

## DRM Relay Series

### 2 Changeover contacts

### 4 Changeover contacts



The new DRM miniature relays complement Weidmüller's wide range of proven electromechanical and solid-state devices.

DRM relays offer functionality to meet industrial standards, at an economical price point.

The DRM is available in 2 and 4 changeover contact versions for AC and DC voltages to suit most industrial and commercial applications.

DRM relays are available with LED status indication, as well as a test lever for quick and easy commissioning and troubleshooting. The relay bases are DIN-rail mountable and feature high quality screw terminals.

#### Features and Benefits:

- 2CO and 4CO versions for greater flexibility
- Wide coil input voltage range
- Sturdy plug-in connection
- High quality contacts for reliability and longevity
- Full load switching capability over  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- Extended de-rated operation up to  $+80^{\circ}\text{C}$
- Optional integrated LED status indication
- Optional test lever with lock function and window
- Accepts stripped wire, ferruled wire and fork lug connections
- CE and cURus approvals for use in applications worldwide
- ROHS compliant

#### Weidmüller, Canada

10 Spy Court  
Markham, Ontario L3R 5H6  
Telephone: (800) 268-4080  
Facsimile: (877) 300-5635  
Email: [info1@weidmuller.ca](mailto:info1@weidmuller.ca)  
Website: [www.weidmuller.ca](http://www.weidmuller.ca)

#### Weidmüller, Mexico

Blvd. Hermanos Serdán 698  
Col. San Rafael Oriente  
Puebla, Puebla, Mexico  
C.P. 72029  
Telephone: 01 222 2686267  
Facsimile: 01 222 2686219  
Email: [clientes@weidmuller.com.mx](mailto:clientes@weidmuller.com.mx)  
Website: [www.weidmuller.com.mx](http://www.weidmuller.com.mx)

#### Weidmüller, United States

821 Southlake Blvd.  
Richmond, Virginia 23236  
Telephone: (800) 849-9343  
Facsimile: (804) 379-2593  
Email: [info@weidmuller.com](mailto:info@weidmuller.com)  
Website: [www.weidmuller.com](http://www.weidmuller.com)

## DRM Relay 4CO changeover contact AC/DC coil

|                      |                                                                                                                                                                                                 |             |             |             |             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| Type code            | <div>RCL</div>                                                                                                                                                                                  | <div></div> | <div></div> | <div></div> | <div></div> |
| Type                 | DRM                                                                                                                                                                                             |             |             |             |             |
| Type of construction | <div>2 = 2 changeover contact</div> <div>4 = 4 changeover contact</div>                                                                                                                         |             |             |             |             |
| Coil voltage         | <div>006 = 6 V DC / 012 = 12 V DC</div> <div>024 = 24 V DC</div> <div>110 = 110 V DC / 220 = 220 V DC</div> <div>524 = 24 V AC / 548 = 48 V AC</div> <div>615 = 115 V AC / 730 = 230 V AC</div> |             |             |             |             |
| LED                  | L (Red for AC coil; Green for DC coil)                                                                                                                                                          |             |             |             |             |
| Test lever           | T (Red for AC coil; Blue for DC coil)                                                                                                                                                           |             |             |             |             |

### Ordering data

| Input                      | 12 V DC 4CO | 24 V DC 4CO  | 110 V DC 4CO  | 220 V DC 4CO |
|----------------------------|-------------|--------------|---------------|--------------|
| Rated voltage              | 12 V DC     | 24 V DC      | 110 V DC      | 220 V DC     |
| Rated current              | 75 mA       | 36.9 mA      | 10 mA         | 5.2 mA       |
| DC Response / dropout Volt | 9 V / 1.2 V | 18 V / 2.4 V | 82.5 V / 11 V | 165 V / 22 V |
| Max. Voltage               | 13.2 V      | 26.4 V       | 121 V         | 242 V        |
| Coil resistance            | 160 Ω       | 650 Ω        | 11 KΩ         | 44 KΩ        |

