

General Purpose “Ice Cube” Plug-In Relays for High Current Applications

D7P



* DPF series only when used with D7PA2 socket

D7R FEATURES

- ✓ Arc Barrier Equipped Relay with High Dielectric Strength
- ✓ Panel, DIN Rail and Flange Mounting

D7PF FEATURES

- ✓ Flag Indicator Shows Relay Status in Manual or Powered Condition
- ✓ Bi-Polar 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 I.D. Tag/Write Label Used for Identification of Relays in Multi-Relay Circuits



D7PF2AA shown slightly larger than actual size.



D7PF4AA shown slightly larger than actual size.

Specifications

D7PR RELAY

Rated Load (Resistive Load*): 120/240 Vac 15 A, 30 Vdc 15 A
Rated Load (Inductive Load*): 120/240 Vac 10 A, 30 Vdc 7 A
Carry Current: 15 A
Max Operating Voltage: 250 Vac/125 Vdc
Max Operating Current: 15 A
Contact Material: AgCdO
Max Switching Capacity (Resistive Load*): 1700 VA 360 W
Max Switching Capacity (Inductive Load*): 1100 VA 170 W
Min Permissible Load: 100 mA, 5 Vdc
Pickup Voltage (Max): 80%
Drop Out Voltage (Min): 30% AC, 10% DC
Voltage (Max): 110%
Mechanical Life (Min): 10,000,000 AC, 100,000,000 DC
Electrical Life @ All Contact Ratings (Min): 200,000
Maximum hp Rating (Resistive Load*): 1/3 hp (120 Vac)
Maximum hp Rating (Inductive Load*): 1/2 hp (240 Vac)
** Resistive load p.f. = 1, inductive load p.f. = 0.4, L/R = 7 ms*

D7PF

(RESISTIVE LOAD PF=1.0)
Coil Pickup Voltage (Max): 85% AC; 80% DC (% of nominal)
Coil Drop Out Voltage (Min): 10% AC; 10% DC (% of nominal)

Coil Maximum Voltage: 110% of nominal

Coil Insulation System per, UL Standard 1446: Class B 130°C (266°F)

Contact Rated Load:

D7PF2: 120 Vac to 15 A, 277 Vac, 28 Vdc to 12 A, 220 Vdc to 0.5 A

D7PF4: 120 Vac, 28 Vdc to 15 A, 277 Vac to 12 A, 220 Vdc to 0.5 A

Maximum hp Ratings:

D7PF2: 1/2 hp, 120 Vac, 1 hp, 250 Vac

D7PF4: 1/2 hp, 120 Vac, 3/4 hp, 250 Vac

Contact Material: Silver alloy, gold flashed

Pilot Duty: B300

Utilization Category (IEC): AC-15

Min Permissible Load: 100 mA @ 5 Vdc or 0.5 W

Contact Resistance: 100 Milliohms, max @ 6V, 1 A

Dielectric Strength (Coil to Contacts): 2500 Vrms

Dielectric Strength (Across Open Contacts): 1000 Vrms

Dielectric Strength (Pole to Pole): 2500 Vrms

Insulation Resistance: 100 Megohms min @ 500 Vdc

Operating Temperature: -40 to 70°C (-40 to 158°F)

Storage Temperature: -40 to 105°C (-40 to 221°F)

Life Expectancy (At Rated Resistive), Load:

D7PF2: 200,000, operations

D7PF4: 150,000, operations

Life Expectancy (Mechanical at No Load): 10 million operations

Approximate Weight:

D7PF2: 36 g (0.079 lb)

D7PF4: 80 g (0.176 lb)

Relay/Socket Compatibility Guide

Relay	Single Socket and Hold Down Spring/Clip	Socket	Hold Down Spring	Mounting Style
D7PF2	D7PF2-BC	D7PA5	PQC-1342	Panel
D7PF2	D7PF2A-BC	D7PAA	PQC-1342	DIN Rail
D7PF4	D7PF4-B	D7PA4	NA	DIN Rail
D7PR1	D7PR2-BC	D7PA2	PQC-1342	DIN Rail
D7PR1	D7PR5-BC	D7PA5	PQC-1342	Panel
D7PR2	D7PR2-BC	D7PA2	PQC-1342	DIN Rail
D7PR2	D7PR5-BC	D7PA5	PQC-1342	Panel
D7PR3	D7PR3-BC	D7PA3	PYC-B2	DIN Rail
D7PR4	D7PR4-BC	D7PA4	PYC-B2	DIN Rail

