

R12 SERIES

High Voltage Relays

8kV SYSTEM
VOLTAGE

Make and Break Load Switching



DESCRIPTION

The R12 series high voltage relay is designed for make and break load switching applications, providing reliable performance for systems up to 8kV. With an 8A continuous carry rating, this Form C Double Pole Double Throw (DPDT) relay ensures efficient and precise switching, making it ideal for high voltage circuits requiring both isolation and control. Constructed with vacuum-sealed ceramic bottle technology, the R12 features ultra-low contact resistance for enhanced performance. Its robust design is built to handle the most demanding environments, offering optimal dielectric strength and preventing contact arcing in make and break operations. For reliable, high-voltage switching in critical applications, the R12 series delivers superior performance and durability.

FEATURES

DPDT Normally Open / Normally Closed High Voltage Relay

- Form 2C, DPDT
- Molybdenum/Tungsten contacts
- HV connection Solder Tab
- Through Panel mounting
- Vacuum dielectric

TYPICAL APPLICATIONS

- Medical diagnostic and therapy equipment requiring polarity reversal
- Defibrillator development and test systems
- Scientific test platforms requiring dual channel HV routing
- Aerospace and defense systems requiring transfer or polarity switching
- High voltage instrumentation requiring simultaneous switching of two isolated paths

For factory-direct technical support and application assistance:

Call +1 805 456 6424

Email info@rinconpower.com

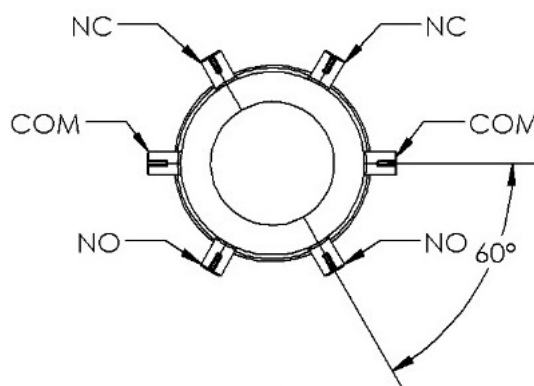
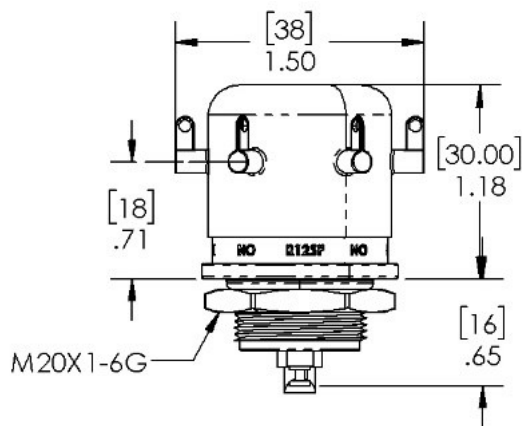
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PERFORMANCE

TABLE 1. SPECIFICATIONS

CHARACTERISTIC	MEASURE	
Contact Arrangement	Form 2C, DPDT (Double Pole Double Throw)	
Max Operating Voltage (Peak, between Contacts and Contacts to Base) (Max Leakage Current: 15μA)	8kV dc or 60Hz 5kV at 2.5 MHz 3kV at 16 MHz 2kV at 32 MHz	
Test Voltage (Peak, between Contacts and Contacts to Base) (Max Leakage Current: 15μA)	8kV dc or 60Hz	
Current Carry, Continuous, Max	8A dc or 60Hz 7A at 2.5 MHz 3A at 16 MHz 2A at 32 MHz	
Capacitance – Across Open Contacts	0.5 pF	
Capacitance – Contacts to Ground	1.0 pF	
Load Switching (Make and Break)	Limited - (Consult Factory)	
Coil Hi-Pot (V RMS, 60Hz)	500V	
Contact Resistance (Max)	0.020 Ω @ 1A	
Operate Time (Max, incl bounce)	15 ms	
Release Time (Max)	9 ms	
Shock - Operating, 1/2 Sine, 11ms	30G	
Vibration (55-500Hz Peak)	10G	
Operating Temperature	-55°C to 125°C	
Mechanical life	1,000,000 cycles	
Weight	71 g	
COIL (25° C)	MEASURE	
Nominal Voltage ^{1,2}	12 VDC	26.5 VDC
Pick-up Voltage, Max ³	8 VDC	16 VDC
Drop-out Voltage ³	0.5-5 VDC	1.0-10 VDC
Coil Resistance (±10%) ¹	60Ω	250Ω

PRODUCT DIMENSIONS [mm]



3D model available upon request

OPTIONS

TABLE 2. PART NUMBER CONFIGURATION

SERIES	HIGH VOLTAGE CONNECTION	MOUNTING	COIL
R12	S = Solder Tab	P = Through Panel	Blank = 26.5VDC -12V = 12VDC

Available Part Numbers: R12SP

NOTES

1. Relay is operated by a coil that changes resistance with temperature: Maximum coil voltage will be lower than indicated at temperatures above 25°C, and higher than indicated at temperatures below 25°C.
2. Nominal Coil Voltage for Pick-up Current, Coil Current and Coil Power specifications, Current/Wattage will be lower than indicated at temperatures above 25°C and higher than indicated at temperatures below 25°C.
3. Pick-up Voltage and Drop Out Voltage will be lower than indicated at temperatures below 25°C and higher than indicated at temperatures above 25°C.

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