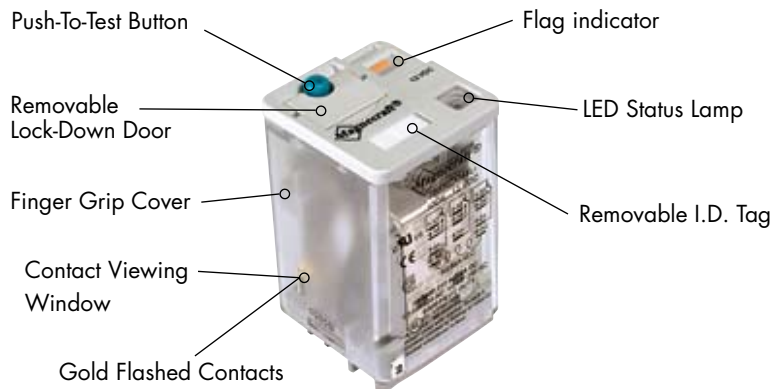


## 788 Power Relays/SPDT, 16 Amp Rating (DC &amp; AC)



## General Specifications

(UL 508)

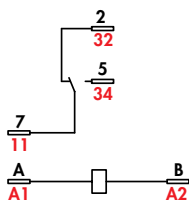
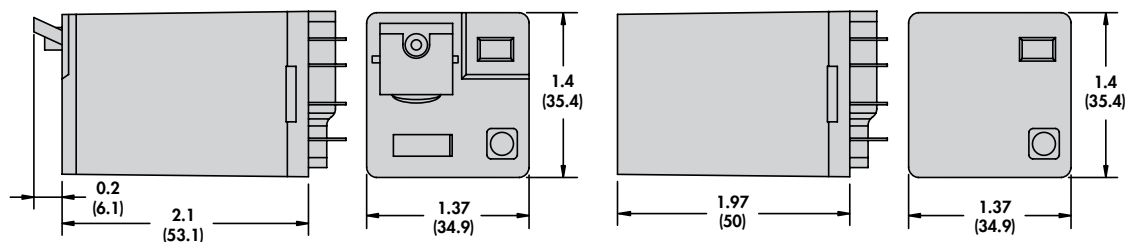
788XAX

| 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      |
|   |                            | Pilot Duty  | B300               |
| Minimum Switching Requirement             |                            | mA          | 100 @ 5VDC (.5W)   |
| Coil Characteristics                      |                            |             |                    |
| Voltage Range                             | ~                          | V           | 6...240, 50/60 Hz  |
|   | ~                          | 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%                |
| 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       | 88                 |

