

## Advantages of a Full Featured, Octal 700 Series Relay

Octal style mounting is a robust and historically proven form of mounting electrical components. This interface provides excellent structural support that has been recognized by the electrical industry for over half a century. Magnecraft has combined this historical platform with modern features and performance. The 750 Octal relays will mate with all forms of the 8 and 11 pin octal sockets. This package provides all the performance and features of Magnecraft's 700 series relay, while using a mounting platform that the customer has grown accustomed to.



### 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.

- 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 16 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.



### 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.

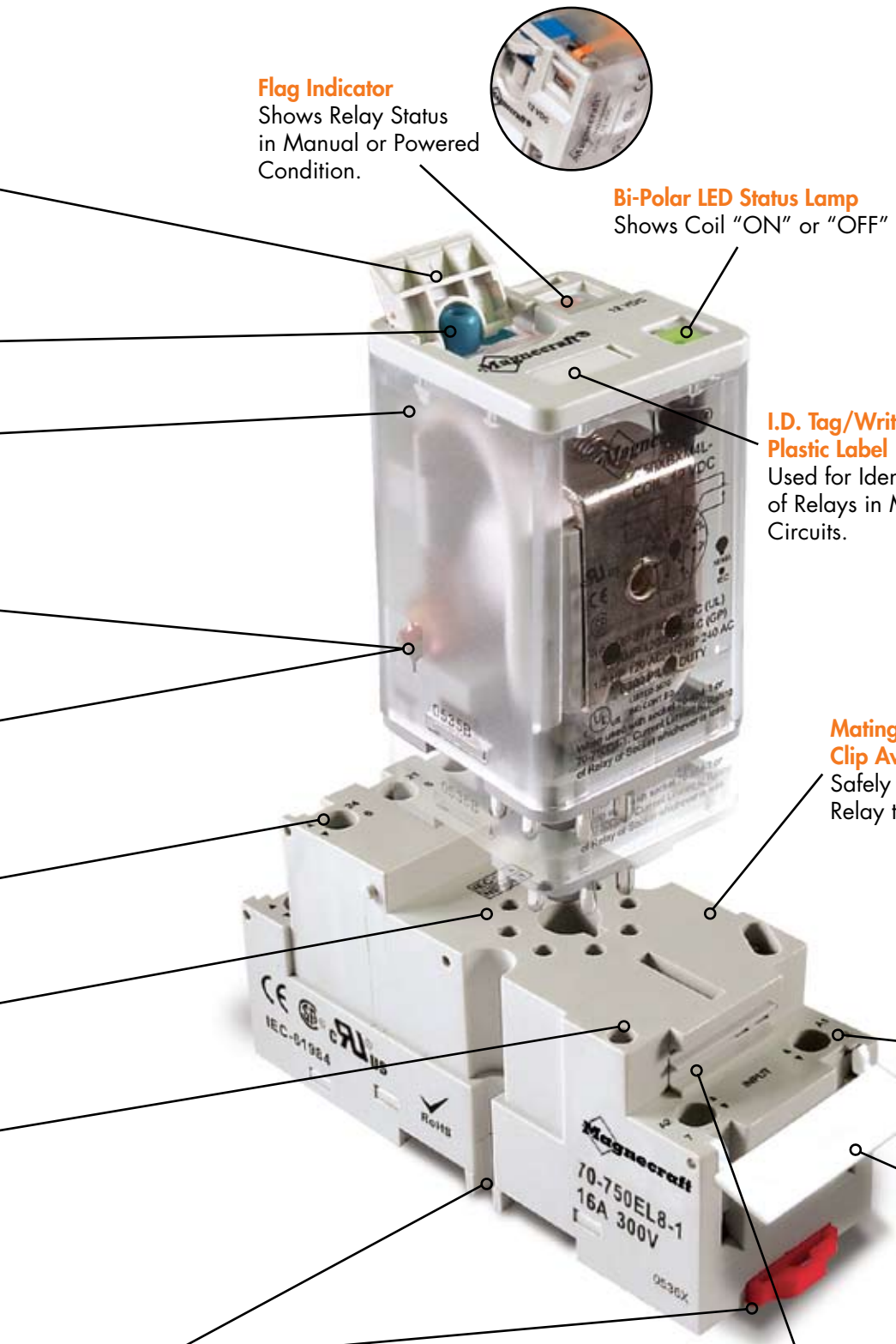
**Mating Hold-Down Clip Available**  
Safely Secures Relay to Socket.



