



Push Buttons and Pilot Lights - Plastic Series



 **SHAMROCK
CONTROLS**

September 2010*

Control & Signalling Units - 22.5mm Plastic

Characteristics

General Characteristics

Products	Push Buttons, Selector Switches, Key Selector Switches, Latching Mushroom Head Push Buttons, Pilot Lights & Illuminated Push Buttons
Reference Standard	IEC 60947-5-1, EN 60947-5-1, IEC 337-1, UL 508, CSA C-22-2 n° 14
Approval	UL
Protection Degree	IP 65 / IP 66 according to IEC 60947-1,
Pollution Degree	3
Temperature	-40°C - + 70°C (Storage) -25°C - + 70°C (Working)
Vibration Resistance	+ 60mm Mushroom Head Push Buttons: 8g, Other Push Buttons & Pilot Lights: 15g (40Hz-frequency-500 Hz) conforming to IEC 68-2-6
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 Push Buttons 300,000 operations

Contact Elements Characteristics

Rated Thermal Current I_{th}	10A
Rated Insulation Voltage U_i	500V conforming to IEC 60947-1, UL 508 & CSA 22-2 n° 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 gI or N conforming to IEC 337-1
Cabling/Terminal Capacity	1x0.5mm ² ...2x1.5mm ²
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

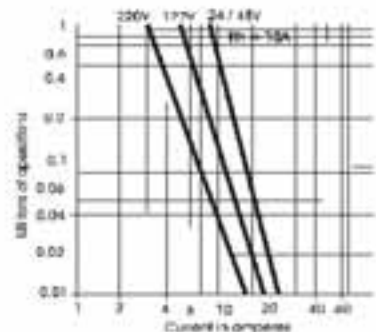
AC Ratings, Inductive - NEMA A500

35% Power Factor

Volts	Make Amperes	VA	Break Amperes	VA	Continuous carrying Amperes	Resistive 75% Power factor Make, Break & continuous Amperes
50	60	7200	8	300	0	0
30	30	7200	3	300	0	0
40	6	7200	15	300	0	0
600	0	7200	12	300	0	0

Standard Contact Blocks

AC Supply (50/60Hz)
70% Inductive



DC Ratings, NEMA Type Q600

Inductive and resistive

Volts	Make & Break (Amp.)	Continuous (Amp.)
50	0.55	2.5
30	0.27	2.5
60	0.30	2.5

Control & Signalling Units - 22.5mm Plastic

Push Button (Plastic Series) without contact elements



RCP2-BA3



RCP2-BL4



RCP2-BC6



RCP2-BS54



RCP2-BS14



RCP2-BW356

Push Buttons Actuators with Carrier - Non-Illuminated

Description	Knob Size	Colour	Reference
FLUSH PUSH BUTTON SPRING RETURN		○ WHITE	RCP2-BA1
		● BLACK	RCP2-BA2
		● GREEN	RCP2-BA3
		● RED	RCP2-BA4
		● YELLOW	RCP2-BA5
		● BLUE	RCP2-BA6
PROJECTING PUSH BUTTON		○ WHITE	RCP2-BL1
		● BLACK	RCP2-BL2
		● GREEN	RCP2-BL3
		● RED	RCP2-BL4
		● YELLOW	RCP2-BL5
		● BLUE	RCP2-BL6
MUSHROOM HEAD PUSHBUTTON SPRING RETURN		● BLACK	RCP2-BC2
		● GREEN	RCP2-BC3
		● RED	RCP2-BC4
		● YELLOW	RCP2-BC5
		● BLUE	RCP2-BC6
		MUSHROOM HEAD PUSHBUTTON STAY PUT (PRESS TO LOCK TURN TO RELEASE)	ø30mm ø40mm ø60mm
MUSHROOM HEAD PUSHBUTTON PUSH TO STAY KEY TO RELEASE		● RED	RCP2-BS14

Push Buttons Actuators -Illuminated Flush without Series Resistor

Description	Knob Size	Colour	Reference
ILLUMINATED ACTUATOR, FLUSH (WITH BA9 FILAMENT BULB) 12V, 24V, 48V, 110V AC/DC		○ WHITE	RCP2-BW316
		● GREEN	RCP2-BW336
		● RED	RCP2-BW346
		● AMBER	RCP2-BW356
		● BLUE	RCP2-BW366
		○ CLEAR	RCP2-BW376
ILLUMINATED ACTUATOR, FLUSH (WITH BA9 NEON BULB) 220V, 380V, 415V AC/DC		● GREEN	RCP2-BWN336
		● RED	RCP2-BWN346
		● AMBER	RCP2-BWN356