### Ordering data relay

| DC coil 4CO           |           |             |             |             |             |
|-----------------------|-----------|-------------|-------------|-------------|-------------|
| Standard              | Type      | DRM570012   | DRM570024   | DRM570110   | DRM570220   |
|                       | Order No. | 7760056078  | 7760056079  | 7760056081  | 7760056082  |
| With LED + test lever | Type      | DRM570012LT | DRM570024LT | DRM570110LT | DRM570220LT |
|                       | Order No. | 7760056096  | 7760056097  | 7760056099  | 7760056100  |
| Note                  |           |             |             |             |             |

### Ordering data

| Input                         | 24 V AC 4CO    | 48 V AC 4CO     | 115 V AC 4CO   | 230 V AC 4CO |
|-------------------------------|----------------|-----------------|----------------|--------------|
| Rated Voltage                 | 24 V AC        | 48 V AC         | 115 V AC       | 230 V AC     |
| Rated current (50 Hz / 60 Hz) | 62.4 / 52.2 mA | 33.3 / 27.8 mA  | 12.6 / 10.8 mA | 6.1 / 5.2 mA |
| AC Response / dropout Volt    | 19.2 V / 7.2 V | 38.4 V / 14.4 V | 92 V / 34.5 V  | 184 V / 69 V |
| Max. Voltage                  | 26.4 V         | 52.8 V          | 126.5 V        | 253 V        |
| Coil resistance               | 160 Ω          | 600 Ω           | 3.75 KΩ        | 16 KΩ        |

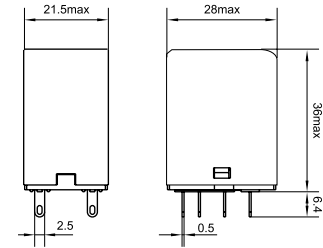
### Ordering data relay

| AC coil 4CO           |           |             |             |             |             |
|-----------------------|-----------|-------------|-------------|-------------|-------------|
| Standard              | Type      | DRM570524   | DRM570548   | DRM570615   | DRM570730   |
|                       | Order No. | 7760056083  | 7760056084  | 7760056085  | 7760056086  |
| With LED + test lever | Type      | DRM570524LT | DRM570548LT | DRM570615LT | DRM570730LT |
|                       | Order No. | 7760056101  | 7760056102  | 7760056103  | 7760056104  |
| Note                  |           |             |             |             |             |

## DRM Relay

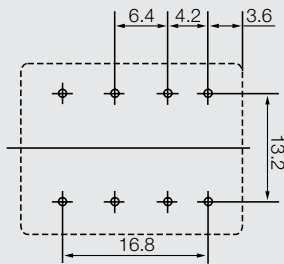
### 2CO changeover contact AC/DC coil

- Small size with high switching power
- Wide coil input voltage range
- Optional test lever (AC red, DC blue)
- Optional status indicator (AC red, DC green)

