

# Magnecraft™ General Purpose Relays

Catalog  
2011



---

■ Series Overview . . . . .	3
■ 781 Series . . . . .	4
■ 782 Power Series . . . . .	8
■ 782 Control Series . . . . .	12
■ 783 Series . . . . .	17
■ 784 Series . . . . .	21
■ 750 Series . . . . .	25
■ 788 Series . . . . .	29
■ 388J Series . . . . .	33
■ 755 Latching Series . . . . .	37
■ 785 Latching Series . . . . .	41
■ 782H Hazardous Location Series . . . . .	45
■ 750H Hazardous Location Series . . . . .	49
■ UL Listed Relay/Socket Combinations . . . . .	53
■ Sockets and Accessories . . . . .	54
□ Socket Specifications . . . . .	54
□ Mounting Adapter Specifications . . . . .	77
□ Socket Accessories . . . . .	78
■ Application Data . . . . .	85
■ Website Guide . . . . .	87

Designed with specialized magnetic armatures and coils, Magnecraft General Purpose Relays easily handle current loads ranging from 10 mA to as large as 20 A. With multiple features, and a broad line of sockets and accessories, these relays offer the options needed to improve design, expedite installation and simplify testing of your application.

## Key Features

- Socket, panel and DIN mounting options
- Multiple features and contact configurations available
- Optional protection, mounting, and identification accessories
- Ideal for MRO direct replacement
- UL Class I Division 2 models for hazardous locations

Series	Features	Terminals	Contact Configuration	Output Current	Page
781	Plug-In Relay	Blade	SPDT	20 A	4
				3 A	
782 Power	Plug-In Relay	Blade	SPDT	20 A	8
			DPDT	15 A	
782 Control	Plug-In Relay	Blade	DPDT, 3PDT and 4PDT	10 A	12
				3 A	
783	Plug-In Relay	Blade	3PDT	15 A	17
784	Plug-In Relay	Blade	4PDT	15 A	21
750	Plug-In Relay	Octal (8 Pin)	SPDT and DPDT	16 A	25
		Octal (11 Pin)	3PDT	16 A	
788	Plug-In Relay	Blade	SPDT, DPDT and 3PDT	16 A	29
388J	Plug-In Relay	Blade	DPDT	20 A	33
755	Magnetic Latching Relay	Octal (8 Pin)	DPDT	16 A	37
785	Magnetic Latching Relay	Blade	DPDT	16 A	41
782H	Hermetically Sealed Relay	Blade	4PDT	5 A	45
				3 A	
				1 A	
750H	Hermetically Sealed Relay	Octal (8 Pin)	DPDT	12 A	49
		Octal (11 Pin)	3PDT	12 A	

## Description

# Magnecraft™ General Purpose Relays

781 Series

SPDT 20 A



UL listed when used with proper Magnecraft™ sockets



781 Clear Cover



781 Full-Feature Cover

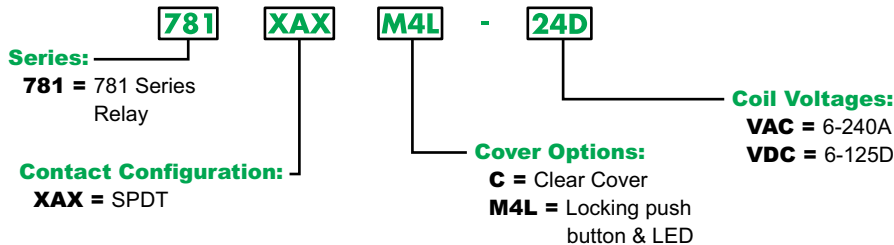
## Description

The 781 Series plug-in relays offer clear or full-feature covers with multiple mounting options and accessories.

Feature	Benefit
20 A max. switching current	Ideal for automation control panels
14 mm width	Slim design saves valuable space
Clear or full-feature cover options	Full-feature covers include LED indicator & locking test button
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)	Standard Part Number: Clear Cover	Standard Part Number: Full-Feature
20 A	SPDT	24 Vac 50/60 Hz	180	781XAXC-24A	781XAXM4L-24A
		120 Vac 50/60 Hz	4430	781XAXC-120A	781XAXM4L-110/120A
		240 Vac 50/60 Hz	15720	–	781XAXM4L-240A
		12 Vdc	188	781XAXC-12D	781XAXM4L-12D
		24 Vdc	750	781XAXC-24D	781XAXM4L-24D

## Part Number Explanation



\*Please note that 3 A Bifurcated, PC Terminals, and LED-only versions are also available. Please contact Customer Service for more information (847-441-2540).

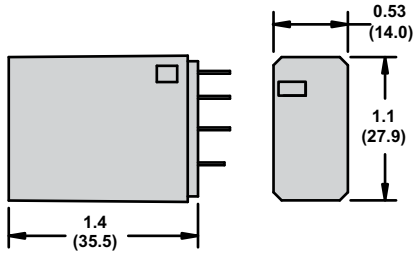
Specifications (UL 508)

Part Number	781XAX
<b>Contact Characteristics</b>	
Terminal Style	Blade
Contact Configuration	SPDT
Maximum Current	20 A
Contact Materials	Silver Alloy
Maximum Switching Voltage	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 20 A at 277 Vac 50/60 Hz; 20 A at 28 Vdc <b>Motor:</b> 1 hp at 250 Vac 50/60 Hz; 1/2 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>	
Maximum Operating Voltage	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)
Average Consumption	1.0 VA (AC); 0.8 W (DC)
<b>General Characteristics</b>	
Electrical Life at Rated Load	100,000 operations
Mechanical Life (Unpowered)	10,000,000 operations
Operating Time (Response Time)	20 ms
Dielectric Strength - Between Coil and Contact (AC)	1500 V(rms)
Dielectric Strength - Between Poles (AC)	1500 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +85 °C (-40 – +185 °F)
Ambient Air Temperature around the Device - Operation	-40 – +55 °C (-40 – +131 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz
Shock Resistance	10 g-n
Degree of Protection	IP 40
Weight	29 g (1.02 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

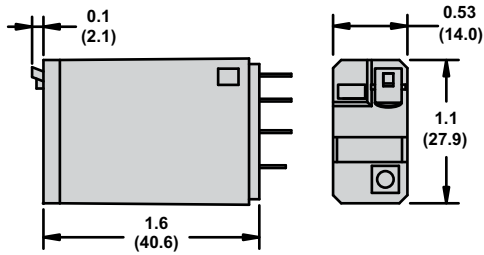
Note: Actual product performance may vary depending on application and environmental conditions.

Dimensions — inches (millimeters)

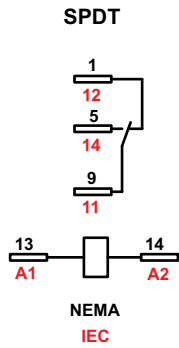
Clear Cover Dimensions

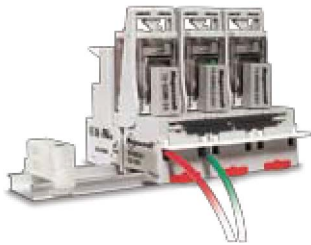


Full-Feature Cover Dimensions



Wiring Diagram














### 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/Panel mount with screw terminals & clamping plates	781	10	70-781D5-1A
 Socket 2	PCB-mount socket		10	70-781T-1
 Adapter 3	Mount directly to DIN rail		10	16-781C
 Adapter 4	Mount directly to panel		10	16-781C1

### Socket Accessories

Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
 Metal Spring Clip 1	Secures relay in socket	70-781D5-1A,, 70-781T-1	–	10	16-781SC
 Plastic ID Hold-Down Clip 2	Secures relay in socket and provides labeling	70-781D5-1A	–	10	16-781IDC
 Extruded Aluminum DIN Rail, 39.37" (1000 mm) 3	Quick installation and removal of sockets	70-781D5-1A	–	10	16-700DIN
 DIN Rail End Clip 3	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
 Small Socket Module	Protection Diode <i>(Protects external drive circuitry from inductive voltages)</i>	70-781D5-1A	6 to 250 Vdc	10	70-BSMD-250
Small Socket Module 4	LED Indicator <i>(Provides coil status at a glance)</i>		24 Vac/Vdc	10	70-BSMLG-24
Small Socket Module	MOV Suppressor <i>(Protects from damaging electrical spikes)</i>		120 Vac/Vdc	10	70-BSMM-120
Small Socket Module			24 Vac/Vdc	10	70-BSMM-24
Small Socket Module			240 Vac/Vdc	10	70-BSMM-240

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

# Description

# Magnecraft™ General Purpose Relays

## 782 Power Series

SPDT 20 A; DPDT 15 A



UL listed when used with proper Magnecraft™ sockets



782 Clear Cover



782 Full-Feature Cover

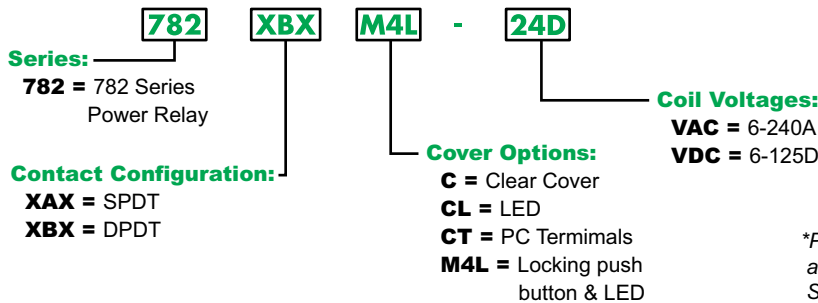
### Description

The 782 Plug-in Power relays offer clear or full-feature covers with multiple mounting options and accessories.

Feature	Benefit
20 A / 15 A max. switching current	Ideal for automation control panels
Clear or full-feature cover options	Full-feature covers include LED indicator & locking test button
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
15 A	DPDT	24 Vac 50/60 Hz	180	-	782XBXC-24D	782XBXM4L-24A
				LED	782XBXCL-24A	-
		120 Vac 50/60 Hz	4430	-	782XBXC-120A	782XBXM4L-120A
				PC Terminals	782XBXCT-120A	-
		220/240 Vac 50/60 Hz	15720	-	782XBXC-24A	782XBXM4L-240A
		12 Vdc	160	-	782XBXC-12D	782XBXM4L-12D
				PC Terminals	782XBXCT-12D	-
		24 Vdc	650	-	-	782XBXM4L-24D
				PC Terminals	782XBXCT-24D	-
		110/125 Vdc	11000	-	782XBXC-110D	782XBXM4L-110D
				LED	782XBXCL-110D	-
		20 A	SPDT	24 Vac 50/60 Hz	180	-
120 Vac 50/60 Hz	4430			-	-	782XAXM4L-120A
220/240 Vac 50/60 Hz	15720			-	782XAXC-240A	782XAXM4L-240A
12 Vdc	160			-	-	782XAXM4L-12D
24 Vdc	650			-	-	782XAXM4L-24D
110/125 Vdc	11000			-	782XAXC-110D	782XAXM4L-110D

### Part Number Explanation



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



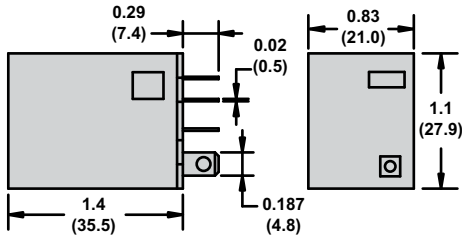
Specifications (UL 508)

Part Number	782XAX	782XBXC / CL / M4L	782XBXCT
<b>Contact Characteristics</b>			
Terminal Style	Blade	Blade	PC Terminals
Contact Configuration	SPDT	DPDT	
Maximum Current	20 A	15 A	
Contact Materials	Silver Alloy	Silver Alloy	
Maximum Switching Voltage	300 V	300 V	
Rated Switching Current at Voltage	<b>Resistive:</b> 20 A at 120 Vac 50/60 Hz; 20 A at 277 Vac 50/60 Hz; 20 A at 28 Vdc <b>Motor:</b> 1 hp at 250 Vac 50/60 Hz; 1/2 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300	<b>Resistive:</b> 10 A at 277 Vac 50/60 Hz (CSA); 12 A at 277 Vac 50/60 Hz; 15 A at 120 Vac 50/60 Hz; 12 A at 28 Vdc <b>Motor:</b> 1 hp at 250 Vac 50/60 Hz; 1/2 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300	
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	1.2 VA (AC); 0.9 W (DC)	1.2 VA (AC); 0.9 W (DC)	
<b>General Characteristics</b>			
Electrical Life at Rated Load	100,000 operations	100,000 operations	
Mechanical Life (Unpowered)	10,000,000 operations	10,000,000 operations	
Operating Time (Response Time)	20 ms	20 ms	
Dielectric Strength - Between Coil and Contact (AC)	1600 V(rms)	1600 V(rms)	
Dielectric Strength - Between Poles (AC)	1600 V(rms)	1600 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	36 g (1.27 oz)	36 g (1.27 oz)	
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS	

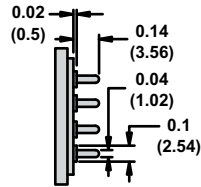
Note: Actual product performance may vary depending on application and environmental conditions.

**Dimensions — inches (millimeters)**

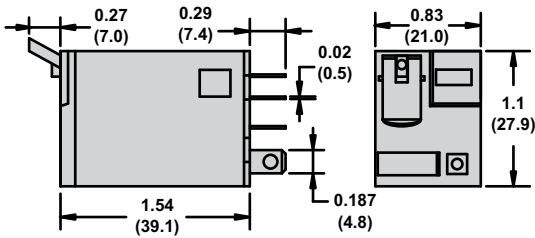
**Clear Cover Dimensions**



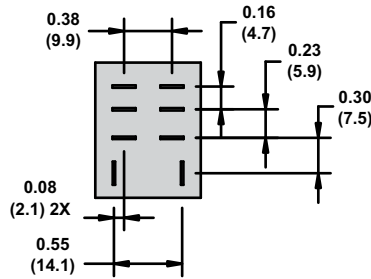
**Printed Circuit Terminals**



**Full-Feature Cover Dimensions**

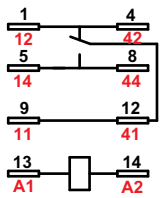


**Terminal Layout**



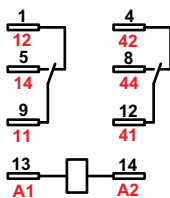
**Wiring Diagrams**

**SPDT**

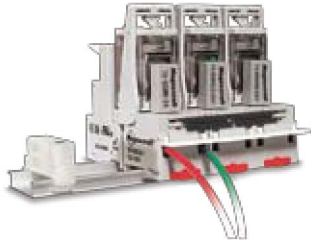


NEMA  
IEC

**DPDT**



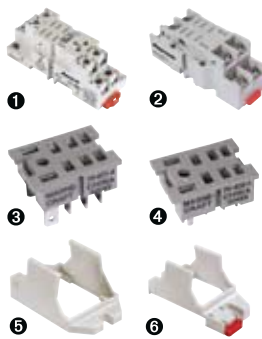
NEMA  
IEC



### Description

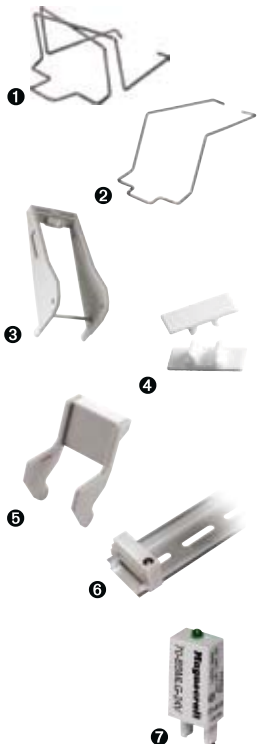
Optional sockets offer customizable, finger-safe™ solutions including protection modules, hold-down clips, and ID tags. Sockets are DIN rail and panel mount compatible.

### Relay Accessories



Description	Function	For Use With Relays	Pkg. Min.	Standard Part Number
Socket 1	DIN/Panel mount with screw terminals & clamping plates	782XAX / 782XBX	10	70-782D8-1A
Socket 2	DIN/Panel mount with screw terminals & clamping plates		10	70-459-1
Socket 3	Quick Connect terminals for chassis mount		10	70-401-1
Socket 4	Printed circuit terminals for PCB mount		10	70-402-1
Adapter 5	Mount directly to panel		10	16-782C1
Adapter 6	Mount directly to DIN rail		10	16-782C

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1 2	Secures relay in socket	70-782D8-1A, 70-459-1, 70-401-1, 70-402-1	–	10	16-1342
Plastic Hold-Down Clip 3	Secures relay in socket or ejects relay off socket	70-782D8-1A	–	10	16-782PC-1
Write-on tag 4	Write-on tag for 16-782PC-1 hold-down Clip	–	–	10	16-700ST-1
Plastic ID Hold-Down Clip 5	Secures relay in socket and provides labeling	70-782D8-1A, 70-459-1, 70-401-1, 70-402-1	–	10	16-782IDC
Extruded Aluminum DIN Rail, 39.37" (1000 mm) 6	Quick installation and removal of sockets	70-782D8-1A, 70-459-1	–	10	16-700DIN
DIN Rail End Clip 6	Holds sockets firmly in place on DIN rail	70-782D8-1A, 70-459-1	–	10	16-DCLIP-1
Small Socket Module	Protection Diode (Protects external drive circuitry from inductive voltages)	70-782D8-1A	6 to 250 Vdc	10	70-BSMD-250
Small Socket Module 7	LED Indicator (Provides coil status at a glance)		24 Vac/Vdc	10	70-BSMLG-24
Small Socket Module	MOV Suppressor (Protects from damaging electrical spikes)		120 Vac/Vdc	10	70-BSMM-120
			24 Vac/Vdc	10	70-BSMM-24
Small Socket Module			240 Vac/Vdc	10	70-BSMM-240

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

## Description

# Magnecraft™ General Purpose Relays

## 782 Control Series

DPDT 3 A and 10 A; 4PDT 3 A and 10 A



UL listed when used with proper Magnecraft™ sockets



782 Clear Cover



782 Full-Feature Cover

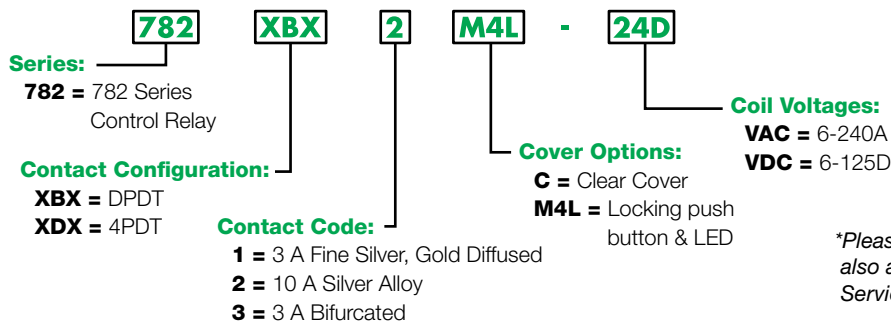
## Description

The 782 Plug-in Control relays offer clear or full-feature covers with multiple mounting options and accessories; 4PDT models save valuable space while adding increased functionality.

Feature	Benefit
10 A / 3 A max. switching current	Ideal for automation panels & controls
Clear or full-feature cover options	Full-feature covers include LED indicator & locking test button
DPDT & 4PDT contact	Simultaneously control separate circuit configurations
Socket mount option	Simplifies installation and 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	4PDT	12 Vac 50/60 Hz	46	Bifurcated Contacts	782XDX3C-12A	–
		24 Vac 50/60 Hz	180	Bifurcated Contacts	782XDX3C-24A	782XDX3M4L-24A
				Gold Diffused Contacts	782XDX1C-24A	–
		120 Vac 50/60 Hz	4430	Bifurcated Contacts	782XDX3C-120A	782XDX3M4L-120A
				Gold Diffused Contacts	782XDX1C-120A	782XDX1M4L-120A
		12 Vdc	160	Bifurcated Contacts	782XDX3C-12D	782XDX3M4L-12D
				Gold Diffused Contacts	782XDX1C-12D	782XDX1M4L-12D
		24 Vdc	650	Bifurcated Contacts	782XDX3C-24D	782XDX3M4L-24D
				Gold Diffused Contacts	782XDX1C-24D	782XDX1M4L-24D
		110/125 Vdc	11000	Bifurcated Contacts	782XDX3C-110D	–
10 A	DPDT	24 Vac 50/60 Hz	180	–	–	782XBX2M4L-24A
		120 Vac 50/60 Hz	4430	–	–	782XBX2M4L-120A
		12 Vdc	160	–	–	782XBX2M4L-12D
		24 Vdc	650	–	–	782XBX2M4L-24D
		110/125 Vdc	11000	–	–	782XBX2M4L-110D
	4PDT	24 Vac 50/60 Hz	180	–	–	782XDX2M4L-24A
		120 Vac 50/60 Hz	4430	–	782XDX2C-120A	782XDX2M4L-120A
		12 Vdc	160	–	–	782XDX2M4L-12D
		24 Vdc	650	–	782XDX2C-24D	782XDX2M4L-24D
		110/125 Vdc	11000	–	–	782XDX2M4L-110D

## Part Number Explanation



Specifications (UL 508)

Part Number	782XBX1	782XBX2	782XBX3
<b>Contact Characteristics</b>			
Terminal Style	Blade	Blade	Blade
Contact Configuration	DPDT	DPDT	DPDT
Maximum Current	3 A	10 A	3 A
Load Type	Low Level	Standard	Low Level
Contact Materials	Fine Silver	Silver Alloy	Bifurcated
Maximum Switching Voltage	300 V	300 V	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 3 A at 120 Vac 50/60 Hz; 3 A at 277 Vac 50/60 Hz; 3 A at 30 Vdc <b>Motor:</b> 1/16 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300	<b>Resistive:</b> 10 A at 120 Vac 50/60 Hz; 8 A at 277 Vac 50/60 Hz; 8 A at 28 Vdc <b>Motor:</b> 1 hp at 277 Vac 50/60 Hz; 1/3 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300	<b>Resistive:</b> 3 A at 120 Vac 50/60 Hz; 3 A at 277 Vac 50/60 Hz; 3 A at 30 Vdc <b>Motor:</b> 1/16 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	10 mA at 5 Vdc (0.5 W)	100 mA at 5 Vdc (0.5 W)	10 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>			
Maximum Operating Voltage	110% (AC / DC)	110% (AC / DC)	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)	85% (AC); 80% (DC)	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)	15% (AC); 10% (DC)	15% (AC); 10% (DC)
Average Consumption	1.2 VA (AC); 0.9 W (DC)	1.2 VA (AC); 0.9 W (DC)	1.2 VA (AC); 0.9 W (DC)
<b>General Characteristics</b>			
Electrical Life at Rated Load	100,000 operations	200,000 operations	100,000 operations
Mechanical Life (Unpowered)	10,000,000 operations	10,000,000 operations	10,000,000 operations
Operating Time (Response Time)	20 ms	20 ms	20 ms
Dielectric Strength - Between Coil and Contact (AC)	1600 V(rms)	1600 V(rms)	1600 V(rms)
Dielectric Strength - Between Poles (AC)	1600 V(rms)	1600 V(rms)	1600 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +85 °C (-40 – +185 °F)	-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)	-40 – +55 °C (-40 – +131 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz	3 g-n at 10-55 Hz	3 g-n at 10-55 Hz
Shock Resistance	10 g-n	10 g-n	10 g-n
Degree of Protection	IP 40	IP 40	IP 40
Weight	36 g (1.27 oz)	36 g (1.27 oz)	36 g (1.27 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS	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.

