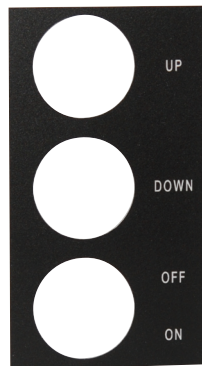
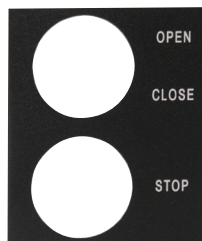
- Red - white engraving
- Black - white engraving
- Yellow - black engraving
- White - black engraving
- Blue - white engraving
- Alu - black engraving

- LWBV11[] [] [] []
- LWBV13[] [] [] []
- LWBV14[] [] [] []
- LWBV15[] [] [] []
- LWBV16[] [] [] []
- LWBV19[] [] [] []

MULTI HOLE LEGEND PLATES

SINGLE PIECE MULTI-HOLE
LEGEND PLATES ARE AVAILABLE

CONTACT US FOR DETAILS.

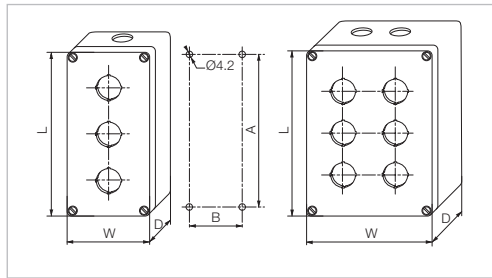


Control Stations ø 22

▶ PRE-DRILLED POLYCARBONATE ENCLOSURES



BPA202



Number of Holes	Cable Gland Hole Entries	Dimensions (mm)					Part Number
		L	W	D	A	B	
1	1 x PG13-GY	82	80	55	70	50	BPA201
2	1 x PG13-GY	120	80	55	108	50	BPA202
3	1 x PG13-GY	160	80	55	148	50	BPA203
1	1 x PG13-GY	82	80	85	70	50	BPP201
2	1 x PG13-GY	120	80	85	108	50	BPP202
3	1 x PG13-GY	160	80	85	148	50	BPP203
4	2 x PG16-GY	122	120	85	110	90	BPP204
6	2 x PG16-GY	200	120	75	188	90	BPA206
8	2 x PG16-GY	200	120	75	188	90	BPA208
10	2 x PG16-GY	240	120	100	288	90	BPP210

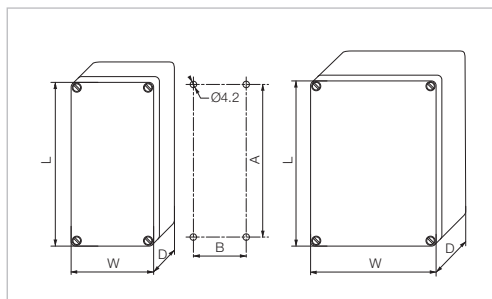
▶ EMPTY POLYCARBONATE ENCLOSURES



BNT208



BNT251



L	W	D	Dimensions (mm)		Part Number
			A	B	
65	50	35	53	38	BNT206
82	80	55	70	50	BNT210
82	80	85	70	50	BNT225
120	80	55	108	50	BNT215
120	80	85	108	50	BNT226
122	120	55	110	90	BNT217
122	120	85	110	90	BNT227
160	80	55	148	50	BNT220
160	80	85	148	50	BNT231
200	120	75	188	90	BNT237
200	150	75	188	119	BNT223
240	120	100	228	90	BNT242
240	160	120	228	130	BNT243
250	160	90	238	130	BNT240

CABLE GLANDS



PG16-GY

Size	Cable Thickness	
● Grey PG11	3mm - 7mm	PG11-GY
● Grey PG13.5	6mm - 12mm	PG13-GY
● Grey PG16	10mm - 14mm	PG16-GY
● Grey PG21	13mm - 18mm	PG21-GY
● Grey PG29	18mm - 25mm	PG29-GY

