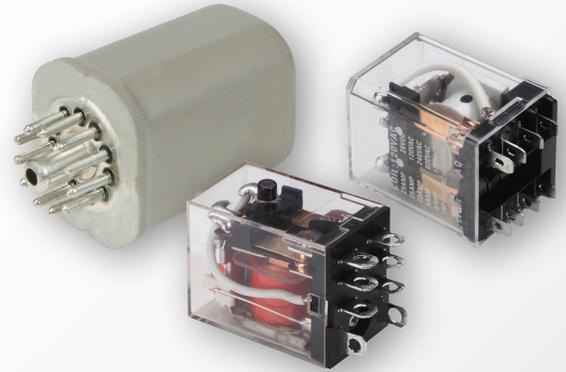


GENERAL PURPOSE RELAYS



SERIES GR PRODUCT PROFILE



c3controls **General Purpose Relays** are quick and economical to install, and are available in a variety of base configurations. Our relays come with AC and DC coils for use in multiple applications and are 100% tested to ensure optimal performance in every specification. We even offer hermetically sealed relays for hazardous locations.

FEATURES AND BENEFITS

Multiple Styles

- Our General Purpose Relays are available in many different styles, such as Octal Base, Square Base, Flange Mounted, Miniature, and Hermetically Sealed.

Quick Identification

- Tape wound coils are marked with the coil voltage and optional indicating light are color coded, red for AC and green for DC.

Convenient Customization

- Pin and blade terminal styles are interchangeable with other commonly available relays.

Time Savings

- Optional mechanical actuator and indicating light for checking the control circuit operation without energizing the relay.

Environmentally Safe

- AgNi contacts are cadmium free.

Power Savings

- Low coil consumption to minimize transformer and power supply requirements.

Transparent Housing

- Provides the ability to visually monitor switching operations and contact condition.

Wide Range of Specifications

- Pole combinations available in SPDT, DPDT, 3PDT, 4PDT with a carrying current rating 5A-25A.

ADVANTAGES

Hermetically Sealed

- Suitable for use in Class 1, Division 2 Group A, B, C and D, and Zone 2, Group IIA, IIB, and IIC Hazardous Locations.
- Hermetically sealed metal enclosure with a temperature code rating of T4A.
- Vacuum baked and dry nitrogen filled provides a clean and dry atmosphere for contacts.

APPLICATIONS

Our General Purpose Relays are ideal for use in a wide variety of control logic applications:

- **Logic switching** to sequentially control the operation of devices in a control circuit.
- **Interposing** enables the energy in a high-power circuit to be switched by a low-power control signal.
- **Interlocking** prevents one part of a control circuit from energizing while another part is energized.
- **Load switching** turns on and off lights, solenoids, small motors, and heating elements.
- **Electrically isolating** solid-state devices from the load they control.
- **Master control** to turn power on or off to an entire control circuit.