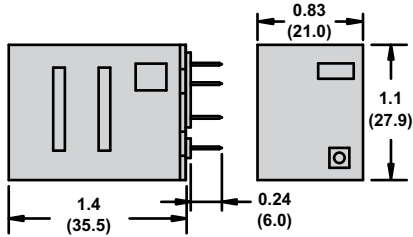
### Specifications (UL 508) (continued)

Part Number	782XDX1	782XDX2	782XDX3
<b>Contact Characteristics</b>			
Terminal Style	Blade	Blade	Blade
Contact Configuration	4PDT	4PDT	4PDT
Maximum Current	3 A	10 A	3 A
Load Type	Standard	Standard	Low Level
Contact Materials	Fine Silver	Silver Alloy	Bifurcated
Maximum Switching Voltage	300 V	300 V	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 10 A at 120 Vac 50/60 Hz; 8 A at 277 Vac 50/60 Hz; 8 A at 28 Vdc <b>Motor:</b> 1 hp at 277 Vac 50/60 Hz; 1/3 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300	<b>Resistive:</b> 10 A at 120 Vac 50/60 Hz; 8 A at 277 Vac 50/60 Hz; 8 A at 28 Vdc <b>Motor:</b> 1 hp at 277 Vac 50/60 Hz; 1/3 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300	<b>Resistive:</b> 3 A at 120 Vac 50/60 Hz; 3 A at 277 Vac 50/60 Hz; 3 A at 30 Vdc <b>Motor:</b> 1/16 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)	100 mA at 5 Vdc (0.5 W)	10 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>			
Maximum Operating Voltage	110% (AC / DC)	110% (AC / DC)	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)	85% (AC); 80% (DC)	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)	15% (AC); 10% (DC)	15% (AC); 10% (DC)
Average Consumption	1.2 VA (AC); 0.9 W (DC)	1.2 VA (AC); 0.9 W (DC)	1.2 VA (AC); 0.9 W (DC)
<b>General Characteristics</b>			
Electrical Life at Rated Load	200,000 operations	200,000 operations	200,000 operations
Mechanical Life (Unpowered)	10,000,000 operations	10,000,000 operations	10,000,000 operations
Operating Time (Response Time)	20 ms	20 ms	20 ms
Dielectric Strength - Between Coil and Contact (AC)	1600 V(rms)	1600 V(rms)	1600 V(rms)
Dielectric Strength - Between Poles (AC)	1600 V(rms)	1600 V(rms)	1600 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +85 °C (-40 – +185 °F)	-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)	-40 – +55 °C (-40 – +131 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz	3 g-n at 10-55 Hz	3 g-n at 10-55 Hz
Shock Resistance	10 g-n	10 g-n	10 g-n
Degree of Protection	IP 40	IP 40	IP 40
Weight	36 g (1.27 oz)	36 g (1.27 oz)	36 g (1.27 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

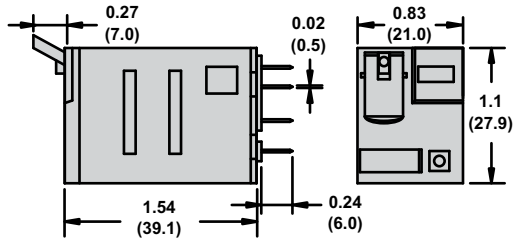
Note: Actual product performance may vary depending on application and environmental conditions.

Dimensions — inches (millimeters)

Clear Cover Dimension

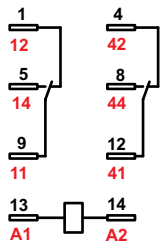


Full-Feature Cover Dimension



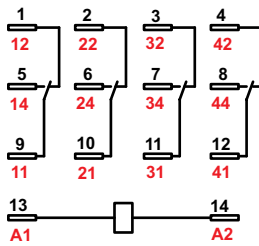
Wiring Diagrams

DPDT

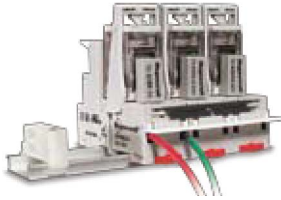


NEMA  
IEC

4PDT



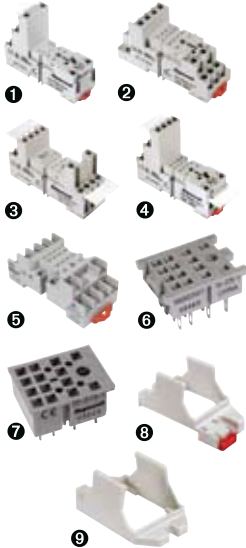
NEMA  
IEC



### 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/Panel mount with elevator terminals	782XBX1,2,3	10	70-782EL8-1
Socket 2	DIN/Panel mount with screw terminals & clamping plates	782XBX1,2,3 / 782XDX1,2,3	10	70-782D14-1
Socket 3	DIN/Panel mount with rising elevator box terminals	782XBX1,2,3 / 782XDX1,2,3	10	70-782E14-1
Socket 4	DIN/Panel mount with elevator terminals	782XBX1,2,3 / 782XDX1,2,3	10	70-782EL14-1
Socket 5	DIN/Panel mount with screw terminals & clamping plates	782XDX1,2,3	10	70-461-1
Socket 6	Solder terminals for chassis mount	782XDX1,2,3	10	70-378-1
Socket 7	Printed circuit terminals for PCB mount	782XDX1,2,3	10	70-379-1
Adapter 8	Mount directly to DIN rail	782XBX1,2,3 / 782XDX1,2,3	10	16-782C
Adapter 9	Mount directly to panel	782XBX1,2,3 / 782XDX1,2,3	10	16-782C1

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1	Secures relay in socket	70-782D14-1, 70-782E14-1, 70-782EL14-1, 70-782EL8-1	–	10	16-782SC
Plastic Hold-Down Clip 2	Secures relay in socket or ejects relay off socket		–	10	16-782PC-1
Write-on tag 3	Small Write-on tag	–	–	10	16-782FT-1
Write-on tag 4	Write-on tag for 16-782PC-1 Hold-down Clip	–	–	10	16-700ST-1
Extruded Aluminum DIN Rail, 39.37" (1000 mm) 5	Quick installation and removal of sockets	70-782D14-1, 70-782E14-1, 70-782EL8-1, 70-782EL14-1	–	10	16-700DIN
DIN Rail End Clip 6	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
Insulated Coil Bus Jumper System 7	Wireless socket connection	70-782EL8-1, 70-782EL14-1	–	10	16-782CBJ-1
Small Socket Module	Protection Diode (Protects external drive circuitry from inductive voltages)	70-782D14-1, 70-782E14-1, 70-782EL14-1, 70-782EL8-1	6 to 250 Vdc	10	70-BSMD-250
Small Socket Module 7	LED Indicator (Provides coil status at a glance)		24 Vac/Vdc	10	70-BSMLG-24
Small Socket Module	MOV Suppressor (Protects from damaging electrical spikes)		120 Vac/Vdc	10	70-BSMM-120
			24 Vac/Vdc	10	70-BSMM-24
			240 Vac/Vdc	10	70-BSMM-240

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



## Description

# Magnecraft™ General Purpose Relays

783 Series

3PDT 15 A



UL listed when used with proper Magnecraft™ sockets



783 Clear Cover



783 Full-Feature Cover

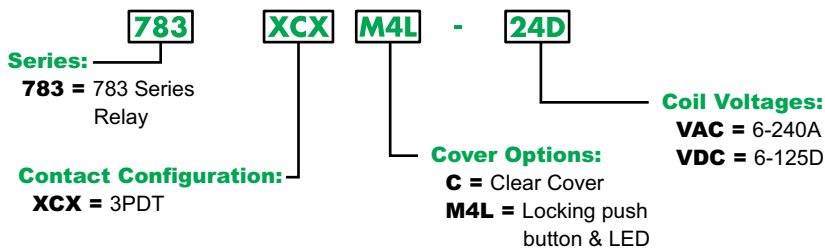
## Description

The 783 Series plug-in relays offer clear or full-feature covers with multiple mounting options and accessories.

Feature	Benefit
15 A max. switching current	Ideal for automation panels & controls
Clear or full-feature cover options	Full-feature covers include LED indicator & locking test button
3PDT contact configuration	Simultaneously control up to 3 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)	Standard Part Number: Clear Cover	Standard Part Number: Full-Feature
15 A	3PDT	24 Vac 50/60 Hz	103	783XCXC-24A	783XCXM4L-24A
		120 Vac 50/60 Hz	2770	–	783XCXM4L-120A
		12 Vdc	100	783XCXC-12D	783XCXM4L-12D
		24 Vdc	400	783XCXC-24D	783XCXM4L-24D
		110/125 Vdc	8600	783XCXC-110D	–

## Part Number Explanation



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

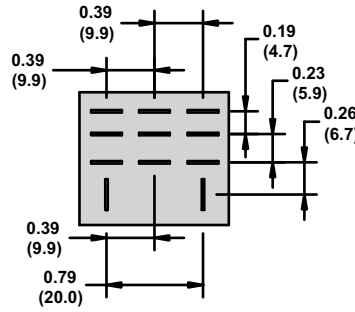
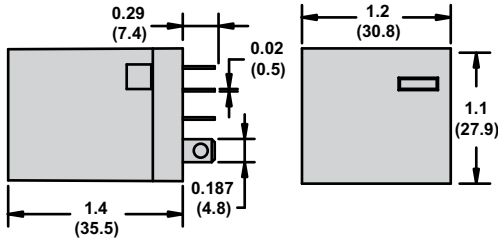
Specifications (UL 508)

<b>Part Number</b>	<b>783XCX</b>
<b>Contact Characteristics</b>	
Terminal Style	Blade
Contact Configuration	3PDT
Maximum Current	15 A
Contact Materials	Silver Alloy
Maximum Switching Voltage	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 12 A at 277 Vac 50/60 Hz; 15 A at 120 Vac 50/60 Hz; 12 A at 28 Vdc <b>Motor:</b> 1/2 hp at 120 Vac 50/60 Hz; 3/4 hp at 250 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>	
Maximum Operating Voltage	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)
Average Consumption	1.5 VA (AC); 1.4 W (DC)
<b>General Characteristics</b>	
Electrical Life at Rated Load	200,000 operations
Mechanical Life (Unpowered)	10,000,000 operations
Operating Time (Response Time)	20 ms
Dielectric Strength - Between Coil and Contact (AC)	2500 V(rms)
Dielectric Strength - Between Poles (AC)	2500 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +85 °C (-40 – +185 °F)
Ambient Air Temperature around the Device - Operation	-40 – +55 °C (-40 – +131 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz
Shock Resistance	10 g-n
Degree of Protection	IP 40
Weight	60 g (2.12 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

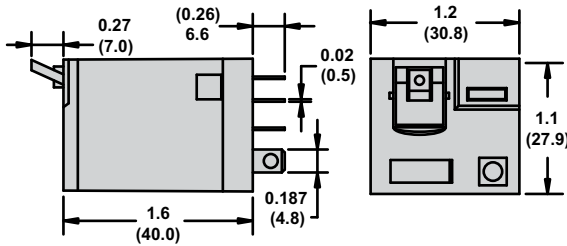
Note: Actual product performance may vary depending on application and environmental conditions.

Dimensions — inches (millimeters)

Clear Cover Dimensions

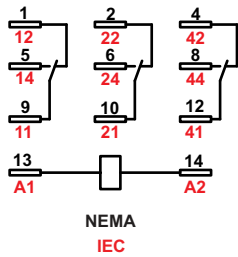


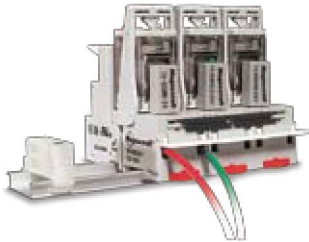
Full-Feature Cover Dimensions



Wiring Diagram

3PDT

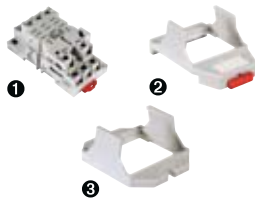




### Description

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	Finger-safe, DIN/Panel mount with screw terminals and clamping plates	783	10	70-783D11-1A
Adapter ②	Mount directly to DIN rail		10	16-783C
Adapter ③	Mount directly to panel		10	16-783C1

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip ①	Secures relay in socket	70-783D11-1A	–	10	16-783SC
Plastic ID Hold-Down Clip ②	Secures relay in socket and provides labeling		–	10	16-783IDC
Extruded Aluminum DIN Rail, 39.37" (1000 mm) ③	Quick installation and removal of sockets		–	10	16-700DIN
DIN Rail End Clip ③	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
Large Socket Module	MOV Suppressor ( <i>Protects from damaging electrical spikes</i> )	70-783D11-1A	24 Vac/Vdc	10	70-ASMM-24
Large Socket Module	Protection Diode ( <i>Protects external drive circuitry from inductive voltages</i> )		120 Vac/Vdc	10	70-ASMD-250
Large Socket Module ④	LED Indicator ( <i>Provides coil status at a glance</i> )		110/240 Vac/Vdc	10	70-ASMLG-110/240
Large Socket Module	RC Suppressor ( <i>Snubs back EMF of relay coil</i> )		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%.

## Description

# Magnecraft™ General Purpose Relays

784 Series

4PDT 15 A



UL listed when used with proper Magnecraft™ sockets



784 Clear Cover



784 Full-Feature Cover

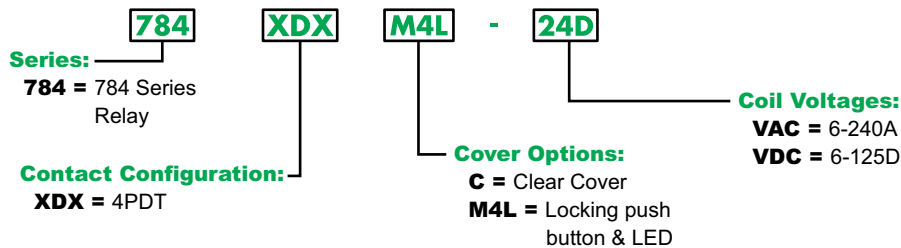
## Description

The 784 Series plug-in relays offer clear or full-feature covers with multiple mounting options and accessories.

Feature	Benefit
15 A max. switching current	Ideal for automation panels & controls
Clear or full-feature cover options	Full-feature covers include LED indicator & locking test button
4PDT contact configuration	Simultaneously control up to 4 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)	Standard Part Number: Clear Cover	Standard Part Number: Full-Feature
15 A	4PDT	24 Vac 50/60 Hz	84.5	784XDXC-24A	784XDXM4L-24A
		120 Vac 50/60 Hz	2220	784XDXC-120A	784XDXM4L-120A
		12 Vdc	96	–	784XDXM4L-12D
		24 Vdc	388	784XDXC-24D	784XDXM4L-24D

## Part Number Explanation



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

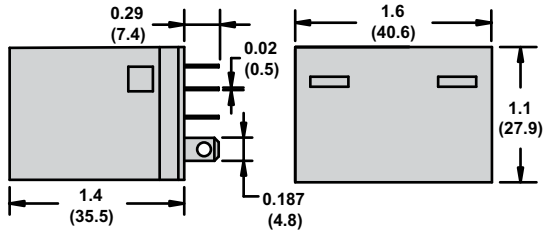
Specifications (UL 508)

<b>Part Number</b>	<b>784XDX</b>
<b>Contact Characteristics</b>	
Terminal Style	Blade
Contact Configuration	4PDT
Maximum Current	15 A
Contact Materials	Silver Alloy
Maximum Switching Voltage	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 12 A at 277 Vac 50/60 Hz; 15 A at 120 Vac 50/60 Hz; 12 A at 28 Vdc <b>Motor:</b> 1/2 hp at 120 Vac 50/60 Hz; 3/4 hp at 250 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>	
Maximum Operating Voltage	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)
Average Consumption	2.0 VA (AC); 1.5 W (DC)
<b>General Characteristics</b>	
Electrical Life at Rated Load	200,000 operations
Mechanical Life (Unpowered)	10,000,000 operations
Operating Time (Response Time)	20 ms
Dielectric Strength - Between Coil and Contact (AC)	2500 V(rms)
Dielectric Strength - Between Poles (AC)	2500 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +85 °C (-40 – +185 °F)
Ambient Air Temperature around the Device - Operation	-40 – +55 °C (-40 – +131 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz
Shock Resistance	10 g-n
Degree of Protection	IP 40
Weight	80 g (2.82 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

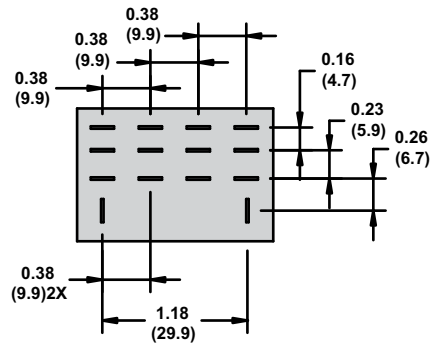
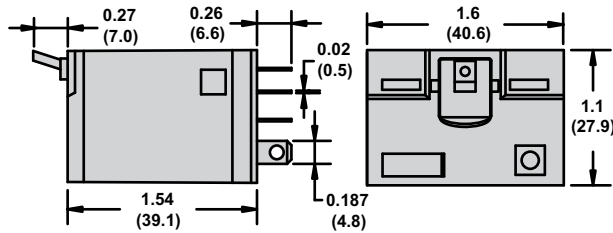
Note: Actual product performance may vary depending on application and environmental conditions.

Dimensions — inches (millimeters)

Clear Cover Dimensions

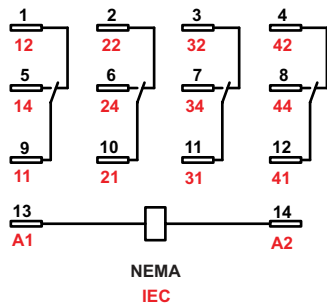


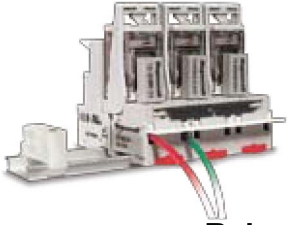
Full-Feature Cover Dimensions



Wiring Diagram

4PDT

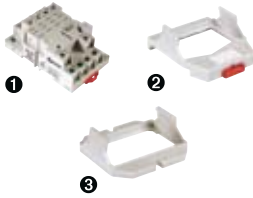




### Description

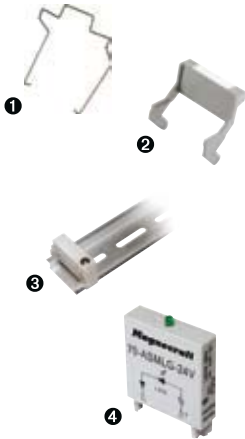
Optional sockets offer customizable, finger-safe™ solutions including protection modules, hold-down clips, and ID tags. Sockets are DIN rail and panel mount compatible.

### Relay Accessories



Description	Function	For Use With Relays	Pkg. Min.	Standard Part Number
Socket ①	Finger-safe, DIN/Panel mount with screw terminals & clamping plates	784	10	70-784D14-1
Adapter ②	DIN rail adapter	784	10	16-784C
Adapter ③	Flange mount adapter	784	10	16-784C1

### Socket Accessories



Description	Function	For Use With Socket	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip ①	Secures relay in socket	70-784D14-1	–	10	16-784SC
Plastic ID Hold-Down Clip ②	Secures relay in socket and provides labeling		–	10	16-784IDC
Extruded Aluminum DIN Rail, 39.37" (1000 mm) ③	Quick installation and removal of sockets	–	–	10	16-700DIN
DIN Rail End Clip ③	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
Large Socket Module	MOV Suppressor ( <i>Protects from damaging electrical spikes</i> )	70-784D14-1	24 Vac/Vdc	10	70-ASMM-24
Large Socket Module	Protection Diode ( <i>Protects external drive circuitry from inductive voltages</i> )		120 Vac/Vdc	10	70-ASMD-250
Large Socket Module ④	LED Indicator ( <i>Provides coil status at a glance</i> )		110/240 Vac/Vdc	10	70-ASMLG-110/240
Large Socket Module	RC Suppressor ( <i>Snubs back EMF of relay coil</i> )		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%.



## Description

# Magnecraft™ General Purpose Relays

750 Series

DPDT and 3DPT, 12 A



UL listed when used with proper Magnecraft™ sockets



750 Clear Cover



750 Full-Feature Cover

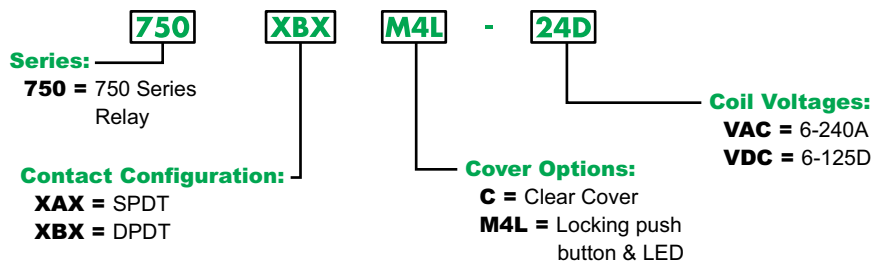
## Description

The 750 series octal base, plug-in relays offer clear or full-feature covers with multiple mounting options and accessories.

