

General Purpose Plug-In Relay



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Product Selection Guide

General Purpose Relay Selection Characteristics

- Current rating: 1 A–30 A
- Contact arrangement: SPDT, DPDT, 3PDT, 4PDT, etc.
- Coil voltage: 6 V–240 Vac/ 6 V–110 Vdc
- Mounting options: socket, flange, DIN rail, panel
- Specifications: CSA, CE, IEC, NEMA, UL, etc.
- Other: physical dimensions, maximum voltage, mechanical/ electrical life, etc.

General Purpose Plug-In Relays, continued

Relay Series

D4



D5RR/D5RF



D7PR/D7PF



Approvals



Note: UL when used with the appropriate socket.

Note: UL when used with the appropriate socket.

Features

Polycarbonate cover

Polycarbonate cover

Polycarbonate cover

Indicator lamp available

Indicator lamp and pushbutton available

Indicator lamp and pushbutton available

Panel and DIN mounting

Panel, DIN and flange mounting

Panel and DIN mounting

Socket has built-in hold-down spring

Contact Data

Configuration	SPDT	DPDT	DPDT	3PDT	DPDT	3PDT	4PDT
Max. allowable load	10 A at 250 Vac	5 A at 240 Vac	10 A	10 A	15 A	15 A	15 A
Material	AgCdO		Silver alloy		Silver alloy		
Dielectric strength	5000 V		1500 V		1500 V	2500 V	2500 V

Coil Data

AC	6 to 240 Vac		6 to 240 Vac		6 to 240 Vac		
DC	6 to 110 Vdc		6 to 110 Vdc		6 to 110 Vdc		
Power							
VA (Vac)	0.9 VA		3 VA		1.2 VA	1.5 VA	1.5 VA
Watts (Vdc)	0.5 W		1.4 W		0.9 W	1.4 W	1.5 W

General Data

Ambient temperature							
Storage	−40 °F to +158 °F (−40 °C to +70 °C)		−40 °F to +185 °F (−40 °C to +85 °C)		−40 °F to +185 °F (−40 °C to +85 °C)		
Operational	−40 °F to +158 °F (−40 °C to +70 °C)		−40 °F to +131 °F (−40 °C to +55 °C)		−40 °F to +131 °F (−40 °C to +55 °C)		
Response time	15 milliseconds		20 milliseconds		20 milliseconds (30 milliseconds for latching)		
Life							
Mechanical operations	10 million		5 million		10 million		
Electrical operations	100,000		100,000		100,000	200,000	200,000

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D7 Series Relay



D7PR/D7PF Series

Product Description

The D7 Series is a cost-effective control relay with high dielectric strength and high current-carrying capacity.

Features

D7PR

- Arc barrier equipped relay with high dielectric strength
- Panel and DIN rail mounting

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D7PF

- Flag indicator shows relay status in manual or powered condition
- Bipolar LED status lamp allows for reverse polarity applications
 - Shows coil ON or OFF status
 - Ideal in low light conditions
- Color-coded pushbutton identifies AC coils with red or DC coils with blue pushbuttons
 - Allows for manual operation of relay without the need for coil power
 - Ideal for field service personnel to test control circuits
- Lock-down door, when activated, holds pushbutton and contacts in the operate position
 - Excellent for analyzing circuit problems
- Finger-grip cover allows operator to remove relays from sockets more easily than conventional relays
- White plastic ID tag/write label used for identification of relays in multi-relay circuits

Standards and Certifications



File # E37317, E65657



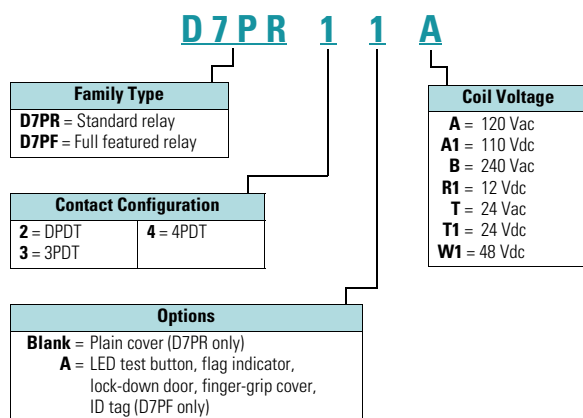
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Catalog Number Selection

D7 Series

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Product Selection

D7 Relay/Socket Quick Reference

Relay Type	Socket/Adapter	Clip	Module Type	ID Tag	Jumper
D7PR2, D7PF2	D7PAA	PQC-1342	B	—	—
		PQC-1349	B	—	—
	D7PA9	PQC-1342	None	—	—
	PFC-D2D72	—	None	—	—
D7PR3, D7PF3	D7PAB	PQC-1783	A	—	—
		PMC-1783	A	—	—
	PFC-D73	—	None	—	—
D7PR4, D7PF4	D7PAD	PQC-1784	A	—	—
		PMC-1784	A	—	—
	PFC-D74	—	None	—	—

