

#### **Modular Series Characteristics**

## General Control Stations & Enclosures

These are plastic series Control Stations available from 1way to 6way. They are in two forms:

- Complete
- For customer assembly

These control stations use plastic bezel pushbuttons, switches & pilot lights, which offers a wide choice of circular & square type of actuators.

The following can be assembled in these control stations:

- Actuators from series P2PS, non-illuminated, with contacts blocks from regular series S... or from clip-on series C... (Cover mounting & base mounting).
- 2. Head from series P2PL along with clip type lamp (LED)
- 3. Mono-block Pushbuttons from 3PS... series & pilot lights from 3PL... series

## Complete Stations Pre-assembled

	These are complete, ready to install, stations fitted with 1 to 3 buttons to cater			
for the most commonly encountered functions e.g.				
	1.0 Emergency Stop, with:			
	1 red, push to stop, turn to release, mushroom head pushbutton			
	Product Codes:			
	4008A10 1way modular station (ABS) with yellow cover & black			
	housing with P2PSML401 pushbutton 4009A10 1way modular station (PC) with yellow cover & black housing			
	4009A10 1way modular station (PC) with yellow cover & black housing with P2PSML401 pushbutton			
	2.0 Start or Stop, with:			
	1 flush spring return pushbutton,			
	1 red, push to stop, turn to release, mushroom head pushbutton			
	Product Codes:			
	4008C10 2way modular station (ABS) with yellow cover & black			
	housing P2PSF310 & P2PSML401pushbuttons			
<b>V-1-1</b>	4009C10 2way modular station (PC) with P2PSF310 & P2PSML401			
	pushbuttons			
	4010C10 2way modular station (ABS) with white cover & black housing			
	with P2PSF310 & P2PSML401 4011C10 2way modular station (PC) with white cover & black housing			
	4011C10 2way modular station (PC) with white cover & black housing with P2PSF310 & P2PSML401			
	4012C10 2way modular station (ABS) with grey cover & housing with			
	P2PSF310 & P2PSML401			
	3.0 Start or Stop, with:			
	2 flush spring return pushbutton,			
	<ul> <li>1 red, push to stop, turn to release, mushroom head pushbutton</li> </ul>			
	Product Codes:			
	4008E10 3way modular (ABS) station with yellow cover & black			
	housing with P2PSF310, P2PSF401 &			
	P2PSML401 pushbuttons 4009E10 3way modular (PC) station with yellow cover & black hosuing			
<u></u>	with P2PSF310, P2PSF401 & P2PSML401 pushbuttons			
	4010E10 3way modular (ABS) station with white cover & black housing			
	with P2PSF310, P2PSF401 & P2PSML401			
	4011E10 3way modular (PC) station with white cover & black housing			
	with P2PSF310, P2PSF401 & P2PSML401			
	4012E10 3way modular (ABS) station with grey cover & black housing			

# Stations for customer assembly

## To be assembled by Customer

These stations are for assembly by the user & offer a choice of 2 assembly methods:

with P2PSF310, P2PSF401 & P2PSML401

### Base Mounting Method

The electrical blocks are mounted on a metal mounting plate in the housing of the enclosure.

### • Cover Mounting Method

The electrical blocks are mounted directly beneath the heads using a body/fixing collar.



### **Modular Series Characteristics**

It is possible to assemble stations with 1 to 6 heads, each of which can be combined with:

- 3 electrical blocks (contact or light) of Clip-on type
- 2 electrical blocks (contact) of S series

The actuator head offers a wide choice of head types such as:

- Spring return (marked or unmarked)
- Spring return twin headed
- Spring return, mushroom head
- Latching mushroom head
- Selector with standard or long handle & key switches

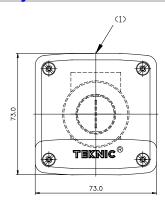
#### **Accessories For Actuators** Legend plate can be made available as per requirement.