Feature	Benefit
Octal style mounting	Robust & historically-proven mounting platform that provides excellent structural support
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
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 Configuration	Contact Rating	Nominal Voltage	Coil Resistance (Ω)	Standard Part Number: Clear Cover	Standard Part Number: Full-Feature
DPDT	12 A	24 Vac 50/60 Hz	72	750XBXC-24A	750BXM4L-24A
		120 Vac 50/60 Hz	1700	750XBXC-120A	750BXM4L-120A
		220/240 Vac 50/60 Hz	7200	750XBXC-220/240A	750BXM4L-220/240A
		12 Vdc	120	750XBXC-12D	750BXM4L-12D
		24 Vdc	470	750XBXC-24D	750BXM4L-24D
		110/125 Vdc	10000	750XBXC-110D	750BXM4L-110D
3PDT	12 A	24 Vac 50/60 Hz	72	750XCXC-24A	750CXM4L-24A
		120 Vac 50/60 Hz	1700	750XCXC-120A	750CXM4L-120A
		12 Vdc	120	750XCXC-12D	750CXM4L-12D
		24 Vdc	470	750XCXC-24D	750CXM4L-24D
		110/125 Vdc	10000	750XCXC-110D	750CXM4L-110D

## Part Number Explanation



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

# Magnecraft™ General Purpose Relays

## 750 Series

### DPDT and 3DPT, 12 A

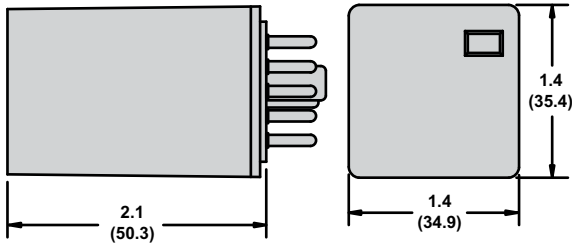
### Specifications (UL 508)

Part Number	750XBX	750XCX
<b>Contact Characteristics</b>		
Terminal Style	Octal	Octal
Contact Configuration	DPDT	3PDT
Maximum Current	12 A	12 A
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 at 240 Vac; 1/3 at 120 Vac <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 at 240 Vac; 1/3 at 120 Vac <b>Pilot Duty:</b> B300
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	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 – +221°F)	-40 – +85 °C (-40 – +185 °F)
Ambient Air Temperature around the Device - Operation	-40 – +55 °C (-40 – +143°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	89 g (3.14 oz)	89 g (3.14 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

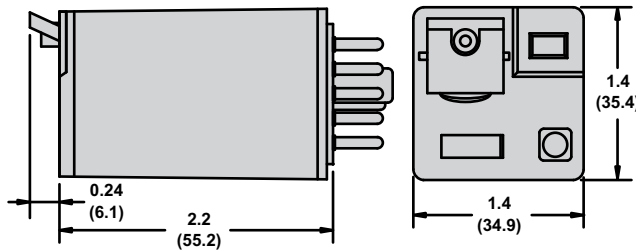
Note: Actual product performance may vary depending on application and environmental conditions.

**Dimensions — inches (millimeters)**

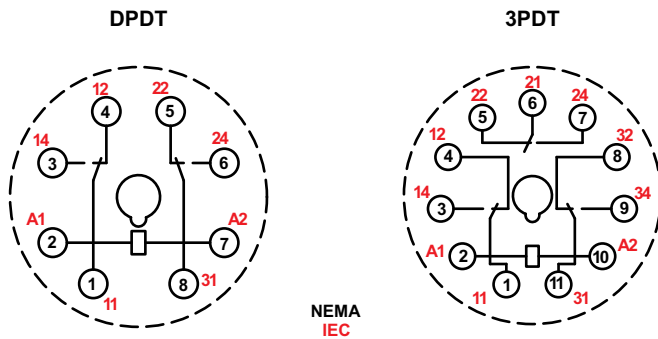
**Clear Cover Dimensions**

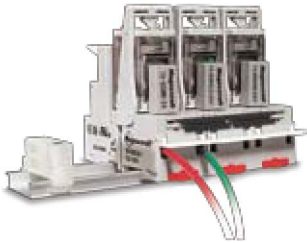


**Full-Feature Cover Dimensions**



**Wiring Diagrams**

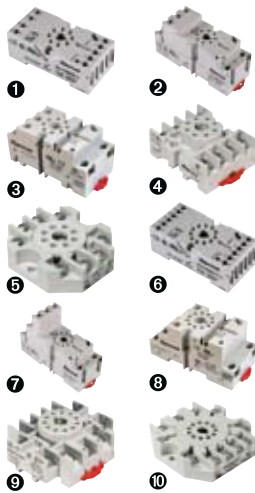




### Description

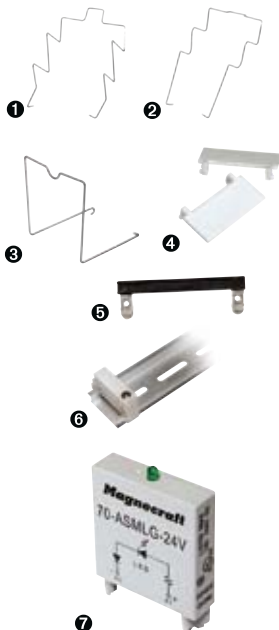
Optional sockets offer customizable, finger-safe™ solutions including protection modules, hold-down clips, and ID tags. Sockets are DIN rail and panel mount compatible.

### Relay Accessories



Description	Function	For Use With Relays	Pkg. Min.	Standard Part Number
Socket 1	DIN/Panel mount, module compatible	750XBX	10	70-750E8-1
Socket 2	DIN/Panel mount with elevator terminals, module compatible	750XBX	10	70-750EL8-1
Socket 3	DIN/Panel mount, module compatible	750XBX	10	70-750DL8-1
Socket 4	DIN/Panel mount with screw terminals & clamping plates	750XBX	10	70-464-1
Socket 5	Panel mount with screw terminals & clamping plates	750XBX	10	70-169-1
Socket 6	DIN/Panel mount with elevator terminals, module compatible	750XCX	10	70-750E11-1
Socket 7	DIN/Panel mount with elevator terminals	750XCX	10	70-750EL11-1
Socket 8	DIN/Panel mount, module compatible	750XCX	10	70-750DL11-1
Socket 9	DIN/Panel mount with screw terminals & clamping plates	750XCX	10	70-465-1
Socket 10	Panel mount with screw terminals & clamping plates	750XCX	10	70-170-1

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1	Secures relay in socket	70-750EL8-1, 70-750E8-1, 70-750E11-1, 70-464-1	–	10	16-1351
Metal Spring Clip 2	Secures relay in socket	70-750E8-1, 70-750DL8-1, 70-750E11-1, 70-464-1	–	10	16-1344
Metal Spring Clip 3	Secures relay in socket	70-750DL8-1	–	10	16-1332
Plastic I.D. Tag 4	Write-on plastic labels	70-750E8-1, 70-750EL8-1, 70-750DL8-1, 70-750E11-1, 70-750EL11, 70-750DL11-1	–	10	16-750/788FT-1
Insulated Coil Bus Jumper System 5	Wireless socket connection	70-750EL11, 70-750DL11-1	–	10	16-750/788CBJ-1
Extruded Aluminum DIN Rail, 39.37" (1000 mm) 6	Quick installation and removal of sockets	70-750E8-1, 70-750E8-1, 70-750DL8-1, 70-750E11-1, 70-464-1, 70-465-1	–	10	16-700DIN
DIN Rail End Clip 6	Plastic end clip with locking screw	–	–	10	16-DCLIP-1
Large Socket Module	MOV Suppressor (Protects external drive circuitry from damaging electrical spikes)	70-750E8-1, 70-750EL8-1, 70-750DL8-1, 70-750E11-1, 70-750EL11-1, 70-750DL11-1	24 Vac/Vdc	10	70-ASMM-24
Large Socket Module	Protection Diode (Protects external drive circuitry from inductive voltages)	70-750E8-1, 70-750EL8-1, 70-750DL8-1, 70-750E11-1, 70-750EL11-1, 70-750DL11-1	120 Vac/Vdc	10	70-ASMD-250
Large Socket Module 7	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%.

# 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

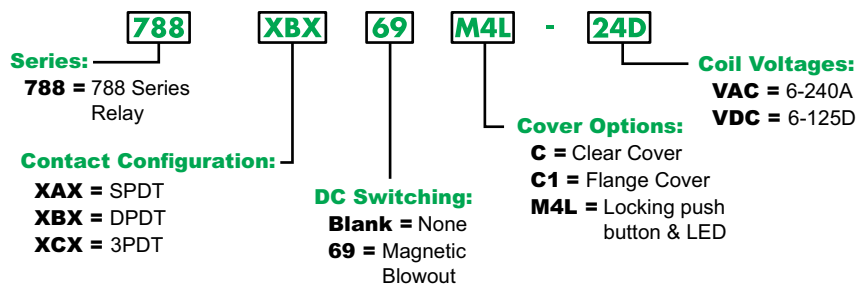
## Description

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	788XBX69C-120A	–
		24 Vdc	470		788XBX69C-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).

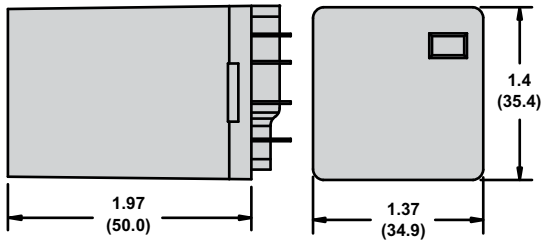
Specifications (UL 508)

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

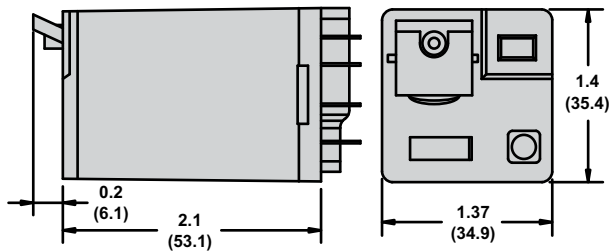
Note: Actual product performance may vary depending on application and environmental conditions.

Dimensions — inches (millimeters)

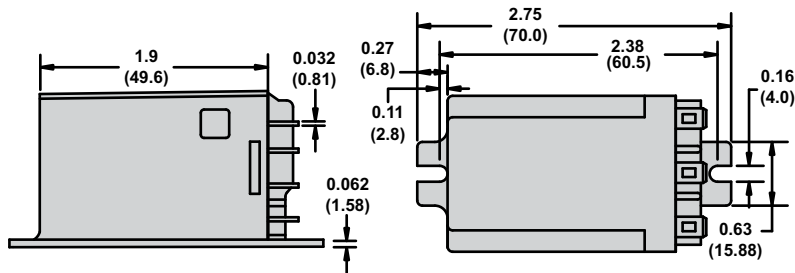
Plain Cover Dimensions



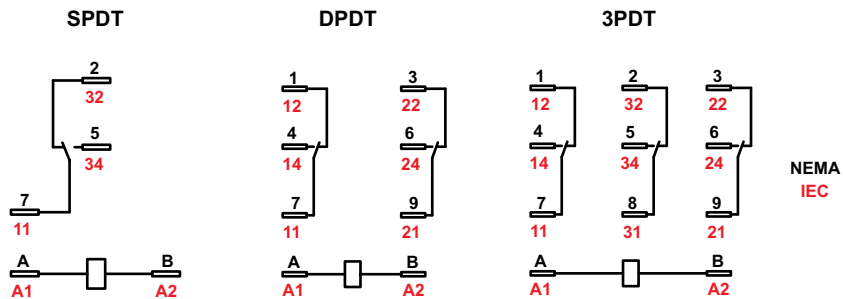
Full-Feature Cover Dimensions

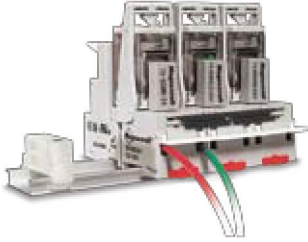


Top Flange Cover Dimensions - Code C1



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 ❶	DIN mount with elevator terminals	788XAX / XBX / XCX	10	70-788EL11-1
Socket ❷	DIN/Panel mount with screw terminals & clamping plates		10	70-463-1
Socket ❸	0.187 in. Quick Connect terminals with mounting tabs		10	70-124-2
Socket ❹	Printed circuit terminals with mounting tabs		10	70-178-1
Socket ❺	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 ❶	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 ❷	Secures relay in socket	70-463-1	–	10	16-1344
Insulated Coil Bus Jumper System ❸	Wireless socket connection	70-788EL11-1	–	10	16-750/788CBJ-1
Plastic I.D. Tag ❹	Write-on plastic labels	70-788EL11-1	–	10	16-750/788FT-1
Extruded Aluminum DIN Rail, 39.37" (1000 mm) ❺	Quick installation and removal of sockets	70-788EL11-1, 70-463-1	–	10	16-700DIN
DIN Rail End Clip ❻	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 ❼	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%.



## Description

# Magnecraft™ General Purpose Relays

## 388J Series

### DPDT 20 A



UL listed when used with proper Magnecraft™ sockets



388J Power Relay

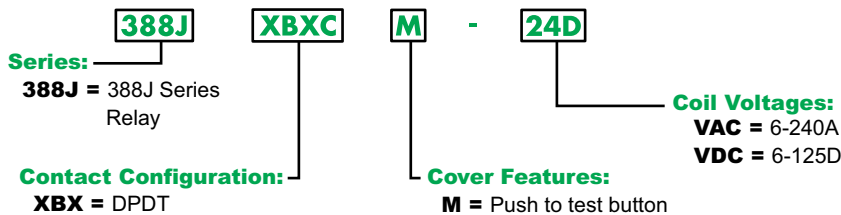
## Description

The 388J plug-in power series offers 20 A current switching, standard mechanical flag indicators and a push-to-test button.

Feature	Benefit
20 A max. switching current	Ideal for automation panels & controls
Push-to-test button	Places contacts in powered position for testing
DPDT contact configuration	Simultaneously control up to 2 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)	Standard Part Number
20 A	DPDT	120 Vac	1700	388JXBXC-M-120A
		24 Vdc	470	388JXBXC-M-24D

## Part Number Explanation



\*Please note that 3PDT contact configurations, clear cover, side flange cover, top flange cover, and DIN mount cover versions are also available. Please contact Customer Service for more information (847-441-2540).

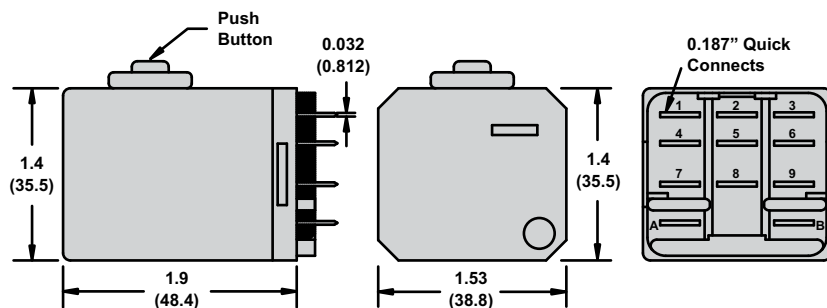
Specifications (UL 508)

Part Number	388JXB
<b>Contact Characteristics</b>	
Terminal Style	Blade
Contact Configuration	DPDT
Maximum Current	20 A
Contact Materials	Silver Alloy
Maximum Switching Voltage	600 V
Rated Switching Current at Voltage	<b>Resistive:</b> 20 A at 300 Vac 50/60 Hz; 20 A at 28 Vdc <b>Motor:</b> 1/2 hp at 600 Vac 50/60 Hz; 1/3 hp at 120 Vac 50/60 Hz <b>Pilot Duty:</b> B600
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>	
Maximum Operating Voltage	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)
Average Consumption	2.0 – 3.5 VA (AC); 1.44 W (DC)
<b>General Characteristics</b>	
Electrical Life at Rated Load	100,000 operations
Mechanical Life	5,000,000 operations
Operating Time (Response Time)	20 ms
Dielectric Strength - Between Coil and Contact (AC)	2200 V(rms)
Dielectric Strength - Between Poles (AC)	2200 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +85 °C (-40 – +185 °F)
Ambient Air Temperature around the Device - Operation	-40 – +55 °C (-40 – +131 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz
Shock Resistance	10 g-n
Degree of Protection	IP 40
Weight	88 g (3.10 oz)
Agency Approvals	UL with socket, UR (E43641), CSA (LR41729), CE

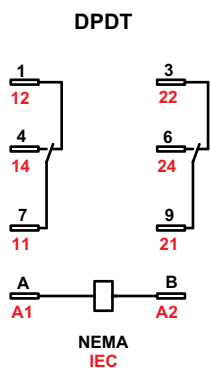
Note: Actual product performance may vary depending on application and environmental conditions.

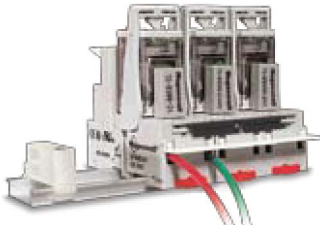
Dimensions — inches (millimeters)

388J with Push Button



Wiring Diagram

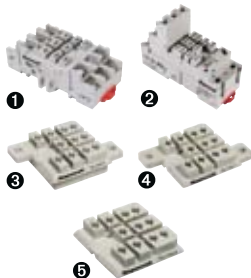




### Description

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/Panel mount with screw terminals & clamping plates	388J	10	70-463-1
Socket 2	DIN mount with elevator terminals and Module Compatible		10	70-788EL11-1
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	0.187 in. Quick Connect Terminals with 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	70-463-1, 70-124-2, 70-178-1, 70-178-2	–	10	16-1351
Panel Mount Adapter 2	Mounts directly to Panel	70-788EL11-1	–	10	16-788C1
Plastic I.D. Tag 3	Write-on plastic labels	70-788EL11-1	–	10	16-750/788FT-1
Extruded Aluminum DIN Rail, 39.37" (1000 mm) 4	Quick installation and removal of sockets	70-788EL11-1, 70-463-1	–	10	16-700DIN
DIN Rail End Clip 4	Holds sockets firmly in place on DIN rail	70-788EL11-1, 70-463-1	–	10	16-DCLIP-1
Insulated Coil Bus Jumper System 5	Wireless socket connection	70-788EL11-1	–	10	16-750/788CBJ-1
Large Socket Module	MOV Suppressor <i>(Protects from damaging electrical spikes)</i>	70-788EL11-1	24 Vac/Vdc	10	70-ASMM-24
Large Socket Module	Protection Diode <i>(Protects external drive circuitry from inductive voltages)</i>		120 Vac/Vdc	10	70-ASMD-250
Large Socket Module 6	LED Indicator <i>(Provides coil status at a glance)</i>		110/240 Vac/Vdc	10	70-ASMLG-110/240
Large Socket Module	RC Suppressor <i>(Snubs back EMF of relay coil)</i>		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%.

## Description

# Magnecraft™ General Purpose Relays

## 755 Latching Series

DPDT 16 A



UL listed when used with proper Magnecraft™ sockets



755 Magnetic Latching Relay

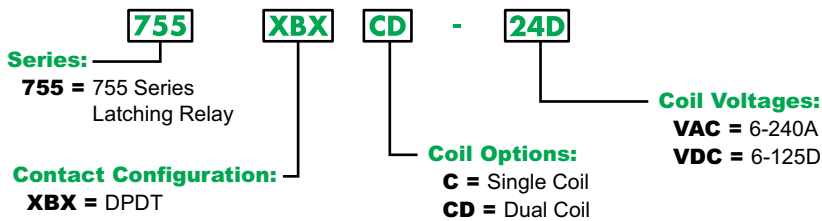
### Description

The 755 Octal-Base Magnetic Latching relays deliver the same performance as the 750 Plug-In Power relays while adding latching functionality and saving energy. When the relay is first pulsed, a permanent magnet maintains this operating position until a second pulse resets the relay back to its original state.

Feature	Benefit
Latching functionality	Energy-saving operation
Octal style mounting	Robust & historically-proven mounting platform that provides excellent structural support
16 A max. switching current	Ideal for automation panels & controls
DPDT contact configuration	Simultaneously control up to 2 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

Contact Rating	Contact Configuration	Nominal Voltage	Coil Resistance (Ω)	Feature	Standard Part Number
16 A	DPDT	24 Vac 50/60 Hz	470	Single Coil	755XBXC-24A
		120 Vac 50/60 Hz	10,000		755XBXC-120A
		12 Vdc	90/90	Dual Coil	755XBXCD-12D
		24 Vdc	350/350		755XBXCD-24D
		110 Vdc	9000/9000		755XBXCD-110D

### Part Number Explanation



\*Please note that non-standard voltages are also available.  
Please contact Customer Service for more information (847-441-2540).