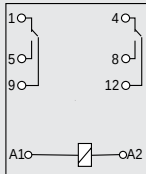


### Circuit diagram

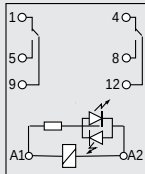
All dimensions are in mm



DRM270



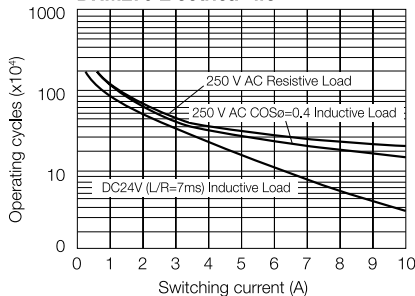
DRM270LT



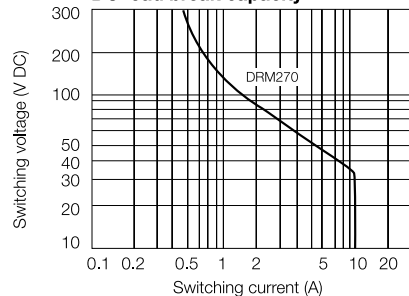
### Technical data

| Output                            |                                                            |                                          |
|-----------------------------------|------------------------------------------------------------|------------------------------------------|
| Rated voltage                     | 250 V AC                                                   |                                          |
| Rated current                     | 10 A                                                       |                                          |
| Rated load (resistive)            | AC: 2500 VA / DC: 300 W                                    |                                          |
| DC breaking capacity (resistive)  | 10 A @ 30 V / 1.2 A @110 V / 0.5 A @ 220 V                 |                                          |
| Contact resistance                | ≤ 50 m                                                     |                                          |
| Contact base material             | Silver Alloy                                               |                                          |
| Electrical endurance              | > 25x10 <sup>4</sup> cycles (18000 Ops/h)                  |                                          |
| Mechanical endurance              | > 20x10 <sup>6</sup> cycles (18000 Ops/h)                  |                                          |
| Input                             |                                                            |                                          |
| Rated voltage DC                  | DC: 12 V / 24 V / 110 V / 220 V                            |                                          |
| Rated voltage AC                  | AC: 24 V / 48 V / 115 V / 230 V                            |                                          |
| Response voltage @ 25             | DC: ≥ 75 % of rated voltage<br>AC: ≥ 80 % of rated voltage |                                          |
| Dropout voltage @ 25              | DC: ≤ 10 % of rated voltage<br>AC: ≤ 30 % of rated voltage |                                          |
| Max. Voltage                      | 110 % of rated voltage                                     |                                          |
| Insulation resistance             | 1000 M                                                     |                                          |
| Coil power consumption            | AC 1.2 VA / DC 0.9 W                                       |                                          |
| Response time / drop-out time     | ≤ 20 ms / ≤ 20 ms                                          |                                          |
| General                           |                                                            |                                          |
| Dielectric strength               | Between contacts                                           | 1000 V AC / 1 min (Leakage current 1 mA) |
|                                   | Between contacts and coil                                  | 1800 V AC / 1 min (Leakage current 1 mA) |
| Ambient temperature (operational) | DC: -40 °C...+60 °C<br>AC: -40 °C...+55 °C                 |                                          |
| Storage temperature               | -40 °C...+70 °C                                            |                                          |
| Humidity                          | 35 %...85 % RH, no condensation                            |                                          |
| Atmospheric pressure              | 86...106 KPa                                               |                                          |
| Shock resistance                  | 10 G (Half wave of sine pulse: 11 ms)                      |                                          |
| Vibration resistance              | 10...55 Hz Dual amplitude 1.0 mm                           |                                          |
| Weight                            | 35 g                                                       |                                          |
| Approvals                         |                                                            |                                          |
| CE; cURus; TÜV                    |                                                            |                                          |

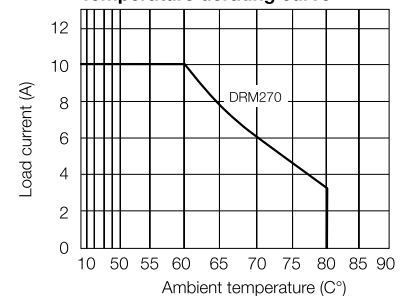
DRM270 Electrical life



DC load break capacity



Temperature derating curve



## DRM Relay 2CO changeover contact AC/DC coil

### Type code

Type DRM

### Type of construction

2 = 2 changeover contact  
4 = 4 changeover contact

### Coil voltage

006 = 6 V DC / 012 = 12 V DC  
024 = 24 V DC  
110 = 110 V DC / 220 = 220 V DC  
524 = 24 V AC / 548 = 48 V AC  
615 = 115 V AC / 730 = 230 V AC

LED L (Red for AC coil; Green for DC coil)