## 788XAX

## Full Featured Dimensions

## Plain Cover Dimensions

Wiring Diagram  
Bottom View



Full Featured



Plain Cover

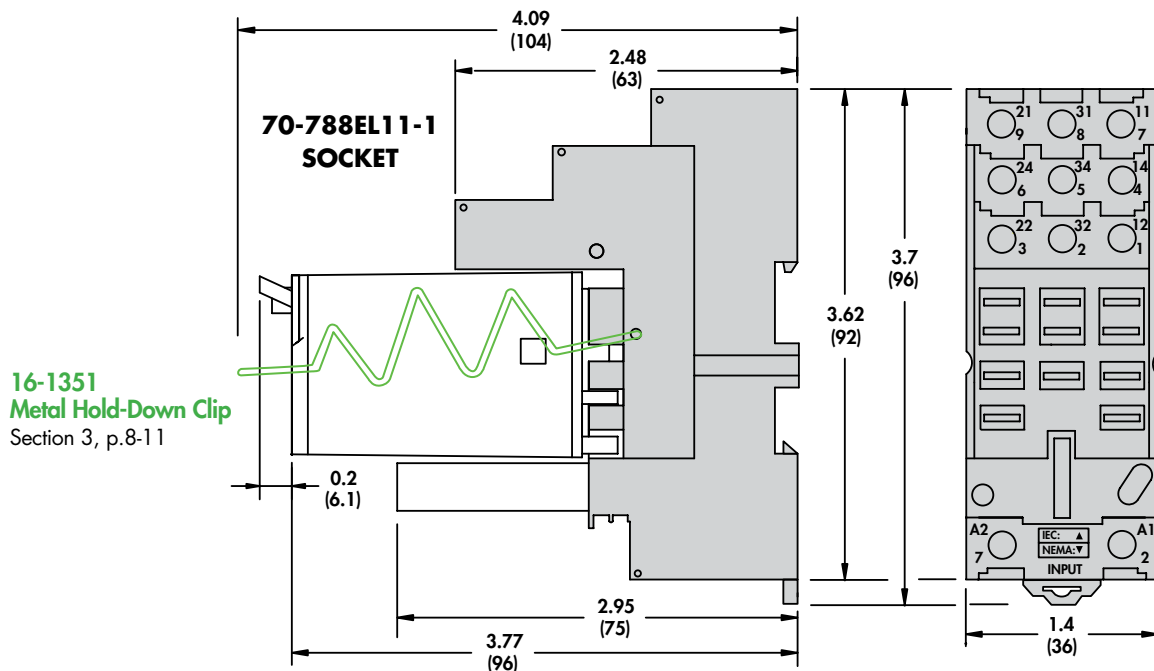
Standard Part Numbers

| 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        | 788XAXM4L-6A                              | 788XAXC-6A                               |
| 12 VAC 50/60 Hz      | 18 Ohms         | 788XAXM4L-12A                             | 788XAXC-12A                              |
| 24 VAC 50/60 Hz      | 72 Ohms         | 788XAXM4L-24A                             | 788XAXC-24A                              |
| 120 VAC 50/60 Hz     | 1700 Ohms       | 788XAXM4L-120A                            | 788XAXC-120A                             |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | 788XAXM4L-220/240A                        | 788XAXC-220/240A                         |
| DC Operated          |                 |   |  |
| 6 VDC                | 32 Ohms         | 788XAXM4L-6D                              | 788XAXC-6D                               |
| 12 VDC               | 120 Ohms        | 788XAXM4L-12D                             | 788XAXC-12D                              |
| 24 VDC               | 470 Ohms        | 788XAXM4L-24D                             | 788XAXC-24D                              |
| 48 VDC               | 1800 Ohms       | 788XAXM4L-48D                             | 788XAXC-48D                              |
| 110-125 VDC          | 10000 Ohms      | 788XAXM4L-110/125D                        | 788XAXC-110/125D                         |

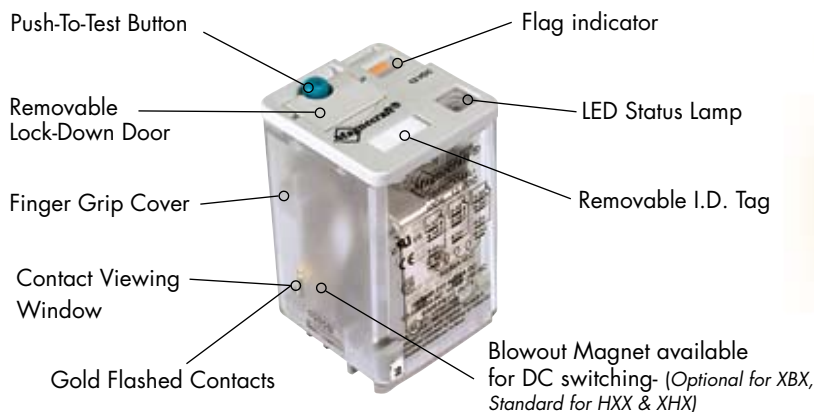
Custom Relay Part Number Builder

| 788    | XAX             |                               | C   | T                                    | ML-  | 240A                             |
|--------|-----------------|-------------------------------|---|--------------------------------------|--|----------------------------------|
| Series | Contact Config. | Contact Code                  | Cover Options                             | Terminal Style                       | Feature Options  | Coil Voltage                     |
| 788    | XAX = SPDT      | 16 Amp Silver Alloy = No Code | 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: 70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2



## 788 Power Relays/SPDT or DPDT, 16 Amp Rating (DC &amp; AC)



## General Specifications

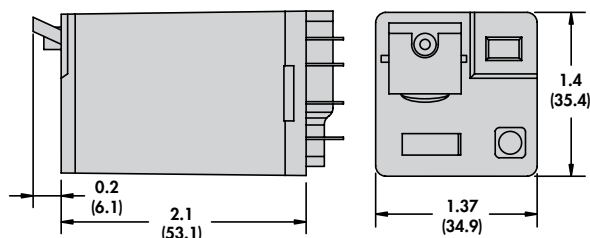
(UL 508)

788XBX

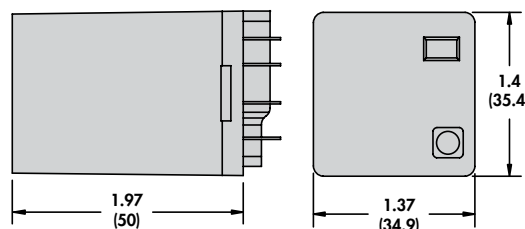
788HXX69, 788XHX69

| Contact Characteristics   |                            | Units        | Standard           | Standard               |
|---|----------------------------|--------------|--------------------|------------------------|
| Number and type of Contacts   |                            |              | DPDT               | SPST-NO-DM, SPDT-DM-DB |
| Contact materials   |                            |              | Silver Alloy       | Silver Alloy           |
| Thermal (Carrying) Current  |                            | A            | 16                 | 16                     |
| Maximum Switching Voltage   |                            | V            | 300                | 300                    |
| Switching Current @ Voltage   |                            | ~ Resistive  | 16A @ 277V 50/60Hz | 16A @ 277V 50/60Hz     |
|   |                            | ~ Resistive  | 16A @ 120V 50/60Hz | 16A @ 120V 50/60Hz     |
|   |                            | ~ Resistive  | 16A @ 28V          | 16A @ 28V              |
|   |                            | HP           | 1/3 @ 120VAC       | 1/3 @ 120VAC           |
|   |                            | HP           | 1/2 @ 240 VAC      | 1/2 @ 240 VAC          |
|   |                            | Pilot Duty   | B300               | B300                   |
| Current rating with magnetic blowout<br>*(Optional for XBX, Standard for HXX & XHX) |                            | ~ A          | 3 @ 150VDC*        | 10 @ 150VDC*           |
| Minimum Switching Requirement   |                            | mA           | 100 @ 5VDC (.5W)   | 100 @ 5VDC (.5W)       |
| Coil Characteristics  |                            |              |                    |                        |
| Voltage Range   |                            | ~ V          | 6...240, 50/60 Hz  | 6...240, 50/60 Hz      |
|   |                            | ~ V          | 6...125            | 6...125                |
| Operating Range   |                            | % of Nominal | 85% to 110%        | 85% to 110%            |
|   |                            |              | 80% to 110%        | 80% to 110%            |
| Average consumption   |                            | ~ VA         | 3                  | 3                      |
|   |                            | ~ W          | 1.4                | 1.4                    |
| Drop-out voltage threshold  |                            | ~ %          | 15%                | 15%                    |
|   |                            |              | 10%                | 10%                    |
| Performance Characteristics   |                            |              |                    |                        |
| Electrical Life (UL508)   | Operations @ Rated Current | (Resistive)  | 100,000            | 100,000                |
| Mechanical Life   | Unpowered                  |              | 5,000,000          | 5,000,000              |
| Operating time (response time)  |                            | ms           | 20                 | 20                     |
| Dielectric strength   | Between coil and contact   | ~ Vrms       | 1500               | 1500                   |
|   | Between poles              | ~ Vrms       | 1500               | 1500                   |
|   | Between contacts           | ~ Vrms       | 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        | 88                 | 88                     |

