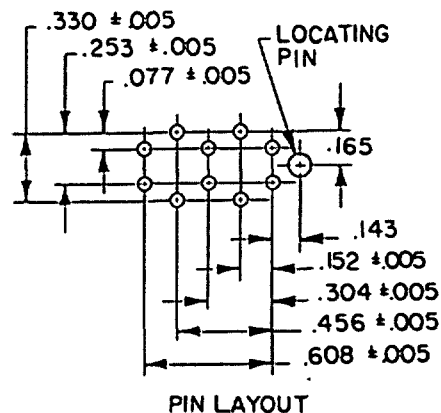
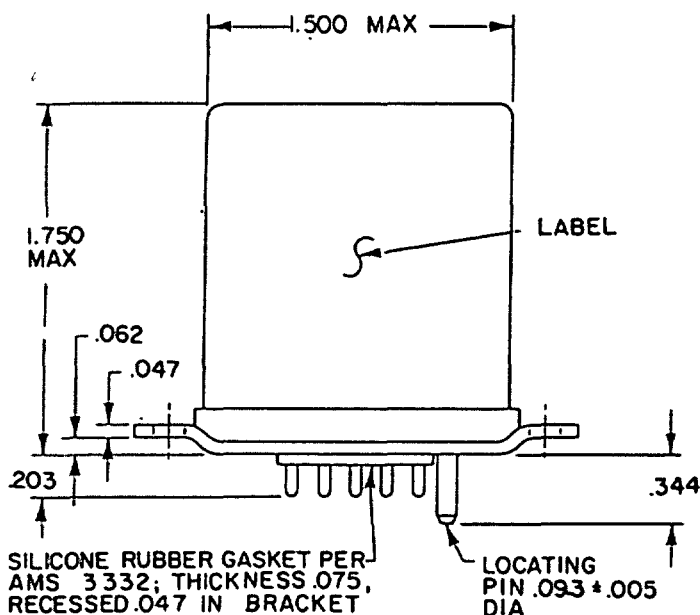


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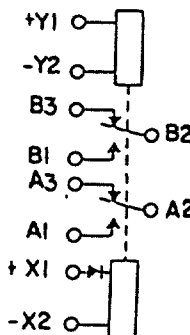
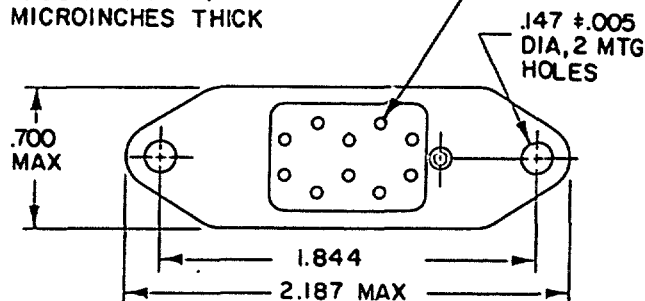
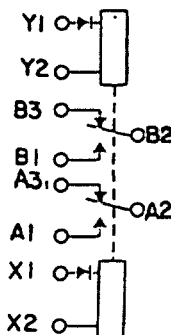
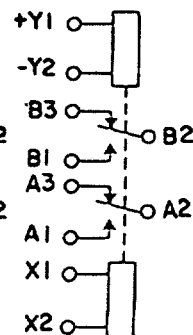
INACTIVE FOR NEW DESIGN AFTER 5 JUN 87  
NO SUPERSEDING STANDARD  
(FOR NEW DESIGN USE MIL-R-6106/38)

User activities: Army -  
Navy -  
Air Force -

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



10 PINS .040 ± .001 DIA, GOLD PLATED MIL-G-45204, TYPE II, CLASS I, UNDERPLATING, NICKLE 50 TO 150 MICROINCHES THICK

CIRCUIT DI  
(NOTE 7)CIRCUIT AI  
(NOTE 5)CIRCUIT ADI  
(NOTES 5, 7)

(F) ENTIRE STANDARD REVISED

P.A. AF - 85 Other Cust Navy - AS	International Interest	TITLE RELAYS, ELECTROMAGNETIC, 5 AMPERES, 2 PDT, TYPE I, MAGNETIC LATCH, SOCKET MOUNTED, HERMETICALLY SEALED	MILITARY STANDARD <b>MS25455</b>
Procurement Specification MIL-R-6106	SUPERSEDES:	PAGE 1 OF 5	

DD FORM 1 MAY 73 672  
AMSC N/A

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

5945-0745-15

APPROVED 1 Nov 60 REVISED (F) 5 JUN 87

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.