Test lever T (Red for AC coil; Blue for DC coil)

|     |  |  |  |  |
|-----|--|--|--|--|
| RCL |  |  |  |  |
|     |  |  |  |  |
|     |  |  |  |  |
|     |  |  |  |  |
|     |  |  |  |  |

### Ordering data

| Input                      | 12 V DC 2CO | 24 V DC 2CO  | 110 V DC 2CO  | 220 V DC 2CO |
|----------------------------|-------------|--------------|---------------|--------------|
| Rated voltage              | 12 V DC     | 24 V DC      | 110 V DC      | 220 V DC     |
| Rated current              | 75 mA       | 36.9 mA      | 10 mA         | 5.2 mA       |
| DC Response / dropout Volt | 9 V / 1.2 V | 18 V / 2.4 V | 82.5 V / 11 V | 165 V / 22 V |
| Max. Voltage               | 13.2 V      | 26.4 V       | 121 V         | 242 V        |
| Coil resistance            | 160 Ω       | 650 Ω        | 11 KΩ         | 44 KΩ        |

### Ordering data relay

| DC coil 2CO           |           |             |             |             |             |
|-----------------------|-----------|-------------|-------------|-------------|-------------|
| Standard              | Type      | DRM270012   | DRM270024   | DRM270110   | DRM270220   |
|                       | Order No. | 7760056050  | 7760056051  | 7760056053  | 7760056054  |
| With LED + test lever | Type      | DRM270012LT | DRM270024LT | DRM270110LT | DRM270220LT |
|                       | Order No. | 7760056068  | 7760056069  | 7760056071  | 7760056072  |
| Note                  |           |             |             |             |             |

### Ordering data

| Input                         | 24 V AC 2CO    | 48 V AC 2CO     | 115 V AC 2CO   | 230 V AC 2CO |
|-------------------------------|----------------|-----------------|----------------|--------------|
| Rated Voltage                 | 24 V AC        | 48 V AC         | 115 V AC       | 230 V AC     |
| Rated current (50 Hz / 60 Hz) | 62.4 / 52.2 mA | 33.3 / 27.8 mA  | 12.6 / 10.8 mA | 6.1 / 5.2 mA |
| AC Response / dropout Volt    | 19.2 V / 7.2 V | 38.4 V / 14.4 V | 92 V / 34.5 V  | 184 V / 69 V |
| Max. Voltage                  | 26.4 V         | 52.8 V          | 126.5 V        | 253 V        |
| Coil resistance               | 160 Ω          | 600 Ω           | 3.75 KΩ        | 16 KΩ        |

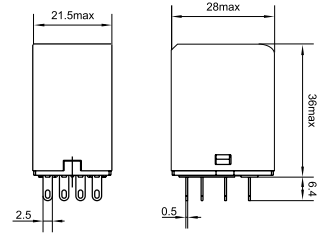
### Ordering data relay

|                       |           |             |             |             |             |
|-----------------------|-----------|-------------|-------------|-------------|-------------|
| AC coil 2CO           |           |             |             |             |             |
| Standard              | Type      | DRM270524   | DRM270548   | DRM270615   | DRM270730   |
|                       | Order No. | 7760056055  | 7760056056  | 7760056057  | 7760056058  |
| With LED + test lever | Type      | DRM270524LT | DRM270548LT | DRM270615LT | DRM270730LT |
|                       | Order No. | 7760056073  | 7760056074  | 7760056075  | 7760056076  |
| Note                  |           |             |             |             |             |

## DRM Relay

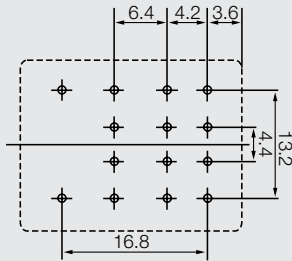
### 4CO changeover contact AC/DC coil

- Small size with high switching power
- Wide coil input voltage range
- Optional test lever (AC red, DC blue)
- Optional status indicator (AC red, DC green)

