



ELECTRICAL COMPONENTS

22.5mm Control Devices

- Pushbuttons ▪ Operators
- Selector Switches ▪ E-Stops
- Illuminated / Non-Illuminated
- Metal / Plastic ▪ Accessories
- Pilot Lights ▪ Indicators
- Enclosures



The traditional line of 22.5mm diameter control devices (pushbuttons, selector switches and pilot lights) from ITC is designed to provide safe operation and offer easy assembly.

Features:

- Reduced footprint on the panel surface
- Self-cleaning contacts
- Intrinsic grounding of the actuator metal parts
- Excellent flammability ratings
- Shrouded terminals
- Robust construction



A **non-illuminated** device includes an actuator, a mounting collar (or bracket), and a number of NO or NC contacts (1 to a maximum of 6).

An **illuminated** device includes an actuator, a collar equipped with a bulb holder (some models come with a light bulb), and a number of NO or NC contacts (1 to maximum of 4).

Actuators have chrome plated metal bezels (RB2-...) or plastic bezels (RP2-...). Pre-assembled actuators/collars (brackets) are also available. All devices described in this catalog can be mounted on metal plates 1 to 6mm thick. Bulb holders accept BA9s (bayonet) bulbs, voltages up to 220V, with bulb diameter maximum 10mm and maximum length 28mm. Contacts are double-break type, with self-wiping design. Gold plated contacts for low-voltage applications are also available. Contact elements and bulb holders have shrouded terminals with combined (slot/Philips) screw heads.

Mounting

Minimum distance between centers of adjacent devices is 30x40mm. However, the actual layout should be defined based on the application and the type of device used (e.g. a 60mm diameter E-stop requires greater distance between centres). Actuators and pilot light heads mount on the collar (bracket) with a twist-lock-type fixing requiring no tools. The complete assembly locks into position on the panel by means of two pointed screws (M4) tightened from the rear.

Index

Non-illuminated pushbuttons and selector switches	2
Keyed selector switches	5
Non-illuminated E-stop mushroom actuators	6
Palm-type and wobble-type E-stop buttons	7
Illuminated pushbuttons and selectors switches	8
Illuminated E-stops and pilot lights	9
Pushbutton contacts, brackets and bulb holders.....	10
LED, incandescent and neon bulbs	11
Monobloc LED indicator lights and buzzers	12
Accessories for pushbuttons.....	14
Non-metallic pushbutton enclosures.....	16
Accessories for pushbutton enclosures	18
Aluminum pushbutton enclosures	19

Pushbuttons, Selectors and Pilot Lights

Features and specifications of Pushbuttons, Selectors and Pilot Lights:

- **Mechanical life:** 1,000,000 operations (pushbuttons, selectors) - 300,000 operations (E-stops)
- **Frequency of operation maximum:** 3,600 operations/hour
- **Contact Operation:** Slow break, self-wiping (NO or NC). NC with positive opening operation
- **Rated thermal current:** 10A
- **Rated insulation voltage:** 500V
- **Terminal capacity:** Minimum 1 x 0.5mm², maximum 2 x 1.5mm² or 1 x 2.5mm²
- **Contact marking:** NC: 1-2 NO: 3-4
- **Contact Electrical Rating:** AC15: 24V/4A - 120V/3A - 220V/2A; DC13: 24V/0.5A - 110V/0.2A
- **Operating temperature:** -25 to 70°C
- **Ingress protection:** IP65 as per IEC529, NEMA 4X / 12 as per UL50
- **Standards:** CSA C22-2 No. 14-95, UL508, EN60947 -5/1/2000, VDE 0660 (front side)
- **Approvals:** cULus, cCSAus, CE

Pushbuttons

Non-illuminated Pushbuttons - Flush Head (Order by Part No.)

Spring Return Flush Head Actuator Metal Bezel			Spring Return Flush Head Actuator Plastic Bezel		
Part No.			Part No.		
Colour	Actuator only	Actuator & mounting collar	Colour	Actuator only	Actuator & mounting collar
White	RB2-BA1	RB2-BA1-B	White	RP2-BA1	RP2-BA1-B
Black	RB2-BA2	RB2-BA2-B	Black	RP2-BA2	RP2-BA2-B
Green	RB2-BA3	RB2-BA3-B	Green	RP2-BA3	RP2-BA3-B
Red	RB2-BA4	RB2-BA4-B	Red	RP2-BA4	RP2-BA4-B
Yellow	RB2-BA5	RB2-BA5-B	Yellow	RP2-BA5	RP2-BA5-B
Blue	RB2-BA6	RB2-BA6-B	Blue	RP2-BA6	RP2-BA6-B

Information subject to change without notice

Non-illuminated Pushbuttons - Universal Flush Head Actuator with Interchangeable Colour Disks (Order by Part No.)



Non-illuminated Pushbuttons - Universal Flush Head Actuator with Flush Head Actuators with Symbols (Order by Part No.)

Spring Return Flush Head Actuator Metal Bezel			Spring Return Flush Head Actuators with Symbols Metal Bezel			
Part No.			Part No.			
Colour	Actuator only	Actuator & mounting collar	Colour	Marking	Actuator only	Actuator & mounting collar
Universal Actuator	RB2-BA0	RB2-BA0-B	White	↓	RB2-BA334	RB2-BA334-B
White Disk	RB2-BA0-1		Black	↓	RB2-BA335	RB2-BA335-B
Black Disk	RB2-BA0-2		Red	STOP	RB2-BA434	RB2-BA434-B
Green Disk	RB2-BA0-3		Red	0	RB2-BA432	RB2-BA432-B
Red Disk	RB2-BA0-4		Green Disk	I	RB2-BA331	RB2-BA331-B
Yellow Disk	RB2-BA0-5		Green Disk	II	RB2-BA336	RB2-BA336-B
Blue Disk	RB2-BA0-6		Blue	RESET	RB2-BA666	RB2-BA666-B

Information subject to change without notice





Non-illuminated Pushbuttons - Projecting Head (Order by Part No.)

Spring Return Projecting Head Actuator			Spring Return Projecting Head Actuator		
Metal Bezel			Plastic Bezel - Special order only		
					
		Part No.			
Colour	Actuator only	Actuator & mounting collar	Colour	Actuator only	Actuator & mounting collar
White	RB2-BL1	RB2-BL1-B	White	RP2-BL1	RP2-BL1-B
Black	RB2-BL2	RB2-BL2-B	Black	RP2-BL2	RP2-BL2-B
Green	RB2-BL3	RB2-BL3-B	Green	RP2-BL3	RP2-BL3-B
Red	RB2-BL4	RB2-BL4-B	Red	RP2-BL4	RP2-BL4-B
Yellow	RB2-BL5	RB2-BL5-B	Yellow	RP2-BL5	RP2-BL5-B
Blue	RB2-BL6	RB2-BL6-B	Blue	RP2-BL6	RP2-BL6-B

Plastic Bezel version is special order only
Information subject to change without notice



Selector Switches

Non-illuminated Selector Switches (Order by Part No.)