D7 Series Relay



D7 Series

Coil Voltage	Contact Configuration	Coil Resistance (Ohms)	Catalog Number
Full Featured			
120 Vac	DPDT	4430	D7PF2AA
110/125 Vdc	DPDT	11,000	D7PF2AA1
220/240 Vac	DPDT	15,720	D7PF2AB
12 Vdc	DPDT	160	D7PF2AR1
24 Vac	DPDT	180	D7PF2AT
24 Vdc	DPDT	650	D7PF2AT1
24 Vac	3PDT	103	D7PF3AT
24 Vdc	3PDT	400	D7PF3AT1
120 Vac	4PDT	2220	D7PF4AA
110/125 Vdc	4PDT	7340	D7PF4AA1
240 Vac	4PDT	9120	D7PF4AB
12 Vdc	4PDT	96	D7PF4AR1
24 Vac	4PDT	84.5	D7PF4AT
24 Vdc	4PDT	388	D7PF4AT1
48 Vac	4PDT	410	D7PF4AW1
Plain Cover			
120 Vac	DPDT	4430	D7PR2A
110/125 Vdc	DPDT	11,000	D7PR2A1
12 Vdc	DPDT	160	D7PR2R1
24 Vac	DPDT	180	D7PR2T
24 Vdc	DPDT	650	D7PR2T1
120 Vac	3PDT	2770	D7PR3A
240 Vac	3PDT	12,100	D7PR3B
12 Vdc	3PDT	100	D7PR3R1
24 Vac	3PDT	103	D7PR3T
24 Vdc	3PDT	400	D7PR3T1
120 Vac	4PDT	2220	D7PR4A
110/125 Vdc	4PDT	7340	D7PR4A1
240 Vac	4PDT	9120	D7PR4B
24 Vac	4PDT	84.5	D7PR4T
24 Vdc	4PDT	388	D7PR4T1

D7PF Relay

Description	D7PF (DPDT)	D7PF (3PDT)	D7PF (4PDT)
Contact Characteristics			
Contact rating	15 A	15 A	15 A
Terminal style	Plug-in	Plug-in	Plug-in
Contact materials	Silver alloy	Silver alloy	Silver alloy
Maximum switching voltage	300 V	300 V	300 V
Switching current at voltage—resistive	15 A at 120 Vac 50/60 Hz	15 A at 120 Vac 50/60 Hz	15 A at 120 Vac 50/60 Hz
	12 A at 277 Vac 50/60 Hz	12 A at 277 Vac 50/60 Hz	12 A at 277 Vac 50/60 Hz
	10 A at 277 Vac 50/60 Hz	—	—
	12 A at 28 VDC	12 A at 28 Vdc	12 A at 28 Vdc
Switching current at voltage	1/2 hp at 120 Vac	3/4 hp at 250 Vac	1/2 hp at 120 Vac
	1 hp at 250 Vac	1/2 hp at 120 Vac	3/4 hp at 250 Vac
Pilot duty	B300	B300	B300
Minimum switching requirement	100 mA at 5 Vdc (0.5 W)	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%	85 to 110%
% of nominal (DC)	80 to 110%	80 to 110%	80 to 110%
Average consumption	1.2 VA	1.5 VA	1.5 VA
	0.9 W	1.4 W	1.5 W
Dropout voltage threshold	15% (AC)	15% (AC)	15% (AC)
	10% (DC)	10% (DC)	10% (DC)
Performance			
Electrical life (UL 508) operations at rated current	100,000 operations	200,000 operations	200,000 operations
Mechanical life operations unpowered	10,000,000 operations	10,000,000 operations	10,000,000 operations
Response time	20 ms	20 ms	20 ms
Dielectric strength			
Between coil and contact Vac (rms)	2500 V (rms)	2500 V (rms)	2500 V (rms)
Between poles Vac (rms)	1500 V (rms)	2500 V (rms)	2500 V (rms)
Environment			
Ambient air temperature around the device			
Operation	−40 °F to +131 °F (−40 ° to 55 °C)	−40 °F to +131 °F (−40 ° to 55 °C)	−40 °F to +131 °F (−40 ° to 55 °C)
Storage	−40 °F to +185 °F (−40 ° to 85 °C)	−40 °F to +185 °F (−40 ° to 85 °C)	−40 °F to +185 °F (−40 ° to 85 °C)
Vibration resistance—operational	3 g-n at 10–55 Hz	3 g-n at 10–55 Hz	3 g-n at 10–55 Hz
Shock resistance	10 g-n	10 g-n	10 g-n
Degree of protection	IP40	IP40	IP40
Features			
Cover options	Full featured	Full featured	Full featured
Features	Locking pushbutton/ Bipolar LED/ Removable ID tag/ Mechanical flag indicator	Locking pushbutton/ Bipolar LED/ Removable ID tag/ Mechanical flag indicator	Locking pushbutton/ Bipolar LED/ Removable ID tag/ Mechanical flag indicator
Product certifications	RoHS/UL/CE/CSA	RoHS/UL/CE/CSA	RoHS/UL/CE/CSA