**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, Octal 700 Series Relay

Plain Cover octal style relays provide a historical interface for the budget minded yet performance driven customer. The Plain Cover 750 relays allow the customer to utilize the performance of a premium relay while adhering to an aggressive budget. This is accomplished by Magnecraft's ability to utilize the electrical components of the Full Feature 750 relays and deleting options that may not be required by the customer. The 750 Plain Cover relays offer competitive pricing while maintaining premium performance.

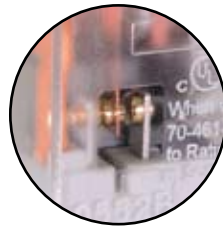
- Offers a "one stop solution" for your power management system.
- Several Contact configurations and materials to meet your individual needs.
- Plug-In switching capabilities from 10 mA to 16 Amps.
- Several Feature Code and Operation combinations available for all budgets.
- Ejector clips, ribbed relay 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.

### 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.



### 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.

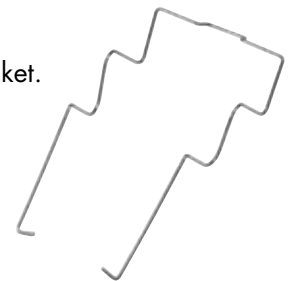


**Optional Bi-Polar LED Status Lamp**  
Shows Coil "ON" or "OFF" Status.

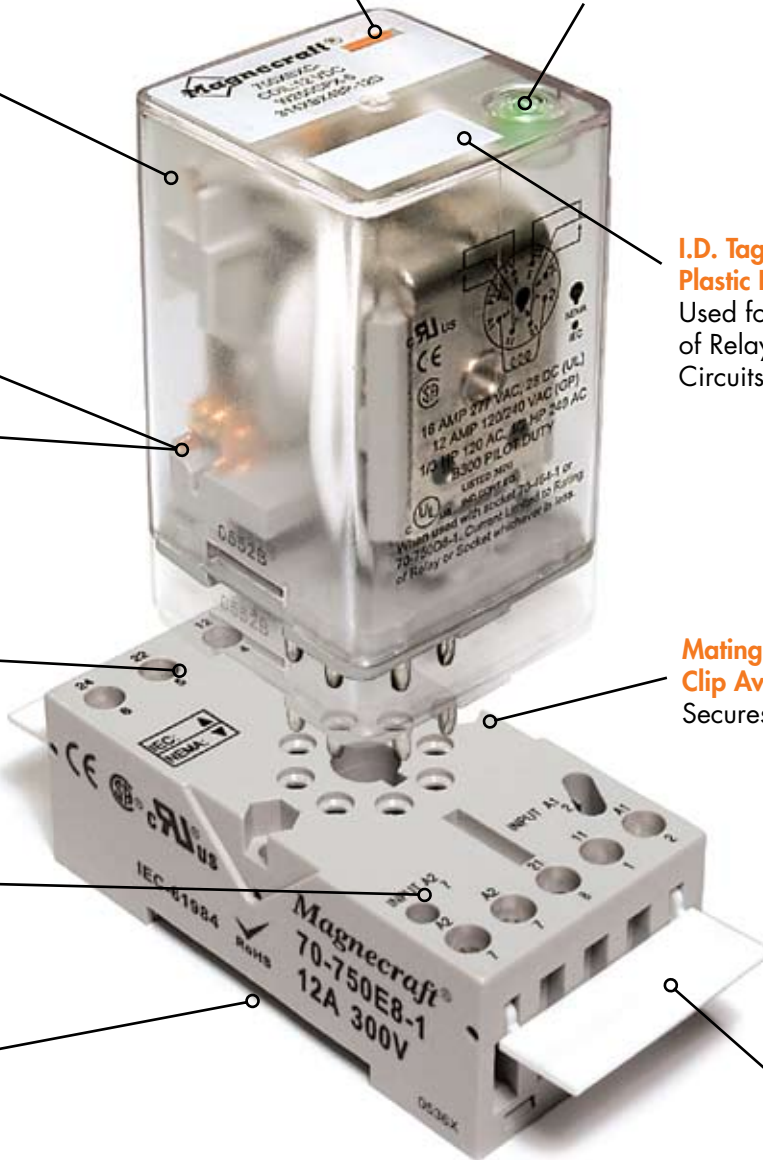


**I.D. Tag/Write-On Plastic Label**  
Used for Identification of Relays in Multi-Relay Circuits.

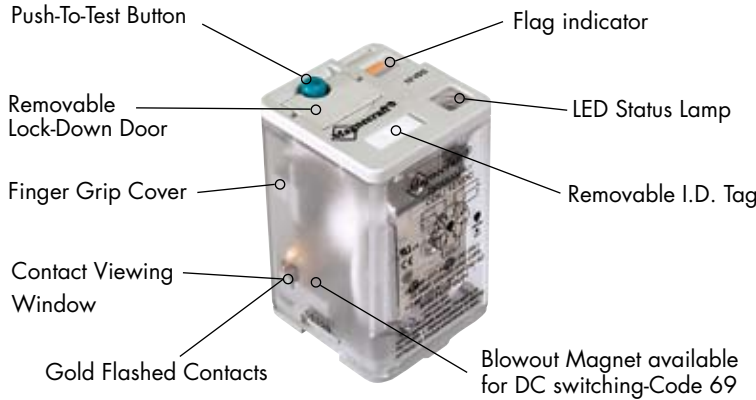
**Mating Hold-Down Clip Available**  
Secures Relay to Socket.



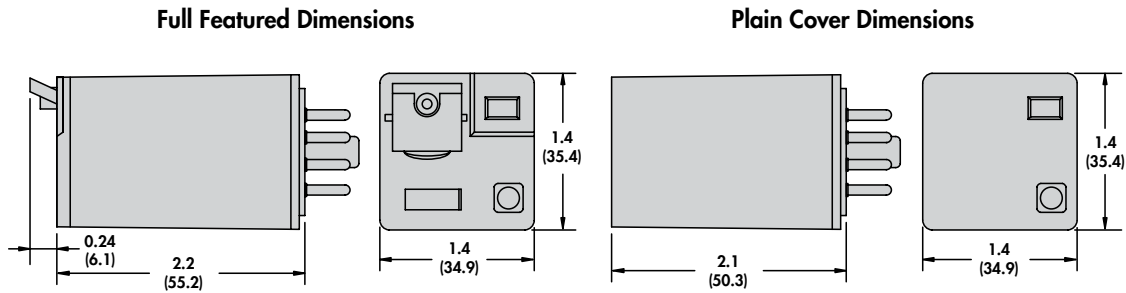
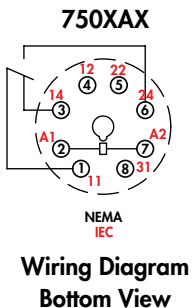
**I.D. Tag/Write-On Plastic Label**  
Used to match wire identification tags with socket connections.



# 750 Octal Relays, 8-Pin/SPDT, 16 Amp Rating (DC & AC)



| General Specifications                    |                            | (UL 508) |             | 750XAX             |
|---|----------------------------|----------|-------------|--------------------|
| Contact Characteristics                   |                            |          | Units       | Standard           |
| Number and type of Contacts               |                            |          |             | SPDT               |
| Contact materials                         |                            |          |             | Silver Alloy       |
| Thermal (Carrying) Current                |                            |          | A           | 16                 |
| Maximum Switching Voltage                 |                            |          | V           | 300                |
| Switching Current @ Voltage               |                            | ~        | Resistive   | 16A @ 277V 50/60Hz |
|   |                            | ~        | Resistive   | 16A @ 120V 50/60Hz |
|   |                            | ≡        | Resistive   | 16A @ 28V          |
|   |                            |          | HP          | 1/3 @ 120VAC       |