Selector Actuator with Standard Arm (Black)			Selector Actuator with Standard Arm (Black)		
Metal Bezel			Plastic Bezel		
					
		Part No.			
Action	Actuator only	Actuator & mounting collar	Action	Actuator only	Actuator & mounting collar
2 Pos. maintained	RB2-BD2	RB2-BD2-B	2 Pos. maintained	RP2-BD2	RP2-BD2-B
2 Pos. spring return to left	RB2-BDR2	RB2-BDR2-B	2 Pos. spring return to left	RP2-BDR2	RP2-BDR2-B
3 Pos. maintained	RB2-BD3	RB2-BD3-B	3 Pos. maintained	RP2-BD3	RP2-BD3-B
3 Pos. spring return to centre	RB2-BDR3	RB2-BDR3-B	3 Pos. spring return to centre	RP2-BDR3	RP2-BDR3-B
3 Pos. left spring return, right maintained	RB2-BD7	RB2-BD7-B	3 Pos. left spring return, right maintained	RP2-BD7*	RP2-BD7-B*
3 Pos. left maintained, right spring return	RB2-BD8	RB2-BD8-B	3 Pos. left maintained, right spring return	RP2-BD8*	RP2-BD8-B*


* Special order only
Information subject to change without notice

Non-illuminated Selector Switches (Order by Part No.)

Selector Actuator with Extended Arm (Black)			Selector Actuator with Extended Arm (Black)		
Metal Bezel			Plastic Bezel		
					
		Part No.			
Action	Actuator only	Actuator & mounting collar	Action	Actuator only	Actuator & mounting collar
2 Pos. maintained	RB2-BJ2	RB2-BJ2-B	2 Pos. maintained	RP2-BJ2	RP2-BJ2-B
2 Pos. spring return to Left	RB2-BJR2	RB2-BJR2-B	2 Pos. spring return to left	RP2-BJR2	RP2-BJR2-B
3 Pos. maintained	RB2-BJ3	RB2-BJ3-B	3 Pos. maintained	RP2-BJ3	RP2-BJ3-B
3 Pos. spring return to centre	RB2-BJR3	RB2-BJR3-B	3 Pos. spring return to centre	RP2-BJR3	RP2-BJR3-B


Information subject to change without notice

Non-illuminated Twin Touch Pushbuttons (Order by Part No.)

“Twin-Touch” Non-illuminated Actuator			
Metal Bezel			
		Part No.	
Type	Colour	Actuator only	Actuator & mounting collar
Flush	Green	RB2-BA87	RB2-BA87-B
	Red		
Projecting Red	Green	RB2-BA8425	RB2-BA8425-B
	Red		

Information subject to change without notice



Spring Return Projecting Head with Cover (Order by Part No.)

Spring Return Projecting Head Actuator with Silicone Cover			
Metal Bezel			
		Part No.	
Colour	Actuator only	Actuator & mounting collar	
White	RB2-BP1	RB2-BP1-B	
Black	RB2-BP2	RB2-BP2-B	
Green	RB2-BP3	RB2-BP3-B	
Red	RB2-BP4	RB2-BP4-B	
Yellow	RB2-BP5	RB2-BP5-B	
Blue	RB2-BP6	RB2-BP6-B	

Information subject to change without notice



Keyed Selector Switches

Key Selector Switches, 2 positions (Order by Part No.)

Key Selector Switches - 2 positions				Key Selector Switches - 2 positions			
Metal Bezel				Plastic Bezel			
		Part No.				Part No.	
Action	Key Removal	Actuator only	Actuator & mounting collar	Action	Key Removal	Actuator only	Actuator & mounting collar
Maintained	Left	RB2-BG2	RB2-BG2-B	Maintained	Left	RP2-BG2	RP2-BG2-B
Maintained	Right	RB2-BG02	RB2-BG02-B	Maintained	Right	RP2-BG02	RP2-BG02-B
Maintained	All Pos.	RB2-BG4	RB2-BG4-B	Maintained	All Pos.	RP2-BG4	RP2-BG4-B
Spring return to left	Left	RB2-BG6	RB2-BG6-B	Spring return to left	Left	RP2-BG6	RP2-BG6-B

Note: Standard key N. 455 - Other keys upon request
Information subject to change without notice

Key Selector Switches, 3 positions (Order by Part No.)



Key Selector Switches - 3 positions				Key Selector Switches - 3 positions			
Metal Bezel				Plastic Bezel			
		Part No.				Part No.	
Action	Key Removal	Actuator only	Actuator & mounting collar	Action	Key Removal	Actuator only	Actuator & mounting collar
Maintained	Left	RB2-BG9	RB2-BG9-B	Maintained	Left	RP2-BG9 *	RP2-BG9-B *
Maintained	Right	RB2-BG09	RB2-BG09-B	Maintained	Right	RP2-BG09 *	RP2-BG09-B *
Maintained	All Pos.	RB2-BG0	RB2-BG0-B	Maintained	All Pos.	RP2-BG0	RP2-BG0-B
Maintained	Centre	RB2-BG3	RB2-BG3-B	Maintained	Centre	RP2-BG3 *	RP2-BG3-B *
Maintained	L & R	RB2-BG5	RB2-BG5-B	Maintained	L & R	RP2-BG5 *	RP2-BG5-B *
Spring return to centre	Centre	RB2-BG7	RB2-BG7-B	Spring return to centre	Centre	RP2-BG7	RP2-BG7-B
Left maintained, right spring returned to centre	Centre	RB2-BG8	RB2-BG8-B	Left maintained, right spring returned to centre	Centre	RP2-BG8 *	RP2-BG8-B *

Note: Standard key N. 455 - Other keys upon request. Information subject to change without notice
* Special order only





E-Stop (Mushroom) Actuators

Non-Illuminated E-Stop (Mushroom) Actuators - Spring Return (Order by Part No.)