Technical Specifications

► GENERAL

Characteristics	Data	Standards
► Storage temperature	- 40 °C to + 70 °C	
► Operating temperature	- 25 °C to + 70 °C	
► Climatic resistance	Constant humid heat Cyclic damp heat Resistance to sea air	IEC 60068-2-3 IEC 60068-2-30 IEC 60068-2-52
► Degree of protection	IP 66 for standard heads IP 67 for shrouded heads IP 66 for equipped control stations IP 20 at the rear of the panel for contact blocks and one piece pilot lights Type 1, 2, 3, 3R, 3S, 4, 4X, 12, and 13 for heads and control stations	IEC 60529 NEMA standard
► Protection against mechanical impacts	IK 05 illuminated and non-illuminated heads IK 07 empty control station	IEC 62262
► Electrical insulation	Class II - heads and control station	IEC 60947-5-1
► Terminal marking		IEC 60947-1
► Tightening torques	Locking ring: recommended 3 N.m terminals: max. 1.2 N.m	
► Approvals	UL United states and Canada BV Bureau Véritas Certification OC/CB	UL 508, CSA 22.2 Marine rules IEC 60947-5-1 IEC 60947-5-5 IEC 60947-5-4
► Vibrations	withstand vibration Fc test: 2 to 25 Hz, 1.6 mm; 25-100 Hz, 4 g	IEC 60068-2-6

Technical Specifications

▶ HEADS

Characteristics	Data	Standards
▶ Mechanical endurance	Spring return: 5,000,000 Push-push: 500,000 Selector switches: 300,000 Mushroom head maintained function EN 418: 10,000 Mushroom head maintained function: 150,000	
▶ Activation force in N	Spring return + NO: 6.5 Spring return + NC: 4.5 Additional NO contact: 4.5 Additional NC contact: 3.0 Push-pull mushroom head + NO + NC: 27 Push-turn mushroom head + NO + NC: 22 Push-pull mushroom head EN 418 + NO + NC: 37 Push-turn mushroom head EN 418 + NO + NC: 60	
▶ Activation force in Nm	Selector switch + NO: 0.04 Additional NO contact: 0.03	

▶ EMERGENCY STOP ACTUATORS - EN 418/ISO 13850:

According to IEC/EN60947-5-5, the emergency stop function can be provided by an EN418/ISO13850 mushroom head combined with a "positive opening" NC contact block.

The mechanism of our EN418/ISO13850 mushroom heads is so designed that a "push" action of sufficient force to open the contact systematically triggers an irreversible locking of this opening. This generates an "emergency stop" signal which can be cancelled only by deliberate manual resetting of the mushroom head (pull and turn or unlocking by key).

This function allows to generate an "emergency stop" signal for any equipment subject to directive 98/37CE (machinery safety) completed by the IEC 60204-1 standard.

The EN418/ISO13850 mushroom heads also comply with the safety requirements detailed in standards EN418 and ISO13850.

