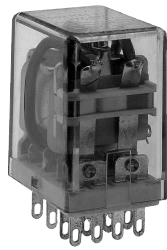


TYPE 158



FEATURES:

- Type 158 relays are designed for UL Recognition for Motor Control through 240 VAC in accordance with UL Standard 508, Industrial Control Equipment.
- Provides through air spacing of 1/16" minimum and over surface spacing of 1/8" minimum for 1/3 horsepower motor control applications at 120/240 VAC
- The Type 158 relay is physically identical to the Type 156 relay.
- The Midtex Type 158 is recognized under the Component Program of UL 508. UL File E55708. CSA File LR54109.

TYPE 158



CONTACTS		
Material	UL & CSA Recognition Rating	
5/32" Silver Cadmium Oxide	10 amp 7 amp 1/3 hp	28 VDC/120VAC, at 240 VAC, 80% pf 120/240 VAC
5/32" pure fine Silver (Gold flash)	10 amp 7 amp 1/3 hp	28 VDC/120 VAC, at 240 VAC, 80% pf 120/240 VAC
Life Expectancy Mechanical—in excess of 50 million operations Electrical—100,000 operations minimum at rated loads		
CSA Recognition Rating For use in equipment where short circuit capacity of circuit is fuse limited to levels of relay rating. CSA File LR54109		

COILS		
Voltage Ratings	6 to 240 VAC 50/60 Hz 5 to 110 VDC	
Pick-up Voltage	AC—85% of nominal DC—75% of nominal	
Duty Cycle	Rated for continuous duty operation at 25% overvoltage	
Shock	15 g's, 11±1mS 1/2 sinewave (non operating test, no mechanical damage)	
Vibration	0.1" DA or 10g's, 10 to 55 Hz (operating test, no contact chatter, hard mounted, 1 microsecond detection level)	
Power Ratings		
	AC	DC
Nominal	1.2 VA	0.9 W
Max. Continuous	2.0 VA	2.0 W
Temperature Range		
	AC	DC
Nominal Voltage	35°C	33°C
25% overvoltage	65°C	45°C
Indicator Lamp Option		
Additional power consumption with indicator lamp across coil is as follows: 6 VAC & DC: 250 MW approx. 12 & 24 VAC & DC: 900 MW 90 VDC 119 VAC 120 VAC 240 VAC		
All use neon indicator Power consumption is negligible.		

SPECIFICATIONS

All ratings at 25°C ambient

Dielectric Breakdown

Greater than 500 VAC RMS 60 Hz across open contacts. Greater than 1500 VAC RMS 60 Hz all other mutually insulated elements

Insulation Material

1500 megohms minimum at 500 VDC

Timing Values

13 mS maximum operate time

10 mS maximum release time

(Nominal voltage, no coil suppression)

Design and Construction

UL recognized. Meets all specifications for electrical spacing, materials and design characteristics for devices up to 240 VAC in accordance with UL 508, Industrial Control Equipment.

Weight (approximate)

1.5 ounces (42 grams)—dust cover

Marking

Midtex name, part number, nominal voltage, and terminal identification are standard. Customer marking optional.

COIL CHARACTERISTICS		
Nominal Voltage	Resistance (Ohms±10%)	
5	20	
6	40	
V 12	160	
D 24	650	
C 48	2600	
90	9000	
110	11000	
6	10	
12	40	
V 24	155	
A 48	670	
C 120	3900	
240	14900	

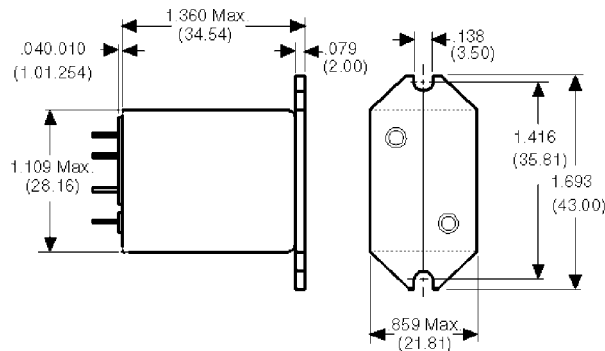
TYPE 158

PART NUMBERING SYSTEM

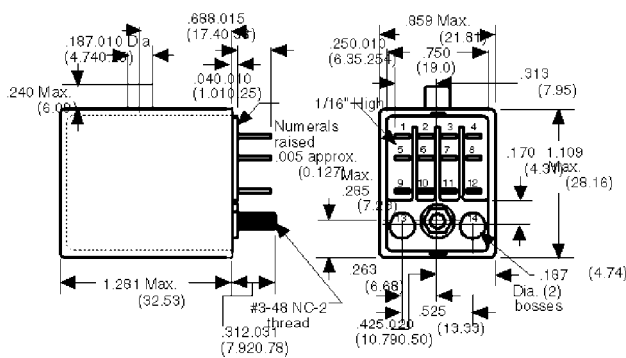
Relay Type	Enclosure and Terminals	Contact Arr.	Coil	Contacts	Standard or Special
158	1—Green Transparent Plastic Dust Cover. Solder/Plug-in Terminals 2—Natural Nylon Dust Cover. PC Board 6—Green Transparent Plastic Dust Cover. Solder/Plug-in Terminals with Top Mount Bracket	1—1PDT 2—2PDT 4—SPST-NO (Form A) 5—SPST-NC (Form B) 6—DPST-NO 7—DPST-NC 8—SPST-NO-DM (Form X) 9—SPST-NC-DB (Form Y)	G—5 VDC A—6 VDC B—12 VDC C—24 VDC D—48 VDC E—90VDC F—110 VDC N—6 VAC P—12 VAC Q—24 VAC R—48 VAC T—120 VAC U—240 VAC	1—3/32" Silver Gold Flash 2—5/32" Silver Cadmium Oxide 7—5/32" Pure Fine Silver (Gold Flash)	00—Standard B0—Opposite Polarity Barrier C0—Push Button Actuator D0—Diode Across Coil, DC Only L0—Lamp Across Coil LC—Lamp & Push Button N0—Nylon Cover S0—Sealed Cover T0—Flange Mount A1-Z9—Special Customer Requirements
	0—Special	0—Special	S—Special	0—Special	

