

## 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

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

Type code	RCL				
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)				

**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.	<b>7760056078</b>	<b>7760056079</b>	<b>7760056081</b>	<b>7760056082</b>
With LED + test lever	Type	DRM570012LT	DRM570024LT	DRM570110LT	DRM570220LT
	Order No.	<b>7760056096</b>	<b>7760056097</b>	<b>7760056099</b>	<b>7760056100</b>
<b>Note</b>					

**Ordering data**

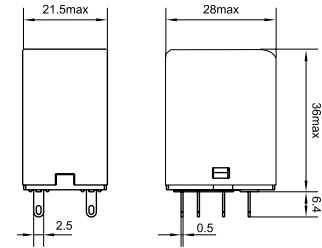
Input	24 V AC 4CO	48 V AC 4CO	115 V AC 4CO	230 V AC 4CO
Rated Voltage	24 V AC	48 V AC	115 V AC	230 V AC
Rated current (50 Hz / 60 Hz)	62.4 / 52.2 mA	33.3 / 27.8 mA	12.6 / 10.8 mA	6.1 / 5.2 mA
AC Response / dropout Volt	19.2 V / 7.2 V	38.4 V / 14.4 V	92 V / 34.5 V	184 V / 69 V
Max. Voltage	26.4 V	52.8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

**Ordering data relay**

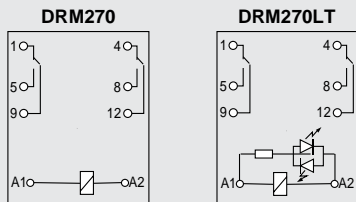
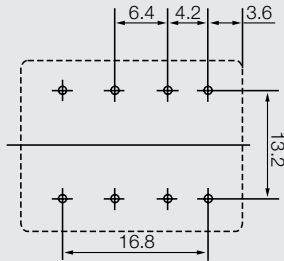
AC coil 4CO					
Standard	Type	DRM570524	DRM570548	DRM570615	DRM570730
	Order No.	<b>7760056083</b>	<b>7760056084</b>	<b>7760056085</b>	<b>7760056086</b>
With LED + test lever	Type	DRM570524LT	DRM570548LT	DRM570615LT	DRM570730LT
	Order No.	<b>7760056101</b>	<b>7760056102</b>	<b>7760056103</b>	<b>7760056104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

## 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)

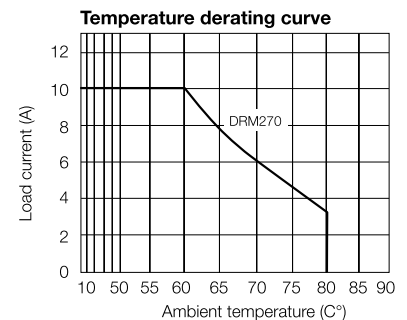
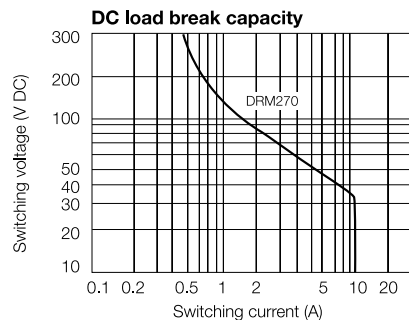
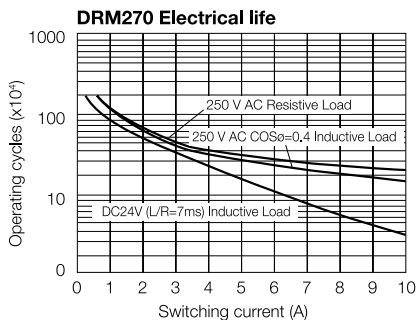


### Circuit diagram All dimensions are in mm



### 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 mΩ	
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 AC: ≥ 80 % of rated voltage	
Dropout voltage @ 25	DC: ≤ 10 % of rated voltage AC: ≤ 30 % of rated voltage	
Max. Voltage	110 % of rated voltage	
Insulation resistance	1000 MΩ	
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 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	



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

Type code	RCL				
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)				

**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
	Order No.	<b>7760056050</b>	<b>7760056051</b>	<b>7760056053</b>
With LED + test lever	Type	DRM270012LT	DRM270024LT	DRM270110LT
	Order No.	<b>7760056068</b>	<b>7760056069</b>	<b>7760056071</b>
<b>Note</b>				

