

Small 4PDT

Medium 24PDT

# MDR series

## 10 Amp Rotary Relay For Demanding Shock & Vibration Applications

### Features

- AC and DC coils, latching and non-latching.
- 4PDT through 24PDT contact arrangements.
- Contacts will not chatter when relays are subjected to high-impact shock blows of 2000 ft.-lbs.

### Contact Data

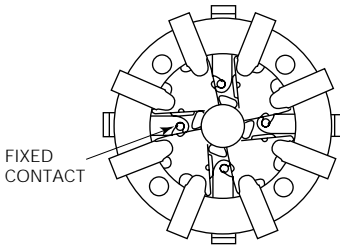
Arrangements: 4 Form C (4PDT) through 24 Form C (24PDT).

### Contact Ratings

| Single Contacts | Two Contacts in Series |
|-----------------|------------------------|
| 10A, 115VAC     | 3A, 440VAC             |
| 3A, 28VDC       | 15A, 115VAC            |
| 0.8A, 125VDC    | 1.5A, 125VDC           |

The above AC contact ratings are based on contact loads having a 50% power factor. The DC contact ratings are based on resistive loads.

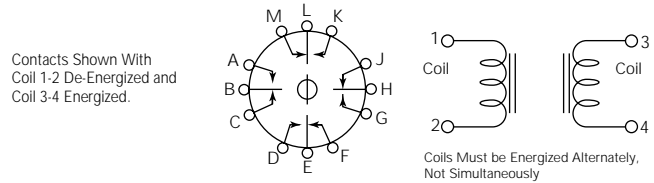
### Contact Section



### Operate Data @ 25°C

| Type                   | Typ. Operate Time (ms) | Typ. Release Time (ms) |
|------------------------|------------------------|------------------------|
| Small AC Non-Latching  | 5 to 12                | 5 to 18                |
| Small DC Non-Latching  | 15 to 30               | 5 to 15                |
| Small AC Latching      | 6 to 12                | N/A                    |
| Small DC Latching      | 10 to 16               | N/A                    |
| Medium AC Non-Latching | 6 to 12                | 6 to 20                |
| Medium DC Non-Latching | 65 to 90               | 10 to 30               |
| Medium AC Latching     | 8 to 14                | N/A                    |
| Medium DC Latching     | 30 to 80               | N/A                    |

**Latching Two-Position Types:** Except for the latching feature, MDR latching relays utilize the same general construction as non-latching types. They have two sets of coils and provide a latching two-position operation.



### Environmental Data

Temperature Range: **Standard models:** 0°C to +65°C.  
**Special order models:** 0°C to +90°C.

### Mechanical Data

Termination: #5-40 screw terminals supplied.  
**Weight (Approx.):**  
**Small** – 4 & 8PDT: 32 oz. (0.914 kg); 12PDT: 33 oz. (0.943 kg).  
**Medium** – 16PDT: 72 oz. (2.04 kg); 24PDT: 74 oz. (2.10 kg).

