

TEKNIC



Control & Signalling devices Ø 22.5 plastic construction
Modular Series



TEKNIC

Control and signalling devices in plastic construction

Salient Features

This range of Ø 22.5 devices plastic series namely momentary push buttons, latching push buttons, mushroom push buttons, selector switches, key selector switches, pilot lights have been designed to provide a compact series of products with a competitive edge.

This range ensures high reliability with cost efficiency. The range has been designed to provide the following salient features:

- Safe and Reliable in operation
- Single or double integral contact elements (1 NO, 1 NC, 1 NO +1 NC, 2 NO, 2 NC)
- Aesthetically elegant
- Robust design
- Easy Mounting
- Shrouded Terminals

Push Buttons

The push buttons are circular in design having a dia of 22.5. The push buttons have a combination of the actuator and contact element, single or double (one or two) integral contact elements.

Pilot Light

Pilot lights are available with integral LED's suitable for operating at various voltages, namely 6 V, 12 V, 24 V, 30 V, 48 V, 63 V, 110 V, 125 V, 240 V and 277 V AC/DC.

Pilot lights are also available with integral circuit which allows the pilot light to operate at any voltage from 24 V to 240 V AC or 220 V DC.

Pilot lights are also available for direct connection with multi chip LED bulbs with BA9S cap for the following voltages: 6 V, 12 V, 24 V, 30 V, 48 V, 110 V DC, 110 V AC, 240 V AC, and 220 V DC.

Pilot lights are also available with dual colour integral LED's in standard red and green colours suitable for operating at 24 V, 48 V, 110 V and 240 V AC or 220 V DC. Other colour combinations are available on request.

Terminals

Push buttons 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 a locking nut.

Electrical and mechanical characteristics

Environment	
Standards Conformity	UL 508, IEC 60947-5-1
	UL 508, IEC 60947-5-5 (For E stop)
Approvals	UL 508
Degree of Protection	IP 54 as per IEC 60529
Pollution Degree	3
Ambient	-25° C to + 70° C
Storage	-25° C to + 40° C


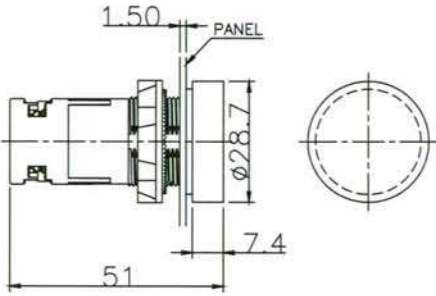
Electrical Characteristics	
Rating	for AC: C 300, AC 15-240V, make current 7.5 A, break current 0.75 A
	Thermal current 2.5 A
	for DC: R 300, DC 13-250V, make and break current 0.10 A
	Thermal current 1.0 A
Type of contact	NC, NO, C/O, slow break
Positive operation	All functions incorporating an NC contact have positive opening (IEC 60947-5-1)
Terminal capacity	Max 2 x 1.5 mm ² (Pin type lugs)
	Min 1 x 0.5 mm ² (Pin/fork type lugs)
	Max 1 x 2.5 mm ² (Pin/fork type lugs)
Screw clamp tightening Torque	0.8 Nm (nominal), 1.2 Nm (maximum) Screw head compatible with Pozidrive or Phillips screw driver (size 1) and flat screw driver (size 4 and 5.5)
Short circuit protection	4A, (gG cartridge fuse) (IEC 60947-5-1) at 1000A Prospective Current
Rated Insulation voltage	U _i = 250 V
Rated impulse withstand Voltage	U _{imp} = 6KV (IEC 60947-5-1)
Dielectric test	2.5KV (IEC 60947-5-1)
Rated insulation resistance	500 MΩ (IEC 60947-5-1)
Vibration resistance (for spring return, selector push button)	15g (Frequency 40 - 500 Hz) (IEC 60068-2-6)
Shock resistance (for spring return, selector push button)	70g 6ms pulse 18 shocks (IEC 60068-2-27)
Electrical shock resistance (mushroom latching)	under test

Mechanical Characteristics		
Push buttons (Mechanical Life)	Spring return	1 million operations
	Latching type	0.10 million operations
	Selector	0.5 million operations
	Mushroom Latching	0.02 million operations


