

INCH-POUND

MIL-DTL-21604/4B

27 June 2003

SUPERSEDING

MIL-S-21604/4A(SH)

30 March 1992

DETAIL SPECIFICATION SHEET

SWITCH, ROTARY, MULTIPOLE AND SELECTOR, 7.5 AMPERE,

STYLE JM

This specification is approved for use by the Navy Sea Systems Command, Department of the Navy, and is available 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 and MIL-DTL-21604.

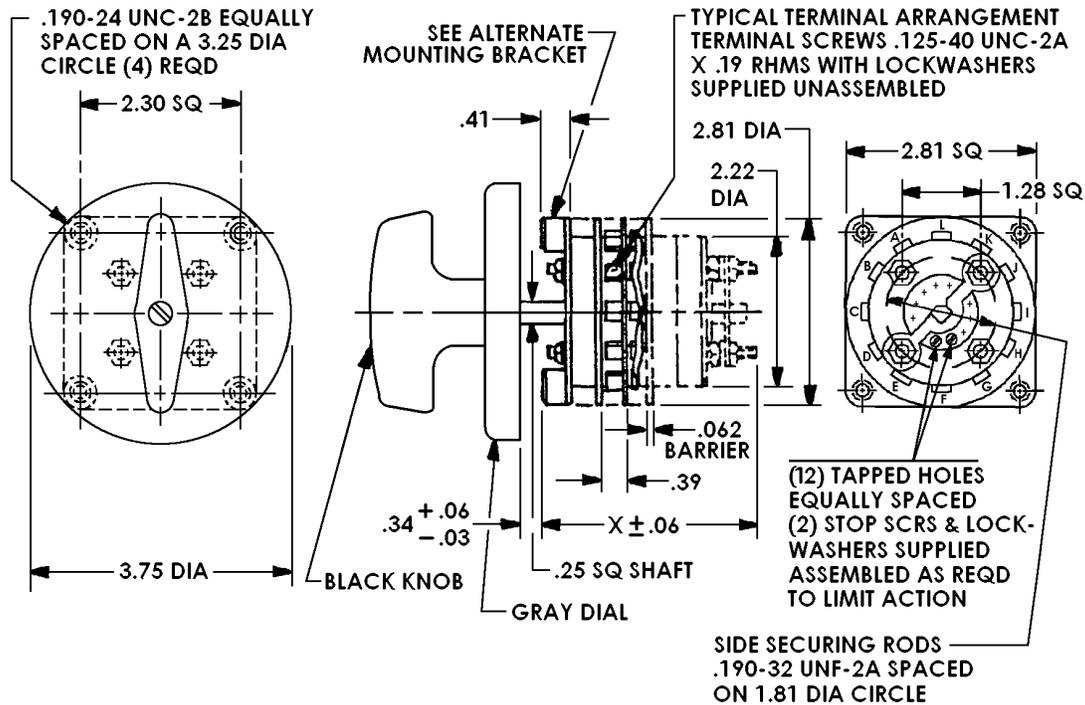
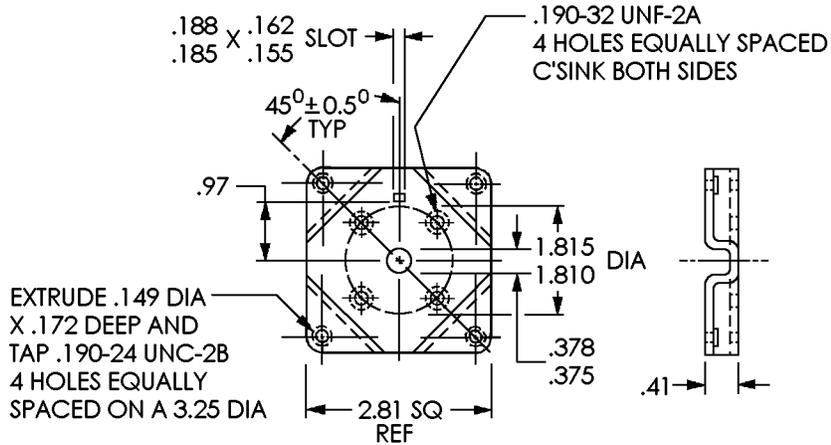
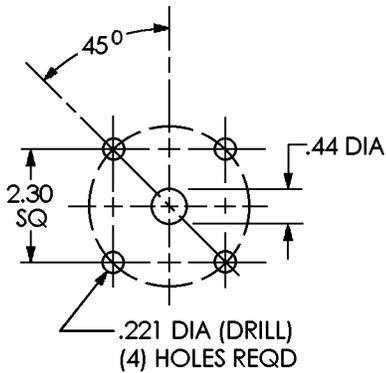


