

| REVISIONS |     |                 |           |     |      |
|-----------|-----|-----------------|-----------|-----|------|
| P         | LTR | DESCRIPTION     | DATE      | DWN | APVD |
|           | A   | INITIAL DRAWING | 09SEP2019 | VM  | DH   |

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

| Type                   | Part Number | Contacts | Coil Voltage<br>(60 Hz. for AC) | Coil Power*<br>(Watts) | Breakdown<br>(Volts RMS) |
|------------------------|-------------|----------|---------------------------------|------------------------|--------------------------|
| Small<br>Non-Latching  | MDR-131-1   | 4PDT     | 115 VAC                         | 6.5                    | 1,230                    |
|                        | MDR-131-2   | 4PDT     | 440 VAC                         | 5.1                    | 1,880                    |
|                        | MDR-135-1   | 4PDT     | 28 VDC                          | 10.0                   | 1,308                    |
|                        | MDR-137-8   | 4PDT     | 125 VDC                         | 10.3                   | 2,375                    |
|                        | MDR-134-1   | 8PDT     | 115 VAC                         | 6.5                    | 1,230                    |
|                        | MDR-134-2   | 8PDT     | 440 VAC                         | 5.1                    | 1,880                    |
|                        | MDR-136-1   | 8PDT     | 28 VDC                          | 10.0                   | 1,308                    |
|                        | MDR-138-8   | 8PDT     | 125 VDC                         | 10.3                   | 2,375                    |
|                        | MDR-163-1   | 12PDT    | 115 VAC                         | 6.9                    | 1,230                    |
|                        | MDR-163-2   | 12PDT    | 440 VAC                         | 6.3                    | 1,880                    |
| Medium<br>Non-Latching | MDR-170-1   | 16PDT    | 115 VAC                         | 17.0                   | 1,230                    |
|                        | MDR-170-2   | 16PDT    | 440 VAC                         | 17.0                   | 1,880                    |
|                        | MDR-172-1   | 16PDT    | 28 VDC                          | 18.7                   | 1,308                    |
|                        | MDR-173-1   | 16PDT    | 125 VDC                         | 16.0                   | 2,375                    |
|                        | MDR-141-1   | 24PDT    | 115 VAC                         | 17.0                   | 1,230                    |
|                        | MDR-141-2   | 24PDT    | 440 VAC                         | 17.0                   | 1,880                    |
|                        | MDR-167-1   | 24PDT    | 28 VDC                          | 18.7                   | 1,308                    |
|                        | MDR-142-1   | 24PDT    | 125 VDC                         | 16.0                   | 2,375                    |
| Small<br>Latching      | MDR-67-2    | 4PDT     | 115 VAC                         | 5.5                    | 1,230                    |
|                        | MDR-4091    | 4PDT     | 440 VAC                         | 3.0                    | 1,880                    |
|                        | MDR-67-3    | 4PDT     | 28 VDC                          | 21.8                   | 1,308                    |
|                        | MDR-5060    | 4PDT     | 125 VDC                         | 20.6                   | 2,375                    |
|                        | MDR-4076    | 8PDT     | 115 VAC                         | 5.5                    | 1,230                    |
|                        | MDR-4092    | 8PDT     | 440 VAC                         | 3.0                    | 1,880                    |
|                        | MDR-5035    | 8PDT     | 28 VDC                          | 21.8                   | 1,308                    |
|                        | MDR-5061    | 8PDT     | 125 VDC                         | 20.6                   | 2,375                    |
| Medium<br>Latching     | MDR-6064    | 12PDT    | 115 VAC                         | 12.0                   | 1,230                    |
|                        | MDR-6065    | 12PDT    | 440 VAC                         | 5.7                    | 1,880                    |
|                        | MDR-7020    | 12PDT    | 28 VDC                          | 8.8                    | 1,308                    |
|                        | MDR-7035    | 12PDT    | 125 VDC                         | 10.4                   | 2,375                    |
|                        | MDR-66-4    | 16PDT    | 115 VAC                         | 12.0                   | 1,230                    |
|                        | MDR-6066    | 16PDT    | 440 VAC                         | 5.7                    | 1,880                    |
|                        | MDR-7025    | 16PDT    | 28 VDC                          | 8.8                    | 1,308                    |
|                        | MDR-7036    | 16PDT    | 125 VDC                         | 10.4                   | 2,375                    |

Specifications

Contact Data

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

Contact Ratings

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

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

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.

Operate Data @ 77°F [25°C]

| Type                   | Typ. Operate<br>Time (ms) | Typ. Release<br>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     | 50 (max.)                 | N/A                       |
| Medium DC Latching     | 30 to 80                  | N/A                       |

Environmental Data

Temperature Range —

Standard models — 0°F to +149°F

[0°C to +65°C]

Special order models — 0°F to +194°F

[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]

**Note:** All values are for reference, specific values may be different and subject to environmental factors such as temperature, humidity, pressure or variations in voltage.