|   |                            |          | HP          | 1/2 @ 240 VAC      |
| Minimum Switching Requirement             |                            |          | Pilot Duty  | B300               |
|   |                            |          | mA          | 100 @ 5VDC (.5W)   |
| Coil Characteristics                      |                            |          |             |                    |
| Voltage Range                             |                            | ~        | V           | 6...240            |
|   |                            | ≡        | V           | 6...125            |
| Operating Range                           |                            | ~        |             | 85% to 110%        |
|   |                            | ≡        |             | 80% to 110%        |
| Average consumption                       | % of Nominal               | ~        | VA          | 3                  |
|   |                            | ≡        | W           | 1.4                |
| Drop-out voltage threshold                |                            | ~        |             | 15%                |
|   |                            | ≡        |             | 10%                |
| Performance Characteristics               |                            |          |             |                    |
| Electrical Life (UL508)                   | Operations @ Rated Current |          | (Resistive) | 100,000            |
| Mechanical Life                           | Unpowered                  |          |             | 5,000,000          |
| Operating time (response time)            |                            |          | ms          | 20                 |
| Dielectric strength                       | Between coil and contact   | ~        | Vrms        | 1500               |
|   | Between poles              | ~        | Vrms        | 1500               |
|   | Between contacts           | ~        | Vrms        | 1500               |
| Environment                               |                            |          |             |                    |
| Product certifications                    | Standard version           |          |             | UL, CSA, CE        |
| Ambient air temperature around the device | Storage                    |          | °C          | -40...+85          |
|   | Operation                  |          | °C          | -40...+55          |
| Vibration resistance                      | Operational                |          | g-n         | 3, 10 - 55 Hz      |
| Shock resistance                          |                            |          | g-n         | 10                 |
| Degree of protection                      |                            |          |             | IP 40              |
| Weight                                    |                            |          | grams       | 89                 |





