

TEKNIC

CE 

Control & Signalling devices Ø 22.5 plastic construction
Monoblock Series



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Control and Signalling Device in plastic construction

Salient Features

This range of Ø 22.5 devices plastic series namely Push Button switches, Selector Switches, Emergency Switches, Pilot Lights in engineering Plastic Construction, have been designed to provide our OEM customers and Panel Builders a compact series of products with a competitive edge. This range ensures cost efficiency and provides a high level of reliability and economy. Technical Features includes:

- Safe in Operation
- Enables Control on inventory
- Reliable performance
- All in one function - complete function in one order code
- Low built in Depth
- Single or two built in electrically separated contacts are provided (either 1 NO, 1NC, 2NO, 2NC or 1NO+1NC)
- Economy of Space
- Aesthically elegant
- Robust design
- Larger operating surface than Ø 30.5
- Easy Mounting

PUSH BUTTONS

The monoblock push buttons are circular in design, Ø 22.5. The combination is of an actuator and contact element, single or two built in electrically separated contacts 1NO, 1NC, 2NO, 2NC or 1NO+1NC. Different varieties / colours of Actuators available are described separately herewith with their images, where the respective dimensions of the devices are also given.

PILOT LIGHTS:

Pilot Lights are available with integral LEDs, suitable for operating at various voltages, namely 6V, 12V, 24V, 30V, 48V, 63V, 110V, 125V AC/DC, 240VAC & 220VDC. Any other voltage & test function available on request. The pilot lights can also be offered with dual colour LEDs with different colour combinations for 12V to 240V AC/DC. The pilot lights with integral LEDs are also available suitable for operating at any universal voltage between 24V and 240V AC/DC.

Terminals

Push Button Contacts and Pilot Lights are designed to have shrouded terminals with Combi Screws.

Fixing

The integrated push button and pilot light range can be fixed in any position on panels of 1 to 5 mm thickness. The recommended fixing centres are 30 mm x 40 mm. The push button and pilot light are fixed on the panel with the help of locking nut.

Specifications of 103 series:

Details of these control devices, Ø 22.5 are detailed below:

A. Mechanical Durability

Push Button	Spring Return	Million Operations	1
	Selector		0.5
	Latching Type		0.1
	Mushroom Type		0.02

B. Standards & Conditions

Applicable Standard	UL 508, IEC 60947-5-1, CSA 22.2
Degree of Protection	IP54 (as per IEC 60947-5-1)
Operating Conditions	+70°C to -25°C
Mounting	Confirming to IEC 60947-5-1 Finished fixing hole: 22.5mm recommended (22.3+0.4/0) Fixing Centres: 30*40mm Min, (Unless otherwise indicated) Mounting Panel thickness: metal: 1 to 6mm, double insulated: 2 to 6mm

C. Electrical Characteristics


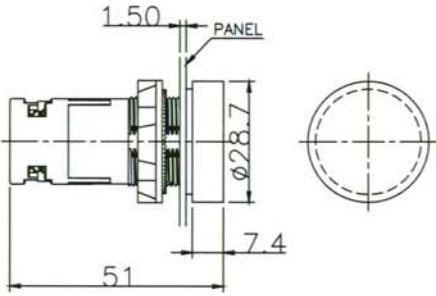
Rating		For AC: C300=120V, make current 15A & break current 1.5A (Thermal current = 2.5A) For DC: R300= 125V make or break current 0.22A, (Thermal current = 1.0A)
Type of contact		N/C or N/O or C/O Slow Break
Positive operation		All functions incorporating an NC contact have positive opening (IEC 60947-5-1)
Terminal Capacity	Cabling	2X1.5mm ² (Pin type lugs) 1X0.5mm ² (min) (Pin / fork type lugs) 1X2.5mm (max) (Pin / fork type lugs)
Screw Clamp tightening torque		0.8 N.m. (nominal recommended) 1.2 N.m(Max)
Short Circuit Protection		4A (gG cartridge fuse) (IEC 60947-5-1)
Rated insulation Voltage		Ui = 250V (Degree of pollution 3)
Rated impulse withstand voltage		Uimp = 6kV (IEC 60947-1)
Dielectric Test		2.5KV (IEC 60947-5-1)
Rated insulation resistance		50MΩ (IEC 60947-1)
Vibration Test		15 gn (Frequency 40-500 Hz) (IEC 60068-2-6)
Shock Test		70 gn (½ sine wave for 6ms) (IEC 60068-2-27)
	Emergency stop	15 g (½ sine wave for 11ms) (IEC 60068-2-27)