Product Facts


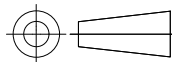
- AC and DC coils, latching and non-latching
- 4PDT through 24PDT contact arrangements
- Designed to withstand high impact shock per MIL-S-901



Small 8PDT



Medium 24PDT

|  |  |                 |                  |   |                |                    |                                |                        |
|--|--|-----------------|------------------|---|----------------|--------------------|--------------------------------|------------------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT. |  | DWN<br>VM       | 09SEP2019        |  TE Connectivity |                |                    |                                |                        |
| DIMENSIONS:<br>INCHES                  | <div></div> <div>0 PLC ± —<br/>1 PLC ± —<br/>2 PLC ± —<br/>3 PLC ± —<br/>4 PLC ± —<br/>ANGLES ± —</div> | CHK<br>RV       | 09SEP2019        | NAME<br><br>MDR SERIES ROTARY RELAY<br><br>—<br><br>—   |                |                    |                                |                        |
|  |  | APVD<br>DH      | 09SEP2019        |   |                |                    |                                |                        |
| PRODUCT SPEC<br><br>—                  |  |                 |                  |   |                |                    |                                |                        |
| APPLICATION SPEC<br><br>—              |  |                 |                  |   |                |                    |                                |                        |
| MATERIAL<br><br>—                      |  | FINISH<br><br>— | WEIGHT<br><br>—  |   | SIZE<br><br>A3 | CAGE CODE<br><br>— | DRAWING NO<br><br>C-MDR-SERIES | RESTRICTED TO<br><br>— |
|  |  |                 | CUSTOMER DRAWING |   |                |                    | SCALE<br>NTS                   | SHEET<br>1 OF 2        |

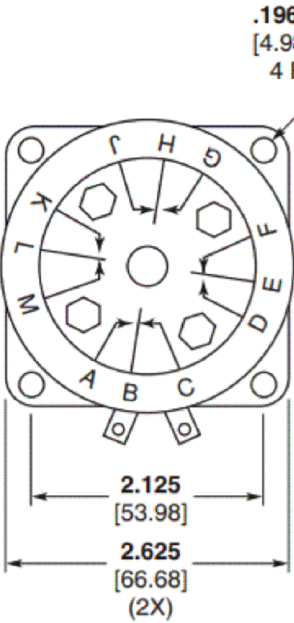


| REVISIONS |     |             |      |     |      |
|-----------|-----|-------------|------|-----|------|
| P         | LTR | DESCRIPTION | DATE | DWN | APVD |
|           | —   | SEE SHEET 1 | —    | —   | —    |

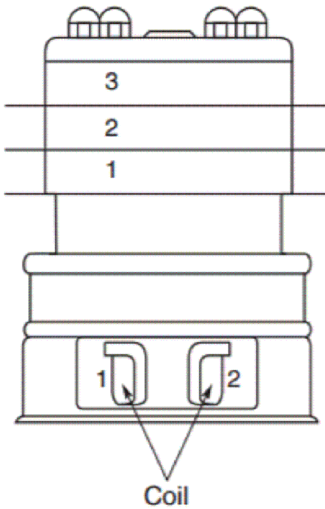
Outline Dimensions

Tolerances: Decimals ± .010 [±.25] Unless Otherwise Specified.