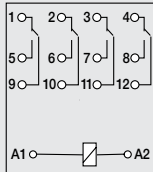


### Circuit diagram

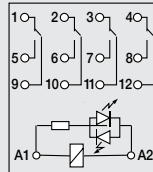
All dimensions are in mm



DRM570



DRM570LT



### Technical data

#### Output

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Rated voltage                    | 250 V AC                                    |
| Rated current                    | 5 A                                         |
| Rated load (resistive)           | AC: 1250 VA / DC: 150 W                     |
| DC breaking capacity (resistive) | 5 A @ 30 V / 0.6 A @ 110 V / 0.25 A @ 220 V |
| Contact resistance               | ≤ 50 m                                      |
| Contact base material            | Silver Alloy                                |
| Electrical endurance             | > 25x10 <sup>4</sup> cycles (18000 Ops/h)   |
| Mechanical endurance             | > 20x10 <sup>5</sup> cycles (18000 Ops/h)   |

#### Input

|                               |                                                            |
|-------------------------------|------------------------------------------------------------|
| Rated voltage DC              | DC: 12 V / 24 V / 110 V / 220 V                            |
| Rated voltage AC              | AC: 24 V / 48 V / 115 V / 230 V                            |
| Response voltage @ 25         | DC: ≥ 75 % of rated voltage<br>AC: ≥ 80 % of rated voltage |
| Dropout voltage @ 25          | DC: ≤ 10 % of rated voltage<br>AC: ≤ 30 % of rated voltage |
| Max. Voltage                  | 110 % of rated voltage                                     |
| Insulation resistance         | 1000 M                                                     |
| Coil power consumption        | AC 1.2 VA / DC 0.9 W                                       |
| Response time / drop-out time | ≤ 20 ms / ≤ 20 ms                                          |

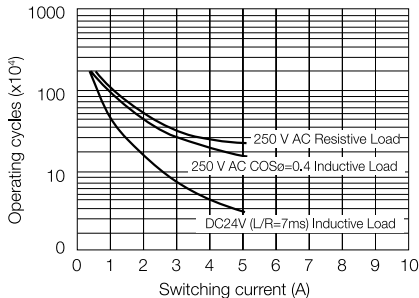
#### General

|                                   |                                       |                                          |
|-----------------------------------|---------------------------------------|------------------------------------------|
| Dielectric strength               | Between contacts                      | 1000 V AC / 1 min (Leakage current 1 mA) |
|                                   | Between contacts and coil             | 1800 V AC / 1 min (Leakage current 1 mA) |
| Ambient temperature (operational) | -40 °C...+55 °C                       |                                          |
| Storage temperature               | -40 °C...+70 °C                       |                                          |
| Humidity                          | 35 %...85 % RH                        |                                          |
| Atmospheric pressure              | 86...106 KPa                          |                                          |
| Shock resistance                  | 10 G (Half wave of sine pulse: 11 ms) |                                          |
| Vibration resistance              | 10...55 Hz Dual amplitude 1.0 mm      |                                          |
| Weight                            | 35 g                                  |                                          |

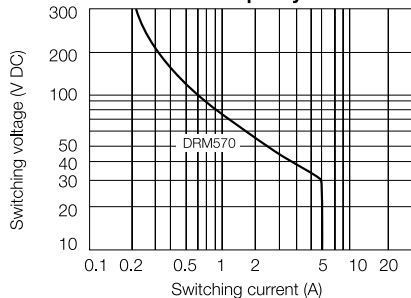
#### Approvals

CE; cURus; TÜV

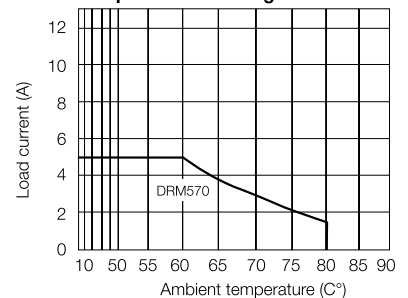
DRM570 Electrical life



DC load break capacity



Temperature derating curve



## DRM Relay

### Relay socket for 2CO and 4CO relay

#### Ordering data

##### Description

Relay socket plug in module with screw terminal  
Recommended for C-crimp, ferrule lug and bare  
wire connection

