

Control & Signalling Units ϕ 22.5mm Metal

Pilot Light Heads & Bodies



PB-BV04



PB-BV6■



PB-BVN6



PB-BVL7



PB-B7-IVL-73

Pilot Light Heads

Description	Colour	Reference
For Incandescent Bulbs	○ White	PB-BV01
	● Green	PB-BV03
	● Red	PB-BV04
	● Amber	PB-BV05
	● Blue	PB-BV06
	○ Clear	PB-BV07
	High Contrast, for use With Neon Bulbs** or LEDs	○ White
● Green		PB-BVL03
● Red		PB-BVL04
● Amber		PB-BVL05
● Blue		PB-BVL06
○ Clear		PB-BVL07
● Yellow		PB-BVL08

Complete Pilot Light Bodies

Description	Supply voltage	Colour	Reference
Direct BA 9s Filament Bulb* Supplied	12V / 24V / 48V / 110V / 130V (AC)(DC)○	-	PB-BV6■
Through Resistor BA 9s, 130V Filament Bulb Supplied	240V (AC)(DC)	-	PB-BV7
Through Resistor & Diode BA 9s, 130V Filament Bulb Supplied	240V (AC)	-	PB-BVD7
Via Integral Transformer 1.2VA BA 9s, 6V Filament Bulb Supplied	110V / 6V (AC)	-	PB-BV3
	220V-240V / 6V (AC)	-	PB-BV4
Direct BA 9s, Neon Bulb Supplied	220V / 380V / 415V (AC)(DC)	● Green	PB-BVN63■
		● Red	PB-BVN64■
		● Amber	PB-BVN65■
Integral Circuit & Cluster LED	12V, 24V, 48V (AC)(DC) 110VAC, 110VDC 220V (DC) 240V (AC)	○ White	PB-BVL71■
		● Green	PB-BVL73■
		● Red	PB-BVL74■
		● Amber	PB-BVL75■
		● Blue	PB-BVL76■
		○ Clear	PB-BVL77■
		● Yellow	PB-BVL78■

Integrated LED Pilot Lamps (Barrel Type LEDs) ❖

Description	Supply voltage	Colour	Reference
Integrated LED Pilot Lamps	12V, 24V, 48V (AC)(DC) 110VAC 110VDC 220VDC 240VAC	○ White	PB-B7IVL71
		● Green	PB-B7IVL73
		● Red	PB-B7IVL74
		● Amber	PB-B7IVL75
		● Blue	PB-B7IVL76
		○ Clear	PB-B7IVL77
		● Yellow	PB-B7IVL78

- ○ Body assemblies (suitable for bulb 2.6W max.) upto 230V max. available without bulb
- * Bulb rating 12V to 130V, 2.6W (max.)
- ** For Neon bulbs, only Green, Red & Amber is available.
- ■ Please mention voltage while ordering
- For accessories refer page C-9 & C-10
- For legend plates refer page C-10
- ❖UL approved

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Product Characteristics

General Characteristics	
Products	Push Buttons, Selector Switches, Key Selector Switches, Latching Mushroom Head Push Buttons, Pilot Lights & illuminated Push Buttons
Reference Standard	IEC 60947-5-1, EN 60947-5-1, IEC 337-1, UL 508, CSA C-22-2 n° 14
Approval	UL, cUL, CSA, CE
Protection Degree	IP 65 / IP 66 according to IEC 60947-1;
Pollution Degree	3
Temperature	-40°C ~ + 70°C (Storage) -25°C ~ + 70°C (Working)
Vibration Resistance	→60mm Mushroom Head Push Buttons: 8g, Other Push Buttons & Pilot Lights: 15g (40Hz<frequency<500 Hz) conforming to IEC 68-2-6
Shock Resistance	Push Buttons : 70g, Mushroom Head Push Buttons: 15g, Selector Switches : 200g conforming to IEC 68-2-27
Working Position	All working positions are allowed
Mechanical Life	Push Buttons & Selector Switches 1 million operations, Latching Emergency Mushroom Push Buttons 300,000 operations

Contact Elements Characteristics	
Rated Thermal Current I_{th}	10A
Rated Insulation Voltage U_i	500V conforming to IEC 60947-1, UL 508 & CSA 22-2 n° 14
Insulation Category	Group C conforming to NF C 20-040, VDE 0110
Operating Force	Push Buttons – 1 'NO' = 10N, 1 'NC' = 8N Additional contacts – 'NO' = +5N, 'NC' = +3N
Dielectric Strength	2.5KV for 1 minute
Insulation Resistance	2M Ohm min (500 VDC)
Initial Contact Resistance	≤ 25 milli Ohm
Short Circuits Protection	10A 500V, Cartridge Fuse g1 or N conforming to IEC 337-1
Cabling/Terminal Capacity	1x0.5mm ²2x1.5mm ²
Contact Operation	Slow action, Positive Opening
Rated Power	Conforming to IEC 60947-5-1; utilization categories AC 15 & DC 13

