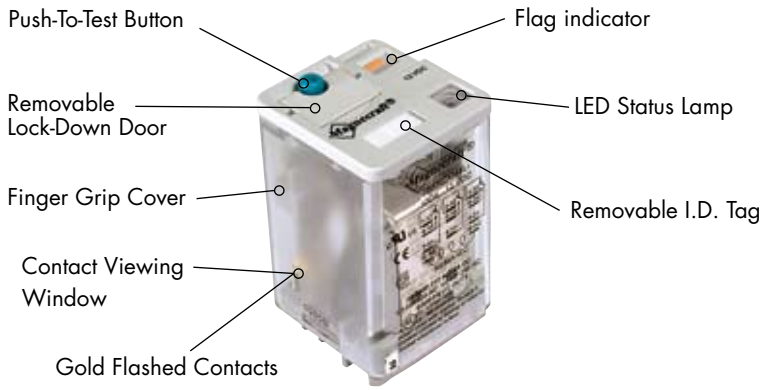
788 Power Relays/SPDT, 16 Amp Rating (DC & AC)

UL Listed When Used With Magnecraft Sockets.

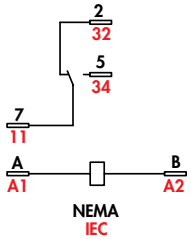
UL Recognized File No. E43641



General Specifications (UL 508)

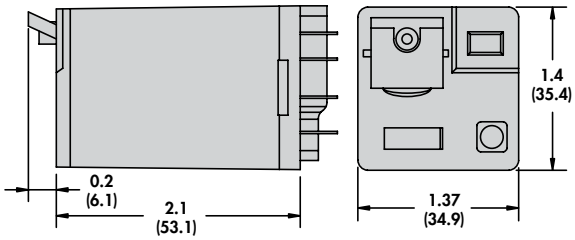
				788XAX
Contact Characteristics			**Units**	**Standard**
Number and type of Contacts				SPDT
Contact materials				Silver Alloy
Thermal (Carrying) Current			A	16
Maximum Switching Voltage			V	300
Switching Current @ Voltage		~	Resistive	16A @ 277V 50/60Hz
		~	Resistive	16A @ 120V 50/60Hz
		⎓	Resistive	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	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