Full Featured



Plain Cover

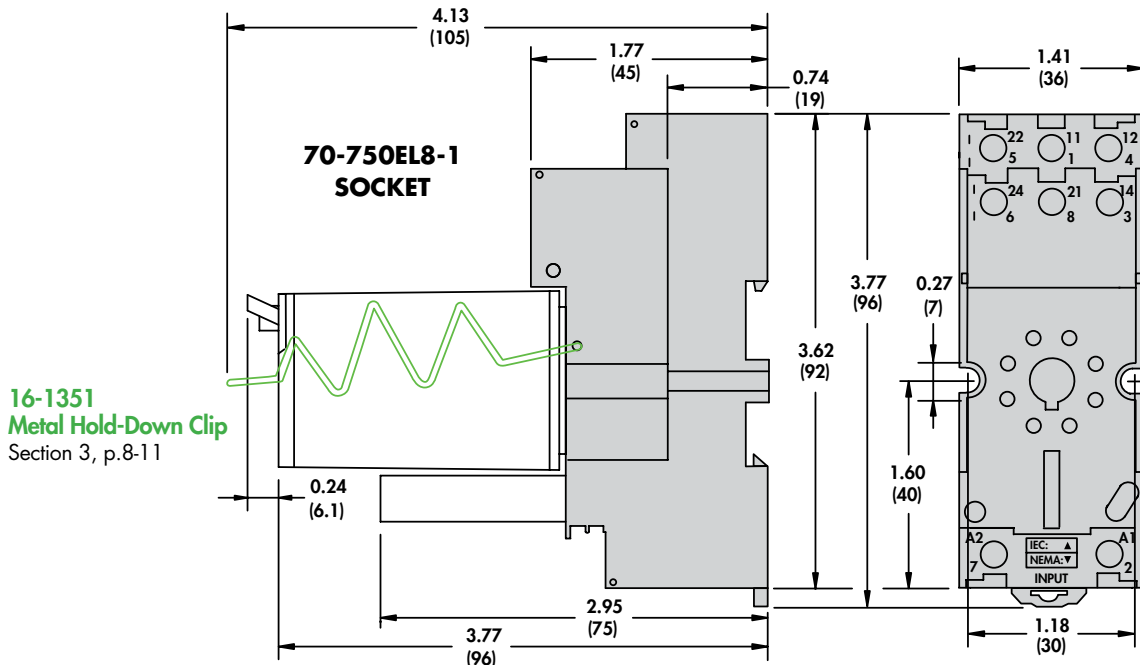
Standard Part Numbers

| Nominal Voltage      | Coil Resistance | SPDT Part Number<br>(Full Feature) 16 Amp | SPDT Part Number<br>(Plain Cover) 16 Amp |
|----------------------|-----------------|---|--|
| AC Operated          |                 |   |  |
| 6 VAC 50/60 Hz       | 4.2 Ohms        | 750AXM4L-6A                               | 750XAXC-6A                               |
| 12 VAC 50/60 Hz      | 18 Ohms         | 750AXM4L-12A                              | 750XAXC-12A                              |
| 24 VAC 50/60 Hz      | 72 Ohms         | 750AXM4L-24A                              | 750XAXC-24A                              |
| 120 VAC 50/60 Hz     | 1700 Ohms       | 750AXM4L-120A                             | 750XAXC-120A                             |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | 750AXM4L-220/240A                         | 750XAXC-220/240A                         |
| DC Operated          |                 |   |  |
| 6 VDC                | 32 Ohms         | 750AXM4L-6D                               | 750XAXC-6D                               |
| 12 VDC               | 120 Ohms        | 750AXM4L-12D                              | 750XAXC-12D                              |
| 24 VDC               | 470 Ohms        | 750AXM4L-24D                              | 750XAXC-24D                              |
| 48 VDC               | 1800 Ohms       | 750AXM4L-48D                              | 750XAXC-48D                              |
| 110-125 VDC          | 10000 Ohms      | 750AXM4L-110/125D                         | 750XAXC-110/125D                         |

