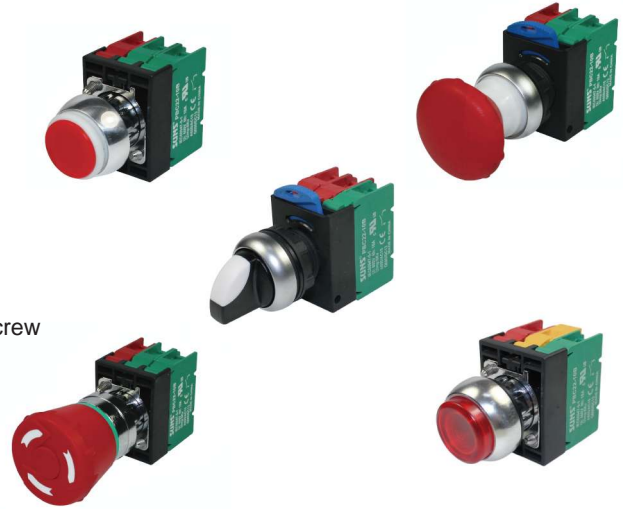


## PB(M)22 Series Push Buttons & Operator Interface

### Features

- Available in die cast chrome plated and double insulated head
- Wide variety of operators available
- Easy installation of snap-on contact blocks
- Double break, slow action, self-clean contacts
- Positive opening of normal close contact
- Double insulated version can be used in corrosive environment
- Finger safe contact block
- Contact blocks are securely fastened to the connecting block by screw
- UL, cUL Listed (UL file number E216958)



### Characteristics

Nominal thermal current	10 A conforming to IEC 60947-5-1, NF C 63-140, UL 508, CSA 22-2 No. 14, VDE 0660 part 2, NEMA / UL Type A600-Q600.
Nominal insulation voltage	500 V conforming to NF C 20-040, VDE 0110, IEC 60158-1, 600 V conforming to UL 508
Contact operation	Slow- make N.O. or slow-break N.C. with direct opening operation conforming to EN60947-5-1 section 3.
Contact resistance	<25mΩ (initial value)
Operating force	Flush or projecting push buttons - with 1 NO contact: 2.25 lb (10N) - with 1 NC contact: 1.8 lb (8N) Additional contacts - N.O.: add 1 lb(4.5N) - N.C.: add 0.7 lb(3.1N)
Short circuit protection	10 A cartridge fuses, GI or N conforming to IEC 60269-1 and VDE 0660-200.
Ambient temperature	Operating: -25 °C to +70 °C (-13 °F to +158 °F) Storage: -40 °C to +70 °C (-40 °F to +158 °F)
Resistance to vibration	60 mm diameter mushroom head: 8 g. Other push buttons: 15 g. Small joystick controllers: 5 g (from 40 to 50 Hz) Conforming to IEC 60068-2-6.
Resistance to shock	Push buttons: 70 g. Mushroom head push-buttons: 15 g. Selector switches: 200 g. Conforming to IEC 60068-2-27.
Protection against electric shock	Class 1, conforming to IEC 60536 and NF C 20-030.
Degree of protection conforming to IEC 60529	IP67 or IP69K
Mechanical life	Push buttons 3 million operations Latching mushroom head push buttons: 300,000 operations. Illuminated selector switches: 100,000 operations
Approvals	UL/cUL: push buttons and selector switches NEMA / UL Type A600-Q600; E216958 pilot lights and illuminated push buttons direct supply (250 V max.); pilot lights and illuminated push buttons with transformer (600 V)
Conformity to standards	UL 508, IEC 60947-5-1, EN60947-5-1, IEC 60337-1, IEC 60337-2, VDE 0660, CSA C 22-2















### AC Rating, NEMA/UL A600

Volts	Inductive 35% Power factor				Continuous carrying Amperes	Resistive 75% Power factor Make, Break and continuous Amperes
	Make Amperes	VA	Break Amperes	VA		
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

