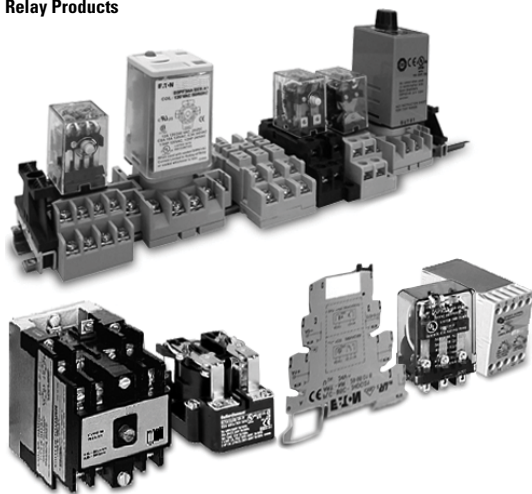


Relay Products

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Description

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Control Relays and Timers Comparison

Selection Guide by Catalog Number Prefix

Relays	Type	Mounting	Contacts	Maximum Amperage (AC)	RU	UL	CSA	CE	Page Number
9575H3	General purpose	Panel mount	Fixed	40 A	—	■	■	■	V7-T3-119
AR/ARD	Machine tool	Panel mount	Convertible	10 A	—	■	■	—	V7-T3-154
BF/BFD	Machine tool	Panel mount	Fixed	10 A	■	—	■	—	V7-T3-148
D2RF	Full featured plug-in	DIN rail / panel mount	Fixed	10 A	■	—	■	■	V7-T3-59
D2RR	Standard plug-in	DIN rail / panel mount / flange	Fixed	10 A	■	—	■	■	V7-T3-59
D3RF	Full featured plug-in	DIN rail / panel mount	Fixed	16 A	■	—	■	■	V7-T3-69
D3RR	Standard plug-in	DIN rail / panel mount	Fixed	16 A	■	—	■	■	V7-T3-69
D4PR	Standard plug-in	DIN rail / panel mount	Fixed	10 A	■	—	■	■	V7-T3-77
D5RF	Full featured plug-in	DIN rail / panel mount	Fixed	16 A	■	—	■	■	V7-T3-82
D5RR	Standard plug-in	DIN rail / panel mount / PC board	Fixed	16 A	■	—	■	■	V7-T3-82
D7PF	Full featured plug-in	DIN rail / panel mount	Fixed	20 A	■	—	■	■	V7-T3-91
D7PR	Standard plug-in	DIN rail / panel mount / flange	Fixed	20 A	■	—	■	■	V7-T3-91
D8PR	Standard plug-in	DIN rail / panel mount / flange	Fixed	30 A	■	—	■	■	V7-T3-104
D9PR	Standard plug-in	Panel mounting	Fixed	25 A	■	—	■	—	V7-T3-109
D15	Machine tool	DIN rail / panel mount	Fixed	10 A	—	■	■	■	V7-T3-143
D26	Machine tool	Panel or channel mount	Convertible	10 A	—	■	■	—	V7-T3-159
D85	Alternating relays	DIN rail / panel mount	Fixed	10 A	■	■	—	■	V7-T3-189
D1RF	Full featured plug-in	DIN rail / panel mount	Fixed	20 A	■	—	■	■	V7-T3-54
D1RR	Standard plug-in	DIN rail / panel mount	Fixed	20 A	■	—	■	■	V7-T3-54
easyRelay	Programmable relay	DIN rail	Fixed	8 A	—	■	■	■	V7-T3-23
TMR5	Timing relay (non-programmable)	DIN rail / panel mount	Fixed	10 A	■	■	—	■	V7-T3-180
TMR6	Timing relay (non-programmable)	DIN rail / panel mount	Fixed	10 A	■	■	—	■	V7-T3-184
TR	Timing relay (programmable)	DIN rail / panel mount	Fixed	10 A	—	■	■	—	V7-T3-177
Universal TR	Timing relay (programmable)	DIN rail	Fixed	8 A	—	■	■	■	V7-T3-173
XR	Terminal block relay	DIN rail	Fixed	6 A, 10 A	■	—	—	■	V7-T3-5

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

Contents

Description

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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