D. Pilot light with integral LED / multichip LED bulb (BA9S cap)


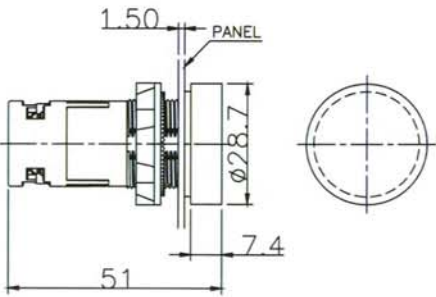
Current consumptions (applicable to all colours)	
24 VAC/DC, 110 VAC & 240 VAC	max. 20 mA
110 VDC	max. 10 mA
220 VDC	max. 10 mA
Service life (at nominal voltage & at ambient temperature of 25 °C)	50,000 hours
Voltage limits (nominal voltage)	< 20% of rated voltage >
Short circuit protection	on specific request
Terminal capacity	min. 1 x 0.5 mm ² , max. 2 x 1.5 mm ² or 1 x 2.5 mm ²

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22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

<p>MOMENTARY FLUSH PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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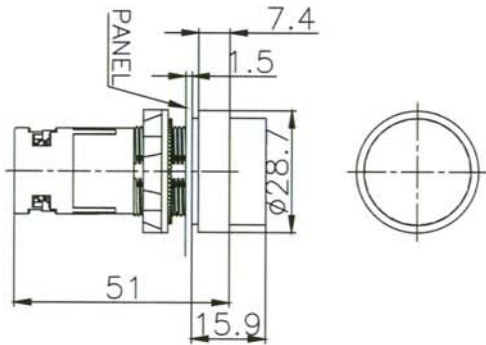
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Flush push button with 1 NO contact element		3PSF110		3PSF210		3PSF310		3PSF410		3PSF610		3PSF810
Flush push button with 1 NC contact element		3PSF101		3PSF201		3PSF301		3PSF401		3PSF601		3PSF801
Flush push button with 1 NO + 1NC contact element		3PSF111		3PSF211		3PSF311		3PSF411		3PSF611		3PSF811
Flush push button with 2 NO contact element		3PSF120		3PSF220		3PSF320		3PSF420		3PSF620		3PSF820
Flush push button with 2 NC contact element		3PSF102		3PSF202		3PSF302		3PSF402		3PSF602		3PSF802

<p>LATCHING FLUSH PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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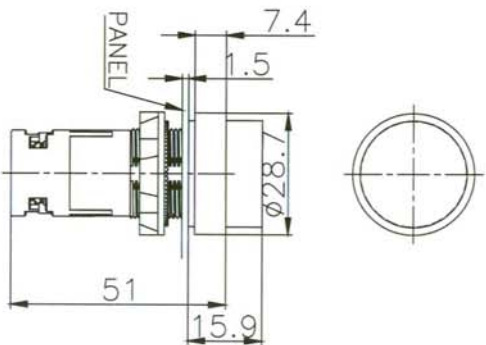
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Flush push-push push button with 1NO contact element		3PSFPP110		3PSFPP210		3PSFPP310		3PSFPP410		3PSFPP610		3PSFPP810
Flush push-push push button with 1NC contact element		3PSFPP101		3PSFPP201		3PSFPP301		3PSFPP401		3PSFPP601		3PSFPP801
Flush push-push push button with 1NO + 1NC contact element		3PSFPP111		3PSFPP211		3PSFPP311		3PSFPP411		3PSFPP611		3PSFPP811
Flush push-push push button with 2NO contact element		3PSFPP120		3PSFPP220		3PSFPP320		3PSFPP420		3PSFPP620		3PSFPP820
Flush push-push push button with 2NC contact element		3PSFPP102		3PSFPP202		3PSFPP302		3PSFPP402		3PSFPP602		3PSFPP802

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22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