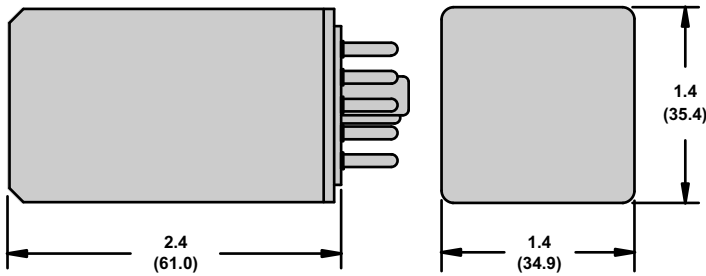
Specifications (UL 508)

Part Number	755XBX
<b>Contact Characteristics</b>	
Terminal Style	Octal
Contact Configuration	DPDT
Maximum Current	16 A
Load Type	Standard
Contact Materials	Silver Alloy
Maximum Switching Voltage	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 16 A at 277 Vac 50/60 Hz; 16 A at 28 Vdc <b>Motor:</b> 1/3 hp at 120 Vac 50/60 Hz; 1/2 hp at 240 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>	
Maximum Operating Voltage	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)
Average Consumption	2 VA (AC); 1.64 W (DC)
<b>General Characteristics</b>	
Electrical Life at Rated Load	100,000 operations
Mechanical Life (Unpowered)	10,000,000 operations
Operating Time (Response Time)	30 ms
Dielectric Strength - Between Coil and Contact (AC)	1500 V(rms)
Dielectric Strength - Between Poles (AC)	2500 V(rms)
Dielectric Strength - Between Contacts (AC)	2500 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +55.25 °C (-40 – +131.45 °F)
Ambient Air Temperature around the Device - Operation	-40.25 – +85.25 °C (-40.45 – +185.45 °F)
Vibration Resistance - Operational	3 g-n at 10-55 Hz
Shock Resistance	10 g-n
Degree of Protection	IP 40
Weight	170 g (6.0 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

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

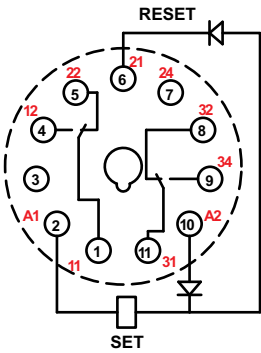
Dimensions — inches (millimeters)

755XBX

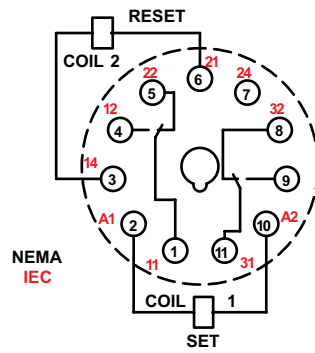


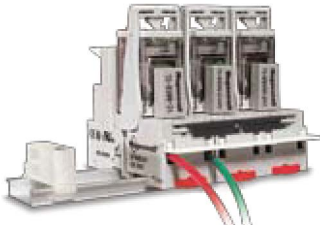
Wiring Diagrams

Single Coil (AC)



Dual Coil (DC)

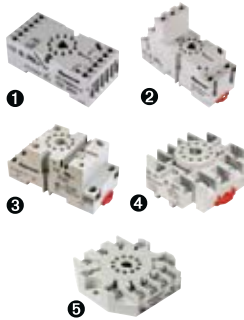




### Description

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/Panel mount with elevator terminals, module compatible	755	10	70-750E11-1
Socket 2	DIN/Panel mount with elevator terminals, module compatible	755	10	70-750EL11-1
Socket 3	DIN/Panel mount, module compatible	755	10	70-750DL11-1
Socket 4	DIN/Panel mount with screw terminals & clamping plates	755	10	70-465-1
Socket 5	Panel mount with screw terminals & clamping plates	755	10	70-170-1

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1	Secures relay in socket	70-750E11-1, 70-750EL11-1, 70-465-1	–	10	16-1351
Plastic I.D. Tag 2	Write-on plastic labels	70-750E11-1, 70-750EL11-1	–	10	16-750/788FT-1
Aluminum DIN Rail, 39.37" (1000 mm) 3	Quick installation and removal of sockets	70-750E11-1, 70-750EL11-1, 70-750DL11-1, 70-465-1	–	10	16-700DIN
DIN Rail End Clip 3	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
Insulated Coil Bus Jumper System 4	Wireless socket connection	70-750DL11-1, 70-750EL11-1	–	10	16-750/788CBJ-1
Large Socket Module	MOV Suppressor (Protects from damaging electrical spikes)	70-750E11-1, 70-750EL11-1, 70-750DL11-1	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 5	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%.



## Description

# Magnecraft™ General Purpose Relays

## 785 Latching Series

DPDT 16 A



UL listed when used with proper Magnecraft™ sockets



785 Magnetic Latching Relay

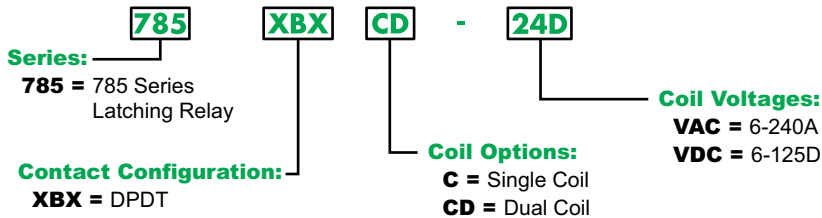
## Description

The 785 Square-Base Magnetic Latching relays deliver the same performance as the 788 Plug-In Power relays while adding latching functionality and saving energy. When the relay is first pulsed, a permanent magnet maintains this operating position until a second pulse resets the relay back to its original state.

Feature	Benefit
Latching functionality	Energy-saving operation
16 A max. switching current	Ideal for automation panels & controls
DPDT contact configuration	Simultaneously control up to 2 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

Contact Rating	Contact Configuration	Nominal Voltage	Coil Resistance (Ω)	Feature	Standard Part Number
16 A	DPDT	120 Vac	10,000	Single Coil	785XBXC-120A
		12 Vdc	88/88	Dual Coil	785XBXCD-12D
		24 Vdc	350/350		785XBXCD-24D

## Part Number Explanation



\*Please note that non-standard voltages are also available.  
Please contact Customer Service for more information (847-441-2540).

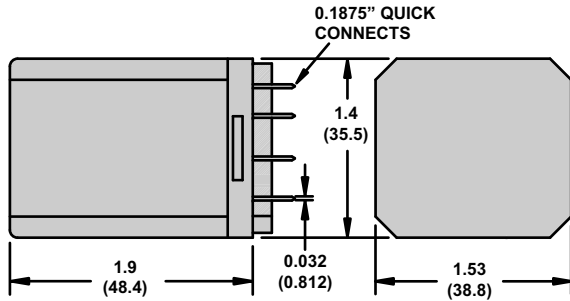
Specifications (UL 508)

Part Number	785XBX
<b>Contact Characteristics</b>	
Terminal Style	Blade
Contact Configuration	DPDT
Maximum Current	16 A
Load Type	Standard
Contact Materials	Silver Alloy
Maximum Switching Voltage	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 16 A at 120 Vac 50/60 Hz; 16 A at 277 Vac 50/60 Hz; 16 A at 28 Vdc <b>Motor:</b> 1/3 hp at 120 Vac 50/60 Hz; 1/2 hp at 240 Vac 50/60 Hz <b>Pilot Duty:</b> B300
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)
<b>Coil Characteristics</b>	
Maximum Operating Voltage	110% (AC / DC)
Maximum Pickup Voltage	85% (AC); 80% (DC)
Drop-out Voltage Threshold	15% (AC); 10% (DC)
Average Consumption	3 VA (AC); 1.4 W (DC)
<b>General Characteristics</b>	
Electrical Life at Rated Load	100,000 operations
Mechanical Life (Unpowered)	5,000,000 operations
Operating Time (Response Time)	20 ms
Dielectric Strength - Between Coil and Contact (AC)	1500 V(rms)
Dielectric Strength - Between Poles (AC)	1500 V(rms)
Dielectric Strength - Between Contacts (AC)	500 V(rms)
Ambient Air Temperature around the Device - Storage	-40 – +55 °C (-40 – +131 °F)
Ambient Air Temperature around the Device - Operation	-40 – +85 °C (-40 – +185 °F)
Vibration Resistance (Operational)	3 g-n at 10-55 Hz
Shock Resistance	10 g-n
Degree of Protection	IP 40
Weight	87 g (3.07 oz)
Agency Approvals	UL with socket, UR (E43641), CE, CSA (LR40787), RoHS

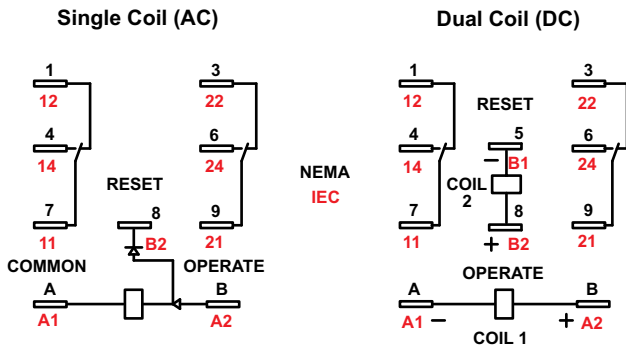
Note: Actual product performance may vary depending on application and environmental conditions.

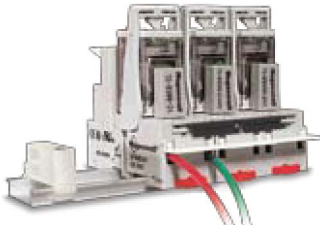
Dimensions — inches (millimeters)

785XBX



Wiring Diagrams

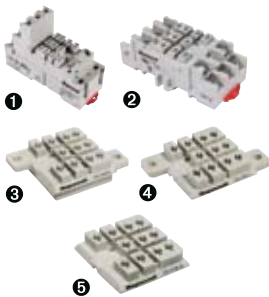




### Description

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 and Module Compatible	785	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, 70-124-2	–	10	16-1351
Plastic I.D. Tag 2	Write-on plastic labels	70-788EL11-1	–	10	16-750/788FT-1
Aluminum DIN Rail, 39.37" (1000 mm) 3	Quick installation and removal of sockets	70-788EL11-1, 70-463-1	–	10	16-700DIN
DIN Rail End Clip 3	Holds sockets firmly in place on DIN rail	70-788EL11-1, 70-463-1	–	10	16-DCLIP-1
Insulated Coil Bus Jumper System 4	Wireless socket connection	70-788EL11-1	–	10	16-750/788CBJ-1
Large Socket Module	MOV Suppressor ( <i>Protects from damaging electrical spikes</i> )	70-788EL11-1	24 Vac/Vdc	10	70-ASMM-24
Large Socket Module	Protection Diode ( <i>Protects external drive circuitry from inductive voltages</i> )		120 Vac/Vdc	10	70-ASMD-250
Large Socket Module 5	LED Indicator ( <i>Provides coil status at a glance</i> )		110/240 Vac/Vdc	10	70-ASMLG-110/240
Large Socket Module	RC Suppressor ( <i>Snubs back EMF of relay coil</i> )		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%.

## Description

# Magnecraft™ General Purpose Relays

## 782H Hazardous Location Series

### 4PDT 3 A and 5 A



UL listed when used with proper Magnecraft™ sockets



782H Hazardous Location Relay

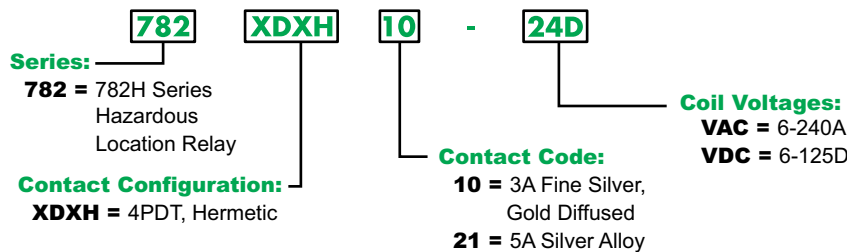
## Description

The hermetically sealed 782H Series relays comply with UL Class I Division 2 requirements for use in hazardous locations.

Feature	Benefit
Hermetically sealed	Complies with UL Class I Division 2 for Hazardous Locations Groups A, B, C, & D; sealed for wash down conditions
3 A / 5 A max. switching current	Ideal for automation & control applications
4PDT contact configuration	Simultaneously control up to 4 separate circuits
Screw mount options	Allows for direct mounting
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

Contact Rating	Contact Configuration	Nominal Voltage	Coil Resistance (Ω)	Standard Part Number
3 A	4PDT	120 Vac 50/60 Hz	3900	782DXH10-120A
		12 Vdc	160	782DXH10-12D
		24 Vdc	650	782DXH10-24D
		110/125 Vdc	13800	782DXH10-110D
5 A	4PDT	120 Vac 50/60 Hz	3900	782DXH21-120A
		12 Vdc	160	782DXH21-12D
		24 Vdc	650	782DXH21-24D

## Part Number Explanation



\*Please note that 1A Bifurcated and 3A Silver Alloy versions are also available. Please contact Customer Service for more information (847-441-2540).

# Magnecraft™ General Purpose Relays

## 782H Hazardous Location Series

### 4PDT 3 A and 5 A

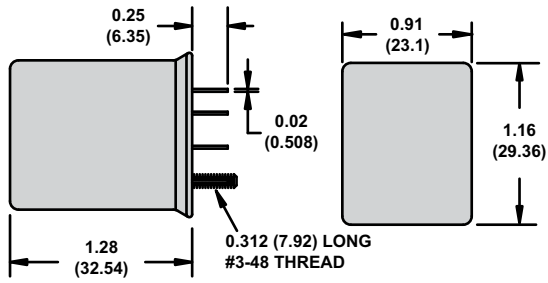
### Specifications (UL 508)

Part Number	782XDXH21	782XDXH10
<b>Contact Characteristics</b>		
Terminal Style	Blade	Blade
Contact Configuration	4PDT	4PDT
Maximum Current	5 A	3 A
Load Type	Standard	Low Level
Contact Materials	Silver Alloy	Fine Silver
Maximum Switching Voltage	300 V	300 V
Rated Switching Current at Voltage	<b>Resistive:</b> 5 A at 120 Vac 50/60 Hz; 5 A at 240 Vac 50/60 Hz; 5 A at 30 Vdc	<b>Resistive:</b> 3 A at 120 Vac 50/60 Hz; 3 A at 240 Vac 50/60 Hz; 3 A at 30 Vdc <b>Motor:</b> 1/10 hp at 240 Vac 50/60 Hz; 1/10 hp at 120 Vac 50/60 Hz
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)	10 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	1.2 VA (AC); 0.9 W (DC)	1.2 VA (AC); 0.9 W (DC)
<b>General Characteristics</b>		
Electrical Life at Rated Load	100,000 operations	100,000 operations
Mechanical Life (Unpowered)	10,000,000 operations	10,000,000 operations
Operating Time (Response Time)	20 ms	20 ms
Dielectric Strength - Between Coil and Contact (AC)	1240 V(rms)	1240 V(rms)
Dielectric Strength - Between Poles (AC)	1240 V(rms)	1240 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 – +70 °C (-40 – +182 °F)	-40 – +70 °C (-40 – +158 °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 67	IP 67
Weight	45 g (1.59 oz)	45 g (1.59 oz)
Agency Approvals	UL with socket, UR (E209950), CE, CSA (LR40787), RoHS	UL with socket, UR (E209950), CE, CSA (LR40787), RoHS

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

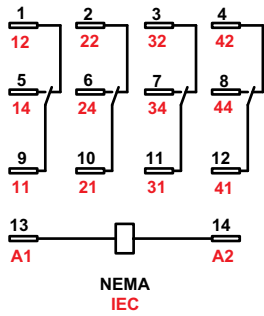
**Dimensions — inches (millimeters)**

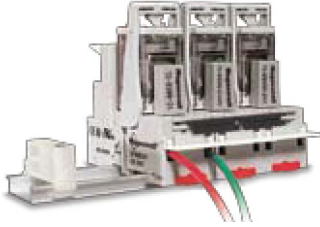
782H



**Wiring Diagrams**

4PDT

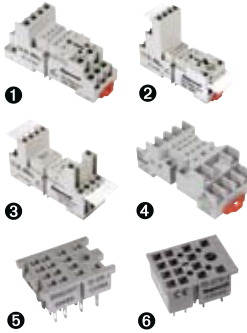




### Description

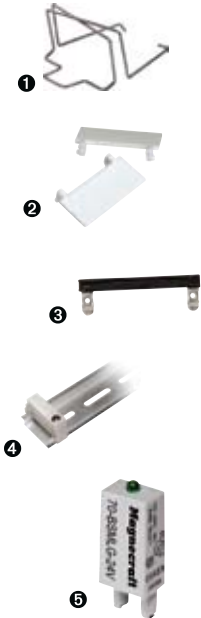
Optional sockets offer customizable, finger-safe™ solutions including protection modules, hold-down clips, and ID tags. Sockets are DIN rail and panel mount compatible.

### Relay Accessories



Description	Function	For Use With Relays	Pkg. Min.	Standard Part Number
Socket 1	DIN/Panel mount with screw terminals & clamping plates	782XDXH	10	70-782D14-1
Socket 2	DIN/Panel mount with elevator terminals	782XDXH	10	70-782EL14-1
Socket 3	DIN/Panel mount with rising elevator box terminals	782XDXH	10	70-782E14-1
Socket 4	DIN/Panel mount with screw terminals & clamping plates	782XDXH	10	70-461-1
Socket 5	Solder Terminals for Chassis Mount	782XDXH	10	70-378-1
Socket 6	Printed circuit terminals for PCB mount	782XDXH	10	70-379-1

### Socket Accessories



Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1	Secures relay in socket	70-782D14-1, 70-782E14-1, 70-782EL14-1, 70-461-1, 70-378-1, 70-379-1	–	10	16-1342
Plastic I.D. Tag 2	Write-on plastic labels	70-782E14-1, 70-782EL14-1	–	10	16-782FT-1
Insulated Coil Bus Jumper System 3	Wireless socket connection	70-782EL14-1	–	10	16-782CBJ-1
Extruded Aluminum DIN Rail, 39.37" (1000 mm) 4	Quick installation and removal of sockets	70-782D14-1, 70-782EL14-1, 70-782E14-1	–	10	16-700DIN
DIN Rail End Clip 4	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
Small Socket Module	Protection Diode (Protects external drive circuitry from inductive voltages)	70-782D14-1, 70-782EL14-1, 70-782E14-1	6 to 250 Vdc	10	70-BSMD-250
Small Socket Module 5	LED Indicator (Provides coil status at a glance)		24 Vac/Vdc	10	70-BSMLG-24
Small Socket Module	MOV Suppressor (Protects from damaging electrical spikes)		120 Vac/Vdc	10	70-BSMM-120
			24 Vac/Vdc	10	70-BSMM-24
			240 Vac/Vdc	10	70-BSMM-240

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



## Description

# Magnecraft™ General Purpose Relays

## 750H Hazardous Location Series

### DPDT, 3PDT 12 A



UL listed when used with proper Magnecraft™ sockets



750H Hazardous Location Relay

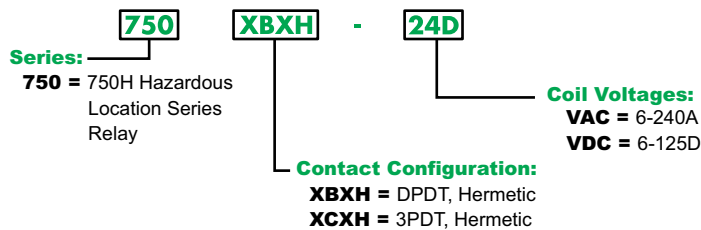
## Description

The hermetically sealed 750H Series relays comply with UL Class I Division 2 requirements for use in hazardous locations.

Feature	Benefit
Hermetically sealed	Complies with UL Class I Division 2 for Hazardous Locations Groups A, B, C, & D; sealed for wash down conditions
Octal style mounting	Robust & historically-proven mounting platform that provides excellent structural support
12 A max. switching current	Ideal for automation & control applications
DPDT & 3PDT contact configuration	Simultaneously control separate circuits
Socket mount option	Simplifies installation & maintenance while also allowing the use of protection modules, hold-down clips & other accessories

Contact Rating	Contact Configuration	Nominal Voltage	Coil Resistance (Ω)	Standard Part Number
12 A	DPDT	24 Vac 50/60 Hz	72	750XBXH-24A
		120 Vac 50/60 Hz	1700	750XBXH-120A
		12 Vdc	120	750XBXH-12D
		24 Vdc	470	750XBXH-24D
		110/125 Vdc	10000	750XBXH-110/125D
	3PDT	24 Vac 50/60 Hz	72	750XCXH-24A
		120 Vac 50/60 Hz	1700	750XCXH-120A
		24 Vdc	470	750XCXH-24D
		110/125 Vdc	10000	750XCXH-110/125D

## Part Number Explanation



\*Please note that 1A Bifurcated and 3A Silver Alloy versions are also available. Please contact Customer Service for more information at (847-441-2540).

# Magnecraft™ General Purpose Relays

## 750H Hazardous Location Series

### DPDT, 3PDT 12 A

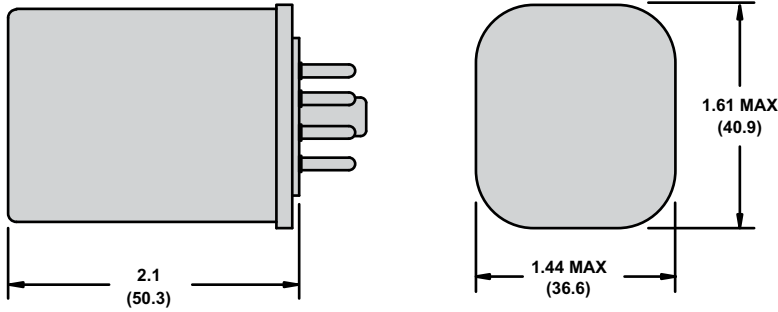
### Specifications (UL 508)

Part Number	750XBXH	750CXH
<b>Contact Characteristics</b>		
Terminal Style	Octal	Octal
Contact Configuration	DPDT	3PDT
Maximum Current	12 A	12 A
Load Type	Standard	Standard
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; 12 A at 240 Vac 50/60 Hz; 12 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; 12 A at 240 Vac 50/60 Hz; 12 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
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	1.2 VA (AC); 0.9 W (DC)	2 VA (AC); 1.2 W (DC)
<b>General Characteristics</b>		
Electrical Life at Rated Load	100,000 operations	100,000 operations
Mechanical Life (Unpowered)	10,000,000 operations	10,000,000 operations
Operating Time (Response Time)	20 ms	20 ms
Dielectric Strength - Between Coil and Contact (AC)	1500 V(rms)	1500 V(rms)
Dielectric Strength - Between Poles (AC)	1500 V(rms)	1500 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 67	IP 67
Weight	130 g (4.59 oz)	130 g (4.59 oz)
Agency Approvals	UL with socket, UR (E209950), RoHS	UL with socket, UR (E209950), RoHS

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

**Dimensions — inches (millimeters)**

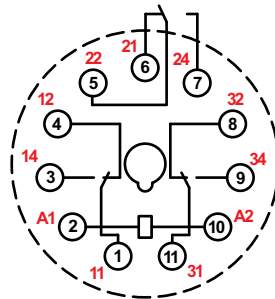
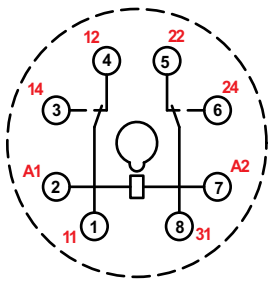
750H



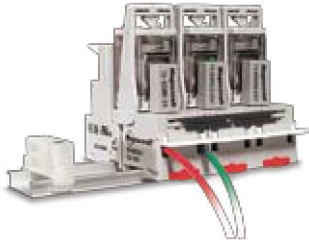
**Wiring Diagrams**

DPDT

3PDT



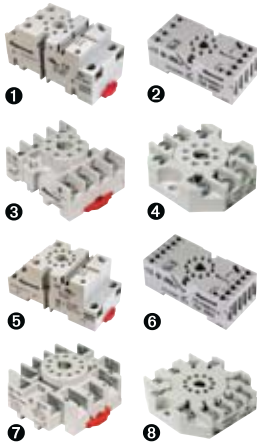
NEMA  
IEC



### 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/Panel Mount with Screw Terminals	750XBXH	10	70-750DL8-1
Socket 2	DIN/Panel mount with elevator terminals, module compatible	750XBXH	10	70-750E8-1
Socket 3	DIN/Panel mount with screw terminals & clamping plates	750XBXH	10	70-464-1
Socket 4	Panel mount with screw terminals & clamping plates	750XBXH	10	70-169-1
Socket 5	DIN/Panel Mount	750XCXH	10	70-750DL11-1
Socket 6	DIN/Panel mount with elevator terminals	750XCXH	10	70-750E11-1
Socket 7	DIN/Panel mount with screw terminals & clamping plates	750XCXH	10	70-465-1
Socket 8	Panel mount with screw terminals & clamping plates	750XCXH	10	70-170-1

### Socket Accessories



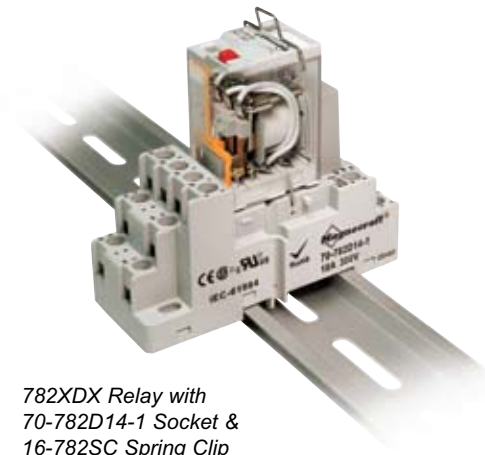
Description	Function	For Use With Sockets	Coil Voltage	Pkg. Min.	Standard Part Number
Metal Spring Clip 1	Secures relay in socket	70-750DL8-1, 70-750E8-1, 70-464-1, 70-750E11-1, 70-750DL11-1, 70-465-1	–	10	16-1351
Plastic I.D. Tag 2	Write-on plastic labels	70-750E8-1, 70-750E11-1	–	10	16-750/788FT-1
Insulated Coil Bus Jumper System 3	Wireless Socket Connection	70-750DL8-1, 70-750DL11-1	–	10	16-750/788CBJ-1
Extruded Aluminum DIN Rail, 39.37" (1000 mm) 4	Quick installation and removal of sockets	70-750DL8-1, 70-750E8-1, 70-464-1, 70-750E11-1, 70-750DL11-1, 70-465-1	–	10	16-700DIN
DIN Rail End Clip 4	Holds sockets firmly in place on DIN rail	–	–	10	16-DCLIP-1
Large Socket Module	MOV Suppressor (Protects from damaging electrical spikes)	70-750DL8-1, 70-750E8-1, 70-750E11-1, 70-750DL11-1	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 5	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%.