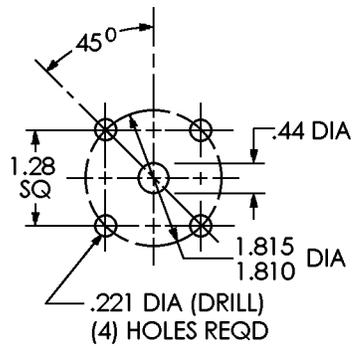
FIGURE 1. Style JM switch.



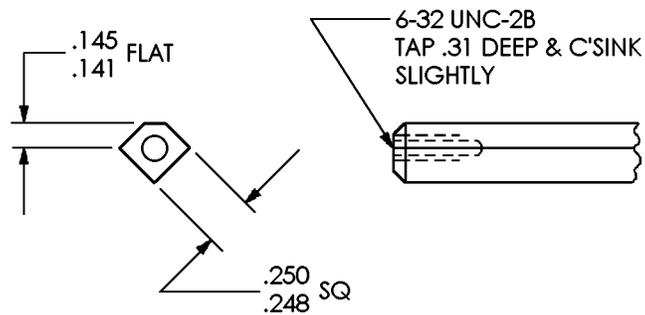
ALTERNATE MOUNTING BRACKET



PANEL MOUNTING DIMENSIONS



REAR SUPPORT MOUNTING DIMENSIONS



SHAFT

FIGURE 1. Style JM switch - Continued.

