



105 ML

DELTROL

controls / 

DIVISION OF DELTROL CORP.

105ML

SERIES MAGNETIC LATCHING RELAY 5 & 10 AMP PLUG-IN OCTAL BASE

FEATURES

- Snap-action, One Piece Armature Eliminates Interconnections
- Molded Class F Coils Handle High Ambient Temperatures, Resist Moisture and Dust
- High Impact Polycarbonate Dust Cover

CONTACT DATA

Configuration:
Thru 5PDT

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

MOVEABLE CONTACT SIZE	POLE CONFIGURATION	RATINGS
1/8" Diameter	SPDT	5 amp or 1/8 HP at 120VAC
	DPDT	
	3PDT	5 amp or 1/4 HP at 240VAC
	4PDT	
	5PDT	5 amp at 28VDC
3/16" Diameter	SPDT	10 amp or 1/3 HP at 120VAC
	DPDT	
	3PDT	10 amp or 1/2 HP at 240VAC
	4PDT	
	5PDT	10 amp at 28VDC

EXPECTED LIFE

Electrical At Rated Load (Minimum)
100,000 Cycles

Mechanical Life
10,000,000 Cycles

DIELECTRIC STRENGTH

800 VRMS, 60 Hz Between Contacts
1500 VRMS, 60 Hz Between Other Elements

MODEL

105ML: General Purpose Relay Terminates to Standard Pin Type Octal Receptacles, Deltrol Type 105 Sockets for SPDT and DPDT, Conxall Type 77-20 Sockets for 3PDT, 4PDT and 5PDT

COIL DATA

	NOMINAL VOLTAGE	RESISTANCE IN OHMS ± 10%	NOMINAL COIL POWER
AC Coils	6VAC	4.5	3.5VA
	12VAC	18	
	24VAC	72	
	120VAC	1850	
	240VAC	7200	
DC Coils	6VDC	20	2W
	12VDC	80	
	24VDC	315	
	110VDC	6800	

Coil Voltages: AC: Up to 277 Volts/60 Hz
DC: Up to 125 Volts

Coil Treatment: Molded Rynite® 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. 20 Milliseconds

Release Time: Approx. 20 Milliseconds

ENVIRONMENTAL DATA

Operating Ambient: AC: -45° to 70°C
DC: -45° to 85°C

Coil Temperature Rise: (25°C Ambient – Continuous Duty)

AC: 45°C Approx. @ 60 Hz – Use at 50 Hz will Cause Slight Increase in Coil Rise

DC: 45°C Approx.

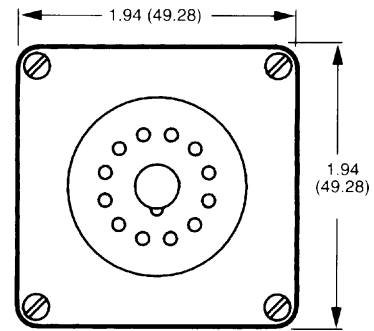
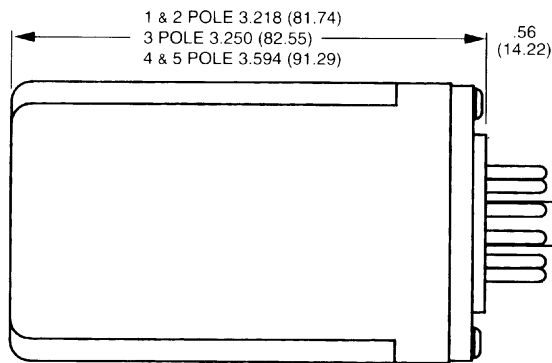
MECHANICAL DATA

Terminals: Octal Type with 8, 11, 20 pins

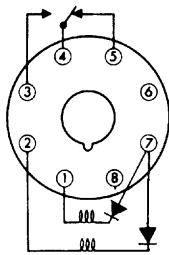
Cover: Polycarbonate – Flammability Rating 94V2

Weight: Approx. 8.6 oz. (244 g)

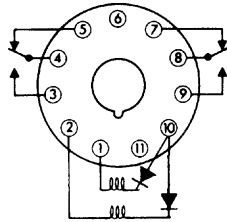
DIMENSIONS [Unit Inch (mm)]



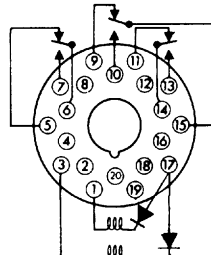
105ML WIRING DIAGRAMS



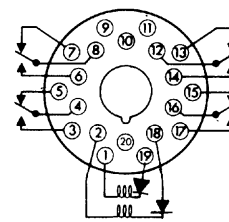
105ML - AC
SPDT



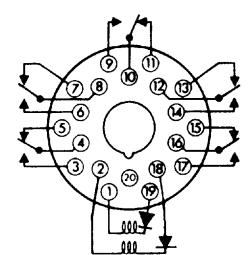
105ML - AC
DPDT



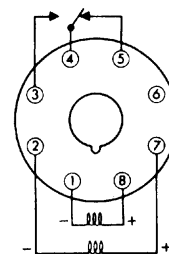
105ML - AC
3PDT



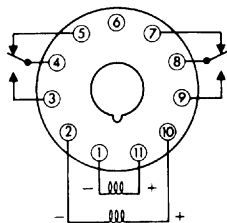
105ML - AC
4PDT



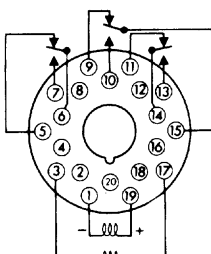
105ML - AC
5PDT



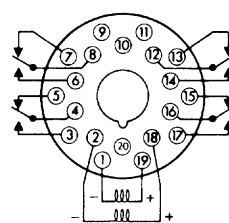
105ML - DC
SPDT



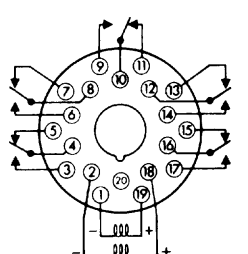
105ML - DC
DPDT



105ML - DC
3PDT



105ML - DC
4PDT



105ML - DC
5PDT

(Shown With Pin 1 Energized)

ORDERING INFORMATION

10 AMP Part Numbers

Pole Configuration	AC Coils			DC Coils		
	24VAC	120VAC	240VAC	12VDC	24VDC	110VDC
SPDT	20034-82	20034-83*	20034-84	20037-81	20037-82*	20037-84
DPDT	20035-82	20035-83*	20035-84	20038-81	20038-82*	20038-84
3PDT	20036-82	20036-83	20036-84	20039-81	20039-82	20039-84
4PDT	20263-82	20263-83	20263-84	20261-81	20261-82	20261-83
5PDT	20267-82	20267-83	20267-84	20265-81	20265-82	20265-83

*Black Items Are Normally Stocked.

Blue Items Are Non Stock. Minimum Quantity May Be Required.