

PT(M)22 Series Push Buttons & Operator Interface

Features

- Available in die cast chrome plated and double insulated head
- Wide variety of operators available
- 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



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	IP65
Mechanical life	Push buttons 3 million operations Latching mushroom head push buttons: 300,000 operations. Illuminated selector switches: 100,000 operations
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

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Metal Head	Plastic Head	Description	Part Numbers	Contacts	Head
		Flat-Head Pushbutton	○ White PT(M)22-FP-W ● Black PT(M)22-FP-B ● Green PT(M)22-FP-G ● Red PT(M)22-FP-R ● Yellow PT(M)22-FP-Y ● Blue PT(M)22-FP-U	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Illuminated Pushbutton (LED)	PT(M)22-FP- Direct voltage suffix - D6E: 6 VAC/DC D12E: 12 VAC/DC D24E: 24 VAC/DC D120E: 120 VAC/DC D240E: 240VAC/DC Transformer type suffix: T120E: 120 V (in) 6V (out) T240E: 240 V (in) 6V (out) T380E: 380 V (in) 6V (out) T600E: 600 V (in) 6V (out) Color suffix ○ -W ● -G ● -R ● -U ● -Y	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Extended-Head Pushbutton	○ White PT(M)22-EP-W ● Black PT(M)22-EP-B ● Green PT(M)22-EP-G ● Red PT(M)22-EP-R ● Yellow PT(M)22-EP-Y ● Blue PT(M)22-EP-U	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Mushroom-Head Pushbutton (40mm)	● Black PT(M)22-MP-B ● Green PT(M)22-MP-G ● Red PT(M)22-MP-R	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Mushroom-Head Pushbutton (60mm)	● Black PT(M)22-MP6-B ● Green PT(M)22-MP6-G ● Red PT(M)22-MP6-R	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		2- maintained 2-spring return R to L 3- maintained 3-spring return R to C 3-spring return L/R to C	● Black PT(M)22-S2M-B ● Black PT(M)22-S2-B ● Black PT(M)22-S3M-B ● Black PT(M)22-S3ML-B ● Black PT(M)22-S3-B	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		2- maintained 2-spring return R to L 3- maintained 3-spring return R to C 3-spring return L/R to C	● Black PT(M)22-SL2M-B ● Black PT(M)22-SL2-B ● Black PT(M)22-SL3M-B ● Black PT(M)22-SL3ML-B ● Black PT(M)22-SL3-B	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic

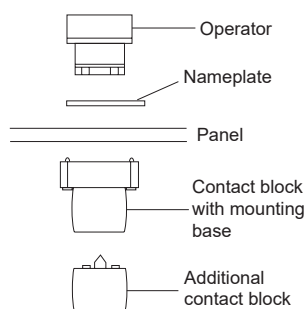
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Metal Head	Plastic Head	Description	Part Numbers	Contacts	Head
		 2- maintained  2-spring return R to L  3- maintained  3-spring return R to C  3-spring return L/R to C	● Black PT(M)22-SK2M-B ● Black PT(M)22-SK2-B ● Black PT(M)22-SK3M-B ● Black PT(M)22-SK3ML-B ● Black PT(M)22-SK3-B	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Emergency Stop (Turn-Release) (30mm)	● Red PT(M)22-ET3-R	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Emergency Stop (Turn-Release) (40mm)	● Red PT(M)22-ET-R	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Emergency Stop (Push-Pull) (40mm)	● Red PT(M)22-ES-R	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Emergency Stop (Push-Pull) (40mm)	● Red PT(M)22-EK-R	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Illuminated Emergency Stop (Turn-Release)	● Red PT22-ES-RG	Add suffix: P0: Without Contact P5: 1NO P6: 1NC P7: 2NO P8: 2NC P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Two Button Switch (Flush)	PT(M)22-MF-	Add suffix: P0: Without Contact P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic

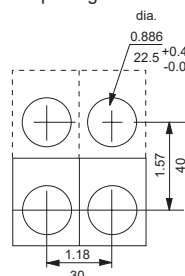
PT(M)22 Series Push Buttons & Operator Interface