### DC Rating, NEMA/UL Q600 Inductive and resistive

Volts	Make and break	Continuous
125	0.55	2.5
250	0.27	2.5
600	0.10	2.5













## PB(M)22 Series Push Buttons & Operator Interface (IP67 IP69K)

Metal Head	Plastic Head	Description	Part Numbers	Contacts	Head
		Flush-Head Pushbutton	<ul style="list-style-type: none"> <li>○ White PB(M)22-FP-W-P*-N</li> <li>● Black PB(M)22-FP-B-P*-N</li> <li>● Green PB(M)22-FP-G-P*-N</li> <li>● Red PB(M)22-FP-R-P*-N</li> <li>● Yellow PB(M)22-FP-Y-P*-N</li> <li>● Blue PB(M)22-FP-U-P*-N</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Extended-Head Pushbutton	<ul style="list-style-type: none"> <li>○ White PB(M)22-EP-W-P*-N</li> <li>● Black PB(M)22-EP-B-P*-N</li> <li>● Green PB(M)22-EP-G-P*-N</li> <li>● Red PB(M)22-EP-R-P*-N</li> <li>● Yellow PB(M)22-EP-Y-P*-N</li> <li>● Blue PB(M)22-EP-U-P*-N</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Illuminated Extended-Head Pushbutton	<ul style="list-style-type: none"> <li>○ -W PB(M)22-EP-_-R-P*-N</li> <li>● -B -R can be other color codes</li> <li>● -G Direct voltage suffix - D6E: 6 VAC/DC D12E: 12 VAC/DC D24E: 24 VAC/DC D120E: 120 VAC/DC D240E: 240VAC/DC</li> <li>● -R Universal Voltage suffix - D120E-U: 12-270VAC/DC</li> <li>● -Y</li> <li>● -U</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Mushroom-Head Pushbutton	<ul style="list-style-type: none"> <li>○ White PB(M)22-MP-W-P*-N</li> <li>● Black PB(M)22-MP-B-P*-N</li> <li>● Green PB(M)22-MP-G-P*-N</li> <li>● Red PB(M)22-MP-R-P*-N</li> <li>● Yellow PB(M)22-MP-Y-P*-N</li> <li>● Blue PB(M)22-MP-U-P*-N</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Illuminated Mushroom-Head Pushbutton	<ul style="list-style-type: none"> <li>○ -W PB(M)22-MP-_-R-P*-N</li> <li>● -B -R can be other color codes</li> <li>● -G Direct voltage suffix - D6E: 6 VAC/DC D12E: 12 VAC/DC D24E: 24 VAC/DC D120E: 120 VAC/DC D240E: 240VAC/DC</li> <li>● -R Universal Voltage suffix - D120E-U: 12-270VAC/DC</li> <li>● -Y</li> <li>● -U</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Emergency Stop (Turn-Release) (40mm)	<ul style="list-style-type: none"> <li>● Red PB (M) 22-ET-R-P*-N</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Illuminated Emergency Stop (Turn-Release) (40mm)	<ul style="list-style-type: none"> <li>● Red PB (M) 22-ET-_-R-P*-N</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic

## PB(M)22 Series Push Buttons & Operator Interface (IP67 IP69K)

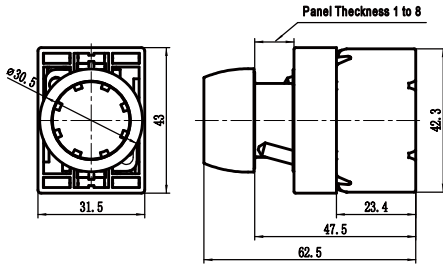
Metal Head	Plastic Head	Description	Part Numbers	Contacts	Head
	<b>IP67</b> 	2- maintained 2-spring return R to L 3- maintained 3-spring return R to C 3-spring return L/R to C	<ul style="list-style-type: none"> <li>○ -W PB22-S2M-_-P*-N _ for color code</li> <li>● -B PB22-S2-_-P*-N _ for color code</li> <li>● -G PB22-S3M-_-P*-N _ for color code</li> <li>● -R PB22-S3ML-_-P*-N _ for color code</li> <li>● -Y PB22-S3-_-P*-N _ for color code</li> <li>● -U PB22-S3-_-P*-N _ for color code</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38:2NO/2NC	Blank:Plastic
	<b>IP67</b> 	2- maintained 2-spring return R to L 3- maintained 3-spring return R to C 3-spring return L/R to C	<ul style="list-style-type: none"> <li>○ -W PB22-S2M-D*-_-P*-N D* for voltage suffix</li> <li>● -B PB22-S2-D*-_-P*-N D* for voltage suffix</li> <li>● -G PB22-S3M-D*-_-P*-N D* for voltage suffix</li> <li>● -R PB22-S3ML-D*-_-P*-N D* for voltage suffix</li> <li>● -Y PB22-S3ML-D*-_-P*-N D* for voltage suffix</li> <li>● -U PB22-S3-D*-_-P*-N D* for voltage suffix</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38:2NO/2NC	Blank:Plastic
	<b>IP67</b> 	Emergency Stop (Push-Pull)	<ul style="list-style-type: none"> <li>● Red PB (M) 22-ES-R-P*-N</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38:2NO/2NC	M: Metal Blank:Plastic
	<b>IP67</b> 	Emergency Stop (Push-Pull)	<ul style="list-style-type: none"> <li>● Red PB (M) 22-ES-R-P*-N(E)</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38:2NO/2NC	M: Metal Blank:Plastic
	<b>IP67</b> 	Potentiometer	<ul style="list-style-type: none"> <li>○ White PB(M)22-VR-W-*-N</li> <li>● Black PB(M)22-VR-B-*-N</li> <li>● Green PB(M)22-VR-G-*-N</li> <li>● Red PB(M)22-VR-R-*-N</li> <li>● Yellow PB(M)22-VR-Y-*-N</li> <li>● Blue PB(M)22-VR-B-*-N</li> </ul>	*Add suffix: 1K: 1KΩ 2.5K: 2.5KΩ 5K: 5KΩ 10K: 10KΩ	
<b>IP69K</b> 	<b>IP69K</b> 	Extended-Head Pushbutton	<ul style="list-style-type: none"> <li>○ White PB(M)22-EP-W-P*-W</li> <li>● Black PB(M)22-EP-B-P*-W</li> <li>● Green PB(M)22-EP-G-P*-W</li> <li>● Red PB(M)22-EP-R-P*-W</li> <li>● Yellow PB(M)22-EP-Y-P*-W</li> <li>● Blue PB(M)22-EP-U-P*-W</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38:2NO/2NC	M: Metal Blank:Plastic
<b>IP69K</b> 	<b>IP69K</b> 	Emergency Stop (Push-Pull) (40mm)	<ul style="list-style-type: none"> <li>● Red PB (M) 22-ES-R-P*-W</li> </ul>	*Add suffix: P0:Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38:2NO/2NC	M: Metal Blank:Plastic

## PB(M)22 Series Push Buttons & Operator Interface (IP67 IP69K)

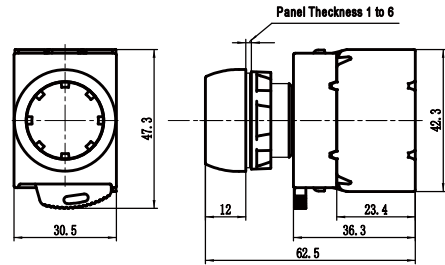
Metal Head	Plastic Head	Description	Part Numbers	Contacts	Head
		 2- maintained	 Black PB(M)22-S2M-B-P*-W	*Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P15: 2NO/1NC P16: 1NO/2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		 2-spring return R to L	 Black PB(M)22-S2-B-P*-W		
		 3- maintained	 Black PB(M)22-S3M-B-P*-W		
		 3-spring return R to C	 Black PB(M)22-S3ML-B-P*-W		
		 3-spring return L/R to C	 Black PB(M)22-S3-B-P*-W		

## PB(M)22 Series Push Buttons & Operator Interface(IP67 IP69K)

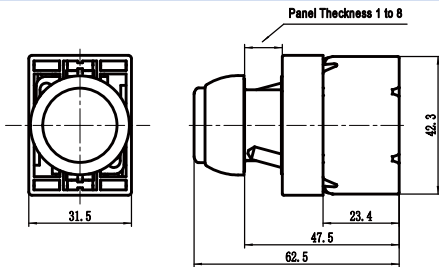
PBM22-FP(IP67)



