We touch your electricity everyday!





Control & Signalling Devices

Pilot LampsPush ButtonsControl Stations



C&S Electric Ltd. is a leading manufacturer of electrical and electronic equipment in India. It is one of India's largest exporters of industrial switchgear & power busbar products. C&S Electric products are used in applications ranging from power generation, transmission and distribution, protection and final consumption.

C&S Electric has the following product verticals:

- LV Switchgear
- LV Switchboards
- LV & MV Busducts
- LV Bustrunking
- Protection and Measurement Devices

MANUFACTURING FACILITIES



C&S is one of the leading supplier in the LV Switchgear business segment and a market leader in the busbar business with more than 50% share in Indian market.

11 MANUFACTURING PLANTS

C&S Electric have 11 state-of-the-art manufacturing facilities in Noida, Haridwar & Guwahati, which are equipped with latest tools and systems to ensure highest level of quality and services.

600+ STOCKISTS

A dedicated network of channel partners, ensuring access to the farthest corners of India, with an obsession for customer services. In addition C&S products are available in 8000+ retail counters nationally.

EXPORTS TO OVER 85 COUNTRIES

C&S exports the entire range of products across all 7 continents, thus reaffirming its position as one of India's largest exporters of industrial electrical products.

5000+ WORKFORCE

5000+ Workforce including over 371 engineers, dedicated sales team of 424 people & millions of satisfied customers.

R&D

4 Govt. approved labs/centres, over 20,000 sqft. space dedicated to R&D, 70 R&D engineers, state of the art testing & design facilities ... & most of the all a passion for innovation & excellence.







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Introduction

Control Stations - Assembled

Quality Assurance





ISO

ISO 18001-2007

14001:2015 9001:2015

45001:2018

C&S offers a wide range of Indicating lights, Push Buttons and Selector Switches. The Control and Signaling devices are available in Metallic & Polycarbonate Series.

Push Buttons & Pilot Lamps

- Ø22.5 mm Push Buttons, Emergency Stop PB, Selector switch Illuminated & Non Illuminated Actuators in Plastic & Metallic variants
- Pilot Lamps in LED / Filament / Neon types
- Push Button Stations 1/2/3/4 ways, IP65 / 166, NEMA-41/X protection
- High Mechanical and Electrical life
- Aesthetic and Elegant outlook
- Wide Range of colors I voltages available

Globally accepted

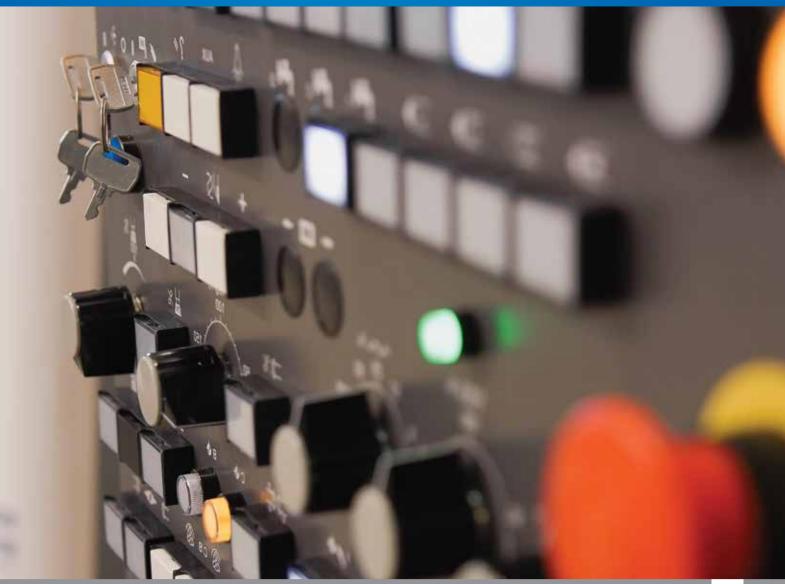














General Characteristics	
Products	Push Buttons, Selector Switches, Key Selector Switches, Latching Mushroom Head Push Buttons Pilot Lights & lluminated Push Buttons
Reference Standard	IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C-22-2 nº 14
Approval	cUL, UL, CSA, CE
Protection Degree	IP65 / IP66 according to IEC 60947-1;
Pollution Degree	3
Temperature	-40°C ~ +70°C (Storage) -25°C ~ +70°C (Working)
Vibration Resistance	\varnothing 60mm Mushroom Head Push Buttons: 8g, Other Push Buttons & Pilot Lights: 15g (40Hz <frequency<500 68-2-6<="" conforming="" hz)="" iec="" td="" to=""></frequency<500>
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	Push Buttons & Selector Switches 1 million operations, Latching Emergency Mushroom 300,000 operations
Contact Elements Characterist	ics
Rated Thermal Current I _{th}	10A
Rated Insulation Voltage U	500V conforming to IEC 60947-1 , UL 508 & CSA 22-2 nº 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	1x0.5mm² 2x1.5mm²
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

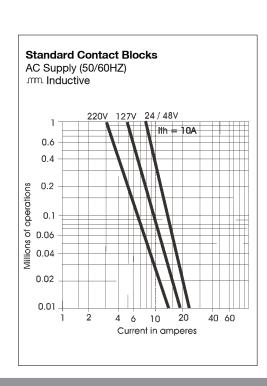
35% Power Factor

Voltage	Make (A)	VA	Break (A)	VA	Continuous carrying (A)	Resistive 75% Power factor Make, Break & continuous (A)
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 Ratings, NEMA Q600