Metal Head	Plastic Head	Description	Part Numbers	Contacts	Head
		Two Button Switch (Extended Stop)	PT(M)22-ME-	Add suffix: P0: Without Contact P21: 1NO/1NC P38: 2NO/2NC	M: Metal Blank: Plastic
		Illuminated Two Button Switch (Flush)	PT22-MF- Direct voltage suffix D6E: 6 VAC/DC D12E: 12 VAC/DC D24E: 24 VAC/DC D120E: 120 VAC/DC D240E: 240VAC/DC Transformer type suffix: T120E: 120 V (in) 6V (out) T240E: 240 V (in) 6V (out) T380E: 380 V (in) 6V (out) T600E: 600 V (in) 6V (out)	Add suffix: P0: Without Contact P21: 1NO/1NC P38: 2NO/2NC	Blank: Plastic
		Illuminated Two Button Switch (Extended Stop)	PT22-ME- Direct voltage suffix D6E: 6 VAC/DC D12E: 12 VAC/DC D24E: 24 VAC/DC D120E: 120 VAC/DC D240E: 240VAC/DC Transformer type suffix: T120E: 120 V (in) 6V (out) T240E: 240 V (in) 6V (out) T380E: 380 V (in) 6V (out) T600E: 600 V (in) 6V (out)	Add suffix: P0: Without Contact P21: 1NO/1NC P38: 2NO/2NC	Blank: Plastic

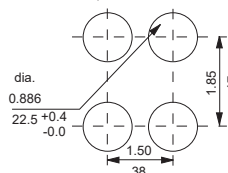
MOUNTING DIMENSIONS (Minimum spacing) General mounting set-up



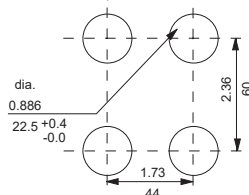
Standard pushbuttons and pilot lights



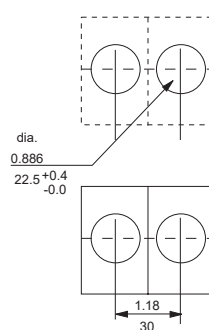
Rectangular units w/o indicator



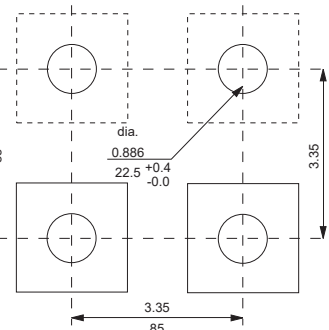
Rectangular units w/ indicator



2 Position Joysticks



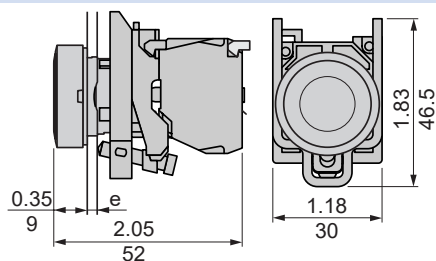
4 Position Joysticks



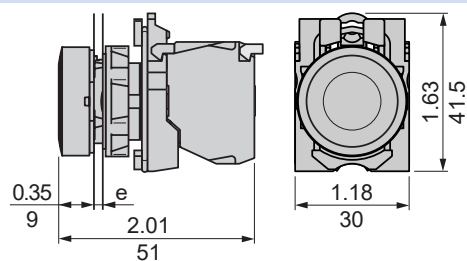
Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

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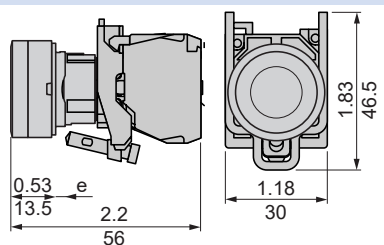
PTM22-FP



PT22-FP

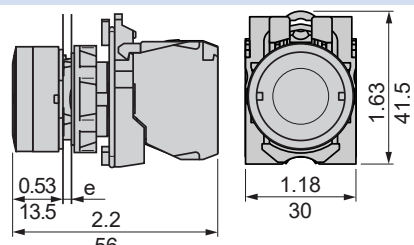


PTM22-FP-D_



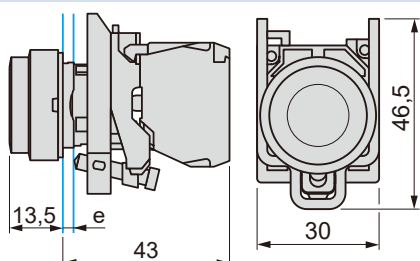
⊙ Lamp voltage-60V,L=18; >60V,L=23.