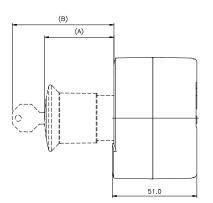
Environment			
Ambient air temperature	: -25 to +70°C (storage /operation)		
Degree of Protection	: Applied for IP65 as per IEC/EN 60947-1		
Conformity to standards	: Applied for testing as per UL 50, UL508 & CAN/CSA C22.2 No. 14-05		
Material & colors	: ABS LIGHT GREY RAL 7035 COVER & HOUSING		
	ABS YELLOW COVER & BLACK HOUSING		
	ABS WHITE COVER & BLACK HOUSING		
	POLYCARBONATE YELLOW COVER & BLACK HOUSING		
	POLYCARBONATE WHITE COVER & BLACK HOUSING		
Cable entries	: Knock out entries for cable gland PG13.5 & ISO 20		

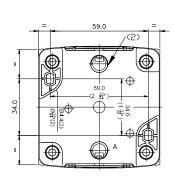
### **Dimensions**

Note: All dimensions are in mm unless otherwise stated

### 1way







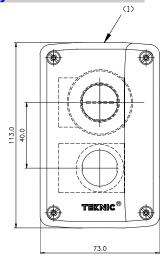
Following variations are available in 1way empty enclosure

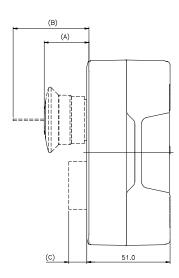
Sr. No.	Color of cover	Color of housing	Product code	Remarks
1	White	Black	4003A11	PC
2	Yellow	Black	4004A10	PC
3	White	Black	4005A11	ABS
4	Yellow	Black	4006A10	ABS
5	Grey	Grey	4007A17	ABS

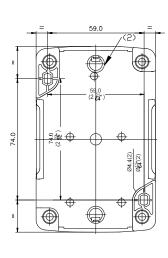
- 2 Nos of knockout for PG13.5 cable gland, maximum capacity 12mm  $\,$
- (1) (2) (A)
  - 2 Nos Knockout for cable entry, max capacity 10mm
    51mm (max) for non-illuminated, latching, mushroom head Emergency Stop pushbutton
    48mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key removed)
- (B) 72mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key inserted)

## **Dimensions (Contd.)**

#### 2way



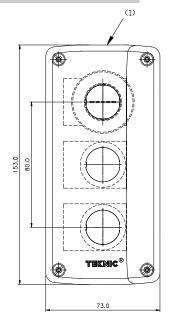


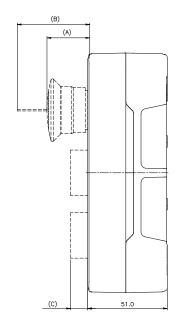


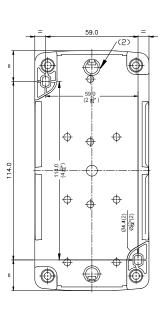
Following variations are available in 2way empty enclosure

Sr. No.	Color of cover	Color of housing	Product code	Remarks
1	White	Black	4003C11	PC
2	Yellow	Black	4004C10	PC
3	White	Black	4005C11	ABS
4	Yellow	Black	4006C10	ABS
5	Grey	Grey	4007C17	ABS

## 3way







- (1) (2) (A) 2 Nos of knockout for PG13.5 cable gland, maximum capacity 12mm
- 2 Nos of Knockout for cable entry, max capacity 10mm
- 51mm (max) for non-illuminated, latching, mushroom head Emergency Stop pushbutton
  48mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key removed)
  72mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key inserted) (B)



