

# Description

# Magnecraft™ General Purpose Relays

## 788 Series

SPDT, DPDT, 3PDT 12 A



UL listed when used with proper Magnecraft™ sockets



788 Clear Cover



788 Full-Feature Cover

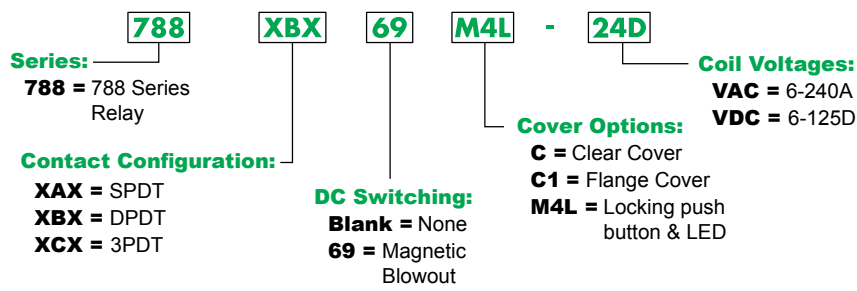
### Description

The 788 Series square base, plug-in relays offer clear, full-feature, top flange, and side flange covers as well as optional sockets and accessories.

Feature	Benefit
12 A max. switching current	Ideal for automation panels & controls
Clear or full-feature cover options	Full-feature covers include LED indicator & locking test button
SPDT, DPDT & 3PDT contact configurations	Simultaneously control separate circuits
Socket mount option	Simplifies installation & maintenance while also allowing the use of protection modules, hold-down clips & other accessories
Gold-flashed contacts	Reduces contact oxidation & increases shelf life
Mechanical flag indicator	Standard feature displays relay status during testing or operation

Contact Rating	Contact Configuration	Nominal Voltage	Coil Resistance (Ω)	Feature	Standard Part Number: Clear Cover	Standard Part Number: Full-Feature
3 A at 150 Vdc	DPDT	120 Vac 50/60 Hz	1700	Blowout magnet	788XB69C-120A	–
		24 Vdc	470		788XB69C-24D	–
12 A	SPDT	24 Vac 50/60 Hz	72	–	788XAXC-24A	–
		120 Vac 50/60 Hz	1700	–	788XAXC-120A	–
		12 Vdc	120	Flange Mount	788XAXC1-120A	–
		12 Vdc	120	–	788XAXC-12D	–
		12 Vdc	120	Flange Mount	788XAXC1-12D	–
		24 Vdc	470	–	788XAXC-24D	–
	DPDT	24 Vac 50/60 Hz	72	–	788XBXC-24A	788XBXM4L-24A
		120 Vac 50/60 Hz	1700	–	788XBXC-120A	788XBXM4L-120A
		12 Vdc	120	Flange Mount	788XBXC1-120A	–
		12 Vdc	120	–	788XBXC-12D	788XBXM4L-12D
		12 Vdc	120	Flange Mount	788XBXC1-12D	–
		24 Vdc	470	–	788XBXC-24D	788XBXM4L-24D
	3PDT	110/125 Vdc	10000	–	788XBXC-110D	–
		24 Vac 50/60 Hz	72	–	788XCXC-24A	788XCXM4L-24A
		120 Vac 50/60 Hz	1700	–	788XCXC-120A	788XCXM4L-120A
		12 Vdc	120	–	788XCXC-12D	788XCXM4L-12D
24 Vdc		470	–	788XCXC-24D	788XCXM4L-24D	
		110/125 Vdc	10000	–	788XCXM4L-110D	

### Part Number Explanation



\*Please note that LED-only versions are also available. Please contact Customer Service for more information (847-441-2540).

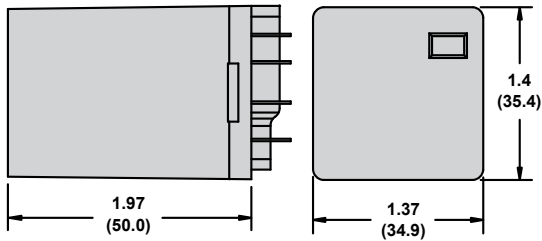
Specifications (UL 508)

Part Number	788XAX	788XBX/XCX
<b>Contact Characteristics</b>		
Terminal Style	Blade	Blade
Contact Configuration	SPDT	DPDT/3PDT
Maximum Current	12 A	12 A
Current Rating with Magnetic Blowout (69 feature)	–	3 A at 150 Vdc (DPDT only)
Contact Materials	Silver Alloy	Silver Alloy
Maximum Switching Voltage	300 V	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 12 A at 120 Vac 50/60 Hz; 16 A at 277 Vac 50/60 Hz; 16 A at 28 Vdc <b>Motor:</b> 1/2 hp at 240 Vac 50/60 Hz; 1/3 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300	<b>Resistive:</b> 12 A at 120 Vac 50/60 Hz; 16 A at 277 Vac 50/60 Hz; 16 A at 28 Vdc <b>Motor:</b> 1/2 hp at 240 Vac 50/60 Hz; 1/3 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Rated Current with Magnetic Blowout (Code 69)	–	3 A at 150 Vdc
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>		
Maximum Operating Voltage	110% (AC / DC)	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)	15% (AC); 10% (DC)
Average Consumption	3 VA (AC); 1.4 W (DC)	3 VA (AC); 1.4 W (DC)
<b>General Characteristics</b>		
Electrical Life at Rated Load	100,000 operations	100,000 operations
Mechanical Life (Unpowered)	5,000,000 operations	5,000,000 operations
Operating Time (Response Time)	20 ms	20 ms
Dielectric Strength - Between Coil and Contact (AC)	2500 V(rms)	2500 V(rms)
Dielectric Strength - Between Poles (AC)	2500 V(rms)	2500 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +85 °C (-40 – +185 °F)	-40 – +85 °C (-40 – +185 °F)
Ambient Air Temperature around the Device - Operation	-40 – +55 °C (-40 – +131 °F)	-40 – +55 °C (-40 – +131 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz	3 g-n at 10-55 Hz
Shock Resistance	10 g-n	10 g-n
Degree of Protection	IP 40	IP 40
Weight	88 g (3.10 oz)	88 g (3.10 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

