

User activities: Army -
Navy -
Air Force -

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

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INACTIVE FOR NEW DESIGN AFTER 5 JUN 87 NO SUPERSEDING STANDARD (FOR NEW DESIGN USE MIL-R-6106/51)		FED. SUP CLASS 5945																																																	
12 PINS, .0625 ± .0010 DIA 4 PINS .040 ± .001 DIA (X1, X2, Y1, Y2) GOLD PLATED, MIL-G-45204, TYPE II, CLASS I, UNDERPLATING, NICKEL 50 TO 150 MICROINCHES THICK		<table border="1"> <thead> <tr> <th>Inches</th> <th>mm</th> </tr> </thead> <tbody> <tr><td>.000</td><td>0.00</td></tr> <tr><td>.001</td><td>0.03</td></tr> <tr><td>.005</td><td>0.13</td></tr> <tr><td>.040</td><td>1.02</td></tr> <tr><td>.047</td><td>1.19</td></tr> <tr><td>.062</td><td>1.57</td></tr> <tr><td>.0625</td><td>1.59</td></tr> <tr><td>.093</td><td>2.36</td></tr> <tr><td>.145</td><td>3.86</td></tr> <tr><td>.147</td><td>3.73</td></tr> <tr><td>.203</td><td>5.16</td></tr> <tr><td>.290</td><td>7.37</td></tr> <tr><td>.344</td><td>8.74</td></tr> <tr><td>.375</td><td>9.53</td></tr> <tr><td>.435</td><td>11.05</td></tr> <tr><td>.580</td><td>14.73</td></tr> <tr><td>.725</td><td>18.42</td></tr> <tr><td>.870</td><td>22.10</td></tr> <tr><td>1.500</td><td>38.10</td></tr> <tr><td>1.562</td><td>39.67</td></tr> <tr><td>1.812</td><td>46.02</td></tr> <tr><td>1.844</td><td>46.84</td></tr> <tr><td>2.187</td><td>55.55</td></tr> </tbody> </table>		Inches	mm	.000	0.00	.001	0.03	.005	0.13	.040	1.02	.047	1.19	.062	1.57	.0625	1.59	.093	2.36	.145	3.86	.147	3.73	.203	5.16	.290	7.37	.344	8.74	.375	9.53	.435	11.05	.580	14.73	.725	18.42	.870	22.10	1.500	38.10	1.562	39.67	1.812	46.02	1.844	46.84	2.187	55.55
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P.A AIR FORCE - 85 Other Cust Navy - AS	International Interest	TITLE RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 PDT, TYPE I, MAGNETIC LATCH, SOCKET MOUNTED, HERMETICALLY SEALED	MILITARY STANDARD MS25461																																																
Procurement Specification MIL-R-6106		SUPERSEDES	PAGE 1 OF 5																																																

DD FORM 672 1 MAY 73

(Coordinated) previous editions of this form are obsolete.

5945-0780

AMSC N/A

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APPROVED 1 Nov 1960 REVISED 6 JUN 87 29 APR 88

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5945

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ± 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. Relay is magnetically latched in both positions. Caution note to observe polarity must appear on relays with dc coils.
7. In the event of conflict between the text of this standard and the references cited herein, the text of this standard shall take precedence.
8. 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.
9. Shock, vibration, and acceleration requirements application with coils de-energized.
10. Pins to be perpendicular to header surface within one degree.

⑥

TABLE I. Dash numbers and characteristics.

Dash number MS 25461-	Type	Coil	Terminal type	Max weight in pounds
D1	I	dc	Plug in	0.40
A1	I	ac	Plug in	0.42

REVISED ⑥ FOR CHANGES SEE PAGES 1,2, AND 3

APPROVED 1 Nov 1960

P.A. AIR FORCE - 85 Other Cust Navy - AS	International Interest	TITLE RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 PDT, TYPE I, MAGNETIC LATCH, SOCKET MOUNTED, HERMETICALLY SEALED	MILITARY STANDARD MS25461
Procurement Specification MIL-R-6106		SUPERSEDES:	PAGE 2 OF 5

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P
AIR FORCE -85
Other Cust
NAVY-AS

International
Interest

TITLE

RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 PDT,
TYPE I, MAGNETIC LATCH, SOCKET MOUNTED,
HERMETICALLY SEALED

MILITARY STANDARD

MS25461

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TABLE II. Operating characteristics.

MS part no. MS25461-	Coil data										Time - (milliseconds maximum)						
	Coil	Nominal			Max		Max pick-up voltage			Drop - out voltage	Operate 3/ 4/	Release 4/ 4/	Contact bounce				
		Volts 1/ 1/	Freq. Hz	Res Ω	Volts	Amperes	Normal 2/ 2/	Cont									
								High temp test	current test								
D1	X1, X2 Y1, Y2	28	dc	N/A	29	0.17	18	18	19.8	N/A	25	N/A	2	2	NO	NC	NC
A1	X1, X2 Y1, Y2	115	400 5/ 5/	N/A	122	0.07	90	90	95	N/A	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/ MS25461-A1 may be used on 60 Hz if maximum ambient temperature is limited to +85°C (maximum coil current shall be 0.077 amperes).

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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 appropriate notes
		Main	Aux	Main	Aux	Main	Aux	Main	Aux	
		NO	NC	NO	NC	400 Hz	160 Hz	400 Hz	160 Hz	
Resistive	100	10	10	10	6			10	6	
Inductive	100									
Inductive	20	6	6	10	4			10	4	
Motor	100	4	4	4	3			4	3	
Lamp	100	2	2	2	1.5			2	1.5	
Transfer load										2/
Mechanical life reduced current	400	2.5	2.5	2.5	2			2.5	2	
Intermittent 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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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 G
G-level 10 G
Frequency range 5 - 1500 Hz
Acceleration 16 G

Electrical characteristics

Insulation resistance, initial 100 megohms
After life or environmental tests 50 megohms
Dielectric strength initial (sea level)
Initial After life tests
Coil to case 1,000 V rms 1,000 V rms
Aux contacts
All other points 1,500 V rms 1,125 V rms
Dielectric strength (altitude)
Coil to case 80,000 ft
250 V rms
Aux contacts
All other points 350 V rms
Max contact drop initial 0.150 volt
After life test 0.175 volt
Overload current 40 amperes dc,
60 amperes ac,
50 amperes dc,
80 amperes ac
Rupture current Continuous
Duty rating MIL-STD-461
RFI specification (Applicable to coil circuits of ac operated relays)
Quality conformance inspection

Performance of groups B and C tests are not applicable.

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P.A AIR FORCE -85 Other Cust NAVY - AS	Informational Interest	TITLE RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 PDT, TYPE I, MAGNETIC LATCH, SOCKET MOUNTED, HERMETICALLY SEALED	MILITARY STANDARD
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