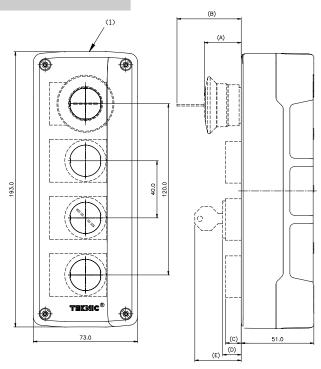
#### **Modular Series Characteristics**

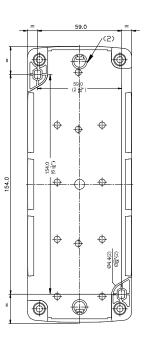
## **Dimensions (Contd.)**

Following variations are available in 3way empty enclosure

Sr. No.	Color of cover	Color of housing	Product code	Remarks
1	White	Black	4003E11	PC
2	Yellow	Black	4004E10	PC
3	White	Black	4005E11	ABS
4	Yellow	Black	4006E10	ABS
5	Grey	Grey	4007E17	ABS







#### Following variations are available in 4way empty enclosure

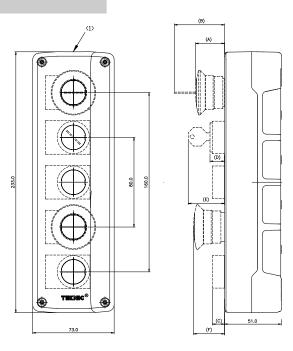
Sr. No.	Color of cover	Color of housing	Product code	Remarks
1	White	Black	4003G11	PC
2	Yellow	Black	4004G10	PC
3	White	Black	4005G11	ABS
4	Yellow	Black	4006G10	ABS
5	Grey	Grey	4007G17	ABS

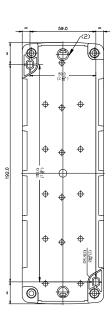
- 2 Nos of knockout for PG13.5 cable gland, maximum capacity 12mm (1)
- (2) (A) 2 Nos of Knockout for cable entry, max capacity 10mm
- 51mm (max) for non-illuminated, latching, mushroom head Emergency Stop pushbutton
- 48mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key removed)
- 72mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key inserted)
  15mm (max) for Pilot light (Model 4PL...)
  27mm (max) for illuminated rotary pushbuttons (Model P4PSSL...)
  19mm (max) for illuminated flush/projecting pushbuttons (Model P4PSFL.../P4PSPL...)
- (B) (C)

  - 15mm (max) for illuminated twin headed pushbutton (Model P4PST...)
  - 25mm (max) for non-illuminated rotary selector pushbutton (Model P4PSS...) 15mm (max) for non-illuminated twin headed pushbutton (Model P4PST...)
  - 12mm (max) for non-illuminated flush pushbutton (Model P4PSF...)
  - 20mm (max) for non-illuminated projecting pushbutton (Model P4PSP...)
    21mm (max) for non-illuminated Key selector (in key removed position) (Model P4PSK...)
- (D) (E) (F) 45mm (max) for non-illuminated Key selector (in key inserted position) (Model P4PSK...)
- 30mm (max) for mono-block, non-illuminated, mushroom head, latching type (Model 3PSM...)
  - 25mm (max) for mono-block, non-illuminated selector, standard handle (Model 3PSS...)
  - 15mm (max) for mono-block, non-illuminated, flush pushbutton (Model 3PSF...)
  - 15mm (max) for mono-block, pilot light (Model 3PL...)

### **Dimensions (Contd.)**

### 5wav





Following variations are available in 5way empty enclosure

Sr. No.	Color of cover	Color of housing	Product code	Remarks
1	White	Black	4003S11	PC
2	Yellow	Black	4004S10	PC
3	White	Black	4005S11	ABS
4	Yellow	Black	4006S10	ABS
5	Grey	Grey	4007S17	ABS

- 2Nos of knockout for PG13.5 cable gland, maximum capacity 12mm
  2Nos. of Knockout for cable entry, max capacity 10mm
  51mm (max) for non-illuminated, latching, mushroom head Emergency Stop pushbutton 48mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key removed)
- 72mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key inserted)
- 15mm (max) for Pilot light (Model 4PL...)