DIMENSIONS

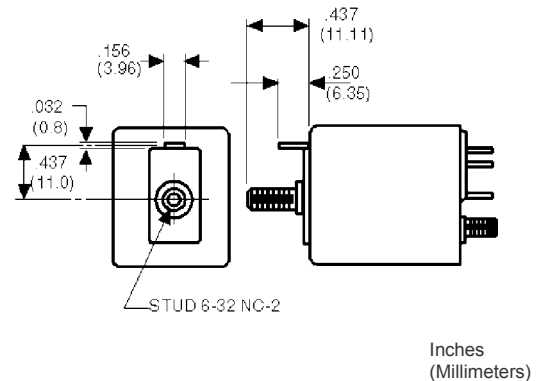
Special Option, Flanged Mount—Option TO



Dust Cover 158-1, 2

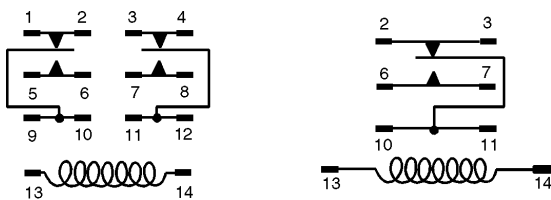


Bracket Mount 158-6



Inches
(Millimeters)

WIRING

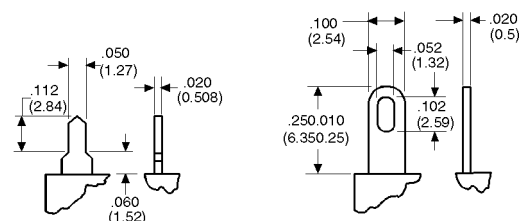


2 Form C (DPDT)

1 Form C (SPDT)

Reference Only

TERMINALS

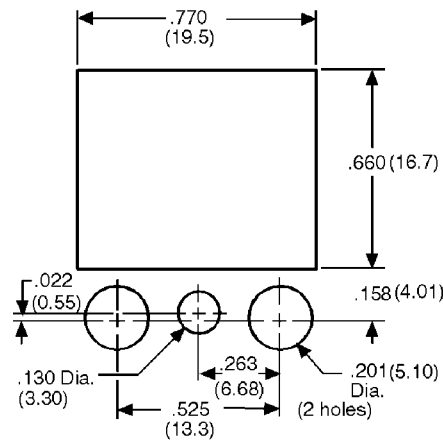


Printed Circuit
Model 158-2

Solder/Plug
Model 158-1, -6

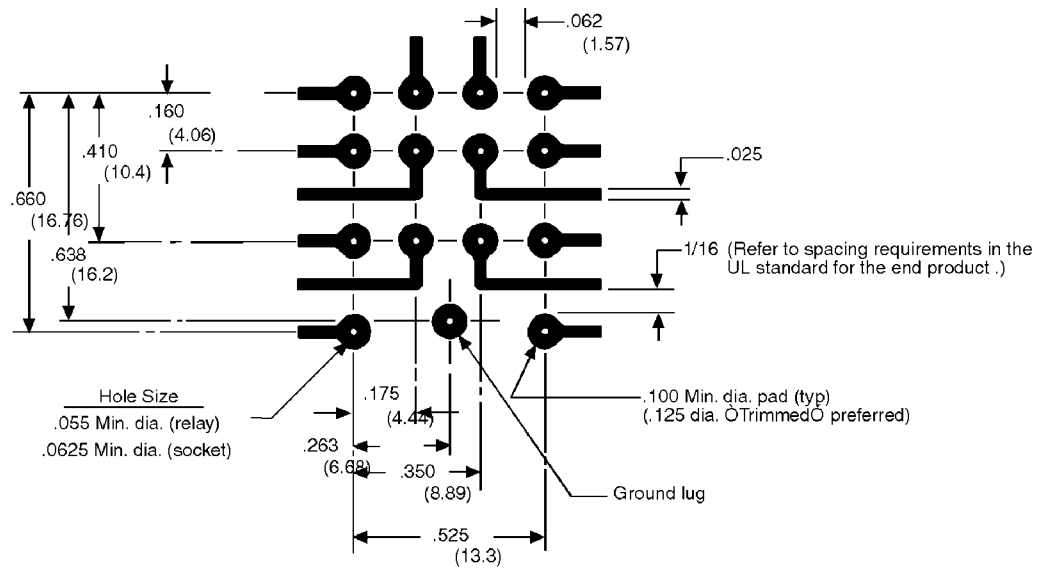
MOUNTING

Direct Chassis



Model 158-1, -4

Printed Circuit Board



Suggested Printed Circuit Pattern
Model 158-2, -5

Bottom View
Reference Only

Inches
(Millimeters)

See RELAY SOCKETS on page 50.
See HOLD DOWN SPRINGS on page 53.