MOMENTARY PROJECTING PUSH BUTTONS	ASSEMBLY DETAILS
	


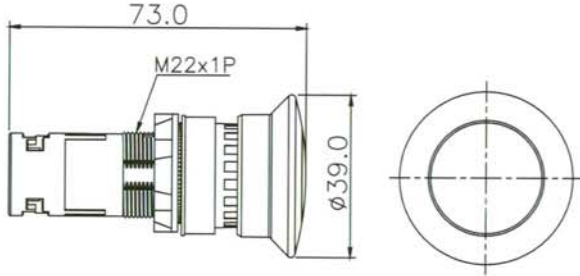
TYPE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE
Projecting push button with 1 NO contact element	3PSP110	3PSP210	3PSP310	3PSP410	3PSP610	3PSP810	
Projecting push button with 1 NC contact element	3PSP101	3PSP201	3PSP301	3PSP401	3PSP601	3PSP801	
Projecting push button with 1NO + 1NC contact element	3PSP111	3PSP211	3PSP311	3PSP411	3PSP611	3PSP811	
Projecting push button with 2 NO contact element	3PSP120	3PSP220	3PSP320	3PSP420	3PSP620	3PSP820	
Projecting push button with 2 NC contact element	3PSP102	3PSP202	3PSP302	3PSP402	3PSP602	3PSP802	






LATCHING PROJECTING PUSH BUTTONS	ASSEMBLY DETAILS
	


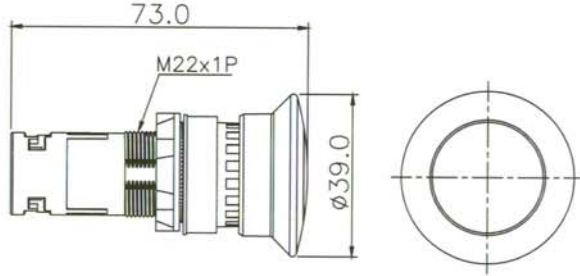
TYPE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE
Projecting push button with 1 NO contact element	3PSPPP110	3PSPPP210	3PSPPP310	3PSPPP410	3PSPPP610	3PSPPP810	
Projecting push button with 1 NC contact element	3PSPPP101	3PSPPP201	3PSPPP301	3PSPPP401	3PSPPP601	3PSPPP801	
Projecting push button with 1NO + 1NC contact element	3PSPPP111	3PSPPP211	3PSPPP311	3PSPPP411	3PSPPP611	3PSPPP811	
Projecting push button with 2 NO contact element	3PSPPP120	3PSPPP220	3PSPPP320	3PSPPP420	3PSPPP620	3PSPPP820	
Projecting push button with 2 NC contact element	3PSPPP102	3PSPPP202	3PSPPP302	3PSPPP402	3PSPPP602	3PSPPP802	






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22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

LATCHING MUSHROOM PUSH BUTTONS	ASSEMBLY DETAILS
	


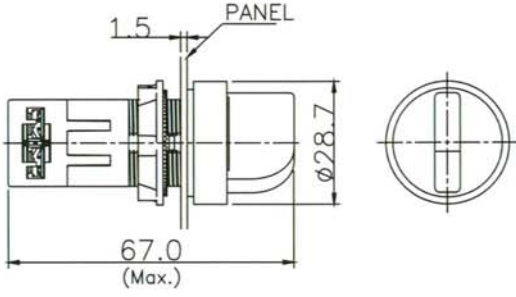
TYPE	COLOUR	ORDERING CODE
Mushroom Latching Ø 40mm with 1 NO contact element		3PSML410
Mushroom Latching Ø 40mm with 1 NC contact element		3PSML401
Mushroom Latching Ø 40mm with 1NO + 1 NC contact element		3PSML411
Mushroom Latching Ø 40mm with 2 NO contact element		3PSML420
Mushroom Latching Ø 40mm with 2 NC contact element		3PSML402

MOMENTARY MUSHROOM PUSH BUTTONS	ASSEMBLY DETAILS
	


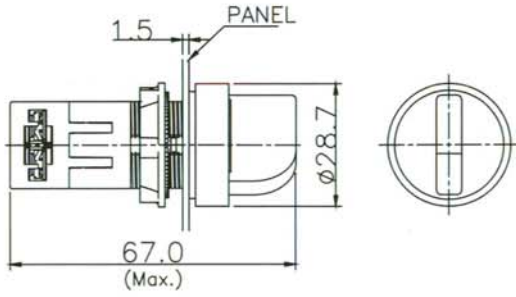
TYPE	COLOUR	ORDERING CODE
Mushroom Momentary Ø 40mm with 1 NO contact element		3PSM410
Mushroom Momentary Ø 40mm with 1 NC contact element		3PSM401
Mushroom Momentary Ø 40mm with 1 NO + 1 NC contact element		3PSM411
Mushroom Momentary Ø 40mm with 2 NO contact element		3PSM420
Mushroom Momentary Ø 40mm with 2 NC contact element		3PSM402

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22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

