INCH-POUND

MS25395J
w/AMENDMENT 1
26 March 2004
SUPERSEDING
MS25395H
5 Jun 1987

RELAYS, ELECTROMAGNETIC, 5 AMPERES, 2 PDT, TYPE I, HERMETICALLY SEALED

INACTIVE FOR NEW DESIGN AFTER 15 NOVEMBER 2002.
NO SUPERSEDING SPECIFICATION.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the relay described herein shall consist of this specification and the latest issue of MIL-PRF-6106.

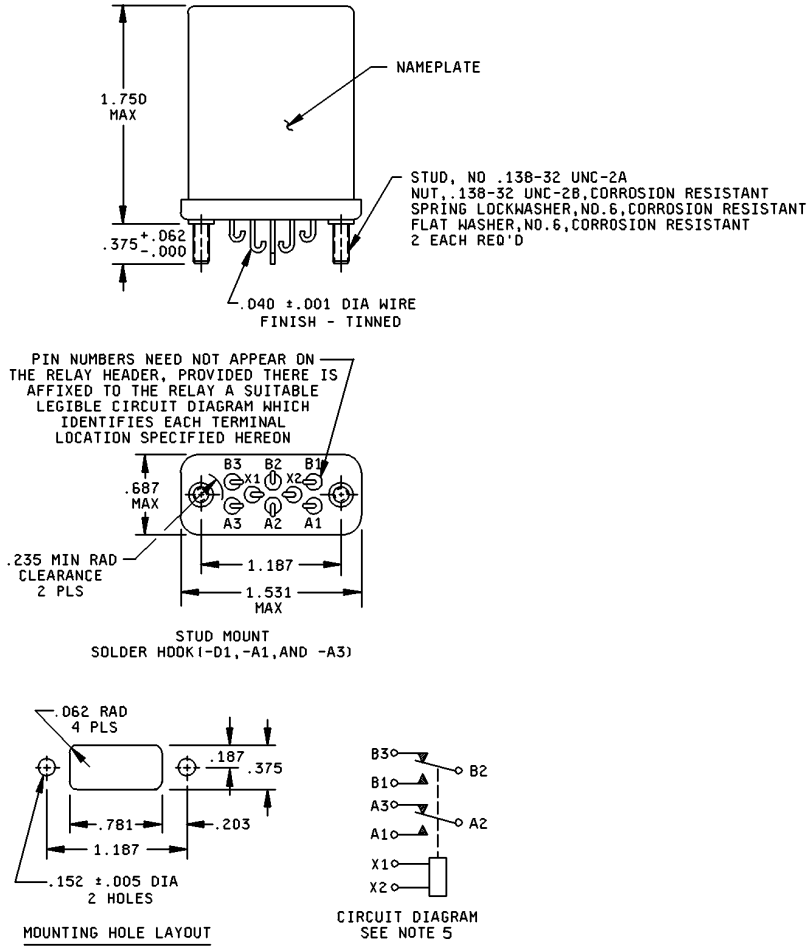

FIGURE 1. Dimensions and configurations.

