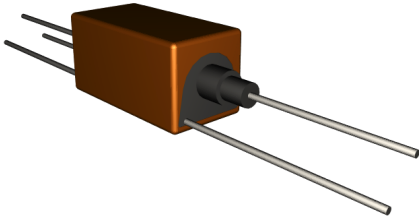


90D Series High Insulation Resistance



PRODUCT DESCRIPTIONS

The 90D Series is a high insulation resistance relay with a flexible board connection feature. The insulation resistance is rated 10^{13} (switch contacts), which is ideal for current measurement in 10^{-12} amps range. With its flexible pin connection length, this series has been widely used in DC characteristic verification for proto device, and maintenance for DC parametric test systems.

SPECIFICATIONS



| 90D Series | | 90D-1A21K32 | 90D-2A21K32 | 90D-3A□1K32 | | | High Insulation Resistance |
|--------------------------------------|------------------------|--|-------------|-------------|--|------|---|
| Parameters | Units | 1 Form A | 2 Form A | 3 Form A | | | Test Conditions |
| Coil Specifications | | | | | | | |
| Nominal Coil Voltage | VDC | 12.0 | 12.0 | 5.0 | 12.0 | 24.0 | ±10% @ 20°C 15°C to 35°C 15°C to 35°C |
| Coil Resistance | Ω | 1000 | 1200 | 125 | 800 | 2400 | |
| Operate Voltage | VDC Max | 8.6 | 8.7 | 3.5 | 8.6 | 17.3 | |
| Release Voltage | VDC Min | 1.2 | 1.2 | 0.7 | 1.2 | 2.4 | |
| Contact Ratings | | | | | | | |
| Switching Voltage | Volts | 350 | | | Max DC/Peak AC resistance | | |
| Switching Current | Amps | 1.0 | | | Max DC/Peak AC resistance | | |
| Carry Current | Amps | 2.5 | | | Max DC/Peak AC resistance | | |
| Contact Rating | Watts | 50 | | | Max DC/Peak AC resistance | | |
| Life Expectancy | x10 ⁶ Cycle | 1000 | | | @ 1V 10mA | | |
| Contact Resistance | mΩ | 150 | | | Max initial @ operate voltage | | |
| Contact Resistance Stability | mΩ | 5.0 | | | Max initial @ operate voltage | | |
| Relay Specifications | | | | | | | |
| Insulation Resistance | Ω Min | 10 ¹³ | | | Between open contacts Contacts to shield/coil Shield to coil @ 100V 20°C 40%RH Between contacts Contacts to shield Contacts / Shield to coil @ nominal coil voltage 100Hz square wave Diode suppression | | |
| | Ω Min | 10 ¹³ | | | | | |
| | Ω Min | 10 ¹⁰ | | | | | |
| Dielectric Strength | VDC Min | 500 | | | Between contacts Contacts to shield Contacts / Shield to coil @ nominal coil voltage 100Hz square wave Diode suppression | | |
| | VDC Min | 500 | | | | | |
| | VDC Min | 500 | | | | | |
| Operate Time (Including Bounce) | msec Max | 1.0 | | | | | |
| Release Time | msec Max | 1.0 | | | | | |
| Environmental Ratings | | | | | | | |
| Measurement Reference Conditions | | Storage temp: -40°C to +85°C Operate temp: -20°C to +80°C Vibration: 20G's to 2000Hz Shock: 50G's | | | | | |
| Temp: 15°C to 35°C | | | | | | | |
| Humidity: 25% to 75%RH | | | | | | | |
| Atmospheric Pressure: 860 to 1060hpa | | | | | | | |

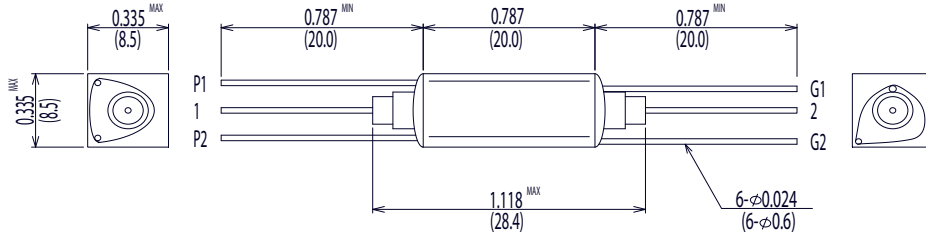
Ordering Code:

90D-3A□1K32

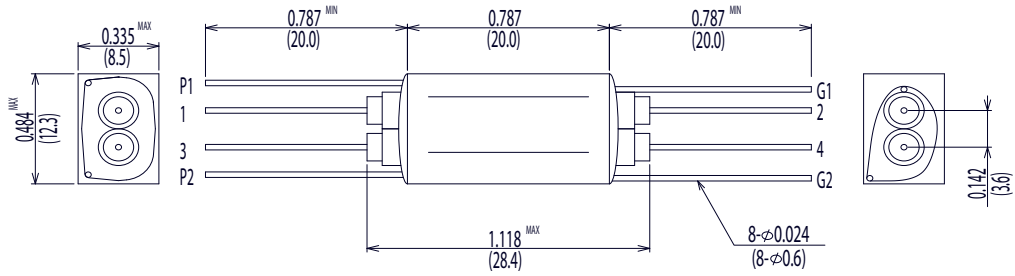
□=1 (5.0VDC), 2(12.0VDC), 3(24.0VDC)

Dimensions All Dimensions are inches (mm)

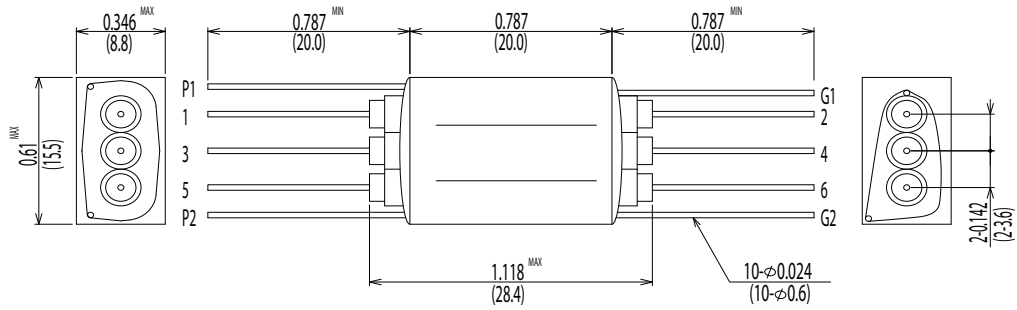
90D-1A21K32



90D-2A21K32

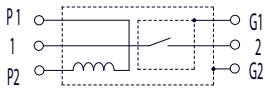


90D-3A□1K32

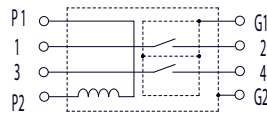


Schematic <Top View>

90D-1A21K32



90D-2A21K32



90D-3A□1K32