Socket Specifications

Socket	Description	Electrical Rating	Mounting Torque	Hook-Up Wire Range
D7PAA	1 and 2 pole DIN rail mount, finger safe®	16 A, 300V	8 to 10 in-lbs	20 to 12 AWG
D7PA2	1 and 2 pole DIN rail mount	15 A, 250V	0.785 Nm to 1.18	14 AWG max
D7PA3	3 pole DIN rail mount	10 A, 300V	7 to 8 in-lb	12 to 22 AWG solid or stranded
D7PA4	4 pole DIN rail mount	10 A, 300V	7 to 8 in-lb	12 to 22 AWG solid or stranded
D7PA5	1 and 2 pole panel mount	15 A, 250V	NA	14 AWG max

Relay Coil Resistance

Relay	Voltage	Ω	Milliamps*	Relay	Voltage	Ω	Milliamps*
D7PF2	24 Vdc	650	37	D7PR2	24 Vac	180	41
D7PF2	120 Vac	3830	12	D7PR2	120 Vac	4430	11
D7PF4	120 Vac	2200	188	D7PR3	120 Vac	2700	12.6
D7PR1	24 Vdc	750	32	D7PR4	24 Vdc	360	67
D7PR1	120 Vac	4430	11	D7PR4	120 Vac	2000	14.8

* At 60 Hz for AC coils.



D7PR2A shown slightly larger than actual size.

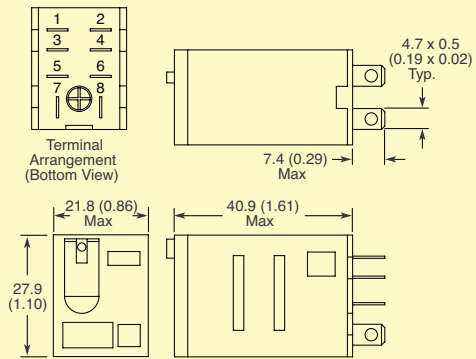


D7PR3A shown slightly larger than actual size.

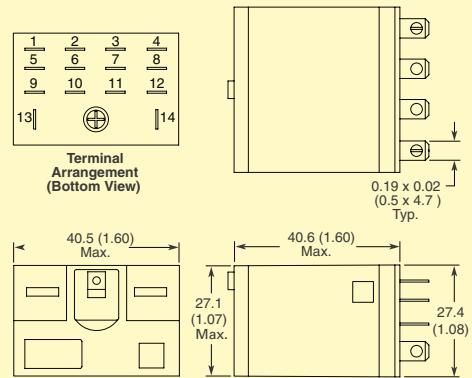


D7PA2 shown slightly larger than actual size.

