

## Advantages of a Full Featured 700 Series Relay

Since the launch of the 700 series relays in 2000, this product line has continuously evolved both functionally and visually. The 700 series product line has the perfect mix of historical Magnecraft relay quality combined with a dynamic arsenal of options. When mated with the Magnecraft sockets and accessories, these RoHs compliant relays provide a complete modular system that will meet all your plug-in relay requirements in a package that is both visually appealing and functionally outstanding.

- Offers a “one stop solution” for your power management system.
- Several Contact configurations and materials to meet your individual needs.
- Plug-In switching capabilities from 10 mA to 20 Amps.
- Several Feature Code and Operation combinations available for all budgets.
- Ejector clips, ribbed relay housings and space-saving sockets allow for easy removal from crowded DIN rails.
- Color and appearance designed for high visibility in all environments.
- Wiring diagrams include NEMA and IEC standards.
- Engineering availability allows for customized relay solutions.



### Removable Lock-Down Door

When Activated, Locks Push Button and Contacts in the Powered Position.

### Color-Coded Push Button

Allows Manual Operation of Relay.  
AC Coils Red or DC Coils Blue.

### Finger Grip Cover

Easy Removal of Relay from Socket.

### Gold Flashed Contacts

Prevents Premature Oxidation and Increases Shelf-life.



### Contact Viewing Window

Shows Position of Contacts.

### Isolated Input and Output Terminals

Separates Control Circuits from Load Circuits.



### Slim Design

Minimizes Space on DIN Rail.

### Module Compatible

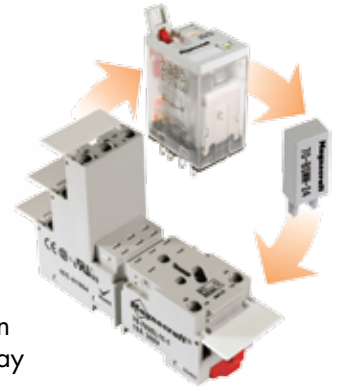
Allows for Optional Protection or LED Modules to be Used With Sockets.



### 2-Way Side or DIN Rail Mounting System

Retrofits Existing Panel Mounting and 35mm DIN Rail.

# The Complete System Solution!



**Flag Indicator**  
Shows Relay Status in Manual or Powered Condition.



**Bi-Polar LED Status Lamp**  
Shows Coil "ON" or "OFF" Status.

**I.D. Tag/Write-On Plastic Label**  
Used for Identification of Relays in Multi-Relay Circuits.

**Mating Hold-Down Clip Available**  
Safely Secures Relay to Socket.



**Finger-Safe**  
Protects Operators from Live Circuits.

**I.D. Tag/Write-On Plastic Label**  
Used to Match Wire Identification Tags with Socket Connections.

**Internal Coil Bus Jumper System**  
Allows Connection to Adjacent Sockets Without Additional Wiring.



## Advantages of a Plain Cover 700 Series Relay

The Plain Cover Super Series relays support budget minded applications with premium performance. Maintaining the same ratings and internal components as the Full Feature Series; the Plain Cover Series perform as well as premium relays while maintaining low costs by offering several option configurations.

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**2-Way Side or DIN Rail Mounting System**  
Retrofits Existing Panel Mounting and 35mm DIN Rail.

# The Complete System Solution!

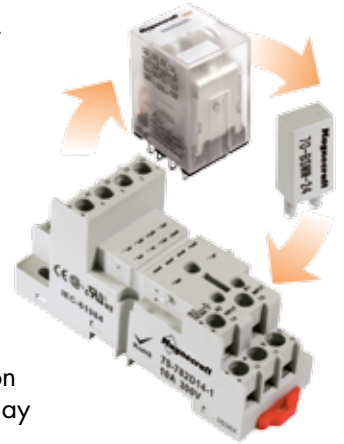
**Flag Indicator**  
Shows Relay Status in Manual or Powered Condition.