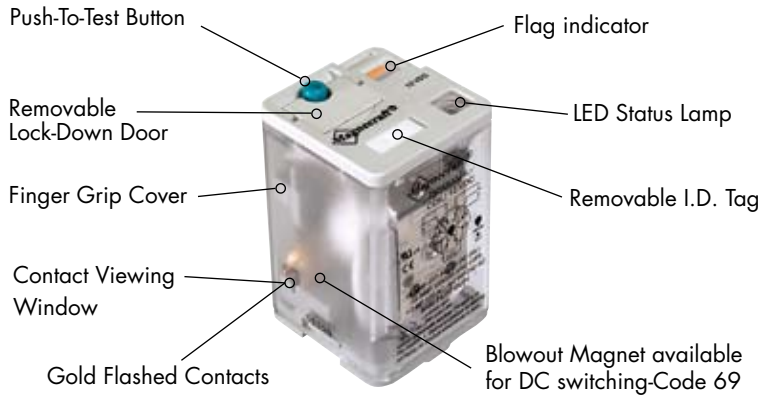
Custom Relay Part Number Builder

| Series | Contact Configuration | Contact Code                  | Cover Options                             | Feature Options  | Coil Voltage                     |
|--------|-----------------------|-------------------------------|---|--|----------------------------------|
| 750    | XAX                   | 16 Amp Silver Alloy = No Code | Full Feature = No Code<br>Plain Cover = C | 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: 70-750E8-1, 70-750DL8-1, 70-464-1, 70-169-1



# 750 Octal Relays, 8-Pin/DPDT, 16 Amp Rating (DC & AC)



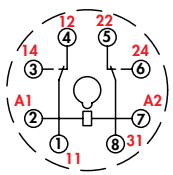
## General Specifications

(UL 508)

750XBX

| Contact Characteristics                        |                            | Units       | Standard           |
|--|----------------------------|-------------|--------------------|
| Number and type of Contacts                    |                            |             | DPDT               |
| Contact materials                              |                            |             | Silver Alloy       |
| Thermal (Carrying) Current                     |                            | A           | 16                 |
| Maximum Switching Voltage                      |                            | V           | 300                |
| Switching Current @ Voltage                    | ~                          | Resistive   | 16A @ 277V 50/60Hz |
|  | ~                          | Resistive   | 16A @ 120V 50/60Hz |
|  | ∴                          | Resistive   | 16A @ 28V          |
|  |                            | HP          | 1/3 @ 120VAC       |
|  |                            | HP          | 1/2 @ 240 VAC      |
|  |                            | Pilot Duty  | B300               |
| Current rating with magnetic blowout - Code 69 | ∴                          | A           | 3 @ 150VDC         |
| Minimum Switching Requirement                  |                            | mA          | 100 @ 5VDC (.5W)   |
| <b>Coil Characteristics</b>                    |                            |             |                    |
| Voltage Range                                  | ~                          | V           | 6...240            |
|  | ∴                          | V           | 6...125            |
| Operating Range                                | % of Nominal               | ~           | 85% to 110%        |
|  |                            | ∴           | 80% to 110%        |
| Average consumption                            | ~                          | VA          | 3                  |
|  | ∴                          | W           | 1.4                |
| Drop-out voltage threshold                     | ~                          |             | 15%                |
|  | ∴                          |             | 10%                |
| <b>Performance Characteristics</b>             |                            |             |                    |
| Electrical Life (UL508)                        | Operations @ Rated Current | (Resistive) | 100,000            |
| Mechanical Life                                | Unpowered                  |             | 5,000,000          |
| Operating time (response time)                 |                            | ms          | 20                 |
| Dielectric strength                            | Between coil and contact   | ~           | Vrms 1500          |
|  | Between poles              | ~           | Vrms 1500          |
|  | Between contacts           | ~           | Vrms 1500          |
| <b>Environment</b>                             |                            |             |                    |
| Product certifications                         | Standard version           |             | UL, CSA, CE        |
| Ambient air temperature around the device      | Storage                    | °C          | -40...+85          |
|  | Operation                  | °C          | -40...+55          |
| Vibration resistance                           | Operational                | g-n         | 3, 10 - 55 Hz      |
| Shock resistance                               |                            | g-n         | 10                 |
| Degree of protection                           |                            |             | IP 40              |
| Weight   |                            | grams       | 89                 |