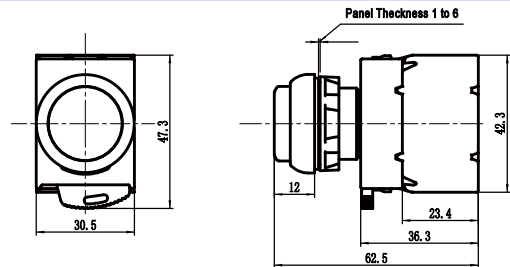
PB22-FP(IP67)



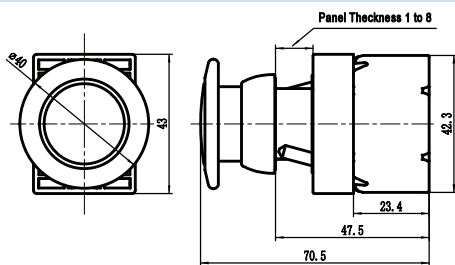
PBM22-EP(IP67)



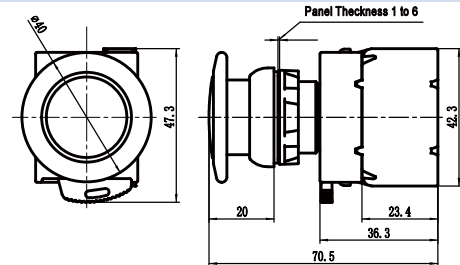
PB22-EP(IP67)



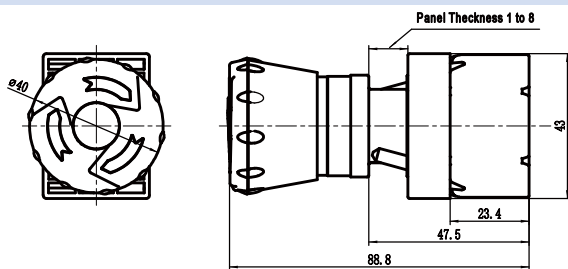
PBM22-MP(IP67)



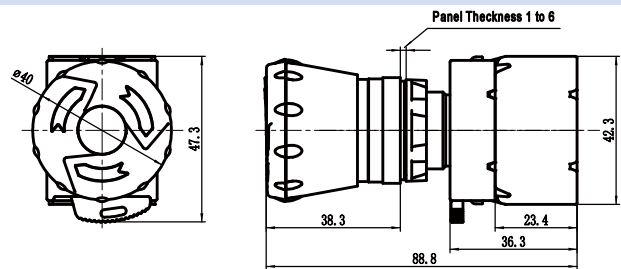
PB22-MP(IP67)



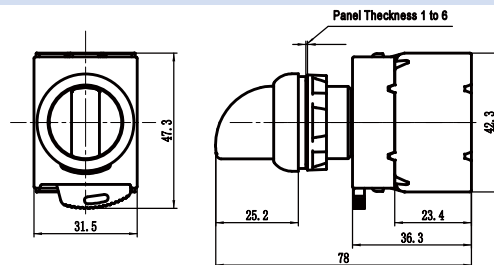
PBM22-ET(IP67)



PB22-ET(IP67)

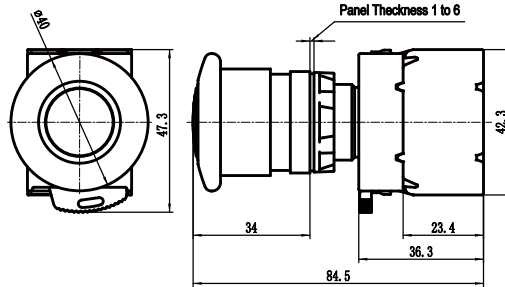


PB22-S-N(IP67)

