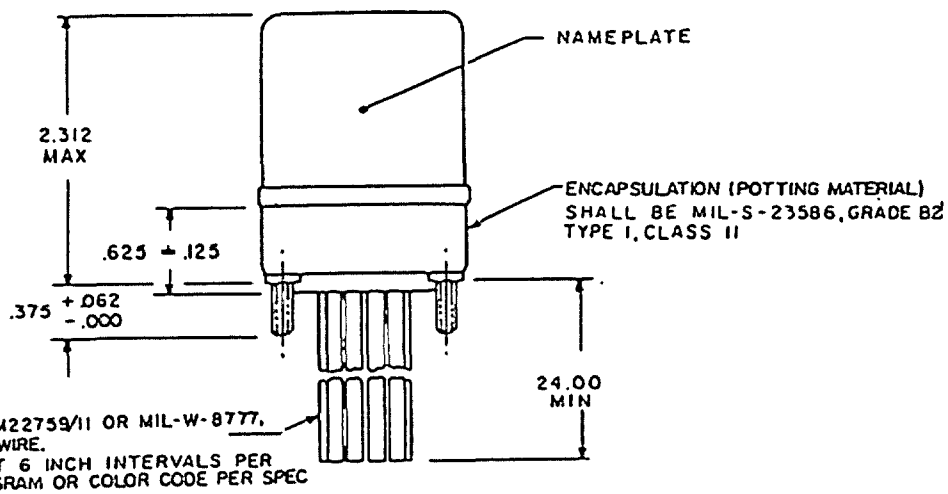


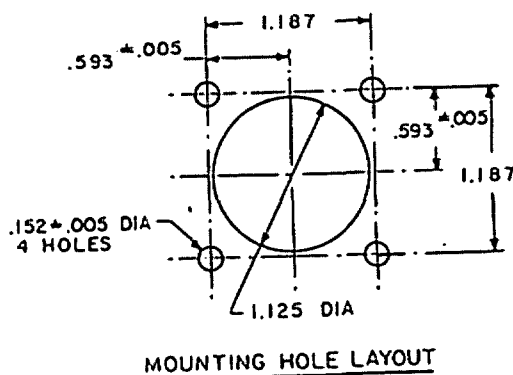
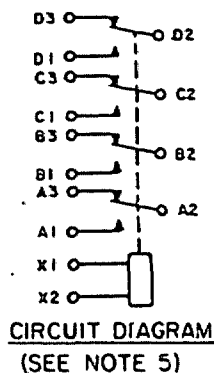
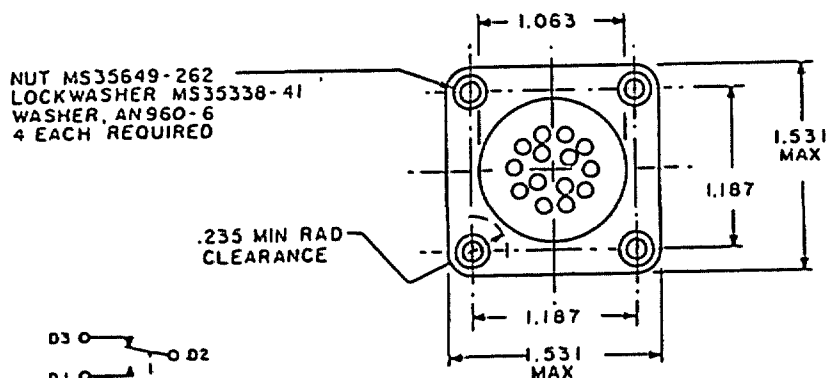
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NO SUPERSEDING STANDARD

User activities: Army -  
Navy -  
Air Force -



Review activities: Army -  
Navy - EC  
Air Force - 11, 99



Ⓔ ENTIRE STANDARD REVISED

P.A USAF - 85 Other Cust Navy -AS	International Interest	TITLE RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 PDT, TYPE 1, POTTED LEAD, HERMETICALLY SEALED	MILITARY STANDARD	
			MS25272	
Procurement Specification MIL-R-6106		SUPERSEDES:	PAGE 1 OF 5	

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

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Inches	mm
.005	0.13
.062	1.57
.125	3.18
.152	3.86
.235	5.97
.375	9.53
.593	15.06
.025	15.88
1.100	27.94
1.187	30.15
1.531	38.89
2.187	55.55
24.00	609.60

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is  $\pm 0.010$  (0.25 mm).
4. Terminal numbers need not appear on relay headers, provided there is affixed to the relay a suitable legible circuit diagram that positively and permanently identifies each terminal location specified herein.
5. The use of diodes on ac relays is optional. Actual application must be shown on label.
6. In the event of a conflict between the text of this standard and the references cited herein, the text of this standard shall take precedence.
7. Referenced Government documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation form a part of this standard to the extent specified herein.