## Full Featured Dimensions



## Plain Cover Dimensions





Full Featured



Plain Cover

Standard Part Numbers

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

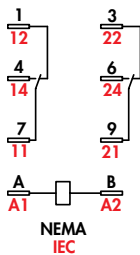
| Nominal Voltage      | Coil Resistance | DPDT Part Number<br>(Full Feature) 16 Amp | DPDT Part Number<br>(Plain Cover) 16 Amp |
|----------------------|-----------------|---|--|
| AC Operated          |                 |   |  |
| 6 VAC 50/60 Hz       | 4.2 Ohms        | 788XBXM4L-6A                              | <b>788BXC-6A</b>                         |
| 12 VAC 50/60 Hz      | 18 Ohms         | 788XBXM4L-12A                             | <b>788BXC-12A</b>                        |
| 24 VAC 50/60 Hz      | 72 Ohms         | <b>788XBXM4L-24A</b>                      | <b>788BXC-24A</b>                        |
| 120 VAC 50/60 Hz     | 1700 Ohms       | 788XBXM4L-120A                            | <b>788BXC-120A</b>                       |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | <b>788XBXM4L-220/240A</b>                 | <b>788BXC-220/240A</b>                   |
| DC Operated          |                 |   |  |
| 6 VDC                | 32 Ohms         | 788XBXM4L-6D                              | <b>788BXC-6D</b>                         |
| 12 VDC               | 120 Ohms        | <b>788XBXM4L-12D</b>                      | <b>788BXC-12D</b>                        |
| 24 VDC               | 470 Ohms        | <b>788XBXM4L-24D</b>                      | <b>788BXC-24D</b>                        |
| 48 VDC               | 1800 Ohms       | 788XBXM4L-48D                             | <b>788BXC-48D</b>                        |
| 110-125 VDC          | 10000 Ohms      | <b>788XBXM4L-110/125D</b>                 | <b>788BXC-110/125D</b>                   |

Custom Relay Part Number Builder

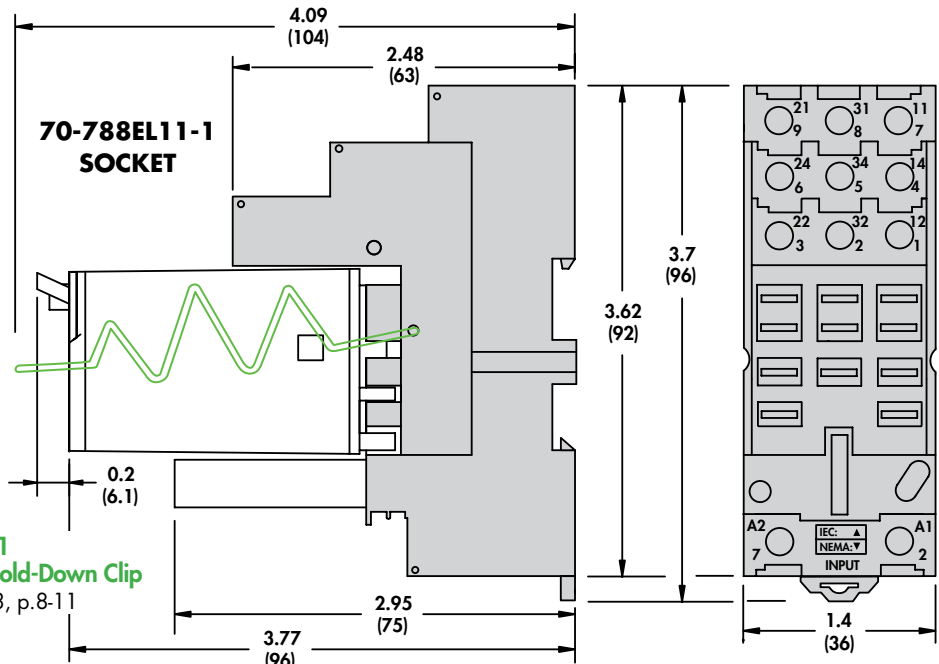
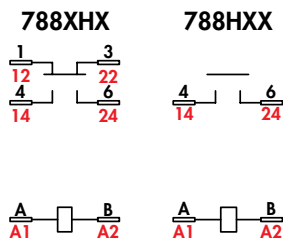
| Series | Contact Configuration | DC Switching                      | Cover Options                             | Terminal Style                       | Feature Options  | Coil Voltage                         |
|--------|-----------------------|-----------------------------------|---|--------------------------------------|--|--------------------------------------|
| 788    | XBX = DPDT            | Magnetic Blowout = 69             | 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 | 240A<br>VAC = 6-240A<br>VDC = 6-125D |
|        | XHX = SPDT-DM-DB      | <i>(Optional for XBx)</i>         |   |                                      |  |                                      |
|        | HXX = SPST-NO-DM      | <i>Standard for HXX &amp; XHX</i> |   |                                      |  |                                      |

For other mating sockets, see Section 2: 70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2