  - 27mm (max) for illuminated rotary pushbuttons (Model P4PSSL...)

    19mm (max) for illuminated flush/projecting pushbuttons (Model P4PSFL.../P4PSPL...)

    15mm (max) for illuminated twin headed pushbutton (Model P4PST...)

    25mm (max) for non-illuminated rotary selector pushbutton (Model P4PSS...)

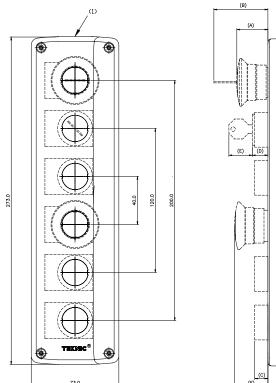
    15mm (max) for non-illuminated twin headed pushbutton (Model P4PSS...)

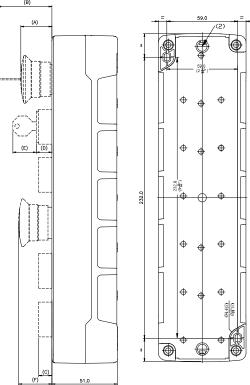
  - 12mm (max) for non-illuminated flush pushbutton (Model P4PSF...)
- 20mm (max) for non-illuminated projecting pushbutton (Model P4PSP. 21mm (max) for non-illuminated Key selector (in key removed position) (Model P4PSK...)
- (D) (E) (F)
  - 45mm (max) for non-illuminated Key selector (in key inserted position) (Model P4PSK...)
    30mm (max) for mono-block, non-illuminated, mushroom head, latching type (Model 3PSM...)
    25mm (max) for mono-block, non-illuminated selector, standard handle (Model 3PSS...)
    15mm (max) for mono-block, non-illuminated, flush pushbutton (Model 3PSF...)

    - 15mm (max) for mono-block, pilot light (Model 3PL...)

### **Dimensions (Contd.)**

### 6wav





Following variations are available in 6way empty enclosure

Sr. No.	Color of cover	Color of housing	Product code	Remarks
1	White	Black	4003I11	PC
2	Yellow	Black	4004110	PC
3	White	Black	4005 11	ABS
4	Yellow	Black	4006110	ABS
5	Grey	Grey	4007117	ABS

### **Special purpose stations**

For special purpose stations, kindly contact TEKNIC

Sr. No.	Color of cover	Color of housing	Product code	Remarks
1	Yellow	Black	4008I10	ABS
				(Elevator function)

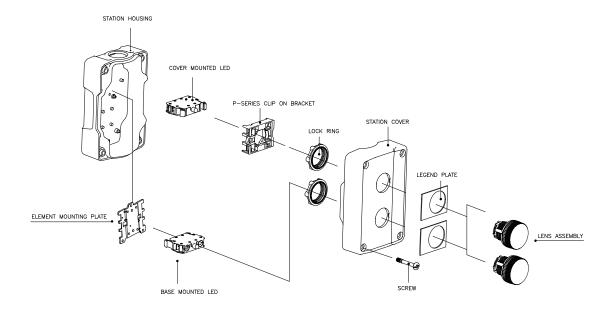
- 2 Nos of knockout for PG13.5 cable gland, maximum capacity 12mm

- 2 Nos. of Knockout for cable entry, max capacity 10mm
  51mm (max) for non-illuminated, latching, mushroom head Emergency Stop pushbutton
  48mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key removed)
  72mm (max) for non-illuminated, latching, mushroom head, key operated, Emergency Stop pushbutton (with key inserted) (B)
- 15mm (max) for Pilot light (Model 4PL...)
  - 27mm (max) for illuminated rotary pushbuttons (Model P4PSSL...)
  - 19mm (max) for illuminated flush/projecting pushbuttons (Model P4PSFL.../P4PSPL...)