Spring Return E-Stop (Mushroom Head) Actuator				Spring Return E-Stop (Mushroom Head) Actuator			
Metal Bezel				Plastic Bezel			
		Part No.				Part No.	
Action	Colour	Actuator only	Actuator & mounting collar	Action	Colour	Actuator only	Actuator & mounting collar
Spring Return Φ40mm	Black	RB2-BC2	RB2-BC2-B	Spring Return Φ40mm	Black	RP2-BC2 *	RP2-BC2-B *
	Green	RB2-BC3	RB2-BC3-B		Green	RP2-BC3 *	RP2-BC3-B *
	Red	RB2-BC4	RB2-BC4-B		Red	RP2-BC4	RP2-BC4-B
	Yellow	RB2-BC5	RB2-BC5-B		Yellow	RP2-BC5 *	RP2-BC5-B *
	Blue	RB2-BC6	RB2-BC6-B		Blue	RP2-BC6 *	RP2-BC6-B *
Spring Return Φ60mm	Black	RB2-BR2	RB2-BR2-B	Spring Return Φ60mm	Black	RP2-BR2 *	RP2-BR2-B *
	Green	RB2-BR3	RB2-BR3-B		Green	RP2-BR3	RP2-BR3-B
	Red	RB2-BR4	RB2-BR4-B		Red	RP2-BR4	RP2-BR4-B
	Yellow	RB2-BR5	RB2-BR5-B		Yellow	RP2-BR5 *	RP2-BR5-B *
	Blue	RB2-BR6	RB2-BR6-B		Blue	RP2-BR6 *	RP2-BR6-B *

* Special order only
Information subject to change without notice

Non-Illuminated E-Stop (Mushroom) Actuators - Twist Release, Key Release, Push-Pull (Order by Part No.)

Latching E-Stop (Mushroom Head) Actuator					Latching E-Stop (Mushroom Head) Actuator				
Metal Bezel					Plastic Bezel				
		Part No.					Part No.		
Action	Diameter	Colour	Actuator only	Actuator & mounting collar	Action	Diameter	Colour	Actuator only	Actuator & mounting collar
Twist Release	30mm	Black	RB2-BS42	RB2-BS42-B	Twist Release	30mm	Black	RP2-BS42 *	RP2-BS42-B *
	30mm	Red	RB2-BS44	RB2-BS44-B		30mm	Red	RP2-BS44	RP2-BS44-B
	40mm	Black	RB2-BS52	RB2-BS52-B		40mm	Black	RP2-BS52 *	RP2-BS52-B *
	40mm	Red	RB2-BS54	RB2-BS54-B		40mm	Red	RP2-BS54	RP2-BS54-B
	60mm	Black	RB2-BS62	RB2-BS62-B		60mm	Black	RP2-BS62 *	RP2-BS62-B *
	60mm	Red	RB2-BS64	RB2-BS64-B		60mm	Red	RP2-BS64	RP2-BS64-B
Key Release	40mm	Black	RB2-BS12	RB2-BS12-B	Key Release	40mm	Black	RP2-BS12 *	RP2-BS12-B *
	40mm	Red	RB2-BS14	RB2-BS14-B		40mm	Red	RP2-BS14	RP2-BS14-B
Push-Pull	40mm	Black	RB2-BT2	RB2-BT2-B	Push-Pull	40mm	Red	RP2-BT4	RP2-BT4-B
	40mm	Red	RB2-BT4	RB2-BT4-B					
	60mm	Black	RB2-BX2	RB2-BX2-B		60mm	Red	RP2-BX4	RP2-BX4-B
	60mm	Red	RB2-BX4	RB2-BX4-B					

* special order only
Information subject to change without notice

Palm-Type and Wobble-Type E-stop Buttons

ITC's large-size Emergency-Stop (E-Stop or "Mushroom") pushbuttons, integrate the wide offering of 22.5mm control devices. The diameter of these buttons is 90mm (approx. 3½") which makes them appropriate for applications such as machine tool control, robotics, conveyors, elevating systems, and anywhere an immediate, highly visible emergency intervention device may be required.

Two types are available:

Wobble-Type buttons feature momentary or spring action, and the particularity is that such devices can be operated by applying eccentric pressure to any side of the "Mushroom". A special plastic mounting bracket is included. Available in Red, Green or Black.

Palm-Type buttons feature "push to actuate/pull to reset" function; they are available in Red only and mount on a machine or a panel by means of a standard metal bracket (RB2-B bracket shown on page 10). Standard NO or NC contacts are mounted on such brackets.

Features and specifications:

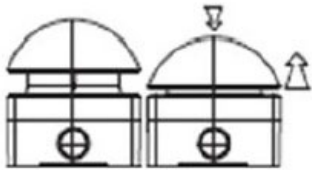
- **Mechanical life:** 300,000 operations
- **Mounting hole diameter:** 22.5mm, maximum thickness of plate 2mm
- **IP rating:** IP65
- **Material:** plastic rated UL94-V2



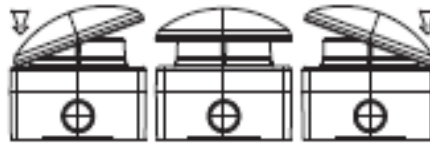
"Palm-Type" and "Wobble-Type" E-stop Buttons and accessories (Order by Part No.)

Part No.	Description	Std. Pack	Approvals
RB2-BTW2	Wobble-type momentary E-stop actuator 90mm black (includes bracket)	1	cULus
RB2-BTW3	Wobble-type momentary E-stop actuator 90mm green (includes bracket)	1	cULus
RB2-BTW4	Wobble-type momentary E-stop actuator 90mm red (includes bracket)	1	cULus
RB2-BT9E4	Palm-type push-pull E-stop actuator 90mm red (RB2-B bracket not included)	1	cULus
RP2-PCO	Special plastic bracket (spare) for RB2-BTW series	1	-

Information subject to change without notice



Push-Pull Palm Type





Momentary Wobble Type



Illuminated Pushbuttons and Selector Switches


Appropriate for use with BA9 socket incandescent, LED or Neon bulbs (not supplied).

Illuminated Pushbuttons (Order by Part No.)

Illuminated Spring Return Flush Head Actuator			Illuminated Spring Return Projecting Head Actuator				
Metal Bezel			Metal Bezel				
							
		Part No.				Part No.	
Colour	Actuator only	Actuator & Bulb Holder BA9s	Colour	Actuator only	Actuator & Bulb Holder BA9s	Colour	Actuator only
White	RB2-BW31	RB2-BW31-B	White	RB2-BW11	RB2-BW11-B	White	RB2-BW11
Green	RB2-BW33	RB2-BW33-B	Green	RB2-BW13	RB2-BW13-B	Green	RB2-BW13
Red	RB2-BW34	RB2-BW34-B	Red	RB2-BW14	RB2-BW14-B	Red	RB2-BW14
Amber	RB2-BW35	RB2-BW35-B	Amber	RB2-BW15	RB2-BW15-B	Amber	RB2-BW15
Blue	RB2-BW36	RB2-BW36-B	Blue	RB2-BW16	RB2-BW16-B	Blue	RB2-BW16
Clear	RB2-BW37	RB2-BW37-B	Clear	RB2-BW17	RB2-BW17-B	Clear	RB2-BW17

Bulb holders are supplied without bulbs
Information subject to change without notice

Illuminated Twin Touch Pushbuttons (Order by Part No.)