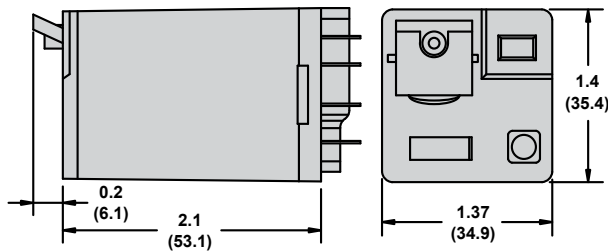
Note: Actual product performance may vary depending on application and environmental conditions.

Dimensions — inches (millimeters)

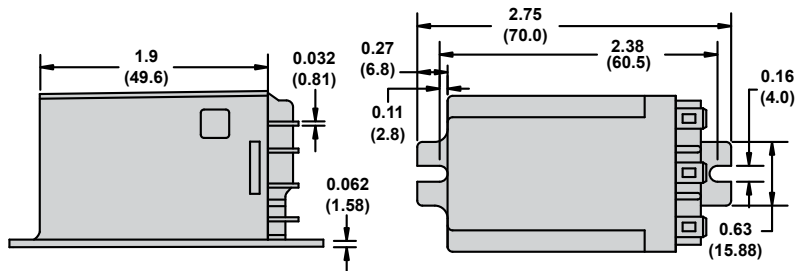
Plain Cover Dimensions



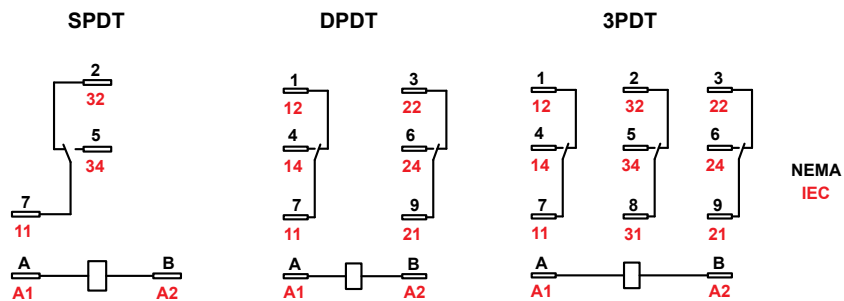
Full-Feature Cover Dimensions

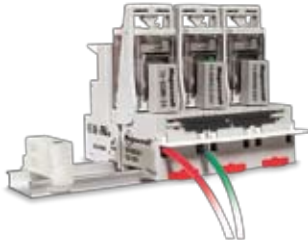


Top Flange Cover Dimensions - Code C1



Wiring Diagrams

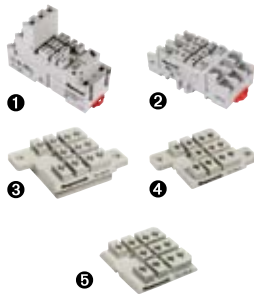




### Description

Optional sockets offer customizable, finger-safe™ solutions including protection modules, hold-down clips, and ID tags. Sockets are DIN rail and panel mount compatible.

### Relay Accessories



Description	Function	For Use With Relays	Pkg. Min.	Standard Part Number
Socket 1	DIN mount with elevator terminals	788XAX / XBX / XCX	10	70-788EL11-1
Socket 2	DIN/Panel mount with screw terminals & clamping plates		10	70-463-1
Socket 3	0.187 in. Quick Connect terminals with mounting tabs		10	70-124-2
Socket 4	Printed circuit terminals with mounting tabs		10	70-178-1
Socket 5	Printed circuit terminals without mounting tabs		10	70-178-2

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1	Secures relay in socket	70-788EL11-1, 70-463-1, 70-124-1, 70-178-1, 70-178-2	–	10	16-1351
Metal Spring Clip 2	Secures relay in socket	70-463-1	–	10	16-1344
Insulated Coil Bus Jumper System 3	Wireless socket connection	70-788EL11-1	–	10	16-750/788CBJ-1
Plastic I.D. Tag 4	Write-on plastic labels	70-788EL11-1	–	10	16-750/788FT-1
Extruded Aluminum DIN Rail, 39.37" (1000 mm) 5	Quick installation and removal of sockets	70-788EL11-1, 70-463-1	–	10	16-700DIN
DIN Rail End Clip 6	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
Large Socket Module	MOV Suppressor (Protects from damaging electrical spikes)	70-788EL11-1	24 Vac/Vdc	10	70-ASMM-24
Large Socket Module	Protection Diode (Protects external drive circuitry from inductive voltages)		120 Vac/Vdc	10	70-ASMD-250
Large Socket Module 9	LED Indicator (Provides coil status at a glance)		110/240 Vac/Vdc	10	70-ASMLG-110/240
Large Socket Module	RC Suppressor (Snubs back EMF of relay coil)		110/240 Vac/Vdc	10	70-ASMR-110/240

Note: Use of LED or RC socket module may increase coil power draw by up to 10%.