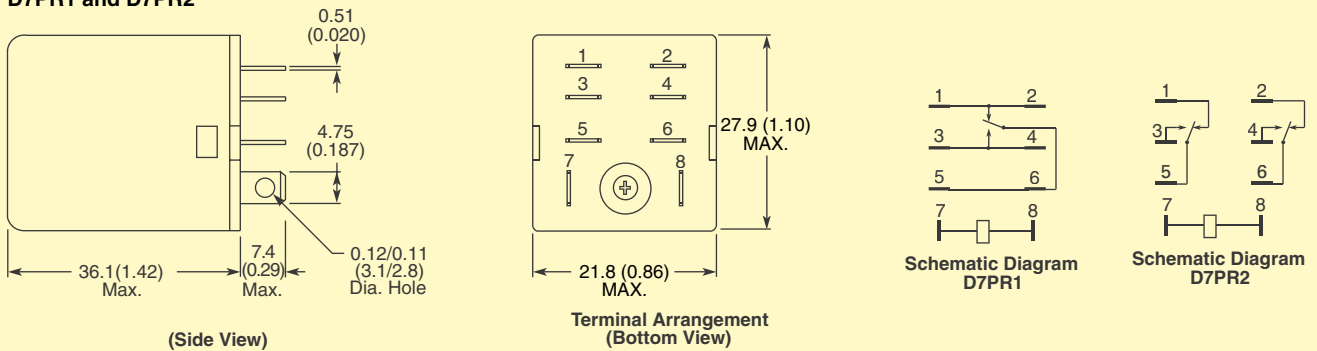
D7PF2



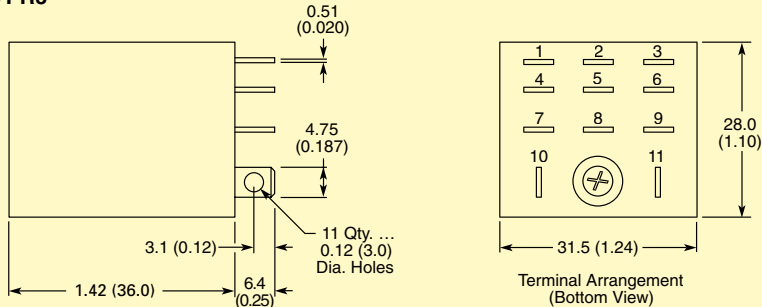
D7PF4 and D7PR4



D7PR1 and D7PR2

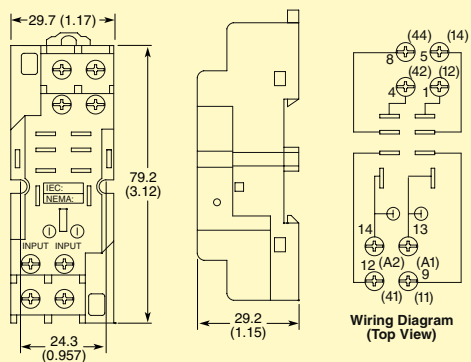


D7PR3

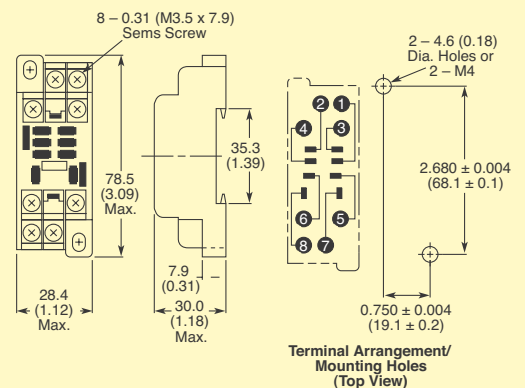


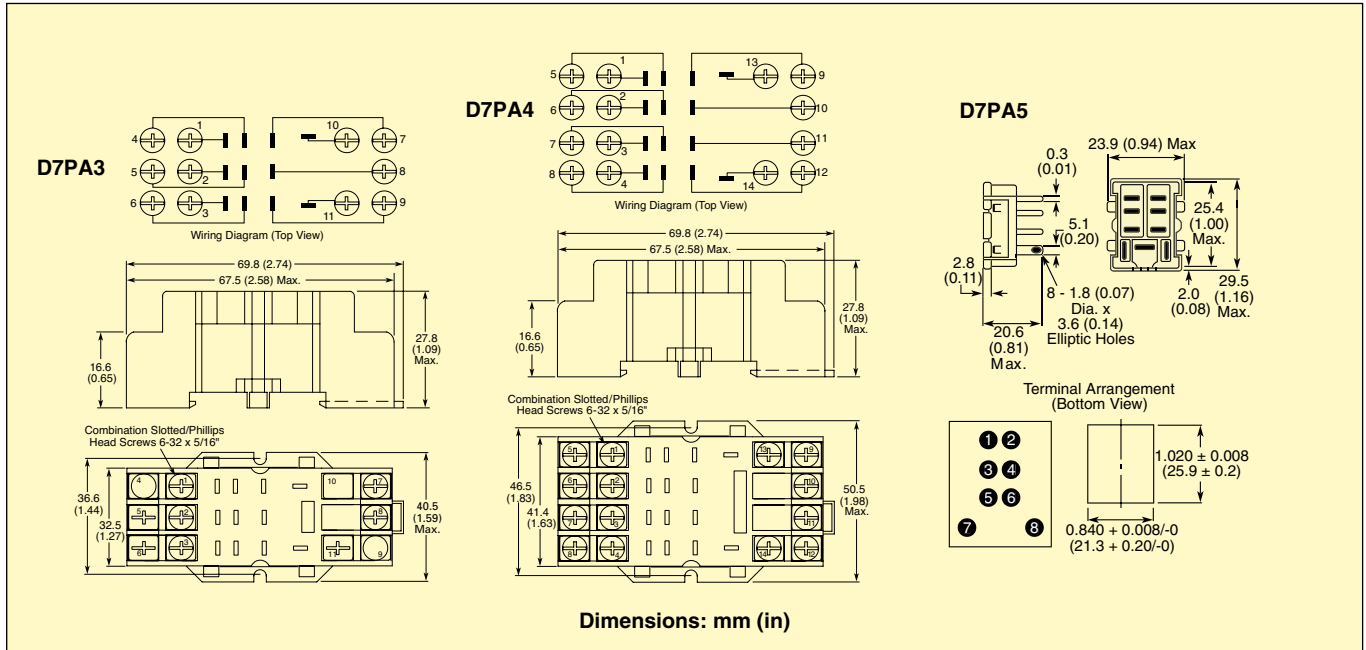
Dimensions: mm (in)

D7PAA



D7PA2





To Order	
Model No.	Description
D7PF Full Featured Relays with LED Test Button, Flag Indicator, Lock-Down Door, Finger-Grip Cover, ID Tag	
D7PF2AA	DPDT relay with 120 Vac coil voltage, requires D7PA5 socket
D7PF2AT1	DPDT relay with 24 Vdc coil voltage, requires D7PA5 socket
D7PF4AA	4PDT relay with 120 Vac coil voltage, requires D7PA4 socket
D7PR Standard Relays	
D7PR11T1	SPDT with 24 Vdc coil voltage, indicating light, requires D7PA2 or D7PA5 socket
D7PR1A	SPDT relay with 120 Vac coil voltage, requires D7PA2 or D7PA5 socket
D7PR2A	DPDT relay with 120 Vac coil, requires D7PA2 or D7PA5 socket
D7PR2T	DPDT relay with 24 Vac coil voltage, requires D7PA2 or D7PA5 socket