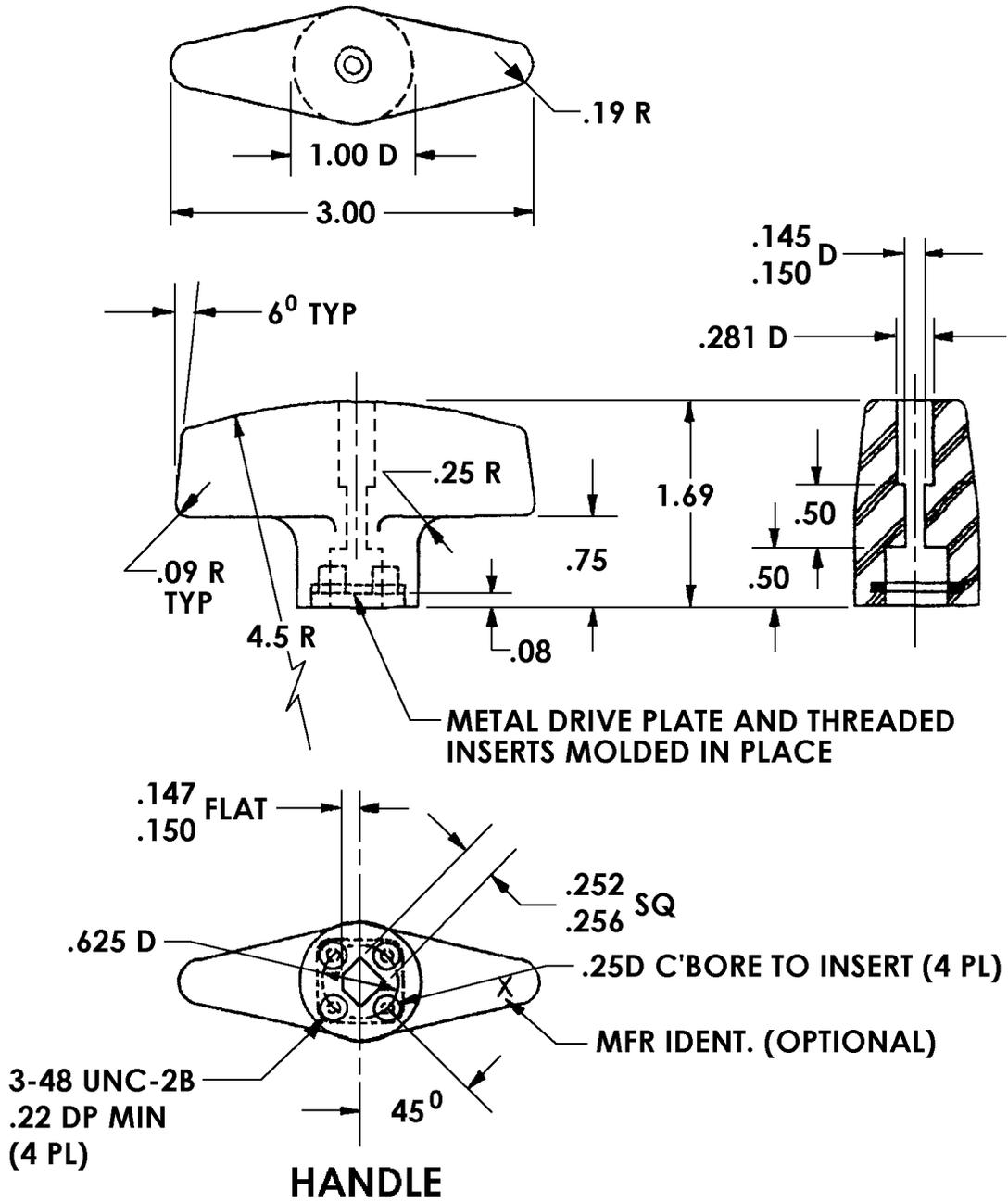


FIGURE 1. Style JM switch - Continued.

