

## 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.

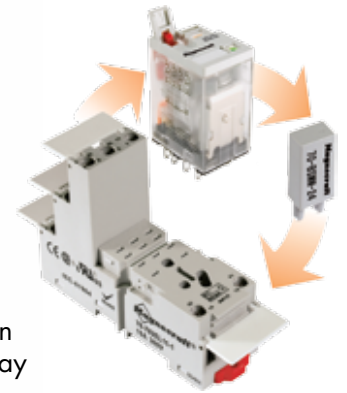
# The Complete System Solution!

**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.



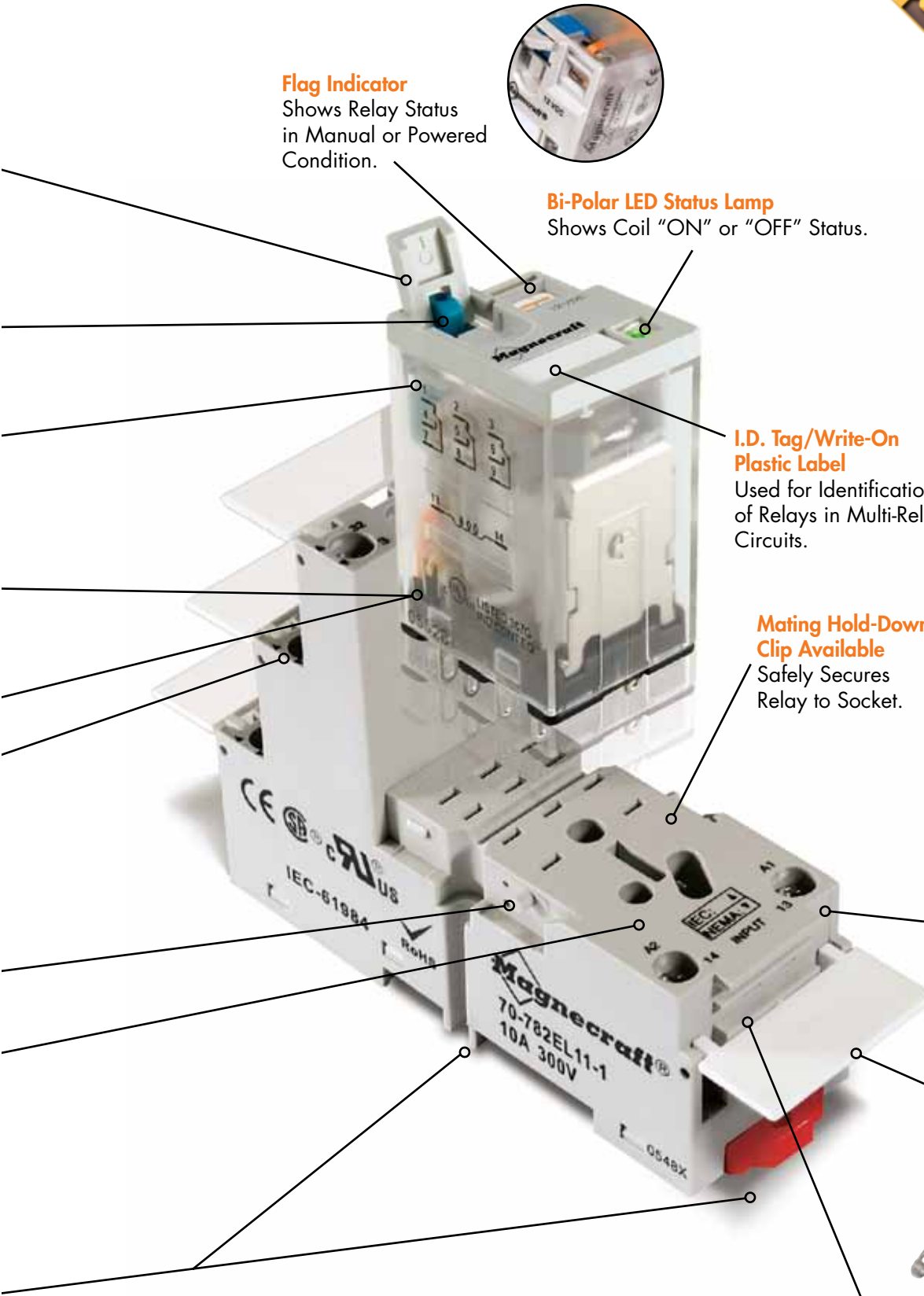
**Mating Hold-Down Clip Available**  
Safely Secures Relay to Socket.



