

# TEKNIC

CE 

Control & Signalling devices Ø 22.5 plastic construction  
Monoblock Series



# TEKNIC

## 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


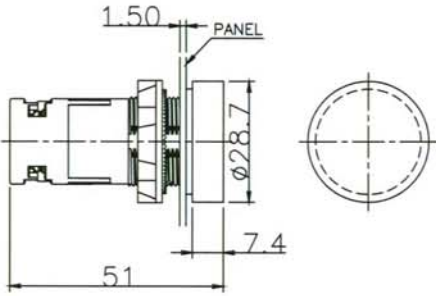
Rating		<b>For AC:</b> C300=120V, make current 15A & break current 1.5A (Thermal current = 2.5A) <b>For DC:</b> R300= 125V make or break current 0.22A, (Thermal current = 1.0A)
Type of contact		N/C or N/O or C/O Slow Break
Positive operation		All functions incorporating an NC contact have positive opening (IEC 60947-5-1)
Terminal Capacity	Cabling	2X1.5mm <sup>2</sup> (Pin type lugs) 1X0.5mm <sup>2</sup> (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)


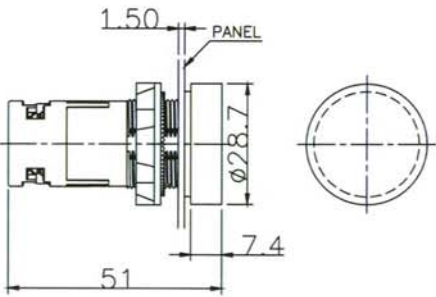
Current consumptions (applicable to all colours)	
24 VAC/DC, 110 VAC & 240 VAC	max. 20 mA
110 VDC	max. 10 mA
220 VDC	max. 10 mA
Service life (at nominal voltage & at ambient temperature of 25 ° C)	50,000 hours
Voltage limits (nominal voltage)	< 20% of rated voltage >
Short circuit protection	on specific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

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## 22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

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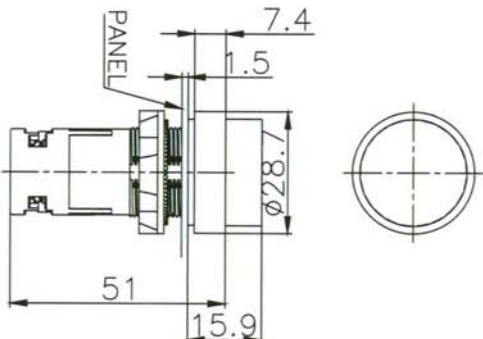
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
<b>Flush push</b> button with 1 NO contact element		3PSF110		3PSF210		3PSF310		3PSF410		3PSF610		3PSF810
<b>Flush push</b> button with 1 NC contact element		3PSF101		3PSF201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































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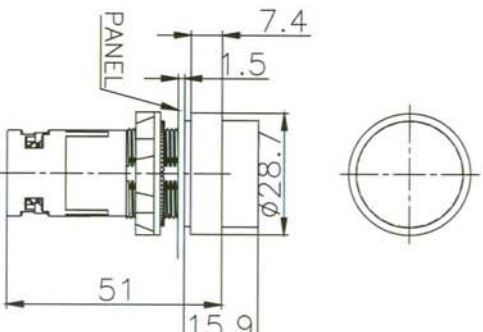
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
<b>Flush push-push</b> push button with 1NO contact element		3PSFPP110		3PSFPP210		3PSFPP310		3PSFPP410		3PSFPP610		3PSFPP810
<b>Flush push-push</b> push button with 1NC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


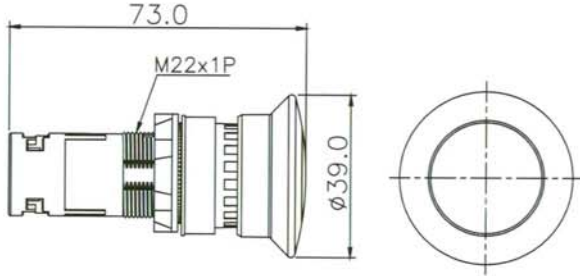
TYPE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE
Projecting push button with 1 NO contact element	 3PSP110	 3PSP210	 3PSP310	 3PSP410	 3PSP610	 3PSP810	
Projecting push button with 1 NC contact element	 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
	