- Socket Specifications . . . . . 54
- Mounting Adapter Specifications . . . . . 77



The following relay/socket combinations comprise a UL Listed assembly when used with each other. This added benefit allows for easier installation as there are no end-use evaluations required when using Magnecraft relays or sockets with third party components.



782XDX Relay with  
70-782D14-1 Socket &  
16-782SC Spring Clip

### UL Listed Relay/Socket Combinations

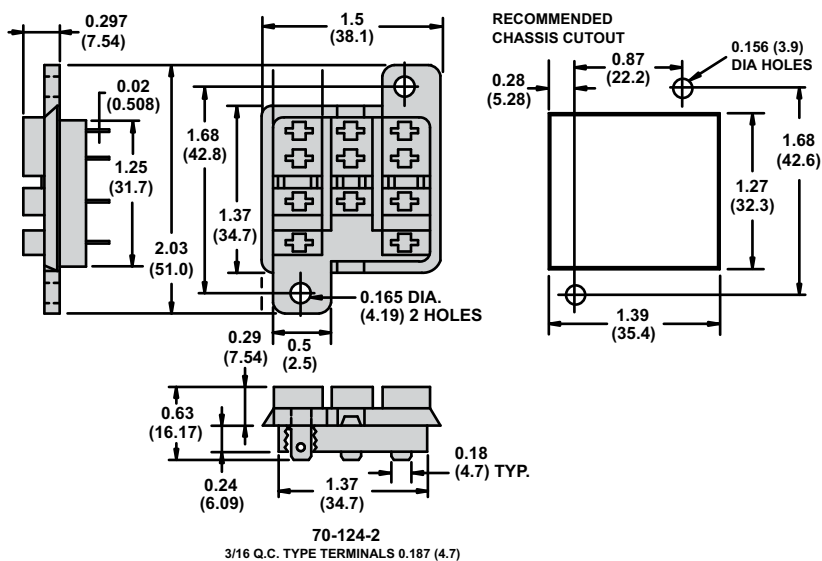
Mating Relay(s)	Number of Socket Pins	Socket Part Number
781	5	70-781D5-1A
782 Power	8	70-782D8-1A
		70-459-1
782 Control	8	70-782EL8-1
	11	70-782EL11-1
	14	70-782D14-1
		70-782E14-1
		70-782EL14-1
14	70-461-1	
783	11	70-783D11-1A
784	14	70-784D14-1
388J	11	70-463-1
		70-464-1
		70-750E8-1
		70-750EL8-1
		70-750DL8-1
750, 755	11	70-465-1
		70-750E11-1
		70-750EL11-1
		70-750DL11-1
785, 788	11	70-463-1
		70-788EL11-1
782H	14	70-782EL14-1
		70-782E14-1
		70-782D14-1
		70-461-1
750H	8	70-464-1
	8	70-750E8-1
	11	70-465-1
		70-750E11-1

## Socket Specifications

Part Number	70-124-2
Contact Configuration	3PDT
Number of Terminals	11
Mounting Style	Panel / Chassis
Current Rating	15 A
Nominal Voltage Rating	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated
Screw Terminals	Copper Alloy, Zinc Plated
Screw Style	–
Screw Size	–
Maximum Screw Torque	–
Terminal Connection	Solder
Terminal Layout	Mix
Maximum Wire Size	<b>Solid Cu:</b> (Output) 16 AWG, 1.0 mm <sup>2</sup> ; <b>Stranded Cu:</b> (Output) 16 AWG, 1.0 mm <sup>2</sup>
DIN Rail Mounting, EN 60715	–
Chassis Mount Screw Torque	–
Flammability Rating	94V-0
Weight	12.1 g (0.43 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS

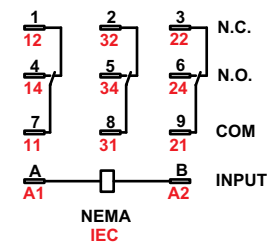
## Dimensions — inches (millimeters)

70-124-2



## Wiring Diagram

70-124-2

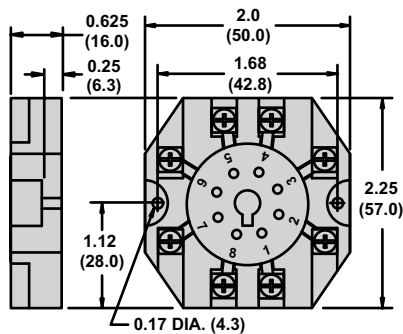


### Socket Specifications

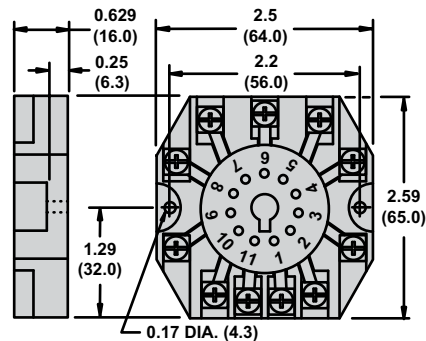
Part Number	70-169-1	70-170-1
Contact Configuration	DPDT	3PDT
Number of Terminals	8	11
Mounting Style	Panel	Panel
Current Rating	15 A	15 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221°F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	–	–
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Screw Clamping	Screw Clamping
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	57 g (2.01 oz)	57 g (2.01 oz)
Agency Approvals	UL (E70550), CE, CSA (LR97899), RoHS	UL (E70550), CE, CSA (LR97899), RoHS

### Dimensions — inches (millimeters)

70-169-1

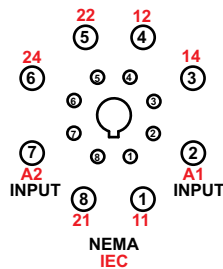


70-170-1

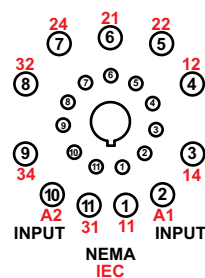


### Wiring Diagrams

70-169-1



70-170-1

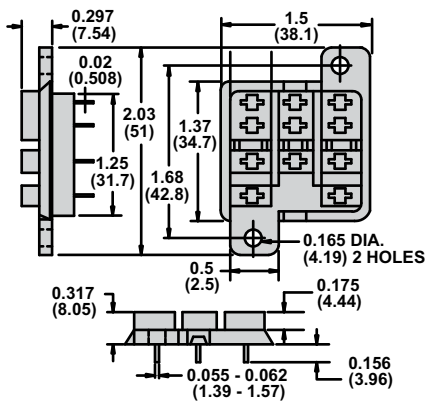


### Socket Specifications

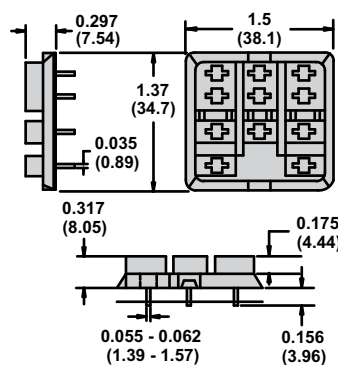
Part Number	70-178-1	70-178-2
Contact Configuration	3PDT	3PDT
Number of Terminals	11	11
Mounting Style	Panel / PCB	PCB
Current Rating	15 A	15 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	IP 20	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Style	–	–
Screw Size	–	–
Maximum Screw Torque	–	–
Terminal Connection	PCB	PCB
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> (Output): 16 AWG, 1.0 mm <sup>2</sup> <b>Stranded Cu:</b> (Output): 16 AWG, 1.0 mm <sup>2</sup>	<b>Solid Cu:</b> (Output): 16 AWG, 1.0 mm <sup>2</sup> <b>Stranded Cu:</b> (Output): 16 AWG, 1.0 mm <sup>2</sup>
DIN Rail Mounting, EN 60715	–	–
Chassis Mount Screw Torque	–	–
Flammability Rating	94V-0	94V-0
Weight	12.1 g (0.43 oz)	12.1 g (0.43 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

### Dimensions — inches (millimeters)

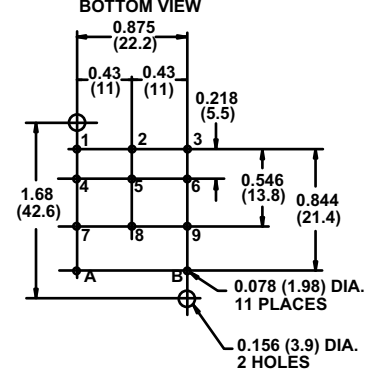
70-178-1



70-178-2

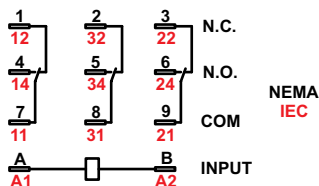


RECOMMENDED CIRCUIT BOARD LAYOUT FOR 70-178-1 & 70-178-2



### Wiring Diagram

70-178-1 & 70-178-2

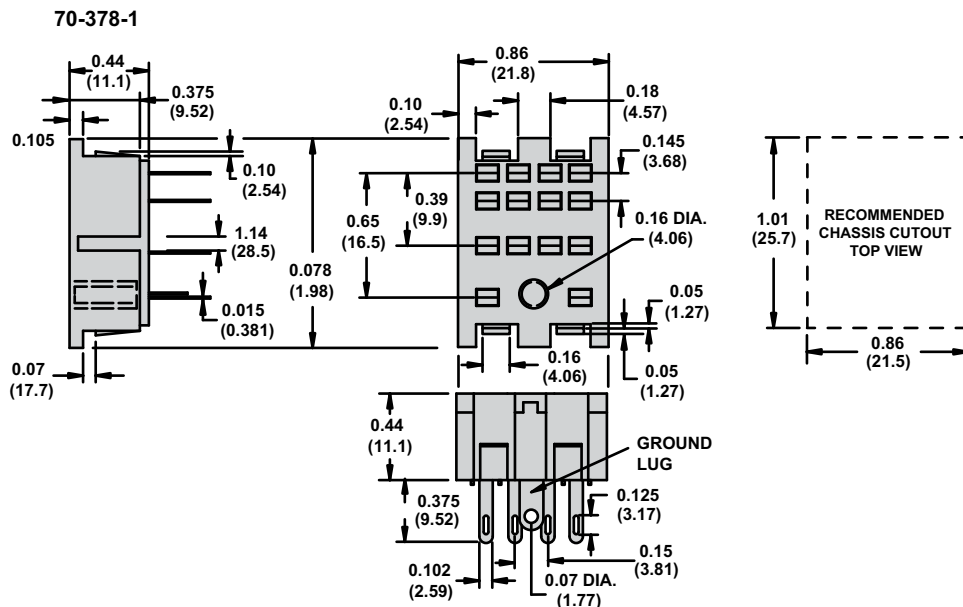




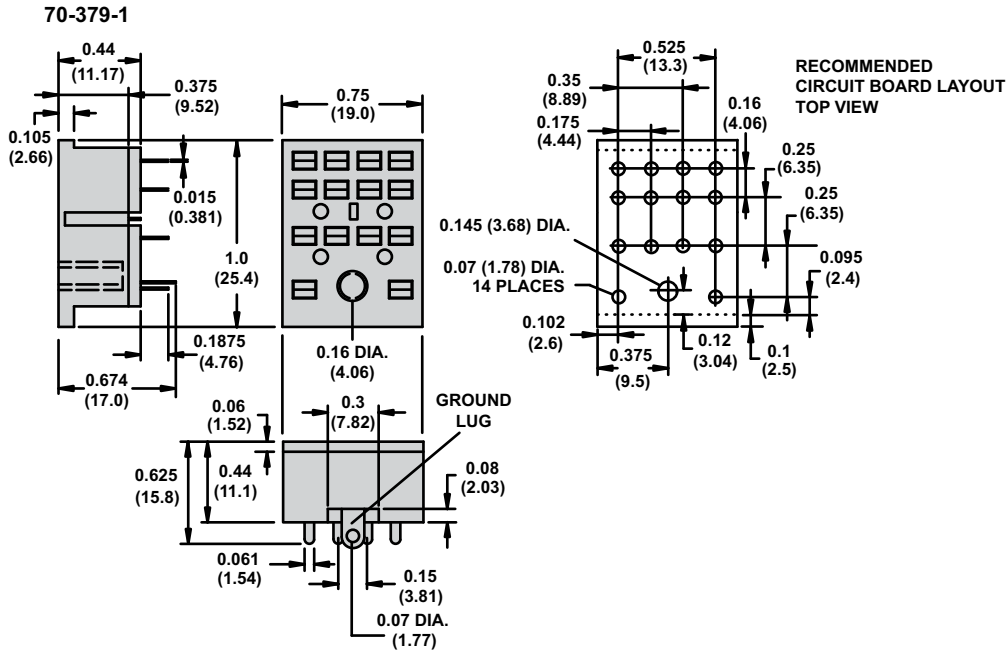
### Socket Specifications

Part Number	70-378-1	70-379-1
Contact Configuration	4PDT	4PDT
Number of Terminals	14	14
Mounting Style	Chassis	PCB
Current Rating	5 A	5 A
Nominal Voltage Rating	120 V	120 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	–	–
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Style	–	–
Screw Size	–	–
Maximum Screw Torque	–	–
Terminal Connection	Solder	PCB
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> (Output): 18 AWG, 0.8 mm <sup>2</sup> <b>Stranded Cu:</b> (Output): 18 AWG, 0.8 mm <sup>2</sup>	–
DIN Rail Mounting, EN 60715	35 mm	–
Chassis Mount Screw Torque	7 Lb-in / 0.8 N·m	–
Flammability Rating	94V-0	94V-0
Weight	6.2 g (0.22 oz)	5.8 g (0.20 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

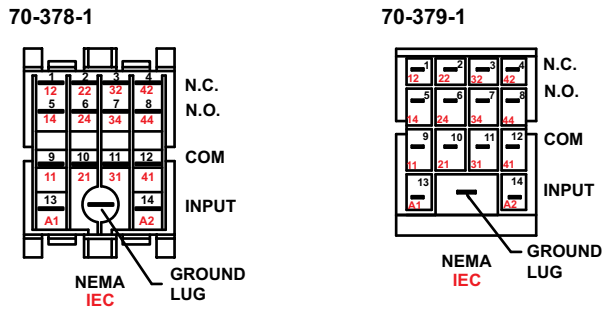
### Dimensions — inches (millimeters)



Dimensions — inches (millimeters)



Wiring Diagrams

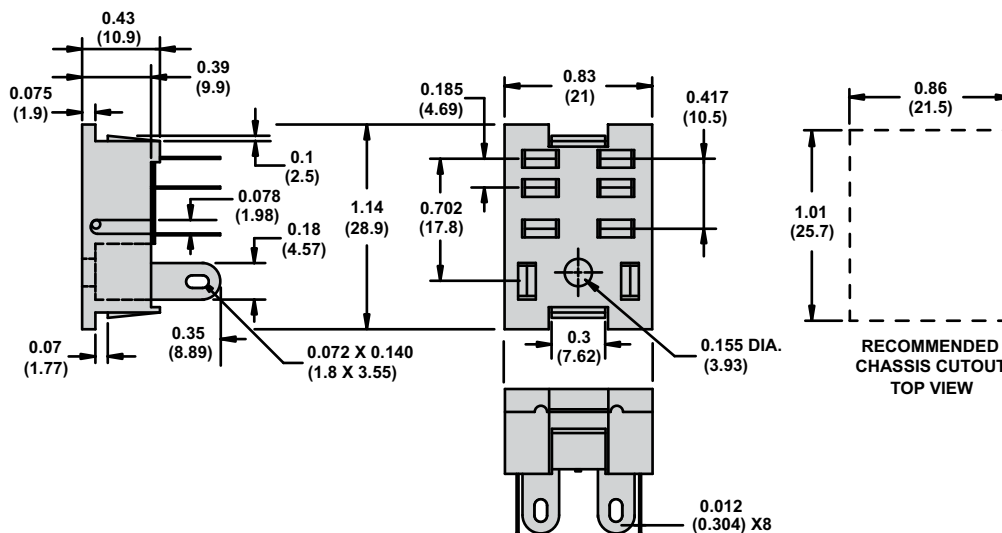


Socket Specifications

Part Number	70-401-1	70-402-1
Contact Configuration	DPDT	DPDT
Number of Terminals	8	8
Mounting Style	Chassis	PCB
Current Rating	10 A	10 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	–	–
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Style	Combination Head	–
Screw Size	M3.5 mm	–
Maximum Screw Torque	9 Lb-in / 1.0 N·m	–
Terminal Connection	Solder	PCB
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> (Output): 18 AWG, 0.8 mm <sup>2</sup> <b>Stranded Cu:</b> (Output): 18 AWG, 0.8 mm <sup>2</sup>	–
DIN Rail Mounting, EN 60715	–	–
Chassis Mount Screw Torque	7 Lb-in / 0.8 N·m	–
Flammability Rating	94V-0	94V-0
Weight	6.2 g (0.22 oz)	6.5 g (0.23 oz)
Agency Approvals	UL (E70550), CE, RoHS	UL (E70550), CE, RoHS

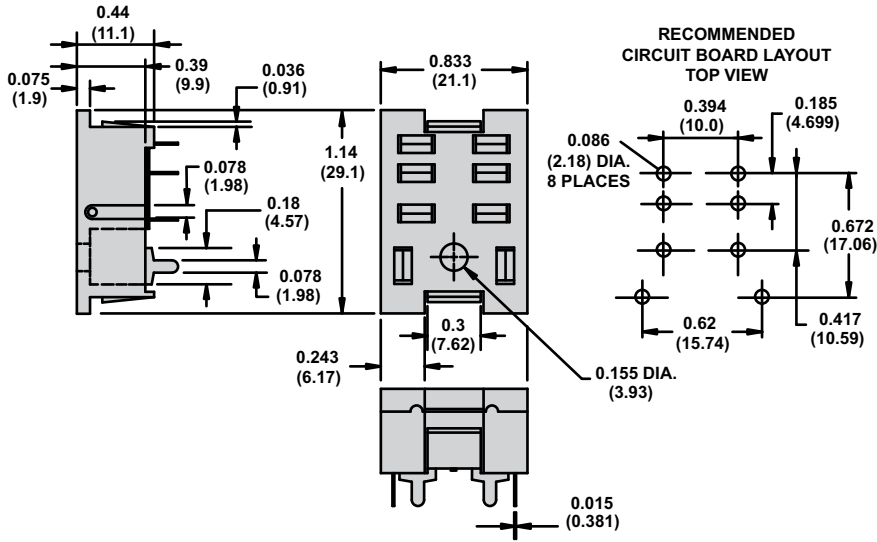
Dimensions — inches (millimeters)

70-401-1



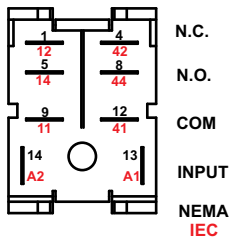
Dimensions — inches (millimeters)

