



GENERAL INFORMATION SELECTOR CHART

| Series | Series Types | Enclosure | Contacts | | Nominal Coil Voltage or Current | Operating Power at P.I. (mW) | Applicable Specification Approvals | | | | |
|---------|--------------|-------------------|-------------|--------------|---------------------------------|------------------------------|--|----------------|--------|-------------|--|
| | | | Arrangement | Rating | | | MILITARY | | CECC | | |
| | | | | | | | Mil-PRF-39016/ | Mil-PRF-28776/ | 16101- | 16207- | |
| MA | MA | TO-5 | DPDT | 1A / 28 Vdc | 5...30,0 Vdc | 130 | 9 | | | | |
| | MA-D | | | | 5...26,5 Vdc | | 15 | | | | |
| | MA-DD | | | | | | 20 | | | | |
| | MA-T | | | | | | | 1 | | | |
| MA2 | | TO-5 | DPDT | 1A / 28 Vdc | 5...30,0 Vdc | 130 | | | 003 | | |
| MCA | | TO-5 | DPDT | 2A / 28 Vdc | 5...26,5 Vdc | 150 | | | | | |
| MS | MS | TO-5 | DPDT | 1A / 28 Vdc | 5...48,0 Vdc | 60 | 11 | | | | |
| | MS-D | | | | | | 16 | | | | |
| | MS-DD | | | | | | 21 | | | | |
| | MS-T | | | | | | | 3 | | | |
| MS2 | | TO-5 | DPDT | 1A / 28 Vdc | 5...48,0 Vdc | 60 | | | 004 | | |
| 1MA | 1MA | TO-5 | SPDT | 1A / 28 Vdc | 5...26,5 Vdc | 100 | 7 | | | | |
| | 1MA-D | | | | | | 23 | | | | |
| | 1MA-DD | | | | | | 24 | | | | |
| | 1MA-T | | | | | | | 5 | | | |
| 1MA1 | | TO-5 | SPDT | 1A / 28 Vdc | 5...26,5 Vdc | 100 | | | 005 | | |
| 1MS | 1MS | TO-5 | SPDT | 1A / 28 Vdc | 5...40,0 Vdc | 50 | 10 | | | | |
| | 1MS-D | | | | | | 25 | | | | |
| | 1MS-DD | | | | | | 40 | | | | |
| | 1MS-T | | | | | | 50 | | 4 | | |
| 1MS1 | | TO-5 | SPDT | 1A / 28 Vdc | 5...40,0 Vdc | 50 | | | 006 | | |
| | MGA | CUBIC .100GRID | DPDT | 1A / 28 Vdc | 5...26,5 Vdc | 130 | 17 | | | | |
| | MGA-D | | | | | | 18 | | | | |
| MGA-DD | 150 | | | | | | | | | | |
| MGAE | MGAE | CUBIC .100GRID | DPDT | 1A / 28 Vdc | 5...28,0 Vdc | 130 | | | | 801 | |
| | MGAE-D | | | | | | | | | | |
| | MGAE-DD | | | | | | 150 | | | | |
| MGA2 | MGA2/D2 | CUBIC | DPDT | 1A / 28 Vdc | 5...28,0 Vdc | 140 | | | 007 | | |
| MGS | MGS | CUBIC .100GRID | DPDT | 1A / 28 Vdc | 5...48,0 Vdc | 60 | 41 | | | | |
| | MGS-D | | | | | | 42 | | | | |
| | MGS-DD | | | | | | 43 | | | | |
| MGSE | MGSE | CUBIC .100GRID | DPDT | 1A / 28 Vdc | 5...48,0 Vdc | 60 | | | | 802 | |