788XBx

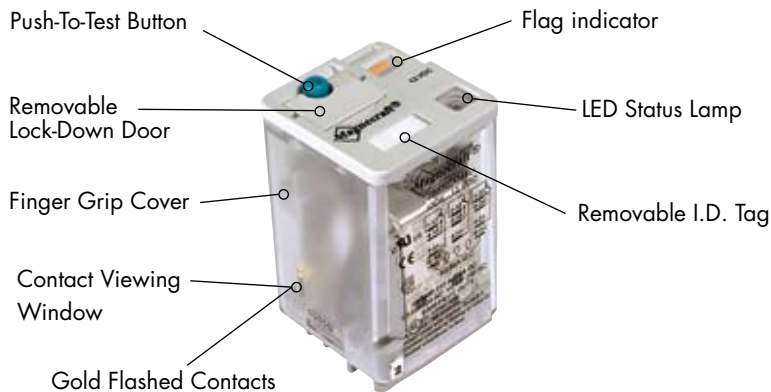


Wiring Diagrams  
Bottom View



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

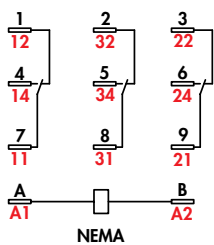
## 788 Power Relays/3PDT, 16 Amp Rating (DC &amp; AC)

**General Specifications**

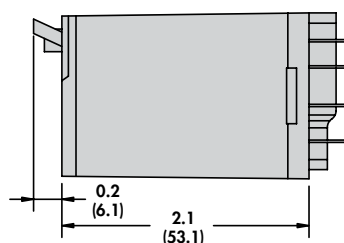
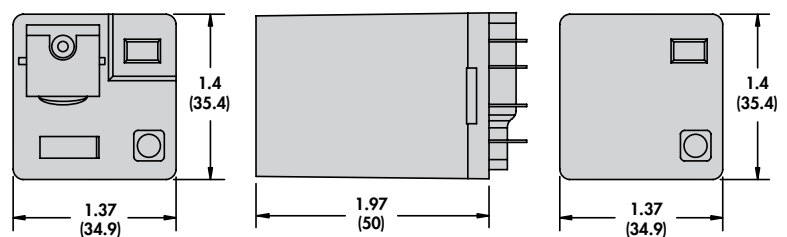
(UL 508)

**788XCX**

| 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      |
| Minimum Switching Requirement             |                            | Pilot Duty  | B300               |
|   |                            | mA          | 100 @ 5VDC (.5W)   |
| Coil Characteristics                      |                            |             |                    |
| Voltage Range                             |                            | V           | 6...240, 50/60 Hz  |
| Operating Range                           | % of Nominal               |             | 6...125            |
|   |                            |             | 85% to 110%        |
| Average consumption                       |                            | ~           | 80% to 110%        |
|   |                            | VA          | 3                  |
| Drop-out voltage threshold                |                            | ~           | 1.4                |
|   |                            | W           | 10%                |
|   |                            | ~           | 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       | 88                 |

**788XCX**

**Wiring Diagram**  
Bottom View

**Full Featured Dimensions****Plain Cover Dimensions**



Full Featured



Plain Cover

**Standard Part Numbers**

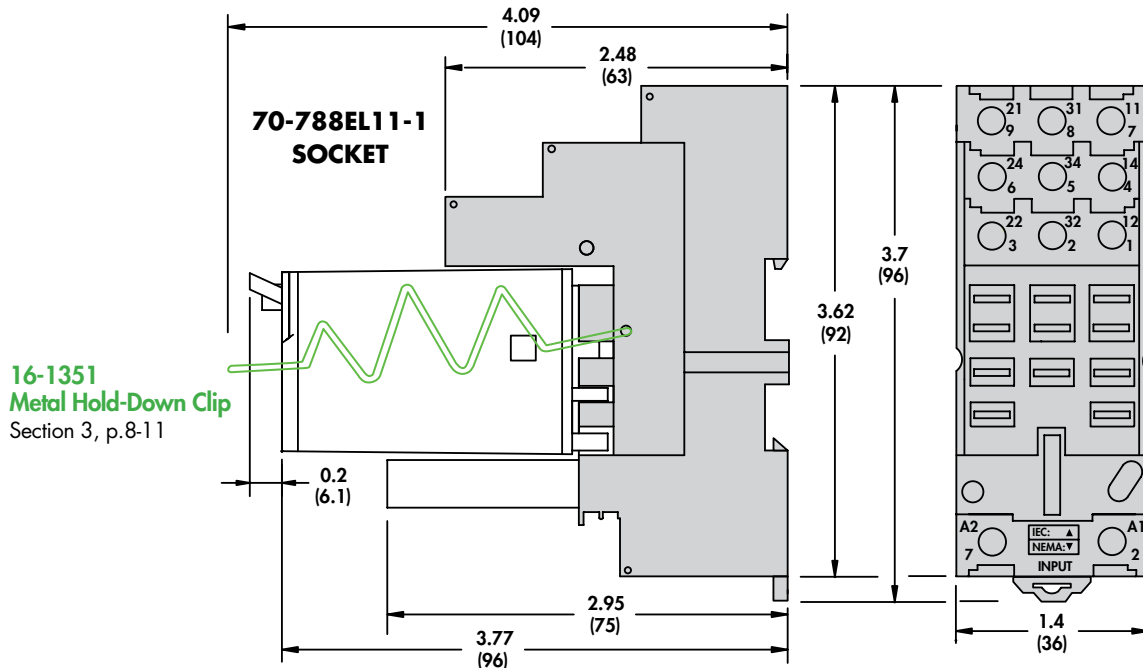
**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

