

Description

Legacy Power Relays

725

SPST-NO, 30 A; DPST-NO, 25 A



Description

The 725 series power relays offer high-capacity switching with high dielectric voltage resistance capabilities.



Plug-In Socket Mount with full-feature cover



Panel/DIN Mount with screw terminals



Panel/DIN Mount with blade terminals

Feature	Benefit
High ratings (up to 30 A, 3 hp)	Meets demands for high power applications
4,000 V dielectric strength (coil to contacts)	Helps withstand severe voltage surges and spikes which provides protection for surrounding circuits
Multiple mounting options	Helps to increase functionality and ease of use
Full-feature cover (Plug-in socket mount)	Offers push-to-test button, lock-down door, LED, flag indicators, and ID tag to simplify and expedite installation and testing
Fingersafe cover (on relays with screw terminals)	Helps prevent the operator from touching live circuits (IP20 degree of protection)

Rated Contact Current	Contact Configuration	Coil Voltage	Coil Resistance (Ω)	Mounting Style	Terminal Style	Standard Part Number
25 A	DPST-NO	24 Vac	275	DIN and panel	Blade terminals	725BXXBC3ML-24A
					Screw terminals	725BXXSC3ML-24A
		120 Vac	5200	DIN and panel	Blade terminals	725BXXBC3ML-120A
					Screw terminals	725BXXSC3ML-120A
				Plug-in (socket)	Blade terminals	725BXXBM4L-120A
		240 Vac	21000	DIN and panel	Blade terminals	725BXXBC3ML-240A
					Screw terminals	725BXXSC3ML-240A
		12 Vdc	75	DIN and panel	Blade terminals	725BXXBC3ML-12D
					Screw terminals	725BXXSC3ML-12D
		24 Vdc	300	DIN and panel	Blade terminals	725BXXBC3ML-24D
30 A	SPST-NO				Screw terminals	725BXXSC3ML-24D
				Plug-in (socket)	Blade terminals	725BXXBM4L-24D
		24 Vac	275	DIN and panel	Blade terminals	725AXXBC3ML-24A
					Screw terminals	725AXXSC3ML-24A
				Plug-in (socket)	Blade terminals	725AXXBM4L-24A
		120 Vac	5200	DIN and panel	Blade terminals	725AXXBC3ML-120A
					Screw terminals	725AXXSC3ML-120A
				Plug-in (socket)	Blade terminals	725AXXBM4L-120A
		240 Vac	21000	DIN and panel	Blade terminals	725AXXBC3ML-240A
					Screw terminals	725AXXSC3ML-240A
		12 Vdc	75	DIN and panel	Blade terminals	725AXXBC3ML-12D
					Screw terminals	725AXXSC3ML-12D
		24 Vdc	300	DIN and panel	Blade terminals	725AXXBC3ML-24D
					Screw terminals	725AXXSC3ML-24D

Part Number Explanation

725 BXX B C3 ML - 24D

Series:
725

Contact Arrangement:
AXX = SPST-NO
BXX = DPST-NO

Terminal Style:

B = Blade (Plug-in or quick connect)
S = Screw terminal

Mount Option:
C3 = DIN/panel mount
Null = Plug-in socket mount

Standard Features:

M = Side pushbutton
M4 = Lockable push button and flag
L = LED indicator

Coil Voltage:

6A = 6 Vac
12A = 12 Vac
24A = 24 Vac
48A = 48 Vac
120A = 120 Vac
240A = 240 Vac
6D = 6 Vdc
12D = 12 Vdc
24D = 24 Vdc
48D = 48 Vdc
110D = 110 Vdc

Specifications (UL 508)