Push Buttons Actuators -Illuminated Flush with Series Resistor

Description	Knob Size	Colour	Reference
ILLUMINATED ACTUATOR, FLUSH (WITH BA9 FILAMENT BULB, 130V) 220V AC/DC		○ WHITE	RCP2-BW317
		● GREEN	RCP2-BW337
		● RED	RCP2-BW347
		● AMBER	RCP2-BW357
		● BLUE	RCP2-BW367
		○ CLEAR	RCP2-BW377

Push Button (Plastic Series) without contact elements



RCP2-BW146

LED Type Push Buttons Actuators - Illuminated Flush

Description	Knob Size	Colour	Reference
FLUSH ILLUMINATED WITH INTEGRAL CIRCUIT AND CLUSTERED TYPE LED SUITABLE FOR OPERATING AT 240V 220V, 110V, 48V, 24V & 12V		● GREEN	RCP2-BWL337
		● RED	RCP2-BWL347
		● AMBER	RCP2-BWL357
		● BLUE	RCP2-BWL367

Push Buttons Actuators -Illuminated Projecting without Series Resistor

Description	Knob Size	Colour	Reference
ILLUMINATED, ACTUATOR, PROJECTING (WITH BA9 FILAMENT BULB) 12V, 24V, 48V, 110V AC/DC		○ WHITE	RCP2-BW116
		● GREEN	RCP2-BW136
		● RED	RCP2-BW146
		● AMBER	RCP2-BW156
		● BLUE	RCP2-BW166
		○ CLEAR	RCP2-BW176
ILLUMINATED, ACTUATOR, PROJECTING (WITH BA9 NEON BULB) 220V, 380V, 415V AC/DC		● GREEN	RCP2-BWN136
		● RED	RCP2-BWN146
		● AMBER	RCP2-BWN156

Push Buttons Actuators -Illuminated Projecting with Series Resistor

Description	Knob Size	Colour	Reference
ILLUMINATED ACTUATOR, PROJECTING (WITH BA9 FILAMENT BULB, 130V) 220V AC/DC		○ WHITE	RCP2-BW117
		● GREEN	RCP2-BW137
		● RED	RCP2-BW147
		● AMBER	RCP2-BW157
		● BLUE	RCP2-BW167
		○ CLEAR	RCP2-BW177

LED Type Push Button Actuators -Illuminated Projecting

Description	Knob Size	Colour	Reference
PROJECTING ILLUMINATED ACTUATOR WITH INTEGRAL CIRCUIT & CLUSTER LED, SUITABLE FOR OPERATING AT 240V*, 220V*, 110V, 48V, 24V & 12V*		● GREEN	RCP2-BWL137
		● RED	RCP2-BWL147
		● AMBER	RCP2-BWL157
		● BLUE	RCP2-BWL167

* Type of voltage AC/DC to be specified.

■ Operating voltage in 240V AC and 220V DC.

Selector Actuators (Plastic Series) without contact elements



RCP2-BD●

Selector Switch Actuator with Carrier

Description	Type	Operator	Reference
2 POSITION	STAY PUT	STANDARD HANDLE	RCP2-BD2
		LONG HANDLE	RCP2-BJ2
	SPRING RETURN	STANDARD HANDLE	RCP2-BDR2
		LONG HANDLE	RCP2-BJR2
3 POSITION	STAY PUT	STANDARD HANDLE	RCP2-BD3
		LONG HANDLE	RCP2-BJ3
	SPRING RETURN	STANDARD HANDLE	RCP2-BDR3
		LONG HANDLE	RCP2-BJR3



RCP2-BJ●

Key Actuators with Carrier

Description	Type	Key removal	Reference
2 POSITION		UNACTUATED POSITION	RCP2-BG2
		BOTH POSITION	RCP2-BG4
		RH POSITIONS	RCP2-BG02
	SPRING RETURN	LH POSITION	RCP2-BG6
3 POSITION		CENTRE OFF POSITION	RCP2-BG3
		LH AND RH POSITION	RCP2-BG5
		ALL POSITIONS	RCP2-BG0
		RH POSITION	RCP2-BG7
		LH POSITION	RCP2-BG9



RCP2-BVL75

LED Type Pilot Lamp (Integral CKT & Cluster Type)