  - 15mm (max) for illuminated twin headed pushbutton (Model P4PST...)
    25mm (max) for non-illuminated rotary selector pushbutton (Model P4PSS...)
    15mm (max) for non-illuminated twin headed pushbutton (Model P4PST...)

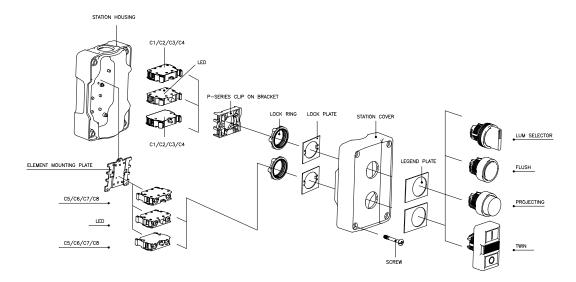
  - 12mm (max) for non-illuminated flush pushbutton (Model P4PSF...)
    20mm (max) for non-illuminated projecting pushbutton (Model P4PSF...)
- 21mm (max) for non-illuminated Key selector (in key removed position) (Model P4PSK...)
- 45mm (max) for non-illuminated Key selector (in key inserted position) (Model P4PSK...)
- 30mm (max) for mono-block, non-illuminated, mushroom head, latching type (Model 3PSM...)
  - 25mm (max) for mono-block, non-illuminated selector, standard handle (Model 3PSS...)
    15mm (max) for mono-block, non-illuminated, flush pushbutton (Model 3PSF...)
    15mm (max) for mono-block, pilot light (Model 3PL...)

## Assembly with Clip-on Pilot lights (Model 4PL..)



Note: For ordering our 4PL... series pilot light, please refer our attached Specification Sheet for Clip-on LED Pilot light

## **Assembly with Illuminated Actuators Model P4PS... (with Clip on elements)**

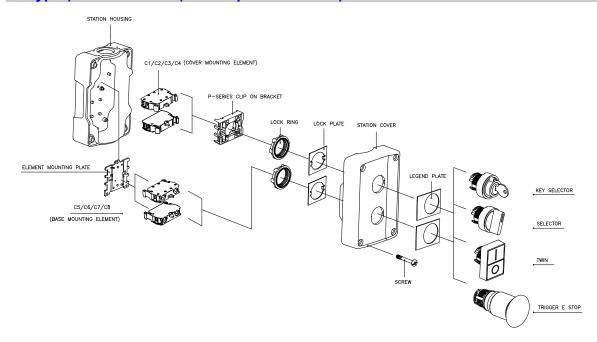


Note: For ordering our P4PS... pushbuttons, please refer our attached Specification Sheet for P4PS... series pushbutton



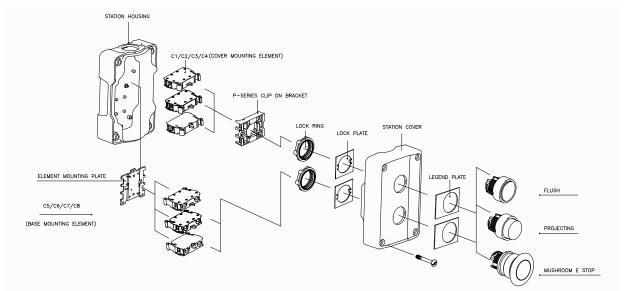
### **Modular Series Characteristics**

# Assembly with Non-Illuminated Actuators (Rotary, Twin headed & Mushroom Stayput) Model P4PS...(with Clip-on elements)



Note: For ordering our P4PS... pushbuttons, please refer our attached Specification Sheet for P4PS... series pushbutton

