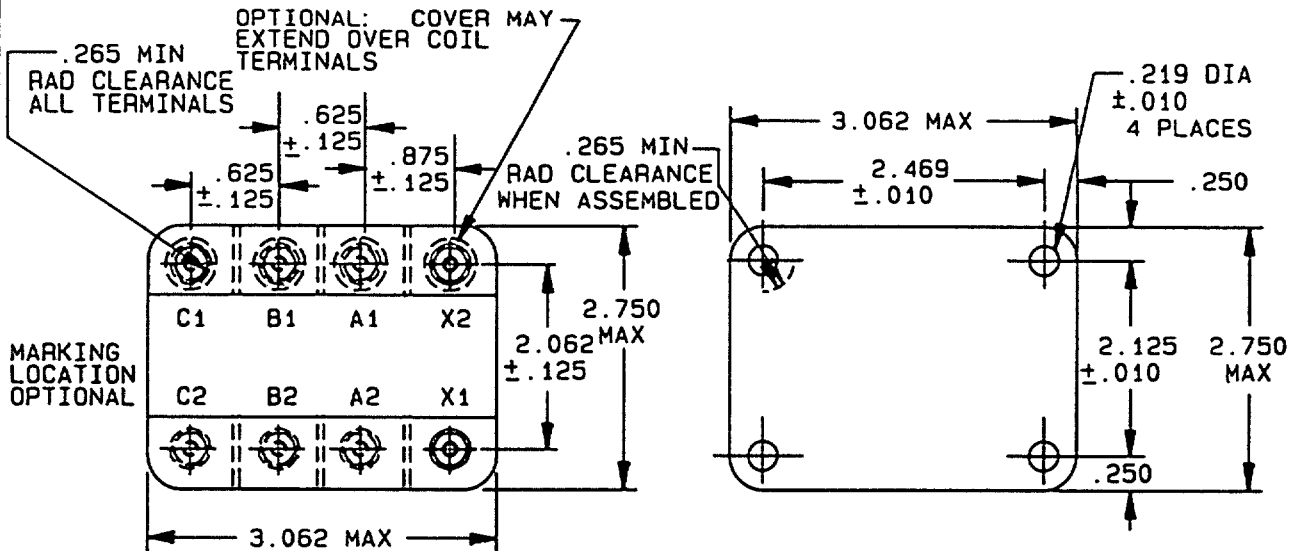


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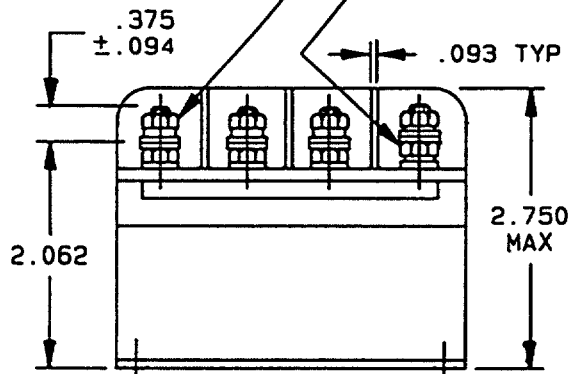
### BOTTOM VIEW OF MOUNTING BRACKET

CONTOUR OPTIONAL, PROVIDED MOUNTING HOLE DIMENSIONS ARE MAINTAINED

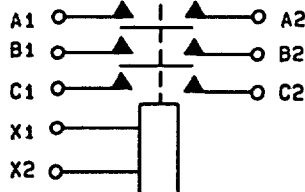
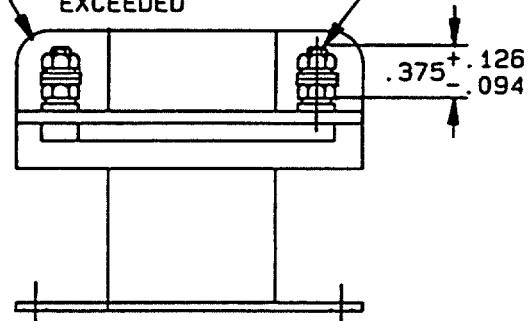
STUD, THD .190-32 UNF-2A  
NUT, MS35650-305T  
WASHER, MS35338-100  
WASHER, AN961-10  
6 EACH REQUIRED

METHOD OF SECURING STUDS IS OPTIONAL BUT SUITABLE BEARING SURFACES SHALL BE PROVIDED

STUD, THD .190-32 UNF-2A  
NUT, MS35649-286T  
WASHER, MS35338-99  
WASHER, AN961-8  
2 EACH REQUIRED



CONTOUR OPTIONAL, PROVIDED MAXIMUM DIMENSIONS ARE NOT EXCEEDED



Ⓛ ENTIRE STANDARD REVISED

PREPARING ACTIVITY: Air Force-85  
CUSTODIANS: ARMY, NAVY, AS  
AIR FORCE-85, DLA  
Agent: DLA-ES  
REVIEW:  
USER:  
PROJECT NUMBER: 5945-0852-02  
DISTRIBUTION STATEMENT

**MILITARY SPECIFICATION SHEET**  
TITLE: RELAYS, ELECTROMAGNETIC, 25 AMPERES, 3PST, N.O. TYPE II, NON-HERMETICALLY SEALED