Inductive and resistive

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



Global Certification UL CUL US LISTED ST CE ROHS























Push Spring Return Push Button Flush Spring Return Push Button with contact	Metallic RCB2-BA10 RCB2-BA3 RCB2-BA3 RCB2-BA4 RCB2-BA5 RCB2-BA6	Polycarbonate RCP2-BA10 RCP2-BA30 RCP2-BA40 RCP2-BA50 RCP2-BA60 RCP2-BA60
	RCB2-BA3 RCB2-BA4 RCB2-BA5 RCB2-BA6 -	RCP2-BA3 RCP2-BA4 RCP2-BA5 RCP2-BA6 RCP2-BA6
	RCB2-BA3 RCB2-BA4 RCB2-BA5 RCB2-BA6 -	RCP2-BA3 RCP2-BA4 RCP2-BA5 RCP2-BA6 RCP2BA33
	RCB2-BA5 RCB2-BA6	RCP2-BA5 RCP2-BA6 RCP2BA33
	RCB2-BA6 ●	RCP2-BA5 RCP2-BA6 RCP2BA33
Flush Spring Return Push Button with contact	RCB2-BA6● - -	RCP2-BA6 RCP2BA33
Flush Spring Return Push Button with contact	-	RCP2BA33
Flush Spring Return Push Button with contact	-	
Tush oping neturn ash batton with contact	-	
	5050 514	RCP2BA35
	RCB2-BL1o	RCP2-BL10
	RCB2-BL2●	RCP2-BL2●
Projecting Push Button –	RCB2-BL3●	RCP2-BL3
- rojecting rush button	RCB2-BL4	RCP2-BL4
	RCB2-BL5	RCP2-BL5
	RCB2-BL6●	RCP2-BL6
	RCB2-BC2●	RCP2-BC2●
	RCB2-BC3	RCP2-BC3
Mushroom Head Push Button, Spring Return	RCB2-BC4	RCP2-BC4
	RCB2-BC5	RCP2-BC5
	RCB2-BC6	RCP2-BC6
	-	RCP2-BC21●
	-	RCP2-BC31
Mushroom Head Push Button, Spring Return with contact	-	RCP2-BC42
	-	RCP2-BC51
	-	RCP2-BC61
Mushroom Head Push ∞40mm Button Stay Put (press to ∞60mm	RCB2-BS54	RCP2BS54
lock, turn to release)	RCB2-BS64	RCP2BS64
Mushroom Head Push Button, Push to Stay & Key to release	RCB2-BS14	RCP2BS14 •
Push Button Stay Put ∅30mm (Press to Lock turn to release	RCB2-BS44	RCP2BS44
Push Button Actuators with Carrier & Contact Element-Non-	-Illuminated	
	RCB2-BA110	RCP2-BA11C
	RCB2-BA21●	RCP2-BA21●
Flush Carina Bahum Bush Buthan with ANO Black	RCB2-BA31●	RCP2-BA31
Flush Spring Return Push Button with 1NO Block	RCB2-BA51	RCP2-BA51
	RCB2-BA61●	RCP2-BA61
	RCB2-BA41●	RCP2-BA41
Push Button with 1NC Block	RCB2-BA42	RCP2-BA42
	RCB2-BA11O	RCP2-BL11C
<u> </u>	RCB2-BA21●	RCP2-BL21●
Projecting Head Push Button with 1NO Block	RCB2-BA31	RCP2-BL31
<u> </u>	RCB2-BA51	RCP2-BL51
	RCB2-BA61●	RCP2-BL61
Projecting PB with 1NC Block	RCB2-BA41●	RCP2-BL42