"Twin-Touch" Illuminated Actuator			
Metal Bezel			
			
		Part No.	
Type	Colour	Actuator only	Actuator & Bulb Holder BA9s
Flush	Green	RB2-BW9	RB2-BW9-B
	Red		
Projecting Red	Green	RB2-BW8465*	RB2-BW8465-B*
	Red		



RB2-BW16-B

* special order
Bulb holders are supplied without bulbs
Information subject to change without notice

Illuminated Selector Switches (Order by Part No.)

2-Position Illuminated Selector Actuator				3-Position Illuminated Selector Actuator			
							
		Part No.				Part No.	
Action	Colour	Actuator only	Actuator & Bulb Holder BA9s	Action	Colour	Actuator only	Actuator & Bulb Holder BA9s
2 Pos. Maintained	Green	RB2-BK123	RB2-BK123-B	3 Pos. Maintained	Green	RB2-BK133	RB2-BK133-B
	Red	RB2-BK124	RB2-BK124-B		Red	RB2-BK134	RB2-BK134-B
	Amber	RB2-BK125	RB2-BK125-B		Amber	RB2-BK135	RB2-BK135-B
	Blue	RB2-BK126	RB2-BK126-B		Blue	RB2-BK136	RB2-BK136-B
2 Pos. Spring Ret. To Left	Green	RB2-BK143	RB2-BK143-B	3 Pos. Spring Ret. To Centre	Green	RB2-BK153	RB2-BK153-B
	Red	RB2-BK144	RB2-BK144-B		Red	RB2-BK154	RB2-BK154-B
	Amber	RB2-BK145	RB2-BK145-B		Amber	RB2-BK155	RB2-BK155-B
	Blue	RB2-BK146	RB2-BK146-B		Blue	RB2-BK156	RB2-BK156-B

Bulb holders are supplied without bulbs
Information subject to change without notice


Illuminated E-stops and Pilot Lights

Illuminated E-Stop (Mushroom) Actuators (Order by Part No.)

Spring Return Illuminated E-Stop (Mushroom) Actuator - Metal Bezel						Latching (Push-Pull) Illuminated E-Stop (Mushroom) Actuator - Metal Bezel					
Part No.					Part No.						
Action	Diameter	Colour	Actuator only	Actuator & Bulb-Holder BA9s	Action	Diameter	Colour	Actuator only	Actuator & Bulb-Holder BA9s		
Spring Return	40mm	Red	RB2-BW44	RB2-BW44-B	Push-Pull	40mm	Red	RB2-BW64	RB2-BW64-B		


Bulb holders are supplied without bulbs. Information subject to change without notice

Pilot Lights for Incandescent bulbs and accessories (Order by Part No.)

Pilot lights for Incandescent Bulbs Metal Bezel				Lens sets for Pilot Lights		
Part No.			Part No.			
Colour	Pilot light head only	Head & Bulb Holder BA9s	Colour	Lens set	Fits Pilot Light	
White	RB2-BV01	RB2-BV01-B	White	RB2-BV001	RB2-BV01	
Green	RB2-BV03	RB2-BV03-B	Green	RB2-BV003	RB2-BV03	
Red	RB2-BV04	RB2-BV04-B	Red	RB2-BV004	RB2-BV04	
Amber	RB2-BV05	RB2-BV05-B	Amber	RB2-BV005	RB2-BV05	
Blue	RB2-BV06	RB2-BV06-B	Blue	RB2-BV006	RB2-BV06	
Clear	RB2-BV07	RB2-BV07-B	Clear	RB2-BV007	RB2-BV07	

Bulb holders are supplied without bulbs. Information subject to change without notice

Pilot Lights for LED and NEON bulbs and accessories (Order by Part No.)

Pilot Lights for Neon or LED Bulbs		
Colour	Part No. Pilot light head only	
Green	RB2-BVL03^	
Red	RB2-BVL04^	
Amber	RB2-BVL05^	
Blue	RB2-BVL06^	

^ End of stock items

Information subject to change without notice



Covers (Boots) for Pushbuttons (Order by Part No.)

Silicon Rubber Boots for Flush Pushbuttons Colour: Clear			Silicon Rubber Boots for Projecting Head Pushbuttons		
Height	Part No.	Fits Pushbuttons	Colour	Part No.	Fits Buttons
14mm	RC-S	RB2-BA...	Black	RB2-BP002	RB2-BL2 or -BP2
16.5mm	RC-M	RB2-BL...	Green	RB2-BP003	RB2-BL3 or -BP3
			Red	RB2-BP004	RB2-BL4 or -BP4
22mm	RC-L	RB2-BW...	Amber	RB2-BP005	RB2-BL5 or -BP5
17mm *	RC-BA87	RB2-BA87/BA87-B	Blue	RB2-BP006	RB2-BL6 or -BP6






* this cover is rectangular, all others are round

Information subject to change without notice



Pushbutton Contacts, Brackets and Bulb Holders

Brackets (Collars) and Bulb Holders (Order by Part No.)

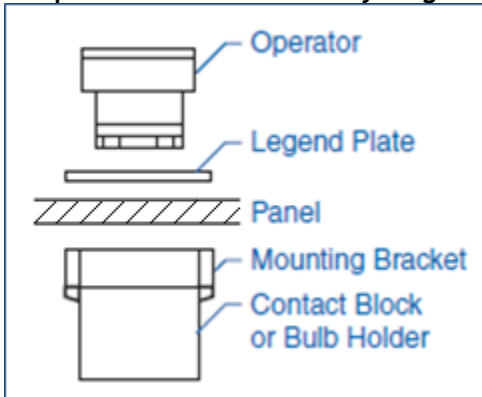
Part No.	RB2-B	RB2-BV6	RB2-BW06	RB2-BW060	RP2-B
Description & Picture	Metal collar	Pilot light bulb holder with 110V filament bulb	Pushbutton bulb holder with 110V filament bulb	Pushbutton bulb holder with no Bulb	Plastic collar
					

Contacts (Order by Part No.)