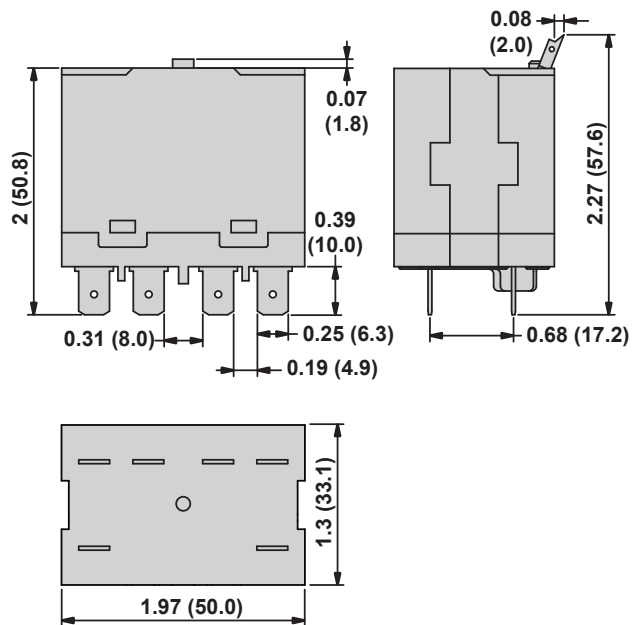
Part Number	725AXX	725BXX
Contact Characteristics		
Contact Configuration	SPST-NO	DPST-NO
Contact Material	Silver alloy	
Thermal (Carrying) Current	30 A	25 A
Maximum Switching Voltage	300 V	
Current Ratings at Voltage	Resistive: 30 A at 277 Vac 50/60 Hz, 6,000 cycles 30 A at 30 Vdc, 100,000 cycles Motor: 1.5 hp at 120 Vac 50/60 Hz; 3.0 hp at 277 Vac 50/60 Hz, 6,000 cycles Tungsten: 1.5 kW at 120 Vac 50/60 Hz, 6,000 cycles	Resistive: 25 A at 277 Vac 50/60 Hz; 25 A at 30 Vdc, 6,000 cycles Motor: 1.0 hp at 120 Vac 50/60 Hz; 2.0 hp at 277 Vac 50/60 Hz, 6,000 cycles Tungsten: 1.3 kW at 120 Vac 50/60 Hz, 6,000 cycles
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)	
Coil Characteristics		
Coil Voltage Range ¹	6–240 Vac 50/60 Hz (All AC coils are rectified); 6–110 Vdc ¹	
Operating Range (% of Nominal)	75%–110% (AC/DC)	
Average Consumption	2.5 VA (AC); 1.9 W (DC)	
Insulation System Per UL 508	Class B (130 °C)	
General Characteristics		
Electrical Life at Rated Load	See “Current Ratings at Voltage”	
Mechanical Life at No Load (Unpowered)	5,000,000 operations	
Operate Time at Nominal Coil Voltage	30 ms (max)	
Release Time at Nominal Coil Voltage	30 ms (max)	
Dielectric Strength	Coil–contacts: 4,000 V (rms) Across open contacts: 2,000 V (rms) Pole–pole: 2,000 V (rms) (DPST-NO version only) Insulation resistance: 1,000 MΩ at 500 Vdc (minimum)	
Operating Temperature Range	-20 to +55 °C (-4 to +131 °F)	
Storage Temperature Range	-55 to +100 °C (-67 to +212 °F)	
Quick Connect Terminals	0.25 x 0.031 in (6.35 x 0.80 mm)	
Screw Terminals	Coil: M3.5 combination head; Contacts: M4 combination head	
Screw Terminal Torque	Coil and load: 1.2 N•m (10.6 lb in) nominal; 2.3 N•m (20.3 lb in) maximum	
Screw Terminal Maximum Wire Gauge	Load: 10 AWG (5.26 mm ²); Coil: 12 AWG (3.3 mm ²)	
Cover Protection Category	IP20 (screw terminals only)	
Weight (Average)	120 g (4.2 oz)	
Agency Certifications	UL Listed (E43641), CSA (168986), CE (per IEC 60947-1), RoHS	

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

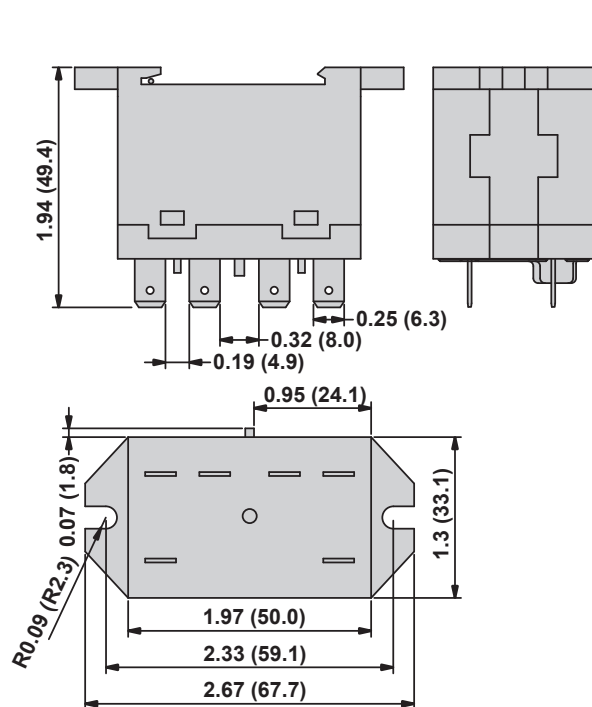
¹ For available standard coil voltages, refer to the standard part number table on page 9.