Technical Specifications

▶ CONTACT BLOCKS

Screw and plug-in connection characteristics	Data	Standards																																						
▶ Rated insulation voltage	690 V AC 600 V AC	IEC/EN 60947-1 UL 508																																						
▶ NC contacts	Positive opening	IEC/EN 60947-5-1																																						
▶ Rated impulse voltage U _{imp} Pollution degree	6kV 3																																							
▶ Conventional thermal current in free air conditions	AC15: 10 A DC13: 2.5 A	IEC 60947-5-1																																						
▶ Electrical ratings	<p>Alternating current AC15 - A 600 U_e = 120 V, I_e = 6 A U_e = 240 V, I_e = 3 A U_e = 380 V, I_e = 1.9 A U_e = 480 V, I_e = 1.5 A U_e = 500 V, I_e = 1.4 A U_e = 600 V, I_e = 1.2 A</p> <p>Minimum operating current - standard blocks U_e = 24 V DC and I_e = 5 mA Failure rate < 10⁻⁸</p> <p>UL508 Alternating Current 50/60Hz - A600 Continuous Current - 10 amps Rated Voltage - 600Vac</p> <table border="1"> <thead> <tr> <th rowspan="2">Voltage</th> <th colspan="2">Max. Amps</th> </tr> <tr> <th>Make</th> <th>Break</th> </tr> </thead> <tbody> <tr> <td>72</td> <td>60</td> <td>10</td> </tr> <tr> <td>120</td> <td>60</td> <td>6.0</td> </tr> <tr> <td>240</td> <td>30</td> <td>3.0</td> </tr> <tr> <td>480</td> <td>15</td> <td>1.5</td> </tr> <tr> <td>600</td> <td>12</td> <td>1.2</td> </tr> </tbody> </table>	Voltage	Max. Amps		Make	Break	72	60	10	120	60	6.0	240	30	3.0	480	15	1.5	600	12	1.2	<p>Direct current DC13 - Q 600 U_e = 125 V, I_e = 0.55 A U_e = 250 V, I_e = 0.27 A U_e = 400 V, I_e = 0.15 A U_e = 500 V, I_e = 0.13 A U_e = 600 V, I_e = 0.1 A</p> <p>- gold plated contacts U_e = 5 V DC and I_e = 1 mA Failure rate < 10⁻⁸</p> <p>Direct Current - Q600 Continuous Current - 2.5 amps Rated Voltage - 600Vdc</p> <table border="1"> <thead> <tr> <th rowspan="2">Voltage</th> <th colspan="2">Max. Amps</th> </tr> <tr> <th>Make</th> <th>Max. Amps Break</th> </tr> </thead> <tbody> <tr> <td>24</td> <td>2.5</td> <td>2.5</td> </tr> <tr> <td>125</td> <td>0.55</td> <td>0.55</td> </tr> <tr> <td>250</td> <td>0.27</td> <td>0.27</td> </tr> <tr> <td>301-600</td> <td>0.10</td> <td>0.10</td> </tr> </tbody> </table>	Voltage	Max. Amps		Make	Max. Amps Break	24	2.5	2.5	125	0.55	0.55	250	0.27	0.27	301-600	0.10	0.10	IEC 60947-5-1
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120	60	6.0																																						
240	30	3.0																																						
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250	0.27	0.27																																						
301-600	0.10	0.10																																						
▶ Electrical operating life	<p>1 million cycles for: - AC15 - B 300 U_e = 120 V, I_e = 3 A U_e = 240 V, I_e = 1.5 A</p> <p>- DC13 - R 300 U_e = 125 V, I_e = 0.22 A U_e = 250 V, I_e = 0.1 A</p>																																							
▶ Applicable wire sizes	Rigid or flexible wire without ferrule: 0.5 mm ² to 2 x 2.5 mm ² Rigid or flexible wire with ferrule: 0.5 mm ² to 2 x 1.5 mm ²																																							

Technical Specifications

▶ CONTACT BLOCKS

Faston connection	Data	Standards																																																
▶ Rated insulation voltage	320 V AC 300 V AC	IEC/EN60947-1 UL 508																																																
▶ NC contacts	Positive opening	IEC/EN 60947-5-1																																																
▶ Rated impulse withstanding voltage Uimp Pollution degree	6 kV 3																																																	
▶ Conventional thermal current in free air conditions	AC 15: 10 A DC 13: 2.5 A	IEC 60947-5-1																																																
▶ Electrical ratings	<p>Alternating current AC15 - A 300 Ue = 120 V, Ie = 6 A Ue = 240 V, Ie = 3 A</p> <p>Minimum current of use Ue = 24 V DC and Ie = 5 mA Failure rate < 10⁻⁸</p> <p>UL508</p> <table border="0"> <tr> <td colspan="3">Alternating Current 50/60Hz - A300</td> <td colspan="3">Direct Current - Q300</td> </tr> <tr> <td colspan="3">Continuous Current - 10 amps</td> <td colspan="3">Continuous Current - 2.5 amps</td> </tr> <tr> <td colspan="3">Rated Voltage - 300Vac</td> <td colspan="3">Rated Voltage - 300Vdc</td> </tr> <tr> <td></td> <td>Max. Amps</td> <td>Max. Amps</td> <td></td> <td>Max. Amps</td> <td>Max. Amps</td> </tr> <tr> <td>Voltage</td> <td>Make</td> <td>Break</td> <td>Voltage</td> <td>Make</td> <td>Break</td> </tr> <tr> <td>72</td> <td>60</td> <td>10</td> <td>24</td> <td>2.5</td> <td>2.5</td> </tr> <tr> <td>120</td> <td>60</td> <td>6.0</td> <td>125</td> <td>0.55</td> <td>0.55</td> </tr> <tr> <td>240</td> <td>30</td> <td>3.0</td> <td>250</td> <td>0.27</td> <td>0.27</td> </tr> </table>	Alternating Current 50/60Hz - A300			Direct Current - Q300			Continuous Current - 10 amps			Continuous Current - 2.5 amps			Rated Voltage - 300Vac			Rated Voltage - 300Vdc				Max. Amps	Max. Amps		Max. Amps	Max. Amps	Voltage	Make	Break	Voltage	Make	Break	72	60	10	24	2.5	2.5	120	60	6.0	125	0.55	0.55	240	30	3.0	250	0.27	0.27	IEC 60947-5-1
Alternating Current 50/60Hz - A300			Direct Current - Q300																																															
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Voltage	Make	Break	Voltage	Make	Break																																													
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120	60	6.0	125	0.55	0.55																																													
240	30	3.0	250	0.27	0.27																																													
▶ Electrical operating life	<p>1 million cycles for:</p> <p>- AC15 - B 300 Ue = 120 V, Ie = 3 A Ue = 240 V, Ie = 1.5 A</p> <p>- DC13 - R 300 Ue = 125 V, Ie = 0.22 A Ue = 250 V, Ie = 0.1 A</p>																																																	
▶ Faston size	6.35 mm (0.25") or 2 x 2.8 mm (0.110")																																																	