788XAX

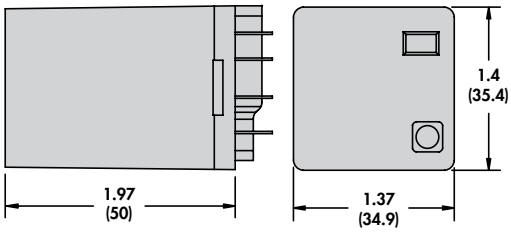


Wiring Diagram Bottom View

Full Featured Dimensions



Plain Cover Dimensions



Full Featured

Plain Cover

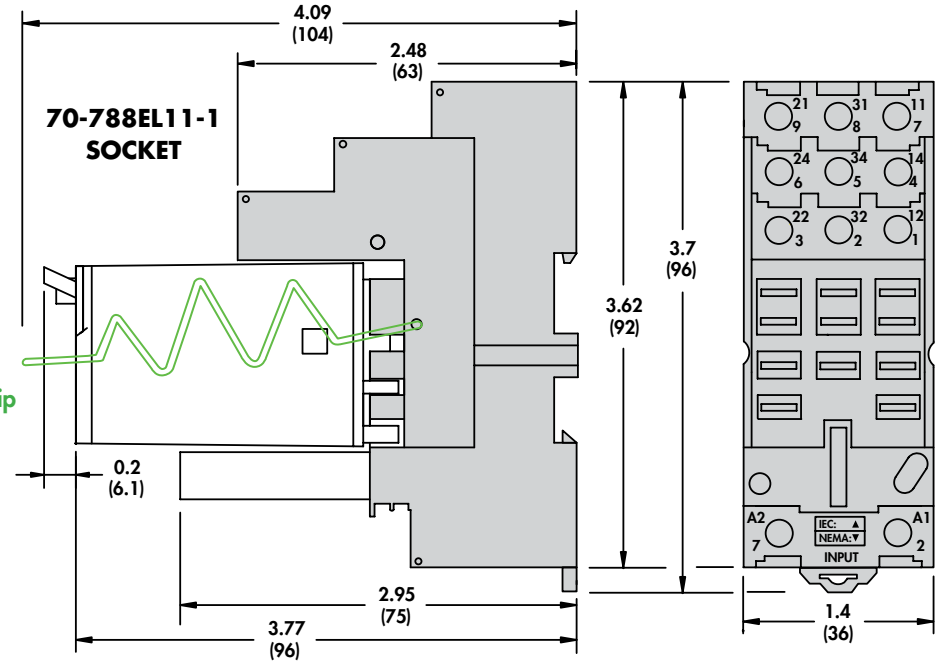
Standard Part Numbers

Nominal Voltage	Coil Resistance	SPDT Part Number (Full Feature) 16 Amp	SPDT Part Number (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	Plug In = No Code	Side Push Button = M	VAC = 6 - 240A
			Plain Cover = C	PC terminal = T	Locking Push Button = M4	VDC = 6 - 125D
					Bi-Polar LED = L	

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

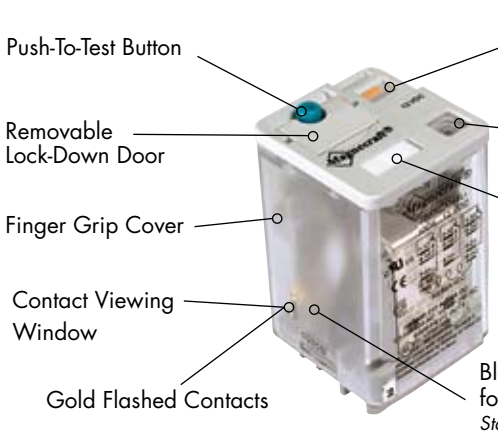


16-1351
Metal Hold-Down Clip
Section 3, p.8-11

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

UL Listed When Used With Magnecraft Sockets.

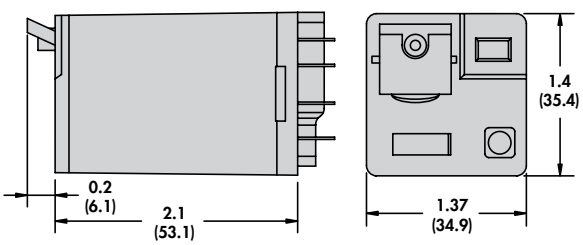
UL Recognized File No. E43641



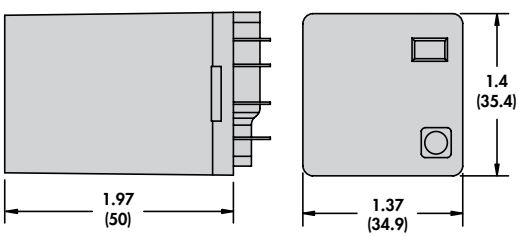
General Specifications (UL 508)

Contact Characteristics			Units	788XBX Standard	788HXX69, 788XHX69 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- *(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	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	88	88

Full Featured Dimensions



Plain Cover Dimensions



Full Featured

Plain Cover

Standard Part Numbers

BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED

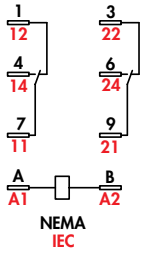
Nominal Voltage	Coil Resistance	DPDT Part Number (Full Feature) 16 Amp	DPDT Part Number (Plain Cover) 16 Amp
AC Operated			
6 VAC 50/60 Hz	4.2 Ohms	788XBXM4L-6A	**788XBXC-6A**
12 VAC 50/60 Hz	18 Ohms	788XBXM4L-12A	**788XBXC-12A**
24 VAC 50/60 Hz	72 Ohms	**788XBXM4L-24A**	**788XBXC-24A**
120 VAC 50/60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

Custom Relay Part Number Builder

788	XBX		C	T	ML-	240A
Series	**Contact Configuration**	**DC Switching**	**Cover Options**	**Terminal Style**	**Feature Options**	**Coil Voltage**
788	XBX = DPDT	Magnetic Blowout = 69	Full Feature = No Code	Plug In = No Code	Side Push Button = M	VAC = 6 -240A
	XHX = SPDT-DM-DB	*(Optional for XBX,*	Plain Cover = C	PC terminal = T	Locking Push Button = M4	VDC = 6 -125D
	HXX = SPST-NO-DM	*Standard for HXX & XHX)*			Bi-Polar LED = L	