| Nominal Voltage      | Coil Resistance | 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        | 788XCM4L-6A                               | <b>788XCXC-6A</b>                        |
| 12 VAC 50/60 Hz      | 18 Ohms         | 788XCM4L-12A                              | <b>788XCXC-12A</b>                       |
| 24 VAC 50/60 Hz      | 72 Ohms         | <b>788XCM4L-24A</b>                       | <b>788XCXC-24A</b>                       |
| 120 VAC 50/60 Hz     | 1700 Ohms       | <b>788XCM4L-120A</b>                      | <b>788XCXC-120A</b>                      |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | <b>788XCM4L-220/240A</b>                  | <b>788XCXC-220/240A</b>                  |
| DC Operated          |                 |   |  |
| 6 VDC                | 32 Ohms         | 788XCM4L-6D                               | <b>788XCXC-6D</b>                        |
| 12 VDC               | 120 Ohms        | <b>788XCM4L-12D</b>                       | <b>788XCXC-12D</b>                       |
| 24 VDC               | 470 Ohms        | <b>788XCM4L-24D</b>                       | <b>788XCXC-24D</b>                       |
| 48 VDC               | 1800 Ohms       | 788XCM4L-48D                              | <b>788XCXC-48D</b>                       |
| 110-125 VDC          | 10000 Ohms      | <b>788XCM4L-110/125D</b>                  | <b>788XCXC-110/125D</b>                  |

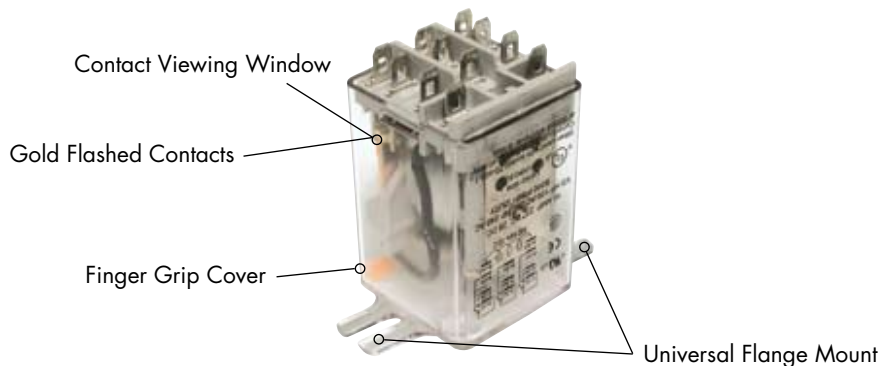
**Custom Relay Part Number Builder**

| 788    | XCX             |                               | C   | T                                    | ML-  | 240A                             |
|--------|-----------------|-------------------------------|---|--------------------------------------|--|----------------------------------|
| Series | Contact Config. | Contact Code                  | Cover Options                             | Terminal Style                       | Feature Options  | Coil Voltage                     |
| 788    | XCX = 3PDT      | 16 Amp Silver Alloy = No Code | 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: 70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2**



# 788 Power Relays – Mounting Solutions/SPDT, DPDT, 3PDT, 16 Amp Rating (DC & AC)



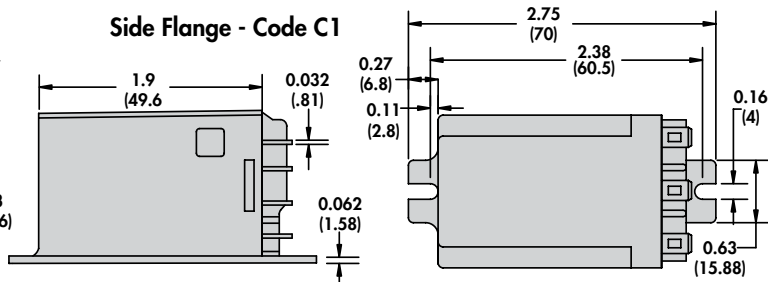
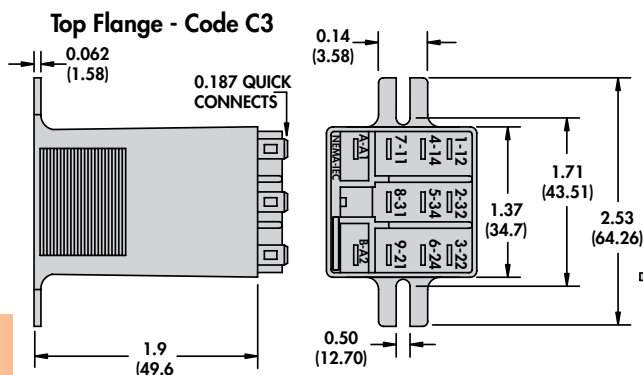
## General Specifications

(UL 508)