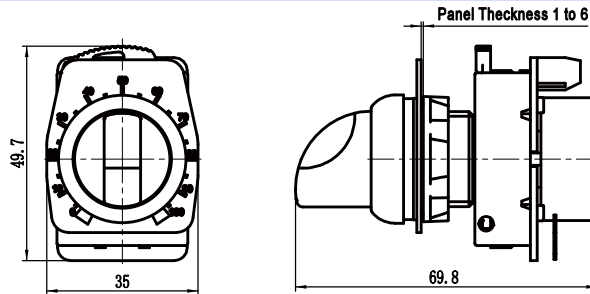


## PB(M)22 Series Push Buttons & Operator Interface(IP67 IP69K)

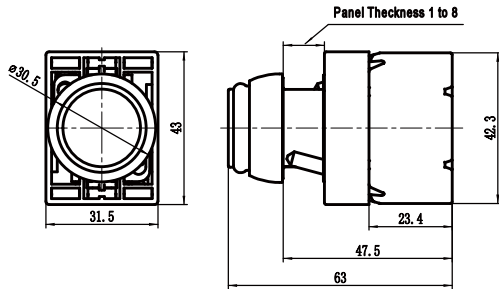
PB22-ES(IP67)



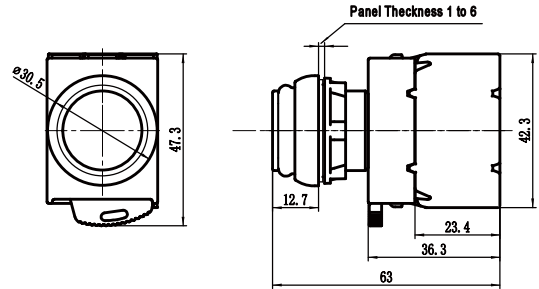
PB22-VR(IP67)



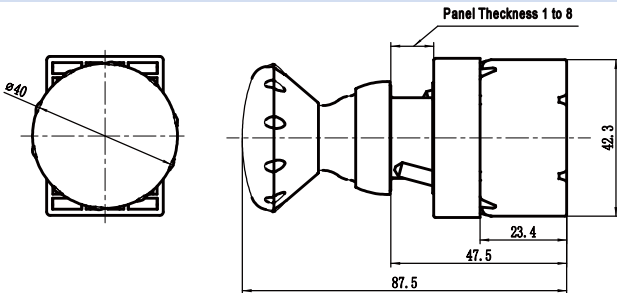
PBM22-EP(IP69K)



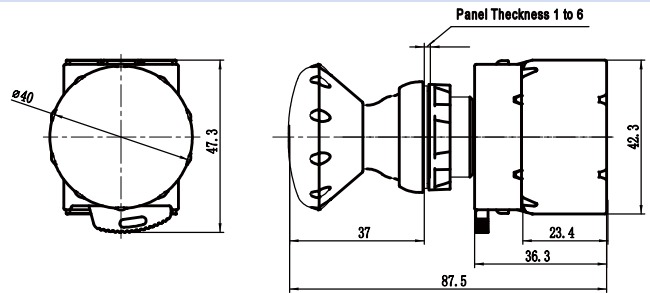
PB22-EP(IP69K)



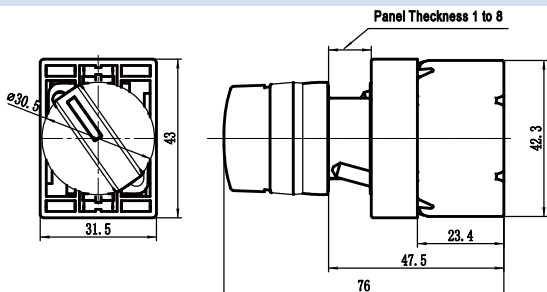
PBM22-ES(IP69K)



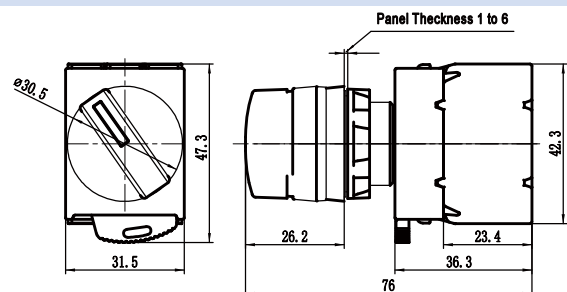
PB22-ES(IP69K)



PBM22-S2-\_-W(IP67)



PB22-S2-\_-W(IP67)



**PB(M)22 Series Push Buttons & Operator Interface(IP67 IP69K)**