70-402-1

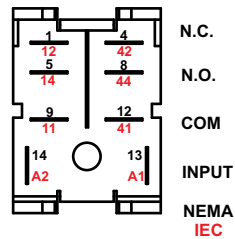


Wiring Diagrams

70-401-1



70-402-1

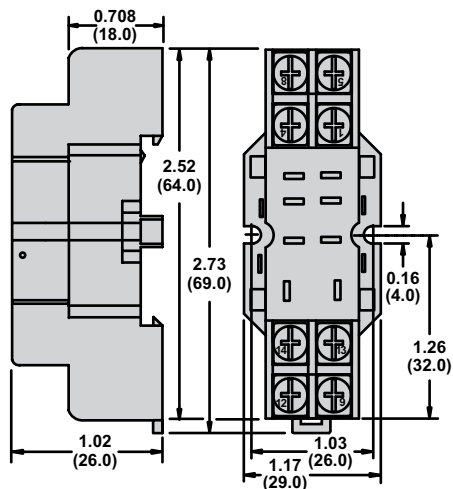


Socket Specifications

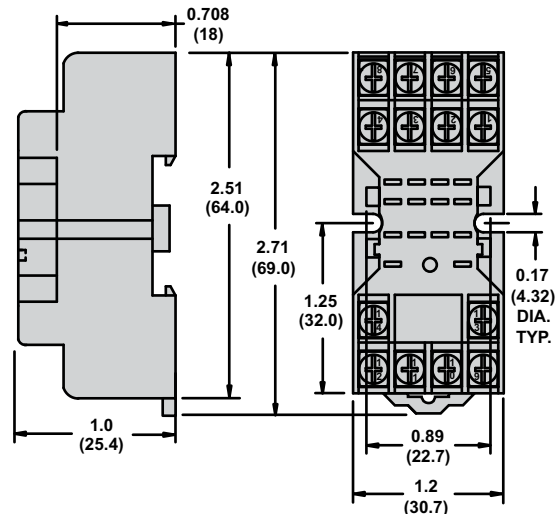
Part Number	70-459-1	70-461-1	70-463-1
Contact Configuration	DPDT	4PDT	3PDT
Number of Terminals	8	14	11
Mounting Style	Panel / DIN rail	Panel / DIN rail	Panel / DIN rail
Current Rating	10 A	10 A	15 A
Nominal Voltage Rating	300 V	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	–	–	–
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head	Combination Head
Screw Size	M3.5 mm	M3 mm	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	7 Lb-in / 0.8 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Screw Clamping	Elevator	Screw Clamping
Terminal Layout	Mix	Separate	Mix
Maximum Wire Size	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 14 / 16 (2) AWG, 2.5 / 1.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 14 / 16 (2) AWG, 2.5 / 1.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0	94V-0
Weight	50 g (1.76 oz)	50 g (1.76 oz)	51 g (1.79 oz)
Agency Approvals	UL (E70550), CE, CSA (LR97899), RoHS	UL (E70550), CE, CSA (LR97899), RoHS	UL (E70550), CE, CSA (LR97899), RoHS

Dimensions — inches (millimeters)

70-459-1

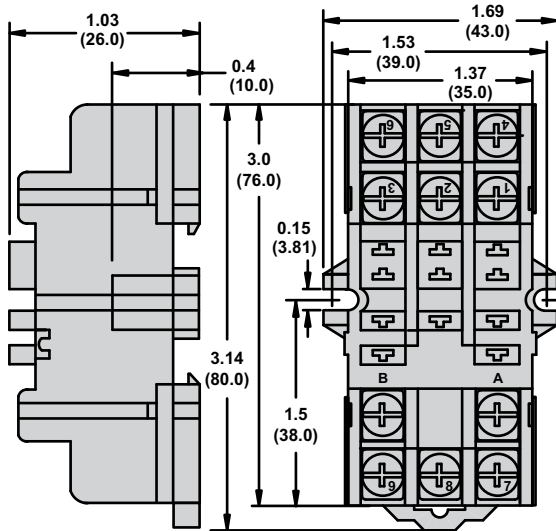


70-461-1



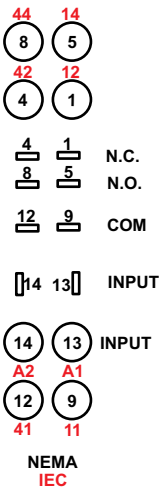
Dimensions — inches (millimeters)

70-463-1

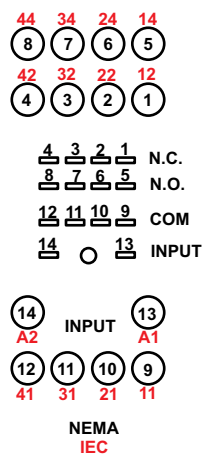


Wiring Diagrams

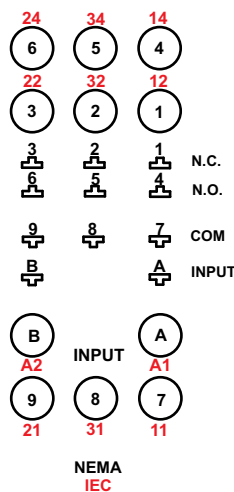
70-459-1



70-461-1



70-463-1

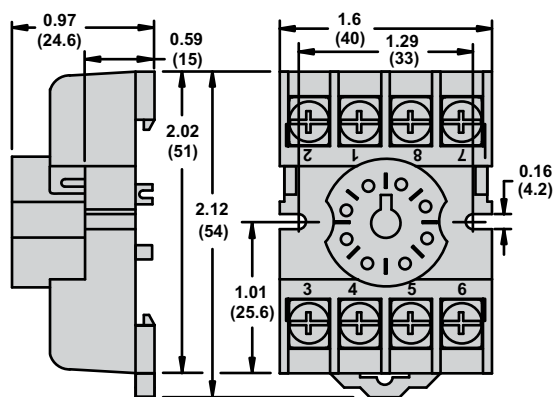


### Socket Specifications

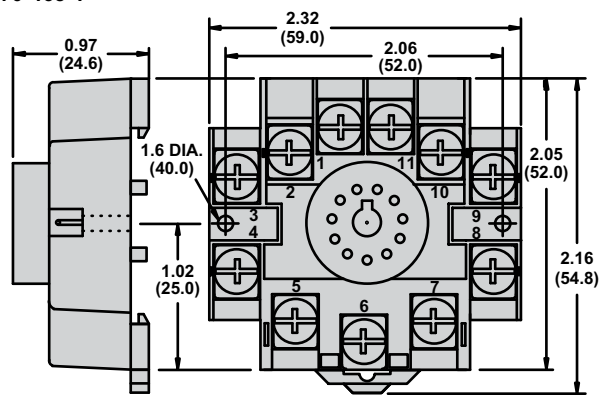
Part Number	70-464-1	70-465-1
Contact Configuration	DPDT	3PDT
Number of Terminals	8	11
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	15 / 10 A	15 / 5 A
Nominal Voltage Rating	300 / 600 V	300 / 600 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	–	–
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Screw Clamping	Screw Clamping
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	40 g (1.41 oz)	57 g (2.01 oz)
Agency Approvals	UL (E70550), CE, CSA (LR97899), RoHS	UL (E70550), CE, CSA (LR97899), RoHS

### Dimensions — inches (millimeters)

70-464-1

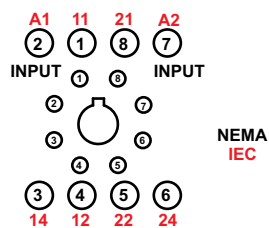


70-465-1

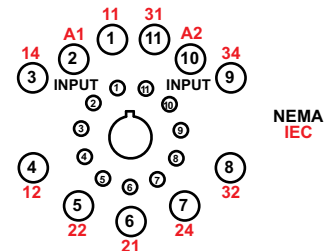


### Wiring Diagrams

70-464-1



70-465-1

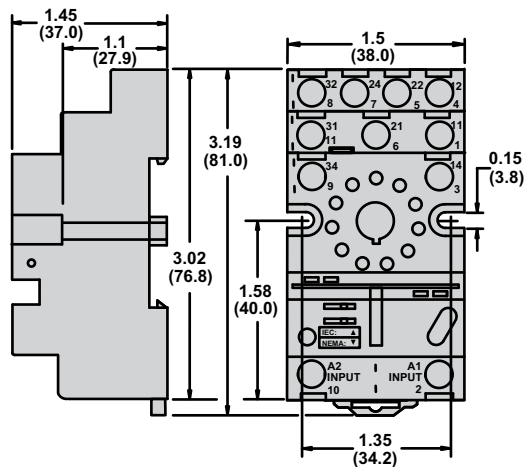


Socket Specifications

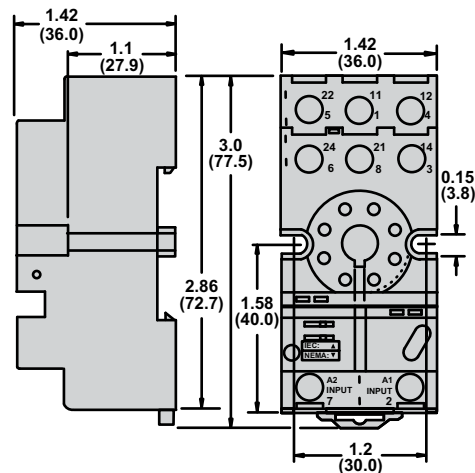
Part Number	70-750DL8-1	70-750DL11-1
Contact Configuration	DPDT	3PDT
Number of Terminals	8	11
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	16 A	16 A
Nominal Voltage Rating	300 V	600 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	IP 20	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Screw Clamping	Screw Clamping
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	60 g (2.12 oz)	78 g (2.75 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

Dimensions — inches (millimeters)

70-750DL11-1



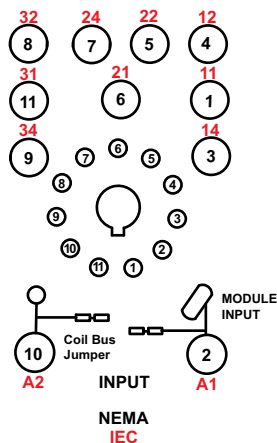
70-750DL8-1



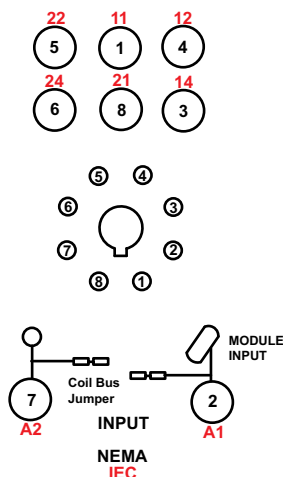


## Wiring Diagrams

70-750DL11-1



70-750DL8-1

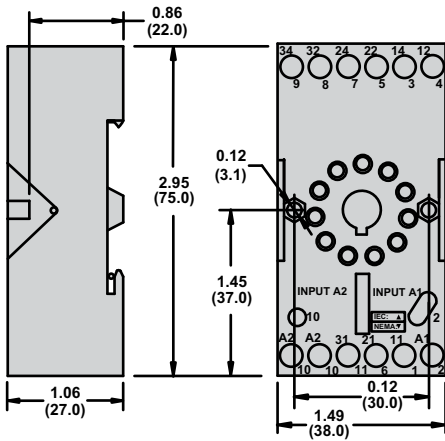


## Socket Specifications

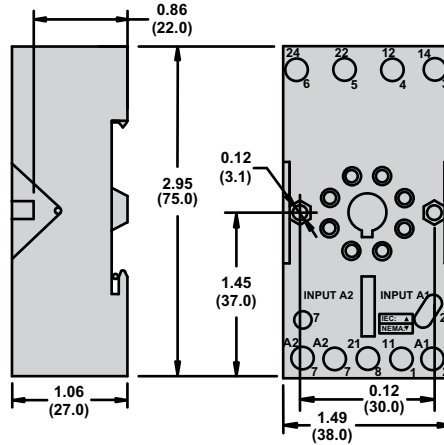
Part Number	70-750E8-1	70-750E11-1
Contact Configuration	DPDT	3PDT
Number of Terminals	8	11
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	12 A	12 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40to +221 °F)
Protection Category (Finger-safe™)	IP 20	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Elevator	Elevator
Terminal Layout	Separate	Separate
Maximum Wire Size	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	85 g (3.0 oz)	85 g (3.0 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

Dimensions — inches (millimeters)

70-750E11-1

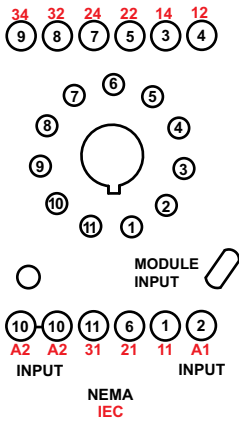


70-750E8-1

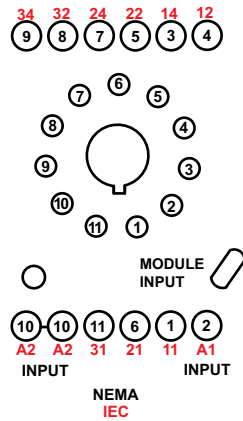


Wiring Diagrams

70-750E11-1



70-750E8-1

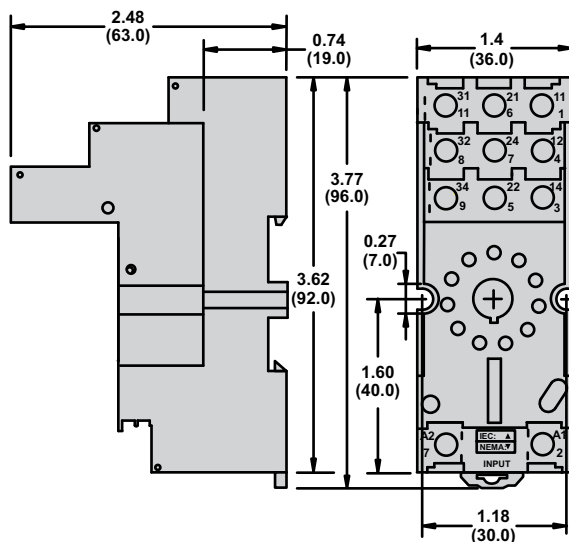


Socket Specifications

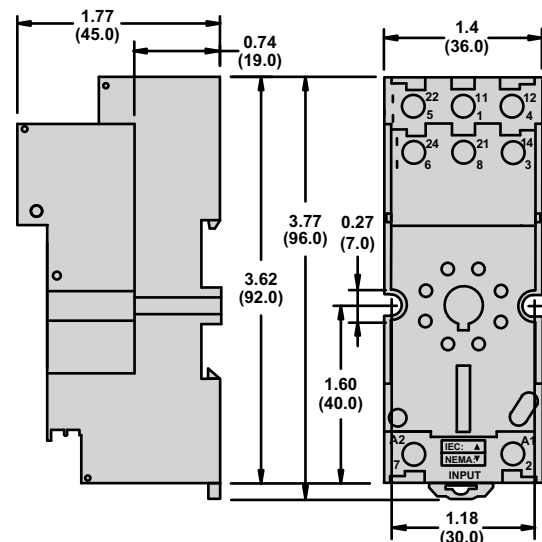
Part Number	70-750EL8-1	70-750EL11-1
Contact Configuration	DPDT	3PDT
Number of Terminals	8	11
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	16 A	16 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40to +221 °F)
Protection Category (Finger-safe™)	IP 20	IP20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Elevator	Elevator
Terminal Layout	Separate	Separate
Maximum Wire Size	<b>Solid Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12/14 (2) AWG, 4/2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	79 g (2.79 oz)	79 g (2.79 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

Dimensions — inches (millimeters)

70-750EL11-1

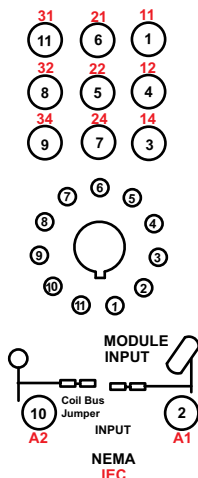


70-750EL8-1

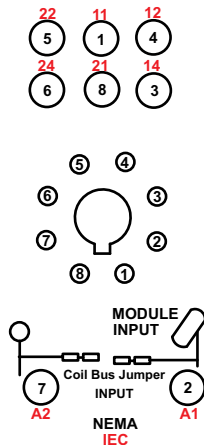


## Wiring Diagrams

70-750EL11-1



70-750EL8-1

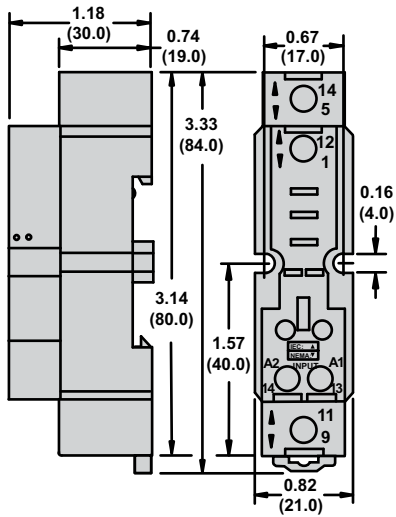


## Socket Specifications

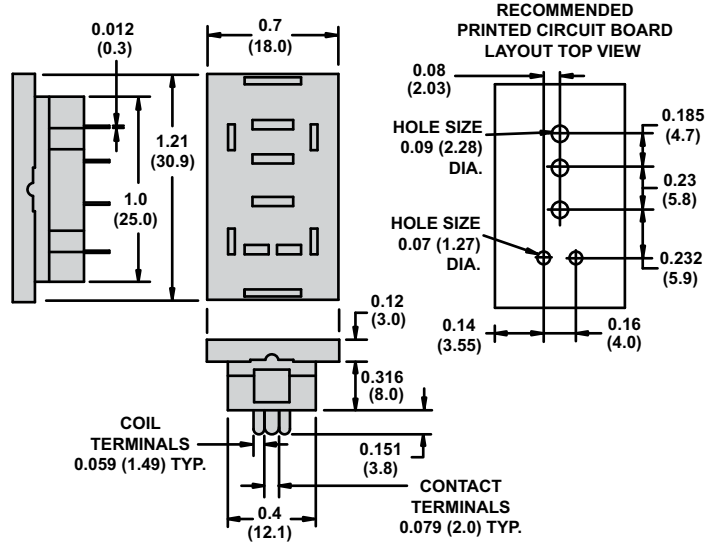
Part Number	70-781D5-1A	70-781T-1
Contact Configuration	SPDT	SPDT
Number of Terminals	5	5
Mounting Style	Panel / DIN rail	PCB
Current Rating	20 A	10 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	IP 20	–
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Copper Alloy, Zinc Plated
Screw Style	Combination Head	–
Screw Size	M3 mm / M3.5 mm	–
Maximum Screw Torque	M3 : 9 Lb-in / 0.8 N•m; M3.5 : 9 Lb-in / 1.0 N•m	–
Terminal Connection	Screw Clamping	PCB
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>	–
DIN Rail Mounting, EN 60715	35 mm	–
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	–
Flammability Rating	94V-0	94V-0
Weight	35 g (1.23 oz)	18 g (0.63 oz)
Agency Approvals	UL (E70550), CE, CSA (LR97899), RoHS	UL (E70550), CE, RoHS

Dimensions — inches (millimeters)

70-781D5-1A

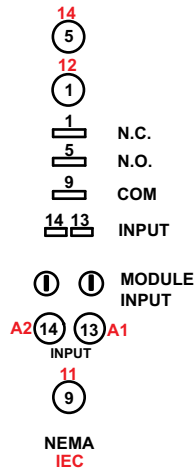


70-781T-1

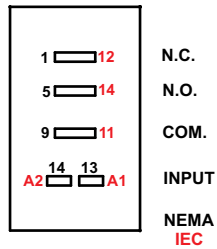


Wiring Diagrams

70-781D5-1A



70-781T-1

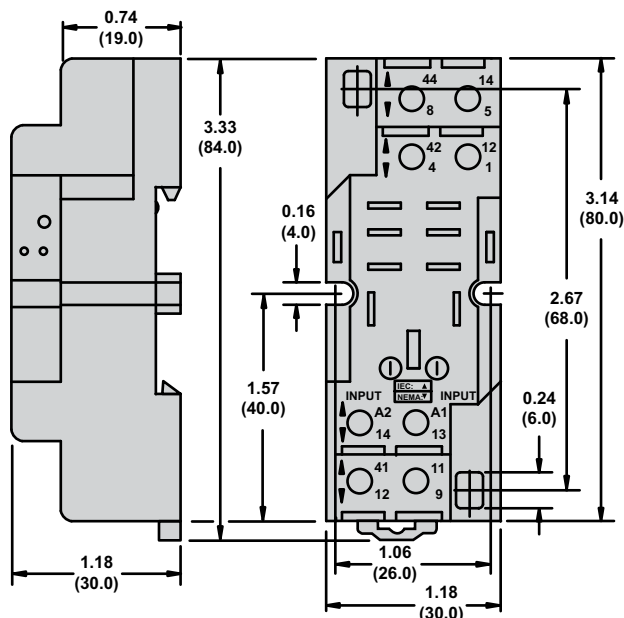


Socket Specifications

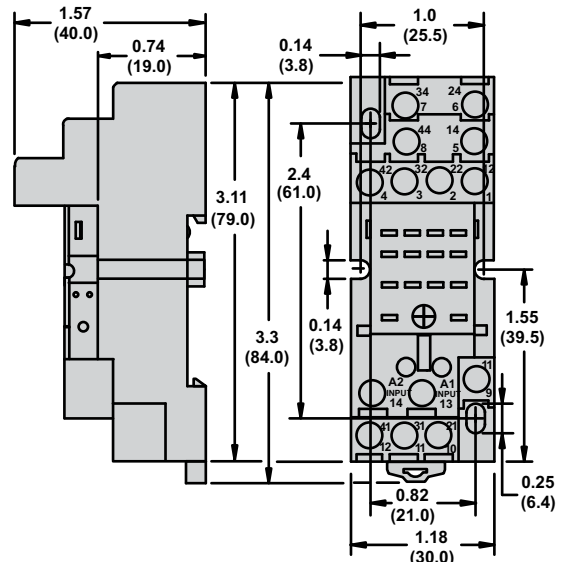
Part Number	70-782D8-1A	70-782D14-1
Contact Configuration	DPDT	4PDT
Number of Terminals	8	14
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	16 A	10 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	IP 20	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	7 Lb-in / 0.8 N•m
Terminal Connection	Screw Clamping	Screw Clamping
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	55 g (1.94 oz)	62 g (2.19 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

Dimensions — inches (millimeters)