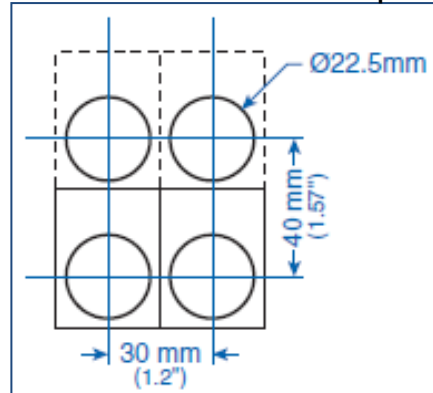
	Contact only, silver	Contact(s) and Bracket	Contact for reverse mount, plastic enclosures	Contact for reverse mount, metal enclosures	Contact only, gold plated
Operation	Part No.				
1 NO Contact	RB2-BE101	RB2-BZ101	RB2-BE101BP	RB2-BE101BM	RB2-BE1016
1 NC Contact	RB2-BE102	RB2-BZ102	RB2-BE102BP	RB2-BE102BM	RB2-BE1026
2NO Contacts	-	RB2-BZ103	-	-	-
2NC Contacts	-	RB2-BZ104	-	-	-
1NO+1NC Contact	-	RB2-BZ105	-	-	-

NC contacts have positive opening operation
Information subject to change without notice

Sample Push Button Assembly Diagram



Panel Cutout with minimum space requirements



LED, Incandescent and Neon Bulbs

LED, neon and incandescent lamp bulbs, are used for most control requirements, including pushbuttons, illuminated selector switches and pilot lights.

BA9s Incandescent bulbs (Order by Part No.)

Part No.	Colour	Voltage	Figure
RL1-CF006	White	6V AC/DC	1
RL1-CF012	White	12V AC/DC	1
RL1-CF024	White	24V AC/DC	1
RL1-CF048	White	48V AC/DC	1
RL1-CF130	White	110V AC/DC	1

Information subject to change without notice

BA9s NEON bulbs (Order by Part No.)

Part No.	Colour	Voltage	Figure
RL1-CN3-220	Green	220V AC	2
RL1-CN3-380 *	Green	380V AC	2
RL1-CN4-220	Red	220V AC	2
RL1-CN4-380 *	Red	380V AC	2
RL1-CN5-220	Yellow	220V AC	2
RL1-CN5-380 *	Yellow	380V AC	2

Information subject to change without notice

* Special order

BA9s Single-LED bulbs (Order by Part No.)

Reduce consumption by providing adequate luminosity, long duration (50,000 hrs. under proper conditions) and minimal heat generation, for most industrial applications in all devices equipped with BA9 sockets

Part No.	Colour	Voltage	Figure
RL0-CL1-6	White	6V AC/DC	3
RL0-CL1-12	White	12V AC/DC	3
RL0-CL1-24	White	24V AC/DC	3
RL0-CL1-130	White	110V AC/DC	3
RL0-CL1-220	White	220V AC	3
RL0-CL3-6	Green	6V AC/DC	3
RL0-CL3-12	Green	12V AC/DC	3
RL0-CL3-24	Green	24V AC/DC	3
RL0-CL3-130	Green	110V AC/DC	3
RL0-CL3-220	Green	220V AC	3
RL0-CL4-6	Red	6V AC/DC	3
RL0-CL4-12	Red	12V AC/DC	3
RL0-CL4-24	Red	24V AC/DC	3
RL0-CL4-130	Red	110V AC/DC	3
RL0-CL4-220	Red	220V AC	3
RL0-CL5-6	Yellow	6V AC/DC	3
RL0-CL5-12	Yellow	12V AC/DC	3
RL0-CL5-24	Yellow	24V AC/DC	3
RL0-CL5-130	Yellow	110V AC/DC	3
RL0-CL5-220	Yellow	220V AC	3
RL0-CL6-6	Blue	6V AC/DC	3
RL0-CL6-12	Blue	12V AC/DC	3
RL0-CL6-24	Blue	24V AC/DC	3
RL0-CL6-130	Blue	110V AC/DC	3
RL0-CL6-220	Blue	220V AC	3

Information subject to change without notice

BA9s Cluster-LED bulbs (Order by Part No.)

Rated 50,000 hours under proper conditions, these super bright cluster bulbs can be used in all devices equipped with BA9s sockets, providing economy, brightness and minimum heat generation

Part No.	Colour	Voltage	Figure
RL1-CL1-6	White	6V AC/DC	4
RL1-CL1-12	White	12V AC/DC	4
RL1-CL1-24	White	24V AC/DC	4
RL1-CL1-130	White	110V AC/DC	4
RL1-CL1-220	White	220V AC	4
RL1-CL3-6	Green	6V AC/DC	4
RL1-CL3-12	Green	12V AC/DC	4
RL1-CL3-24	Green	24V AC/DC	4
RL1-CL3-130	Green	110V AC/DC	4
RL1-CL3-220	Green	220V AC	4
RL1-CL4-6	Red	6V AC/DC	4
RL1-CL4-12	Red	12V AC/DC	4
RL1-CL4-24	Red	24V AC/DC	4
RL1-CL4-130	Red	110V AC/DC	4
RL1-CL4-220	Red	220V AC	4
RL1-CL5-6	Yellow	6V AC/DC	4
RL1-CL5-12	Yellow	12V AC/DC	4
RL1-CL5-24	Yellow	24V AC/DC	4
RL1-CL5-130	Yellow	110V AC/DC	4
RL1-CL5-220	Yellow	220V AC	4
RL1-CL6-6	Blue	6V AC/DC	4
RL1-CL6-12	Blue	12V AC/DC	4
RL1-CL6-24	Blue	24V AC/DC	4
RL1-CL6-130	Blue	110V AC/DC	4
RL1-CL6-220	Blue	220V AC	4

Information subject to change without notice



Figure 1

Figure 2

Figure 3

Figure 4

Monoblock LED Indicator Lights and Buzzers

ITC's Monoblock indicator lights and sound alarms (buzzers) for mounting in 22.5mm panel cutouts combine the convenience of single-component (no separate parts to order or to install) with the long life, low power consumption, high visibility of modern LEDs.

Buzzers have very small footprint, include a luminous red LED indicator and aesthetically combine with other 22.5mm panel components. Connection is by screw terminal. 6V, 36V, 48V and 380VAC are only available upon request.

Features and specifications:

- **Relative humidity:** Maximum 85%
- **Rated current:** Maximum 20 mA
- **Operational life:** > 30,000 hours
- **Brightness at rated voltage:** LED indicators > 60 cd/m²
- **Loudness (Buzzers):** >70 dB/10cm
- **Maximum voltage:** +10% of rated voltage (AC)
- **Minimum operating voltage:** -15% of rated voltage (AC)
- **Rated wire:** 0.5 to 2.5mm² (22 to 14AWG)
- **Terminal screw maximum torque:** 0.8 Nm
- **Operating temperature:** -5 to 40 °C
- **IP rating:** LED indicators IP65 | Buzzers IP20

Monoblock 12V AC/DC & 24V AC/DC Indicators (Order by Part No.)

12V AC/DC			24V AC/DC		
Colour	Part No.	Colour	Part No.		
White	RB2-BU1-12V	White	RB2-BU1-24V		
Green	RB2-BU3-12V	Green	RB2-BU3-24V		
Red	RB2-BU4-12V	Red	RB2-BU4-24V		
Amber	RB2-BU5-12V	Amber	RB2-BU5-24V		
Blue	RB2-BU6-12V	Blue	RB2-BU6-24V		

Information subject to change without notice, dimensions in figures are in mm

Monoblock - T series 12V AC/DC & 24V AC/DC Indicators (Order by Part No.)

