

105 Series



105 Series 5 and 10 Amp Plug-in Octal Base General Purpose Relay

General purpose relay that controls electrical loads

Features

- Class F Coil Insulation System for 155° C Total Temperature
- Coil Molded in Rynite® PET for Environmental Protection
- Unique Armature Stop Maintains Adjustment

Typical Applications

- Common replacement relay for many types of existing equipment

Models

- 105:** Standard 8 or 11 Pin Socket Termination
- 105A:** Addition of Indicator Lamp - Indicates Voltage to the Coil (48 V Not Available)
- 105G:** Uses Std. Cover with Neoprene Gasket
- 105T:** Sensitive Coil Version of 105 Uses 125 MW Per Pole

Contact Data		
Configuration	Thru 3PDT	
Materials	5 Amp: 1/8" Diameter Moveable Fine Silver 3/16" Diameter Stationary Fine Silver 10 Amp: 3/16" Diameter Moveable Silver Cadmium Oxide 3/16" Diameter Stationary Fine Silver Gold Flash is Standard on all Contacts Gold Diffused Available on Special Order - Min. Qty. Req'd	
Contact Ratings		
Movable Contact Size	Pole Configuration	UL Ratings
1/8" Diameter	Thru 3PDT	1/8 HP or 5 Amp at 120 VAC 1/4 HP or 5 Amp at 277 VAC 5 Amp at 28 VDC
3/16" Diameter	Thru DPDT	1/3 HP or 10 Amp at 120 VAC 1/2 HP or 10 Amp at 277 VAC 10 Amp at 28 VDC
3/16" Diameter	3PDT	6.6 Amp at 120 VAC
Expected Life	Electrical at Rated Load (Min.) 100,000 Operations Mechanical Life 10,000,000 Operations	
Dielectric Strength	800 VRMS, 60 Hz Between Contacts 1500 VRMS, 60 Hz Between Other Elements	
Agency Approvals	UL Recognized File No. E37066 CSA Certified File No. LR20690 (Not applicable to 105T)	

All dimensions in Inches

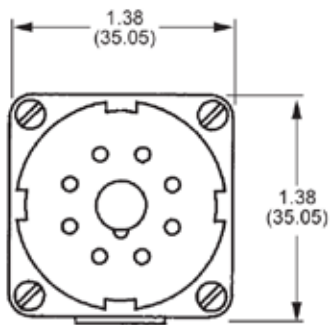
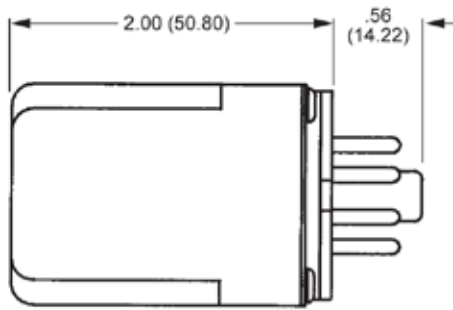
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105T Sensitive Relay 5 Amp Rating Only			
Contact Configuration	DC Pull-In Current	Resistance In Ohms \pm 10%	Nominal Coil Power
SPDT	11.2 mA	1 K	125 mW
	7.2 mA	2.5 K	
	5 mA	5 K	
	3.6 mA	10 K	
DPDT	16 mA	1 K	250 mW
	10 mA	2.5 K	
	7.2 mA	5 K	
	5 mA	10 K	
3PDT	19.5 mA	1 K	375 mW
	12.3 mA	2.5 K	
	8.7 mA	5 K	
	6.1 mA	10 K	
Coil Data	All Versions Except Sensitive Coil 105T		
	Nominal Voltage	Resistance In Ohms \pm 10%	Nominal Coil Power
AC Coils Single Pole Units	6 VAC	5.	2.0 VA
	12 VAC	20	
	24 VAC	80	
	48 VAC	315	
	120 VAC	2025	
	240 VAC	8000	
AC Coils 2 & 3 Pole Units	6 VAC	4.5	2.2 VA
	12 VAC	18	
	24 VAC	72	
	48 VAC	285	
	120 VAC	1850	
	240 VAC	7200	
DC Coils 1-3 Pole Units	6 VDC	30	1.2 W
	12 VDC	120	
	24 VDC	480	
	48 VDC	1850	
	110 VDC	10,000	
Coil Voltages	AC: Up to 277 Volts/60 Hz DC: Up to 125 Volts		
Coil Treatment	Molded Rynite® PET Std. Class F		
Insulation Resistance	100 Megohms Minimum		
UL Insulation System File No.	E74443 S155D 155°C Total Temperature Std. (Covers S105 Class A and S130D Class B Requirements)		
Operate Data			
Pick Up (at 25°C)	AC Volts 85% or Less of Nominal DC Volts 75% or Less of Nominal		
Operate Time	Approx. 15 Milliseconds		
Release Time	Approx. 15 Milliseconds		
Environmental Data			
Operating Ambient	AC: -45° to 55°C DC: -45° to 70°C		
Coil Temperature Rise	(25°C Ambient - Continuous Duty) AC: 45°C Approx. @ 60Hz - Use at 50 Hz will cause slight increase in Coil Rise DC: 25°C Approx.		
Mechanical Data			
Terminals	8 or 11 Pin-Plug		
Cover	Polycarbonate - Flammability Rating 94V2		
Weight	All Versions Approx. 3.0 oz. (85 g.)		