PT22-FP-D_

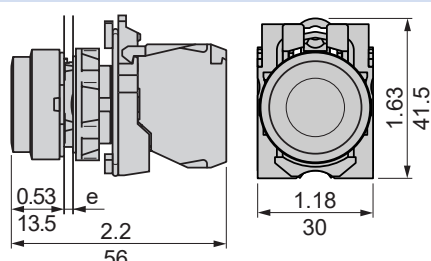


⊙ Lamp voltage-60V,L=18; >60V,L=23.

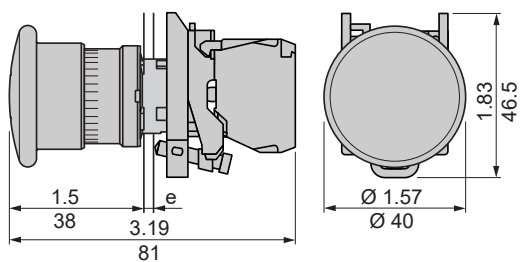
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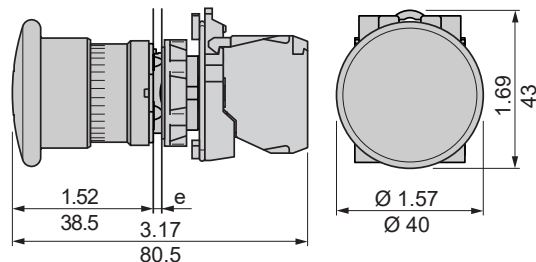
PT22-EP



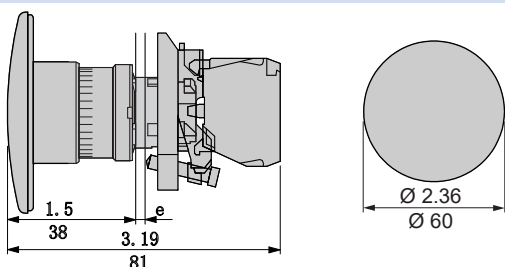
PTM22-MP



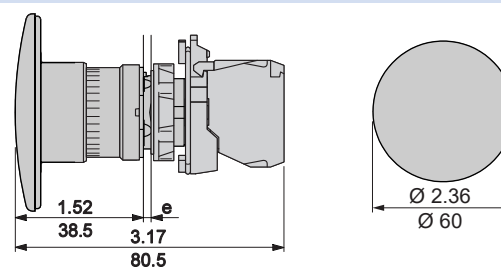
PT22-MP



PTM22-MP6

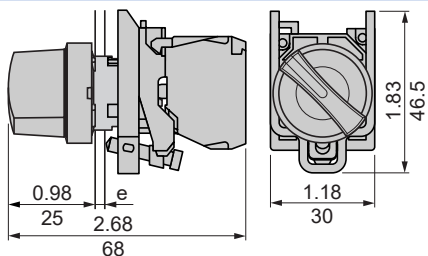


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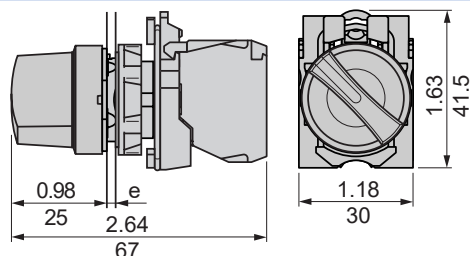


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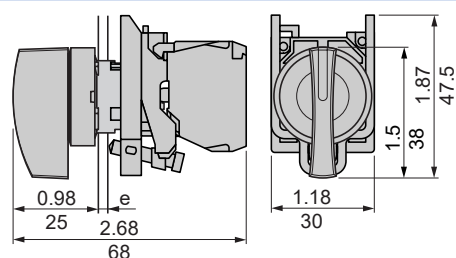
PTM22-S_-B