SPECIFICATION SHEET NUMBER  
**MS24192L** 18 April 1991  
SUPERSEDING  
**MS24192K** 9 OCT 1990  
AMSC N/A FSC 5945

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Inches	mm	Inches	mm
.010	0.25	.265	6.73
.093	2.62	.375	9.53
.094	2.39	.625	15.86
.125	3.18	.875	22.23
.126	3.20	2.062	52.37
.164	4.17	2.125	53.98
.190	4.83	2.469	62.71
.219	5.56	2.750	69.85
.250	6.35	3.062	77.77

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are  $\pm .032$  inch (0.81 mm).
4. Additional flat washer may be used for terminal seat.
5. In the event of a conflict between the text of this specification sheet and the references cited herein, the text of this specification sheet shall take precedence.
6. 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 specification sheet to the extent specified herein.
7. Terminal numbers shall not appear on relay header. There shall be affixed to the relay a suitable legible circuit diagram that identifies each terminal location.
8. Terminal covers and barriers required at power terminals.
9. Weights do not include covers and barriers.
10. For detail information, see tables I through III.

TABLE I. Dash number and characteristics.

Part or Identifying Number (PIN)	Type	Coil	Terminal type	Mounting	Maximum weight in pounds
MS24192-D1 <u>1/</u>	II	dc	Stud	Plate	1.2

1/ MS24192-D1 supersedes AN3339-1.

PREPARING ACTIVITY: Air Force-85  
 CUSTODIANS: ARMY - NAVY - AS  
 AIR FORCE - 85 DLA -  
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**MILITARY SPECIFICATION SHEET**  
 TITLE  
 RELAYS, ELECTROMAGNETIC,  
 25 AMPERES, 3PST, N.O.  
 TYPE II, NON-HERMETICALLY  
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SPECIFICATION SHEET NUMBER

**MS24192L**

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MS24192K 9 OCT 1990

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TABLE II. Operating characteristics.

		Coil data										Time - (milliseconds maximum)			
MS PIN	Coil	Nominal	Maximum		Max pick-up voltage			Hold voltage 4/ 4/	Drop- out voltage 4/ 4/	Operate 1/ 2/	Bounce				
			Volts	Amperes	Normal 4/ 4/	High temp test	Cont current test				Main	Aux			
	MS24192-	Volts 3/ Hz	Res Ω min												
D1	X1,X2	28	dc	54	29	.54	18	21	22.5	7.0	1.5	20	15	2.5	---

1/ With nominal coil voltage.  
2/ From nominal coil voltage.  
3/ Caution. Use of any coil voltage less than nominal coil voltage will compromise the operation of the relay.  
4/ Over the temperature range.

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RELAYS, ELECTROMAGNETIC,  
25 AMPERES, 3PST, N.O.  
TYPE II, NON-HERMETICALLY  
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TABLE III. Rated contact load (amperes per pole) case grounded.

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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	50	25				25				25			
Inductive	10	25				25				25			
Inductive													
Motor	50	25				25				25			
Lamp													
Transfer load 2/													
Mechanical life reduced current	100	6.3				6.3				6.3			
Intermediate current		Applicable in accordance with MIL-R-6106											

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

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

TABLE IV. Qualification by similarity.

PIN	Loads						Dynamics 1/			Environmental		
	Type 1			Type 1 ER			A	X	Y	A	B	C
	A	B	C	D	E	F						
MS24192-D1	4						2			4		

1/ All units must be tested; reference MIL-R-6106, construction, internal.

TABLE V. Vibration level.

PIN	5-10 Hz	10-55 Hz	55-250 Hz	250-500 Hz
MS24192-D1	.08 DA	.06 DA	2 g	2 g

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## MILITARY SPECIFICATION SHEET

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RELAYS, ELECTROMAGNETIC,  
25 AMPERES, 3PST; N.O.  
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Environmental characteristics

Temperature range -55°C to +71°C  
 Maximum altitude rating 50,000 ft  
 Shock G-level 25 g's  
 Duration 6-9 ms  
 Maximum duration contact opening 2 ms  
 Vibration:  
   Sinusoidal (see table V)  
   G-level  
   Frequency range  
  
 Vibration - random N/A  
 Applicable specification N/A  
 Power spectral density N/A  
 RMS G minimum N/A  
 Frequency range curve N/A  
 High shock N/A  
 Acceleration 10 g's

Electrical characteristics

Minimum insulation resistance, initial 100 megohms  
 After life or environmental tests 50 megohms  
 Dielectric strength (sea level) (see table VI) 2-5 seconds

TABLE VI. Dielectric strength (sea level).

Dielectric strength	Initial		After life tests	
	28 V dc	115 V ac	28 V	115 V
Coil to case	1,250	N/A	1,000	N/A
Auxiliary contacts	1,250	N/A	1,000	N/A
All other points	1,250	1,500	1,000	N/A

Dielectric strength (altitude) (see table VII) 1 minute

TABLE VII. Dielectric strength (altitude).

Dielectric strength	28 V dc	115 V ac
Coil to case	500	N/A
Auxiliary contacts	500	N/A
All other points	700	N/A

Maximum contact drop initial .150 volt  
 After life test .175 volt  
 Overload current (N.O.) 200 amperes  
 Rupture current (N.O.) 250 amperes  
 Duty rating Continuous  
 RFI specification N/A  
 (Applicable to coil circuits of ac operated relays)

PREPARING ACTIVITY: Air Force-85  
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                   AIR FORCE - 85 DLA -  
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