	_			
Description	Reference			
<u> </u>	Metallic	Polycarbonate		
	RCB2-BW316▲○	RCP2-BW316▲		
Illuminated Actuator, Flush (With BA9 Filament Bulb)	RCB2-BW336▲●	RCP2-BW336▲		
12V, 24V, 48V, 110V AC / DC	RCB2-BW346▲●	RCP2-BW346▲		
	RCB2-BW356▲●	RCP2-BW356▲		
	RCB2-BW366▲●	RCP2-BW366▲		
	RCB2-BW376s▲○	RCP2-BW376▲C		
lluminated Actuator, Flush (With BA9 Neon Bulb)	RCB2-BWN336▲●	RCP2-WN336▲		
220V, 380V, 415V AC / DC	RCB2-BWN346▲●	RCP2-WN346▲		
	RCB2-BWN356▲●	RCP2-WN356▲		
Push Button Actuators - Illuminated Flush				
	RCB2-BW317▲○	RCP2BW317▲○		
	RCB2-BW337▲●	RCP2-BW337▲●		
lluminated Actuator, Flush (with BA9S Filament	RCB2-BW347▲●	RCP2-BW347▲		
Bulb, 130V) 220V AC/DC	RCB2-BW357▲●	RCP2-BW357▲		
	RCB2-BW367▲●	RCP2-BW367▲		
	RCB2-BW377▲○	RCP2-BW377▲C		
LED Type Push Button Actuators - Illuminated Flush				
	RCB2-BWL337▲●	RCP2-BWL337▲		
Flush Illuminated with Integral Circuit LED suitable for operating at 240V 220V, 110V, 48V, 24V & 12V	RCB2-BWL347▲●	RCP2-BWL347▲		
operating at 2400 2200, 1100, 400, 240 a 120	RCB2-BWL357▲●	RCP2-BWL357▲		
Flush Illuminated With Integral Circuit LED suitable for operating at 240V 220V, 110V, 48V, 24V & 12V	RCB2-BWL317▲○	RCP2-BWL317▲		
Flush Illuminated Actuator, with integral circuit LED, suitable for operating at common voltage AC/	RCB2-BWL377▲●	RCP2-BWL377▲		
DC 220V, 110V, 48V, 24V & 12V Also available at	RCB2-BWL387▲•	RCP2-BWL387▲		
operational voltage 240V AC, 220VDC, 110V AC, 110V DC	RCB2-BWL367▲●	RCP2-BWL367▲		
Push Button Actuator-Illuminated Projecting without	Series Resistor			
	RCB2-BW116▲○	RCP2-BW116▲C		
Illuminated Actuator, Flush (With BA9 Filament Bulb)	RCB2-BW136▲●	RCP2-BW136▲		
12V, 24V, 48V, 110V AC / DC	RCB2-BW146▲●	RCP2-BW146▲		
	RCB2-BW156▲●	RCP2-BW156▲		
	RCB2-BW166▲●	RCP2-BW166▲		
Ultrasia at ad Antonia Charles (AACA) - D. U.S.	RCB2-BW176▲○	RCP2-BW176▲C		
Illuminated Actuator, Flush (With BA9 Neon Bulb) 220V, 380V, 415V AC / DC	RCB2-BWN136▲●	RCP2-BWN136▲		
	RCB2-BWN146▲●	RCP2-BWN146▲		
	RCB2-BWN156▲●	RCP2-BWN156▲		
Push Button Actuator-Illuminated Projecting without	Series Resistor			
	RCB2-BW117▲○	RCP2-BW117▲C		
	RCB2-BW137▲●	RCP2-BW137▲		
	RCB2-BW147▲●	RCP2-BW147▲		
Illuminated Actuator, Projecting (with BA9S Filament	RCB2-BW157▲●	RCP2-BW157▲		
Bulb, 130V) 220V AC/DC	RCB2-BW167▲●	RCP2-BW167▲		
	RCB2-BW177▲○	RCP2-BW177▲C		
	_	RCP2-BW187▲		

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RCB2-BWL167▲●





RCP2-BWL187▲•

RCP2-BWL167▲●







LED Type Push Button Actuators-Illuminated Projecting Type of voltage AC/DC to be specified				
Description	Reference			
Description	Metallic	Polycarbonate		
	-	RCP2-BWL117▲○		
Projecting Illuminated Actuator, with integral LED,	RCB2-BWL137▲●	RCP2-BWL137▲●		
suitable for operating at common Voltage	RCB2-BWL147▲●	RCP2-BWL147▲●		
AC/DC 110V, 48V, 24V &12V	RCB2-BWL157▲●	RCP2-BWL157▲●		
Also available at operational Voltage 240V AC, 220V	-	RCP2-BWL177▲○		

Colour	Code	for	Actuator	/ I	ens

DC 110V AC, 110V DC

Colour Code	1	2	3	4	5	6	7
Colour of Actuator	White	Black	Green	Red	Yellow	Blue	-
Colour of Lens	White	-	Green	Red	Amber	Blue	Clear

▲Add Voltage Code, ❖ Operating voltage available in 240V AC, 110V & 220V DC













Selector Switch		
Describetion	Re	eference
Description	Metallic	Polycarbonate
2-Position Selector Switch (stay put)	RCB2-BD2	RCP2-BD2
3-Position Selector Switch,centre 'OFF' (stay put)	RCB2-BD3	RCP2-BD3
2-Position Selector Switch with extra long knob (stay put)	RCB2-BJ2	RCP2-BJ2
3-Position Selector Switch, with extra long knob centre 'OFF' (stay put)	RCB2-BJ3	RCP2-BJ3
3-Position Selector Switch (Spring Return)	RCB2-BDR2	-
2-Position Selector Switch-extra long knob (Spring Return)	RCB2-BDR3	RCP2-BDR3
2 Position Colortor Cuitab sytra lang (mak (Caring Potura)	RCB2-BJR2	-
3-Position Selector Switch extra long knob (Spring Return)	RCB2-BJR3	RCP2-BJR3
Selector Switch Actuators with Carrier & Contact Element		
2-Position Selector Switch (stay put) with 1NO Block	RCB2-BD21	RCP2-BD21
2-Position Selector Switch, centre 'OFF' (stay put) with NO+NC Block	RCB2-BD25	RCP2-BD25
3-Position Selector Switch, centre 'OFF' (stay put) with NO+NC Block	RCP2-BD35	RCP2-BD35
Key Actuators with Carrier		,
2-Position Key Switch, Key removable in unactuated position	RCB2-BG2	RCP2-BG2
2-Position Key Switch, Key removable in both position	RCB2-BG4	RCP2-BG4
2-Position Key Switch, Key removable in 'Right Hand' position	RCB2-BG02	RCP2-BG02
2-Position (Spring Return) Key Switch, Key, removable in 'Left Hand' position	RCB2-BG3	-
3-Position Key Switch, Key removable in centre 'OFF' position	RCB2-BG0	RCP2-BG3
3-Position Key Switch, Key removable in all position	RCB2-BG5	RCP2-BG0
3-Position Key Switch, Key removable in 'Left Hand & Right Hand' position	RCB2-BG9	RCP2-BG5
3-Position Key Switch, Key removable in 'Left Hand' position	RCB2-BG09	RCP2-BG9
3-Position Key Switch, Key removable in 'Right Hand' position	RCB2-BG7	RCP2-BG7



