Technical Specifications

▶ CONTACT BLOCKS

Pin-style connection (for PCB)	Data	Standards																																																
▶ Rated insulation voltage	250 V AC 250 V AC	IEC/EN60947-1 UL 508																																																
▶ NC contacts	Positive opening	IEC/EN 60947-5-1																																																
▶ Rated impulse withstanding voltage Uimp Pollution degree	4 kV 3																																																	
▶ Conventional thermal current in free air conditions	AC 15: 5 A DC 13: 1 A	IEC 60947-5-1																																																
▶ Electrical ratings	<p>Alternating current AC 15 - B 300 Ue = 120 V, Ie = 3 A Ue = 240 V, Ie = 1.5 A</p> <p>Direct current DC13 - R 300 Ue = 125 V, Ie = 0.22 A Ue = 250 V, Ie = 0.1 A</p> <p>Minimum current of use - standard blocks Ue = 24 V DC and Ie = 5 mA Failure rate < 10⁻⁸</p> <p>- golden contacts Ue = 5 V DC and Ie = 1 mA Failure rate < 10⁻⁸</p> <p>UL508</p> <table border="0"> <tr> <td colspan="3">Alternating Current 50/60Hz - B300</td> <td colspan="3">Direct Current - R300</td> </tr> <tr> <td colspan="3">Continuous Current - 5 amps</td> <td colspan="3">Continuous Current - 1 amp</td> </tr> <tr> <td colspan="3">Rated Voltage - 300Vac</td> <td colspan="3">Rated Voltage - 300Vdc</td> </tr> <tr> <td></td> <td>Max. Amps</td> <td>Max. Amps</td> <td></td> <td>Max. Amps</td> <td>Max. Amps</td> </tr> <tr> <td>Voltage</td> <td>Make</td> <td>Break</td> <td>Voltage</td> <td>Make</td> <td>Break</td> </tr> <tr> <td>72</td> <td>30</td> <td>5.0</td> <td>24</td> <td>1.0</td> <td>1.0</td> </tr> <tr> <td>120</td> <td>30</td> <td>3.0</td> <td>125</td> <td>0.22</td> <td>0.22</td> </tr> <tr> <td>240</td> <td>15</td> <td>1.5</td> <td>250</td> <td>0.11</td> <td>0.11</td> </tr> </table>	Alternating Current 50/60Hz - B300			Direct Current - R300			Continuous Current - 5 amps			Continuous Current - 1 amp			Rated Voltage - 300Vac			Rated Voltage - 300Vdc				Max. Amps	Max. Amps		Max. Amps	Max. Amps	Voltage	Make	Break	Voltage	Make	Break	72	30	5.0	24	1.0	1.0	120	30	3.0	125	0.22	0.22	240	15	1.5	250	0.11	0.11	IEC 60947-5-1 IEC 60947-5-4
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▶ Electrical operating life	<p>1 million cycles for: - AC15 - B 300 Ue = 120 V, Ie = 3 A Ue = 240 V, Ie = 1.5 A</p> <p>- DC13 - R 300 Ue = 125 V, Ie = 0.22 A Ue = 250 V, Ie = 0.1 A</p>																																																	
▶ Pin diameter	∅ 1 mm																																																	