Dimensions — inches (millimeters)

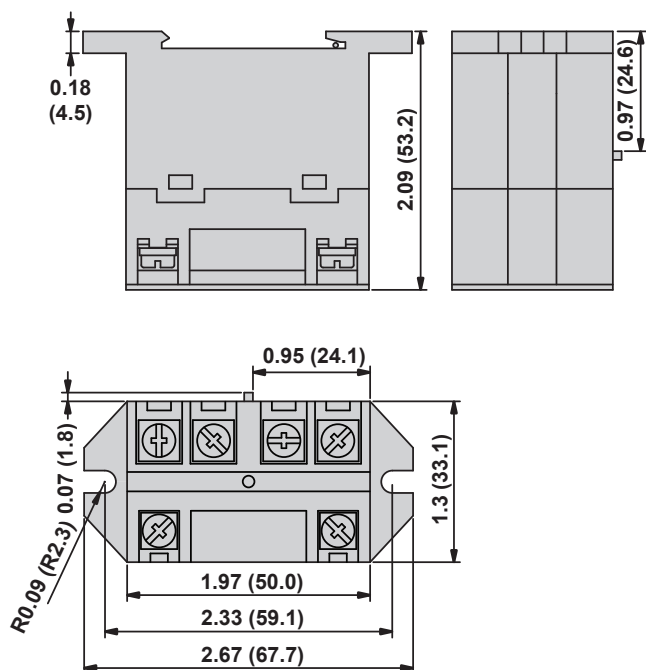
Plug-in Socket Mount (Blade Terminals)



C3 – DIN/Panel Mount (Blade Terminals)

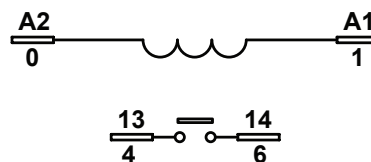


C3 – DIN/Panel Mount (Screw Terminals)

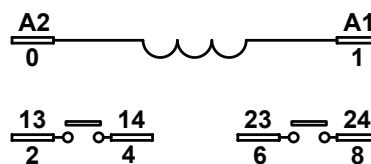


Wiring Diagrams

SPST-NO



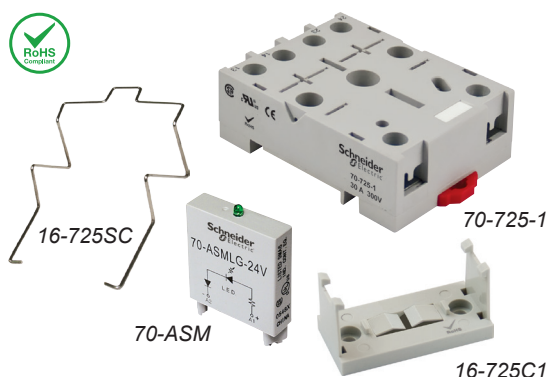
DPST-NO



Legacy Power Relays

725

Socket, 70-725-1; Panel Mount Adapter, 16-725C1
Spring Clip, 16-725SC; Socket Modules, 70-ASM



Description

The 725 accessories create a complete system solution for all your application needs.

The 70-725-1 socket offers an alternate installation option for plug-in models. The 16-725SC retention clip holds the relay securely in place while allowing quick and efficient installation and maintenance.

Relay Accessories

Description	Function	For Use with Relays	Packaging Minimum	Standard Part Number
Socket	Offers an alternate installation option	725 Relays with plug-in socket mount cover	10	70-725-1
Panel Mount Adapter	Provides additional panel mount option	725 Relays with plug-in socket mount cover	10	16-725C1

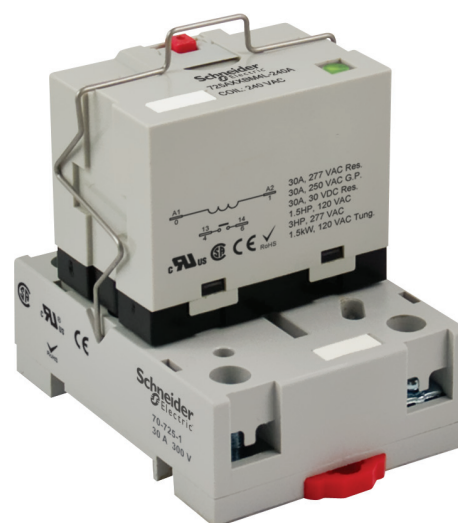
Socket Accessories

Description	Function	Coil Voltage	For Use with Sockets	Packaging Minimum	Standard Part Number
Socket Module*	LED indicator	120/240 Vac/Vdc	70-725-1	10	70-ASMLG-110/240
	MOV suppressor	24 Vac/Vdc	70-725-1	10	70-ASMM-24
		120 Vac/Vdc	70-725-1	10	70-ASMM-120
	Protection diode	240 Vac/Vdc	70-725-1	10	70-ASMM-240
	RC circuit	6–250 Vdc	70-725-1	10	70-ASMD-250
Spring Clip	Relay retention in high vibration conditions	240 Vac	70-725-1	10	70-ASMR-240
		N/A	70-725-1	10	16-725SC

* Use of LED or RC socket module may increase coil power draw by up to 10%. See page 30 for more information.