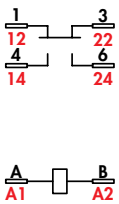
For other mating sockets, see Section 2: 70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2

788XBX

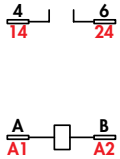


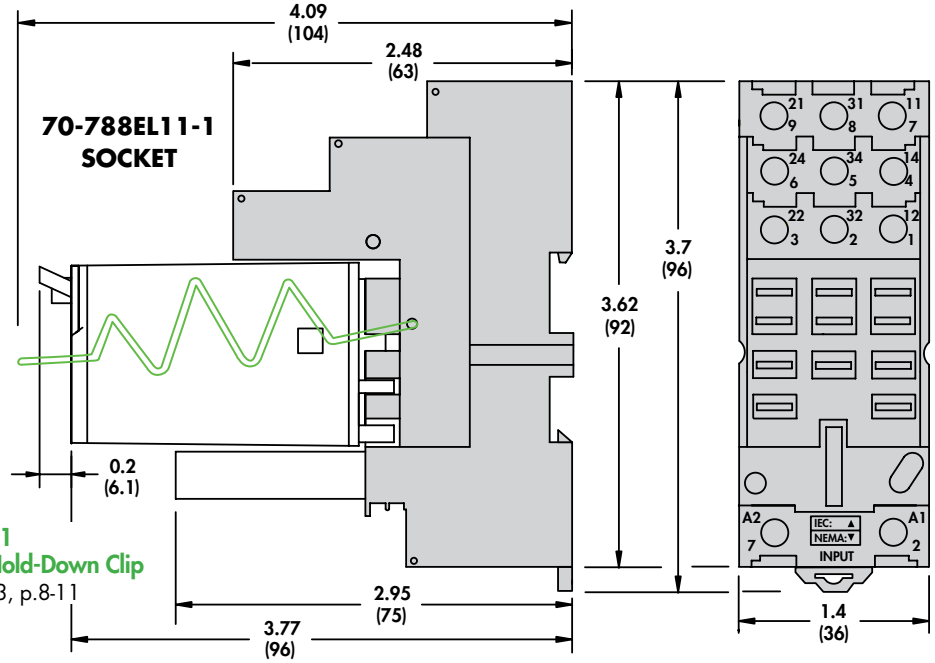
Wiring Diagrams Bottom View

788XHX



788HXX



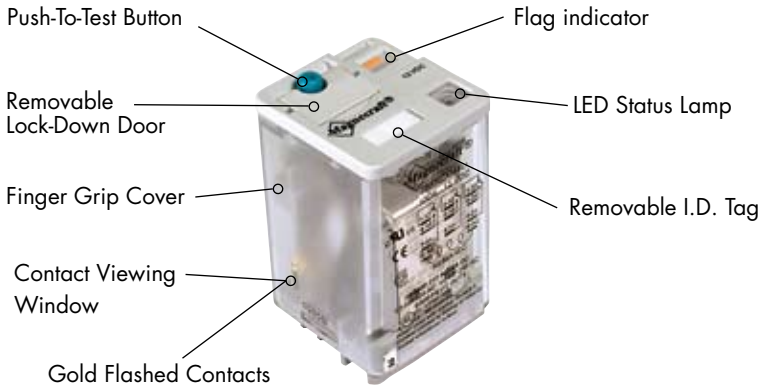


16-1351
Metal Hold-Down Clip
Section 3, p.8-11

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

UL Listed When Used With Magnecraft Sockets.

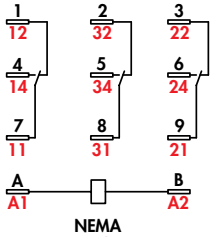
UL Recognized File No. E43641



General Specifications (UL 508)