788XAX

788XBX/XCX

| Contact Characteristics                        |                            | Units       | Standard           | Standard           |
|--|----------------------------|-------------|--------------------|--------------------|
| Number and type of Contacts                    |                            |             | SPDT               | DPDT/3PDT          |
| Contact materials                              |                            |             | Silver Alloy       | Silver Alloy       |
| Thermal (Carrying) Current                     |                            | A           | 16                 | 16                 |
| Maximum Switching Voltage                      |                            | V           | 300                | 300                |
| Switching Current @ Voltage                    |                            | ~ Resistive | 16A @ 277V 50/60Hz | 16A @ 277V 50/60Hz |
|  |                            | ~ Resistive | 16A @ 120V 50/60Hz | 16A @ 120V 50/60Hz |
|  |                            | ~ Resistive | 16A @ 28V          | 16A @ 28V          |
|  |                            | HP          | 1/3 @ 120VAC       | 1/3 @ 120VAC       |
|  |                            | HP          | 1/2 @ 240 VAC      | 1/2 @ 240 VAC      |
|  |                            | Pilot Duty  | B300               | B300               |
| Current rating with magnetic blowout - Code 69 |                            | A           |                    | 3 @ 150VDC         |
| Minimum Switching Requirement                  |                            | mA          | 100 @ 5VDC (.5W)   | 100 @ 5VDC (.5W)   |
| Coil Characteristics                           |                            |             |                    |                    |
| Voltage Range                                  |                            | ~ V         | 6...240, 50/60 Hz  | 6...240, 50/60 Hz  |
|  |                            | ~ V         | 6...125            | 6...125            |
| Operating Range                                | % of Nominal               | ~           | 85% to 110%        | 85% to 110%        |
|  |                            | ~           | 80% to 110%        | 80% to 110%        |
| Average consumption                            |                            | ~ VA        | 3                  | 2.0 - 3.0          |
|  |                            | ~ W         | 1.4                | 1.4                |
| Drop-out voltage threshold                     |                            | ~           | 15%                | 10%                |
|  |                            | ~           | 10%                | 10%                |
| Performance Characteristics                    |                            |             |                    |                    |
| Electrical Life (UL508)                        | Operations @ Rated Current | (Resistive) | 100,000            | 100,000            |
| Mechanical Life                                | Unpowered                  |             | 5,000,000          | 5,000,000          |
| Operating time (response time)                 |                            | ms          | 20                 | 20                 |
| Dielectric strength                            | Between coil and contact   | ~ Vrms      | 1500               | 1500               |
|  | Between poles              | ~ Vrms      | 1500               | 1500               |
|  | Between contacts           | ~ Vrms      | 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       | 88                 | 88                 |





Top Flange



Side Flange



DIN Mount

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

**Standard Part Numbers**

**788XAX**

**788XBX**

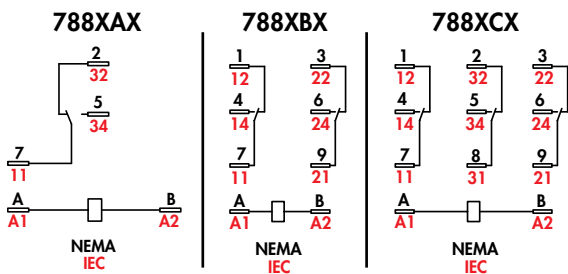
| Nominal Voltage      | Coil Resistance | SPDT Part Number (Top Flange) 16 Amp | SPDT Part Number (Side Flange) 16 Amp | DPDT Part Number (Top Flange) 16 Amp | DPDT Part Number (Side Flange) 16 Amp |
|----------------------|-----------------|--------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
| AC Operated          |                 |                                      |                                       |                                      |                                       |
| 6 VAC 50/60 Hz       | 4.2 Ohms        | 788XAXC3-6A                          | 788XAXC1-6A                           | 788XBXC3-6A                          | 788XBXC1-6A                           |
| 12 VAC 50/60 Hz      | 18 Ohms         | 788XAXC3-12A                         | 788XAXC1-12A                          | 788XBXC3-12A                         | 788XBXC1-12A                          |
| 24 VAC 50/60 Hz      | 72 Ohms         | 788XAXC3-24A                         | 788XAXC1-24A                          | 788XBXC3-24A                         | 788XBXC1-24A                          |
| 120 VAC 50/60 Hz     | 1700 Ohms       | 788XAXC3-120A                        | 788XAXC1-120A                         | 788XBXC3-120A                        | <b>788XBXC1-120A</b>                  |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | 788XAXC3-220/240A                    | 788XAXC1-220/240A                     | 788XBXC3-220/240A                    | <b>788XBXC1-220/240A</b>              |
| DC Operated          |                 |                                      |                                       |                                      |                                       |
| 6 VDC                | 32 Ohms         | 788XAXC3-6D                          | 788XAXC1-6D                           | 788XBXC3-6D                          | 788XBXC1-6D                           |
| 12 VDC               | 120 Ohms        | 788XAXC3-12D                         | 788XAXC1-12D                          | 788XBXC3-12D                         | <b>788XBXC1-12D</b>                   |
| 24 VDC               | 470 Ohms        | 788XAXC3-24D                         | 788XAXC1-24D                          | 788XBXC3-24D                         | <b>788XBXC1-24D</b>                   |
| 48 VDC               | 1800 Ohms       | 788XAXC3-48D                         | 788XAXC1-48D                          | 788XBXC3-48D                         | 788XBXC1-48D                          |
| 110-125 VDC          | 10000 Ohms      | 788XAXC3-110/125D                    | 788XAXC1-110/125D                     | 788XBXC3-110/125D                    | 788XBXC1-110/125D                     |

