

INCH-POUND

MS25269K  
 12 June 1995  
 SUPERSEDING  
 MS25269J  
 22 December 1989

## MILITARY SPECIFICATION SHEET

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

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

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-R-6106.

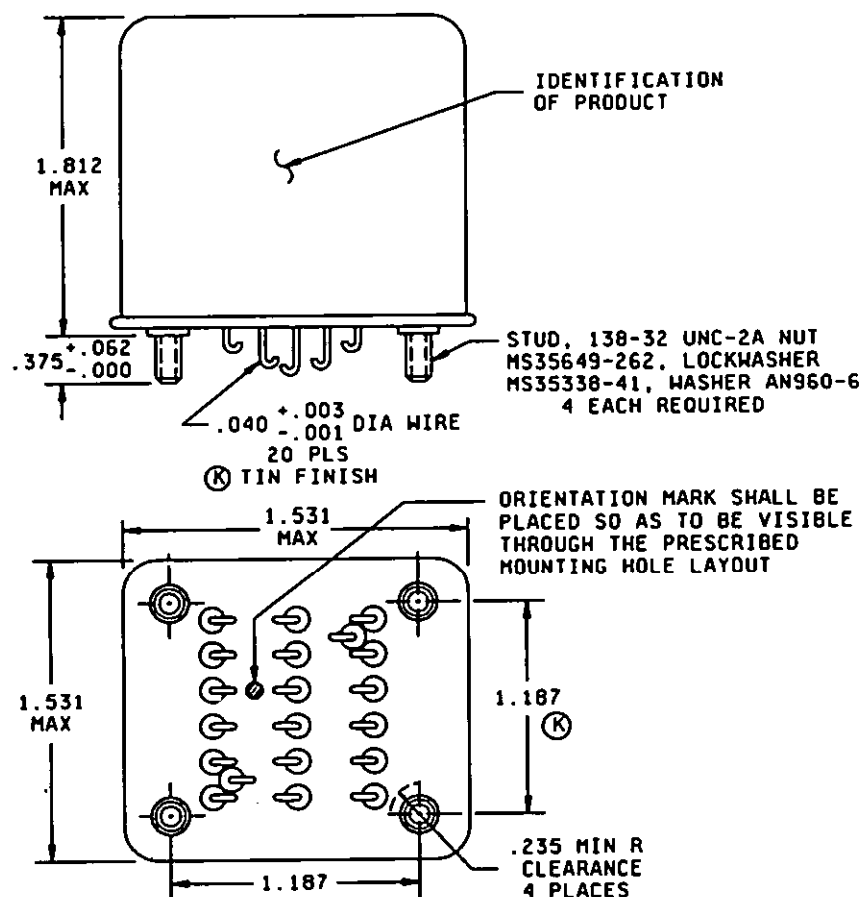


FIGURE 1. Dimensions and configuration.