D7PR2T1	DPDT relay with 24 Vdc coil voltage requires D7PA2 or D7PA5 socket
D7PR3A	3PDT relay with 120 Vac coil voltage, requires D7PA3 socket
D7PR4A	4PDT relay with 120 Vac coil voltage, requires D7PA4 socket
D7PR4T1	4PDT relay with 24 Vdc coil voltage, requires D7PA4 socket

Ordering Examples: *D7PF2AA* relay, *D7PA5* socket, *PQC-1342*, hold down clip.

Two *D7PR4A*, 4PDT relays with 120 Vac coil voltage, two *D7PR4-BC*, 4 pole DIN rail mount sockets and hold down clips.

Model No. for Single Socket and Hold Down Spring/Clip	Model No. Sockets Only	Model No. Hold Down Spring/Clip Only	Mounting Style
D7PF2-BC	D7PA5	PQC-1342	Panel
D7PF2A-BC	D7PAA	PQC-1342	DIN rail
D7PF4-B	D7PA4	Not required	DIN rail
D7PR2-BC	D7PA2	PQC-1342	DIN rail
D7PR5-BC	D7PA5	PQC-1342	Panel
D7PR3-BC	D7PA3	PYC-B2	DIN rail
D7PR4-BC	D7PA4	PYC-B2	DIN rail

* See relay/socket compatibility guide for selecting correct spring.