Socket Specifications (UL 508)

Part Number	70-725-1
Number of Terminals	6
Nominal Voltage Rating	300 V
Nominal Current Rating	30 A
Dielectric Strength	Between adjacent output terminals: 1600 V(rms); Output to input terminals: 1600 V(rms); Terminals to rail/chassis: 1600 V(rms)
Temperature Range	Operation: –40 to +55 °C (–40 to +131 °F); Storage: –40 to +105 °C (–40 to +221 °F)
Protection Category (Fingersafe™)	IP20
Internal Metal Tracks	Copper alloy, tin plated
Screw Terminals	Steel, zinc-plated combination head
Maximum Screw Torque	10.6 lb-in (1.2 N•m)
Mounting Style	35 mm DIN rail
Wire Connection Method	Screw terminals
Wire Size	Solid Cu: one 10 AWG (6.0 mm ²) two 10–20 AWG (0.5–6 mm ²) Stranded Cu: one or two 10–20 AWG (0.5–6.0 mm ²)
Flammability Rating	94 V-0
Weight	2.4 oz (67 g)
Agency Certifications	UL Listed (E43641), CSA (168986), CE (per IEC 61810), RoHS



Relay Mounting Example

Legacy Power Relays

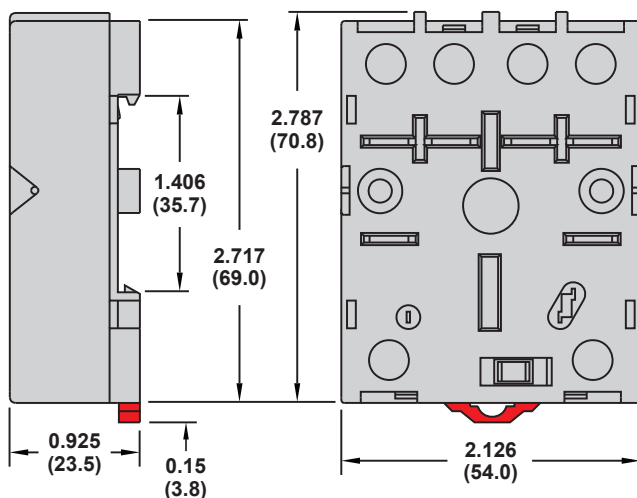
725

Socket, 70-725-1; Panel Mount Adapter, 16-725C1

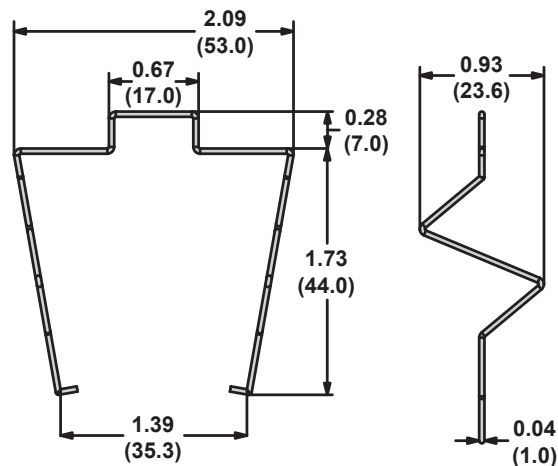
Spring Clip, 16-725SC; Socket Modules, 70-ASM

Dimensions — inches (millimeters)

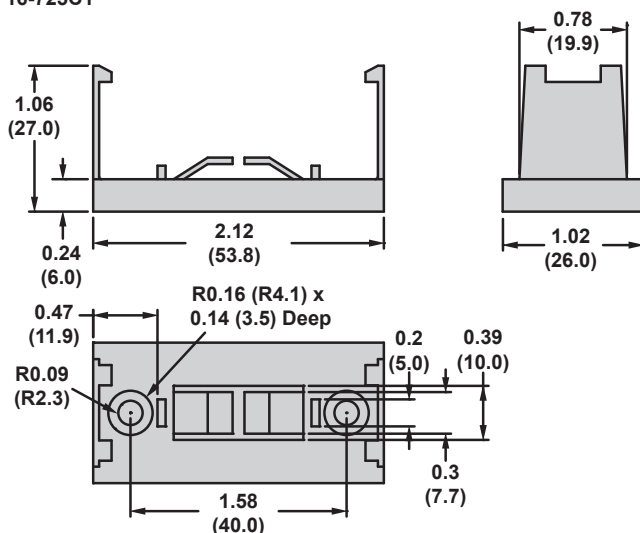
70-725-1



16-725SC



16-725C1



Wiring Diagram

70-725-1