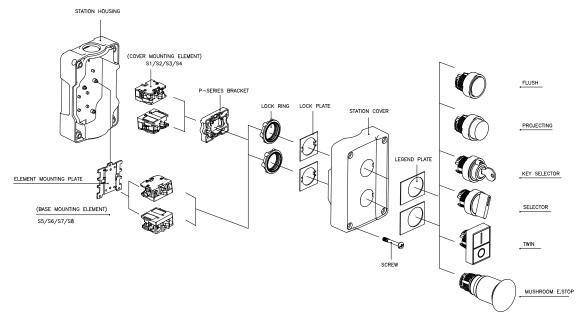
# Assembly with Non-Illuminated Actuators (Spring Return) Model P4PS...(with Clip-on elements)



Note: For ordering our P4PS... pushbuttons, please refer our attached Specification Sheet for P4PS... series pushbutton

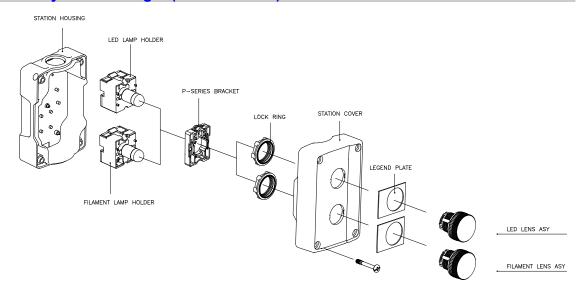
## **Modular Series Characteristics**

# Assembly with Non-Illuminated Actuators (Spring return, Rotary, Twin headed & Mushroom Stayput) Model P2PS...with S... series contact elements



Note: For ordering our P2PS... pushbuttons, P2PL...pilot lights & P2AF...actuators, please refer our Plastic series Control & Signaling Devices Catalogue.

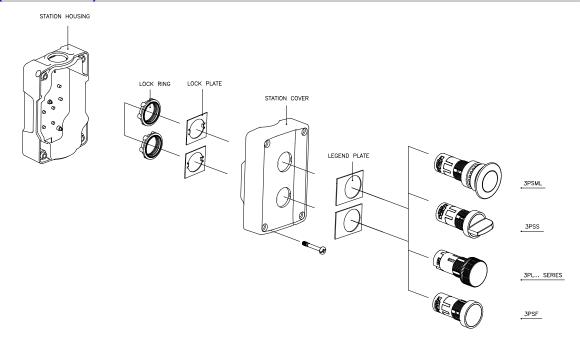
## Assembly with Pilot light (P2PL... series)



Note: For ordering our P2PS... pushbuttons, P2PL...pilot lights & P2AF...actuators, please refer our Plastic series Control & Signaling Devices Catalogue.

## **Modular Series Characteristics**

# Assembly with 103 series Mono-block pushbutton (Model 3PS...) & Pilot Light (Model 3PL...)



Note: For ordering our Mono-block pushbuttons (Model 3PS...) & Pilot lights (Model 3PL...), please refer attached specification sheet for 3PS... series pushbuttons & specification sheet for 3PL... series pilot light



## **Modular Series Characteristics**

<b>Contact Function C</b>	Contact Function Characteristics				
		S series contact elements	C-series Clip-on elements		
Rated operational characteristics (conforming to IEC/EN 60947-5-1)		AC15: 415VAC, 4A DC13: 0.5A, 110VDC As per CSA C22.2 no. 14-05, UL 508: A600, Q600			
Rated impulse withstand voltage		5	00V		
Electrical rating	For 1 million operation cycles, operation at 3600 cycles per hour, load factor 0.5	AC15 V 24 120 230 A 4 3 2 DC13 V 24 110 A 0.5 0.2	Under Test		
Mechanical durability	(In million of operating cycles)		1		
Contact operation	NC or NO	Slow	v break		
Positive operation	Conforming to IEC/EN 60947-5-1 Appendix K	All functions incorporating a opening operation	a NC contact are positive		
Terminal capacity	Conforming to IEC/EN 60947-1	Screw clamp terminals Min. 1X0.5mm <sup>2</sup> Max. 2X1.5mm <sup>2</sup> or 1X2.5mm <sup>2</sup> Tightening torque: 1Nm max			
Contact material		Silver Nickel (Ag-Ni)			
Nominal thermal current`	Conforming to IEC/EN 60947-5-1	10A			
Short circuit protection	-do-	10A cartridge fuse HRC type, rated for resistive loading			
Rated insulation voltage	-do-	5	V00		