105 Series

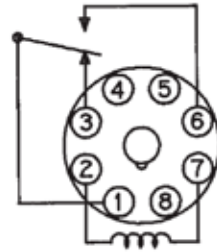
Dimensional View

Units: Inches [mm]

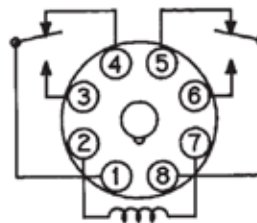


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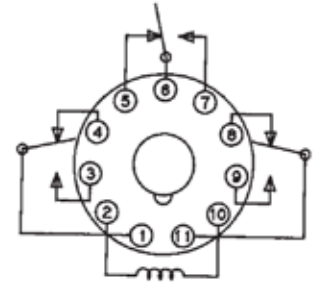
Schematics



SPDT



DPDT



3PDT

105 Series



Ordering Information

5 Amp Part Numbers

Model	Pole Config.	AC Coils			DC Coils		
		24 VAC	120 VAC	240 VAC	12 VDC	24 VDC	110 VDC
105	SPDT	20105-82	20105-84	20105-85	20111-81	20111-82	20111-84
	DPDT	20107-82	20107-84*	20107-85	20113-81	20113-82	20113-84
	3PDT	20109-82	20109-84	20109-85	20115-81	20115-82	20115-84

10 Amp Part Numbers

105	SPDT	20106-82	20106-84	20106-85	20112-81	20112-82	20112-84
	DPDT	20108-82*	20108-84*	20108-85	20114-81*	20114-82*	20114-84*
	3PDT	20110-82*	20110-84*	20110-85*	20116-81*	20116-82*	20116-84*
105A	SPDT	20816-82	20816-83	20816-84	20992-81	20992-82	20992-84
	DPDT	20117-82*	20117-84*	20117-85*	20119-81	20119-82	20119-84
	3PDT	20118-82	20118-84*	20118-85	20120-81	20120-82	20120-84

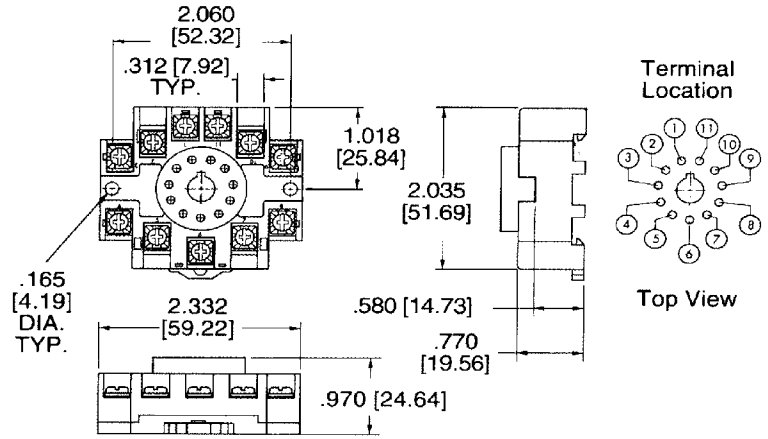
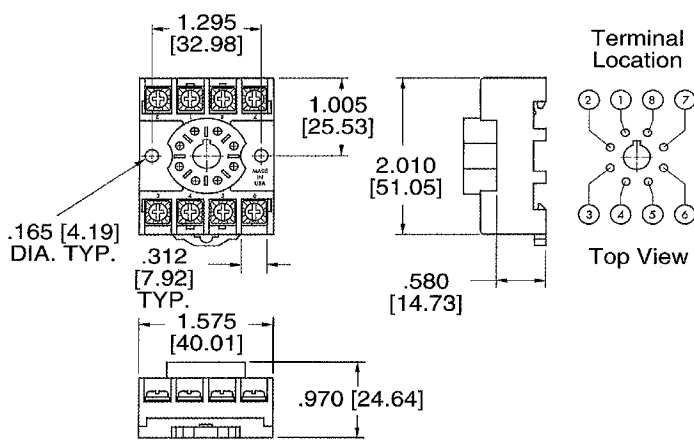
Sensitive Relay Part Numbers

Model	Pole Config.	DC Resistance			
		1K Ω	2.5 K Ω	5 K Ω	10 K Ω
105T	SPDT	20160-80	20160-81	20160-82	20160-83
	DPDT	20161-80	20161-81	20161-82	20161-83
	3PDT	20162-80	20162-81	20162-82	20162-83

(*) Normally Stocked
Non stocked items require a minimum order

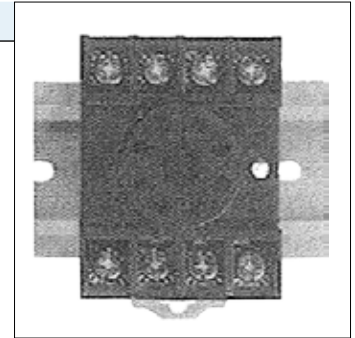
105 Series

Octal Sockets



Part Number	Rating	Configuration	Description
20983-81*	10 Amps @ 300 VAC	DPDT	105 SERIES 8 PIN OCTAL SOCKET

- Din Rail or Surface Mount
- Pressure Clamp Screws Nickel Plated 6-32
- UL Recognized File E66240
- CSA Certified File LR29513M36



Part Number	Rating	Configuration	Description
20983-82*	10 Amps @ 300 VAC	3PDT	105 SERIES 11 PIN OCTAL SOCKET

- Din Rail or Surface Mount
- Pressure Clamp Screws Nickel Plated 6-32
- UL Recognized File E66240
- CSA Certified File LR29513M36