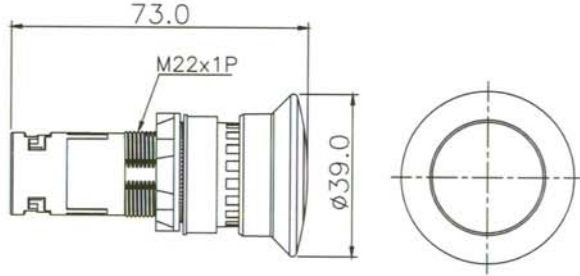
TYPE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE	COLOUR ORDERING CODE
Projecting push button with 1 NO contact element	 3PSPPP110	 3PSPPP210	 3PSPPP310	 3PSPPP410	 3PSPPP610	 3PSPPP810	
Projecting push button with 1 NC 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

<b>LATCHING MUSHROOM PUSH BUTTONS</b>	<b>ASSEMBLY DETAILS</b>
	


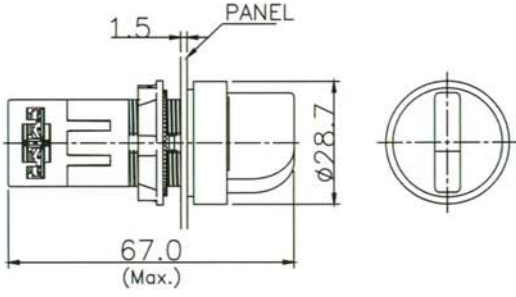
TYPE	COLOUR	ORDERING CODE
<b>Mushroom Latching</b> Ø 40mm with 1 NO contact element		3PSML410
<b>Mushroom Latching</b> Ø 40mm with 1 NC contact element		3PSML401
<b>Mushroom Latching</b> Ø 40mm with 1NO + 1 NC contact element		3PSML411
<b>Mushroom Latching</b> Ø 40mm with 2 NO contact element		3PSML420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

<b>MOMENTARY MUSHROOM PUSH BUTTONS</b>	<b>ASSEMBLY DETAILS</b>
	


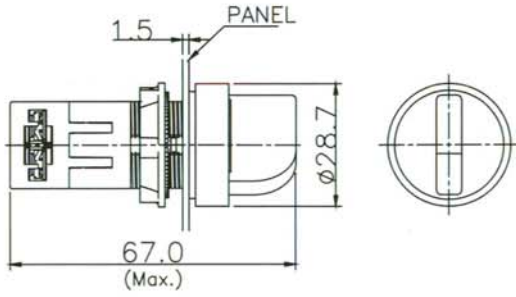
TYPE	COLOUR	ORDERING CODE
<b>Mushroom Momentary</b> Ø 40mm with 1 NO contact element		3PSM410
<b>Mushroom Momentary</b> Ø 40mm with 1 NC contact element		3PSM401
<b>Mushroom Momentary</b> Ø 40mm with 1 NO + 1 NC contact element		3PSM411
<b>Mushroom Momentary</b> Ø 40mm with 2 NO contact element		3PSM420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

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## 22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

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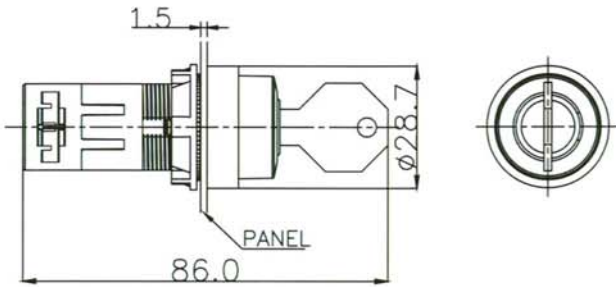
TYPE	COLOUR	ORDERING CODE
Selector push button, 2 position, with 1NO contact element	●	3PSS210-2P
Selector push button, 2 position, with 1NC contact element	●	3PSS201-2P
Selector push button, 2 position, with 1 NO + 1 NC contact element	●	3PSS211-2P
Selector push button, 2 position, with 2 NO contact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

<p><b>SELECTOR - 3 POSITION PUSH BUTTONS</b></p> 	<p><b>ASSEMBLY DETAILS</b></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


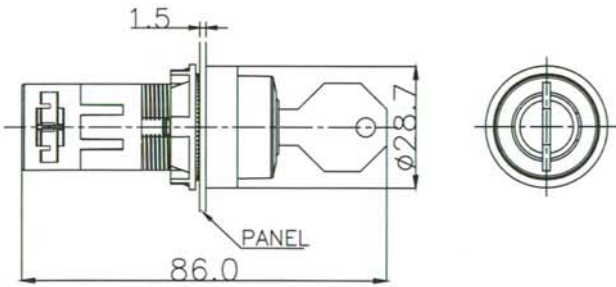
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## 22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

<p><b>KEY SELECTOR - 2 POSITION PUSH BUTTONS</b></p> 	<p><b>ASSEMBLY DETAILS</b></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.