<b>Pushbutton Characteristic</b>	,	
Mechanical durability (in million of operating cycles)	Spring return pushbutton	1
	Non illuminated selector switch	1
	Illuminated selector switch	0.1
	Emergency stop pushbutton	0.1
Vibration resistance	Conforming to IEC 60068-2-6	All functions (except mushroom & selectors): 15g acceleration; frequency 40-500Hz. <u>For Mushroom:</u> 8g acceleration; frequency 40-500Hz <u>For Selectors:</u> 15g acceleration; frequency 40-500Hz
Shock resistance	Conforming to IEC 60068-2-27	All functions (except mushroom & selectors): 3 shocks at 70g acceleration & 6ms; total 18 shocks.  For mushroom: 3 shocks at 15g acceleration & 11ms; total 18 shocks.  For selectors: 3 shocks at 200g acceleration; frequency 40-500Hz)



## **Modular Series Characteristics**

# **SPECIFICATION SHEET FOR 3PS... SERIES PUSHBUTTONS**

<b>Mechanical Durat</b>	oility		
Push Button	Spring Return	Million Operations	1
	Selector		1
	Latching Type		0.02

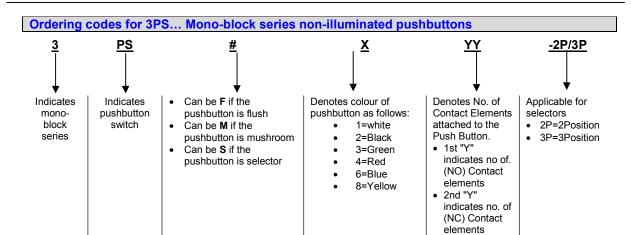
Standards & Conditions	
Applicable Standard	UL508
	IEC 60947-5-1
	CSA 22.2
Degree Of Protection	IP65 (as per IEC 60947-5-1)
Operating Conditions	+70° to –25°C
Mounting	Confirming to IEC 60947-5-1
	Finished fixing hole :22.5mm recommended (22.3+0.4/0)
	Fixing Centers: 30*40 mm Min.
	(Unless otherwise indicated)
	Mounting Panel thickness:1 to 6 mm

<b>Electrical Characteristics</b>		
Rating		
		For AC:
		<u>C300</u> = 120V, make current 15A & break current 1.5A (Thermal current=2.5A) & For DC: <u>R300</u> = 125V, make or break current 0.22A (Thermal current=1.0A)
Type of contact		(11311131131131131131)
3.		N/C or N/O or C/O Slow Break
Positive operation		
		All functions incorporating an N/C contact have positive opening
Terminal Capacity	Cabling	2 X 1.5mm <sup>2</sup> 1 X 0.5mm <sup>2</sup> (min) 1 X 2.5mm <sup>2</sup> (max)
Screw Clamp tightening torque		0.8 N.m to 1Nm (max) Screw head compatible with Posidrive or Phillips screw driver.
Short Circuit Protection		4A (gG cartridge fuse)
Rated Thermal Current		4A
Rated insulation Voltage		Ui = 250V (Degree of pollution 3)
Rated impulse withstand voltage		Uimp = 6kV
Dielectric Test		2.5KV
Rated insulation Resistance		$500$ Μ $\Omega$