(K) denotes changes

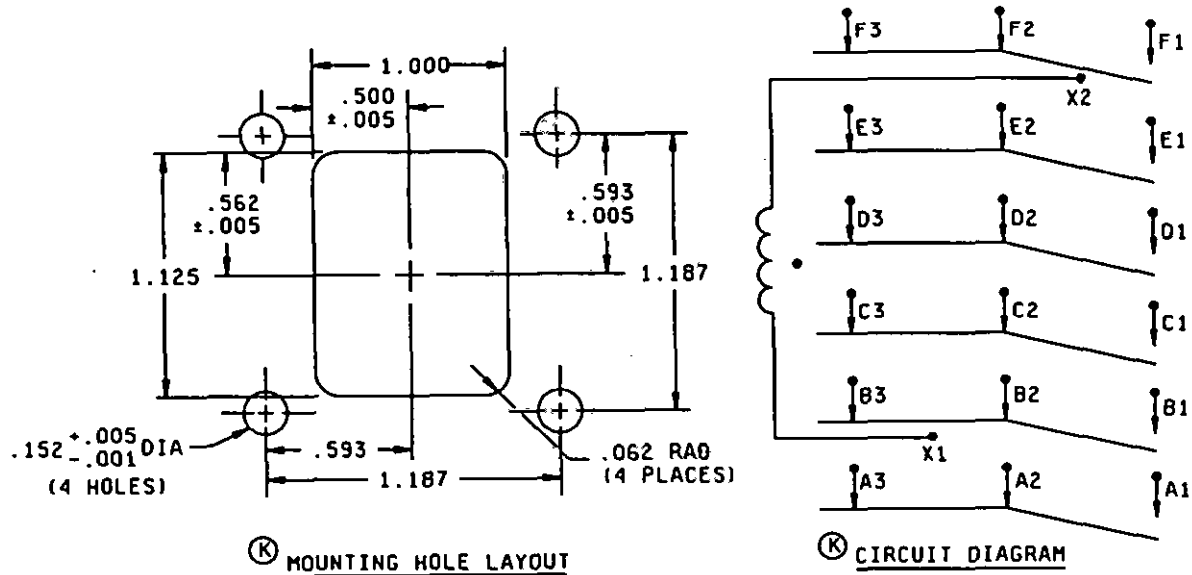
AMSC N/A

1 of 7

FSC 5945

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MS25269K



Inches	mm	(K)	Inches	mm
.001	0.03		.450	11.43
.003	0.08		.562	14.27
.005	0.13		.593	15.06
.040	1.02		.900	22.86
.062	1.57		1.125	28.58
.138	3.51		1.187	30.15
.152	3.86		1.531	38.89
.235	5.97		1.812	46.02
.375	9.53			

## 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. 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.
5. 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.
6. Terminal numbers shall not appear on the relay header. There shall be affixed to the relay a legible circuit diagram that identifies each terminal location specified.

FIGURE 1. Dimensions and configuration - Continued.

## MS25269K

## REQUIREMENTS:

Dimensions and configuration: See figure 1.

Part or Identifying Numbers (PIN's) and general characteristics: See table I.

Contact data:

Load ratings: See table II.

Maximum contact drop, initial: 0.150 V.

After life test: 0.175 V.

Overload current: 20 amperes.

Rupture current: 25 amperes.

Coil data: See table III.

Duty rating: Continuous.

RFI specification: MIL-STD-461 (applicable to coil of ac operated relays).

Electrical data:

Minimum insulation resistance:

Initial: 100 megohms.

After life or environmental test: 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	1,000 V rms	1,000 V rms

Dielectric strength (altitude)

	80,000 ft
Coil to case	250 V rms
Aux contacts	N/A
All other points	250 V rms

## MS25269K

## Environmental characteristics:

Temperature range:  $-70^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ .

Maximum altitude rating: 80,000 feet.

Shock, g-level: 50 g's.

Duration: 6-9 ms.

Maximum duration contact opening: 10  $\mu\text{s}$ .

## Vibration - sinusoidal:

G-level: 10 g's.

Frequency range: 5 - 1,500 Hz.

## Vibration - random:

Applicable specification: Not applicable.

Power spectral density: Not applicable.

RMS G-minimum: Not applicable.

Frequency range: Not applicable.

Curve: Not applicable.

High shock: Not applicable.

Acceleration: 15 g's.

PIN: MS25269- (plus applicable dash number from table I).

TABLE I. PIN's and general characteristics.

PIN MS25269-	Type	Coil	Terminal type	Mounting type	Maximum weight (pounds)
D1	I	dc	Solder hook	Stud	0.35
A1	I	ac	Solder hook	Stud	0.35

.MS25269K

TABLE II. 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/			
		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 3/	5	5			5	4						
Inductive	100 3/												
Inductive	20 3/	3	3			3	2						
Motor	100 3/	1.5	1.5			1.5	1						
Lamp	100 3/	0.8	0.8			0.8	0.6						
Transfer load 2/													
Mechanical life (reduced current)	400 3/	1.25	1.25			1.25	1						
Intermediate current		Applicable in accordance with MIL-R-6106											

1/ Absence of value indicates the relay is not rated for 3 phase application.

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

3/ MS25269-A1 is rated for 50,000 cycles, except that inductive is 10,000 cycles and mechanical life is 200,000 cycles.

MS25269K

(K) TABLE III. Operating characteristics.

		Coil data										Time - (milliseconds maximum)									
		Coil		Rated			Max		Max pick-up voltage			Hold voltage 2/	Drop-out voltage 2/	Operate 3/	Release 4/	Bounce					
				Volts 1/	Freq. (Hz)	Res (Ω)	Volts	Amperes 2/	Normal	High temp test						Cont current test	Main	NO	NC	NO	NC
PIN MS25269-																					
D1		X1,X2	28	dc		29	0.18	18	19.8	22.5	7.0	1.5	20	20	2	2					
A1		X1,X2	115	400 5/		122	0.04	90	95	103	30	5.0	25	50	2	2					

1/ CAUTION: Use of any coil voltage less than rated coil voltage will compromise the operation of the relay.

2/ Over the temperature range.

3/ With rated coil voltage.

4/ From rated coil voltage.

5/ MS25269-A1 may be used on 60 Hz if ambient temperature is limited to 85°C maximum and current is limited to 0.044 ampere maximum.

MS25269K

CONCLUDING MATERIAL

Custodians:

Navy - AS  
Air Force - 85

Review activities:

Navy - EC  
Air Force - 99  
DLA - ES

Preparing activity:

Air Force - 85

Agent:

DLA - ES

(Project 5945-0951)