### Ordering Information and Coil Characteristics – No models in this series are maintained in stock.

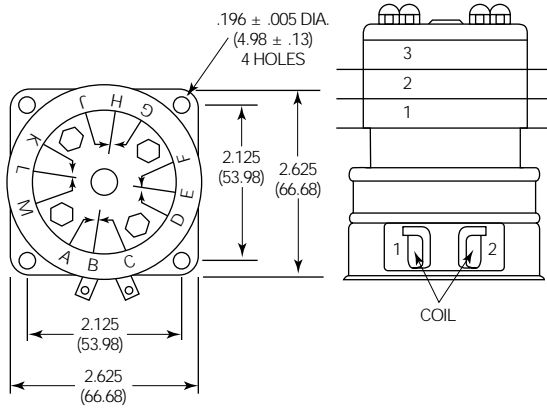
| Type                | Part Number | Contacts | Coil Voltage (60 Hz. for AC) | Coil Current (Amps) | DC Coil Resistance (Ohms) | Coil Power* (Watts) | Breakdown (Volts RMS) |
|---------------------|-------------|----------|------------------------------|---------------------|---------------------------|---------------------|-----------------------|
| Small Non-Latching  | MDR-131-1   | 4PDT     | 115VAC                       | 0.215               | 66                        | 6.5                 | 1,230                 |
|                     | MDR-131-2   | 4PDT     | 440VAC                       | 0.045               | 1,256                     | 5.1                 | 1,880                 |
|                     | MDR-135-1   | 4PDT     | 28VDC                        | 0.362               | 76                        | 10.0                | 1,308                 |
|                     | MDR-137-8   | 4PDT     | 125VDC                       | 0.082               | 1,520                     | 10.3                | 2,375                 |
|                     | MDR-134-1   | 8PDT     | 115VAC                       | 0.215               | 66                        | 6.5                 | 1,230                 |
|                     | MDR-134-2   | 8PDT     | 440VAC                       | 0.045               | 1,256                     | 5.1                 | 1,880                 |
|                     | MDR-136-1   | 8PDT     | 28VDC                        | 0.362               | 76                        | 10.0                | 1,308                 |
|                     | MDR-138-8   | 8PDT     | 125VDC                       | 0.082               | 1,520                     | 10.3                | 2,375                 |
|                     | MDR-163-1   | 12PDT    | 115VAC                       | 0.230               | 62                        | 6.9                 | 1,230                 |
|                     | MDR-163-2   | 12PDT    | 440VAC                       | 0.055               | 940                       | 6.3                 | 1,880                 |
| Medium Non-Latching | MDR-170-1   | 16PDT    | 115VAC                       | 0.620               | 8.4                       | 17.0                | 1,230                 |
|                     | MDR-170-2   | 16PDT    | 440VAC                       | 0.160               | 107                       | 17.0                | 1,880                 |
|                     | MDR-172-1   | 16PDT    | 28VDC                        | 0.667               | 42                        | 18.7                | 1,308                 |
|                     | MDR-173-1   | 16PDT    | 125VDC                       | 0.125               | 1,024                     | 16.0                | 2,375                 |
|                     | MDR-141-1   | 24PDT    | 115VAC                       | 0.620               | 8.4                       | 17.0                | 1,230                 |
|                     | MDR-141-2   | 24PDT    | 440VAC                       | 0.160               | 107                       | 17.0                | 1,880                 |
|                     | MDR-167-1   | 24PDT    | 28VDC                        | 0.667               | 42                        | 18.7                | 1,308                 |
|                     | MDR-142-1   | 24PDT    | 125VDC                       | 0.125               | 1,024                     | 16.0                | 2,375                 |
| Small Latching      | MDR-67-2    | 4PDT     | 115VAC                       | 0.150               | 210                       | 5.5                 | 1,230                 |
|                     | MDR-4091    | 4PDT     | 440VAC                       | 0.020               | 4,500                     | 3.0                 | 1,880                 |
|                     | MDR-67-3    | 4PDT     | 28VDC                        | 0.778               | 36                        | 21.8                | 1,308                 |
|                     | MDR-5060    | 4PDT     | 125VDC                       | 0.164               | 760                       | 20.6                | 2,375                 |
|                     | MDR-4076    | 8PDT     | 115VAC                       | 0.150               | 210                       | 5.5                 | 1,230                 |
|                     | MDR-4092    | 8PDT     | 440VAC                       | 0.020               | 4,500                     | 3.0                 | 1,880                 |
|                     | MDR-5035    | 8PDT     | 28VDC                        | 0.778               | 36                        | 21.8                | 1,308                 |
|                     | MDR-5061    | 8PDT     | 125VDC                       | 0.164               | 760                       | 20.6                | 2,375                 |
| Medium Latching     | MDR-6064    | 12PDT    | 115VAC                       | 0.380               | 24                        | 12.0                | 1,230                 |
|                     | MDR-6065    | 12PDT    | 440VAC                       | 0.055               | 540                       | 5.7                 | 1,880                 |
|                     | MDR-7020    | 12PDT    | 28VDC                        | 0.316               | 88.6                      | 8.8                 | 1,308                 |
|                     | MDR-7035    | 12PDT    | 125VDC                       | 0.083               | 1,500                     | 10.4                | 2,375                 |
|                     | MDR-66-4    | 16PDT    | 115VAC                       | 0.380               | 24                        | 12.0                | 1,230                 |
|                     | MDR-6066    | 16PDT    | 440VAC                       | 0.055               | 540                       | 5.7                 | 1,880                 |
|                     | MDR-7025    | 16PDT    | 28VDC                        | 0.316               | 88.6                      | 8.8                 | 1,308                 |
| MDR-7036            | 16PDT       | 125VDC   | 0.083                        | 1,500               | 10.4                      | 2,375               |                       |

\* Actual Wattmeter readings

**Outline Dimensions**

Tolerances: Decimals ± .010 (± .25) Unless Otherwise Specified

**Small Models**

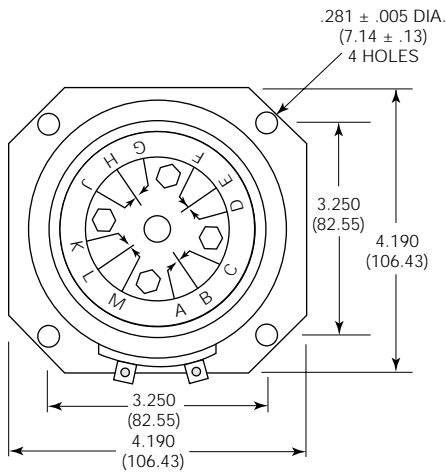


**Overall Height**

4PDT 3.13" (79.5mm) Max.  
 8PDT 3.53" (89.7mm) Max.  
 12PDT 3.88" (98.6mm) Max.

Coil and Contact Terminal Screws #5-40 Supplied

**Medium Models**



**Overall Height**

12PDT 4.63" (117.6mm) Max.  
 16PDT 5.00" (127.0mm) Max.  
 24PDT 5.75" (146.1mm) Max.

Coil and Contact Terminal Screws #5-40 Supplied