12V AC/DC			24V AC/DC		
Colour	Part No.	Colour	Part No.		
White	RB2-BU1T-12V	White	RB2-BU1T-24V		
Green	RB2-BU3T-12V	Green	RB2-BU3T-24V		
Red	RB2-BU4T-12V	Red	RB2-BU4T-24V		
Amber	RB2-BU5T-12V	Amber	RB2-BU5T-24V		
Blue	RB2-BU6T-12V	Blue	RB2-BU6T-24V		



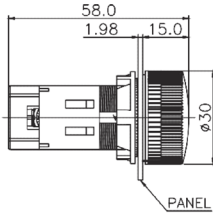
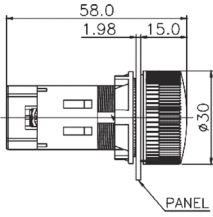
Information subject to change without notice, dimensions in figures are in mm

Monoblock 48V AC/DC & 220V AC/DC Indicator (Order by Part No.)

48V AC/DC			220V AC/DC		
Colour	Part No.	Colour	Part No.		
White	RB2-BU1-48V	White	RB2-BU1-220V		
Green	RB2-BU3-48V	Green	RB2-BU3-220V		
Red	RB2-BU4-48V	Red	RB2-BU4-220V		
Amber	RB2-BU5-48V	Amber	RB2-BU5-220V		
Blue	RB2-BU6-48V	Blue	RB2-BU6-220V		



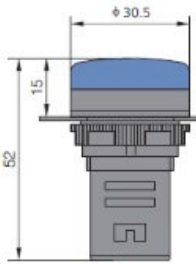
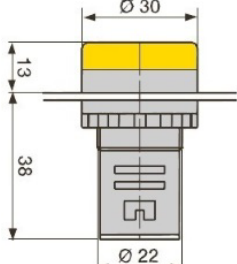
Information subject to change without notice, dimensions in figures are in mm

Monoblock - T Series 110V & 220V AC Indicators (Order by Part No.)

110V AC		220V AC/DC	
			
			
Colour	Part No.	Colour	Part No.
White	RB2-BU1T-110VAC	White	RB2-BU1T-220V
Green	RB2-BU3T-110VAC	Green	RB2-BU3T-220V
Red	RB2-BU4T-110VAC	Red	RB2-BU4T-220V
Amber	RB2-BU5T-110VAC	Amber	RB2-BU5T-220V
Blue	RB2-BU6T-110VAC	Blue	RB2-BU6T-220V



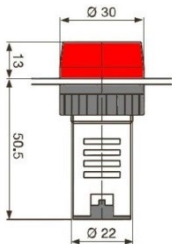
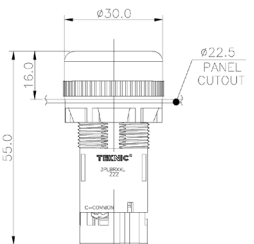
Information subject to change without notice, dimensions in figures are in mm

Monoblock 110V AC Indicators (Order by Part No.)

110V AC only		110V AC/DC	
			
			
Colour	Part No.	Colour	Part No.
White	RB2-BU1-110VAC	White	RB2-BU1-110V
Green	RB2-BU3-110VAC	Green	RB2-BU3-110V
Red	RB2-BU4-110VAC	Red	RB2-BU4-110V
Amber	RB2-BU5-110VAC	Amber	RB2-BU5-110V
Blue	RB2-BU6-110VAC	Blue	RB2-BU6-110V

Information subject to change without notice, dimensions in figures are in mm

BU Series Buzzers & Bi-colour Indicators (Order by Part No.)

Indicator / Buzzers		Bi-colour Indicators	
			
			
Operation	Part No.	Colour	Part No.
Intermittent - red light	RB2-BUZ1-12V^	Green + Red	RB2-BU34-24V
Intermittent - red light	RB2-BUZ1-24V	Green + Red	RB2-BU34-110V
Intermittent - red light	RB2-BUZ1-110V		
Intermittent - red light	RB2-BUZ1-230V^		
Intermittent - no light	RB2-BUZN-12V^		
Intermittent - no light	RB2-BUZN-24V		
Intermittent - no light	RB2-BUZN-110V		
Intermittent - no light	RB2-BUZN-230V^		



^special order; *RB2-BUZ series: no approvals

Information subject to change without notice, dimensions in figures are in mm

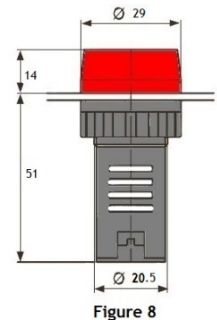
BUF Series Flashing Monobloc Indicators

The series BUF flashing Monobloc LED indicators are single-component pilot lights (no separate parts to order or to install), for mounting in 22.5mm panel cutouts, which include a micro circuit which generates a flashing signal. Available in 4 colours, 12V and 24V AC/DC, no UL/CSA certification.

BUF Series Flashing Monobloc Indicators (Order by Part No.)

12 V AC/DC				24 V AC/DC			
							
Colour	Part No.	Cert.	See Figure	Colour	Part No.	Cert.	See Figure
Green	RB2-BUF3-12	CE	8	Green	RB2-BUF3-24	CE	8
Red	RB2-BUF4-12	CE	8	Red	RB2-BUF4-24	CE	8
Amber	RB2-BUF5-12	CE	8	Amber	RB2-BUF5-24	CE	8
Blue	RB2-BUF6-12	CE	8	Blue	RB2-BUF6-24	CE	8

Information subject to change without notice, dimensions in figures are in mm



Accessories

Rectangular Legend plates

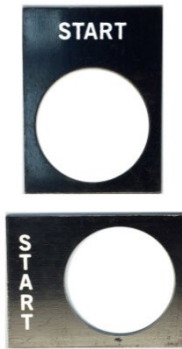
These 40x30mm aluminum legend plates (black, silver or white engraving) are mounted directly under the bezel of a pushbutton or selector switch (metal or plastic). They are clearly visible and can be cleaned or washed without removing the paint or the engraving.

Engraving is horizontal, on top of the round hole.

Standard text is in English, upper case.

Rectangular Legend Plates (Order by Part No.)