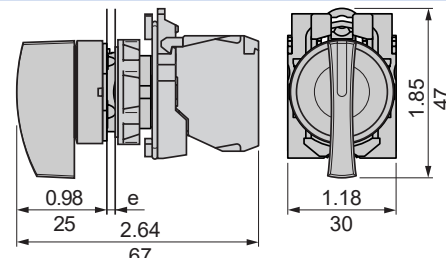
PT22-S_-B



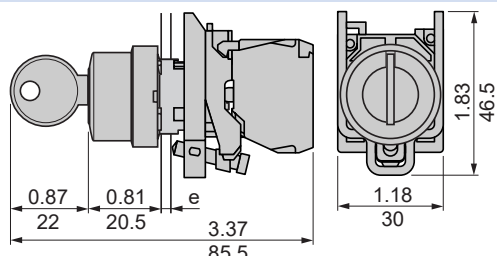
PTM22-SL_-B



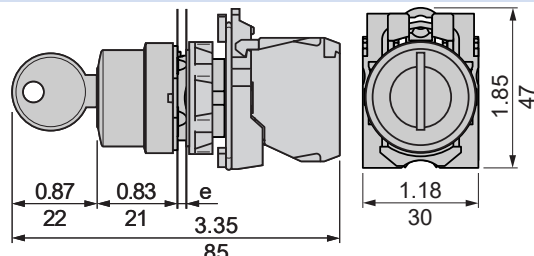
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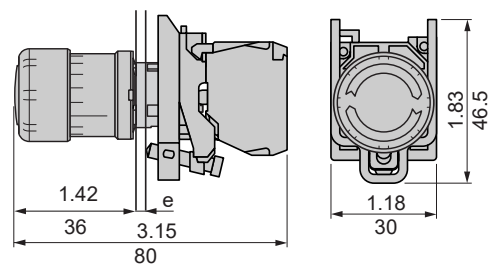
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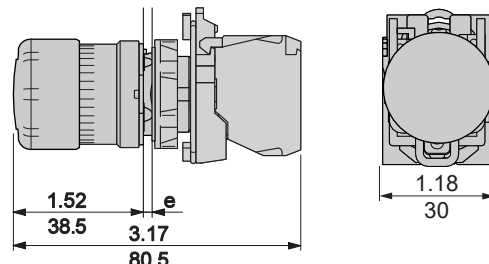
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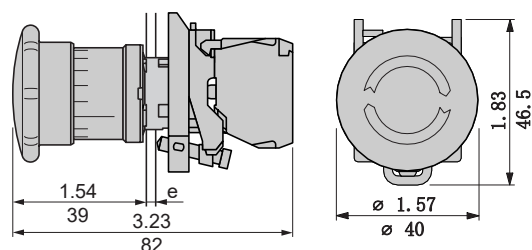
PTM22-ET3-R



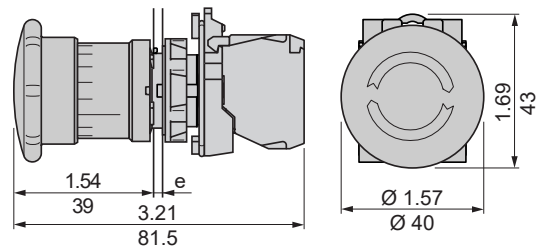
PT22-ET3-R



PTM22-ET-R



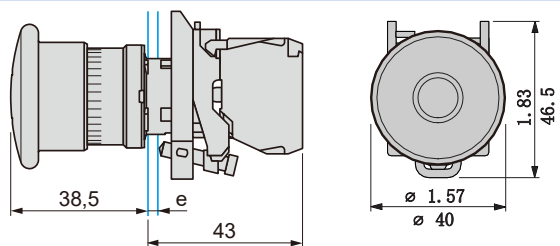
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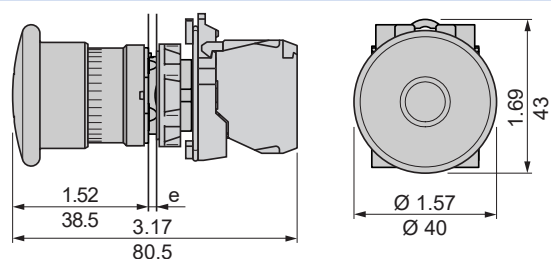
e: Panel thickness, 0.04 to 0.24 in (1 to 6 mm)

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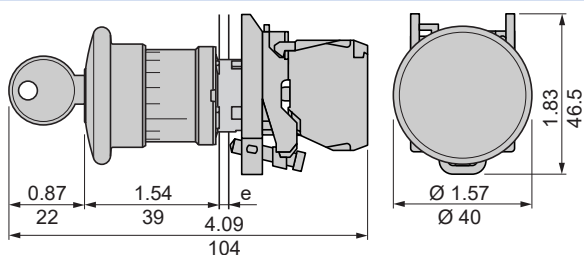
PTM22-ES-R