**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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Easy Removal of Relay from Socket.

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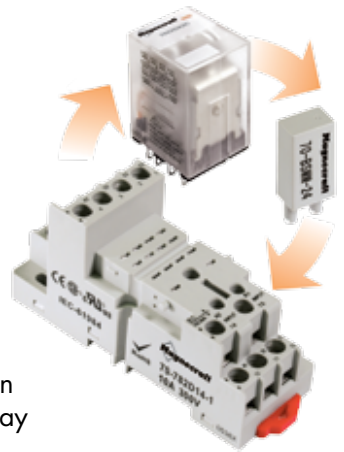
**Flag Indicator**  
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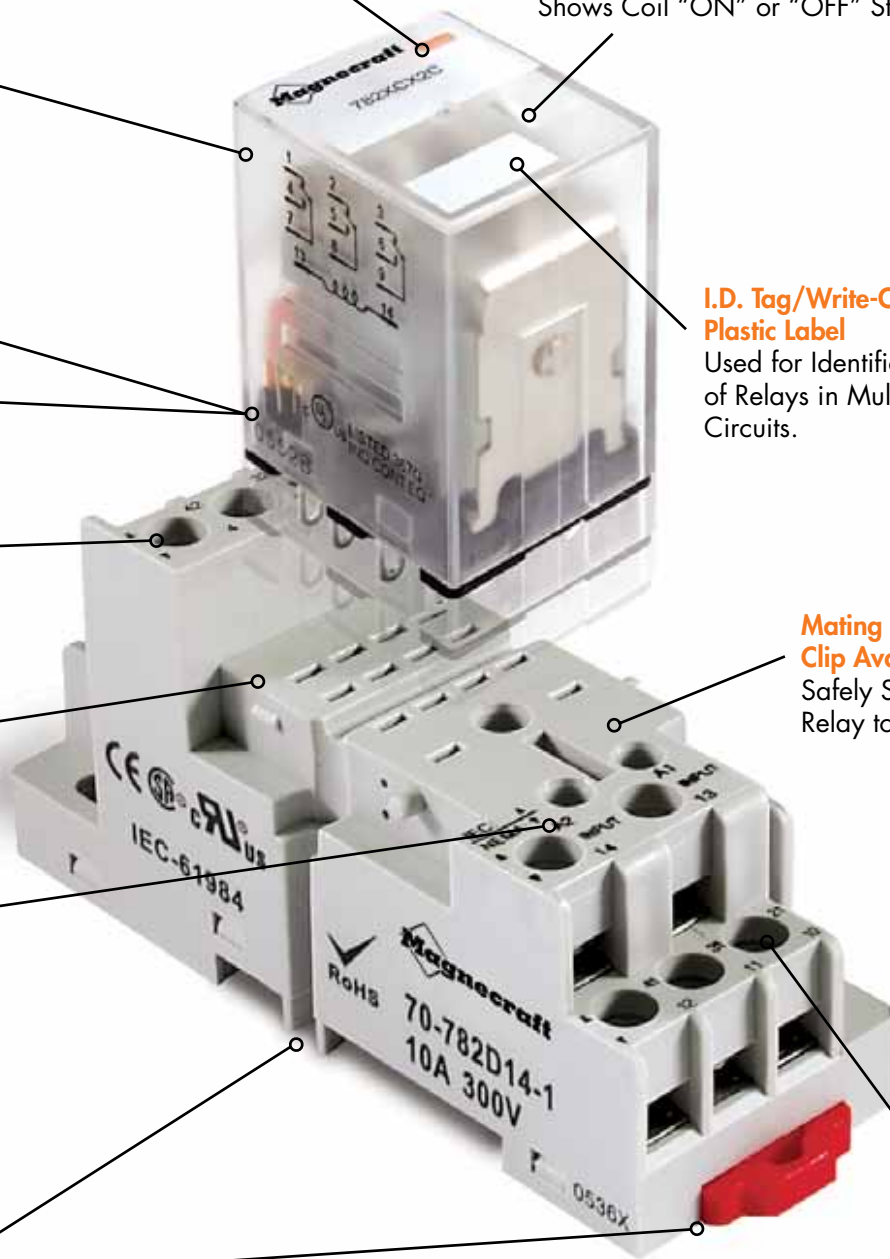
**Optional Bi-Polar LED Status Lamp**  
Shows Coil "ON" or "OFF" Status.