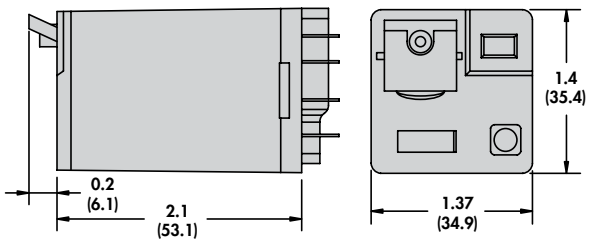
Contact Characteristics			Units	788XCX Standard
Number and type of Contacts				3PDT
Contact materials				Silver Alloy
Thermal (Carrying) Current			A	16
Maximum Switching Voltage			V	300
Switching Current @ Voltage		~	Resistive	16A @ 277V 50/60Hz
		~	Resistive	16A @ 120V 50/60Hz
		⎓	Resistive	16A @ 28V
			HP	1/3 @ 120VAC
			HP	1/2 @ 240 VAC
			Pilot Duty	B300
Minimum Switching Requirement			mA	100 @ 5VDC (.5W)
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		~		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	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

788XCX

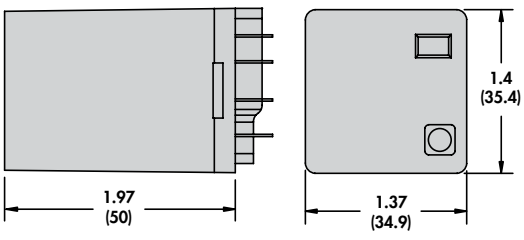


Wiring Diagram Bottom View

Full Featured Dimensions



Plain Cover Dimensions



Full Featured

Plain Cover

Standard Part Numbers

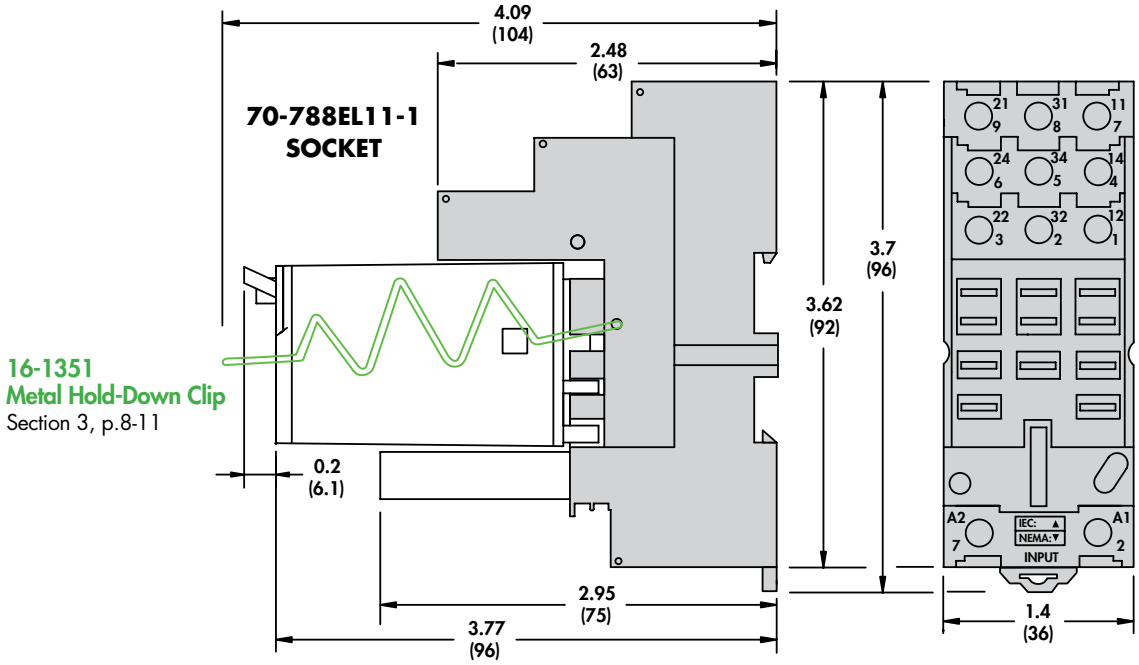
BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED

Nominal Voltage	Coil Resistance	3PDT Part Number (Full Feature) 16 Amp	3PDT Part Number (Plain Cover) 16 Amp
AC Operated			
6 VAC 50/60 Hz	4.2 Ohms	788XCXM4L-6A	**788XCXC-6A**
12 VAC 50/60 Hz	18 Ohms	788XCXM4L-12A	**788XCXC-12A**
24 VAC 50/60 Hz	72 Ohms	**788XCXM4L-24A**	**788XCXC-24A**
120 VAC 50/60 Hz	1700 Ohms	**788XCXM4L-120A**	**788XCXC-120A**
220-240 VAC 50/60 Hz	7200 Ohms	**788XCXM4L-220/240A**	**788XCXC-220/240A**
DC Operated			
6 VDC	32 Ohms	788XCXM4L-6D	**788XCXC-6D**
12 VDC	120 Ohms	**788XCXM4L-12D**	**788XCXC-12D**
24 VDC	470 Ohms	**788XCXM4L-24D**	**788XCXC-24D**
48 VDC	1800 Ohms	788XCXM4L-48D	**788XCXC-48D**
110-125 VDC	10000 Ohms	**788XCXM4L-110/125D**	**788XCXC-110/125D**

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	Plug In = No Code	Side Push Button = M	VAC = 6 - 240A
			Plain Cover = C	PC terminal = T	Locking Push Button = M4	VDC = 6 - 125D
					Bi-Polar LED = L	

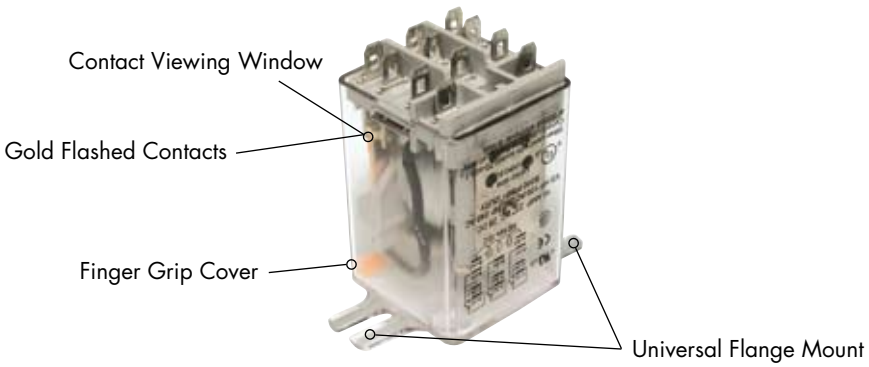
For other mating sockets, see Section 2: 70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2



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

UL Listed When Used With Magnecraft Sockets.

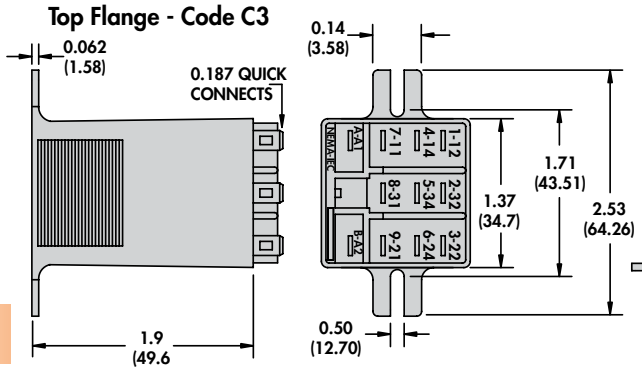
UL Recognized File No. E43641



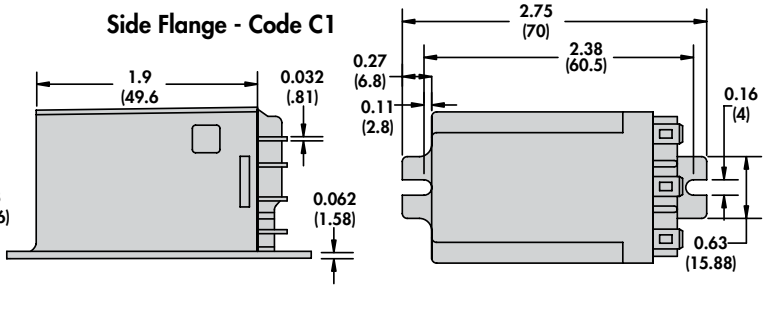
General Specifications (UL 508)

				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	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	88	88

Top Flange - Code C3



Side Flange - Code C1



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	**788XBXC1-120A**
220-240 VAC 50/60 Hz	7200 Ohms	788XAXC3-220/240A	788XAXC1-220/240A	788XBXC3-220/240A	**788XBXC1-220/240A**
DC Operated					
6 VDC	32 Ohms	788XAXC3-6D	788XAXC1-6D	788XBXC3-6D	788XBXC1-6D
12 VDC	120 Ohms	788XAXC3-12D	788XAXC1-12D	788XBXC3-12D	**788XBXC1-12D**
24 VDC	470 Ohms	788XAXC3-24D	788XAXC1-24D	788XBXC3-24D	**788XBXC1-24D**
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

