

General Purpose Relays

R02 Series



General Purpose, 10 Amp Multicontact AC and DC Relays.

Features

- Hermetically Sealed, Metal Enclosure Types (H-suffix)
- U/L Approved for Class 1, Div 2 Hazardous Locations (H-suffix)
- Push-to-Test Button Types (B-suffix)
- Indicator Lamp Types (N-suffix)
- 8-Pin and 11-Pin Octal Plug-In Types
- SPDT, DPDT and 3PDT Types
- Clear Plastic Dust Cover



| AC OPERATED | | | | | | |
|----------------|--------------|--------------|----------------------|------------|-------------------------------------|----------|
| NTE TYPE No. | Nom. Voltage | Contact Arr. | Coil Res. Ohms (Typ) | Nom. Power | Max. Contact Cur. @ 28VDC or 120VAC | Diag No. |
| R02-5A10-12 | 12VAC | SPDT | - | 3.9VA | 10A | D1C |
| R02-5A10-240 | 240VAC | SPDT | - | 3.9VA | 10A | D1C |
| R02-11A10-6 | 6VAC | DPDT | - | 2.0VA | 10A | D1A |
| R02-11A10-12 | 12VAC | DPDT | - | 2.0VA | 10A | D1A |
| R02-11A10-24 | 24VAC | DPDT | - | 2.0VA | 10A | D1A |
| R02-11A10-24H | 24VAC | DPDT | - | 3.0VA | 10A | D2A |
| R02-11A10-24N | 24VAC | DPDT | - | 2.0VA | 10A | D1A |
| R02-11A10-120 | 120VAC | DPDT | - | 2.0VA | 10A | D1A |
| R02-11A10-120H | 120VAC | DPDT | - | 3.0VA | 10A | D2A |
| R02-11A10-120N | 120VAC | DPDT | - | 2.0VA | 10A | D1A |
| R02-11A10-240 | 240VAC | DPDT | - | 2.0VA | 10A | D1A |
| R02-14A10-6 | 6VAC | 3PDT | - | 3.9VA | 10A | D1B |
| R02-14A10-6M | 6VAC | 3PDT | - | 3.9VA | 10A | D1B |
| R02-14A10-12 | 12VAC | 3PDT | - | 2.75VA | 10A | D1B |
| R02-14A10-24 | 24VAC | 3PDT | - | 2.75VA | 10A | D1B |
| R02-14A10-24B | 24VAC | 3PDT | - | 2.75VA | 10A | D1B |
| R02-14A10-120 | 120VAC | 3PDT | - | 2.75VA | 10A | D1B |
| R02-14A10-120H | 120VAC | 3PDT | - | 3.0VA | 10A | D2B |
| R02-14A10-120N | 120VAC | 3PDT | - | 2.75VA | 10A | D1B |
| R02-14A10-240 | 240VAC | 3PDT | - | 2.75VA | 10A | D1B |
| DC OPERATED | | | | | | |
| NTE TYPE No. | Nom. Voltage | Contact Arr. | Coil Res. Ohms (Typ) | Nom. Power | Max. Contact Cur. @ 28VDC or 120VAC | Diag No. |
| R02-5D10-6 | 6VDC | SPDT | 30 | 1.2W | 10A | D1C |
| R02-5D10-110 | 110VDC | SPDT | 10K | 1.2W | 10A | D1C |
| R02-11D10-6 | 6VDC | DPDT | 30 | 1.2W | 10A | D1A |
| R02-11D10-12 | 12VDC | DPDT | 120 | 1.0W | 10A | D1A |
| R02-11D10-12H | 12VDC | DPDT | 100 | 1.5W | 10A | D2A |
| R02-11D10-12N | 12VDC | DPDT | 120 | 1.0W | 10A | D1A |
| R02-11D10-24 | 24VDC | DPDT | 470 | 1.0W | 10A | D1A |
| R02-11D10-24B | 24VDC | DPDT | 470 | 1.0W | 10A | D1A |
| R02-11D10-24H | 24VDC | DPDT | 472 | 1.2W | 10A | D2A |
| R02-11D10-48 | 48VDC | DPDT | 1630 | 1.5W | 10A | D1A |
| R02-11D10-110 | 110VDC | DPDT | 10K | 1.2W | 10A | D1A |
| R02-11D10-110H | 110VDC | DPDT | 8K | 1.5W | 10A | D2A |
| R02-14D10-6 | 6VDC | 3PDT | 30 | 1.2W | 10A | D1B |
| R02-14D10-12 | 12VDC | 3PDT | 120 | 1.0W | 10A | D1B |
| R02-14D10-12B | 12VDC | 3PDT | 120 | 1.0W | 10A | D1B |
| R02-14D10-24 | 24VDC | 3PDT | 470 | 1.0W | 10A | D1B |
| R02-14D10-48 | 48VDC | 3PDT | 1630 | 1.5W | 10A | D1B |
| R02-14D10-110 | 110VDC | 3PDT | 10K | 1.2W | 10A | D1B |

Note 1. R02 Series hermetically sealed relays (H-suffix) are UL recognized for Class1, Division 2 (Hazardous locations).
 Note 2. The R02 Series is generally being replaced by the R03 Series full-feature relays shown on Page 4.