| | MGSE-D | | | | | | | | | | |
| | MGSE-DD | | | | | | | | | | |
| MGS2 | MGS2/D2 | CUBIC | DPDT | 1A / 28 Vdc | 5...48,0 Vdc | 60 | | | 008 | | |
| 12K | | 1/2 CC | DPDT | 2A / 28 Vdc | 5...26,5 Vdc | 250 | 6 | | | | |
| 2K | | 1/2 CC | DPDT | 2A / 28 Vdc | 5...48,0 Vdc | 250 | | | | | |
| 2K6600 | | 1/2 CC | DPDT | 2A / 28 Vdc | 5...48,0 Vdc | 250 | | | | 007.014.021 | |
| | | | | | | | MILITARY Compliance Mil-R-39016/ Mil-R-5757/ | | | | |
| 2K7940 | | 1/2 CC | DPDT | 2A / 28 Vdc | 6...26,5 Vdc | 250 | 22 | | | | |
| KA | 2KA | 1/2 CC | DPDT | 2A / 28 Vdc | 5...48,0 Vdc | 100 | | | | | |
| HA | 2HA | 1/2 CC | DPDT | 5A / 28 Vdc | 5...48,0 Vdc | 300 | | | | | |
| B | 2B | CC | DPDT | 2A / 28 Vdc | 6...76,0 Vdc | 250 | | | | | |
| | 2BR | | DPDT | | 26,5...115 Vac | 370 | | | | | |
| 2B6660 | | CC | DPDT | 3A / 28 Vdc | 6...76,0 Vdc | 250 | | | 008 | | |
| 2B7506 | | CC | DPDT | 2A / 28 Vdc | 6...26,5 Vdc | 250 | | 10 | | | |
| | BS | | CC | DPDT | 2A / 28 Vdc | 6...26,5 Vdc | 100 | | | | |
| | 1BSK | | | SPDT | | 3,2...70,6mA | 25 | | | | |
| | 2BSK | DPDT | | 4,0...89,2mA | 40 | | | | | | |
| BN | 1BN | CC | SPDT | 5A / 28 Vdc | 6...76,0 Vdc | 280 | | | | | |
| | 2BN | | DPDT | | | | | | | | |
| 2BC7201 | | CC | DPDT | 2A / 28 Vdc | 4,0...90,0mA | 40 | | 13 | | | |
| BCN | 1BCN | CC | SPDT | 5A / 28 Vdc | 6...40,0 Vdc | 80 | | | | | |
| | 2BCN | | DPDT | | | | | | | | |
| 4B | | | 4PDT | 2A / 28 Vdc | 6...115 Vdc | 400 | | | | | |
| T | 2T | CC | DPDT | 10A / 28 Vdc | 6...115 Vdc | 500 | | | | | |
| | 2TR | | | | 115 Vac | | | | | | |
| TN | 2TN | CC | DPDT | 15A / 28 Vdc | 6...115 Vdc | 500 | | | | | |
| | 2TNR | | | | 115 Vac | | | | | | |
| 2T7188 | | CC | DPDT | 10A / 28 Vdc | 6...120 Vdc | 500 | | 23 | | | |
| RFK | RFK | 1/2 CC | SPDT | 2A / 28 Vdc | 6...26,5 Vdc | 250 | | | | | |
| | 2RFK | | DPDT | | | | | | | | |
| RFB | RFB | CC | SPDT | 2A / 28 Vdc | 6...76,5 Vdc | 250 | | | | | |
| | 2RFB | | DPDT | | | | | | | | |
| RFBC | RFBC | CC | SPDT | 2A / 28 Vdc | 4,0...89,2 mA | 40 | | | | | |
| | 2RFBC | | DPDT | | | | | | | | |
| 4MA | | CC | 4PDT | 1A / 28 Vdc | 5,0...30,0 Vdc | 260 | | | | | |
| 4MS | | CC | 4PDT | 1A / 28 Vdc | 5,0...48,0 Vdc | 120 | | | | | |