70-782D8-1A

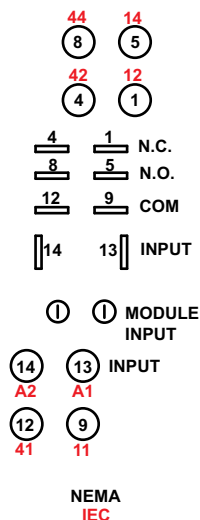


70-782D14-1

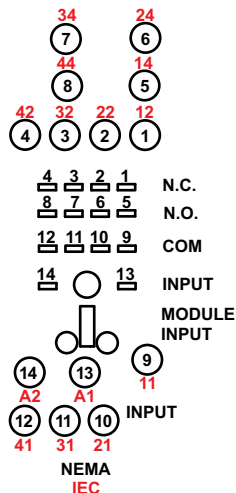


## Wiring Diagrams

70-782D8-1A



70-782D14-1

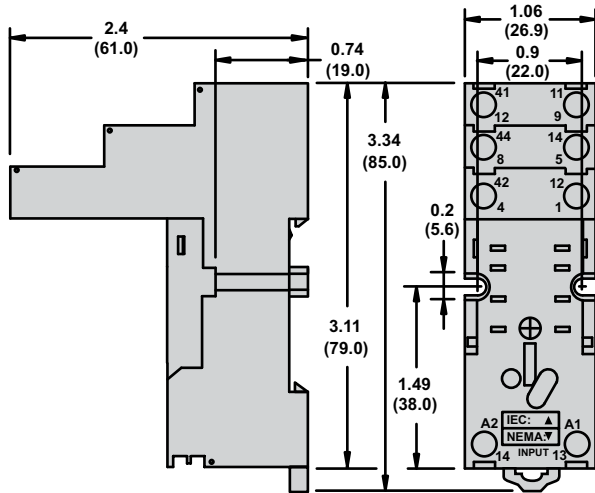


## Socket Specifications

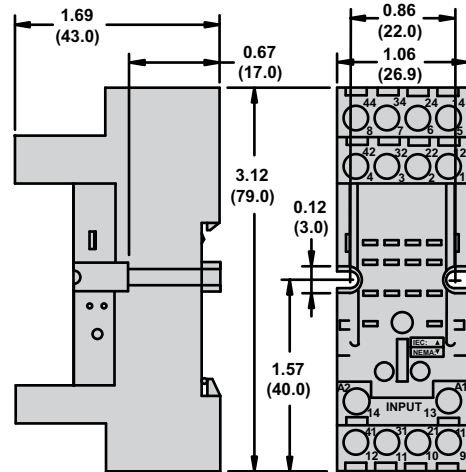
Part Number	70-782E14-1	70-782EL8-1
Contact Configuration	4PDT	DPDT
Number of Terminals	14	8
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	10 A	12 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40to +221 °F)
Protection Category (Finger-safe™)	IP 20	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3 mm	M3.5 mm
Maximum Screw Torque	7 Lb-in / 0.8 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Elevator	Elevator
Terminal Layout	Separate	Separate
Maximum Wire Size	<b>Solid Cu:</b> 14 / 16 (2) AWG, 2.5 / 1.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 14 / 16 (2) AWG, 2.5 / 1.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	56 g (1.98 oz)	46 g (1.62 oz)
Agency Approvals	UL (E70550) CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

Dimensions — inches (millimeters)

70-782EL8-1

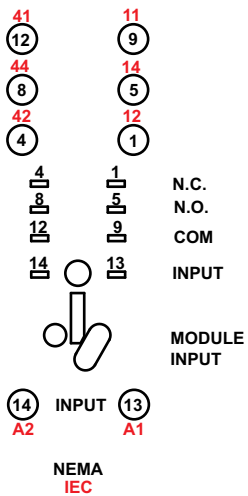


70-782E14-1

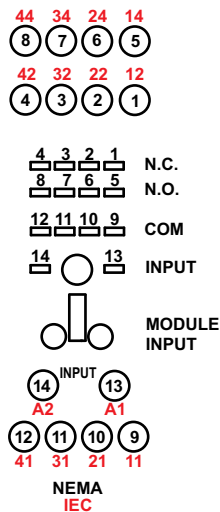


Wiring Diagrams

70-782EL8-1



70-782E14-1



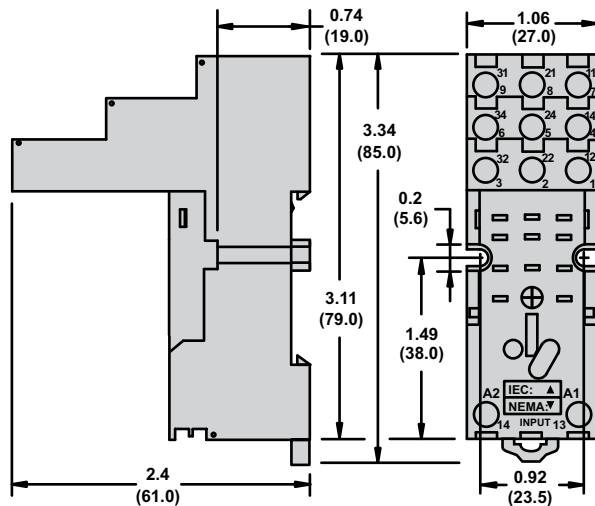


Socket Specifications

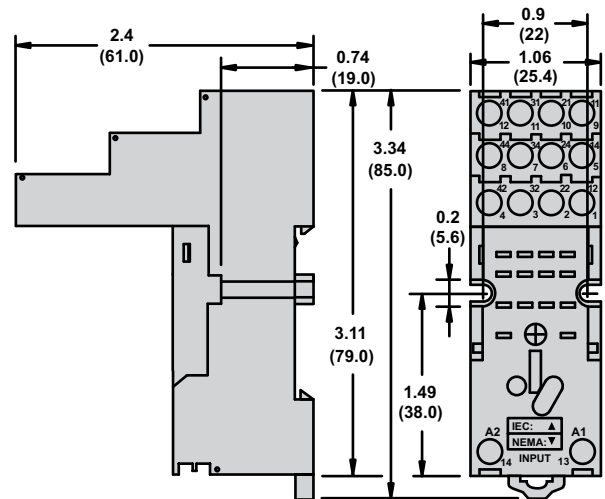
Part Number	70-782EL11-1	70-782EL14-1
Contact Configuration	3PDT	4PDT
Number of Terminals	11	14
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	10 A	10 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)	-40 – +105 °C (-40to +221 °F)
Protection Category (Finger-safe™)	IP 20	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	7 Lb-in / 0.8 N•m
Terminal Connection	Elevator	Elevator
Terminal Layout	Separate	Separate
Maximum Wire Size	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 14 / 16 (2) AWG, 2.5 / 1.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 14 / 16 (2) AWG, 2.5 / 1.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	56 g (1.98 oz)	62 g (2.19 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS	UL (E70550), CE, CSA (LR40787), RoHS

Dimensions — inches (millimeters)

70-782EL11-1

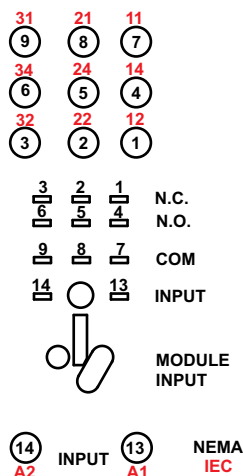


70-782EL14-1

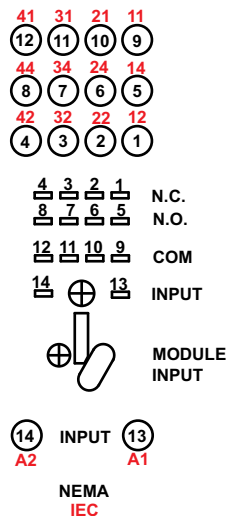


### Wiring Diagrams

70-782EL11-1



70-782EL14-1

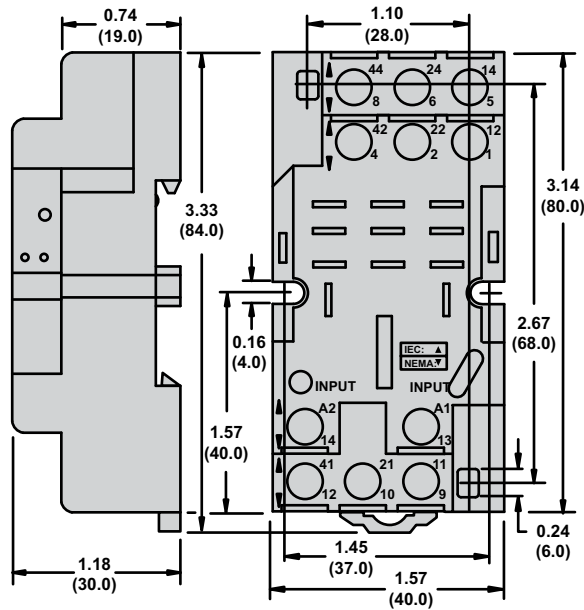


### Socket Specifications

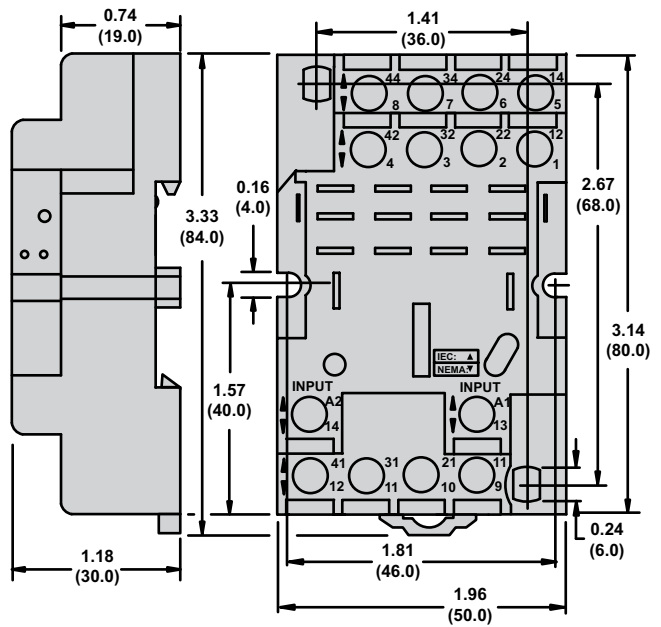
Part Number	70-783D11-1A	70-784D14-1
Contact Configuration	3PDT	4PDT
Number of Terminals	11	14
Mounting Style	Panel / DIN rail	Panel / DIN rail
Current Rating	16 A	16 A
Nominal Voltage Rating	300 V	300 V
Temperature Storage Range	-40 – +105 °C (-40 – 221 °C)	-40 – +105 °C (-40 – 221 °C)
Protection Category (Finger-safe™)	IP 20	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated	Steel, Zinc Plated
Screw Style	Combination Head	Combination Head
Screw Size	M3.5 mm	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m	9 Lb-in / 1.0 N•m
Terminal Connection	Screw Clamping	Screw Clamping
Terminal Layout	Mix	Mix
Maximum Wire Size	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>	<b>Solid Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 12 / 14 (2) AWG, 4 / 2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0	94V-0
Weight	55 g (1.94oz)	62 g (2.19 oz)
Agency Approvals	CE, RoHS, UL,(E70550) CSA (LR40787)	CE, RoHS, UL,(E70550) CSA (LR40787)

Dimensions — inches (millimeters)

70-783D11-1A

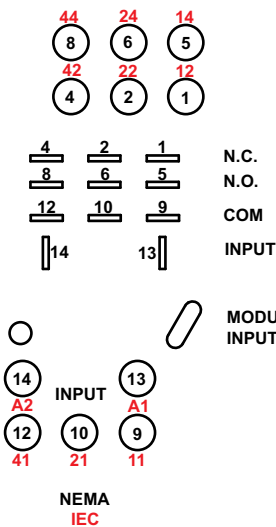


70-784D14-1

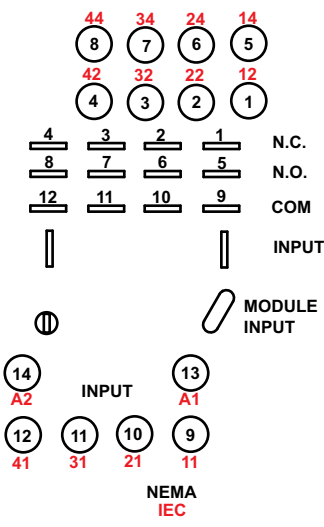


Wiring Diagrams

70-783D11-1A



70-784D14-1

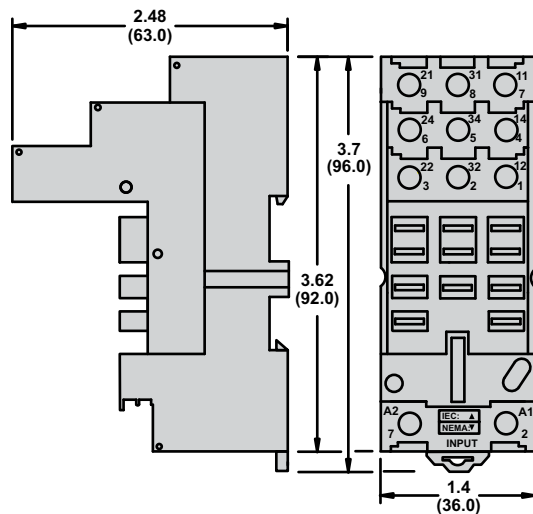


## Socket Specifications

Part Number	70-788EL11-1
Contact Configuration	3PDT
Number of Terminals	11
Mounting Style	DIN rail
Current Rating	25 A
Nominal Voltage Rating	300 V
Temperature Storage Range	-40 – +105 °C (-40 – +221 °F)
Protection Category (Finger-safe™)	IP 20
Internal Metal Tracks	Copper Alloy, Zinc Plated
Screw Terminals	Steel, Zinc Plated
Screw Style	Combination Head
Screw Size	M3.5 mm
Maximum Screw Torque	9 Lb-in / 1.0 N•m
Terminal Connection	Elevator
Terminal Layout	Separate
Maximum Wire Size	<b>Solid Cu:</b> 10 / 14 (2) AWG, 6 / 2.5 (2) mm <sup>2</sup> <b>Stranded Cu:</b> 10 / 14 (2) AWG, 6 / 2.5 (2) mm <sup>2</sup>
DIN Rail Mounting, EN 60715	35 mm
Chassis Mount Screw Torque	7 Lb-in / 0.8 N•m
Flammability Rating	94V-0
Weight	96 g (3.39 oz)
Agency Approvals	UL (E70550), CE, CSA (LR40787), RoHS

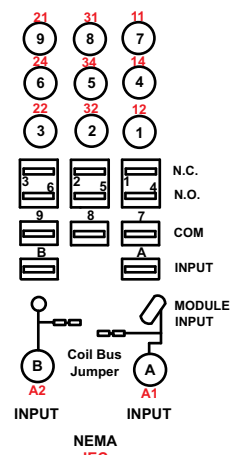
## Dimensions — inches (millimeters)

70-788EL11-1



## Wiring Diagram

70-788EL11-1



Mounting Adapter Specifications

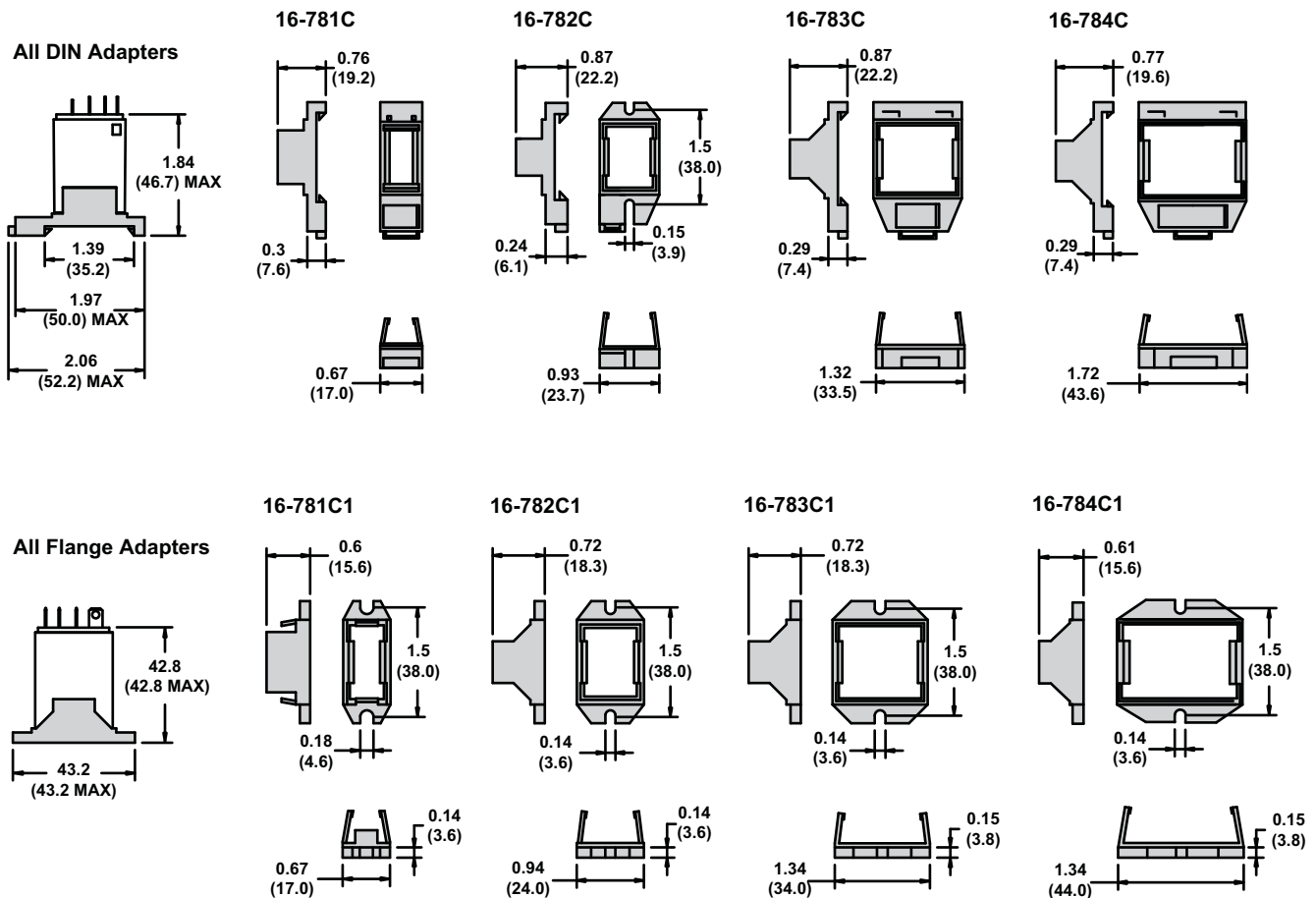
Part Number	16-781C	16-782C	16-783C	16-784C	16-781C1	16-782C2	16-783C1	16-784C1
Mounting Style	DIN rail / panel				Panel			
Mating Relays	781 Series	782 Series	783 Series	784 Series	781 Series	782 Series	783 Series	784 Series
Agency Approvals	RoHS							

Key Features

- No need to purchase a socket
- DIN or Panel mounting
- Plastic construction
- Light weight
- Low cost
- Low profile
- Write-On label
- Narrow mounting
- Easy termination



Mounting Adapter Dimensions — inches (millimeters)



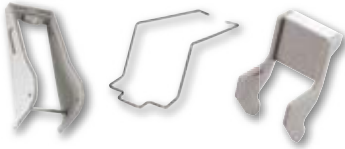
---

- Overview . . . . . 79
- Hold-Down Clips . . . . . 80
- Insulated Coil Bus Jumper System . . . . . 83
- DIN Rail & DIN Clip . . . . . 83
- ID Tags . . . . . 83
- Panel Mount Adapter . . . . . 84
- Socket Modules . . . . . 84

### Product Overview

#### Hold-Down Clips

Safely secure relay to socket.  
Available in plastic or stainless steel.



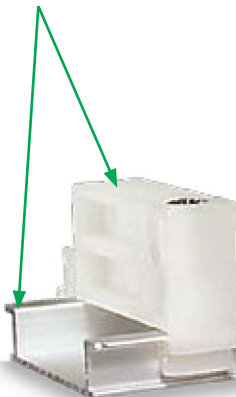
#### Socket Modules

Allow for optional circuit protection (Diode, MOV or RC) or status indicator LED. Modules plug into mating sockets.



#### DIN Rail & Locking End Clip

Enables quick installation and removal of sockets.



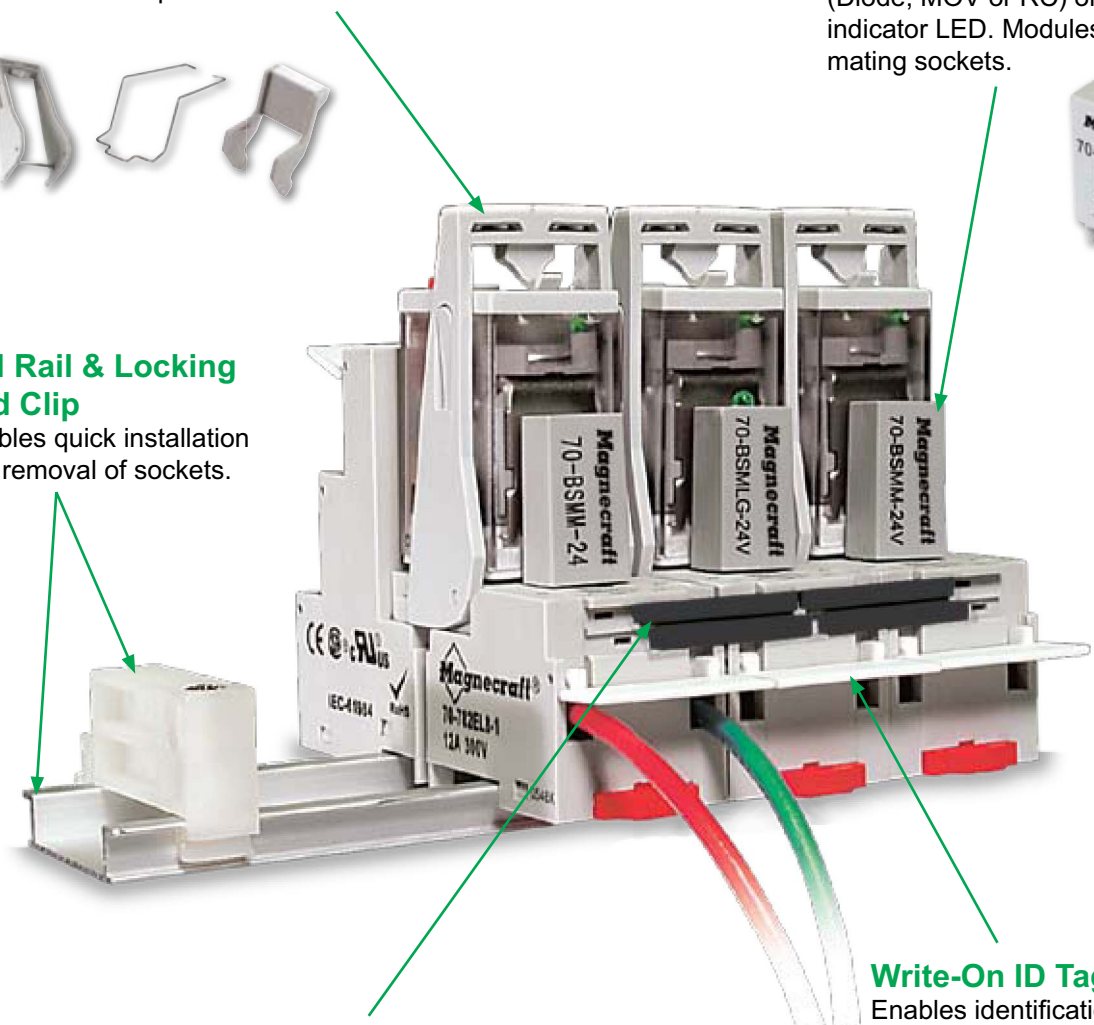
#### Insulated Coil Bus Jumper System

Allows for connection to adjacent sockets without any additional wiring and no tools necessary.



