

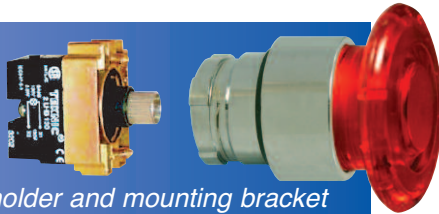
# 22mm LED Illuminated Mushroom Metal Operators



Certified for  
**NEMA Type 4X**  
12 environment.

## Mushroom Illuminated Push-Pull

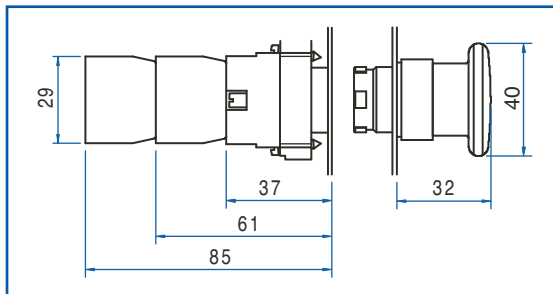
with LED bulb, bulb holder and mounting bracket



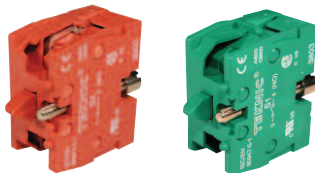
### Dimensional Drawings

All dimensions shown in millimeters.  
To convert to inches multiply by 0.03937

Illuminated Mushroom Push-Pull



### Switch Contacts (sold separately)



- Heavy-duty contact blocks with mounting screws. Blocks can be stacked 2 blocks across by 3 blocks deep for a total of 6 circuits.
- Contact blocks are available with silver contacts or gold plated contacts
- Self-wiping contacts

#### Panel Mount

Normally Open Silver	<b>S1</b>
Normally Closed Silver	<b>S2</b>
Normally Open Gold Plated	<b>S3</b>
Normally Closed Gold Plated	<b>S4</b>

#### Base Mount\*

Normally Open Silver	<b>S5</b>
Normally Closed Silver	<b>S6</b>
Normally Open Gold Plated	<b>S7</b>
Normally Closed Gold Plated	<b>S8</b>

\* For use with non-illuminated operators in thermoplastic or aluminum enclosures listed on pages 30 and 36-37.

### Color Description Cat No.

12V AC/DC		
<input type="checkbox"/>	White	40mm Head, 12VAC/DC 2ALMPP1LB-012
<input type="checkbox"/>	Green	40mm Head, 12VAC/DC 2ALMPP3LB-012
<input type="checkbox"/>	Red	40mm Head, 12VAC/DC 2ALMPP4LB-012
<input type="checkbox"/>	Amber	40mm Head, 12VAC/DC 2ALMPP5LB-012
<input type="checkbox"/>	Blue	40mm Head, 12VAC/DC 2ALMPP6LB-012
<input type="checkbox"/>	Clear	40mm Head, 12VAC/DC 2ALMPP7LB-012
<input type="checkbox"/>	Yellow	40mm Head, 12VAC/DC 2ALMPP8LB-012

24V AC/DC		
<input type="checkbox"/>	White	40mm Head, 24VAC/DC 2ALMPP1LB-024
<input type="checkbox"/>	Green	40mm Head, 24VAC/DC 2ALMPP3LB-024
<input type="checkbox"/>	Red	40mm Head, 24VAC/DC 2ALMPP4LB-024
<input type="checkbox"/>	Amber	40mm Head, 24VAC/DC 2ALMPP5LB-024
<input type="checkbox"/>	Blue	40mm Head, 24VAC/DC 2ALMPP6LB-024
<input type="checkbox"/>	Clear	40mm Head, 24VAC/DC 2ALMPP7LB-024
<input type="checkbox"/>	Yellow	40mm Head, 24VAC/DC 2ALMPP8LB-024

48V AC/DC		
<input type="checkbox"/>	White	40mm Head, 48VAC/DC 2ALMPP1LB-048
<input type="checkbox"/>	Green	40mm Head, 48VAC/DC 2ALMPP3LB-048
<input type="checkbox"/>	Red	40mm Head, 48VAC/DC 2ALMPP4LB-048
<input type="checkbox"/>	Amber	40mm Head, 48VAC/DC 2ALMPP5LB-048
<input type="checkbox"/>	Blue	40mm Head, 48VAC/DC 2ALMPP6LB-048
<input type="checkbox"/>	Clear	40mm Head, 48VAC/DC 2ALMPP7LB-048
<input type="checkbox"/>	Yellow	40mm Head, 48VAC/DC 2ALMPP8LB-048