FULL SIZE CRYSTAL CAN RELAY 2 AMPERE DC or AC COIL

Series
B

Product Description

This standard size crystal can relay series, offers switching capability of low level signals up 2 amperes under the most extreme environmental conditions.

The following construction features ensure the highest reliability in extreme environments:

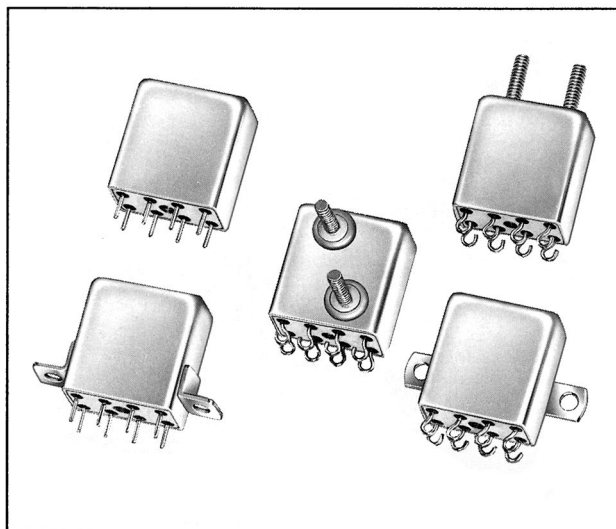
- All welded relay construction
- Cleaning and sealing techniques ensures maximum internal cleanliness
- Low level to 2 amp. switching
- 2 form C, DPDT contacts, special metal alloy with gold plating
- DC and AC coil

Series Types

- **2B** Basic Relay, 2 form C, DPDT
- **2BR** Basic Relay with an internal bridge diode, for AC operation

Environmental and Physical Specifications

| | |
|------------------------|--------------------------|
| Temperature (Ambient) | -65°C to +125°C |
| Shock | 100 g's, 6 msec. |
| Vibration (sinusoidal) | 20 g's, 10 to 2000 Hz |
| Acceleration | 50 g's |
| Sealing | All welded, Hermetic |
| Weight | 1 oz. (28,35 grams) max. |



Electrical Characteristics (over the Temperature range, unless otherwise noted)

| | | | | |
|--|---|-------------------------------------|--------------------------|--------------------|
| Coil Data | See Typical Characteristics chart | | | |
| Contact Rating (Note : All ratings with grounded case) | Type load | Contact Load | | Cycles min. |
| | | Low Level | 10 mA / 30 mV | |
| | Resistive | Normal | 2 Amp / 28 Vdc | 100.000 |
| | | | 1 Amp / 115 Vac, 400 Hz | 100.000 |
| | | Overload | 0,3 Amp / 115 Vac, 60 Hz | 100.000 |
| | | | Inductive | 4 A / 28 Vdc |
| | | 1 Amp / 28 Vdc (200 mH) | 100.000 | |
| Contact Resistance | 0,05 ohm max. initial | | | |
| Operate Time | 6,0 msec. max. at 25 °C, Series B | 7,0 msec. max. at 25 °C, Series BR | | |
| Release Time | 3,0 msec. max. at 25 °C, Series B | 10,0 msec. max. at 25 °C, Series BR | | |
| Contact Bounce | 3,0 msec. max. at 25 °C, Series B and BR | | | |
| Dielectric Strength | 1000 Vrms min., 60 Hz, all points, 500 Vrms min. between open contacts and coil to case, at sea level | | | |
| Insulation Resistance | 1000 megohms min. all points at 500 Vdc | | | |
| Intercontact Capacitance | 2,5 pF Between contact | | | |
| Sensitivity | 250 milliwatts at pick-up, 1,6 watts at nominal rated coil voltage, at 25 °C | | | |



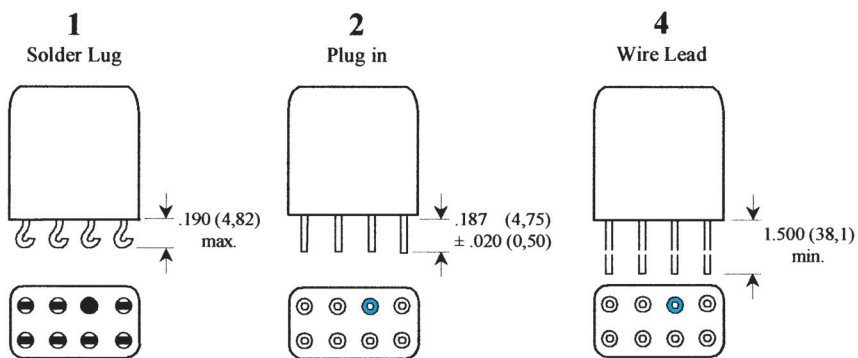
FULL SIZE CRYSTAL CAN RELAY 2 AMPERE DC or AC COIL

Series
B

Typical Characteristics (over the Temperature range, unless otherwise noted)

