

Push To Light Up The **FUTURE**



**Control & Signalling
Devices 22.5 mm**

- BML - Metal Series
- BIL - LED Indicating Light

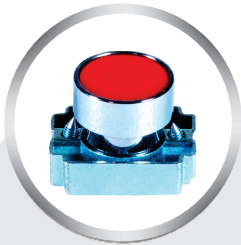


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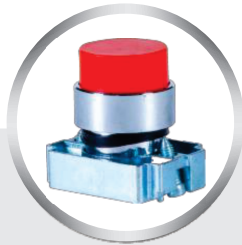
Introducing New Control & Signaling Devices - 22.5 mm

'BML' Metal Series & 'BIL' LED Indicating Lights (Barrel Type)

Wide Range of Metal Actuators :



Flush Head



Projected Head



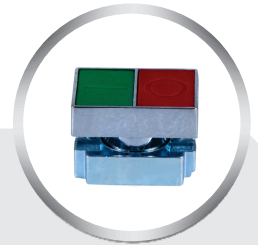
Mushroom Head
40mm & 60mm

- Momentary
- Twist to Release
- Key Actuator (40mm only)



Selector Head

- 2 & 3 Position
- Selector Knob
- Selector Key



Twin Head

Available Colours :

Red, Yellow, Blue, Black, Green, White

Range of LED Indicating Light & Illuminated Actuators :



Barrel LED
Indicating Light

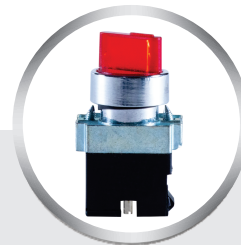
- Standard Voltage
- Universal Voltage
- LVGP Protection



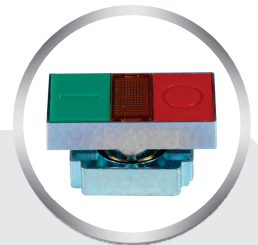
Pilot LED
Indicating Light



Illuminated
Actuator



Illuminated
Selector Knob Head



Illuminated
Twin Head

Available Colours :

Red, Yellow, Blue, Green, White, Clear, Amber

Voltage Range : 12V, 24V, 48V, 60V AC/DC ; 110VDC, 220VDC & 110V, 240V, 440V AC

Salient Features :

- Complies IS/IEC 60947-5-1 standard
- High mechanical and electrical life
- Self Wiping Contacts Ensure Trouble Free Contact
- Wide range of colours & voltages
- Aesthetic and elegant design

Technical Specifications :

General Characteristics -

Reference Standard	IS/IEC 60947-5-1:2009
Approvals	CE Marking
Protection Degree (As per IS/IEC 60529:2001)	<ul style="list-style-type: none"> ■ IP65 - Flush Head, Projected Head, Mushroom Head, Selector Head ■ IP66 - Barrel type LED Indicating Light
Operating Temperature Limit	<ul style="list-style-type: none"> ■ Non-Illuminated Units : -25 deg.C to + 70 deg.C
Operation Life	<ul style="list-style-type: none"> ■ Mechanical Life – over 1 Million
Operating Position	All Position


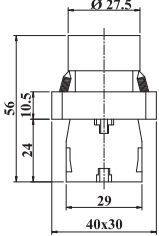

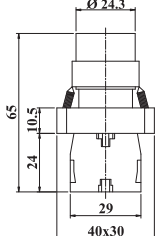

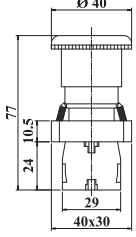

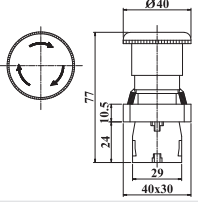

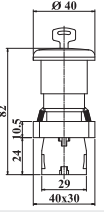

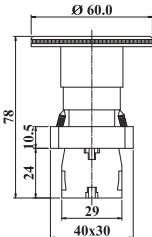

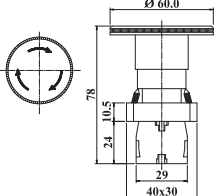
Contact Element Specifications-

Rated Thermal Current (I_{th})	10A
Rated insulation Voltage	500V
Dielectric test Voltage	2.5kV for 1min
Electrical Ratings (IEC 947-1)	<ul style="list-style-type: none"> ■ AC15-4A, 415VAC, ■ DC13-0.5A, 110VDC
Colour of Contact Block	NC- Red, NO- Green
Terminal Marking	1-2 for NC; 3-4 for NO
Short Circuit Protection	10A HRC Cartridge fuse, for resistive loads
Terminal Capacity	Min.1 x 0.5 mm ² ; Max. 2 x 1.5 mm ²

LED Indication Light & illuminated Actuator Specifications -

Rated Voltage (-20% to +10%)	<ul style="list-style-type: none"> ■ 12V, 24V, 48V, 60V AC/DC ■ 110V, 220V DC ■ 110V, 240V, 440 AC
Current Consumption	<ul style="list-style-type: none"> ■ 12V, 24V, 48V, 60V AC/DC & 110V, 240V AC – max 25mA ■ 110V – max 15mA, 220V DC– max 10mA
Dielectric test Voltage	2.5kV for 1min
Insulation resistance	>100 MΩ at DC
Service Life	1,00,000hrs (at a normal voltage and at ambient temp.)