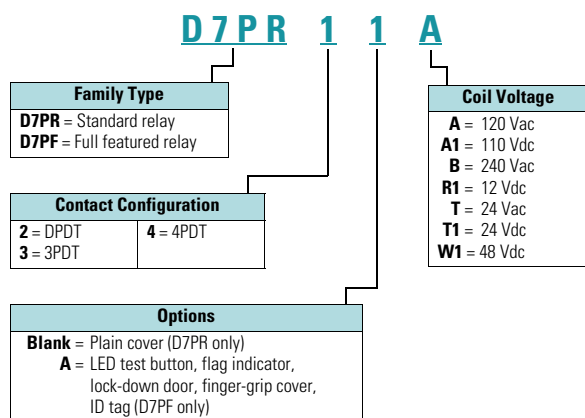
File # LR217017, LR217069



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

Accessories

D7 Sockets and Accessories

3

Type	Module Size	Nominal Voltage (Max. for Sockets)	Nominal Current	Mounting Style	Wire Size	Wire Connection	Standard Pack	Catalog Number
Socket	B	300	16	DIN rail/panel	12/14 (2) AWG, 4/2.5 (2) mm ²	Screw clamping	—	D7PAA ①
	None	300	10	DIN rail/panel	12/14 (2) AWG, 4/2.5 (2) mm ²	Screw clamping	1	D7PA9
	A	300	16	DIN rail/panel	12/14 (2) AWG, 4/2.5 (2) mm ²	Screw clamping	—	D7PAD ①
	A	300	16	DIN rail/panel	12/14 (2) AWG, 4/2.5 (2) mm ²	Screw clamping	—	D7PAB ①
Flange mount adapter	—	—	—	Flange	—	—	25	PFC-D2D72
	—	—	—	Flange	—	—	25	PFC-D73
	—	—	—	Flange	—	—	25	PFC-D74
Metal spring clip	—	—	—	—	—	—	25	PQC-1342
Plastic ID clip	—	—	—	—	—	—	10	PQC-1349
Metal spring clip	—	—	—	—	—	—	25	PQC-1784
Plastic ID clip	—	—	—	—	—	—	10	PMC-1784
Hold-down spring	—	—	—	—	—	—	25	PYC-B2
Metal spring clip	—	—	—	—	—	—	10	PQC-1783
Plastic ID clip	—	—	—	—	—	—	10	PMC-1783
Protection diode	A	6 to 250 Vdc	—	—	—	—	20	MOD-AD250
LED indicator	A	24 Vac/Vdc	—	—	—	—	20	MOD-ALG24
	A	120/240 Vac/Vdc	—	—	—	—	20	MOD-ALG240
MOV suppressor	A	120 Vac/Vdc	—	—	—	—	20	MOD-AMV120
	A	24 Vac/Vdc	—	—	—	—	20	MOD-AMV24
	A	240 Vac/Vdc	—	—	—	—	20	MOD-AMV240
R/C suppressor	A	6 to 24 Vac/Vdc	—	—	—	—	20	MOD-RC24
	A	110 to 240 Vac/Vdc	—	—	—	—	20	MOD-RC240
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	PFP-P

Note

① Protection category (finger safe), EN 60529: IP20.

Technical Data and Specifications

D7PR Relay

Description	D7PR (DPDT)	D7PR (3PDT)	D7PR (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	1/2 hp at 120 Vac	1/2 hp at 120 Vac
	1 hp at 250 Vac	3/4 hp at 250 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 °C to +55 °C)	−40 °F to +131 °F (−40 °C to +55 °C)	−40 °F to +131 °F (−40 °C to +55 °C)
Storage	−40 °F to +185 °F (−40 °C to +85 °C)	−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	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	Plain cover	Plain cover	Plain cover
Features	Mechanical flag indicator (optional LED)	Mechanical flag indicator (optional LED)	Mechanical flag indicator (optional LED)
Product certifications	RoHS/UL/CE/CSA	RoHS/UL/CE/CSA	RoHS/UL/CE/CSA

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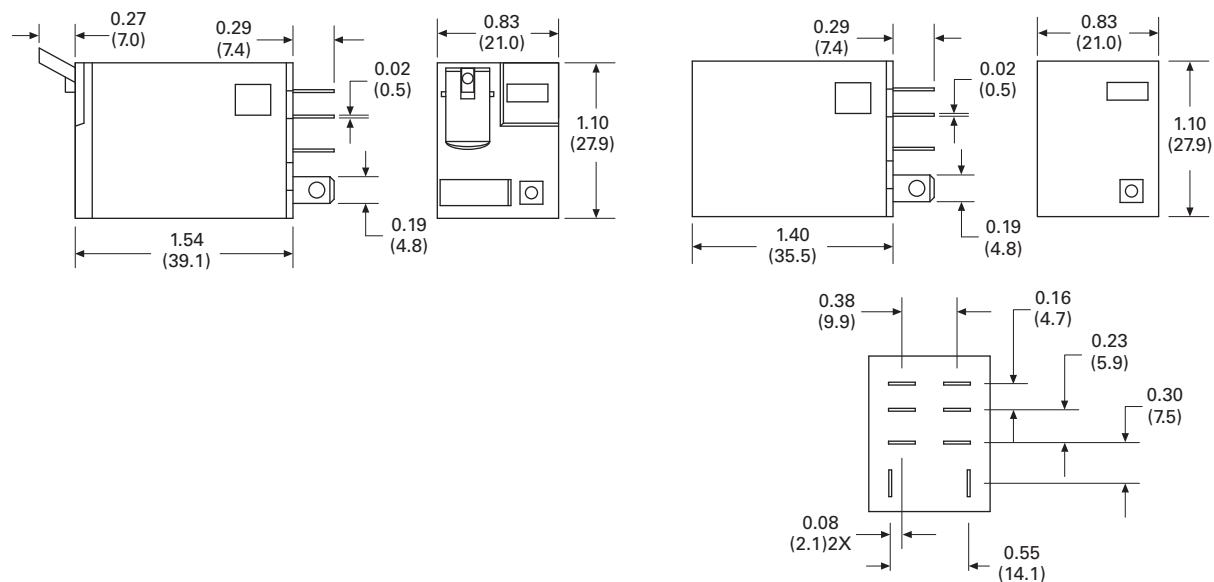
Control Relays and Timers

General Purpose Plug-In Relays

Dimensions

Approximate Dimensions in Inches (mm)

D7PR1/D7PF1



D7PR2/D7PF2