| Series Types | Voltage Code | Coil Voltage | | Coil Resistance ohms ± 10% at 25 °C | Pick-up Vdc Max. at 25 C | Drop-out Vdc Min. at 25 °C |
|--------------|-------------------------------------|--------------|------|--|-----------------------------|-------------------------------|
| | | Nominal | Max. | | | |
| 2B | 106 | 6 | 7,2 | 40 | 3,1 | 0,5 |
| | 112 | 12 | 14,4 | 160 | 6,3 | 0,75 |
| | 126 | 26,5 | 32 | 675 | 13,0 | 1,5 |
| | 148 | 48 | 58 | 2500 | 25,0 | 2,5 |
| | 176 | 76 | 90 | 5000 | 35,0 | 3,0 |
| 2BR | 126 | 26,5 | 32 | 600 | 15,0 | 2,0 |
| | 148 | 48 | 58 | 2000 | 28,0 | 3,0 |
| | 176 | 76 | 90 | 3500 | 44,0 | 4,0 |
| | Note: AC operation, 60 to 400 Hz | 215 | 115 | 125 | 10000 | 66,0 |

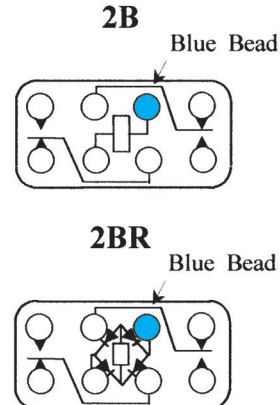
Terminal Styles



Note :

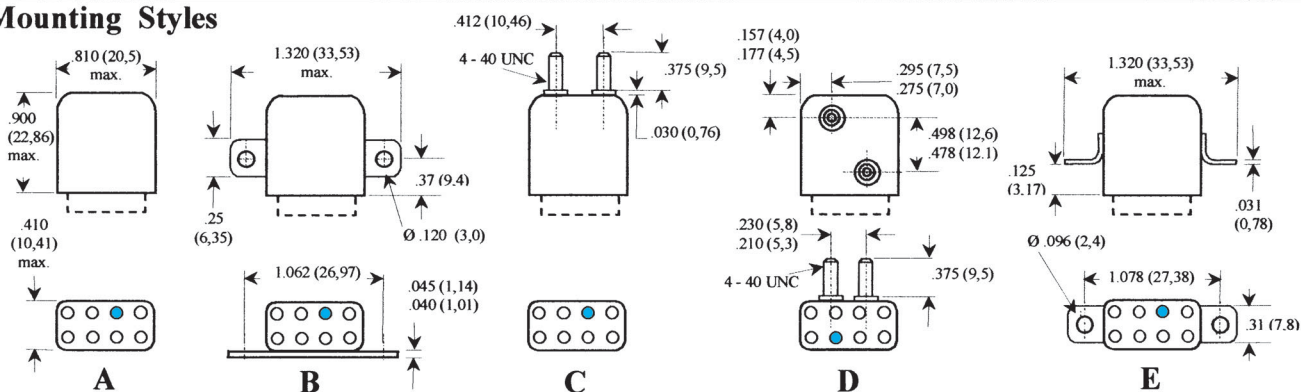
- Dimensions are shown in inches (millimetres)
- Terminal spacing is .200 (5,08). Terminal diameter is .030 (0,76) + .003 (0,07) - .002 (0,05)

Schematic Diagrams



Note: - Schematics are viewed from terminals

Mounting Styles



Note: - Dimensions are shown in inches (millimetres)

How to Order (Part Numbering System)