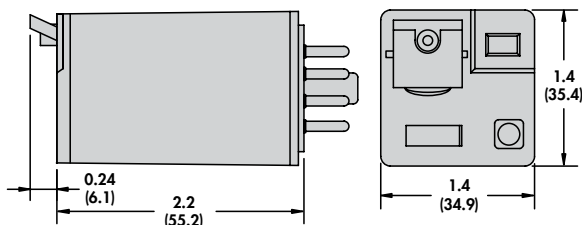
### 750XBX



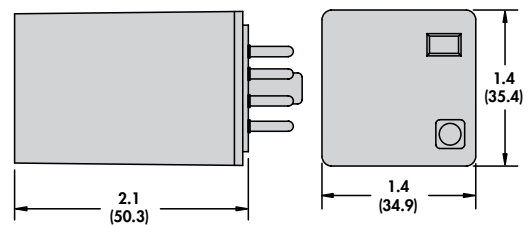
NEMA  
IEC

Wiring Diagram  
Bottom View

### Full Featured Dimensions



### Plain Cover Dimensions





Full Featured



Plain Cover

Standard Part Numbers

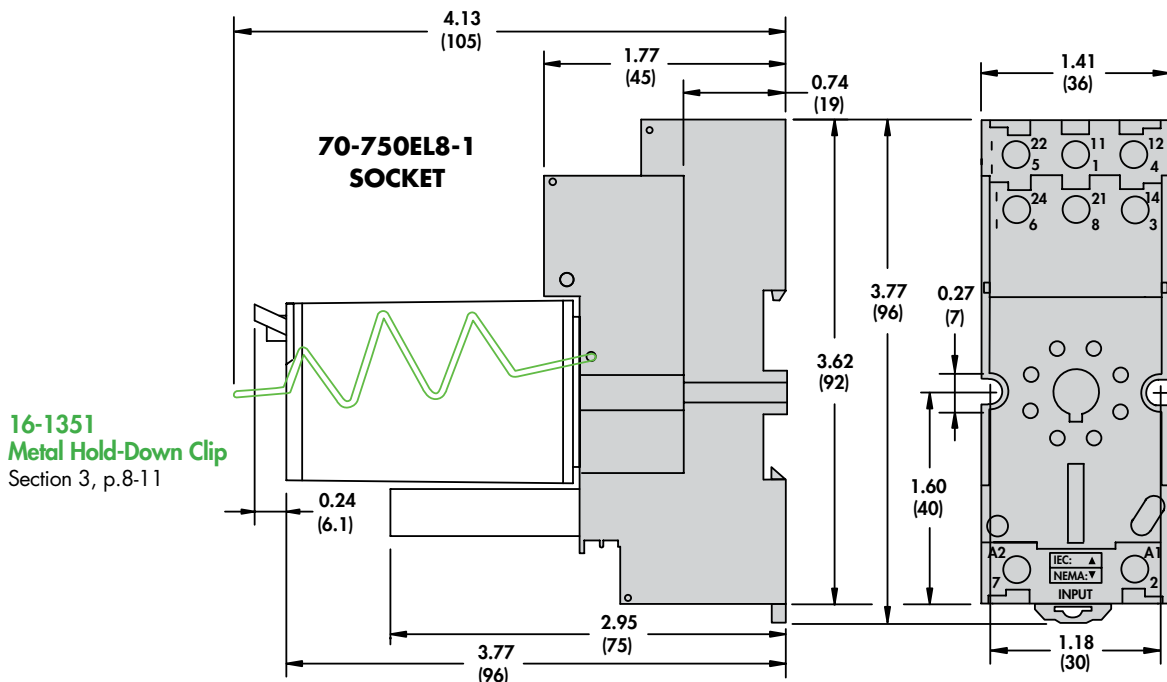
**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