Description	Reference			
Description	Metallic	Polycarbonate		
2-Position Illuminated Selector Switch (with BA9S Filament Bulb 130V) suitable for operation at 220V AC/DC	RCB2-BK1237▲●	-		
	RCB2-BK1247▲●	-		
	RCB2-BK1257▲●	-		
3-Position Illuminated Selector Switch (with BA9S	RCB2-BK1337▲●	-		
Filament Bulb 130V) suitable for operation at 220V	RCB2-BK1347▲●	-		
AC/DC	RCB2-BK1357▲●	-		
Selector Switch Actuators - Illuminated without	series resistor			
2-Position Illuminated Selector Switch (with BA9S				

Selector Switch Actuators - Illuminated without series resistor						
2-Position Illuminated Selector Switch (with BA9S Filament Bulb) 12V, 24V, 48V, 110V AC/DC, 220V DC, 240V AC	RCB2-BK1256▲●	-				
3-Position Illuminated Selector Switch (with BA9S	RCB2-BK1336▲●	-				
Filament Bulb) 12V, 24V, 48V, 110V AC/DC, 220V DC, 240V AC	RCB2-BK1346▲●	-				
	RCB2-BK1356▲●	-				
2-Position Illuminated Selector Switch (with LED Bulb)	RCB2-BKL1237▲●	-				
suitable for operation at 12V, 24V, 48V, 110V AC/DC,	RCB2-BKL1247▲●	-				
220V DC, 240V AC	RCB2-BKL1257▲●	-				
3-Position Illuminated Selector Switch (with LED Bulb)	RCB2-BKL1337▲●	-				
suitable for operation at 12V, 24V, 48V, 110V AC/DC,	RCB2-BKL1347▲●	-				
220V DC, 240V AC	RCB2-BKL1357▲●	-				

Double Push Button Actuators - Illuminated Flush without Series Resistor

Illuminated Double Push Button, Flush Green & Red Knob marked I&O respectively (with BA9S Neon Bulb) 220V, 380V, 415VAC/DC

RCB2-BWN96▲

Push Button Actuators with Carrier - Non-Illuminated

Pilot Lamps with Series Resistor

Double Push Button, Flush Green & Red Knob marked I&O respectively

RCB2-BA87

Description	Refe	Reference			
Description	Metallic	Polycarbonate			
	RCB2-BV71▲	RCP2-BV71▲			
	RCB2-BV73▲●	RCP2-BV73▲●			
Pilot Lamp (with BA9S Filament Bulb 130V) 220V AC / DC	RCB2-BV74▲●	RCP2-BV74▲●			
	RCB2-BV75▲●	RCP2-BV75▲●			
	RCB2-BV76▲●	RCP2-BV76▲●			
	RCB2-BV77▲○	RCP2-BV77▲○			
Pilot Lamps with Series Resistor & Diode	,	,			
	RCB2-BVD71	RCP2 BVD71▲			
	RCB2-BVD73▲●	RCP2-BVD73▲●			
Pilot Lamp (with BA9S Filament bulb 130V)	RCB2-BVD74▲●	RCP2-BVD74▲●			
220V AC/DC	RCB2-BVD75▲●	RCP2-BVD75▲●			
	RCB2-BVD76▲●	RCP2-BVD76▲●			
	RCB2-BVD77▲○	RCP2-BVD77▲○			



















D	Re	Reference			
Description	Metallic	Polycarbonate			
	RCB7-IVL73▲●	-			
	RCB7-IVL74▲●	-			
Integral LED pilot Lamp suitable for operating at common voltage AC/DC 110V, 48V, 24V & 12V	RCB7-IVL75▲●	-			
	RCB7-IVL77▲○	-			
Also available at operational voltage 240V AC, 220V DC, 110V AC, 110V DC	RCB7-IVL78▲●	-			
	RCB7-IVL76▲●	-			
	RCB7-IVL71▲	-			
	RCB7-IVL73▲●	-			
	RCB7-IVL74▲●	-			
	RCB7-IVL75▲●	-			
Wide range: 12V~240V AC/DC	RCB7-IVL77▲○	-			
	RCB7-IVL78▲●	-			
	RCB7-IVL76▲●	-			
	RCB7-IVL71▲	-			
ED Type Pilot Lamp Type of voltage AC / DC to b	e specified				
	RCB2-BVL73▲●	RCP2-BVL73▲			
Dilat Light with integral circuit LED, quitable for	RCB2-BVL74▲●	RCP2-BVL74▲			

Pilot Light with integral circuit LED, suitable for operating at common Voltage AC/DC 110V, 48V, 24V &12V	HODZ-DVL/3	HOI Z-DVL/3
	RCB2-BVL74▲●	RCP2-BVL74▲●
	RCB2-BVL75▲●	RCP2-BVL75▲●
	RCB-BVL77▲○	RCP2-BVL77▲O
Also available at operational Voltage 240V AC, 220V DC 110V AC, 110V DC	RCB2-BVL78▲●	RCP2-BWL71▲
	RCB2-BVL76▲●	RCP2-BWL78▲●
	RCB2-BVL71▲	RCP2-BWL76▲●