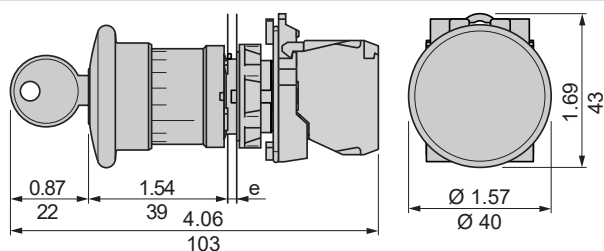
PT22-ES-R



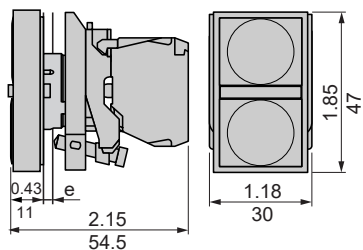
PTM22-EK-R



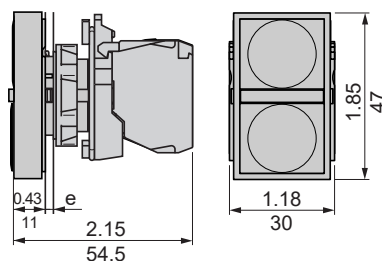
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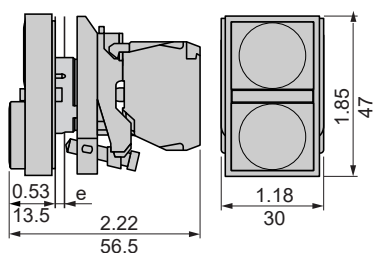
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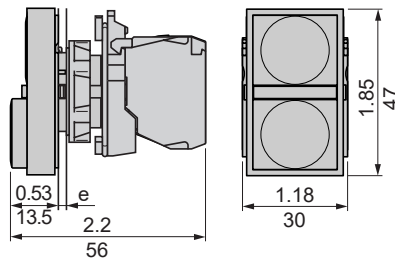
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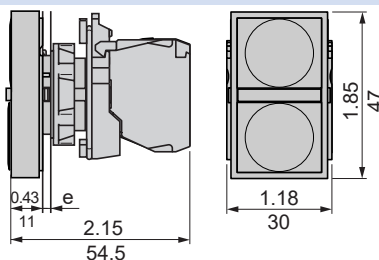
PTM22-ME



PT22-ME

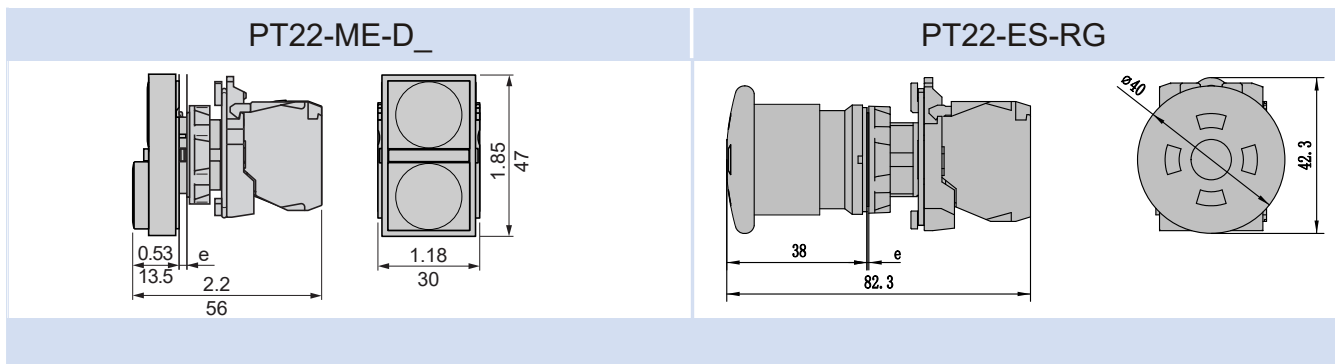


PT22-MF-D_



e: Panel thickness, 0.04 to 0.24 in (1 to 6 mm)

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e: Panel thickness, 0.04 to 0.24 in (1 to 6 mm)