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Control Relays and Timers

General Purpose Plug-In Relays

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Product Selection

D1RR/D1RF Relay/Socket Quick Reference

Relay Type	Socket	Clip	Module Type	ID Tag	Jumper
D1RR1	D1PAA	PMC-1781	B	—	—
D1RF1	D1PAA	PMC-1781	B	—	—

D1RF Series Relay



D1RR/D1RF Series

Coil Voltage	Contact Configuration	Coil Resistance (Ohms)	Catalog Number
Full Featured			
12 Vdc	SPDT	188	D1RF1R1
24 Vac 50/60 Hz	SPDT	180	D1RF1T
24 Vdc	SPDT	750	D1RF1T1
110 Vdc	SPDT	13,800	D1RF1A1
120 Vac 50/60 Hz	SPDT	4430	D1RF1A
240 Vac 50/60 Hz	SPDT	15,720	D1RF1B
Plain Cover			
12 Vdc	SPDT	188	D1RR1R1
24 Vdc	SPDT	750	D1RR1T1
48 Vdc	SPDT	2600	D1RR1W1
110 Vdc	SPDT	13,800	D1RR1A1
120 Vac 50/60 Hz	SPDT	4430	D1RR1A
240 Vac	SPDT	15,270	D1RR1B

Accessories

D1RR/D1RF Sockets and Accessories

Type	Module Size	Nominal Voltage (Max. for Sockets)	Nominal Current	Mounting Style	Wire Size	Wire Connection	Standard Pack	Catalog Number
Socket	B	300	20	Panel/DIN rail	12 /14 (2) AWG, 4 /2.5 (2) mm ²	Screw clamping	10	D1RAA ①
Flange mount adapter	—	—	—	Flange	—	—	25	PFC-D11
Metal spring clip	—	—	—	—	—	—	25	PMC-1781
Protection diode	B	6 to 250 Vdc	—	—	—	—	20	MOD-BD250
LED indicator	B	24 Vac/Vdc	—	—	—	—	20	MOD-BLG24
	B	120/240 Vac/Vdc	—	—	—	—	20	MOD-BLG240
MOV suppressor	B	120 Vac/Vdc	—	—	—	—	20	MOD-BMV120
	B	24 Vac/Vdc	—	—	—	—	20	MOD-BMV24
	B	240 Vac/Vdc	—	—	—	—	20	MOD-BMV240
Plastic DIN rail end stop	—	—	—	—	—	—	25	PPF-P

Note

① Protection Category (Finger Safe), EN 60529: IP20.

Technical Data and Specifications**D1RF/D1RR Relay Specifications**

Description	D1RR	D1RF
Contact Characteristics		
Contact rating	15 A	15 A
Terminal style	Plug-in	Plug-in
Contact materials	Silver alloy	Silver alloy
Maximum switching voltage	300 V	300 V
Switching current at voltage—resistive	20 A at 120 Vac 50/60 Hz	20 A at 120 Vac 50/60 Hz
	20 A at 277 Vac 50/60 Hz	20 A at 277 Vac 50/60 Hz
	20 A at 28 Vdc	20 A at 28 Vdc
Switching current at voltage	1/2 hp at 120 Vac	1/2 hp at 120 Vac
	1 hp at 277 Vac	1 hp at 277 Vac
Pilot duty	B300	B300
Minimum switching requirement	100 mA at 5 Vdc (0.5 W)	100 mA at 5 Vdc (0.5 W)
Coil Characteristics		
Operating range		
% of nominal (AC)	85 to 110%	85 to 110%
% of nominal (DC)	80 to 110%	80 to 110%
Average consumption	0.9 VA	0.9 VA
	0.7 W	0.7 W
Dropout voltage threshold	15% (AC)	15% (AC)
	10% (DC)	10% (DC)
Performance		
Electrical life (UL 508) operations at rated current	100,000 operations	100,000 operations
Mechanical life operations unpowered	10,000,000 operations	10,000,000 operations
Response time	20 ms	20 ms
Dielectric strength		
Between coil and contact Vac (rms)	2500 V (rms)	2500 V (rms)
Between poles Vac (rms)	1500 V (rms)	1500 V (rms)
Environment		
Ambient air temperature around the device		
Storage	−40 °F to +131 °F (−40 °C to +55°C)	−40 °F to +131 °F (−40 °C to +55 °C)
Operation	−40 °F to +185 °F (−40 °C to +85°C)	−40 °F to +185 °F (−40 °C to +85 °C)
Vibration resistance—operational	3 g-n at 10–55 Hz	3 g-n at 10–55 Hz
Shock resistance	10 g-n	10 g-n
Degree of protection	IP40	IP40
Features		
Cover options	Plain cover	Full featured
Features	Mechanical flag indicator (optional LED)	Locking pushbutton/ Bipolar LED/ Removable ID tag/ Mechanical flag indicator
Product certifications	RoHS/UL/CE/CSA	RoHS/UL/CE/CSA

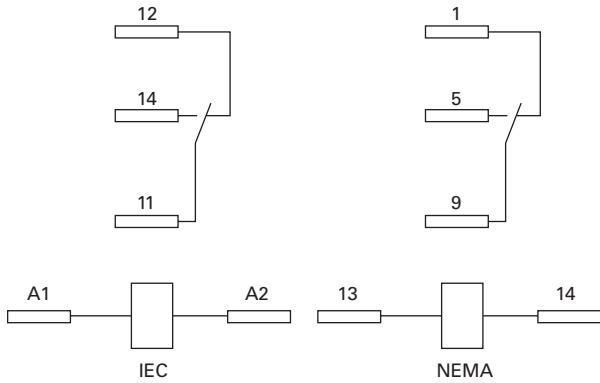
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Wiring Diagram

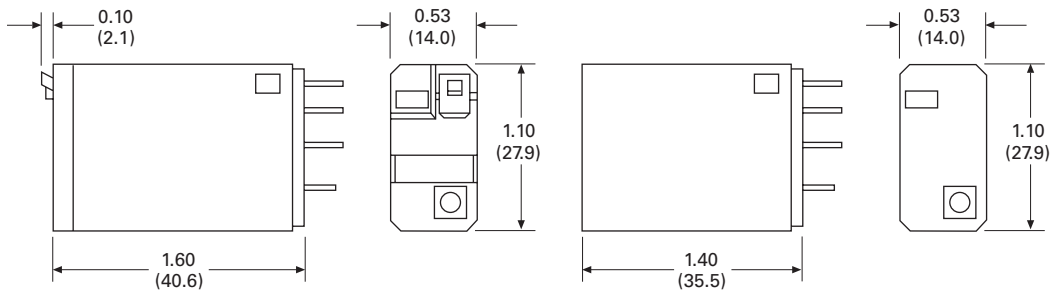
D1RF/D1RR



Dimensions

Approximate Dimensions in Inches (mm)

D1RF/D1RR



D1RAA