<p>SELECTOR - 2 POSITION PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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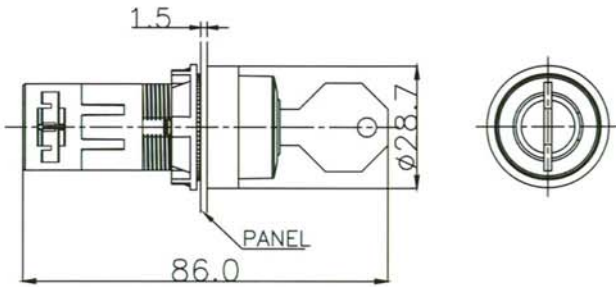
TYPE	COLOUR	ORDERING CODE
Selector push button, 2 position, with 1NO contact element	●	3PSS210-2P
Selector push button, 2 position, with 1NC contact element	●	3PSS201-2P
Selector push button, 2 position, with 1 NO + 1 NC contact element	●	3PSS211-2P
Selector push button, 2 position, with 2 NO contact element	●	3PSS220-2P
Selector push button, 2 position, with 2 NC contact element	●	3PSS202-2P

<p>SELECTOR - 3 POSITION PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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TYPE	COLOUR	ORDERING CODE
Selector push button, 3 position, with 2 NO contact element	●	3PSS220-3P
Selector push button, 3 position, with 2 NC contact element	●	3PSS202-3P


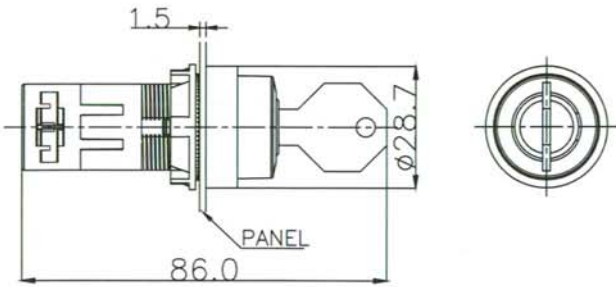
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22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

<p>KEY SELECTOR - 2 POSITION PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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TYPE	COLOUR	ORDERING CODE
Key selector push button 2 position, with 1NO contact element	●	3PSK210-2PO
Key selector push button 2 position, with 1NC contact element	●	3PSK201-2PO
Key selector push button 2 position, with 1 NO + 1 NC contact element	●	3PSK211-2PO
Key selector push button 2 position, with 2 NO contact element	●	3PSK220-2PO
Key selector push button 2 position, with 2 NC contact element	●	3PSK202-2PO

Note : 2PO indicates key removable in left position.

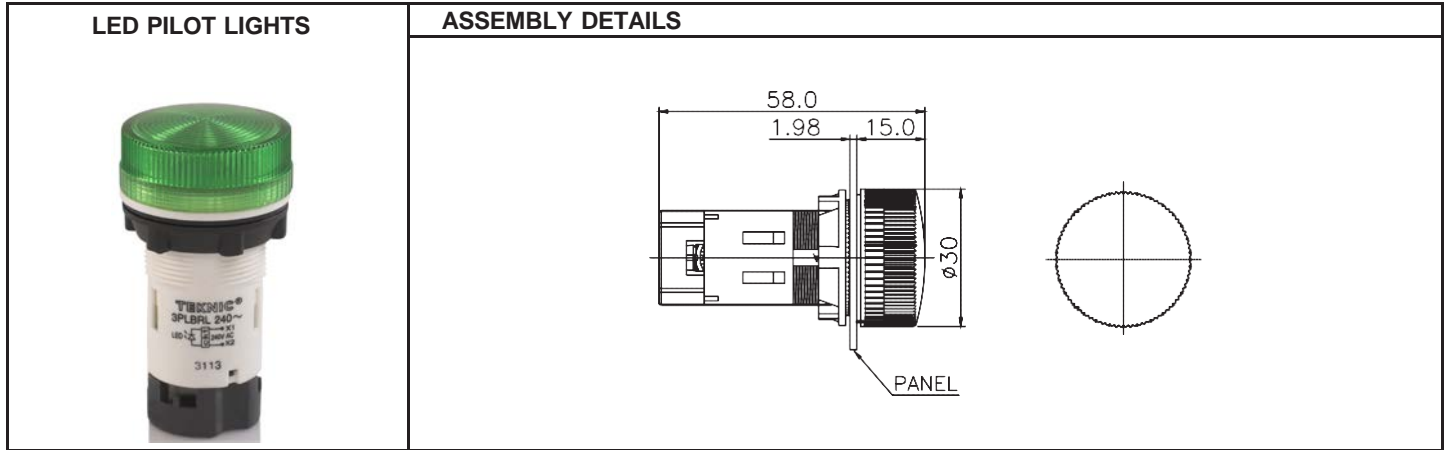
<p>KEY SELECTOR - 3 POSITION PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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TYPE	COLOUR	ORDERING CODE
Key selector push button 3 position, with 2 NO contact element	●	3PSK220-3PC
Key selector push button 3 position, with 2 NC contact element	●	3PSK202-3PC

Note : 3PC indicates key removable in centre position.