Description	Knob Size	Colour	Reference
PILOT LIGHT WITH INTEGRAL CIRCUIT & CLUSTER LED, SUITABLE FOR OPERATING AT 240V*, 220V*, 110V* 48V, 24V & 12V		● GREEN	RCP2-BVL73
		● RED	RCP2-BVL74
		● AMBER	RCP2-BVL75
		● BLUE	RCP2-BVL76
		● CLEAR	RCP2-BVL77



RCP2-BV44

Pilot Lamps with Transformer

Description	Knob Size	Colour	Reference
PILOT LAMP (WITH BA9S FILAMENT BULB) FOR INPUT VOLTAGE 240V AC AND OUTPUT VOLTAGE 6V AC		○ WHITE	RCP2-BV41
		● GREEN	RCP2-BV43
		● RED	RCP2-BV44
		● AMBER	RCP2-BV45
		● BLUE	RCP2-BV46
		● CLEAR	RCP2-BV47
		PILOT LAMP (WITH BA9S FILAMENT BULB) FOR INPUT VOLTAGE 110V AC AND OUTPUT VOLTAGE 6V AC	
● GREEN	RCP2-BV33		
● RED	RCP2-BV34		
● AMBER	RCP2-BV35		
● BLUE	RCP2-BV36		
● CLEAR	RCP2-BV37		

* Operating Voltage available in 240V AC, 110V & 220V DC

Selector Actuators (Plastic Series) without contact elements



RCP2-BV74

Pilot Lamps with Series Resistor

Description	Knob Size	Colour	Reference
PILOT LAMP (WITH BASS FILAMENT BULB 130V) 220V AC/DC		○ WHITE	RCP2-BV71
		● GREEN	RCP2-BV73
		● RED	RCP2-BV74
		● AMBER	RCP2-BV75
		● BLUE	RCP2-BV76
		CLEAR	RCP2-BV77



RCP2-BVD75

Pilot Lamps with Series Resistor & Diode

Description	Knob Size	Colour	Reference
PILOT LAMP (WITH BASS FILAMENT BULB 130V) 240V AC		○ WHITE	RCP2-BVD71
		● GREEN	RCP2-BVD73
		● RED	RCP2-BVD74
		● AMBER	RCP2-BVD75
		● BLUE	RCP2-BVD76
		CLEAR	RCP2-BVD77



RCP2-BV64

Pilot Lamps without Series Resistor

Description	Knob Size	Colour	Reference
PILOT LAMP (WITH BASS FILAMENT BULB) 110V, 48V, 24V & 12V AC/DC		○ WHITE	RCP2-BV61
		● GREEN	RCP2-BV63
		● RED	RCP2-BV64
		● AMBER	RCP2-BV65
		● BLUE	RCP2-BV66
		CLEAR	RCP2-BV67
PILOT LAMP WITH BASS NEON BULB) 220V, 360V & 415V AC/DC		● GREEN	RCP2-BVN63
		● RED	RCP2-BVN64
		● AMBER	RCP2-BVN65



RCB7-IVL-73

Integrated LED Pilot Lamps (Barrel Type LEDs)

Description	Supply voltage	Colour	Reference
Integrated LED Pilot Lamps	12V, 24V, 48V (AC/DC) 110VAC 110VDC 220VDC 240VAC	○ White	RCB7-IVL-71
		● Green	RCB7-IVL-73
		● Red	RCB7-IVL-74
		● Amber	RCB7-IVL-75
		● Blue	RCB7-IVL-76
		CLEAR	RCB7-IVL-77
		● Yellow	RCB7-IVL-78

Control & Signalling Units - 22.5mm Plastic

Double Colour LED, Buzzer & Assemblies for Illuminated / Non-Illuminated type Push Buttons & Selector Switches (Type RP2-B) & Accessories



RCB7-IVL-734 ■



RB2-KS ■



RL1-CF ■



RL1-CN ■



RP2-BV004

Double Colour LED

Description	Application & Supply Voltage	Colour	Reference
Double Colour LED Instead of two Pilot Lamps, only one is required. When installed with the circuit, during on stage Green will glow and when tripped Red will glow. 12V, 24V, 48V, 110V, 240V (AC)(DC)		● Red	RCB7-ML-734 ■
		● Green	
		● Red	RCB7-ML-746 ■
		● Blue	
		● Red	RCB7-ML-714 ■
		○ White	
		● Yellow	RCB7-ML-739 ■
		● Green	
● Yellow	RCB7-ML-768 ■		
● Blue			
● Yellow	RCB7-ML-718 ■		
○ White			