DC Supply

Power broken in W
 For 1 million operations

Voltage	24V	48V	120V
Inductive Load	65W	48W	40W

AC Ratings, Inductive – NEMA A600

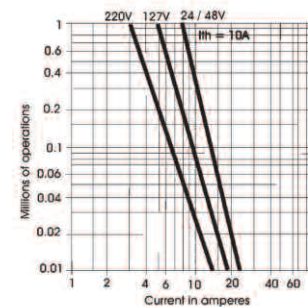
35% Power Factor

Volts	Make Amperes	VA	Break Amperes	VA	Continuous carrying Amperes	Resistive 75% Power factor Make, Break & continuous Amperes
120	60	7200	6	720	10	10
240	30	7200	3	720	10	10
480	15	7200	1.5	720	10	10
600	12	7200	1.2	720	10	10

Standard Contact Blocks

AC Supply (50/60Hz)

Inductive



DC Ratings, NEMA Type Q600

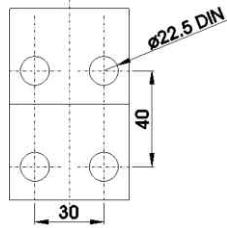
Inductive and resistive

Volts	Make & Break (Amp.)	Continuous (Amp.)
125	0.55	2.5
250	0.27	2.5
600	0.10	2.5

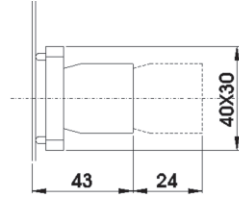


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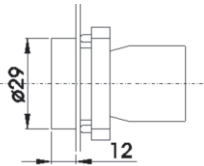
Dimensions / Complete Units' Reference



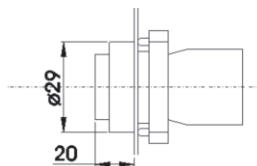
PANEL CUT-OUT
(Thickness: 6mm max.)



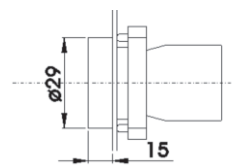
PB-BE10 \diamond +PB-B



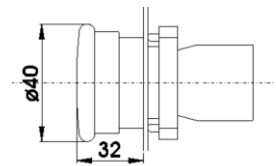
PB-BA \bullet +PB-BZ10 \diamond
PB-BA334+PB-BZ10 \diamond



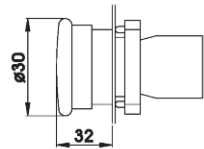
PB-BL \bullet +PB-BZ10 \diamond



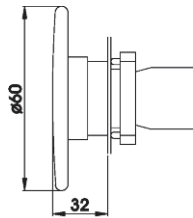
PB-BP \bullet +PB-BZ10 \diamond
PB-BA \bullet 8+PB-BZ10 \diamond



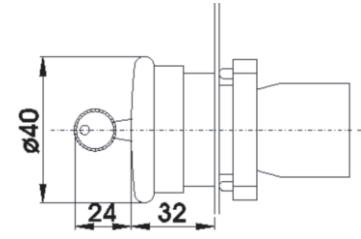
PB-BC \bullet +PB-BZ10 \diamond
PB-BS54+PB-BZ10 \diamond
PB-BT4+PB-BZ10 \diamond



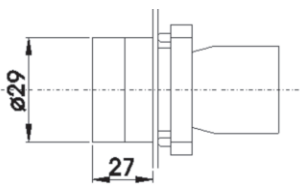
PB-BS44+PB-BZ10 \diamond



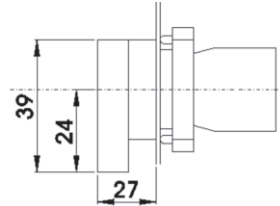
PB-BR4+PB-BZ10 \diamond
PB-BS64+PB-BZ10 \diamond



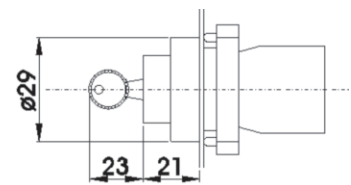
PB-BS14+PB-BZ10 \diamond



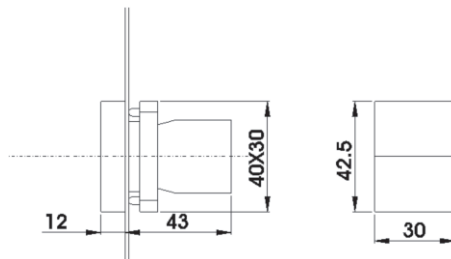
PB-BD2+PB-BZ10 \diamond
PB-BD3+PB-BZ10 \diamond



PB-BJ2+PB-BZ10 \diamond
PB-BJ3+PB-BZ10 \diamond



PB-BG \blacklozenge +PB-BZ10 \diamond
(Replace \blacklozenge with code for position of Key removal & operation pattern)