Technical Specifications

▶ LED BLOCKS FOR ILLUMINATED HEADS

Characteristics	Data	Standards
▶ Rated insulation voltage	300 V	IEC/EN 60947-5-1
▶ Rated impulse voltage Uimp Pollution degree	4 kV (with filter block see p. 70) 3	IEC/EN 60947-1
▶ Operating voltage	12 to 24 V AC/DC 48 V AC/DC (for LED block) 130 V AC 230 V AC	
▶ Frequency	50 or 60 Hz	
▶ Lifetime at rated supply voltage	Red and yellow: 100 000 hours at 25 °C Other colors: 50 000 hours at 25 °C	
▶ Consumption of LED blocks	Voltage: - 24 V: 25 mA ± 20% - 48 V: 15 mA ± 5% - 130 V: 20 mA ± 10% - 230 V: 16 mA ± 30%	

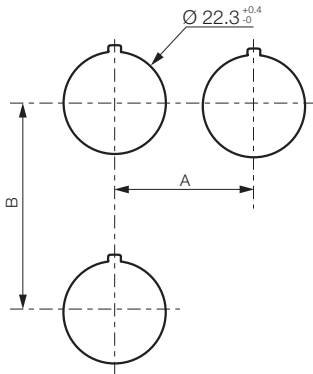
▶ ONE PIECE PILOT LIGHT BA9S

Characteristics	Data	Standards
▶ Rated insulation voltage	400 V	IEC 60947-5-1
▶ Rated impulse withstand voltage Uimp	4 kV	IEC/EN 60947-1
▶ Bulb rating	400 V max. - 2.6 W max. 240 V max. - 2.6 W max.	IEC 60947-5-1 UL 508

Technical Specifications

▶ PANEL CUT-OUT

DRILLING

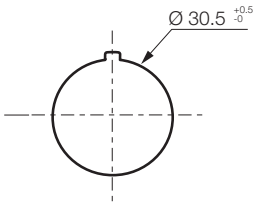


For heads equipped with electrical blocks with screw or plug-in terminals

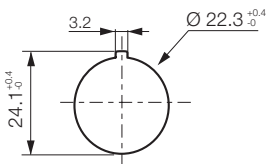
Minimum interval (mm)

	= 30	With or without legend (usual case)
	= 33	IP 67 (silicon shroud)
	= 40	With large legend plate
A	> 40	For mushroom head $\varnothing 40$
	> 45	For selector switch with long handle
	= 38	For super-flush button
	= 50	With 5 position clip
	= 45	With or without legend plate (usual case)
B	= 54	With double touch
	= 77	With double touch + legend plate
	= 50	Joystick

DRILLING FOR SUPER-FLUSH BUTTON

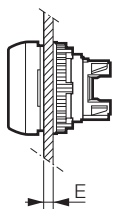


DRILLING WHEN USING THE ANTI-ROTATION RING (OPTIONAL)