Voltage Code for Pilot Lamps											
Voltage	12V*	24V*	48V*	110V*	110VAC	110VDC	125V*	220V*	220VDC	240VAC	415VAC
▲Add Voltage Code. *For AC/DC											

Complete Pilot Light Bodies

	Reference			
Description	Metallic	Polycarbonate		
Direct BA 9s Filament Bulb Supplied 12V, 24V, 48V, 110V, 130V AC/DC	RB2BV6*	-		
Through Resistor BA 9s, 130 V Filament Bulb supplied 240V AC/DC	RB2BV7	-		
Through Resistor & dIODE BA 9s, 130 V Filament Bulb supplied: 240V AC	RB2BVD7	-		
Via intefral Transformer 1.2VA BA9s, 6v Filament Bulb	RB2BV3	-		
Supplied 110V , 6V AC, 220V, 240V, 6V AC	RB2BV4	-		
	RB2BVL71	-		
	RB2BVL73 ●	-		
	RB2BVL74 ●	-		
Integral Circuit & Cluster LED 12V, 24V, 48V AC/DC 110VAC, 110V DC, 220V DC, 240VAC	RB2BVL75	-		
1100/10, 1100 00, 2200 00, 2400/10	RB2BVL76 ●	-		
	RB2BVL77 O	-		
	RB2BVL78	-		









RP2-BA36 •

RP2-BA46 •

















Push Buttons Additional Accessories	F	Reference			
Description	Metallic	Polycarbonate			
Reset Extended Actuator Push button - Round Type	RCB2AL8R	-			
Reset Extended Actuator Push button - Hex Type	RCB2AL8H	-			
Plastic Adopter for 30 mm hole to 22.5 mm.	-	RP2-BZ41M			
Metal Adopter for 30 mm hole to 22.5 mm	RB2-BZ41M	-			
	-	RP2-BA16			
	-	RP2-BA26 ●			

RP2-BA56 • RP2-BA66 •

Recess (Guarded) Push button - Plastic

Flashing Buzzer		
Intermittent Sounding Flashing Buzzer 15 ~ 20 mA, sound level 80 dB.24V, 48V, 110V AC/DC 240V AC (* Add Voltage code)	RB2-KS* ●	

Contact Elements - NO/NC (Non UL)					
Contact Element 1 NO	RE2-BE-101				
Contact Element 1 NC	RE2-BE-102				
Contact Elements - NO/NC (UL)					
Contact Element 1 NO	RB2-BE-101				
Contact Element 1 NC	RB2-BE-102				

Push Buttons - Add on Block Option (Polycarbonate)					
Description	Aux. Contacts	Reference			
Max. Aux Contacts (6NO or 6NC)	NO	RB2-BE-101			
Max. Aux Contacts (6140 of 6146)	NC	DD2 DE 102			

Push Buttons - Add on Block Option (Metallic)

Tuen Buttene Aug en Breek option (metallie)					
Description	Aux. Contacts	Reference			
1NO+1NO or 1NC+1NC	NO	RB2-BZ101			
	NC	RB2-BZ102			
	1NO+1NO	RB2-BZ103			
	1NC+1NC	RB2-BZ104			
	1NO+1NC	RB2-BZ105			

NOTE: At any point of time, the max Aux contacts available for Polycarbonate series is 6NO or 6NC and for Metallic Series it is 1NO+1NO

HOW TO ORDER:

- 1. Actuators, switch elements, lens assemblies can be ordered separately or in combination.
- 2. Basic type designation for actuators is "RB2-B". Numerical colour code is added as a suffix to indicate the colour of the actuator or lens. Remove "*" and put numerical code as indicated below:

Colour Code	1	2	3	4	5	6	7
Colour of Actuator	White	Black	Green	Red	Yellow	Blue	-
Colour of Lens	White	-	Green	Red	Amber	Blue	Clear

- 3. Different suffixes are assigned for flush, projecting, selector actuators etc.
- 4. The type designation for contact element is '1' for NO and '2' for NC.
- 5. Basic type designation for legend plates is "RB2-BY". To complete code with type of inscription please remove "**" and put numerical code as indicated below.

Control Stations - Assembled













Complete Control Stations - Start and Stop Functions Metal & Plastic, Spring Return

Description	Scheme	Colour	Making on legend	Reference	
Description				Metallic	Polycarbonate
1 Flush Push Button	NO	3	1	RC1M 102	RC1P 102
T TidsiTT dsiT battori	140		START	RC1M 103	RC1P 103
1 Flush Push Button	NC	4	0	RC1M 112	RC1P 112
i Flusii Fusii Bulloii	INC		STOP	RC1M 114	RC1P 114
Latching Push Button	NC	4	STOP	RC1MBS542	RC1PBS542
				RC1MBS142	RC1PYBS542
Mushroom Head Key Switch	NC	4	STOP	-	RC1PBS142
			3106	-	RC1PYBS142
2 Flush Push Button	NO+NC	3	I	DO0M 040	D00D 040
		4	0	RC2M 213	RC2P 213
2 Flush Push Button	NO+NC	3	START	RC2M 215	BC2P 215
		NO+NC 4	STOP		HUZP 215

Complete Control Stations Directional/Movement Control Functions Metal & Plastic, Spring Return