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

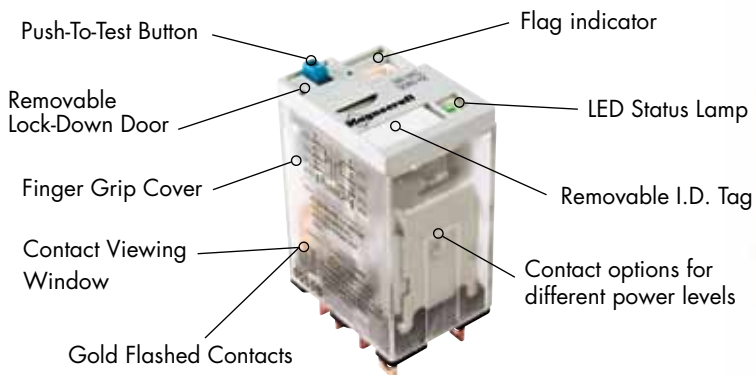
**Mating Hold-Down Clip Available**  
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**Finger-Safe**  
Protects Operators from Live Circuits.



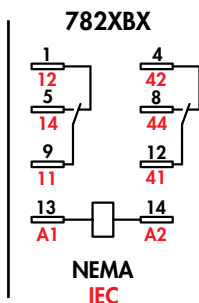
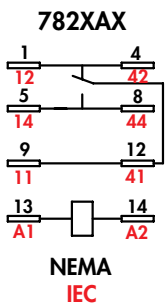
# 782 Ice Cube Relays/SPDT & DPDT, 15-20 Amp Rating



## General Specifications

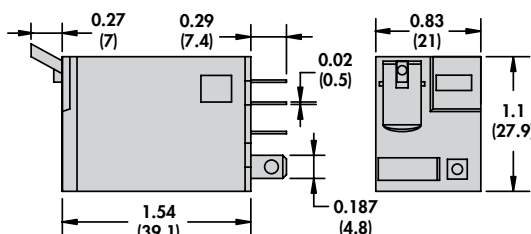
(UL 508)

| 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       |
|                                |                            | HP          | 1 @ 250 VAC        | 1 @ 250 VAC        |
|                                |                            | Pilot Duty  | B300               | B300               |
| Minimum Switching Requirement  |                            | 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%        |
|                                |                            | ~           | 80% to 110%        | 80% to 110%        |
| Average consumption            |                            | ~ VA        | 1.2                | 1.2                |
|                                |                            | ~ W         | 0.9                | 0.9                |
| Drop-out voltage threshold     |                            | ~           | 15%                | 15%                |
|                                |                            | ~           | 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        | Storage                    | °C          | -40...+85          | -40...+85          |
| around the device              | 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                 |