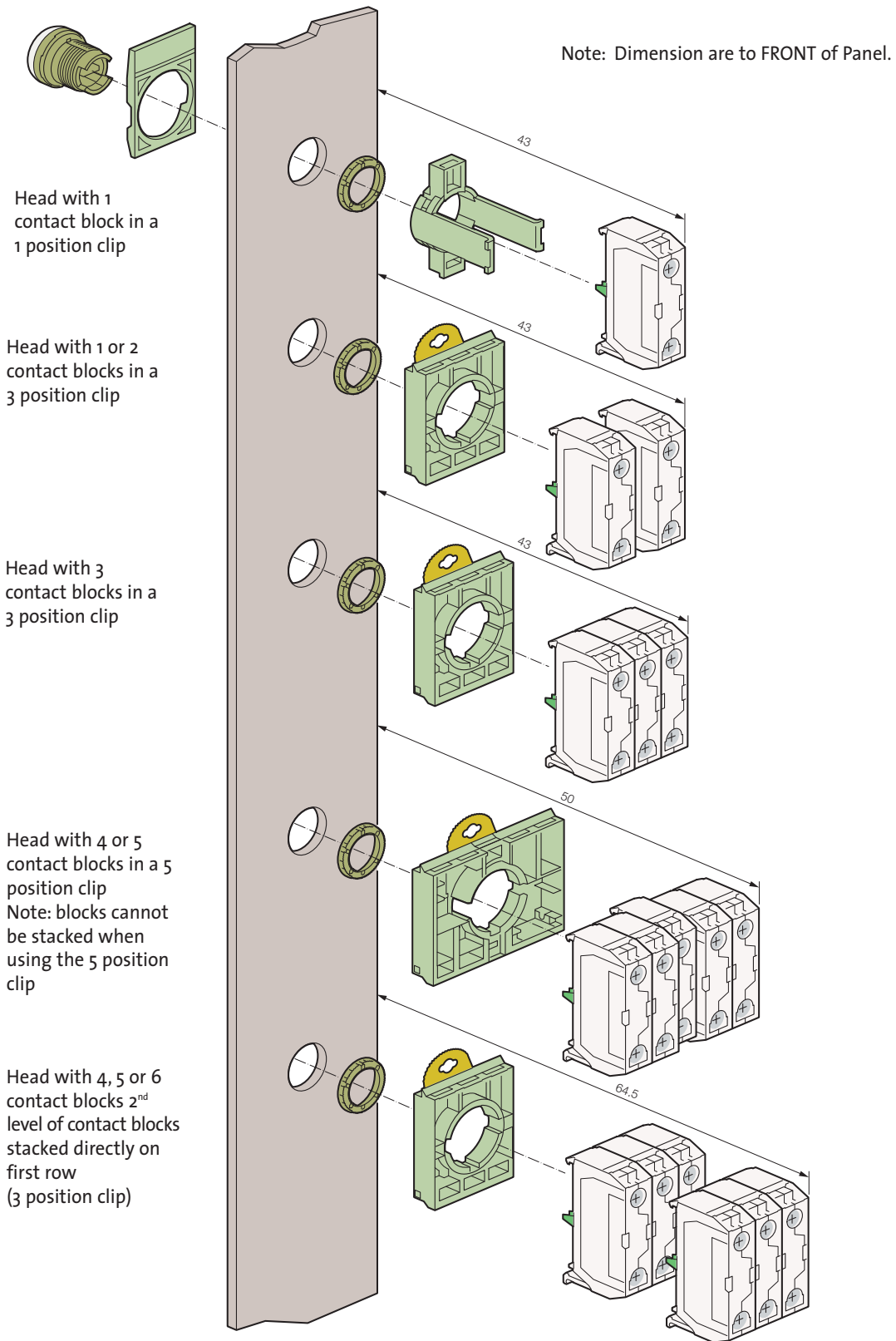
THICKNESS OF PANEL (E)