User activities: Army -  
Navy -  
Air Force -Review activities: Army -  
Navy - EC  
Air Force - 11

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Inches	mm	Inches	mm
.001	0.03	.165	4.19
.005	0.13	.203	5.16
.010	0.25	.253	6.43
.040	1.02	.304	7.72
.047	1.19	.330	8.38
.062	1.57	.344	8.74
.075	1.91	.456	11.58
.077	1.96	.608	15.44
.093	2.36	.700	17.78
.143	3.63	1.500	38.10
.147	3.73	1.750	44.45
.152	3.86	1.844	46.84
		2.187	55.55

## 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 headers provided there is affixed to the relay a suitable legible circuit diagram that permanently and positively identifies each terminal location specified herein.
5. The use of diodes on ac relays is optional. Actual application must be shown on label.
6. Pins to be perpendicular to header surface within one degree.
7. Relay is magnetically latched in both positions. Caution note to observe polarity must appear on relays with dc coils.
8. Shock, vibration, and acceleration requirements applicable with coils de-energized.
9. 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.
10. 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 MS25455-	Type	Coil	Terminal type	Max weight in pounds
D1	I	dc	Plug in	0.21
A1	I	ac	Plug in	0.23
AD1	I	ac-dc	Plug in	0.23

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User activities: Army -  
Navy -  
Air Force -

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TABLE II. Operating characteristics.

MS part no. MS25455-	Coil data										Time - (milliseconds maximum)				
	Coil	Nominal			Max		Max pick-up voltage				Operate 3/ Release 4/	Contact bounce			
		Volts 1/ V1, Y2	Freq. Hz	Res Ω	Volts	Amperes	Normal 2/ temp test	High temp test	Cont current test	Main		Aux			
D1	X1, X2 Y1, Y2	28	dc	N/A	29	0.12	18	18	19.8	25	N/A	2	2		
A1	X1, X2 Y1, Y2	115	400 5/	N/A	122	0.06	90	90	95	25	N/A	2	2		
AD1	X1, X2 Y1, Y2	115	400 5/	N/A	122	0.06	90	90	95	25	N/A	2	2		
		28	dc	N/A	29	0.12	18	18	19.8	25	N/A	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/ MS25455-A1 and -AD1 ac coils may be used on 60 Hz if maximum ambient temperature is limited to +85°C (coil current: 0.066 ampere maximum).

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Interest

TITLE

RELAYS, ELECTROMAGNETIC, 5 AMPERES,  
2 PDT, TYPE I, MAGNETIC LATCH,  
SOCKET MOUNTED, HERMETICALLY SEALED

MILITARY STANDARD

MS 25455

Procurement Specification  
MIL-R-6106

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User activities: Army -  
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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		Main		Aux	Main		Aux	
		NO	NC	NO	NC	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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#### TITLE

RELAYS, ELECTROMAGNETIC, 5 AMPERES,  
2 PDT, TYPE I, MAGNETIC LATCH,  
SOCKET MOUNTED, HERMETICALLY SEALED

MILITARY STANDARD

MS25455

Procurement Specification  
MIL-R-6106

SUPERSEDES:

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1 MAY 73

APPROVED 1 Nov 1960 REVISED (F) ENTIRE STANDARD REVISED.

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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 10 μs  
G-level 10 G  
Frequency range 5 - 1500 Hz  
Acceleration 15 G

### Electrical characteristics

Insulation resistance, initial 100 megohms  
After life or environmental tests 50 megohms  
Dielectric strength (sea level)  
Initial 1,000 V rms  
After life tests 1,000 V rms  
Coil to case 1,000 V rms  
Aux contacts 1,000 V rms  
All other points 1,000 V rms  
Dielectric strength (altitude)  
(When mounted in mating socket) 80,000 ft  
Coil to case 500 V rms  
Aux contacts 500 V rms  
All other points 500 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 inspections are not applicable.

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