

## Description

# Magnecraft™ General Purpose Relays

## 785 Latching Series

DPDT 16 A



UL listed when used with proper Magnecraft™ sockets



785 Magnetic Latching Relay

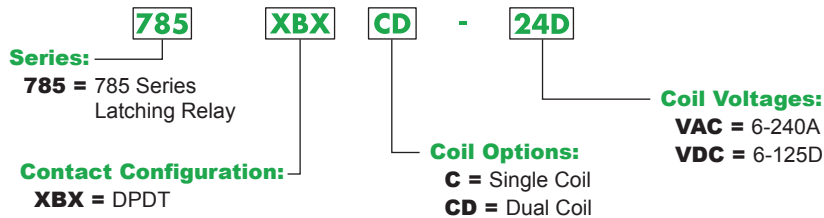
## Description

The 785 Square-Base Magnetic Latching relays deliver the same performance as the 788 Plug-In Power relays while adding latching functionality and saving energy. When the relay is first pulsed, a permanent magnet maintains this operating position until a second pulse resets the relay back to its original state.

Feature	Benefit
Latching functionality	Energy-saving operation
16 A max. switching current	Ideal for automation panels & controls
DPDT contact configuration	Simultaneously control up to 2 separate circuits
Socket mount option	Simplifies installation & maintenance while also allowing the use of protection modules, hold-down clips & other accessories
Gold-flashed contacts	Reduces contact oxidation & increases shelf life

Contact Rating	Contact Configuration	Nominal Voltage	Coil Resistance (Ω)	Feature	Standard Part Number
16 A	DPDT	120 Vac	10,000	Single Coil	785XBXC-120A
		12 Vdc	88/88	Dual Coil	785XBXCD-12D
		24 Vdc	350/350		785XBXCD-24D

## Part Number Explanation



\*Please note that non-standard voltages are also available.  
Please contact Customer Service for more information (847-441-2540).

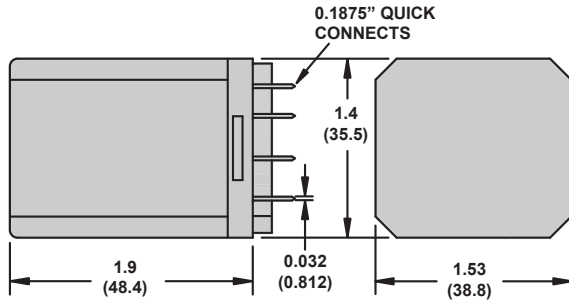
Specifications (UL 508)

Part Number	785XBX
<b>Contact Characteristics</b>	
Terminal Style	Blade
Contact Configuration	DPDT
Maximum Current	16 A
Load Type	Standard
Contact Materials	Silver Alloy
Maximum Switching Voltage	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 16 A at 120 Vac 50/60 Hz; 16 A at 277 Vac 50/60 Hz; 16 A at 28 Vdc <b>Motor:</b> 1/3 hp at 120 Vac 50/60 Hz; 1/2 hp at 240 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>	
Maximum Operating Voltage	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)
Average Consumption	3 VA (AC); 1.4 W (DC)
<b>General Characteristics</b>	
Electrical Life at Rated Load	100,000 operations
Mechanical Life (Unpowered)	5,000,000 operations
Operating Time (Response Time)	20 ms
Dielectric Strength - Between Coil and Contact (AC)	1500 V(rms)
Dielectric Strength - Between Poles (AC)	1500 V(rms)
Dielectric Strength - Between Contacts (AC)	500 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +55 °C (-40 – +131 °F)
Ambient Air Temperature around the Device - Operation	-40 – +85 °C (-40 – +185 °F)
Vibration Resistance (Operational)	3 g-n at 10-55 Hz
Shock Resistance	10 g-n
Degree of Protection	IP 40
Weight	87 g (3.07 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

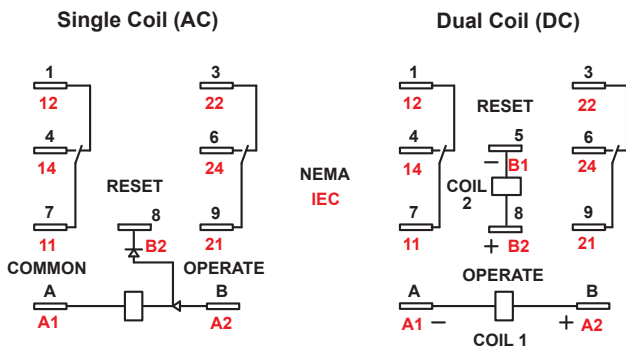
Note: Actual product performance may vary depending on application and environmental conditions.

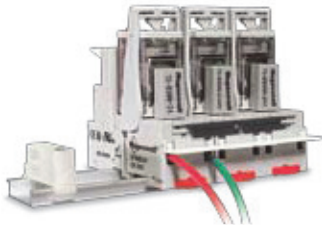
Dimensions — inches (millimeters)

785XBX



Wiring Diagrams

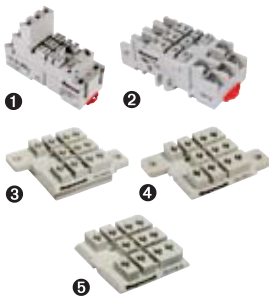




### Description

Optional sockets offer customizable, finger-safe™ solutions including protection modules, hold-down clips, and ID tags. Sockets are DIN rail and panel mount compatible.

### Relay Accessories



Description	Function	For Use With Relays	Pkg. Min.	Standard Part Number
Socket 1	DIN mount with elevator terminals and Module Compatible	785	10	70-788EL11-1
Socket 2	DIN/Panel mount with screw terminals & clamping plates		10	70-463-1
Socket 3	0.187 in. Quick Connect terminals with mounting tabs		10	70-124-2
Socket 4	Printed circuit terminals with mounting tabs		10	70-178-1
Socket 5	Printed circuit terminals without mounting tabs		10	70-178-2

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1	Secures relay in socket	70-788EL11-1, 70-124-2	–	10	16-1351
Plastic I.D. Tag 2	Write-on plastic labels	70-788EL11-1	–	10	16-750/788FT-1
Aluminum DIN Rail, 39.37" (1000 mm) 3	Quick installation and removal of sockets	70-788EL11-1, 70-463-1	–	10	16-700DIN
DIN Rail End Clip 3	Holds sockets firmly in place on DIN rail	70-788EL11-1, 70-463-1	–	10	16-DCLIP-1
Insulated Coil Bus Jumper System 4	Wireless socket connection	70-788EL11-1	–	10	16-750/788CBJ-1
Large Socket Module	MOV Suppressor ( <i>Protects from damaging electrical spikes</i> )	70-788EL11-1	24 Vac/Vdc	10	70-ASMM-24
Large Socket Module	Protection Diode ( <i>Protects external drive circuitry from inductive voltages</i> )		120 Vac/Vdc	10	70-ASMD-250
Large Socket Module 5	LED Indicator ( <i>Provides coil status at a glance</i> )		110/240 Vac/Vdc	10	70-ASMLG-110/240
Large Socket Module	RC Suppressor ( <i>Snubs back EMF of relay coil</i> )		110/240 Vac/Vdc	10	70-ASMR-110/240

Note: Use of LED or RC socket module may increase coil power draw by up to 10%.