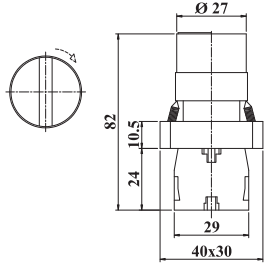

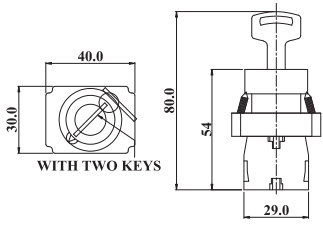

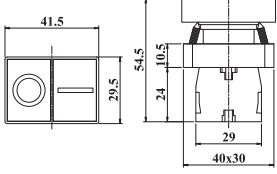
Control & Signalling Devices 22.5 mm - BML Metal Series (Non-illuminated)

Product	Description	Colour	Cat. No.*	Dimensions (In mm) with Contact Element
	Flush Actuator	Red	BML22FA-R	
		Green	BML22FA-G	
		Yellow	BML22FA-Y	
		Blue	BML22FA-BL	
		Black	BML22FA-BK	
		White	BML22FA-W	
	Projecting Actuator	Red	BML22PA-R	
		Green	BML22PA-G	
		Yellow	BML22PA-Y	
		Blue	BML22PA-B	
		Black	BML22PA-BL	
		White	BML22PA-W	
	Mushroom Actuator (Momentary) Head – ϕ 40mm	Red	BML22MM4-R	
		Green	BML22MM4-G	
		Yellow	BML22MM4-Y	
		Blue	BML22MM4-BL	
		Black	BML22MM4-BK	
		White	BML22MM4-W	
	Mushroom Actuator (Twist to Release) Head – ϕ 40mm	Red	BML22MT4-R	
		Black	BML22MT4-BK	
	Mushroom Actuator (Key to Release) Head – ϕ 40mm	Red	BML22MK4-R	
	Mushroom Actuator (Momentary) Head – ϕ 60mm	Red	BML22MM6-R	
		Green	BML22MM6-G	
		Yellow	BML22MM6-Y	
		Blue	BML22MM6-BL	
		Black	BML22MM6-BK	
		White	BML22MM6-W	
	Mushroom Actuator (Twist to Release) Head – ϕ 60mm	Red	BML22MT6-R	
		Black	BML22MT6-BK	


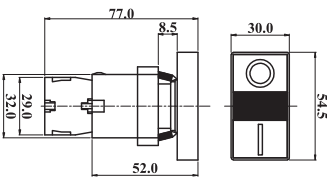

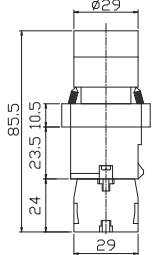
□ : Please mention voltage code from Table 2 (page no.6)

* : All the part codes are without contact element

Control & Signalling Devices 22.5 mm - **BML** Metal Series (Non-illuminated)

Product	Description	Colour	Cat. No.*	Dimensions (In mm) with Contact Element
	Selector Knob Actuator			
	2 Position - Maintained	Black	● BML22SM2P-BK	
	3 Position – Maintained (both side)	Black	● BML22SM3P-BK	
	2 Position Spring Return	Black	● BML22SS2P-BK	
	3 Position Spring Return (Both Side)	Black	● BML22SS3P-BK	
	Selector Key Actuator			
	2 Position - Maintained	Black	● BML22SK2P-BK	
	3 Position - Maintained (both side)	Black	● BML22SK3P-BK	
	Twin Actuator (Spring Return with Green Knob "I" marked & Red Knob "O" marked)	Green & Red	● & ● BML22TA-RG	


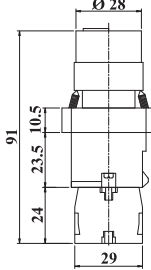

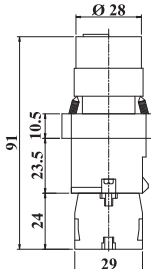
Control & Signalling Devices 22.5 mm - **BML** Metal Series (illuminated)

	Led Luminous Twin Actuator AC/DC : 12V, 24V, 48V, 60V DC :110V, 220V AC : 110V, 240V, 440V	Red & Green Marked (I/O) & Amber LED	●	BML22LTA□-A	
	Led Luminous Actuator AC/DC: 12V, 24V, 48V, 60V DC:110V, 220V AC: 110V, 240V, 440V	Red	●	BML22LA□-R	
		Green	●	BML22LA□-G	
		Yellow	●	BML22LA□-Y	
		Clear	○	BML22LA□-C	
		Amber	●	BML22LA□-A	
		White	○	BML22LA□-W	
Blue	●	BML22LA□-BL			