Description	Scheme		Maulina an Ionand	Reference	
Description			Metallic	Polycarbonate	
		1	‡	RC 2M 222	RC2P222
		2	Up Down	RC 2M 222A	RC2P222A
	NO+NO	1	45	RC 2M 223	RC2P223
2 Flush Push Button	NO+NO	2	Right Left	RC 2M 223A	RC2P223A
		1	Open Close	RC 2M 241	RC2P241
		2	Forward Reverse	RC2M222B	RC2P222B
3 Flush Push Button	NO+NC +NO	3	Forward Stop Reverse	RC 3M 311	RC3P311
		4	Up Stop Down	RC 3M 321	RC3P321
		3	Right Stop Left	RC 3M 331	RC3P331
			Open Stop Close	RC 3M 341	RC3P341
		1	\$	RC 3M 324	RC3P324
		4	♦	RC 3M 334	RC3P334

Control Stations for Customer Assembly Empty Enclosure, Metal & Plastic

Description		Number of Move	Reference	
Тор	Base	Number of Ways	Metallic	Polycarbonate
Yellow		1	-	RC - 1PY
Bone Grey Jet Black		1	RC - 1M	RC - 1P
	let Dieek	2	RC - 2M	RC - 2P
	Jet Black	3	RC - 3M	RC - 3P
		4	RC - 4M*	RC - 4P

^{*} Empty Enclosure's are available without contact blocks and push buttons and can be assembled with the accessories / spare parts as per specified requirements.

Contact Blocks - Base Mounted For Control Stations Customer Assembly			
Contact Block (NO)	RB2BE-101BM	RB2BE-101BP	
Slow Break (NC)	RB2BE-102BM	RB2BE-102BP	



RB2BE101-R

Single contact block with 1NO



Main	
Range of product	RB2 Contact block
Product or component type	Complete body/contact assembly
Contact type or composition	1 NO
Mounting diameter	22.5 mm
Contacts operation	Slow-break
Contact block type	Single
Connections - terminals	Screw clamp terminals : <= 2 x 1.5 mm ²

Complementary

Height	40 mm
Width	30 mm
Depth	43 mm
Terminals description ISO n°1	(3-4) NO
Product weight	0.034 kg
Mechanical durability	1000000 cycles
Tightening torque	0.8. 1.2 N.m conforming to EN 60947-1
Shape of screw head	Cross head compatible with Philips no 1 screwdriver Cross head compatible with pozidriv No 1 screwdriver Slotted head compatible with • at Ø 4 mm screwdriver Slotted head compatible with • at Ø 5.5 mm soewdiver
Contacts material	Silver alloy
Short circuit protection	10 A cartridge fuse type gG conforming to EN/IEC 60947-5-1
[lth] conventional free air thermal current	10 A conforming to EN/IEC 60947-5-1
[Uimp] rated impulse withstand voltage	6 kV conforming to EN 60947-1
[le] rated operational current	0.1 A at 600 V DC-13, Q600 conforming to EN/IEC 60947-5-1 0.27 A at 250 V DC-13, Q600 conforming to EN/IEC 60947-5-1 0.55 A at 125 V DC-13, Q600 conforming to EN/IEC 60947-5-1 1.2 A at 600 V AC-15, A600 conforming to EN/IEC 60947-5-1 3 A at 240 V AC-15, A600 conforming to EN/IEC 60947-5-1 6 A at 120 V AC-15, A600 conforming to EN/IEC 60947-5-1

Environment

Ambient air temperature for storage	-2570 °C
Ambient air temperature for operation	-555 °C

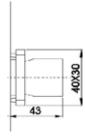
Mechanical Robustness	Shock & Vibration resistance conforming to IEC 61373 :2010				
	Vibrations contactor open: $0.964 \text{ (m/s}^2)^2 / \text{Hz V*}$ axis b/w 5 Hz and 20 Hz, $0.912 \text{ (m/s}^2)^2 / \text{Hz in T*}$ axis b/w 5 Hz and 20 Hz, $0.461 \text{ (m/s}^2)^2 / \text{Hz in L*}$ axis b/w 5 Hz and 20Hz Random type, 5 hours test Vibrations contactor closed: $0.0301 \text{ (m/s}^2)^2 / \text{Hz in V*}$ axis b/w 5 Hz and 20 Hz, $0.0060 \text{ (m/s}^2)^2 / \text{Hz in T*}$ axis b/w 5 Hz and 20 Hz, $0.0144 \text{ (m/s}^2)^2 / \text{Hz in L*}$ axis b/w 5 Hz and 20 Hz Random type, ten minute test				
				Shocks contactor open:	
				30m/s ² in V* & T* axis, 50 m/s ² in L* axis Half sine type, 30 ms pulse	
	Material	EN 45545 HL2 compliant Class R22 for Railway Application			
iviateriai	EN 43545 FILZ Compilant Glass NZZ for Natiway Application				
Standards	CSA C22.2 No 14				
	EN/IEC 60947-5-1				
	EN/IEC 60947-1				
	UL 508				

V* -- Vertical, T* -- Transverse, L* -- Longitudinal

- Coil inter- changeability with-in same frame will not affect any design change in contactor All type contactor (s) are suitable to work in temperature range -5° C to 70° C & relative humidity up to 98

Dimensions

in mm





RB2BE102-R

Single contact block with 1NC



Main	
Range of product	RB2 Contact block
Product or component type	Complete body/contact assembly
Contact type or composition	1 NC
Mounting diameter	22.5 mm
Contacts operation	Slow-break
Contact block type	Single
Connections - terminals	Screw clamp terminals : <= 2 x 1.5 mm ²