Buzzer

Description	Application & Supply Voltage	Colour	Reference
Buzzer	Intermittent Sounding Flashing Buzzer 15-20mA, Sound level 80dB. 12V, 24V, 48V, 110V (AC)(DC) 220V DC, 240V AC	● RED	RB2-KS ■

Bulbs

Description	Supply Voltage	Colour	Reference
Incandescent Filament Lamp (Different wattage for various voltages)	6V, 12V, 24V, 48V, 130V	Clear	RL1-CF ■
Neon BA 9a	220V, 380V, 415V	● Green	RL1-CN3 ■
		Natural	RL1-CN ■

Lenses

Description	Colour	Reference
Set of Lens for (One Inner Diffuser & One outer lens) for Pilot Lamp Head	○ White	RP2-BV001
	● Green	RP2-BV003
	● Red	RP2-BV004
	● Amber	RP2-BV005
	● Blue	RP2-BV006
	Clear	RP2-BV007
	Set of Lens for (One Inner Diffuser & One outer lens) for Illuminating Actuator	○ White
● Green		RP2-EW003
● Red		RP2-EW004
● Amber		RP2-EW005
● Blue		RP2-EW006
Clear		RP2-EW007
Lenses for Illuminating LED & Neon** Actuator (Without Inner Diffuser)		○ White
	● Green	RP2-EWL003
	● Red	RP2-EWL004
	● Amber	RP2-EWL005
	● Blue	RP2-EWL006
	Clear	RP2-EWL007
	● Yellow	RP2-EWL008

- ○ Body assemblies (suitable for bulb 2.6W max.) upto 230V max. available without bulb
- * Bulb rating 12V to 130V, 2.6W (max.)
- ** For Neon bulbs, only Green, Red & Amber is available.
- ■ Please mention voltage while ordering

Control & Signalling Units - 22.5mm Plastic

Accessories, Legend Plates & Reset Extended Push Buttons



RP2-B



RB2-RPX



RP2-BZ41M



RB2-QC12



RB2 - K455



RB2-BY



Accessories

Description	Reference
Fixing Collar	RP2-B
Reset Flunger	RB2-RPX
Bulb Extractor for Ba 9s Bulbs	RB2-X13
Quick Connector for NO / NC Contact	RB2-QC12
Spare / Replacement Keys for Key Operating Units (Key No. 455)	RB2-K455
Padlocking Attachment (Makes Flush Operator Inaccessible)	RB2-BZ6
Panel Adaptor (Converts 30mm Hole to 22mm Hole)	RP2-BZ41M

Legend Plates

Plastic	Reference
Emergency Stop - 60mm	RP2-PY3330
Emergency Stop - 90mm	RP2-PY3330

Legends

Text	Code	Text	Code
Blank	RB2-PY2301	Emergency Stop	RB2-PY2330
Start	RB2-PY2303	Stop	RB2-PY2304
Forward	RB2-PY2305	Reverse	RB2-PY2306
Up	RB2-PY2307	Down	RB2-PY2308
On	RB2-PY2311	Off	RB2-PY2312
Open	RB2-PY2313	Close	RB2-PY2314
Auto	RB2-PY2315	Hand	RB2-PY2316
Reset	RB2-PY2323	Inch	RB2-PY2321
Slow	RB2-PY2327	Fast	RB2-PY2328
Auto - Hand	RB2-PY2384	Auto - O - Hand	RB2-PY2385
Hand Off Auto	RB2-PY2387	Low	RB2-PY2333
High	RB2-PY2334	High Low	RB2-PY2335
Off On	RB2-PY2336	Stop Start	RB2-PY2337
Up Down	RB2-PY2338		

Reset Extended Push Button

Description	Reference
Reset Extended Push Button (Round Type)	RCB2AL8R
Reset Extended Push Button (Hex Type)	RCB2AL8H