Electrical Specifications

Contact

Contact Rating

| Poles | 120VAC | 240VAC | 28VDC Max |
|-------|---------------|--------------|-----------|
| SPDT | 10A (1/10 HP) | 10A (1/6 HP) | 6A |
| DPDT | 10A (1/3 HP) | 10A (1/3 HP) | 10A |
| 3PDT | 10A (1/3 HP) | 6A (1/2 HP) | 6A |

Contact Material: 3/16" Silver cadmium oxide

Contact Resistance: 0.050 ohms max initial

Coil

Coil Voltages: See Chart

Pick-up Voltage: 80% of nominal or less, DC
80% of nominal or less, AC

Resistance: See chart

Min Sensitivity: (125mW per pole)

Duty Cycle: Continuous

Operational Characteristics

Timing Values Operate Time: 25 ms or less } at nominal
Release Time: 20 ms or less } coil voltage

Insulation Characteristics

Dielectric Strength

Contact To Coil: 1500 VRMS
Across Open Contacts: 1000 VRMS
Pole to Pole: 1500 VRMS
Contacts To Frame: 1500 VRMS

Insulation Material: Molded polyester

Insulation Resistance: 1 x 10³ megohms min

Environmental Characteristics

Operating: -10°C to +50°C (AC), -10°C to +60°C (DC)

Non-operating (storage): -30°C to +105°C

Weight

Std: 3 1/2 ozs (99.2 grams)—typical

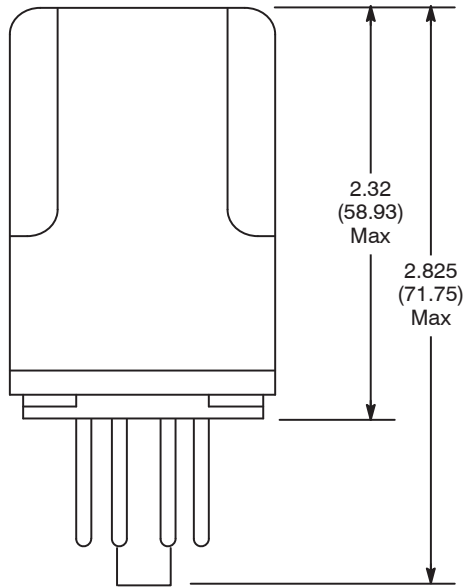
Hermetic sealed: 5 ozs (141.7 grams)—typical

ACCESSORIES

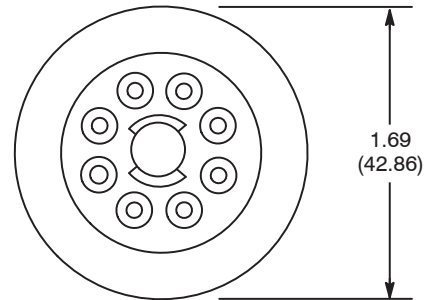
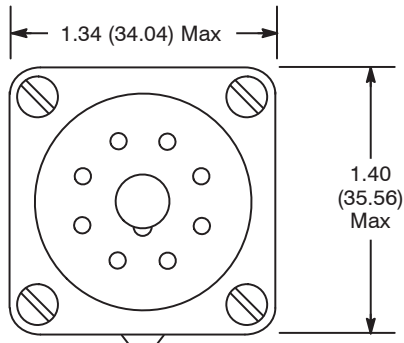
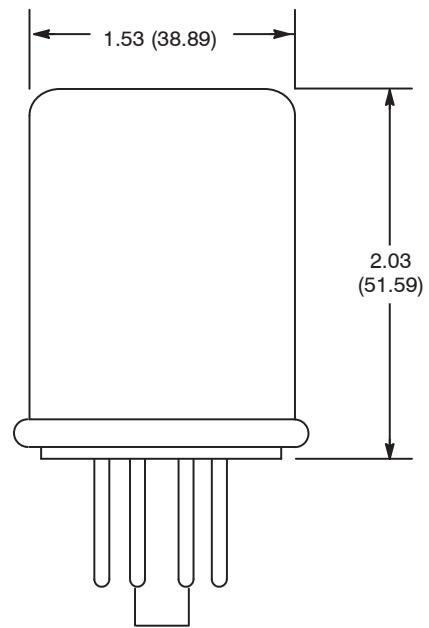
| MOUNTING STYLES | DESCRIPTION | NTE TYPE NO. |
|-----------------|--------------|------------------|
| SURFACE MOUNT | 8-PIN OCTAL | R95-101 |
| | 11-PIN OCTAL | R95-104 |
| DIN RAIL MOUNT | 8-PIN OCTAL | R95-113, R95-181 |
| | 11-PIN OCTAL | R95-114, R95-182 |
| PANEL MOUNT | 8-PIN OCTAL | R95-118 |
| | 11-PIN OCTAL | R95-119 |

General Purpose Relays

D1

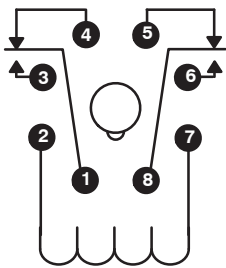


D2



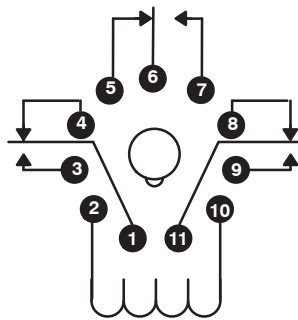
Note: Models with "N" suffix will have indicator lamp connected across coil.

A (DPDT), 2 Form "C"



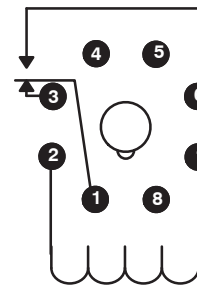
Viewed from Pin end of Plug

B (3PDT), 3 Form "C"



Viewed from Pin end of Plug
Note: R02-14A10-120H has Pin5 and Pin6 Reversed.

C (SPDT), 1 Form "C"



Viewed from Pin end of Plug