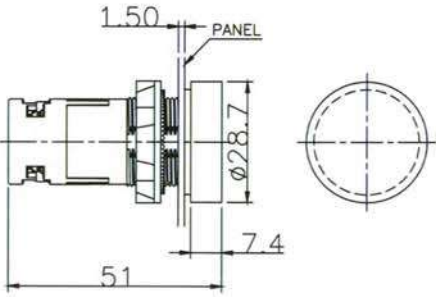
Pilot light with integral LED/Multichip LED bulbs	
Current consumption	
24 V AC/DC, 110 V AC, 240 V AC	max 20 mA
110 V DC	max 15 mA
220 V DC	max 10 mA
Service life at nominal voltage and at ambient temp of 25° C	1,00,00 hours
Voltage variations	< 20 % of rated voltage >
Short circuit protection	on specific request
Terminal capacity	min 1 x 0.5 mm ² , max 2 x 1.5 mm ² or 1x 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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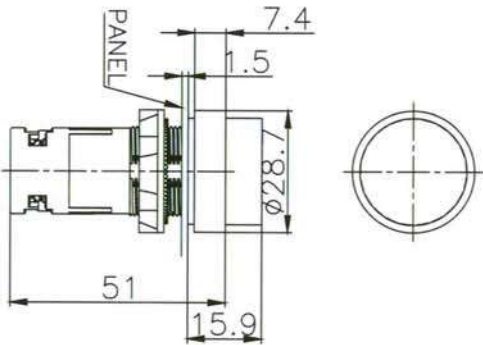
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Flush push button with 1 NO contact element		3PSF110		3PSF210		3PSF310		3PSF410		3PSF610		3PSF810
Flush push button with 1 NC contact element		3PSF101		3PSF201		3PSF301		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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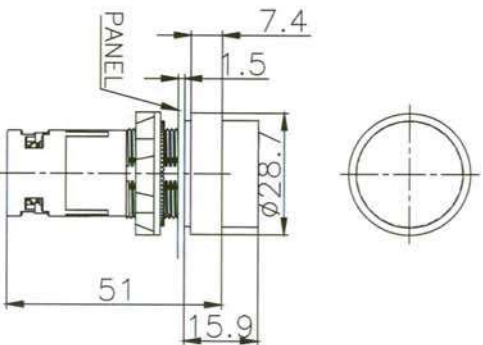
