

TEKNIC



Control & Signalling devices Ø 22.5 plastic construction
Modular Series



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Control and Signalling Devices Ø 22.5 "PLASTIC CONSTRUCTION ECONOMY" type 103 P Series

Salient Features

This range of Ø 22.5 103 P series 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 compact monoblock range can be easily combined with our well known Ø 22.5 modular Pilot Devices as they have the similar front of the board design

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


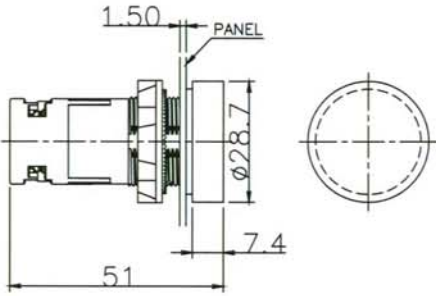
Rating		For AC: C300=120V, make current 15A & break current 1.5A (Thermal current = 2.5A) For DC: R300= 125V make or break current 0.22A, (Thermal current = 1.0A)
Type of contact		N/C or N/O or C/O Slow Break
Positive operation		All functions incorporating an NC contact have positive opening (IEC 60947-5-1)
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)


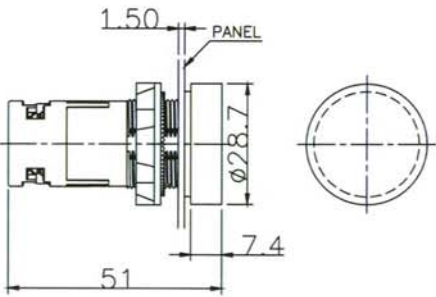
Current consumptions (applicable to all colours)	
24 VAC/DC, 110 VAC & 240 VAC	max. 20 mA
110 VDC	max. 10 mA
220 VDC	max. 10 mA
Service life (at nominal voltage & at ambient temperature of 25 °C)	50,000 hours
Voltage limits (nominal voltage)	< 20% of rated voltage >
Short circuit protection	on specific 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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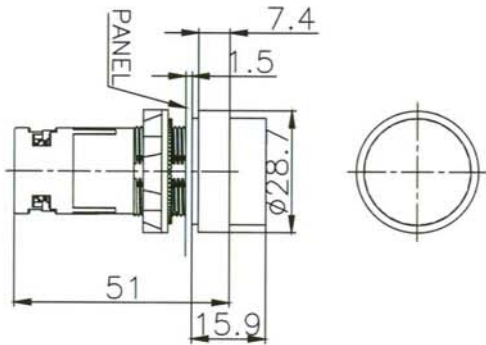
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Flush push button with 1 NO contact element		3PSF110		3PSF210		3PSF310		3PSF410		3PSF610		3PSF810
Flush push button with 1 NC contact element		3PSF101		3PSF201		3PSF301		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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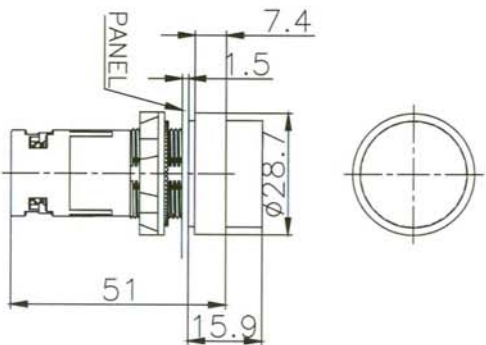
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Flush push-push push button with 1NO contact element		3PSFPP110		3PSFPP210		3PSFPP310		3PSFPP410		3PSFPP610		3PSFPP810
Flush push-push push button with 1NC contact element		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 
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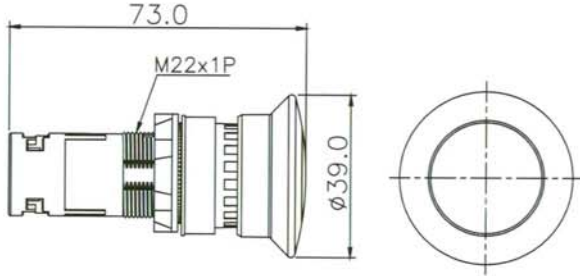
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Projecting push button with 1 NO contact element		3PSP110		3PSP210		3PSP310		3PSP410		3PSP610		3PSP810
Projecting push button with 1 NC contact element		3PSP101		3PSP201		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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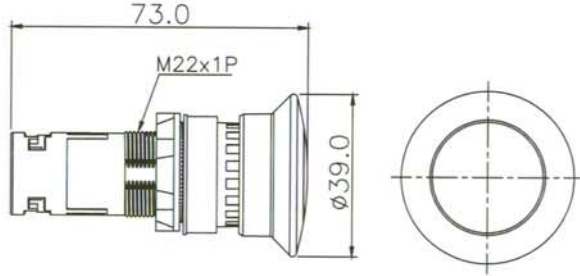
TYPE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE	COLOUR	ORDERING CODE
Projecting push button with 1 NO contact element		3PSPPP110		3PSPPP210		3PSPPP310		3PSPPP410		3PSPPP610		3PSPPP810
Projecting push button with 1 NC contact element		3PSPPP101		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