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22.5 Ø - PILOT LIGHTS WITH INTEGRAL LED





















SPECIFIC VOLTAGE

VOLTAGE COLOUR ORDERING CODE COLOUR ORDERING CODE COLOUR ORDERING CODE COLOUR ORDERING CODE COLOUR ORDERING CODE

24 AC/DC		3PLBR1L(S)24		3PLBR3L24		3PLBR4L24		3PLBR5L24		3PLBR6L24
		3PLBR7L(S)24		3PLBR8L24		Translucent Lens / White LED			Transparent Lens / White LED	

110 AC		3PLBR1L(S)110AC		3PLBR3L110AC		3PLBR4L110AC		3PLBR5L110AC		3PLBR6L110AC
		3PLBR7L(S)110AC		3PLBR8L110AC		Translucent Lens / White LED			Transparent Lens / White LED	


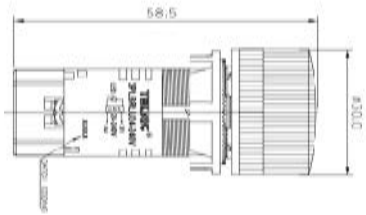
110 DC		3PLBR1L(S)110DC		3PLBR3L110DC		3PLBR4L110DC		3PLBR5L110DC		3PLBR6L110DC
		3PLBR7L(S)110DC		3PLBR8L110DC		Translucent Lens / White LED			Transparent Lens / White LED	

220 DC		3PLBR1L(S)220DC		3PLBR3L220DC		3PLBR4L220DC		3PLBR5L220DC		3PLBR6L220DC
		3PLBR7L(S)220DC		3PLBR8L220DC		Translucent Lens / White LED			Transparent Lens / White LED	

Note: Other voltages namely 12 V, 30 V, 48 V, 63.5 V, 125 V DC & 277 V AC available on request

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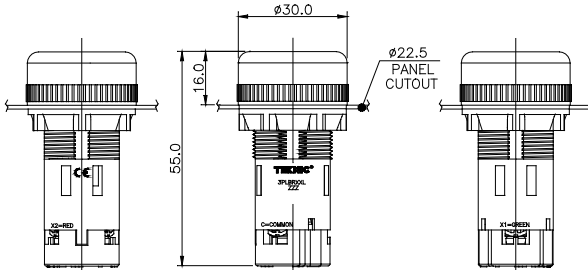
22.5 Ø - PILOT LIGHTS WITH INTEGRAL LED

UNIVERSAL LED PILOT LIGHTS	ASSEMBLY DETAILS
	


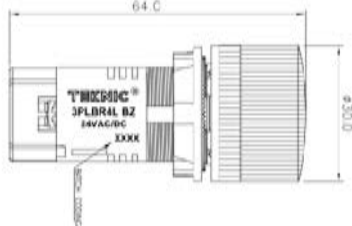
SPECIFIC VOLTAGE

VOLTAGE COLOUR ORDERING CODE COLOUR ORDERING CODE COLOUR ORDERING CODE COLOUR ORDERING CODE COLOUR ORDERING CODE

24V UPTO 240V	○	3PLBR1L U(S)	●	3PLBR3LU	●	3PLBR4LU	●	3PLBR5LU	●	3PLBR6LU
	○	3PLBR7LU(S)	●	3PLBR8LU	○ Translucent Lens / White LED		○ Transparent Lens / White LED			

DUAL LED PILOT LIGHTS	ASSEMBLY DETAILS
	

24 V AC/DC 48 V AC/DC 110 V AC 110 V DC 240 V AC 220 V DC	○ Translucent Lens ● Green LED ● Red LED	3PLBR134L	Note: a) 1- Translucent Lens 3- Green LED 4- Red LED b) Mention Voltage after ordering code c) Other LED combinations available on request
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INTEGRAL LED WITH BUZZER	ASSEMBLY DETAILS
	

12 V AC/DC 24 V AC/DC 110 V AC 230 V AC	○ Translucent Lens ● Red LED	3PLBR4LBZ
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