Part No.	Text
RB2-BY2301	-
RB2-BY2303*	START
RB2-BY2304**	STOP
RB2-BY2305	FORWARD
RB2-BY2306	REVERSE
RB2-BY2307	UP
RB2-BY2308	DOWN
RB2-BY2311*	ON
RB2-BY2312	OFF
RB2-BY2313	OPEN
RB2-BY2314	CLOSE
RB2-BY2315	AUTO
RB2-BY2316	HAND



Part No.	Text
RB2-BY2321	INCH
RB2-BY2323	RESET
RB2-BY2327	SLOW
RB2-BY2328	FAST
RB2-BY2331^	EMERGENCY STOP
RB2-BY2333	LOW
RB2-BY2334	HIGH
RB2-BY2335	HIGH LOW
RB2-BY2336	OFF ON
RB2-BY2337	STOP START
RB2-BY2338	UP DOWN
RB2-BY2364	AUTO - HAND
RB2-BY2385	AUTO - O - HAND
RB2-BY2387	HAND OFF AUTO
RB2-BY2390	FULL
RB2-BY3410	RESET ALARM

^ red with white lettering

** 2 sided, lettering horizontal on one side vertical on the other
Information subject to change without notice

^ red with white lettering

Information subject to change without notice

Engravable Blank Legend Plate

Colour: White on one side, yellow on opposite side, with black engraving colour

Dimensions: 40x30mm

Engravable Blank Legend Plate (Order by Part No.)

Part No.	Colour	Engraving Colour
RB2-BT9295	White / Yellow	Black

Information subject to change without notice

Rectangular Legend Plate Holder with Coloured Engravable Plates

ITC's plastic plate holder is mounted behind the device's bezel.

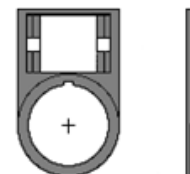
Plates (engrivable double-layer plastic) are inserted in the slot provided.

Dimensions (plates): 27x18mm

Rectangular Legend Plate Holder (Order by Part No.)

Part No.	Background	Engraving Colour
RB2-BT9290	Black	Silver
RB2-BT9291	Red/Black	White
RB2-BT9292	Yellow/White	Black
RBC-BT9394	Transparent	
RB2-BT9099	Legend Plate Holder	

Information subject to change without notice



RB2-BT9099

Round E-STOP Legend Plates

Round legend plates are typically mounted behind the bezel of an E-STOP (Mushroom head pushbutton).

Background: yellow

Marking: black English upper case, curved

Round E-STOP Legend Plates (Order by Part No.)

Part No.	Diameter (mm)	Material
RB2-AY9330	60	Aluminum
RB2-AY8340	80	Aluminum
RB2-AY8330	90	Aluminum
RB2-PY9330	60	Plastic
RB2-PY9331	60	Plastic w/ adhesive
RB2-PY8330	90	Plastic



Information subject to change without notice

Miscellaneous Accessories

(Order by Part No.)

Part No.	Description	For use with	Notes
100.041	Panel mount steel support	All devices	Used to mount any device on a backplate of a panel, etc...
111.164	22.5mm hole plug	-	Black polyamide
188.013	Pg13.5 blind stop	-	Light grey polyamide
RB2-AF2RR	Relay reset actuator - black	-	Includes button, collar & pressure shaft
RB2-AF3RR	Relay reset actuator - green	-	Includes button, collar & pressure shaft
RB2-AF4RR	Relay reset actuator - red	-	Includes button, collar & pressure shaft
RB2-AF8RR	Relay reset actuator - yellow	-	Includes button, collar & pressure shaft
RB2-BZ21	Intermediate latching mechanism for push/push operation	Non illuminated pushbutton	Transforms a spring return operator into a "push/push" operator
RB2-BZ41	Adapter 30mm to 22.5mm diameter holes		Reduces a 30mm to a 22.5mm hole
RB2-BZ6	Metal padlockable cover for flush operators	RB2-BA...	
RB2-K455	Spare key #455 for key-operated selector switch (1 piece)	RB2-BG-...	Other types of key upon request
RB2-QC12	Quick connector for contact blocks	RB2-BE10...	6.35mm tab
RB2-RPX	Adapter for reset button	-	Plastic shaft presses the reset button of a contactor, etc...
RBF-X13	Bulb Extractor	BA9s bulbs	

Information subject to change without notice





Pushbutton Enclosures Type DS-PG - 22.5mm or 30mm

Features and specifications:

- Available with either 22.5mm or 30mm holes (also available plain, without push-button holes), suitable for all types of control devices
- Available with one, two, three or four in-line holes. All models have the same width and depth
- Depth of enclosures allow for assembly of 2 rows of contacts, depending on the type of device installed
- Water resistant. Cover seal is molded inside a groove in the same
- **Flame resistance:** UL94-5VA
- **Operating temperature:** -40 to 85° C; max 90° C
- **IP rating:** IP66 (IEC 529), NEMA 4X
- **Materials PG:** polycarbonate/ABS (PG); **Materials PCG:** reinforced polyester, suitable for outdoor use
- **Approvals:** cULus



DS-PG Pushbutton Enclosures (Order by Part No.)

Part No.	Certifications	Ext. Dimensions (H,W,D, mm)	Int. Height	No. of Holes & Diameter
DS-PCG-0811-1B1	CE, cULus	110 x 80 x 85	72mm	1 hole Ø22.5mm
DS-PCG-0813-1B2	CE, cULus	130 x 80 x 85	72mm	2 holes Ø22.5mm
DS-PCG-0818-1B3	CE, cULus	180 x 80 x 85	72mm	3 holes Ø22.5mm
DS-PCG-0825-1B4	CE, cULus	250 x 80 x 85	72mm	4 holes Ø22.5mm
DS-PG-0811-1A1	CE, cULus	110 x 80 x 85	72mm	1 hole Ø30.5mm
DS-PG-0813-1A2	CE, cULus	130 x 80 x 85	72mm	2 holes Ø30.5mm
DS-PG-0818-1A3	CE, cULus	180 x 80 x 85	72mm	3 holes Ø30.5mm
DS-PG-0825-1A4	CE, cULus	250 x 80 x 85	72mm	4 holes Ø30.5mm
DS-PG-0811-1	CE, cULus	110 x 80 x 85	72mm	Plain enclosure
DS-PG-0813-1	CE, cULus	130 x 80 x 85	72mm	Plain enclosure
DS-PG-0818-1	CE, cULus	180 x 80 x 85	72mm	Plain enclosure
DS-PG-0825-1	CE, cULus	250 x 80 x 85	72mm	Plain enclosure

Information subject to change without notice

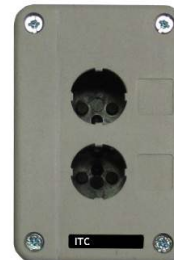


Non-Metallic Economy Pushbutton Enclosures Type RC-P - 22.5mm

These enclosures were designed for compact, quick installation of 22.5mm devices, each with one or maximum 2 contacts.