Complementary

Complementary	
Height	40 mm
Width	30 mm
Depth	43 mm
Terminals description ISO n°1	(1-2)NC
Product weight	0.034 kg
Mechanical durability	1000000 cycles
Tightening torque	0.8. 1.2 N.m conforming to EN 60947-1
Shape of screw head	Cross head compatible with Philips no 1 screwdriver Cross head compatible with pozidriv No 1 screwdriver Slotted head compatible with • at Ø 4 mm screwdriver Slotted head compatible with • at Ø 5.5 mm screwdriver
Contacts material	Silver alloy
Short circuit protection	10 A cartridge fuse type gG conforming to EN/IEC 60947-5-1
[lth] conventional free air thermal current	10 A conforming to EN/IEC 60947-5-1
[Uimp] rated impulse withstand voltage	6 kV conforming to EN 60947-1
[le] rated operational current	0.1 A at 600 V DC-13, Q600 conforming to EN/IEC 60947-5-1 0.27 A at 250 V DC-13, Q600 conforming to EN/IEC 60947-5-1 0.55 A at 125 V DC-13, Q600 conforming to EN/IEC 60947-5-1 1.2 A at 600 V AC-15, A600 conforming to EN/IEC 60947-5-1 3 A at 240 V AC-15, A600 conforming to EN/IEC 60947-5-1 6 A at 120 V AC-15, A600 conforming to EN/IEC 60947-5-1

Environment

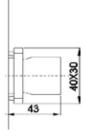
Ambient air temperature for storage	-2570 °C	
Ambient air temperature for operation	-555 °C	
Mechanical Robustness	Shock & Vibration resistance conforming to IEC 61373:2010	
	Vibrations contactor open:	
	0.964 (m/s²)² /Hz V* axis b/w 5 Hz and 20 Hz,	
	0.912 (m/s ²) ² /Hz in T* axis b/w 5 Hz and 20 Hz,	
	0.461 (m/s ²) ² /Hz in L* axis b/w 5 Hz and 20Hz	
	Random type, 5 hours test	
	Vibrations contactor closed:	
	$0.0301 (m/s^2)^2 /Hz$ in V* axis b/w 5 Hz and 20 Hz,	
	0.0060 (m/s ²) ² /Hz in T* axis b/w 5 Hz and 20 Hz,	
	0.0144 (m/s ²) ² /Hz in L* axis b/w 5 Hz and 20 Hz	
	Random type, ten minute test	
	Shocks contactor open:	
	30m/s ² in V* & T* axis,	
	50 m/s ² in L* axis Half sine type, 30 ms pulse	
Material	EN 45545 HL2 compliant Class R22 for Railway Application	
Standards	CSA C22.2 No 14	
	EN/IEC 60947-5-1	
	EN/IEC 60947-1	
	UL 508	

V* -- Vertical, T* -- Transverse, L* -- Longitudinal

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Dimensions

in mm





RCB2-BA-R Series

Flush Type spring return Push Button Non-Illuminated



Main	
Range of product	RCB2 Push Button
Product or component type	Complete push button
Bezel material	Zamak
Fixing collar material	Zamak
Mounting diameter	22.5 mm
Shape of signaling unit head	Round
Type of operator	Spring return
Operator pro•le	Push unmarked
Head type	Standard
Connection-terminals	Screw clamp terminals : <= 2 x 1.5 sq mm
Operator pro•le colour	1.White 2.Black 3.Green 4.Red 5.Yellow
	6.Blue

Complementary						
Height	40 mm					
Width	30 mm					
Depth	30 mm					
Product weight	0.063kg					
Mechanical durability	1000000 cycles					
Tightening torque	0.8. 1.2 N.m conforming to EN 60947-1					
Shape of screw head	Cross head compatible with Philips no 1 screwdriver Cross head compatible with pozidriv No 1 screwdriver Slotted head compatible with • at Ø 4 mm screwdriver Slotted head compatible with • at Ø 5.5 mm scewdiver					
Environment						
Ambient air temperature for storage	-2570 °C					
Ambient air temperature for operation	-555 ℃					
Mechanical Robustness	Shock & Vibration resistance conforming to IEC 61373 :2010 Vibrations contactor open: 0.964 $(m/s^2)^2$ /Hz V* axis b/w 5 Hz and 20 Hz, 0.912 $(m/s^2)^2$ /Hz in T* axis b/w 5 Hz and 20 Hz, 0.461 $(m/s^2)^2$ /Hz in L* axis b/w 5 Hz and 20Hz Random type, 5 hours test Vibrations contactor closed: 0.0301 $(m/s^2)^2$ /Hz in V* axis b/w 5 Hz and 20 Hz, 0.0060 $(m/s^2)^2$ /Hz in T* axis b/w 5 Hz and 20 Hz, 0.0144 $(m/s^2)^2$ /Hz in L* axis b/w 5 Hz and 20 Hz Random type, ten minute test					

Shocks contactor open: 30m/s² in V* & T* axis,

50 m/s² in L* axis Half sine type, 30 ms pulse

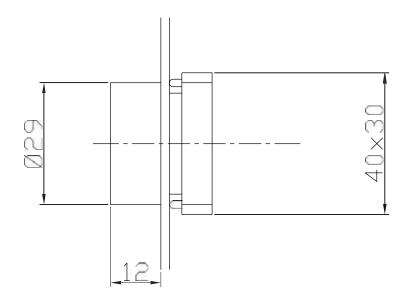
Material	EN 45545 HL2 compliant Class R22 for Railway Application
Standards	CSAC22.2 No 14 EN/IEC 60947-5-1 EN/IEC 60947-1 UL508
IP degree of protection	IP66 conforming to IEC 60529
Approvals	UL, CSA, CE

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Dimensions

in mm.