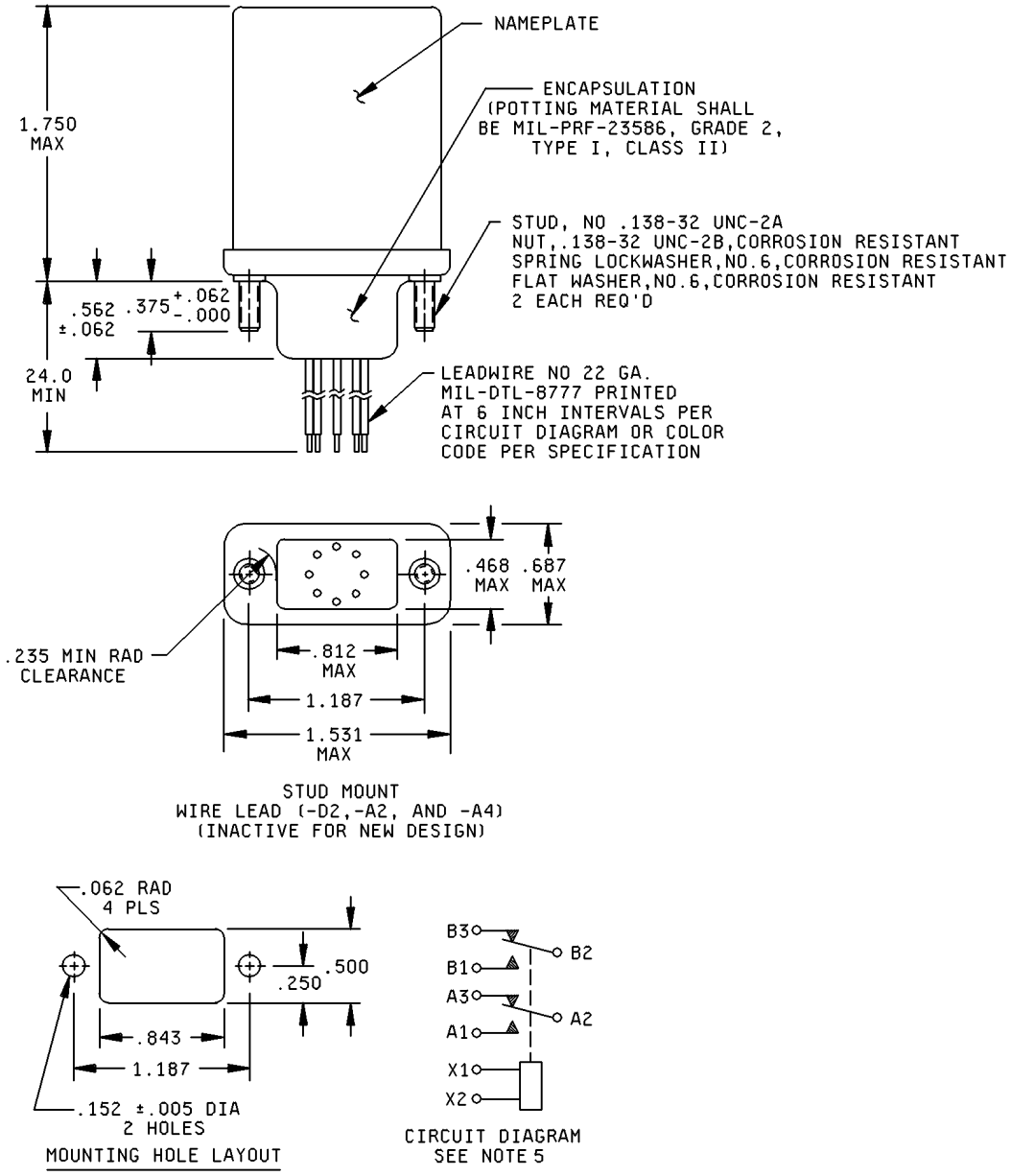

FIGURE 1. Dimensions and configurations - Continued.

Inches	mm	Inches	mm
.001	0.03	.468	11.89
.005	0.13	.500	12.70
.040	1.02	.562	14.27
.062	1.57	.687	17.45
.152	3.86	.781	19.84
.172	4.37	.812	20.62
.187	4.75	.843	21.41
.203	5.16	1.187	30.15
.235	5.97	1.531	38.89
.250	6.35	1.750	44.45
.375	9.53	24.0	610.

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.010 (0.25 mm).
4. In the event of conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.
5. The use of diodes on ac relays is optional. Actual application must be shown on label.

FIGURE 1. Dimensions and configurations - Continued.

TABLE I. Dash numbers and characteristics.

Dash number MS25395-	Type	Coil	Terminal type	Mounting or mating socket	Max weight in pounds
D1	I	dc	Solder hook	Stud	0.15
D2 1/	I	dc	Potted lead	Stud	0.26
A1	I	ac	Solder hook	Stud	0.17
A2 1/	I	ac	Potted lead	Stud	0.28
A3	I	ac	Solder hook	Stud	0.17
A4 1/	I	ac	Potted lead	Stud	0.25

1/ CAUTION: The use of any coil voltage less than nominal coil voltage will compromise the operation of the relay.

TABLE II. Operating characteristics.

PIN MS25395-		Coil data											Time - (milliseconds maximum)					
		Coil	Nominal			Max		Max pick-up voltage			Drop out volt-age 2/	Hold volt-age 2/	Oper -ate 3/	Rel-ease 4/	Contact bounce			
															Main		Aux	
			Volts 1/	Freq Hz	Res Ω ±10%	Volts	Amp	Nor-mal 2/	High temp test	Cont cur-rent test					NO	NC	NO	NC
D1	D2	X1,X2	28	dc	248	29	0.15	18	19.8	22.5	1.5	7.0	20	20	2	2	---	---
A1	A2	X1,X2	115	400	N/A	122	0.06	90	95	103	5.0	35	25	50	2	2	---	---
A3	A4	X1,X2	115	50/ 60	N/A	122	0.07	90	95	103	5.0	35	25	50	2	2	---	---

1/ CAUTION: The 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.

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

Type of load	Life operating cycles x 10^3	28 V dc				115 V ac, 1 phase				115/200 V ac, 3 phase 1/				See appro-priate 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							
Mixed loads	Applicable in accordance with specification													

1/ Absence of value indicates relay is not rated for 3-phase applications.
2/ Transfer load indicates relay is suitable for transfer between unsynchronized ac power supplies at rating indicated.

Environmental characteristics.

Temperature range	-70°C to +125°C
Max altitude rating	80,000 ft
Shock G-level	50 g's
Duration	11 ms
Max duration contact opening	10 μs
Vibration – sinusoidal	
G-level	10 G
Frequency range	5 - 1,500 Hz
Acceleration	15 g's

Electrical characteristics.

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

Dielectric strength (sea level).

	Initial	After life tests
Coil to case	1,000 V rms	1,000 V rms
Aux contacts	N/A	N/A
All other points	1,500 V rms	1,125 V rms

Dielectric strength (altitude):

	80,000 ft	-D2 -A2 80,000 ft
Coil to case	250 V rms	1,000 V rms
Aux contacts	N/A	N/A
All other points	250 V rms	250 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).

Conformance inspection.

Qualification by similarity: See MIL-PRF-6106.

Group B and C inspections may be suspended at the discretion of the qualifying activity.

Referenced documents. In addition to MIL-PRF-6106, this specification sheet references the following documents:

MIL-DTL-8777 MIL-STD-461
MIL-PRF-23586

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:
Navy - AS
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5945-1244)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at www.dodssp.daps.mil.