E = 1 to 6 mm



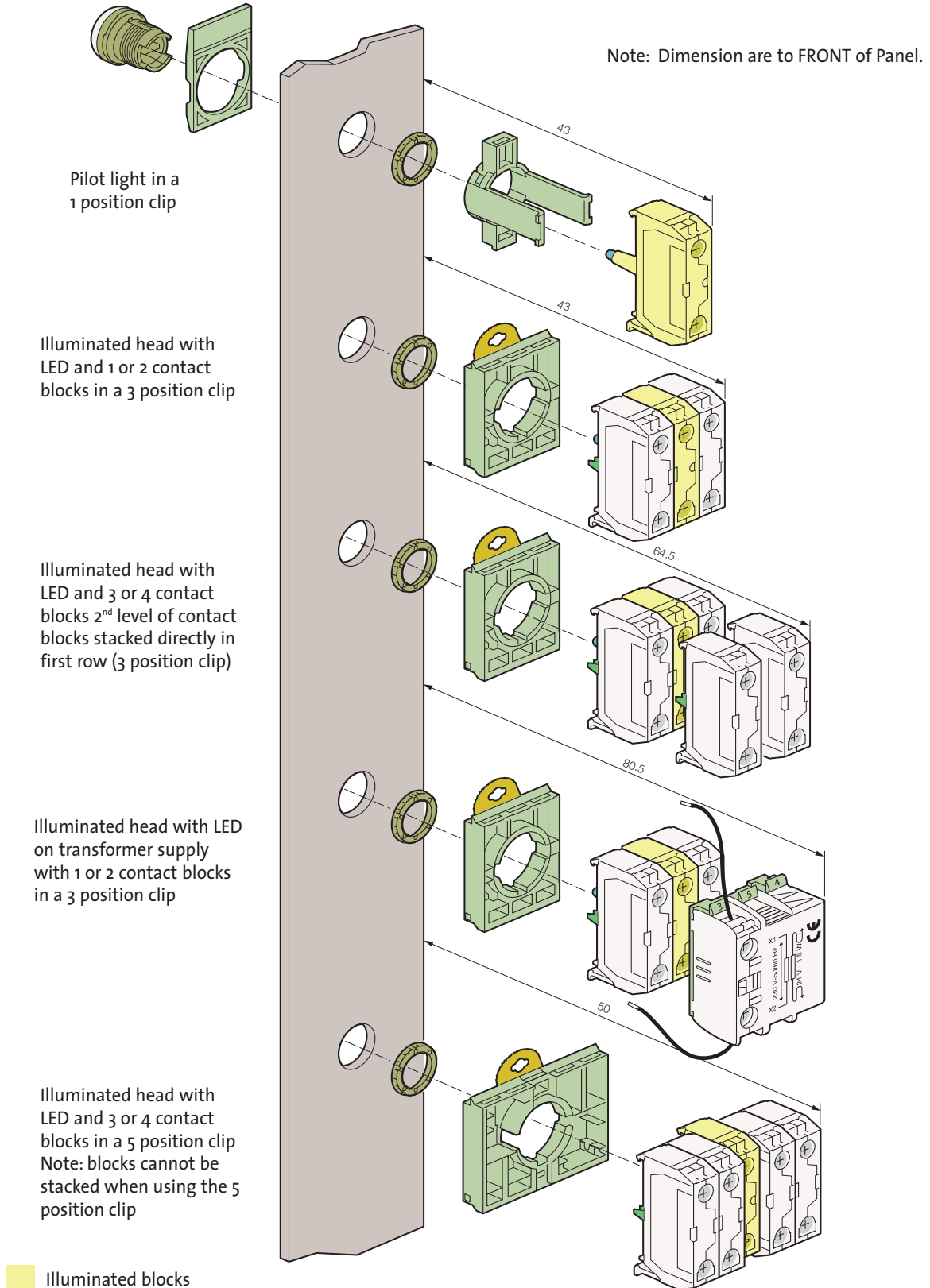
Technical Specifications

NON-ILLUMINATED



Technical Specifications

ILLUMINATED

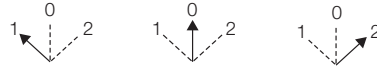


Technical Specifications

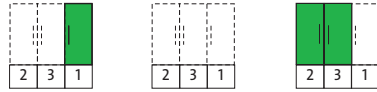
MECHANICAL OPERATION

For 3 position selector switches

Handle position
(view from front of panel)



Contacts block actuation
(clip position)



Non operated block



Operated block



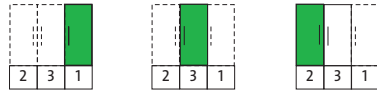
MECHANICAL OPERATION

For twin/triple touch switches

Operator View
(highlighted button is depressed)



Contacts block actuation
(clip position)



Non operated block



Operated block



MECHANICAL OPERATION

For Joysticks

2 position

TWO BLOCK CLIP (LME3 - STANDARD WITH JOYSTICK HEAD)				
LM11 in Clip Location	Terminal Numbers	Position		
		A	O	B
1	3-4	X	O	O
	1-2	O	O	X
2	3-4	O	O	X
	1-2	X	O	O

4 position

TWO BLOCK CLIP (LME3 - STANDARD WITH JOYSTICK HEAD)						
LM11 in Clip Location	Terminal Numbers	Position				
		A	B	O	C	D
1	3-4	O	O	O	O	X
	1-2	O	O	O	X	O
2	3-4	O	X	O	O	O
	1-2	X	O	O	O	O

FOUR BLOCK CLIP (LME5)				
LM11 in Clip Location	Terminal Numbers	Position		
		A	O	B
1	3-4	X	O	O
	1-2	O	O	X
2	3-4	O	O	X
	1-2	X	O	O
3	3-4	X	O	O
	1-2	O	O	X
4	3-4	O	O	X
	1-2	X	O	O

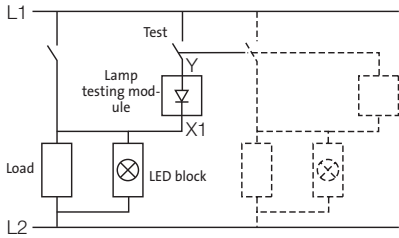
FOUR BLOCK CLIP (LME5)						
LM11 in Clip Location	Terminal Numbers	Position				
		A	B	O	C	D
1	3-4	O	O	O	O	X
	1-2	O	O	O	X	O
2	3-4	O	X	O	O	O
	1-2	X	O	O	O	O
3	3-4	O	O	O	O	X
	1-2	O	O	O	X	O
4	3-4	O	X	O	O	O
	1-2	X	O	O	O	O