**788XCX**

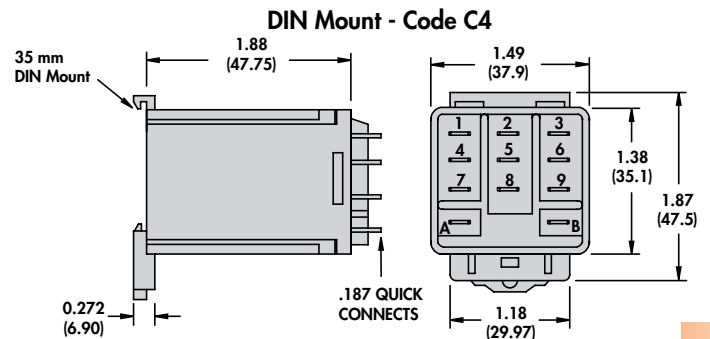
| Nominal Voltage      | Coil Resistance | 3PDT Part Number (Top Flange) 16 Amp | 3PDT Part Number (Side Flange) 16 Amp |
|----------------------|-----------------|--------------------------------------|---------------------------------------|
| AC Operated          |                 |                                      |                                       |
| 6 VAC 50/60 Hz       | 4.2 Ohms        | 788XCXC3-6A                          | 788XCXC1-6A                           |
| 12 VAC 50/60 Hz      | 18 Ohms         | 788XCXC3-12A                         | 788XCXC1-12A                          |
| 24 VAC 50/60 Hz      | 72 Ohms         | 788XCXC3-24A                         | 788XCXC1-24A                          |
| 120 VAC 50/60 Hz     | 1700 Ohms       | 788XCXC3-120A                        | <b>788XCXC1-120A</b>                  |
| 220-240 VAC 50/60 Hz | 7200 Ohms       | 788XCXC3-220/240A                    | <b>788XCXC1-220/240A</b>              |
| DC Operated          |                 |                                      |                                       |
| 6 VDC                | 32 Ohms         | 788XCXC3-6D                          | 788XCXC1-6D                           |
| 12 VDC               | 120 Ohms        | 788XCXC3-12D                         | 788XCXC1-12D                          |
| 24 VDC               | 470 Ohms        | 788XCXC3-24D                         | <b>788XCXC1-24D</b>                   |
| 48 VDC               | 1800 Ohms       | 788XCXC3-48D                         | 788XCXC1-48D                          |
| 110-125 VDC          | 10000 Ohms      | 788XCXC3-110/125D                    | <b>788XCXC1-110/125D</b>              |

**Custom Relay Part Number Builder**

| Series | Contact Config. | Contact Code                  | Cover Options    | Feature Options      | Coil Voltage   |
|--------|-----------------|-------------------------------|------------------|----------------------|----------------|
| 788    | XAX = SPDT      | 16 Amp Silver Alloy = No Code | Side Flange = C1 | Side Push Button = M | VAC = 6 - 240A |
|        | XBX = DPDT      |                               | Top Flange = C3  | Bi-Polar LED = L     | VDC = 6 - 125D |
|        | XCX = 3PDT      |                               | DIN Mount = C4   |                      |                |



**Wiring Diagrams Bottom View**



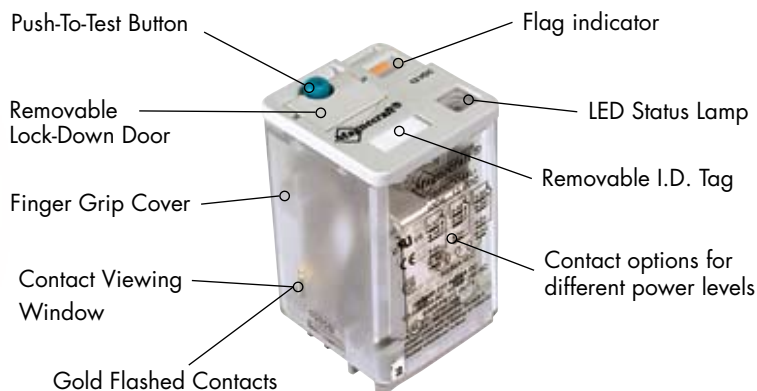


## 788V Power Relays/DPST and 3PST, 16 Amp Rating (DC and AC), 3mm Spacing



### Benefits of the 3mm Contact Gap Design:

- High Dielectric Strength Across Contacts.
- Improved Arc Quenching When Breaking High Current Loads.
- Meets European Spacing Requirements of 8mm Across Surfaces.



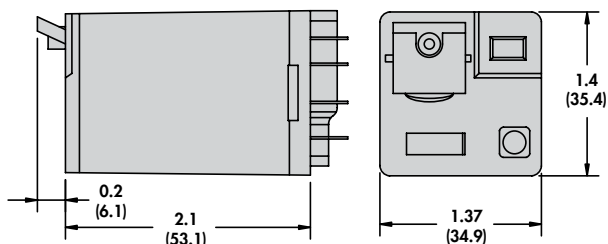
### General Specifications

(UL 508)

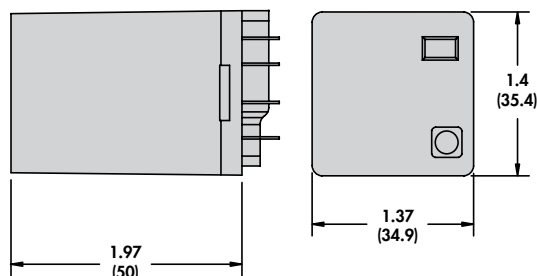
788VBXX, CXX

| Contact Characteristics        |  | Units                      | Standard            |
|--------------------------------|--|----------------------------|---------------------|
| Number and type of Contacts    |  |                            | DPST, 3PST (N.O.)   |
| 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)    |
| Coil Characteristics           |  |                            |                     |
| Voltage Range                  |  | ~ V                        | 6...240, 50/60 Hz   |
|                                |  | ≡ V                        | 6...125             |
| Operating Range                |  | % of Nominal               | ~ 85% to 110%       |
|                                |  | ≡                          | 80% to 110%         |
| Average consumption            |  | ~ VA                       | 2.0 - 3.0           |
|                                |  | ≡ W                        | 1.4                 |
| Drop-out voltage threshold     |  | ~                          | 10%                 |
|                                |  | ≡                          | 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 4000         |
|                                |  | Between poles              | ~ Vrms 2000         |
|                                |  | Between contacts           | ~ Vrms 1500         |
| Environment                    |  |                            |                     |
| Product certifications         |  | Standard version           | UL, CSA, CE         |
| Ambient air temperature        |  | Storage                    | °C -40...+85        |
| around the device              |  | 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                      | 88                  |