| Nominal Voltage      | Coil Resistance | DPDT Part Number<br>(Full Feature) 16 Amp | DPDT Part Number<br>(Plain Cover) 16 Amp |
|----------------------|-----------------|---|--|
| AC Operated          |                 |   |  |
| 6 VAC 50/60 Hz       | 4.2 Ohms        | 750BXM4L-6A                               | <b>750BXC-6A</b>                         |
| 12 VAC 50/60 Hz      | 18 Ohms         | <b>750BXM4L-12A</b>                       | <b>750BXC-12A</b>                        |
| 24 VAC 50/60 Hz      | 72 Ohms         | <b>750BXM4L-24A</b>                       | <b>750BXC-24A</b>                        |
| 120 VAC 50/60 Hz     | 1700 Ohms       | <b>750BXM4L-120A</b>                      | <b>750BXC-120A</b>                       |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | <b>750BXM4L-220/240A</b>                  | <b>750BXC-220/240A</b>                   |
| DC Operated          |                 |   |  |
| 6 VDC                | 32 Ohms         | 750BXM4L-6D                               | <b>750BXC-6D</b>                         |
| 12 VDC               | 120 Ohms        | <b>750BXM4L-12D</b>                       | <b>750BXC-12D</b>                        |
| 24 VDC               | 470 Ohms        | <b>750BXM4L-24D</b>                       | <b>750BXC-24D</b>                        |
| 48 VDC               | 1800 Ohms       | <b>750BXM4L-48D</b>                       | <b>750BXC-48D</b>                        |
| 110-125 VDC          | 10000 Ohms      | <b>750BXM4L-110/125D</b>                  | <b>750BXC-110/125D</b>                   |

Custom Relay Part Number Builder

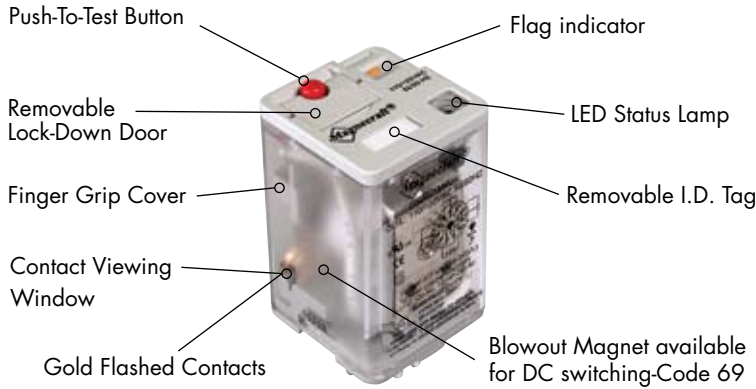
| Series | Contact Conf. | DC Switching Option   | Contact Code                  | Cover Options                             | Feature Options  | Coil Voltage                     |
|--------|---------------|-----------------------|-------------------------------|---|--|----------------------------------|
| 750    | XBX           |                       |                               | C   | ML-  | 240A                             |
| 750    | XBX = DPDT    | Magnetic Blowout = 69 | 16 Amp Silver Alloy = No Code | Full Feature = No Code<br>Plain Cover = C | Side Push Button = M<br>Locking Push Button = M4<br>Bi-Polar LED = L | VAC = 6 - 240A<br>VDC = 6 - 250D |

For other mating sockets, see Section 2: 70-750E8-1, 70-750DL8-1, 70-464-1, 70-169-1





# 750 Octal Relays, 11-Pin/3PDT, 16 Amp Rating (DC & AC)

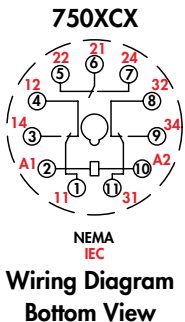


## General Specifications

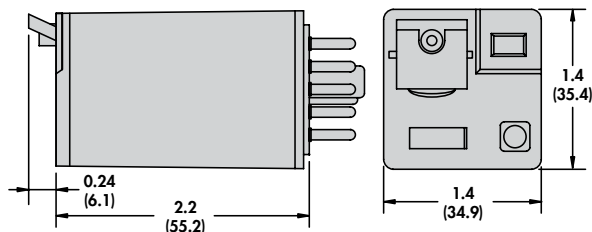
(UL 508)

