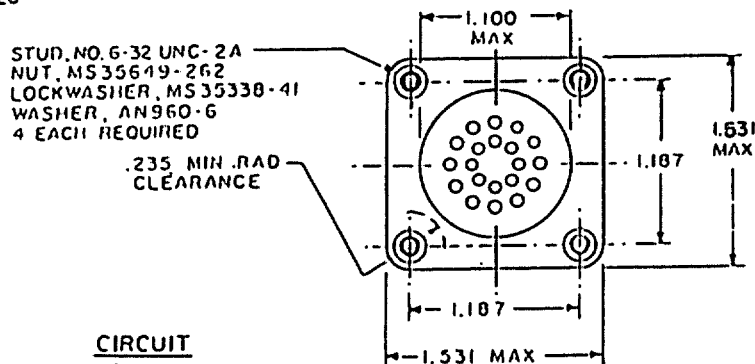
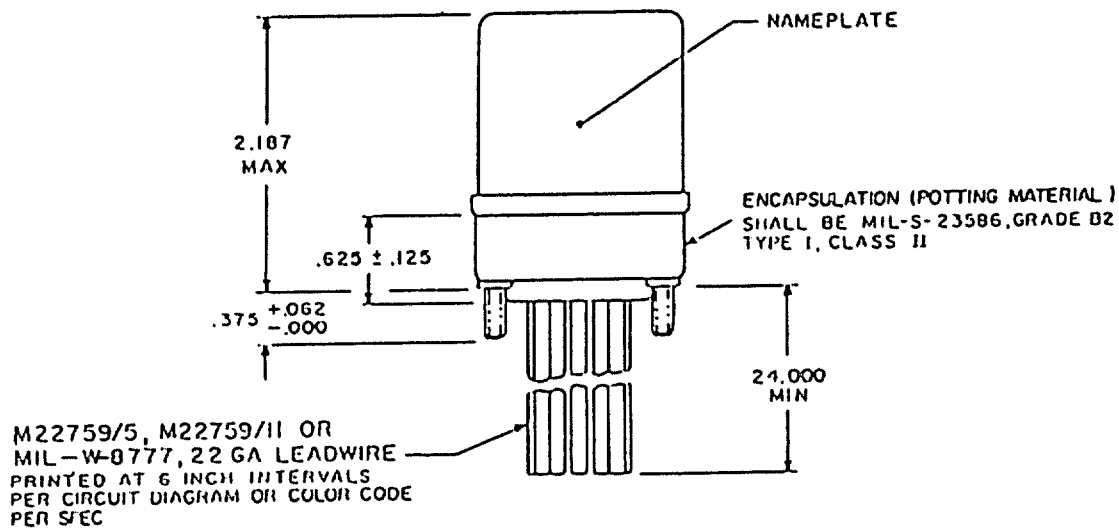
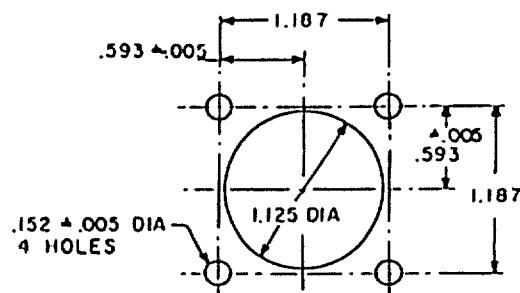
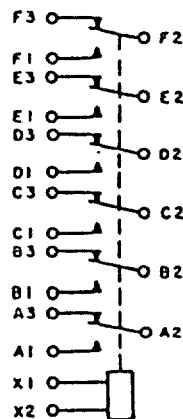


FED. SUP CLASS  
5945INACTIVE FOR NEW DESIGN AFTER 5 JUN 87  
NO SUPERSEDING STANDARDUser activities: Army -  
Navy -  
Air Force -

11, 99

Review activities: Army -  
Navy - EC  
Air Force -

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CIRCUIT  
DI-A1  
(NOTE 5)