TABLE I. Dash numbers and characteristics.

Dash number	Type	Coil	Terminal type	Mounting	Max weight in pounds
MS25272-					
D1	I	dc	Lead	Stud	.77
A1	I	ac	Lead	Stud	.77

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TABLE II. Operating characteristics.

IMS part no.	Coil data										Time - (milliseconds maximum)					
	Coil	Nominal		Max		Max pick-up voltage			Drop-out voltage 2/	Hold voltage 2/	Operate 3/	Release 4/	Contact bounce			
		Volts 1/	Freq. Hz	Res n	Volts	Amperes	Normal 2/	High temp test					Cont current test	Main	Aux	INC
D1	X1, X2	28	dc	N/A	29	0.30	18	19.5	22.5	1.5	7.0	20	2	2		
A1	X1, X2	115	400 5/	N/A	122	0.073	90	95	103	5.0	30	25	2	2		

1/ CAUTION: Use of any coil voltage less than nominal coil voltage will compromise the operation of the relay.  
 2/ Over the temperature range.  
 3/ With nominal coil voltage.  
 4/ From nominal coil voltage.  
 5/ MS25327-A1 may be used on 60 Hz if maximum ambient temperature is limited to 85°C (maximum coil current shall be 0.0777 ampere).

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TABLE III. Rated contact load (amperes per pole) (case grounded).

Type of load	Life operating cycles X 10 <sup>3</sup>	28 V dc				115 V ac, 1 phase				115/200 V ac, 3 phase 1/				See appropriate notes
		Main		Aux		Main		Aux		Main		Aux		
		NO	NC	NO	NC	400 Hz	60 Hz	400 Hz	60 Hz	400 Hz	60 Hz	400 Hz	60 Hz	
Resistive	100	10	10			10	6			10	6			
Inductive	100													
Inductive	20	6	6			6	4			6	4			
Motor	100	4	4			4	3			4	3			
Lamp	100	2	2			2	1.5			2	1.5			
Transfer load														2/
Mechanical life reduced current	400	2.5	2.5			2.5	2			2.5	2			
Intmd current		Applicable per specification												

1/ Absence of value indicates relay is not rated for 3-phase applications.

2/ Transfer load indicates relay suitable for transfer between unsynchronized ac power supplies at rating indicated.

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4 PDT, TYPE 1, POTTED LEAD,  
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Environmental characteristics

Temperature range -70°C to +125°C  
Max altitude rating 80,000 ft  
Shock G-level 50 G  
Duration 11 ms  
Max duration contact opening 10 μs  
Vibration - sinusoidal G-level 10 G  
Frequency range 5 - 1,500 Hz  
Vibration - random  
Applicable specification N/A  
Power spectral density N/A  
RMS G min N/A  
Frequency range N/A  
Curve N/A  
High shock H/A  
Acceleration 15 G

Electrical characteristics

Insulation resistance, initial 100 megohms  
After life or environmental tests 50 megohms

Dielectric strength (sea level)  
Initial 1,050 V rms  
After life tests 1,000 V rms

Coil to case

Aux contacts

All other points 1,500 V rms 1,125 V rms

Dielectric strength (altitude)  
80,000 ft

Coil to case 1,000 V rms

Aux contacts

All other points 1,000 V rms

Max contact drop initial 0.150 volt  
After life test 0.175 volt  
Overload current 40 amperes dc,  
60 amperes ac  
50 amperes dc,  
80 amperes ac  
Continuous MIL-STD-461

Rupture current

Duty rating  
RFI specification  
(Applicable to coil circuits of ac operated relays)

Quality conformance inspection

Performance of groups B and C tests are not applicable.

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