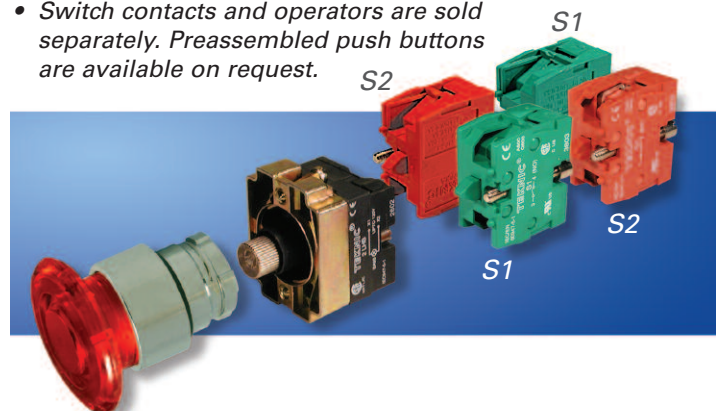
110V AC*		
<input type="checkbox"/>	White	40mm Head, 110VAC* 2ALMPP1LB-110
<input type="checkbox"/>	Green	40mm Head, 110VAC* 2ALMPP3LB-110
<input type="checkbox"/>	Red	40mm Head, 110VAC* 2ALMPP4LB-110
<input type="checkbox"/>	Amber	40mm Head, 110VAC* 2ALMPP5LB-110
<input type="checkbox"/>	Blue	40mm Head, 110VAC* 2ALMPP6LB-110
<input type="checkbox"/>	Clear	40mm Head, 110VAC* 2ALMPP7LB-110
<input type="checkbox"/>	Yellow	40mm Head, 110VAC* 2ALMPP8LB-110

230V AC*		
<input type="checkbox"/>	White	40mm Head, 230VAC* 2ALMPP1LB-230
<input type="checkbox"/>	Green	40mm Head, 230VAC* 2ALMPP3LB-230
<input type="checkbox"/>	Red	40mm Head, 230VAC* 2ALMPP4LB-230
<input type="checkbox"/>	Amber	40mm Head, 230VAC* 2ALMPP5LB-230
<input type="checkbox"/>	Blue	40mm Head, 230VAC* 2ALMPP6LB-230
<input type="checkbox"/>	Clear	40mm Head, 230VAC* 2ALMPP7LB-230
<input type="checkbox"/>	Yellow	40mm Head, 230VAC* 2ALMPP8LB-230

\*110V DC and 230V DC version is available on request.

### Exploded Assembly View

- Up to four switch contacts can be installed with any illuminated operators.
- Switch contacts and operators are sold separately. Preassembled push buttons are available on request.



## 22mm Specifications

### Electrical and Mechanical Characteristics

Standard conformity:	IEC 60947-5-1
Approvals:	VDE0660 CSA - C22.2 No. 14-95 UL508 IEC 947 - 5 (1) 1990, IS 13947 ASTA UK certified as per IEC 947 - 5 - (1) 1990
Degree of protection:	IP 65 as per IEC 529 NEMA Type 4X, 12 as per UL50
Temperature Range:	- 25°C to + 70°C (-13°F to +158°F)

### Contact Block

Rated voltage:	600V AC /DC
Rated current:	10A AC / 2.5A DC
Contact operation:	self-wiping, slow break NO or NC
UL508 rating (pilot duty):	
CSA - C22.2 No. 14-95:	A600: 10A; 600V AC Q600: 2.5A; 600V DC
Make and break capacity	
IEC 947 - 5 - (1) 1990:	AC 15 4A, 415V AC DC 13 0.5A, 110V DC
Terminal capacity:	minimum 20 AWG (0.5 mm <sup>2</sup> ) maximum 2x16 AWG (2 x 1.5 mm <sup>2</sup> ) or 14 AWG (2.5 mm <sup>2</sup> )
Terminal marking:	1-2 for NC, 3-4 for NO
Short circuit protection:	10A cartridge fuse HRC type, rated for resistive loads
Mechanical life:	1 million operations

### Modules for Pilot Lights & Illuminated Switches with LED Bulbs

Current consumption (applicable to all colors)	
24 VAC/DC, 100 VAC & 240 VAC:	max. 20 mA
110 VDC:	max. 15 mA
220 VDC:	max. 10 mA
Service life (at nominal voltage and at ambient temperature of 25°C):	100,000 hours
Voltage limits (nominal voltage):	<20% of rated voltage>
Short circuit protection:	on specific request
Terminal capacity:	min. 1 x 0.5 mm <sup>2</sup> (20 AWG), max. 2 x 1.5 mm <sup>2</sup> (2x16 AWG) or 1 x 2.5 mm <sup>2</sup> (1x14 AWG)