MOUNTING HOLE LAYOUT

J denotes changes

P.A. USAF - 85 Other Cust Navy - AS	International Interest	TITLE RELAYS, ELECTROMAGNETIC, 5 AMPERES, 6 PDT, TYPE I, POTTED LEAD, HERMETICALLY SEALED	MILITARY STANDARD  MS25270
Procurement Specification MIL-R-6106	SUPERSEDES:	PAGE 1 OF 5	

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APPROVED 17 March 1958  
REVISED J 20 Jan 1989

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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, tolerances are  $\pm 0.010$  (0.25 mm).
4. Terminal numbers need not appear on relay header provided there is affixed to the relay a suitable legible circuit diagram that permanently and positively identifies each terminal location specified hereon.
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
MS25270-					
D1	I	dc	Lead	Stud	.67
A1	I	ac	Lead	Stud	.67

P.A USAF - 85	International interest	TITLE RELAYS, ELECTROMAGNETIC, 5 AMPERES, 6 PDT, TYPE I, POTTED LEAD, HERMETICALLY SEALED	MILITARY STANDARD
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Review activities: Army - EC  
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Air Force -

P.A. USAF - 85 Other Cust Navy - AS		International interest	TITLE RELAYS, ELECTROMAGNETIC, 5 AMPERES, 6 POT, TYPE I, POTTED LEAD, HERMETICALLY SEALED		MILITARY STANDARD MS25270	
Procurement Specification MIL-R-6106			SUPERSEDES:		PAGE 3 OF 5	

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5945

(J) TABLE II. Operating characteristics.

MS part no.	Coil	Coil data					Time (milliseconds max)								
		Nominal		Max		Drop-out voltage 2/	Operate 3/	Release 4/	Contact bounce						
		Volts 1/	Freq. Hz	Res Ω	Volts				Ampere	Normal 2/	High temp test	Cont current test	Hold voltage 2/	Main	AUX
01	X1, X2	28	dc	N/A	29	0.13	18	19.8	22.5	7.0	1.5	20	20	2	2
A1	X1, X2	115	400 5/1	N/A	122	0.04	90	95	103	30	5.0	25	50	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/ At nominal coil voltage.  
 4/ From nominal coil voltage.  
 5/ MS25270-A1 may be used on 60 Hz if maximum ambient temperature is +95°C (maximum coil current shall be 0.014 ampere).

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User activities: Army -  
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Air Force -

Review activities: Army - EC  
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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	5	5			5	4							
Inductive	100													
Inductive	20	3	3			3	2							
Motor	100	1.5	1.5			1.5	1							
Lamp	100	0.8	0.8			0.8	0.6							
Transfer load														2/
Mechanical life reduced current	400	1.25	1.25			1.25	1							
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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Other Cust  
Navy - AS

International  
interest

## TITLE

RELAYS, ELECTROMAGNETIC, 5 AMPERES,  
6 PDT, TYPE 1, POTTED LEAD,  
HERMETICALLY SEALED

MILITARY STANDARD

MS25270

Procurement Specification  
MIL-R-6106

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### Environmental characteristics

Temperature range -70°C to +125°C  
Max altitude rating 80,000 ft  
Shock G-level 25 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 15 G  
Acceleration

### Electrical characteristics

Insulation resistance, initial 100 megohms  
After life or environmental tests 50 megohms  
Dielectric strength (sea level)  
Coil to case Initial 1,050 V rms After life tests 1,000 V rms  
Aux contacts  
All other points 1,050 V rms 1,000 V rms  
Dielectric strength (altitude)  
Coil to case 80,000 ft  
Aux contacts 1,000 V rms  
All other points 1,000 V rms  
Max contact drop initial 0.150 volt  
After life test 0.175 volt  
Overload current 20 amperes  
Rupture current 25 amperes  
Duty rating Continuous  
RFI specification MIL-STD-461  
(Applicable to coil circuits of ac operated relays)

### Quality conformance inspection

Performance of groups B and C tests are not applicable.  
Group A acceptance reports shall be submitted to the preparing activity on a yearly basis in order to retain qualification for this military standard sheet.

P.A. USAF - 85 Other Cust Navy - AS	International Interest	TITLE RELAYS, ELECTROMAGNETIC, 5 AMPERES, 6 PDT, TYPE I, POTTED LEAD, HERMETICALLY SEALED	MILITARY STANDARD MS 25270
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