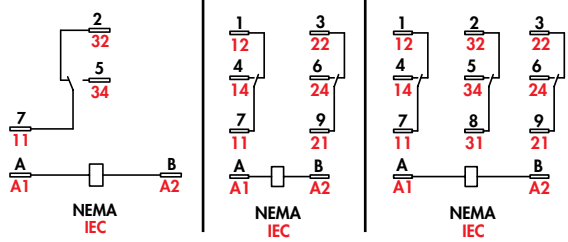
788XCX

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	**788XCXC1-120A**
220-240 VAC 50/60 Hz	7200 Ohms	788XCXC3-220/240A	**788XCXC1-220/240A**
DC Operated			
6 VDC	32 Ohms	788XCXC3-6D	788XCXC1-6D
12 VDC	120 Ohms	788XCXC3-12D	788XCXC1-12D
24 VDC	470 Ohms	788XCXC3-24D	**788XCXC1-24D**
48 VDC	1800 Ohms	788XCXC3-48D	788XCXC1-48D
110-125 VDC	10000 Ohms	788XCXC3-110/125D	**788XCXC1-110/125D**

Custom Relay Part Number Builder

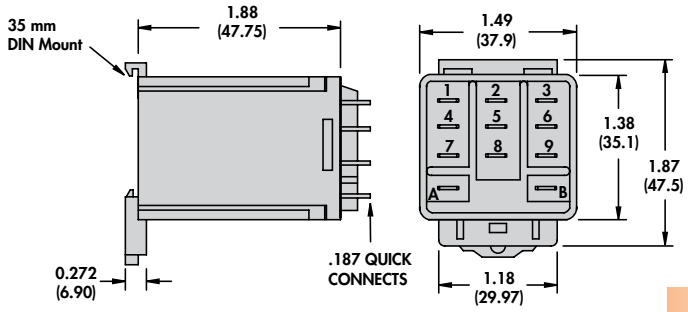
788	XBX		C3	ML-	240A
Series	**Contact Config.**	**Contact Code**	**Cover Options**	**Feature Options**	**Coil Voltage**
788	XAX = SPDT	16 Amp Silver Alloy = No Code	Side Flange = C1	Side Push Button = M	VAC = 6 - 240A
	XBX = DPDT		Top Flange = C3	Bi-Polar LED = L	VDC = 6 - 125D
	XCX = 3PDT		DIN Mount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

788XAX / 788XBX / 788XCX



Wiring Diagrams
Bottom View

DIN Mount - Code C4



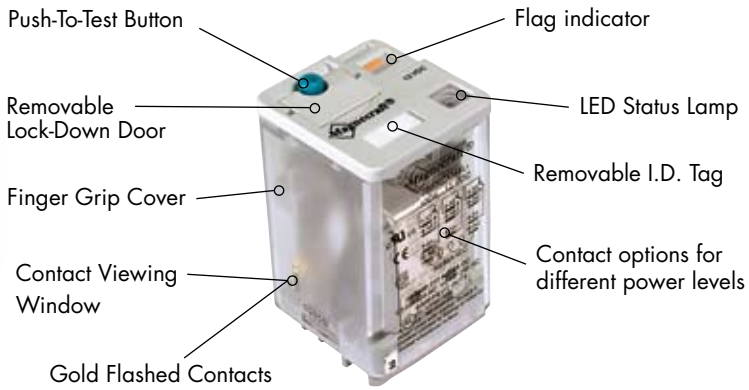
788V Power Relays/DPST and 3PST, 16 Amp Rating (DC and AC), 3mm Spacing

UL Listed When Used With Magnecraft Sockets.

UL Recognized File No. E43641

Benefits of the 3mm Contact Gap Design:

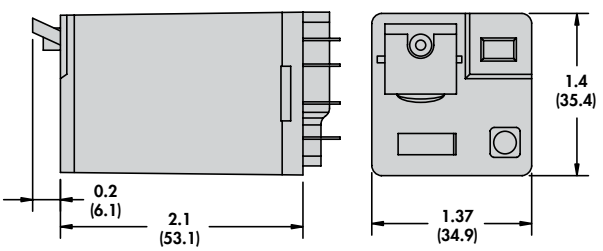
- High Dielectric Strength Across Contacts.
- Improved Arc Quenching When Breaking High Current Loads.
- Meets European Spacing Requirements of 8mm Across Surfaces.