**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

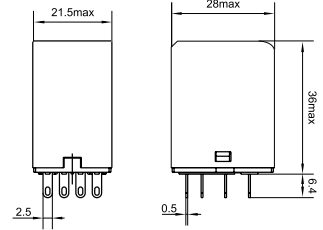
**Ordering data relay**

AC coil 2CO				
Standard	Type	DRM270524	DRM270548	DRM270615
	Order No.	<b>7760056055</b>	<b>7760056056</b>	<b>7760056057</b>
With LED + test lever	Type	DRM270524LT	DRM270548LT	DRM270615LT
	Order No.	<b>7760056073</b>	<b>7760056074</b>	<b>7760056075</b>
<b>Note</b>				

**DRM Relay**

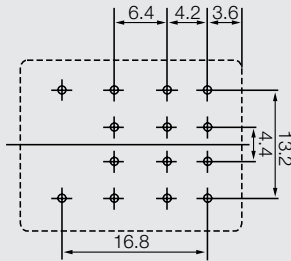
**4CO changeover contact AC/DC coil**

- 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)

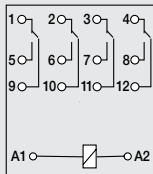


**Circuit diagram**

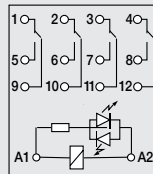
All dimensions are in mm



**DRM570**



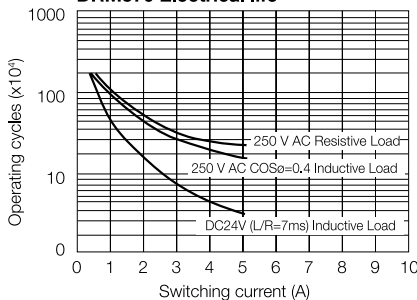
**DRM570LT**



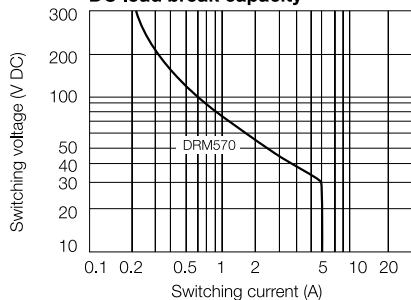
**Technical data**

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>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 AC: ≥ 80 % of rated voltage
Dropout voltage @ 25	DC: ≤ 10 % of rated voltage 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

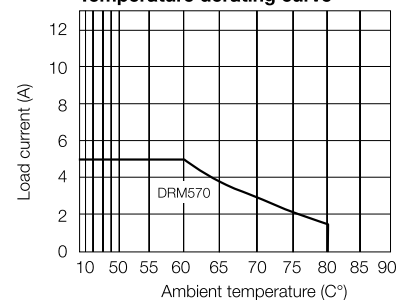
**DRM570 Electrical life**



**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

Type	Qty.	Order No.
FS 2CO	20	7760056106



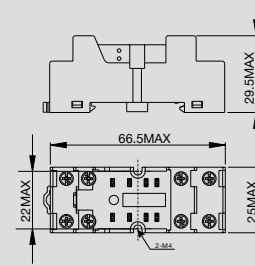
**Technical data**

**Type**  
Rated voltage  
Rated voltage  
Insulation between coil - contact  
Insulation between contact - contact  
Ambient temperature (operational)  
Pollution severity  
Surge category  
Terminal torque  
Connection cross-section  
Ingress protection class  
Weight

**FS 2CO**  
300 V  
12 A  
2500 V  
2500 V  
-40 °C...+85 °C  
2  
III  
0.8 Nm  
0.5...2.5 mm<sup>2</sup> / 20-14 AWG  
IP20  
35 g

**Approvals**

CE; cURus



**Ordering data**

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

Type	Qty.	Order No.
FS 4CO	20	7760056107



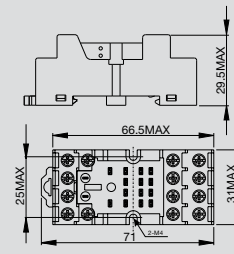
**Technical data**

**Type**  
Rated voltage  
Rated voltage  
Insulation between coil - contact  
Insulation between contact - contact  
Ambient temperature (operational)  
Pollution severity  
Surge category  
Terminal torque  
Connection cross-section  
Ingress protection class  
Weight

**FS 4CO**  
300 V  
10 A  
2000 V  
2000 V  
-40 °C...+85 °C  
2  
III  
0.8 Nm  
0.5...2.5 mm<sup>2</sup> / 20-14 AWG  
IP20  
43 g

**Approvals**

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