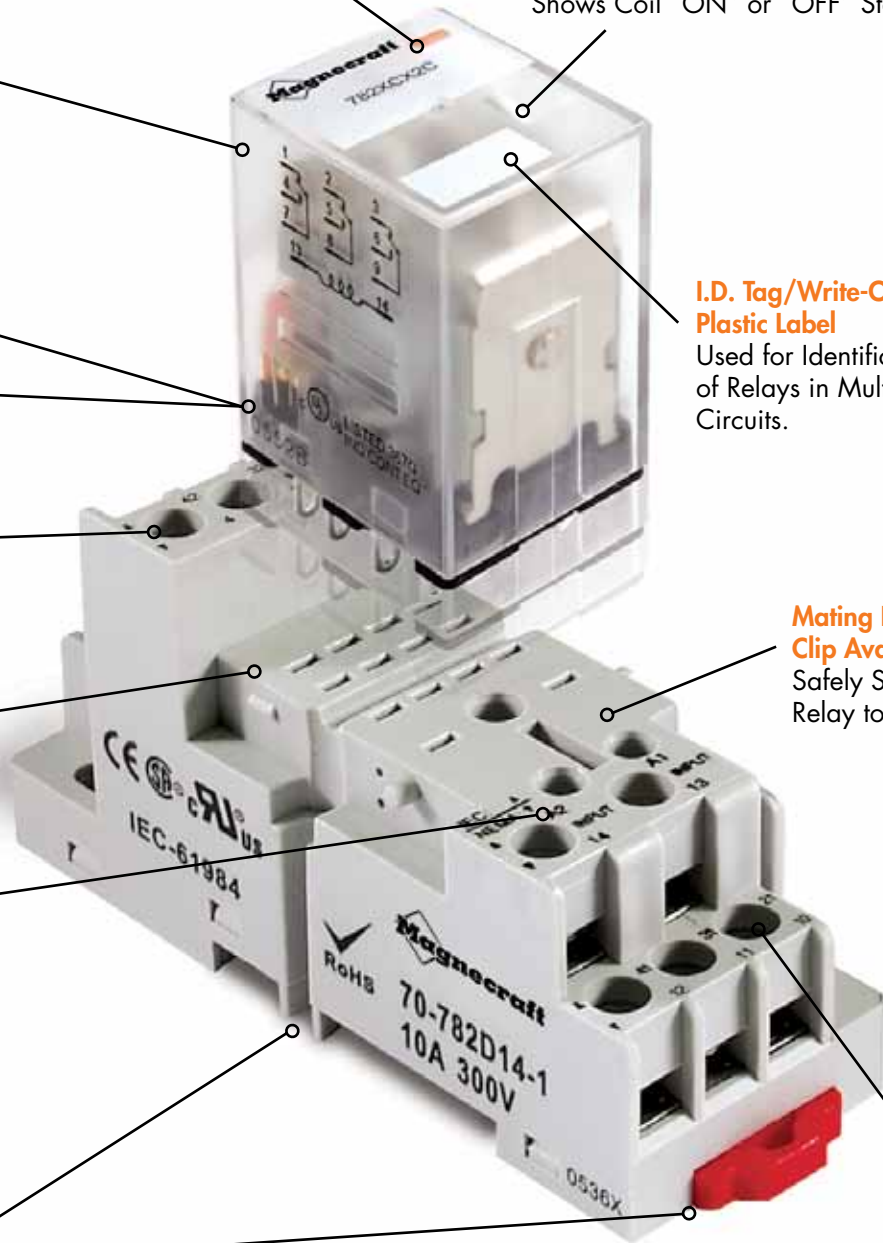
**Optional Bi-Polar LED Status Lamp**  
Shows Coil "ON" or "OFF" Status.

**I.D. Tag/Write-On Plastic Label**  
Used for Identification of Relays in Multi-Relay Circuits.

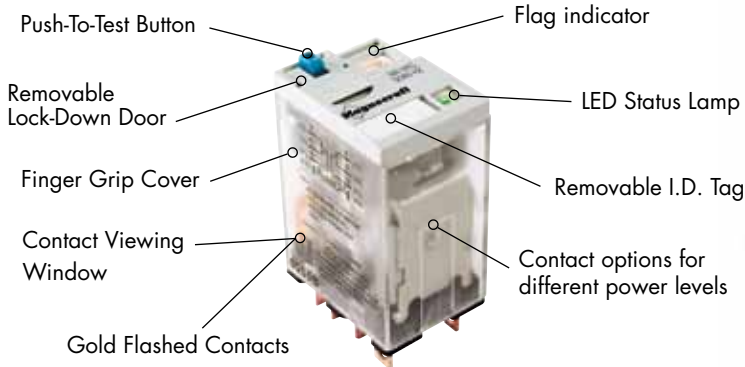
**Mating Hold-Down Clip Available**  
Safely Secures Relay to Socket.