#### Technical data

##### Type

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Rated voltage                        | 300 V                                 |
| Rated voltage                        | 12 A                                  |
| Insulation between coil - contact    | 2500 V                                |
| Insulation between contact - contact | 2500 V                                |
| Ambient temperature (operational)    | -40 °C...+85 °C                       |
| Pollution severity                   | 2                                     |
| Surge category                       | III                                   |
| Terminal torque                      | 0.8 Nm                                |
| Connection cross-section             | 0.5...2.5 mm <sup>2</sup> / 20-14 AWG |
| Ingress protection class             | IP20                                  |
| Weight                               | 35 g                                  |

##### Approvals

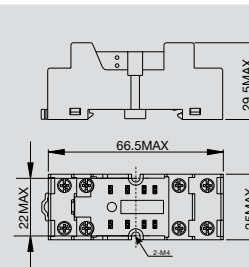
| Type   | Qty. | Order No.  |
|--------|------|------------|
| FS 2CO | 20   | 7760056106 |



##### FS 2CO

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Rated voltage                        | 300 V                                 |
| Rated voltage                        | 12 A                                  |
| Insulation between coil - contact    | 2500 V                                |
| Insulation between contact - contact | 2500 V                                |
| Ambient temperature (operational)    | -40 °C...+85 °C                       |
| Pollution severity                   | 2                                     |
| Surge category                       | III                                   |
| Terminal torque                      | 0.8 Nm                                |
| Connection cross-section             | 0.5...2.5 mm <sup>2</sup> / 20-14 AWG |
| Ingress protection class             | IP20                                  |
| Weight                               | 35 g                                  |

CE; cURus



#### Ordering data

##### Description

Relay socket plug in module with screw terminal  
Recommended for C-crimp, ferrule lug and bare  
wire connection

#### Technical data

##### Type

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Rated voltage                        | 300 V                                 |
| Rated voltage                        | 10 A                                  |
| Insulation between coil - contact    | 2000 V                                |
| Insulation between contact - contact | 2000 V                                |
| Ambient temperature (operational)    | -40 °C...+85 °C                       |
| Pollution severity                   | 2                                     |
| Surge category                       | III                                   |
| Terminal torque                      | 0.8 Nm                                |
| Connection cross-section             | 0.5...2.5 mm <sup>2</sup> / 20-14 AWG |
| Ingress protection class             | IP20                                  |
| Weight                               | 43 g                                  |

##### Approvals

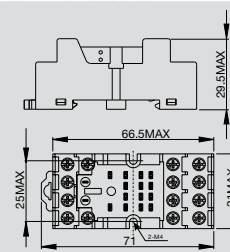
| Type   | Qty. | Order No.  |
|--------|------|------------|
| FS 4CO | 20   | 7760056107 |



##### FS 4CO

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Rated voltage                        | 300 V                                 |
| Rated voltage                        | 10 A                                  |
| Insulation between coil - contact    | 2000 V                                |
| Insulation between contact - contact | 2000 V                                |
| Ambient temperature (operational)    | -40 °C...+85 °C                       |
| Pollution severity                   | 2                                     |
| Surge category                       | III                                   |
| Terminal torque                      | 0.8 Nm                                |
| Connection cross-section             | 0.5...2.5 mm <sup>2</sup> / 20-14 AWG |
| Ingress protection class             | IP20                                  |
| Weight                               | 43 g                                  |

CE; cURus



#### Accessory Metal Clip

#### Ordering data

##### For all DRM sockets

Recommended for use in applications with strong vibration

| Type       | Order No.  |
|------------|------------|
| metal clip | 7760056108 |