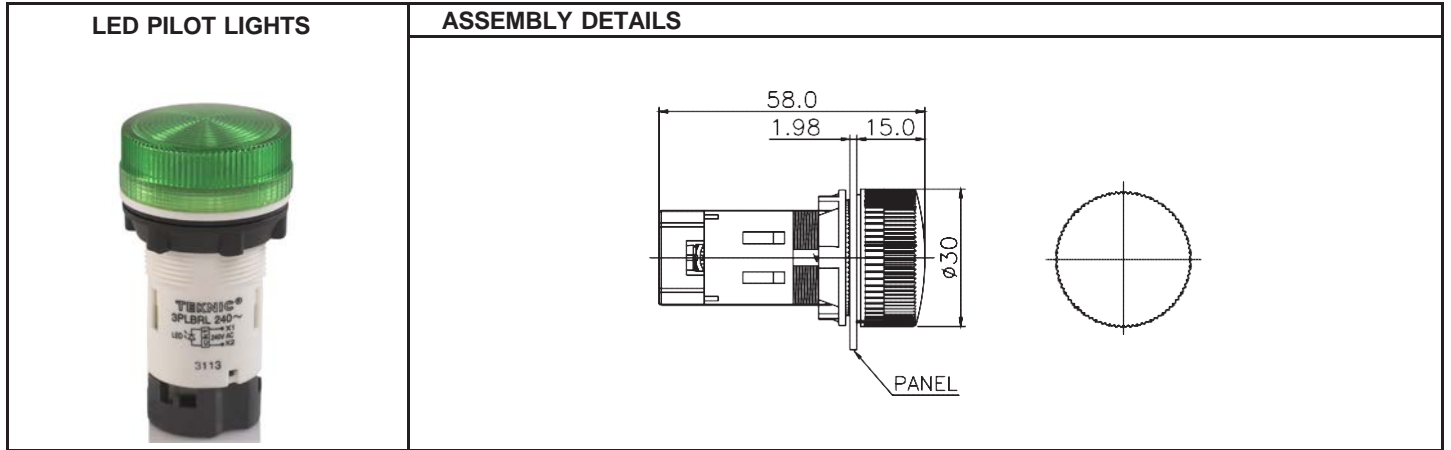
<p><b>KEY SELECTOR - 3 POSITION PUSH BUTTONS</b></p> 	<p><b>ASSEMBLY DETAILS</b></p> 
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TYPE	COLOUR	ORDERING CODE
Key selector push button 3 position, with 2 NO contact element	●	3PSK220-3PC
Key selector push button 3 position, with 2 NC contact element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


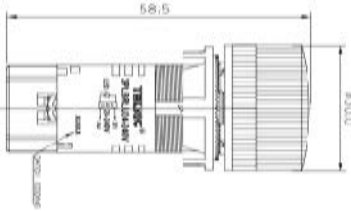
220 DC		3PLBR1L(S)220DC		3PLBR3L220DC		3PLBR4L220DC		3PLBR5L220DC		3PLBR6L220DC
		3PLBR7L(S)220DC		3PLBR8L220DC		Translucent Lens / White LED			Transparent Lens / White LED	

**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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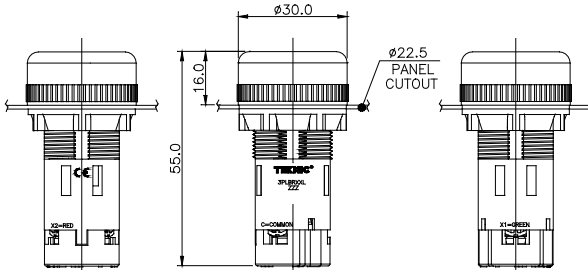
22.5 Ø - PILOT LIGHTS WITH INTEGRAL LED

<b>UNIVERSAL LED PILOT LIGHTS</b>	<b>ASSEMBLY DETAILS</b>
	


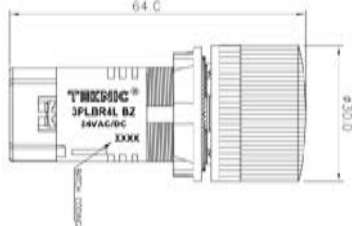
**SPECIFIC VOLTAGE**

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			

<b>DUAL LED PILOT LIGHTS</b>	<b>ASSEMBLY DETAILS</b>
	

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	<b>3PLBR134L</b>	<p>Note:</p> <p>a) 1- Translucent Lens 3- Green LED 4- Red LED</p> <p>b) Mention Voltage after ordering code</p> <p>c) Other LED combinations available on request</p>
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<b>INTEGRAL LED WITH BUZZER</b>	<b>ASSEMBLY DETAILS</b>
	

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