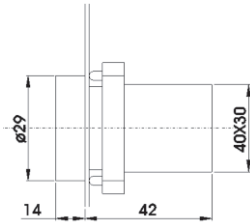
PB-BA87+PB-BZ10 \diamond

- Replace \diamond with codes for type of contacts (See page C-4) & \bullet with colour codes (See page C-4 & C-5)
- For non-illuminated push button heads, selector switches & key switches, refer page C-4 & C-5

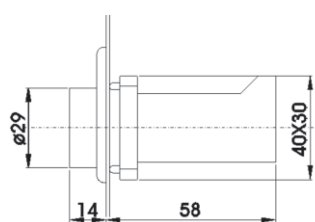


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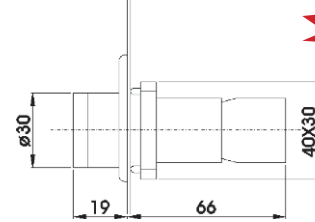
Dimensions / Complete Units' Reference



PB-BV0●+PB-BV6
 PB-BV0●+PB-BVN6
 PB-BV0●+PB-BV7
 PB-BV0●+PB-BVD7
 PB-BVL0●+PB-BVL7●

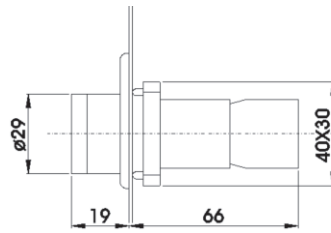


PB-BV0●+PB-BV3
 PB-BV0●+PB-BV4

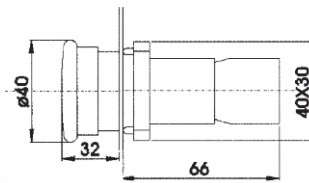


PB-BW5●+PB-BW06+PB-BE10❖
 PB-BW5●+PB-BW07+PB-BE10❖
 PB-BW5●+PB-BWD07+PB-BE10❖
 PB-BW5●+PB-BW06+PB-BE10❖

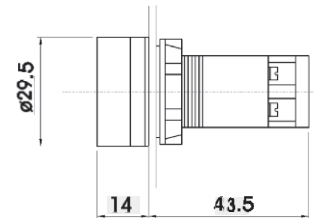
C



PB-BW3●+PB-BW06+PB-BE10❖
 PB-BW3●+PB-BW07+PB-BE10❖
 PB-BW3●+PB-BWD07+PB-BE10❖
 PB-BWL3●+PB-BWN06●+PB-BE10❖
 PB-BWL3●+PB-BWL7●+PB-BE10❖



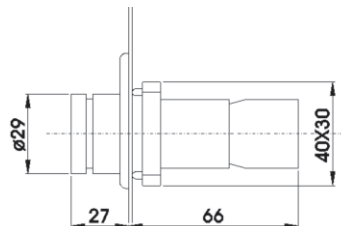
PB-BW4●+PB-BW06+PB-BE10❖
 PB-BW4●+PB-BW07+PB-BE10❖
 PB-BW4●+PB-BWD07+PB-BE10❖
 PB-BW4●+PB-BWN06●+PB-BE10❖
 PB-BW4●+PB-BWL7●+PB-BE10❖



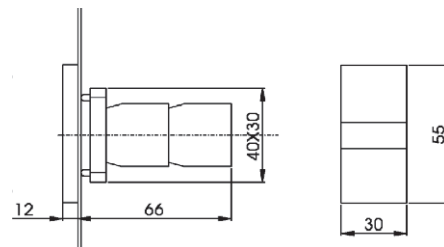
PB-B7-IVL-7●

PB-BW1●+PB-BW06+PB-BE10❖
 PB-BW1●+PB-BW07+PB-BE10❖
 PB-BW1●+PB-BWD07+PB-BE10❖
 PB-BWL1●+PB-BWN06●+PB-BE10❖
 PB-BWL1●+PB-BWL7●+PB-BE10❖

PB-BW6●+PB-BW06+PB-BE10❖
 PB-BW6●+PB-BW07+PB-BE10❖
 PB-BW6●+PB-BWD07+PB-BE10❖
 PB-BW6●+PB-BWN06●+PB-BE10❖
 PB-BW6●+PB-BWL7●+PB-BE10❖



PB-BK12●+PB-BW06+PB-BE10❖
 PB-BK12●+PB-BW07+PB-BE10❖
 PB-BK12●+PB-BWD07+PB-BE10❖
 PB-BK13●+PB-BW06+PB-BE10❖
 PB-BK13●+PB-BW07+PB-BE10❖
 PB-BK13●+PB-BWD07+PB-BE10❖



PB-BW9+PB-BW06+PB-BE10❖
 PB-BW9+PB-BW07+PB-BE10❖
 PB-BW9+PB-BWD07+PB-BE10❖
 PB-BW9+PB-BWN065+PB-BE10❖
 PB-BW9+PB-BWL75+PB-BE10❖

- Replace '❖' with codes for type of contacts (See page C-XX) & '●' with colour codes (see page C-4 & C-5)
- For illuminated push button heads, illuminated selector switches, refer page C-5
- For pilot lamp head, refer page C-8 & for double headed push button with pilot lamp, refer page C-6