Features and specifications:

- Available with one, two or three in-line holes, Ø 22.5mm
- Up to 2 contacts per pushbutton can be mounted with a standard collar, or alternately reverse-mounted on the base of the enclosure
- Each enclosure comes with two M20 threaded entries, one being equipped with a protection plug
- Spacing between centers of holes = 50mm allows for easy assembly of pushbuttons, selectors and e-stops
- Operating temperature:** -25 to 70° C
- IP rating:** IP65
- Material:** thermoplastic resin, black base & light grey lid



RC-P Non-metallic Enclosures (Order by Part No.)

Part No.	Certifications	Ext. Dimensions (H,W,D, mm)	Int. Height (mm)	No. of Holes Ø 22,5mm
RC-1P^	-	68 x 68 x 51	39.7	1
RC-1PY^+	-	68 x 68 x 51	39.7	1
RC-1P-C	-	70 x 70 x 51	44	1
RC-1P-R^	CE, cULus	74 x 68 x 52	39.8	1
RC-1PY-R^+	CE, cULus	74 x 68 x 52	39.8	1
RC-2P^	-	105 x 68 x 50	39.1	2
RC-2P-R^	CE, cULus	105 x 69 x 51	38.3	2
RC-3P^	-	134 x 68 x 51	39.7	3
RC-3P-R^	CE, cULus	135 x 68 x 52	37.9	3
RC-4P-R^	CE, cULus	165 x 69 x 52	36.3	4
RC-5P-C	-	225 x 70 x 74	-	5
RC-6P-C	-	225 x 70 x 74	-	6

^ for reverse mounting

+ yellow cover

Information subject to change without notice

Accessories for Pushbutton Enclosures

Accessories for all Pushbutton Enclosures (order by Part No.)

Part No.	Description	Weight (g)
111.164	22.5mm snap plug, black polyamide	7.5
188.013	21mm threaded polyamide grey plug for temporary blanking of a device hole	
184.013	Locknut for threaded plug 188.013	
188.120	M20 plug, black polyamide	7
184.120	M20 locknut, black polyamide	4.5
188.720	M20 plug, brass nickel plated	30
194.622	Thread adapter M20 (M) to ½"NPT(F)	35

Information subject to change without notice



Aluminum Pushbutton Enclosures Type RC-MT - 22.5mm

Features and specifications:

- Available with one, two, three or four in-line holes, Ø 22.5mm (standard for pushbuttons, pilot lights, etc.)
- Up to 2 contacts per pushbutton can be mounted with a standard collar, or alternately reverse-mounted on the base of the enclosure
- Spacing between centers of holes = 50mm allows for easy assembly of pushbuttons, selectors, e-stops
- Each enclosure comes with two M20 threaded entries, one being equipped with a protection plug
- Mounting through 4 holes 6mm diameter
- **IP rating:** IP65
- **Material:** die-cast aluminum, protected with powder coating (black base/light grey). High resistance to corrosion



Aluminum Pushbutton Enclosures type RC-MT & Accessories (Order by Part No.)

Part No.	Description	Ext. Dimensions (H,W,D, mm)	Int. Height (mm)	No. of Holes Ø 22.5mm
RC-1MT	Pushbutton enclosure, diecast aluminum	90 x 80 x 53	38.3	1
RC-2MT	Pushbutton enclosure, diecast aluminum	135 x 80 x 53	41.0	2
RC-3MT	Pushbutton enclosure, diecast aluminum	180 x 80 x 53	40.1	3
RC-4MT	Pushbutton enclosure, diecast aluminum	224 x 80 x 53	40.2	4

Information subject to change without notice

Aluminum Economy Pushbutton Enclosures Type RC-M - 22.5mm

Features and specifications:

- Available with one, two, three or four in-line holes, Φ 22.5mm
- Made of diecast aluminum, dark grey base and light grey lid
- Up to 2 contacts per pushbutton can be mounted with a standard collar, or alternately reverse-mounted on the base of the enclosure
- Spacing between centers of holes = 50mm
- Each enclosure comes with two M20 threaded entries, one being equipped with a protection plug
- **Operating temperature:** -25 to 70° C
- **IP rating:** IP65



RC-M Metallic Enclosures (Order by Part No.)

Part No.	Certifications	Ext. Dimensions (H,W,D, mm)	Int. Height (mm)	No. of Holes Ø 22.5mm
RC-1M	CE, cURus	68 x 68 x 51	44	1
RC-2M	CE, cURus	104 x 68 x 51	44	2
RC-3M	CE, cURus	134 x 68 x 51	44	3
RC-4M	CE, cURus	162 x 68 x 51	44	4

Information subject to change without notice

Cable Glands for Pushbutton Enclosures



ITC offers a full range of cable glands and accessories to complete your installation with the pushbutton enclosures.

For sizing, materials, and fitting options, refer to the catalog EC-1604 Cable Glands & Accessories or contact ITC directly.

Control Station with Pushbutton(s) - Complete Set Up

In addition to our wide selection of 22.5mm control devices, ITC also offers fully assembled control stations tailored to your application needs. Whether you require simple start/stop functions or more complex multi-function layouts, ITC can help you configure the right solution using our durable enclosures, contact blocks, actuators, and accessories.



For details on available options and configurations, refer to the catalog EC-1837 Control Stations or contact ITC directly.



ELECTRICAL COMPONENTS



416.663.7223



www.itcproducts.com



50 Mural St Unit 8
Richmond Hill, ON L4B 1E4



DIN Rail



DIN Rail Accessories



Hinged Enclosures



Thermal Management



PANEL Lighting



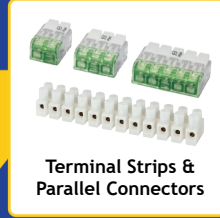
Multipole Connectors



Plug and Socket Connectors



Terminal Blocks



Terminal Strips & Parallel Connectors



Interface Connectors



Pushbuttons & Control Stations



Led Light bulbs & Pilot Lights



Limit Switches



Micro Limit Switches



Safety Switches



Foot Switches



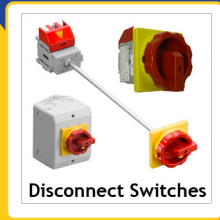
Circuit Breakers



Contactors & Starters



Variable Frequency Drives



Disconnect Switches



Fuses & Fuse Holders



Tower Lights & Signalling Devices



Power Continuity



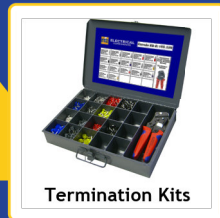
Ferrules



Colour Coded Lugs



Crimp Terminals



Termination Kits



Cable Glands



Thread Adapters



Cable Entry Systems



Wire Management



DIN Rail Cutters



Assembly Tables



Cutting & Stripping



Crimping Tools



Hole Cutting & Punching Tools

SOME OF OUR MANUFACTURING PARTNERS

bimed

df Electric

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