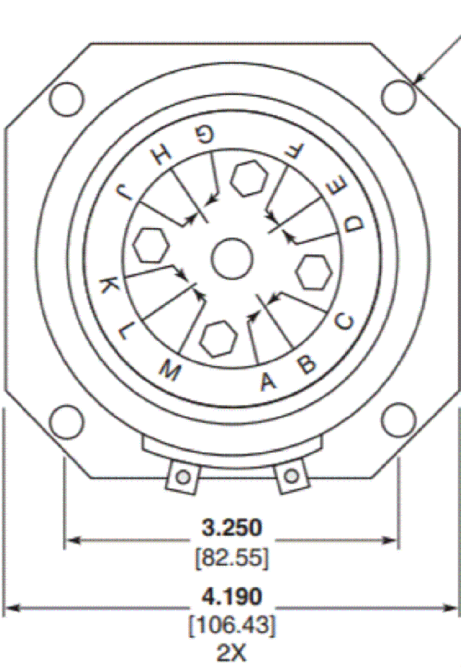
Small Models



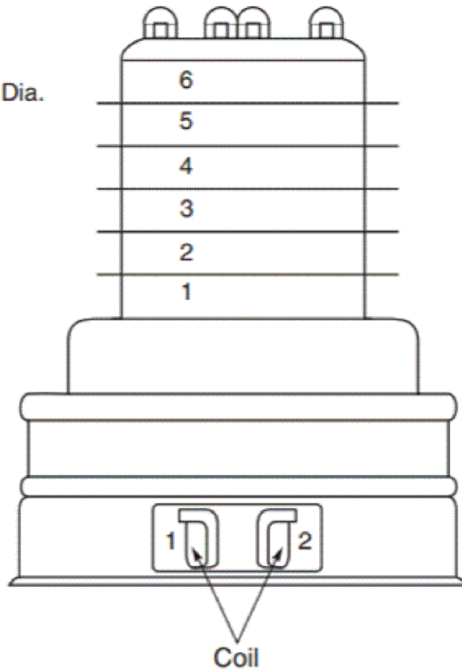
Overall Height  
4PDT 3.13 [79.5] Max.  
8PDT 3.53 [89.7] Max.  
12PDT 3.88 [98.6] Max.  
  
Coil and Contact Terminal Screws  
#5-40 Supplied.



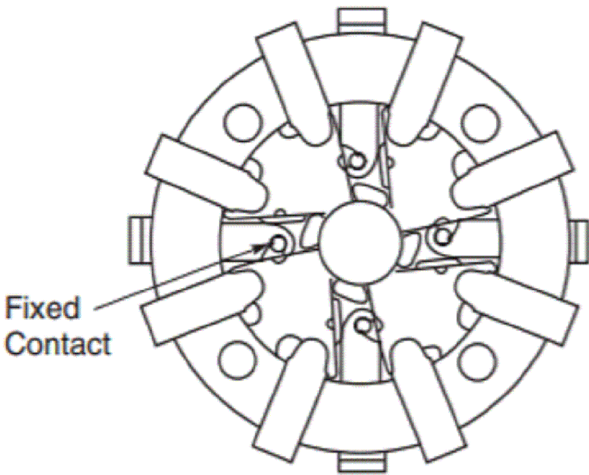
Medium Models



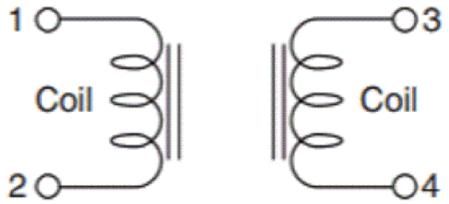
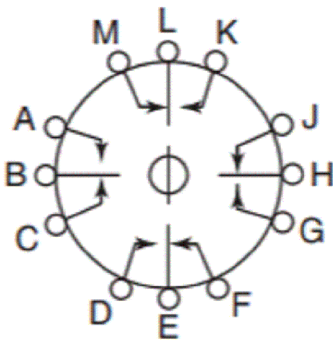
Overall Height  
12PDT 4.63 [117.6] Max.  
16PDT 5.00 [127.0] Max.  
24PDT 5.75 [146.1] Max.  
  
Coil and Contact Terminal Screws #5-40 Supplied.



Contact Section


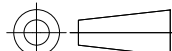


Contacts Shown With  
Coil 1-2 De-Energized  
and Coil 3-4 Energized.



Coils Must be Energized Alternately,  
Not Simultaneously.

ALL DIMENSIONS ARE IN INCHES (MM).

|   |  |                  |           |   |           |              |   |       |        |     |   |
|---|--|------------------|-----------|---|-----------|--------------|---|-------|--------|-----|---|
| THIS DRAWING IS A CONTROLLED DOCUMENT.  |  | DWN<br>VM        | 09SEP2019 | <div>TE Connectivity</div> |           |              |   |       |        |     |   |
|   |  | CHK<br>RV        | 09SEP2019 |   |           |              |   |       |        |     |   |
| DIMENSIONS:<br>INCHES   | TOLERANCES UNLESS<br>OTHERWISE SPECIFIED:<br><br>0 PLC ± -<br>1 PLC ± -<br>2 PLC ± -<br>3 PLC ± -<br>4 PLC ± -<br>ANGLES ± - | APVD<br>DH       | 09SEP2019 | NAME  |           |              | MDR SERIES ROTARY RELAY<br><br>-<br><br>- |       |        |     |   |
|  |  | PRODUCT SPEC     |           |   |           |              |   |       |        |     |   |
|   |  | -                |           |   |           |              |   |       |        |     |   |
|   |  | APPLICATION SPEC |           |   |           |              |   |       |        |     |   |
|   |  | -                |           |   |           |              |   |       |        |     |   |
| MATERIAL  | FINISH   | WEIGHT           | -         | SIZE  | CAGE CODE | DRAWING NO   | RESTRICTED TO                             |       |        |     |   |
| -   | -  |                  |           | A3  | -         | C-MDR-SERIES | -   |       |        |     |   |
| CUSTOMER DRAWING  |  |                  |           |   |           | SCALE        | NTS                                       | SHEET | 2 of 2 | REV | A |

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