**Finger-Safe**  
Protects Operators from Live Circuits.



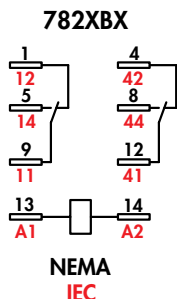
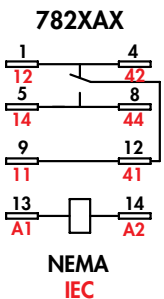
# 782 Ice Cube Relays/SPDT & DPDT, 15-20 Amp Rating



## General Specifications

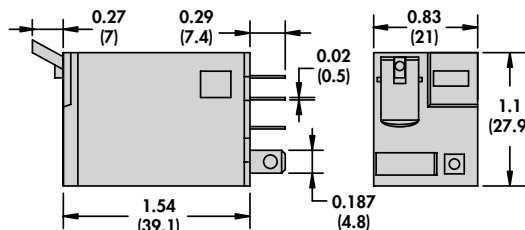
(UL 508)

Contact Characteristics		Units	782XAX	782XBX
Number and type of Contacts			SPDT	DPDT
Contact materials			Silver Alloy	Silver Alloy
Thermal (Carrying) Current		A	20	15
Maximum Switching Voltage		V	300	300
Switching Current @ Voltage	~	Resistive	20A @ 120V 50/60Hz	15A @ 120V 50/60Hz
	~	Resistive	20A @ 277V 50/60Hz	12A @ 277V 50/60Hz
	⋮	Resistive	20A @ 28V	12A @ 28V
	⋮	HP	1/2 @ 120VAC	1/2 @ 120VAC
Minimum Switching Requirement	⋮	HP	1 @ 250 VAC	1 @ 250 VAC
	⋮	Pilot Duty	B300	B300
	⋮	mA	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)
Coil Characteristics				
Voltage Range	~	V	6...240	6...240
	⋮	V	6...125	6...125
Operating Range	~	% of Nominal	85% to 110%	85% to 110%
	⋮	% of Nominal	80% to 110%	80% to 110%
Average consumption	~	VA	1.2	1.2
	⋮	W	0.9	0.9
Drop-out voltage threshold	~	% of Nominal	15%	15%
	⋮	% of Nominal	10%	10%
Performance Characteristics				
Electrical Life (UL508)	Operations @ Rated Current	(Resistive)	100,000	100,000
Mechanical Life	Unpowered		10,000,000	10,000,000
Operating time (response time)		ms	20	20
Dielectric strength	Between coil and contact	~ V(rms)	2500	2500
	Between poles	~ V(rms)	1500	1500
	Between contacts	~ V(rms)	1500	1500
Environment				
Product certifications	Standard version		UL, CSA, CE	UL, CSA, CE
Ambient air temperature around the device	Storage	°C	-40...+85	-40...+85
	Operation	°C	-40...+55	-40...+55
Vibration resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz
Shock resistance		g-n	10	10
Degree of protection			IP 40	IP 40
Weight		grams	36	36