RCB2AL8R



RCB2AL8H



**Contact Block-
Normally Open**



**Contact Block-
Normally Closed**



**Fastening Nut
RP2N**



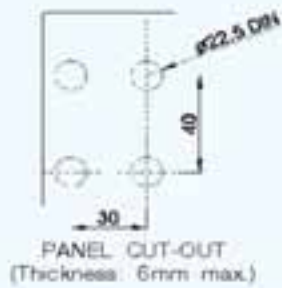
**Fixing Collar
RP2B**

Contact Blocks for RCP2 Operating Heads

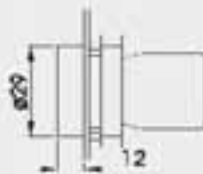
ELECTRIC		
CONTACT	TYPE	PART NUMBER
NO	STANDARD	RB2-BE101
NC	STANDARD	RB2-BE102
NO	GOLD FLASH	RB2-BE1016
NC	GOLD FLASH	RB2-BE1026
PNEUMATIC		
CONTACT	TYPE	PAR NUMBER
NON-PASSING	3-WAY,10/32 NPTF THREAD	SH-1915
PASSING	3-WAY,10/32 NPTF THREAD	SH-1925
NON-PASSING	3-WAY,5/32" PUSH-IN FITTING	SH-1911
PASSING	3-WAY,5/32" PUSH-IN FITTING	SH-1921

Control & Signalling Units - 22.5mm Plastic

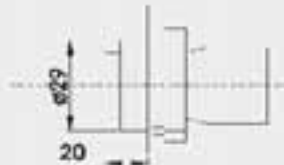
Dimensions / Complete Units' Reference



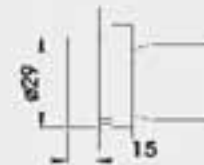
RP2-BE10⇔RP2-B ⇔ RCP2-BZ10⇔



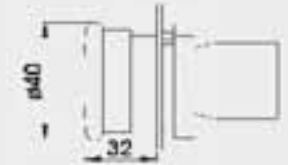
RP2-BA⇔RP2-BZ10⇔RCP2-BA⇔
RP2-BA334⇔RP2-BZ10⇔RCP2-BA334⇔



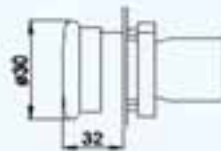
RP2-BL⇔RP2-BZ10⇔RCP2-BL⇔



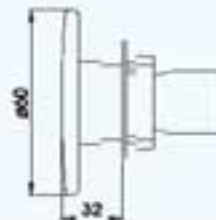
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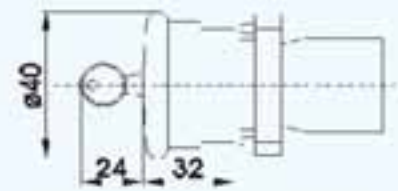
RP2-BC⇔RP2-BZ10⇔RCP2-BC⇔
RP2-BS64⇔RP2-BZ10⇔RCP2-BS64⇔



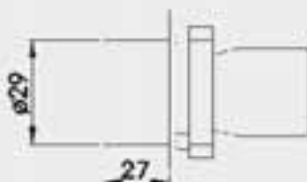
RP2-BS44⇔RP2-BZ10⇔RCP2-BS44⇔



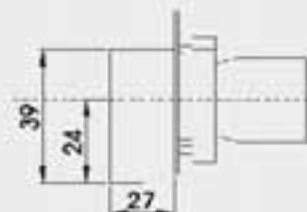
RP2-BM⇔RP2-BZ10⇔RCP2-BM⇔
RP2-BS64⇔RP2-BZ10⇔RCP2-BS64⇔



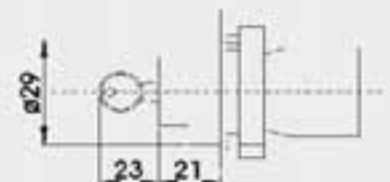
RP2-BS14⇔RP2-BZ10⇔RCP2-BS14⇔



RP2-BC2⇔RP2-BZ10⇔RCP2-BC2⇔
RP2-BC3⇔RP2-BZ10⇔RCP2-BC3⇔

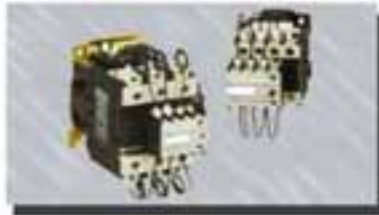


RP2-BJ2⇔RP2-BZ10⇔RCP2-BJ2⇔
RP2-BJ3⇔RP2-BZ10⇔RCP2-BJ3⇔



RP2-BG⇔RP2-BZ10⇔RCP2-BG⇔
(Replace ● with code for position of Key removal & operation pattern)

- Replace ◆ with codes for type of contacts (See page F18) & ● with colour codes (See page F15 & F16)
- For non-illuminated push button heads, selector switches & key switches, refer page F15 & F16



Local Distributor



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