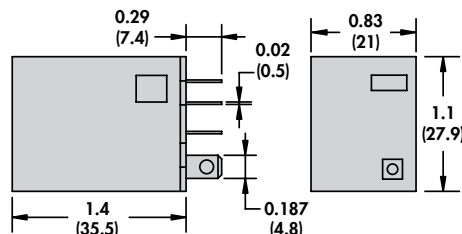


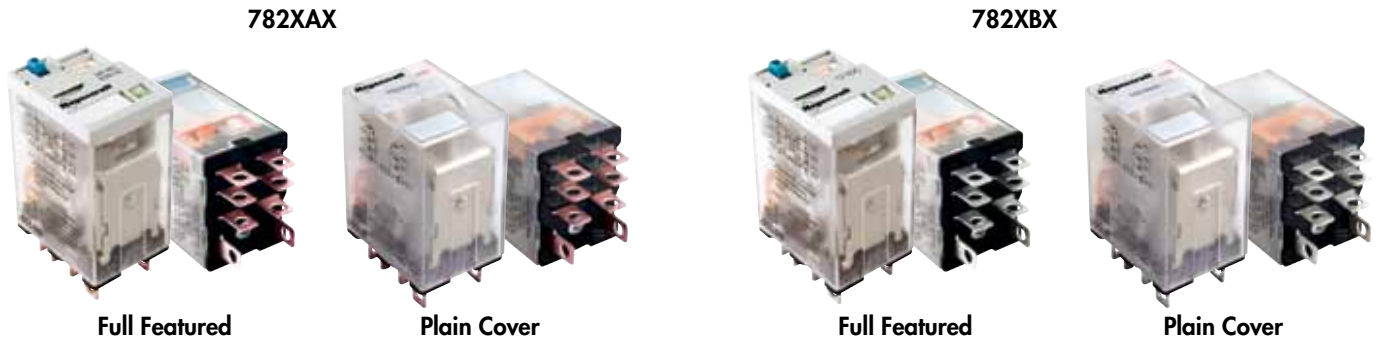
Wiring Diagram  
Bottom View

### Full Featured Dimensions



### Plain Cover Dimensions





**Standard Part Numbers**

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

| Nominal Voltage      | Coil Resistance | SPDT Part Number<br>(Full Feature) 20 Amp | SPDT Part Number<br>(Plain Cover) 20 Amp | DPDT Part Number<br>(Full Feature) 20 Amp | DPDT Part Number<br>(Plain Cover) 20 Amp |
|----------------------|-----------------|---|--|---|--|
| AC Operated          |                 |   |  |   |  |
| 6 VAC 50/60 Hz       | 9.6 Ohms        | 782XAXM4L-6A                              | <b>782XAXC-6A</b>                        | 782XBX4M4L-6A                             | <b>782XBXC-6A</b>                        |
| 12 VAC 50/60 Hz      | 46 Ohms         | <b>782XAXM4L-12A</b>                      | <b>782XAXC-12A</b>                       | 782XBX4M4L-12A                            | <b>782XBXC-12A</b>                       |
| 24 VAC 50/60 Hz      | 180 Ohms        | <b>782XAXM4L-24A</b>                      | <b>782XAXC-24A</b>                       | <b>782XBX4M4L-24A</b>                     | <b>782XBXC-24A</b>                       |
| 120 VAC 50/60 Hz     | 4430 Ohms       | <b>782XAXM4L-120A</b>                     | <b>782XAXC-120A</b>                      | <b>782XBX4M4L-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>782XBX4M4L-220/230A</b>                | <b>782XBXC-220/230A</b>                  |
| 240 VAC 50/60 Hz     | 15720 Ohms      | <b>782XAXM4L-240A</b>                     | <b>782XAXC-240A</b>                      | <b>782XBX4M4L-240A</b>                    | <b>782XBXC-240A</b>                      |
| DC Operated          |                 |   |  |   |  |
| 6 VDC                | 40 Ohms         | 782XAXM4L-6D                              | <b>782XAXC-6D</b>                        | 782XBX4M4L-6D                             | <b>782XBXC-6D</b>                        |
| 12 VDC               | 160 Ohms        | <b>782XAXM4L-12D</b>                      | <b>782XAXC-12D</b>                       | <b>782XBX4M4L-12D</b>                     | <b>782XBXC-12D</b>                       |
| 24 VDC               | 650 Ohms        | <b>782XAXM4L-24D</b>                      | <b>782XAXC-24D</b>                       | <b>782XBX4M4L-24D</b>                     | <b>782XBXC-24D</b>                       |
| 48 VDC               | 2600 Ohms       | <b>782XAXM4L-48D</b>                      | <b>782XAXC-48D</b>                       | 782XBX4M4L-48D                            | <b>782XBXC-48D</b>                       |
| 110-125 VDC          | 11000 Ohms      | <b>782XAXM4L-110/125D</b>                 | <b>782XAXC-110/125D</b>                  | <b>782XBX4M4L-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<br>XBX = DPDT | Full Feature = No Code<br>Plain Cover = C | Plug In = No Code<br>PC terminal = T | Side Push Button = M<br>Locking Push Button = M4<br>Bi-Polar LED = L | VAC = 6 - 240A<br>VDC = 6 - 125D |

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