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Flush push-push push button with 1NO contact element		3PSFPP110		3PSFPP210		3PSFPP310		3PSFPP410		3PSFPP610		3PSFPP810
Flush push-push push button with 1NC contact element		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 
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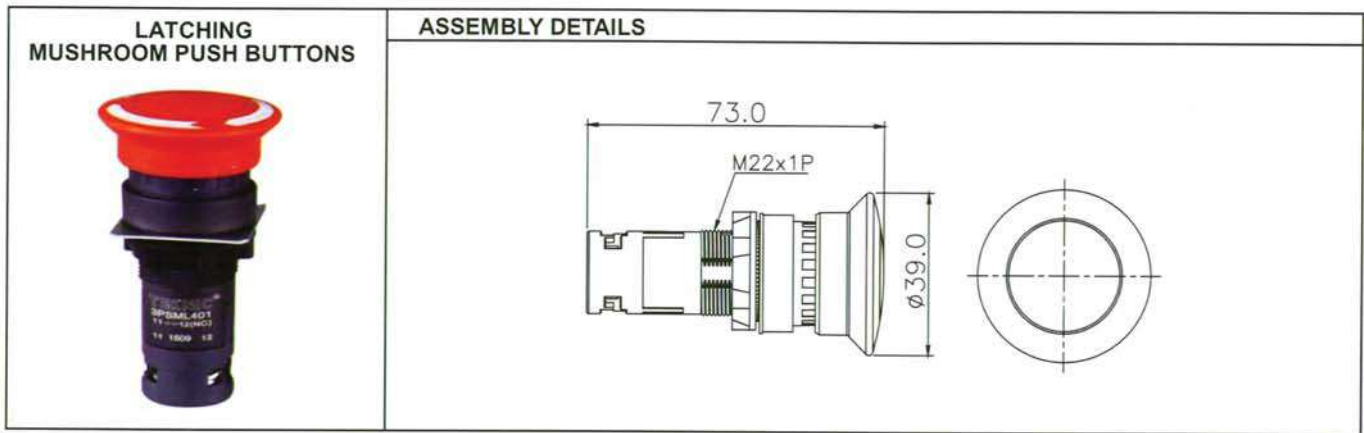
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Projecting push button with 1 NO contact element		3PSP110		3PSP210		3PSP310		3PSP410		3PSP610		3PSP810
Projecting push button with 1 NC contact element		3PSP101		3PSP201		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 
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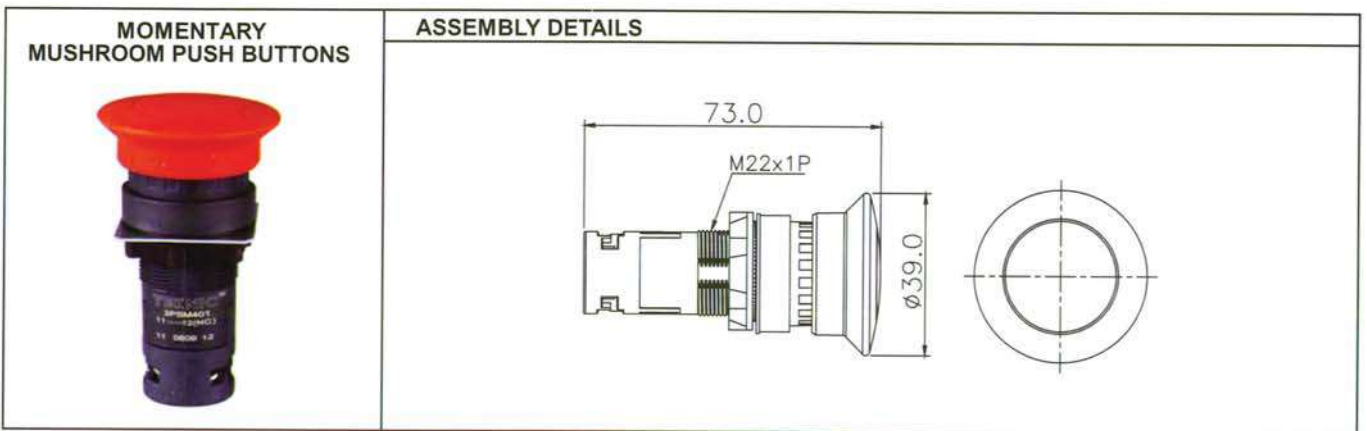
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Projecting push button with 1 NO contact element		3PSPPP110		3PSPPP210		3PSPPP310		3PSPPP410		3PSPPP610		3PSPPP810
Projecting push button with 1 NC contact element		3PSPPP101		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