### Full Featured Dimensions



### Plain Cover Dimensions





Full Featured



Plain Cover

Standard Part Numbers

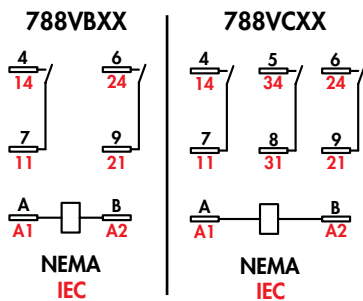
| Nominal Voltage<br>AC Operated | Coil Resistance | DPST Part Number<br>(Full Feature) | DPST Part Number<br>(Plain Cover) | DPST Superceding<br>(Plain Cover) |
|--------------------------------|-----------------|------------------------------------|-----------------------------------|-----------------------------------|
| 6 VAC 50/60 Hz                 | 4.2 Ohms        | 788VBXXM4L-6A                      | 788VBXXC-6A                       | 388VBXXC-6A                       |
| 12 VAC 50/60 Hz                | 18 Ohms         | 788VBXXM4L-12A                     | 788VBXXC-12A                      | 388VBXXC-12A                      |
| 24 VAC 50/60 Hz                | 72 Ohms         | 788VBXXM4L-24A                     | 788VBXXC-24A                      | 388VBXXC-24A                      |
| 120 VAC 50/60 Hz               | 1700 Ohms       | 788VBXXM4L-120A                    | 788VBXXC-120A                     | 388VBXXC-120A                     |
| 220-240 VAC 50/60 Hz           | 7200 Ohms       | 788VBXXM4L-220/240A                | 788VBXXC-220/240A                 | 388VBXXC-220/240A                 |
| DC Operated                    |                 |                                    |                                   |                                   |
| 6 VDC                          | 32 Ohms         | 788VBXXM4L-6D                      | 788VBXXC-6D                       | 388VBXXC-6D                       |
| 12 VDC                         | 120 Ohms        | 788VBXXM4L-12D                     | 788VBXXC-12D                      | 388VBXXC-12D                      |
| 24 VDC                         | 470 Ohms        | 788VBXXM4L-24D                     | 788VBXXC-24D                      | 388VBXXC-24D                      |
| 48 VDC                         | 1800 Ohms       | 788VBXXM4L-48D                     | 788VBXXC-48D                      | 388VBXXC-48D                      |
| 110-125VDC                     | 10000 Ohms      | 788VBXXM4L-110/125D                | 788VBXXC-110/125D                 | 388VBXXC-110/125D                 |

| Nominal Voltage<br>AC Operated | Coil Resistance | 3PST Part Number<br>(Full Feature) | 3PST Part Number<br>(Plain Cover) | 3PST Superceding<br>(Plain Cover) |
|--------------------------------|-----------------|------------------------------------|-----------------------------------|-----------------------------------|
| 6 VAC 50/60 Hz                 | 4.2 Ohms        | 788VCXXM4L-6A                      | 788VCXXC-6A                       | 388VCXXC-6A                       |
| 12 VAC 50/60 Hz                | 18 Ohms         | 788VCXXM4L-12A                     | 788VCXXC-12A                      | 388VCXXC-12A                      |
| 24 VAC 50/60 Hz                | 72 Ohms         | 788VCXXM4L-24A                     | 788VCXXC-24A                      | 388VCXXC-24A                      |
| 120 VAC 50/60 Hz               | 1700 Ohms       | 788VCXXM4L-120A                    | 788VCXXC-120A                     | 388VCXXC-120A                     |
| 220-240 VAC 50/60 Hz           | 7200 Ohms       | 788VCXXM4L-220/240A                | 788VCXXC-220/240A                 | 388VCXXC-220/240A                 |
| DC Operated                    |                 |                                    |                                   |                                   |
| 6 VDC                          | 32 Ohms         | 788VCXXM4L-6D                      | 788VCXXC-6D                       | 388VCXXC-6D                       |
| 12 VDC                         | 120 Ohms        | 788VCXXM4L-12D                     | 788VCXXC-12D                      | 388VCXXC-12D                      |
| 24 VDC                         | 470 Ohms        | 788VCXXM4L-24D                     | 788VCXXC-24D                      | 388VCXXC-24D                      |
| 48 VDC                         | 1800 Ohms       | 788VCXXM4L-48D                     | 788VCXXC-48D                      | 388VCXXC-48D                      |
| 110-125VDC                     | 10000 Ohms      | 788VCXXM4L-110/125D                | 788VCXXC-110/125D                 | 388VCXXC-110/125D                 |

Custom Relay Part Number Builder

| 788V   | BXX                            | C  | T                                    | ML-  | 240A                             |
|--------|--------------------------------|--|--------------------------------------|--|----------------------------------|
| Series | Contact Configuration          | Cover Options  | Terminal Style                       | Feature Options  | Coil Voltage                     |
| 788V   | BXX = DPST-NO<br>CXX = 3PST-NO | Full Feature = No Code<br>Plain Cover = C<br>Side Flange = C1<br>Top Flange = C3 | 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 |

Other mating sockets see Section 2:  
70-463-1, 70-124-1, 70-124-2,  
70-178-1, 70-178-2



Relay Wiring Diagram  
Bottom View

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