# TEKNIC

### **Ø22.5 Control stations & Enclosures**

### **Modular Series Characteristics**

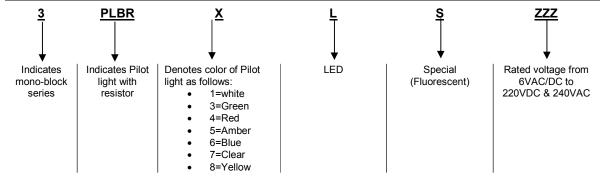


## **SPECIFICATION SHEET FOR 3PL... SERIES PILOT LIGHTS**

Mechanical Characteristics	
Applicable	UL508
Standard	IS13947-5-1
	CSA 22.2
Degree Of Protection	IP65 (as per IS 13947), 4X, 12 as per UL50
Operating Conditions	+70° to -25°C
Corrosion protection	All metallic parts are electroplated for corrosion
	protection
Terminal Torque	0.8Nm to 1Nm (max)
Viewing Angle	More than 100°
Optical Axial intensity	More than 100mcd for all colors

<b>Electrical Characteristics</b>	
Rating	Rated 6V AC/DC to 240V AC and 220V DC, 2W max.
	(Integral LEDs)
Terminal Capacity	Cabling
	2 X 1.5mm <sup>2</sup>
	1 X 0.5mm <sup>2</sup> (min)
	1 X 2.5mm² (max)
Dielectric Test	2.5KV
Rated insulation Resistance	500MΩ at 1000VDC
Polarity protection	Polarity protection is only in case of DC supply lamps
Low voltage protection	20V for 110V AC & 110V DC
	40V for 240V AC & 220V DC
	(i.e. approx. 20% of Rated Voltage)
Current Consumption	Max. 20mA for AC circuits
	Max. 15mA for DC circuits

## Ordering codes for 3PL... Mono-block series Pilot Lights





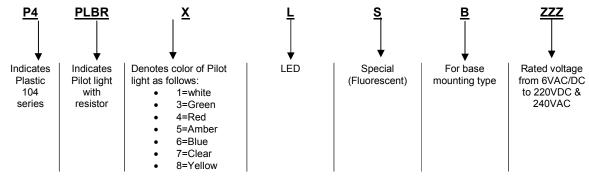
## **Modular Series Characteristics**

## SPECIFICATION SHEET CLIP-ON SERIES PILOT LIGHTS (Model 4PL...)

Mechanical Characteristics	
Conformity to standards	Applied for testing as per
	UL508, IS13947-5-1& CSA 22.2
Degree Of Protection	Applied for IP65 (as per IS 13947), 4X, 12 as per UL50
Operating Conditions	+70° to -25°C
Corrosion protection	All metallic parts are electroplated for corrosion
	protection
Terminal Torque	0.8Nm to 1Nm (max)
Viewing Angle	More than 100°
Optical Axial intensity	More than 100mcd for all colors

<b>Electrical Characteristics</b>	
Rating	Rated 110VAC & 240VAC
Terminal Capacity	Cabling 2 X 1.5mm <sup>2</sup>
	1 X 0.5mm <sup>2</sup> (min)
	1 X 2.5mm <sup>2</sup> (max)
Dielectric Test	2.5KV
Rated insulation Resistance	500MΩ at 1000VDC
Polarity protection	Polarity protection is only in case of DC supply lamps
Low voltage protection	20V for 110V AC
	40V for 240V AC
	(i.e. approx. 20% of Rated Voltage)
Current Consumption	Max. 20mA for AC circuits

## Ordering codes for 4PL... series LED Pilot Lights



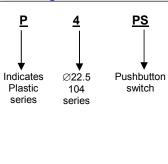
### **Modular Series Characteristics**

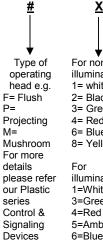
## **SPECIFICATION SHEET P4PS...SERIES PUSHBUTTONS**

### **General**

P4PS...series pushbuttons consists of actuator heads (illuminated/non-illuminated) from the P2PS... series & contact blocks. Contact block may be from S... series or from C... series (clip-on type)

## Ordering codes for P4PS... series pushbuttons





Catalogue



elements