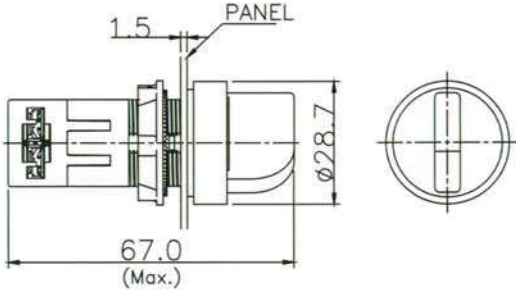
TYPE	COLOUR	ORDERING CODE
Mushroom Latching Ø 40mm with 1 NO contact element	●	3PSML410
Mushroom Latching Ø 40mm with 1 NC contact element	●	3PSML401
Mushroom Latching Ø 40mm with 1NO + 1 NC contact element	●	3PSML411
Mushroom Latching Ø 40mm with 2 NO contact element	●	3PSML420
Mushroom Latching Ø 40mm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




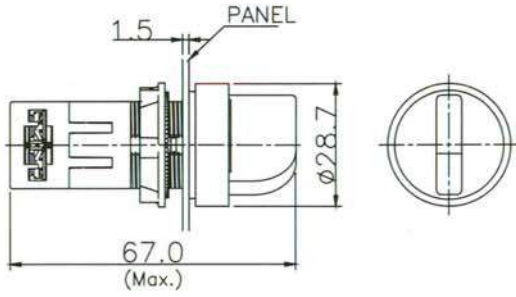
TYPE	COLOUR	ORDERING CODE
Mushroom Momentary Ø 40mm with 1 NO contact element	●	3PSM410
Mushroom Momentary Ø 40mm with 1 NC contact element	●	3PSM401
Mushroom Momentary Ø 40mm with 1 NO + 1 NC contact element	●	3PSM411
Mushroom Momentary Ø 40mm with 2 NO contact element	●	3PSM420
Mushroom Momentary Ø 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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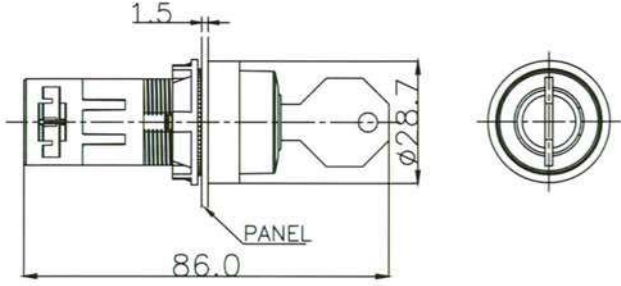
TYPE	COLOUR	ORDERING CODE
Selector push button, 2 position, with 1NO contact element	●	3PSS210-2P
Selector push button, 2 position, with 1NC contact element	●	3PSS201-2P
Selector push button, 2 position, with 1 NO + 1 NC contact element	●	3PSS211-2P
Selector push button, 2 position, with 2 NO contact 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


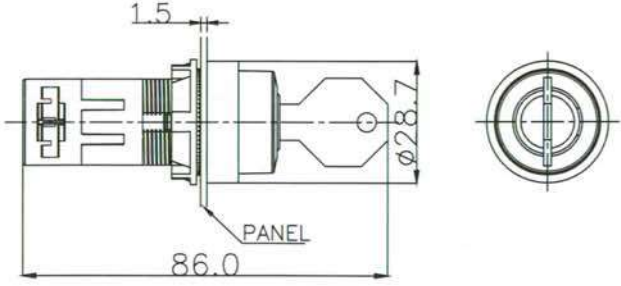
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22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

<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.

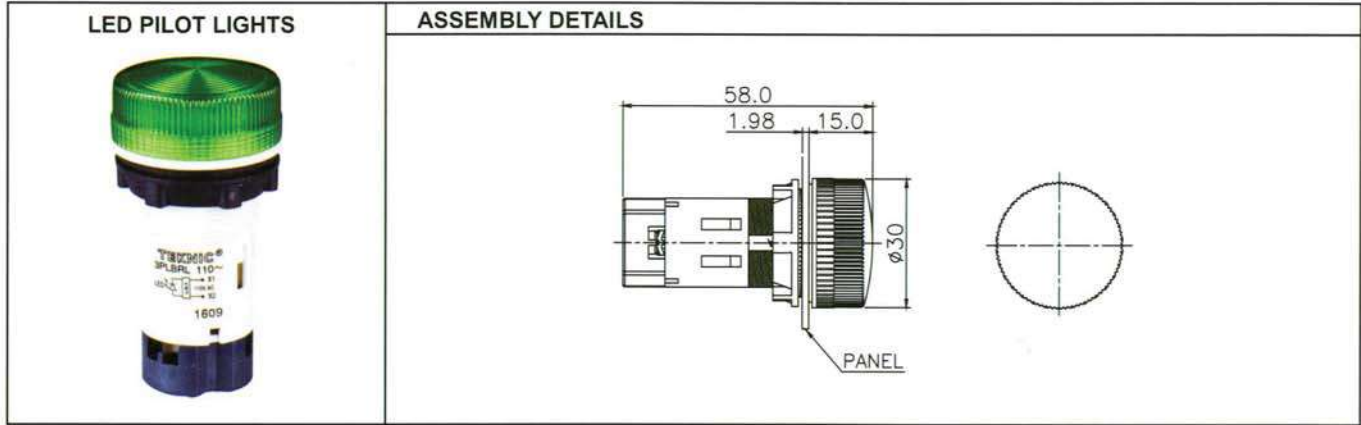
<p>KEY SELECTOR - 3 POSITION PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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TYPE	COLOUR	ORDERING CODE
Key selector push button 3 position, with 2 NO contact element	●	3PSK220-3PC
Key selector push button 3 position, with 2 NC contact element	●	3PSK202-3PC