RCB7IVL-R SERIES



Main

Range of product	RCB7
Product or component type	Pilot light
Device short name	RCB7
Mounting diameter	22.5 mm
Sale per indivisible quantity	15
Shape of signaling unit head	Round
Light source	LED
Bulb base	LED
[Us] rated supply voltage	24VAC/DC, 110V AC, 240V AC,
	110V DC,220V DC, 63.5V AC/DC
	110VAC/DC & 220V AC/DC
Cap/Operator or lens colour	1-White,3-Green,4-Red, 5-Amber
	6-Blue,7-Clear & 8-Yellow

Complementary

Height	29 mm
Width	29 mm
Depth	54 mm
Terminal description ISO n°1	(X1-X2)PL
Product weight	0.02 kg
Device mounting	Fixing hole: Ø 22.5 mm (22.3 +0.4/0) conforming to EN/IEC 60947-5-1
Fixing center	>= 30 x 40 mm on support panel, metal, thickness: 16 mm >= 30 x 40 mm on support panel, plastic, thickness: 26 mm
Fixing mode	Fixing nut beneath head recommended torque: 2. 2.4 N.m
Connections - terminals	Screw clamp terminals: <= 2 x 1.5 mm² with cable end conforming to EN/IEC 60947-1 Screw clamp terminals: 1 x 0.222 x 2.5 mm² without cable end conforming to EN/IEC 60947-1
Tightening torque	0.8 1.2 N.m conforming to EN 60947-1
Shape of screw head	Cross head compatible with JIS No 1 screwdriver Cross head compatible with Philips no 1 screwdriver Cross head compatible with pozidriv No 1 screwdriver Slotted head compatible with • at Ø 4 mm screwdriver Slotted head compatible with • at Ø 5.5 mm screwdiver
[Ui] rated insulation voltage	250 V (degree of pollution: 3) conforming to EN/IEC 60947-1
[Uimp] rated impulse withstand voltage	6 kV conforming to EN/IEC 60947-1
Signalling type	Steady
Current consumption	Refer to page no. 2
Glow level	Refer to page no. 2
Service life	50000 h at rated voltage and 25 °C

Environment

Ambient air temperature for storage	-2570 °C					
Ambient air temperature for operation	-555 °C					
Mechanical Robustness	Shock & Vibration resistance conforming to IEC 61373 :2010					
	Vibrations contactor open:					
	$0.964 (m/s^2)^2 /Hz V^* axis b/w 5 Hz and 20 Hz,$					
	0.912 (m/s²)² /Hz in T* axis b/w 5 Hz and 20 Hz,					
	0.461 (m/s²)² /Hz in L* axis b/w 5 Hz and 20Hz					
	Random type, 5 hours test					
	Vibrations contactor closed:					
	$0.0301 (m/s^2)^2$ /Hz in V* axis b/w 5 Hz and 20 Hz,					
	0.0060 (m/s ²) ² /Hz in T* axis b/w 5 Hz and 20 Hz,					
	0.0144 (m/s ²) ² /Hz in L* axis b/w 5 Hz and 20 Hz					
	Random type, ten minute test					
	Shocks contactor open:					
	30m/s² in V* & T* axis, 50 m/s² in L* axis Half sine type, 30 ms pulse					
	oo niis iir E daas raar siire type, oo niis palse					
Material	EN 45545 HL2 compliant Class R22 for Railway Application					
IP degree of protection	IP20 (rear face) conforming to IEC 60529					
	IP65 (front face) conforming to IEC 60529					
Shock resistance	50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27					

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 All type contactor (s) are suitable to work in temperature range -5°C to 70°C & relative humidity up to 98 %

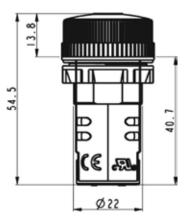
Glow Level and Current Consumption

S. No.	VOLTAGE	PRODUCT	CURRENT in mA (MAX)	MINIMUM GLOW LEVEL(in LUX)						
				X=4 (RED)	X=8 (YELLOW)	X=6 (BLUE)	X=3 (GREEN)	X=5 (AMBER)	X=1 (WHITE)	X=7 (CLEAR)
1	24V AC/DC	RCB7IVL7X24V	25	120	100	180	150	140	100	100
2	110 V AC	RCB7IVL7X110 VAC	25	110	90	100	100	100	90	90
3	240V AC	RCB7IVL7X240VAC	20	120	90	150	120	120	90	90
4	110 V DC	RCB7IVL7X110 VDC	25	110	90	100	100	100	90	90
5	220V DC	RCB7IVL7X220VDC	7.5	90	80	80	90	80	80	80
6	63.5V AC/DC	RCB7IVL7X63.5V	13	200	180	200	250	200		
7	110 V AC/DC	RCB7IVL7X110 V	13	110	90	100	100	100	90	90
8	220V AC/DC	RCB7IVL7X220V	7.5	90	80	80	90	80	80	80



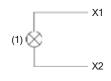
Dimensions





Support panel thickness: 1 to 6 mm/0.4 to 0.24 in. (metal), 2 to 6 mm/0.8 to 0.24 in. (plastic).

Wiring Diagram



(1) LED



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