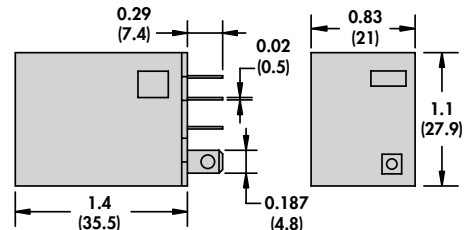


Wiring Diagram  
Bottom View

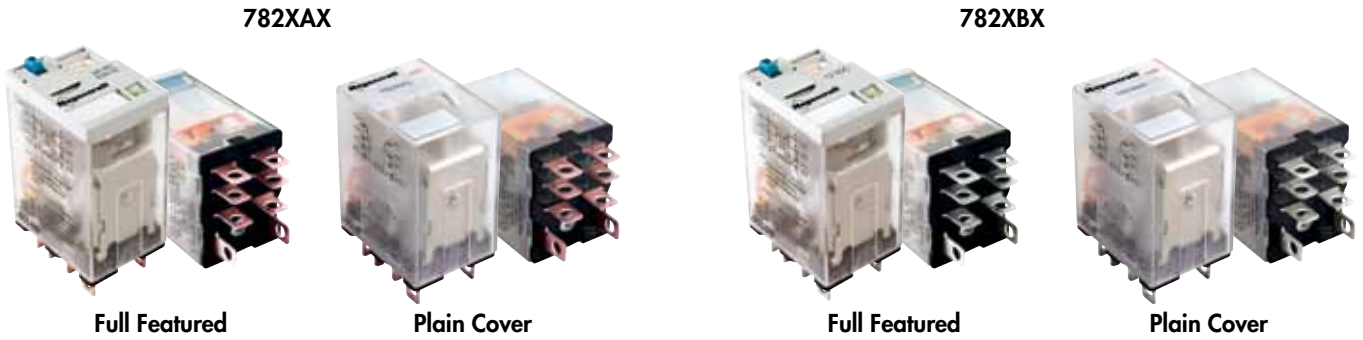
### Full Featured Dimensions



### Plain Cover Dimensions







**Standard Part Numbers**

**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

Nominal Voltage	Coil Resistance	SPDT Part Number (Full Feature) 20 Amp	SPDT Part Number (Plain Cover) 20 Amp	DPDT Part Number (Full Feature) 20 Amp	DPDT Part Number (Plain Cover) 20 Amp
AC Operated					
6 VAC 50/60 Hz	9.6 Ohms	782XAXM4L-6A	<b>782XAXC-6A</b>	782XBXM4L-6A	<b>782XBXC-6A</b>
12 VAC 50/60 Hz	46 Ohms	<b>782XAXM4L-12A</b>	<b>782XAXC-12A</b>	782XBXM4L-12A	<b>782XBXC-12A</b>
24 VAC 50/60 Hz	180 Ohms	<b>782XAXM4L-24A</b>	<b>782XAXC-24A</b>	<b>782XBXM4L-24A</b>	<b>782XBXC-24A</b>
120 VAC 50/60 Hz	4430 Ohms	<b>782XAXM4L-120A</b>	<b>782XAXC-120A</b>	<b>782XBXM4L-120A</b>	<b>782XBXC-120A</b>
220-230 VAC 50/60 Hz	15000 Ohms	<b>782XAXM4L-220/230A</b>	<b>782XAXC-220/230A</b>	<b>782XBXM4L-220/230A</b>	<b>782XBXC-220/230A</b>
240 VAC 50/60 Hz	15720 Ohms	<b>782XAXM4L-240A</b>	<b>782XAXC-240A</b>	<b>782XBXM4L-240A</b>	<b>782XBXC-240A</b>
DC Operated					
6 VDC	40 Ohms	782XAXM4L-6D	<b>782XAXC-6D</b>	782XBXM4L-6D	<b>782XBXC-6D</b>
12 VDC	160 Ohms	<b>782XAXM4L-12D</b>	<b>782XAXC-12D</b>	<b>782XBXM4L-12D</b>	<b>782XBXC-12D</b>
24 VDC	650 Ohms	<b>782XAXM4L-24D</b>	<b>782XAXC-24D</b>	<b>782XBXM4L-24D</b>	<b>782XBXC-24D</b>
48 VDC	2600 Ohms	<b>782XAXM4L-48D</b>	<b>782XAXC-48D</b>	782XBXM4L-48D	<b>782XBXC-48D</b>
110-125 VDC	11000 Ohms	<b>782XAXM4L-110/125D</b>	<b>782XAXC-110/125D</b>	<b>782XBXM4L-110/125D</b>	<b>782XBXC-110/125D</b>

**Custom Relay Part Number Builder**

Series	Contact Configuration	Cover Options	Terminal Style	Feature Options	Coil Voltage
782	XAX = SPDT XBX = DPDT	Full Feature = No Code Plain Cover = C	Plug In = No Code PC terminal = T	Side Push Button = M Locking Push Button = M4 Bi-Polar LED = L	VAC = 6 - 240A VDC = 6 - 125D

**For other mating sockets, see Section 2: 70-459-1, 70-401-1, 70-402-1**