Technical Specifications

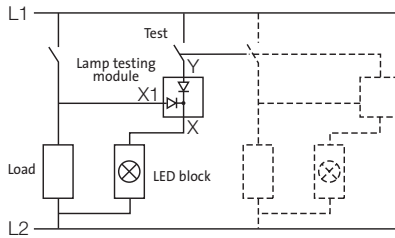
▶ DIAGRAMS

PUSH-TO-TEST LED PILOT LIGHT DIAGRAMS

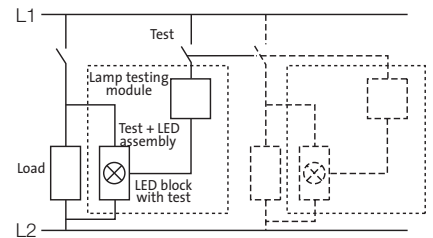
Lamp-testing module with 1 diode (33ET) for direct supply 24 V and 48 V



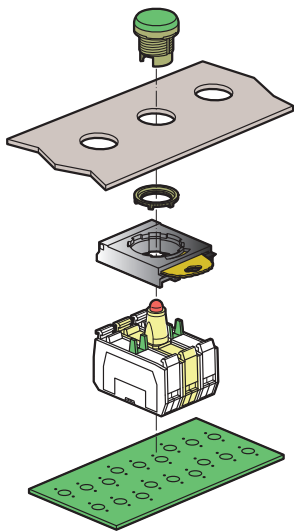
Lamp-testing module with 2 diodes (33ETT) for direct supply 24 V and 48 V



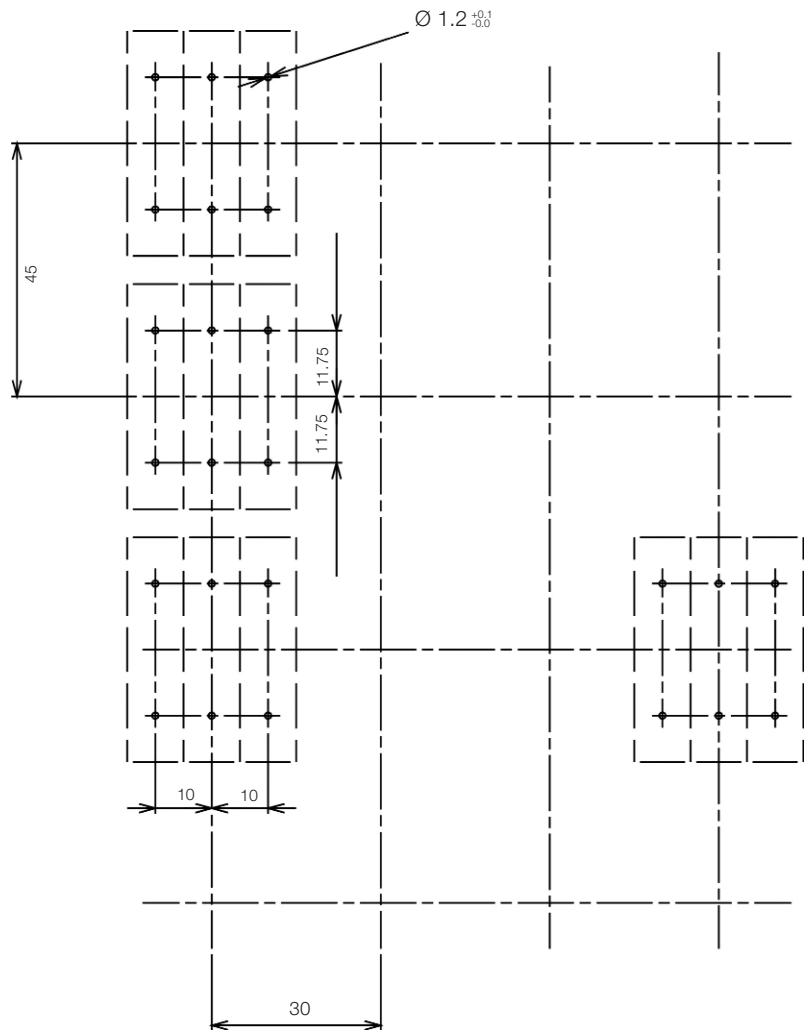
Lamp-testing assembly for direct supply 130 V and 240 V



PRINTED CIRCUIT BOARD MOUNTING



PCB BOARD DRILL PLAN



PCB TERMINAL - SINGLE CLIP

PCB TERMINAL - 3 POSITION CLIP