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	<input type="radio"/>	3PLBR1L(S)24	<input checked="" type="radio"/>	3PLBR3L24	<input checked="" type="radio"/>	3PLBR4L24	<input checked="" type="radio"/>	3PLBR5L24	<input checked="" type="radio"/>	3PLBR6L24
	<input type="radio"/>	3PLBR7L(S)24	<input checked="" type="radio"/>	3PLBR8L24	<input type="radio"/> Translucent Lens / White LED		<input type="radio"/> Transparent Lens / White LED			
110 AC	<input type="radio"/>	3PLBR1L(S)110AC	<input checked="" type="radio"/>	3PLBR3L110AC	<input checked="" type="radio"/>	3PLBR4L110AC	<input checked="" type="radio"/>	3PLBR5L110AC	<input checked="" type="radio"/>	3PLBR6L110AC
	<input type="radio"/>	3PLBR7L(S)110AC	<input checked="" type="radio"/>	3PLBR8L110AC	<input type="radio"/> Translucent Lens / White LED		<input type="radio"/> Transparent Lens / White LED			
110 DC	<input type="radio"/>	3PLBR1L(S)110DC	<input checked="" type="radio"/>	3PLBR3L110DC	<input checked="" type="radio"/>	3PLBR4L110DC	<input checked="" type="radio"/>	3PLBR5L110DC	<input checked="" type="radio"/>	3PLBR6L110DC
	<input type="radio"/>	3PLBR7L(S)110DC	<input checked="" type="radio"/>	3PLBR8L110DC	<input type="radio"/> Translucent Lens / White LED		<input type="radio"/> Transparent Lens / White LED			
240 AC	<input type="radio"/>	3PLBR1L(S)240AC	<input checked="" type="radio"/>	3PLBR3L240AC	<input checked="" type="radio"/>	3PLBR4L240AC	<input checked="" type="radio"/>	3PLBR5L240AC	<input checked="" type="radio"/>	3PLBR6L240AC
	<input type="radio"/>	3PLBR7L(S)240AC	<input checked="" type="radio"/>	3PLBR8L240AC	<input type="radio"/> Translucent Lens / White LED		<input type="radio"/> Transparent Lens / White LED			
220 DC	<input type="radio"/>	3PLBR1L(S)220DC	<input checked="" type="radio"/>	3PLBR3L220DC	<input checked="" type="radio"/>	3PLBR4L220DC	<input checked="" type="radio"/>	3PLBR5L220DC	<input checked="" type="radio"/>	3PLBR6L220DC
	<input type="radio"/>	3PLBR7L(S)220DC	<input checked="" type="radio"/>	3PLBR8L220DC	<input type="radio"/> Translucent Lens / White LED		<input type="radio"/> 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

UNIVERSAL VOLTAGE

VOLTAGE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
24-240 AC/DC	<input type="radio"/>	3PLBR1L(S)U	<input checked="" type="radio"/>	3PLBR3LU	<input checked="" type="radio"/>	3PLBR4LU	<input checked="" type="radio"/>	3PLBR5LU	<input checked="" type="radio"/>	3PLBR6LU
	<input type="radio"/>	3PLBR7L(S)U	<input checked="" type="radio"/>	3PLBR8LU	<input type="radio"/> Translucent Lens / White LED		<input type="radio"/> Transparent Lens / White LED			

DUAL COLOUR

VOLTAGE	COLOUR	ORDERING CODE
24 V AC/DC 48 V AC/DC 110 V AC 110 V DC 240 V AC 220 V DC	<input type="radio"/> Translucent Lens <input checked="" type="radio"/> Green LED <input checked="" type="radio"/> 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