LATCHING MUSHROOM PUSH BUTTONS	ASSEMBLY DETAILS
	


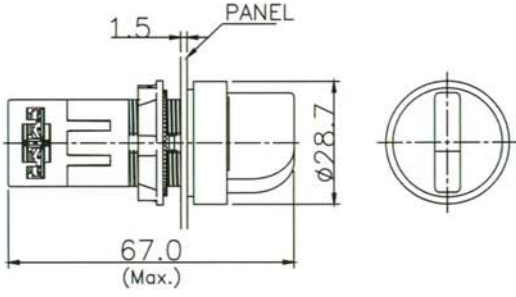
TYPE	COLOUR	ORDERING CODE
Mushroom Latching Ø 40mm with 1 NO contact element		3PSML410
Mushroom Latching Ø 40mm with 1 NC contact element		3PSML401
Mushroom Latching Ø 40mm with 1NO + 1 NC contact element		3PSML411
Mushroom Latching Ø 40mm with 2 NO contact element		3PSML420
Mushroom Latching Ø 40mm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

MOMENTARY MUSHROOM PUSH BUTTONS	ASSEMBLY DETAILS
	


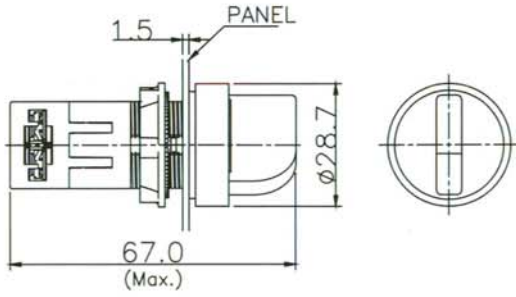
TYPE	COLOUR	ORDERING CODE
Mushroom Momentary Ø 40mm with 1 NO contact element		3PSM410
Mushroom Momentary Ø 40mm with 1 NC contact element		3PSM401
Mushroom Momentary Ø 40mm with 1 NO + 1 NC contact element		3PSM411
Mushroom Momentary Ø 40mm with 2 NO contact element		3PSM420
Mushroom Momentary Ø 40mm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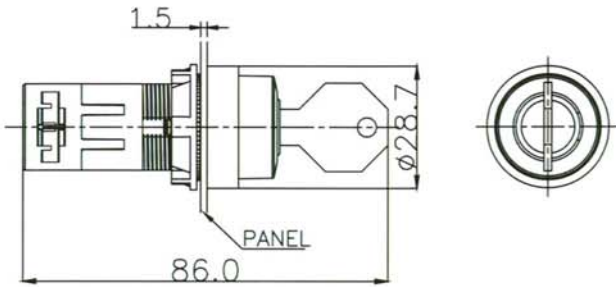
TYPE	COLOUR	ORDERING CODE
Selector push button, 2 position, with 1NO contact element	●	3PSS210-2P
Selector push button, 2 position, with 1NC contact element	●	3PSS201-2P
Selector push button, 2 position, with 1 NO + 1 NC contact element	●	3PSS211-2P
Selector push button, 2 position, with 2 NO contact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