750XCX

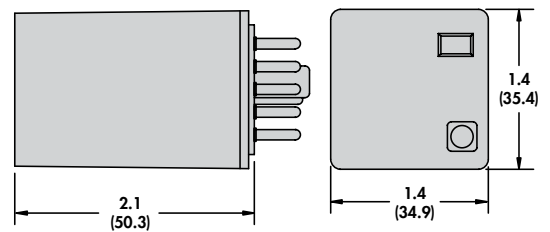
| Contact Characteristics                   |                            | Units       | Standard           |
|---|----------------------------|-------------|--------------------|
| Number and type of Contacts               |                            |             | 3PDT               |
| Contact materials                         |                            |             | Silver Alloy       |
| Thermal (Carrying) Current                |                            | A           | 16                 |
| Maximum Switching Voltage                 |                            | V           | 300                |
| Switching Current @ Voltage               | ~                          | Resistive   | 16A @ 277V 50/60Hz |
|   | ~                          | Resistive   | 16A @ 120V 50/60Hz |
|   | ∴                          | Resistive   | 16A @ 28V          |
|   |                            | HP          | 1/3 @ 120VAC       |
|   |                            | HP          | 1/2 @ 240 VAC      |
|   |                            | Pilot Duty  | B300               |
| Minimum Switching Requirement             |                            | mA          | 100 @ 5VDC (.5W)   |
| <b>Coil Characteristics</b>               |                            |             |                    |
| Voltage Range                             | ~                          | V           | 6...240            |
|   | ∴                          | V           | 6...125            |
| Operating Range                           | % of Nominal               | ~           | 85% to 110%        |
|   |                            | ∴           | 80% to 110%        |
| Average consumption                       | ~                          | VA          | 3                  |
|   | ∴                          | W           | 1.4                |
| Drop-out voltage threshold                | ~                          |             | 15%                |
|   | ∴                          |             | 10%                |
| <b>Performance Characteristics</b>        |                            |             |                    |
| Electrical Life (UL508)                   | Operations @ Rated Current | (Resistive) | 100,000            |
| Mechanical Life                           | Unpowered                  |             | 5,000,000          |
| Operating time (response time)            |                            | ms          | 20                 |
| Dielectric strength                       | Between coil and contact   | ~           | Vrms               |
|   | Between poles              | ~           | Vrms               |
|   | Between contacts           | ~           | Vrms               |
| <b>Environment</b>                        |                            |             |                    |
| Product certifications                    | Standard version           |             | UL, CSA, CE        |
| Ambient air temperature around the device | Storage                    | °C          | -40...+85          |
|   | Operation                  | °C          | -40...+55          |
| Vibration resistance                      | Operational                | g-n         | 3, 10 - 55 Hz      |
| Shock resistance                          |                            | g-n         | 10                 |
| Degree of protection                      |                            |             | IP 40              |
| Weight                                    |                            | grams       | 89                 |



Full Featured Dimensions



Plain Cover Dimensions





Full Featured



Plain Cover

**Standard Part Numbers**

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

| Nominal Voltage      | Coil Resistance | 3PDT Part Number<br>(Full Feature) 16 Amp | 3PDT Part Number<br>(Plain Cover) 16 Amp |
|----------------------|-----------------|---|--|
| AC Operated          |                 |   |  |
| 6 VAC 50/60 Hz       | 4.2 Ohms        | 750XCXM4L-6A                              | <b>750XCXC-6A</b>                        |
| 12 VAC 50/60 Hz      | 18 Ohms         | <b>750XCXM4L-12A</b>                      | <b>750XCXC-12A</b>                       |
| 24 VAC 50/60 Hz      | 72 Ohms         | <b>750XCXM4L-24A</b>                      | <b>750XCXC-24A</b>                       |
| 120 VAC 50/60 Hz     | 1700 Ohms       | <b>750XCXM4L-120A</b>                     | <b>750XCXC-120A</b>                      |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | <b>750XCXM4L-220/240A</b>                 | <b>750XCXC-220/240A</b>                  |
| DC Operated          |                 |   |  |
| 6 VDC                | 32 Ohms         | 750XCXM4L-6D                              | <b>750XCXC-6D</b>                        |
| 12 VDC               | 120 Ohms        | <b>750XCXM4L-12D</b>                      | <b>750XCXC-12D</b>                       |
| 24 VDC               | 470 Ohms        | <b>750XCXM4L-24D</b>                      | <b>750XCXC-24D</b>                       |
| 48 VDC               | 1800 Ohms       | <b>750XCXM4L-48D</b>                      | <b>750XCXC-48D</b>                       |
| 110-125 VDC          | 10000 Ohms      | <b>750XCXM4L-110/125D</b>                 | <b>750XCXC-110/125D</b>                  |

**Custom Relay Part Number Builder**

| Series | Contact Configuration | Contact Code                  | Cover Options                             | Feature Options  | Coil Voltage                     |
|--------|-----------------------|-------------------------------|---|--|----------------------------------|
| 750    | XCX                   |                               | C   | ML-  | 240A                             |
| 750    | XCX = 3PDT            | 16 Amp Silver Alloy = No Code | Full Feature = No Code<br>Plain Cover = C | 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: 70-750E11-1, 70-750DL11-1, 70-465-1, 70-170-1**

16-1351  
Metal Hold-Down Clip  
Section 3, p.8-11