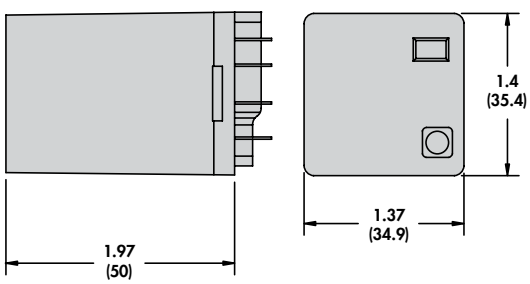
General Specifications (UL 508)

Contact Characteristics			Units	788VBXX, CXX 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

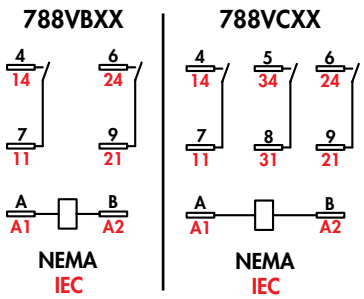
Nominal Voltage AC Operated	Coil Resistance	DPST Part Number (Full Feature)	DPST Part Number (Plain Cover)	*DPST Superceding (Plain Cover)*
6 VAC 50/60 Hz	4.2 Ohms	788VBXXM4L-6A	788VBXXC-6A	*388VBXXC-6A*
12 VAC 50/60 Hz	18 Ohms	788VBXXM4L-12A	788VBXXC-12A	*388VBXXC-12A*
24 VAC 50/60 Hz	72 Ohms	788VBXXM4L-24A	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 AC Operated	Coil Resistance	3PST Part Number (Full Feature)	3PST Part Number (Plain Cover)	*3PST Superceding (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*

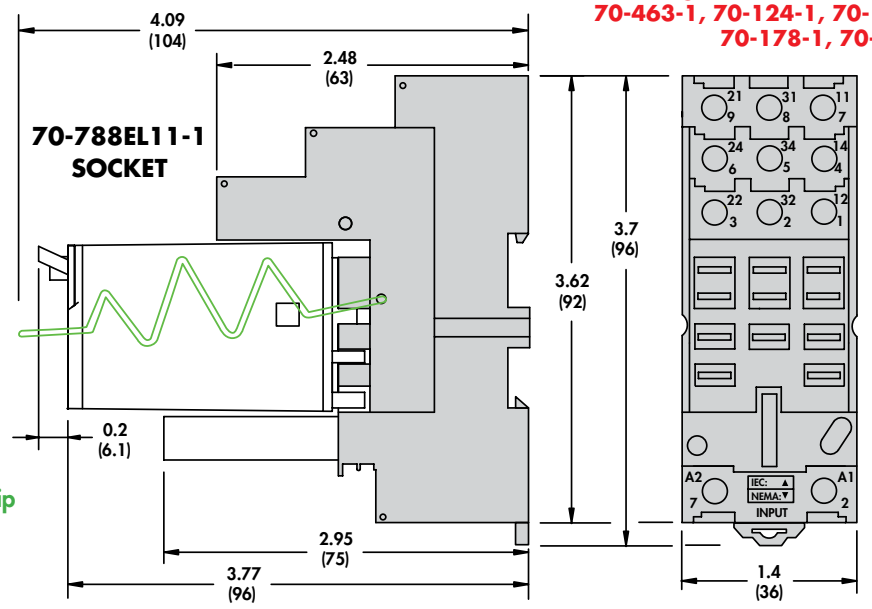
Custom Relay Part Number Builder

788V	BXX	C	T	ML-	240A
Series	**Contact Configuration**	**Cover Options**	**Terminal Style**	**Feature Options**	**Coil Voltage**
788V	BXX = DPST-NO	Full Feature = No Code	Plug In = No Code	Side Push Button = M	VAC = 6 - 240A
	CXX = 3PST-NO	Plain Cover = C	PC terminal = T	Locking Push Button = M4	VDC = 6 - 125D
		Side Flange = C1		Bi-Polar LED = L	
		Top Flange = C3			

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