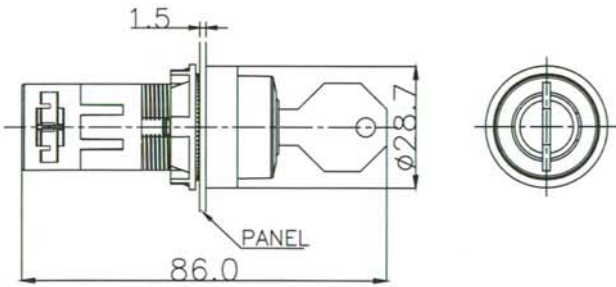
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22.5 Ø - PUSH BUTTONS WITH INTEGRATED CONTACTS

<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.

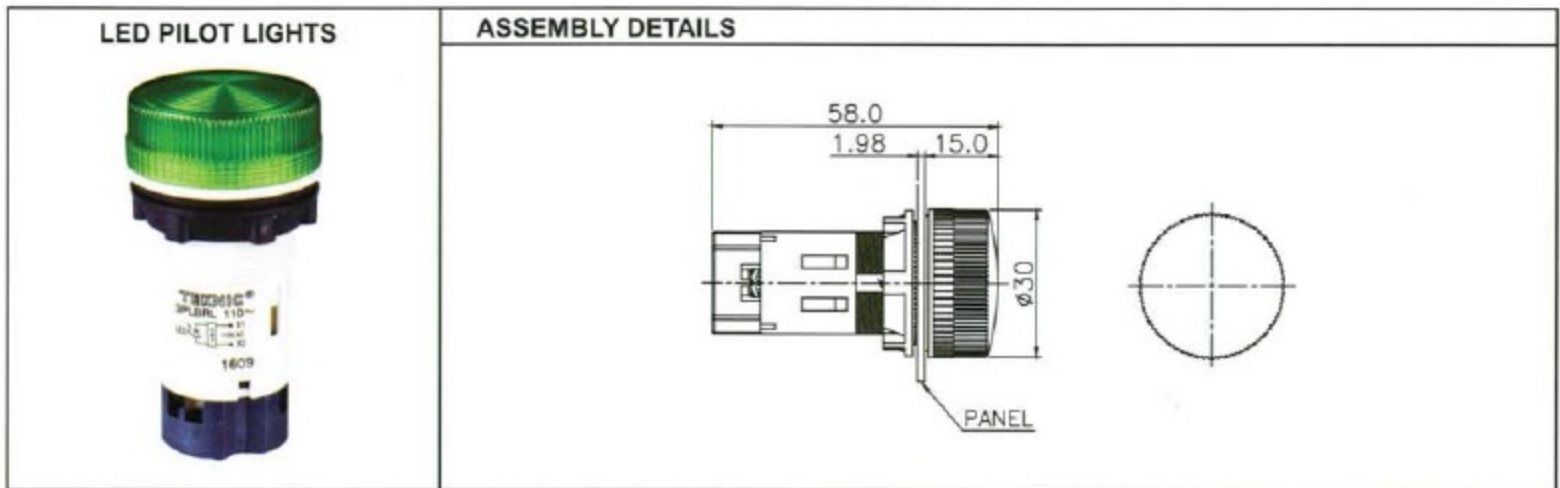
<p>KEY SELECTOR - 3 POSITION PUSH BUTTONS</p> 	<p>ASSEMBLY DETAILS</p> 
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TYPE	COLOUR	ORDERING CODE
Key selector push button 3 position, with 2 NO contact element	●	3PSK220-3PC
Key selector push button 3 position, with 2 NC contact element	●	3PSK202-3PC

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	<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