#### Write-On ID Tags

Enables identification of relays in multi-relay circuits. Tag snaps onto mating socket.



# Magnecraft™ General Purpose Relays

## Socket Accessories

### Hold-Down Clips

The table below is designed to allow for easy selection of Magnecraft hold-down clips based on socket and relay compatibility.

#### Key Features

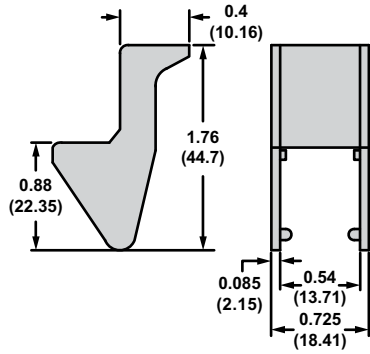
- Stainless steel spring clips are designed to secure the relay to the socket in harsh environments
- Plastic ejector clips are designed to secure and eject relays from tight, multi-socket applications
- Plastic ID clips are designed to allow for easy identification of circuits in multi-relay applications; an ID tag is supplied with each clip

Socket Part Number	Relays	Clip Part Number	Clip Type
70-124-2	388JXBX, 785XBX, 788XAX / 788XBX / 788XCX	16-1351	Spring Clip
70-178-1	788XAX / 788XBX / 788XCX, 388JXBX	16-1351	Spring Clip
70-178-2	788XAX / 788XBX / 788XCX, 388JXBX	16-1351	Spring Clip
70-378-1	782XBX / 782XDX Control, 782XDXH	16-1342	Spring Clip
70-379-1	782XBX / 782XDX Control, 782XDXH	16-1342	Spring Clip
70-401-1	782XAX / 782XBX Power	16-1342	Spring Clip
70-402-1	782XAX / 782XBX Power	16-1342	Spring Clip
70-459-1	782XAX / 782XBX Power	16-1342	Spring Clip
70-461-1	782XBX / 782XDX Control, 782XDXH	16-1342	Spring Clip
70-463-1	785XBX, 788XAX / 788XBX / 788XCX	16-1351	Spring Clip
70-464-1	750XBX, 750XBXH	16-1351	Spring Clip
70-465-1	750XCX, 750XCXH, 755XBX	16-1351	Spring Clip
70-750DL8-1	750XBX	16-1332	Spring Clip
	750XBXH	16-1351	Spring Clip
70-750DL11-1	750XCX	16-1332	Spring Clip
	750XCXH	16-1351	Spring Clip
70-750E8-1	750XBX	16-1344	Spring Clip
	750XBX, 750XBXH	16-1351	Spring Clip
70-750E11-1	750XCX, 750XCXH, 755XBX	16-1351	Spring Clip
70-750EL8-1	750XBX, 750XBXH	16-1351	Spring Clip
70-750EL11-1	750XCX, 750XCXH, 755XBX	16-1351	Spring Clip
70-781D5-1A		16-781IDC	ID Clip
		16-781SC	Spring Clip
70-781T-1	781XAX	16-781SC	Spring Clip
70-782D8-1A	782XAX / 782XBX Power	16-1342	Spring Clip
		16-782IDC	ID Clip
		16-782PC-1	Ejector Clip
70-782D14-1	782XBX / 782XDX Control	16-782SC	Spring Clip
	782XBX / 782XDX Control (Full-feature cover only)	16-782PC-1	Ejector Clip
	782XDXH	16-1342	Spring Clip
70-782E14-1	782XBX / 782XDX Control	16-782SC	Spring Clip
	782XBX / 782XDX Control (Full-feature cover only)	16-782PC-1	Ejector Clip
	782XDXH	16-1342	Spring Clip
70-782EL8-1	782XBX Control	16-782SC	Spring Clip
	782XBX Control (Full-feature cover only)	16-782PC-1	Ejector Clip
70-782EL14-1	782XBX / 782XDX Control	16-782SC	Spring Clip
	782XBX / 782XDX Control (Full-feature cover only)	16-782PC-1	Ejector Clip
	782XDXH	16-1342	Spring Clip
70-783D11-1A	783XCX	16-783IDC	ID Clip
		16-783SC	Spring Clip
70-784D14-1	784XDX	16-784IDC	ID Clip
		16-784SC	Spring Clip
70-788EL11-1	788XAX / 788XBX / 788XCX, 785XBX	16-1351	Spring Clip

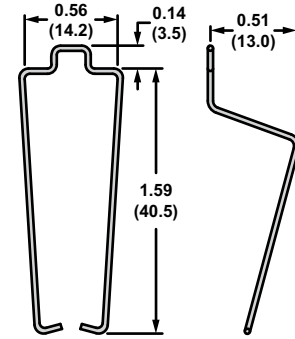


Hold-Down Clip Dimensions — inches (millimeters)

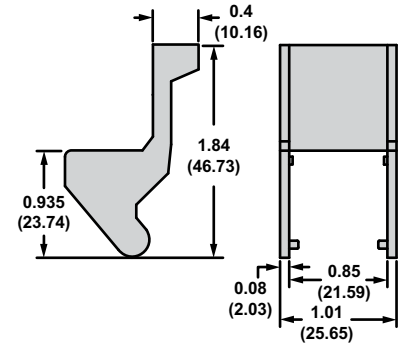
16-781IDC



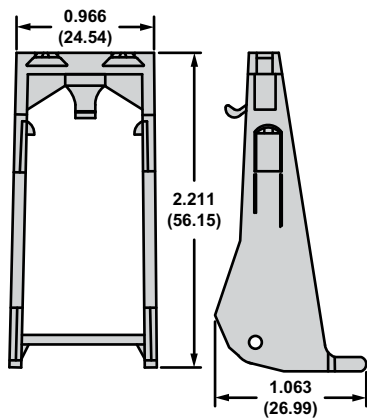
16-781SC



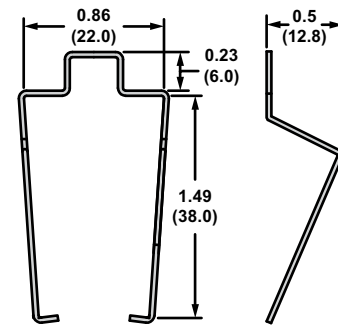
16-782IDC



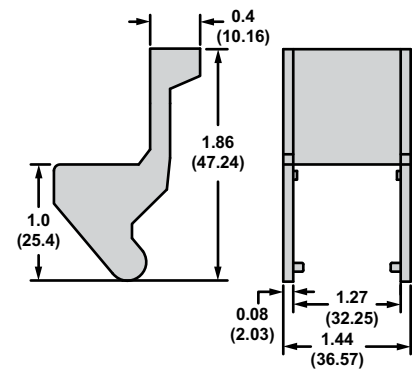
16-782PC



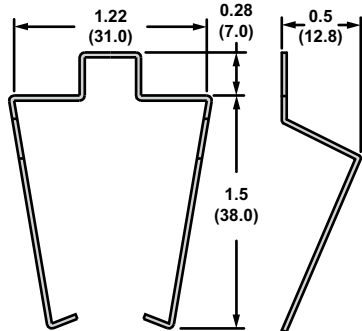
16-782SC



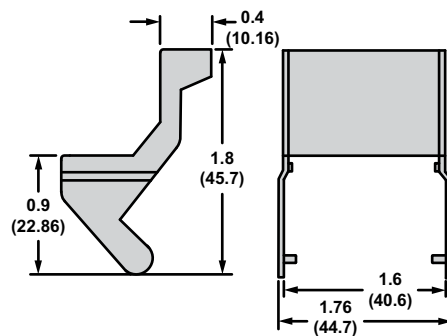
16-783IDC



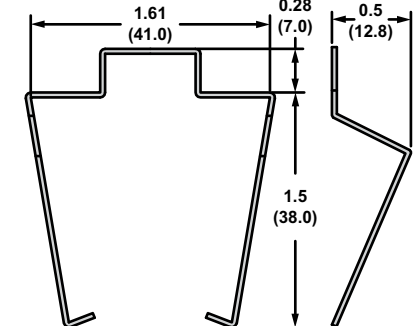
16-783SC



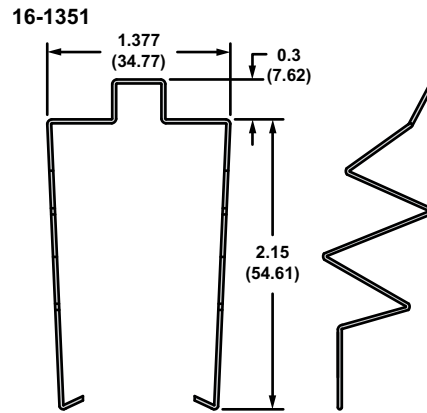
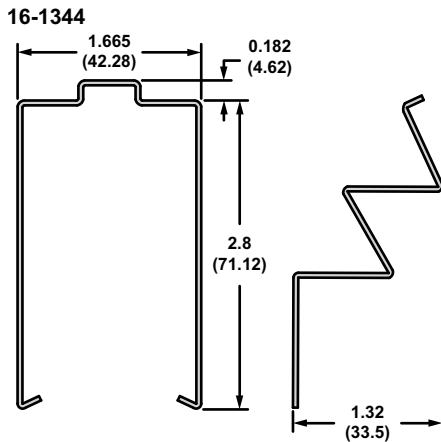
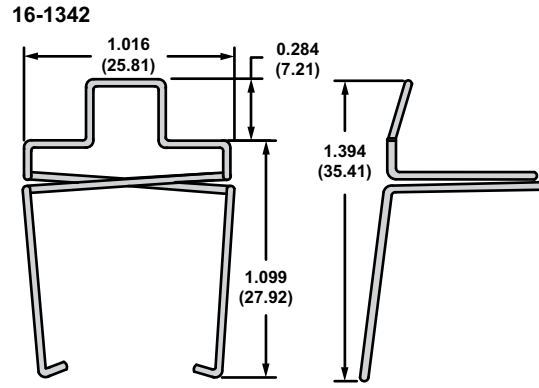
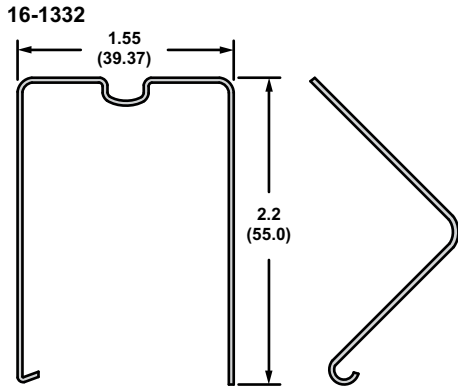
16-784IDC



16-784SC

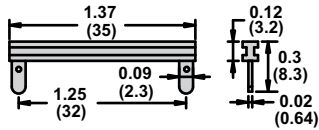


Hold-Down Clip Dimensions (*continued*) — inches (millimeters)

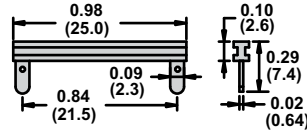


**Insulated Coil Bus Jumper Dimensions — inches (millimeters)**

16-750/788CBJ-1 Coil Bus Jumper

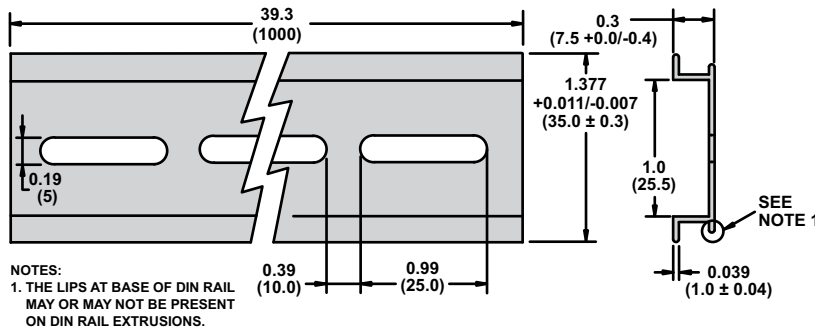


16-750/788CBJ-1 Coil Bus Jumper

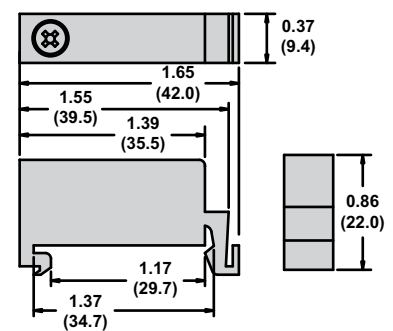


**DIN Rail & DIN Clip Dimensions — inches (millimeters)**

16-700DIN Metal DIN Rail

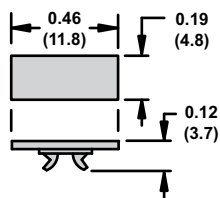


16-DCLIP-1 DIN Rail Clip

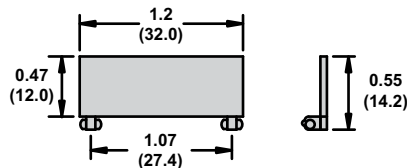


**ID Tag Dimensions — inches (millimeters)**

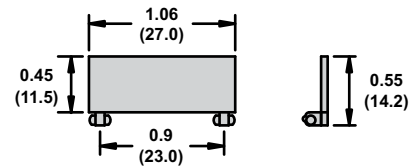
16-700ST-1 ID Tag/Label



16-750/788FT-1 ID Tag/Label

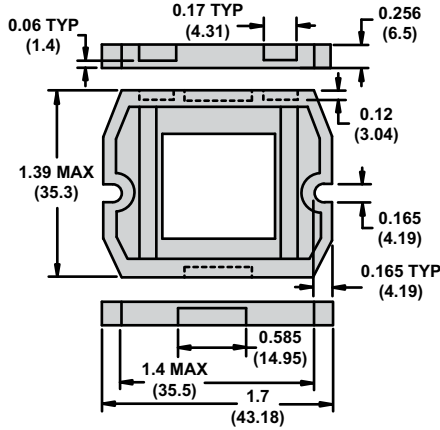


16-782FT-1 ID Tag/Label



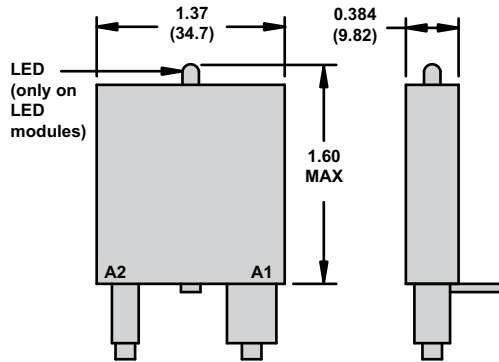
Panel Mount Adapter Dimensions — inches (millimeters)

16-788C1 Panel Mount Adapter

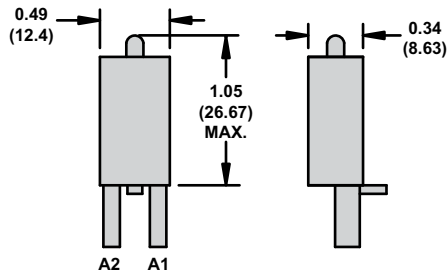


Socket Module Dimensions — inches (millimeters)

70-ASM Socket Modules

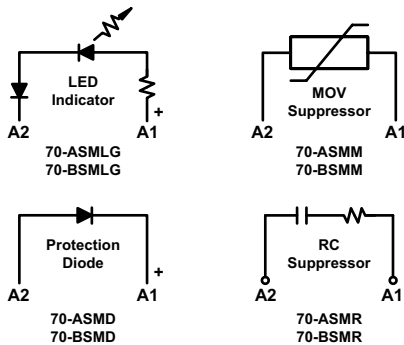


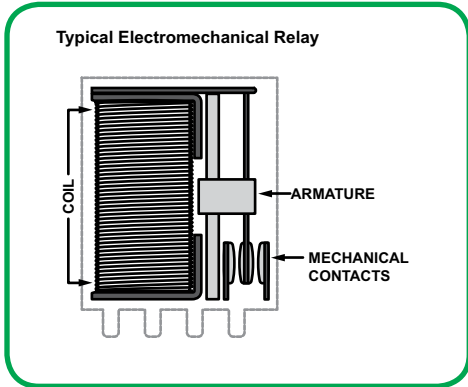
70-BSM Socket Modules



Socket Module Wiring Diagrams

70-ASM & 70-BSM Socket Modules





### General Purpose Relays

General purpose relays are electromechanical relays which consist of a coil, armature and contacts (see figure at left).

### Principle of Operation

When power is applied to the coil, the resulting magnetic field causes the armature to move and the contacts to open or close.

### Latching Relays

Latching relays can be considered energy-saving relays due to the fact that power is not required to maintain contact closure. Applications using general purpose relays (such as pumps, compressors, fans and solar powered circuits) could use a fraction of the utility power by switching to a latching relay.

### Principle of Operation

Magnetic Latching relays require one pulse of coil power to move their contacts in one direction, and another, redirected pulse to move them back. Repeated pulses from the same input have no effect. Magnetic Latching relays are useful in applications where interrupted power should not be able to transition the contacts.

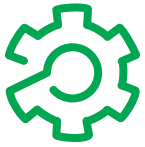
### Latching Relay Wiring Detail

Wire Setup	Wiring Diagrams		Relays
	Contacts Open	Contacts Closed	
<p><b>2-Wire, Alternating Polarity:</b> The contacts transfer and reset when the voltage polarity is alternated into the single coil using two (2) control wires. Available for DC circuits only.</p>			785
<p><b>3-Wire:</b> The contacts transfer and reset when the voltage is alternated between two (2) control wires while utilizing a third (common) wire. This single coil has internal diodes. Available for AC circuits only.</p>			755 785
<p><b>4-Wire:</b> The contacts transfer and reset when the voltage is alternated between two (2) unique coils using four (4) control wires. Available for DC circuits only.</p>			755 785

## Applications

With multiple options, features and available accessories, Magnecraft general purpose relays offer a complete system solution to improve your design, expedite installation and simplify testing of your application.

### Typical Examples of General Purpose & Latching Relay Applications



#### Automation Panels

Process controls, motor controls, standby lighting



#### Food & Beverage

Commercial/industrial cooking equipment, filtration systems, bottling, chillers, convection ovens



#### Packaging Machinery

Conveyor motors, food processors, product/shrink wrap, solenoid controls



#### Lighting Control

Traffic signal systems, motorway information systems, theatrical lighting, ballast lighting



#### Power Supplies

Universal power supplies, battery backup systems



#### Material Handling

Motor control, conveyor controls



#### HVAC & Refrigeration

Anti-condensation equipment, compressor controls, blower controls, motorized duct/vent controls



#### Appliances

Air conditioners, water heaters, portable heaters, spa controls, water pumps

The Magnecraft website ([www.serelays.com](http://www.serelays.com)) is designed to enable users to easily find the proper relay to fit design requirements and to help simplify and shorten workflow.

### Easily find the proper relay to fit design requirements

■ **Online Catalog**

Find the right product by choosing specifications, compare products side-by-side, and view technical specifications, 2D and 3D drawings, and associated accessories.

■ **Cross Reference Search**

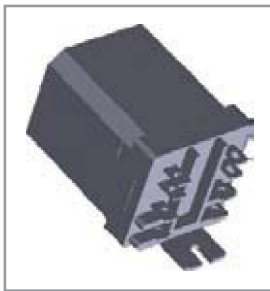
Search our comprehensive database to identify products by manufacturer and part number, and link directly to part specifications.

■ **3D CAD Library**

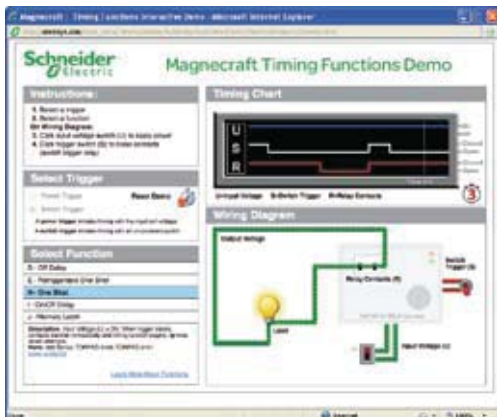
View, email, download, or insert a file directly into your open CAD software. There are 18 different file formats to choose from.

■ **Order Free Samples**

Magnecraft offers free samples as a courtesy to individuals and companies evaluating our products for their designs and applications. Sample orders are subject to approval.



3D Models



Time Delay Relay Demo

### Simplify and shorten workflow

■ **Interactive Tools**

View interactive demonstrations; such as our Time Delay Relay Interactive Demo (left) which visually demonstrates the ten different timing functions offered on Magnecraft time delay relays.

■ **Distributor Inventory Search**

Search authorized distributors' current Magnecraft inventory and buy online. (Buy online not available for all distributors).

**Schneider Electric USA, Inc.**

[www.serelays.com](http://www.serelays.com)

1300 S. Wolf Rd.  
Des Plaines, IL 60018  
Tel: 847-441-2540

The information and dimensions in this catalog are provided for the convenience of our customers. While this information is believed to be accurate, Schneider Electric reserves the right to make updates and changes without prior notification and assumes no liability for any errors or omissions.

Design: Schneider Electric  
Photos: Schneider Electric

© 2011 Schneider Electric. All Rights Reserved

8501CT1105  
December 2011