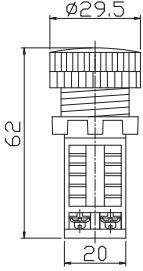

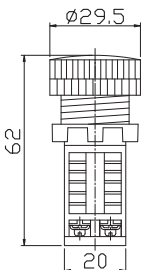

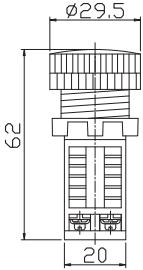

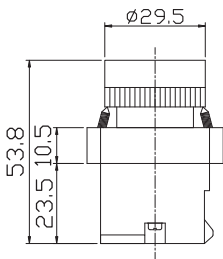
□ : Please mention voltage code from Table 2 (page no.6)

* : All the part codes are without contact element


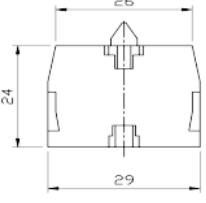






Control & Signalling Devices 22.5 mm - **BML** Metal Series (illuminated)

Product	Description	Colour	Cat. No.*	Dimensions (In mm) with Contact Element
	Led Luminous 2 Position Selector Actuator (Maintained) AC/DC: 12V, 24V, 48V, 60V DC: 110V, 220V AC: 110V, 240V, 440V	Red	● BML22LSM2□-R	
		Green	● BML22LSM2□-G	
		Yellow	● BML22LSM2□-Y	
		Clear	○ BML22LSM2□-C	
		Amber	● BML22LSM2□-A	
		White	○ BML22LSM2□-W	
		Blue	● BML22LSM2□-BL	
	Led Luminous 3 Position Selector Actuator (Maintained) AC/DC: 12V, 24V, 48V, 60V DC: 110V, 220V AC: 110V, 240V, 440V	Red	● BML22LSM3□-R	
		Green	● BML22LSM3□-G	
		Yellow	● BML22LSM3□-Y	
		Clear	○ BML22LSM3□-C	
		Amber	● BML22LSM3□-A	
		White	○ BML22LSM3□-W	
		Blue	● BML22LSM3□-BL	

Control & Signalling Devices 22mm - **BIL/BML** LED Indicating Light

	LED Indicating Light - Standard (Barrel Type) AC/DC : 12V, 24V, 48V, 60V DC : 110V, 220V AC : 110V, 240V, 440V	Red	● BIL22BRS□-R	
		Green	● BIL22BRS□-G	
		Yellow	● BIL22BRS□-Y	
		Clear	○ BIL22BRS□-C	
		Amber	● BIL22BRS□-A	
		White	○ BIL22BRS□-W	
		Blue	● BIL22BRS□-BL	
	LED Indicating Light - with LVGP (Barrel Type) AC/DC : 12V, 24V, 48V, 60V DC : 110V, 220V AC : 110V, 240V, 440V	Red	● BIL22BRP□-R	
		Green	● BIL22BRP□-G	
		Yellow	● BIL22BRP□-Y	
		Clear	○ BIL22BRP□-C	
		Amber	● BIL22BRP□-A	
		White	○ BIL22BRP□-W	
		Blue	● BIL22BRP□-BL	
	LED Indicating Light - Universal Voltage (Barrel Type) 12-230V AC/DC	Red	● BIL22BRUH4-R	
		Green	● BIL22BRUH4-G	
		Yellow	● BIL22BRUH4-Y	
		Clear	○ BIL22BRUH4-C	
		Amber	● BIL22BRUH4-A	
		White	○ BIL22BRUH4-W	
		Blue	● BIL22BRUH4-BL	
	Pilot LED Indicating Light AC/DC : 12V, 24V, 48V, 60V DC : 110V, 220V AC : 110V, 240V, 440V	Red	● BML22PLD□-R	
		Green	● BML22PLD□-G	
		Yellow	● BML22PLD□-Y	
		Clear	○ BML22PLD□-C	
		Amber	● BML22PLD□-A	
		White	○ BML22PLD□-W	
		Blue	● BML22PLD□-BL	

Control & Signalling Devices 22.5 mm - Accessories for BML Series

Product	Description	Type	Cat. No.	Lot Size
	Contact Element 	1 NO	BML22CB10	50
		1 NC	BML22CB01	
	Legend Plate Metal	Aluminium	BML22LPM-□	20
	Legend Plate Plastic Yellow Colour	Emergency / Stop	BML22LPP - 23	20
	Hole Closer	Plastic	BML22HC	50
	Rubber Boot for Flush Actuator	Transparent	BML22RB	20
	Rubber boot for Illuminated Push Button	Clear	BML22LRB	20

□: Please mention legend plate code from Table 1

Suffix Code Table

Table 1 (Legend Plate)			
legend Plate	Code	legend Plate	Code
Start	1	OFF	12
Stop	2	Right	13
Forward	3	Left	14
Reverse	4	TRIP	15
UP	5	Local	16
DOWN	6	Remote	17
Open	7	Test	18
Close	8	Run	19
Auto	9	R Phase	20
Reset	10	Y Phase	21
ON	11	B Phase	22

Table 2 (Voltage Rating)	
Voltage	Code
12V AC/DC	S4
24V AC/DC	U4
48V AC/DC	W4
60V AC/DC	Y4
110V DC	E1
220V DC	H1
110V AC	E
240V AC	H
415V AC	M

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