GENERAL PURPOSE RELAYS

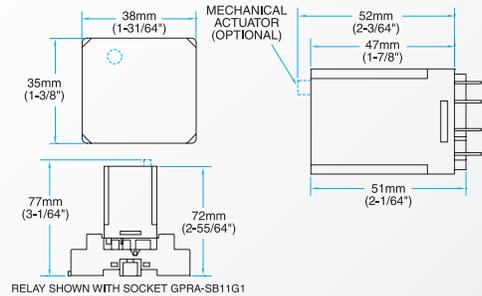
SPECIFICATIONS

ITEM SPECIFICATION	UNIT	RANGE
POLE COMBINATION SPDT, DPDT, 3PDT, 4PDT		
Contact Resistance	mΩ	50 - 100
Dielectric Strength (Coil to Contact)	ACV (50/60 Hz - 1 Min.)	1000 - 2000 V
Dielectric Strength (Between Contacts)	ACV (50/60 Hz - 1 Min.)	500 - 1250 V
Insulation Resistance (500 VDC)	mΩ (Min.)	100
Max. Switching (ON/OFF) Mechanical	Oper./Min.	240 - 300
Max. Switching (ON/OFF) Electrical	Oper./Min.	6 - 30
Life Expectancy - Mechanical	Oper./Min.	5M - 50M
Life Expectancy - Elect. (@120V Resistive)	Oper./Min.	100K - 500K
Vibration: Endurance (Double Amplitude)	1.0 - 1.5mm	10 - 55 Hz
Vibration: Error Ops. (Double Amplitude)	1.0 - 1.5mm	10 - 55 Hz
Shock: Endurance / Error Operations	G Min.	50 - 100 / 10
Coil Operate Time (Pick-Up)	mSec. (Max.)	13 - 25
Coil Release Time (Drop Out)	mSec. (Max.)	6 - 25
CONTACT RATING		
Rated Carrying Current		5 - 25 A
Max. Allowable Voltage		240 - 600 VAC, 28 - 120 VDC
Capacity: Resistive Load	P.F. = 1.0	240 VAC {5 - 25 A} 120 VAC {5 - 25 A} 24 VDC {12 A} 28 VDC {5 - 25 A} 30 VDC {5 A}
Inductive Loads	P.F. = 0.4 (L/R = 7mSec.)	240 VAC {3 - 15 A} 120 VAC {2 - 25 A} 24 VDC {7 A} 28 VDC {2 - 25 A} 30 VDC {2 A}
Motor Loads	120 VAC	1/3, 1/2, 3/4 HP
	240 VAC	1/2, 1 HP
Min. Recommended Load		10 VDC - 10mA, 100mA 5VDC - 100mA
COIL SPECIFICATIONS (@ 20° C)		
NOMINAL COIL VOLTAGE (VOLTS)	POWER CONSUMPTION	OPERATING VOLTAGE
24 VAC, 120 VAC, 240 VAC (@60 Hz)	1.0 - 2.8 VA	80 - 110%
24 VDC, 48 VDC, 110 VDC	0.8 - 1.5 W	75 - 110%
ENVIRONMENTAL & PHYSICAL PARAMETERS		
Operating Ambient Temperature	-45° C to +70° C (-49° C to +158° F) Assumes a DRY environment - Enclosed	
Operating Humidity (Recommended)	35% to 85% RH	
Unit Weight	24g (0.9 oz.) to 130g (4.6 oz.)	
Relay and Socket Dimensions	Refer to www.c3controls.com	
MATERIALS & CONSTRUCTION		
Contacts	AgNi Alloy	
Plated Brass Terminations	Cadmium Free	
Solder Connections	Lead Free	
Moldings	Thermoplastic & Thermoset	
RELAY SOCKET		
Type	Surface or DIN Rail Mount	
Current Carrying Members	Phosphor Bronze Nickel Plated Steel	
Terminals	IP20 or Open Style, Screw w/captive wire clamps	
Electrical Rating	7 - 25A, 300 - 600 VAC	
ROHS COMPLIANCE For RoHS compliance documentation by product, refer to www.c3controls.com.		

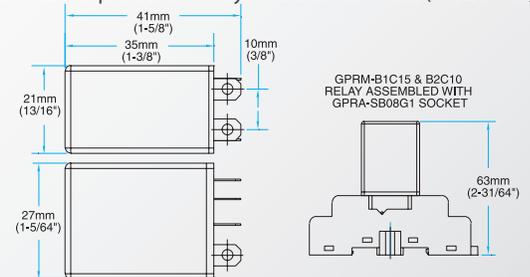
For complete ratings and detailed specifications visit www.c3controls.com.

DIMENSIONS

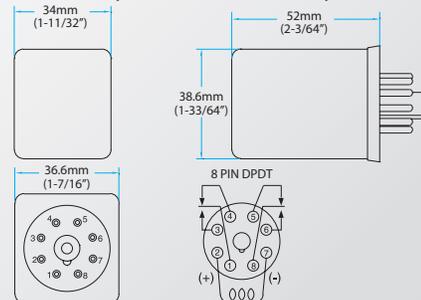
Square Base Relay w/ Blade Terminals (2 & 3 Poles)



Miniature Square Base Relay w/ Blade Terminals (1 & 2 Poles)



Hermetically Sealed Octal Base Relay w/ Pin Terminals (2 & 3 Poles)



CERTIFICATIONS

Conformity to Standards:

GENERAL PURPOSE RELAYS
UL 508
CSA C22.2 No. 14
IEC 60947-1, 60947-4-1, 60947-5-1

HERMETICALLY SEALED RELAYS
UL 508, 1604

CSA C22.2 No. 14, 213
IEC 60947-1, 60947-4-1

SOCKETS
UL 508
CSA C22.2 No. 14
IEC 60947-1

Certifications:

UL File #: E236197 (Guide NLDX2, NLDX8);
E224085 (Guide NRNT2)

CE Marked (per EU Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EU)

UL File #: E243998 (Guide NPKR, NPKR2, NPKR7, NPKR8)

CSA File #: 227135
CE Marked (per EU Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EU)

UL File #: E236196 (Guide SWIV2, SWIV8)

CE Marked (per EU Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EU)



Visit c3controls.com to download product certifications.



REVISION 06.26.2014

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