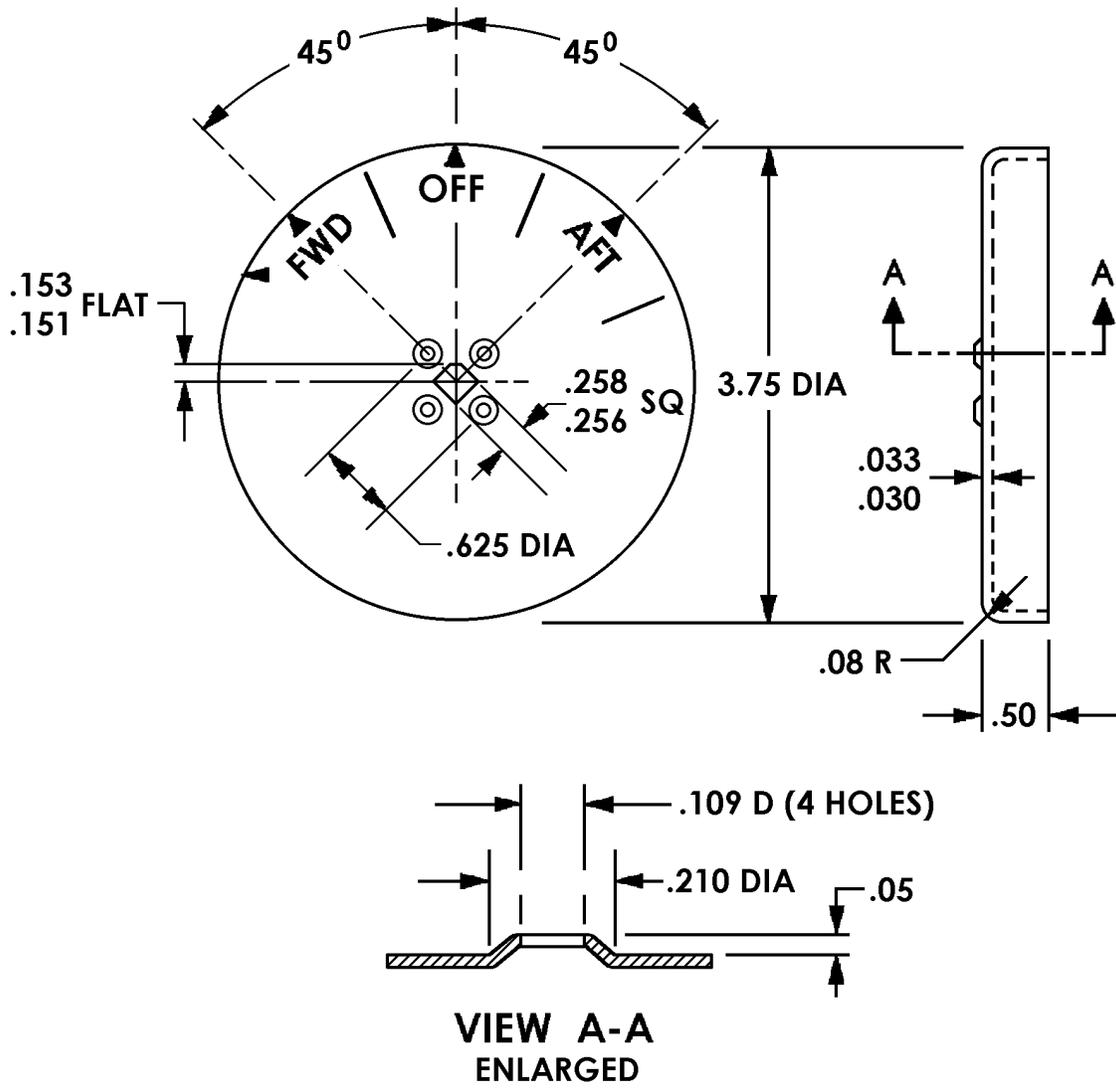


FIGURE 1. Style JM switch - Continued.

MIL-DTL-21604/4B

Inch	mm	Inch	mm	Inch	mm
.005	0.13	.162	4.11	.41	+10.4
.01	0.3	.165	4.19	.44	11.2
.016	0.41	.172	4.37	.50	12.7
.030	0.76	.188	4.78	.625	15.88
.03	0.8	.19	4.8	.75	19.1
.033	0.84	.190	4.83	.97	24.6
.05	1.3	.210	5.33	1.00	25.4
.06	1.5	.22	5.6	1.28	32.5
.062	1.57	.221	5.61	1.69	42.9
.08	2.0	.248	6.30	1.810	45.97
.09	2.3	.25	6.3	1.81	46.0
.109	2.77	.250	6.35	1.815	46.10
.125	3.18	.252	6.40	2.22	56.4
.141	3.58	.256	6.50	2.30	58.4
.145	3.68	.258	6.55	2.81	71.4
.147	3.73	.281	7.14	3.00	76.2
.149	3.78	.31	7.9	3.25	82.5
.150	3.81	.34	8.6	3.75	95.3
.151	3.84	.375	9.52	4.50	114.3
.153	3.89	.378	9.60	6.00	152.4
.155	3.94	.39	9.9		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerances are $\pm .016$ (0.41 mm) for two-place decimals and ± 0.005 (0.13 mm) for three-place decimals.
4. On switches of 20 sections or more, the securing rods shall extend .50 inch (12.70 mm) beyond the hex nuts at the rear of the switches to facilitate attachment to rear supports. A hex nut and lockwasher shall be provided for each rod extension.
5. Dial marking, when required, shall be as specified in MIL-DTL-21604 (see 6.2).

FIGURE 1. Style JM switch - Continued.

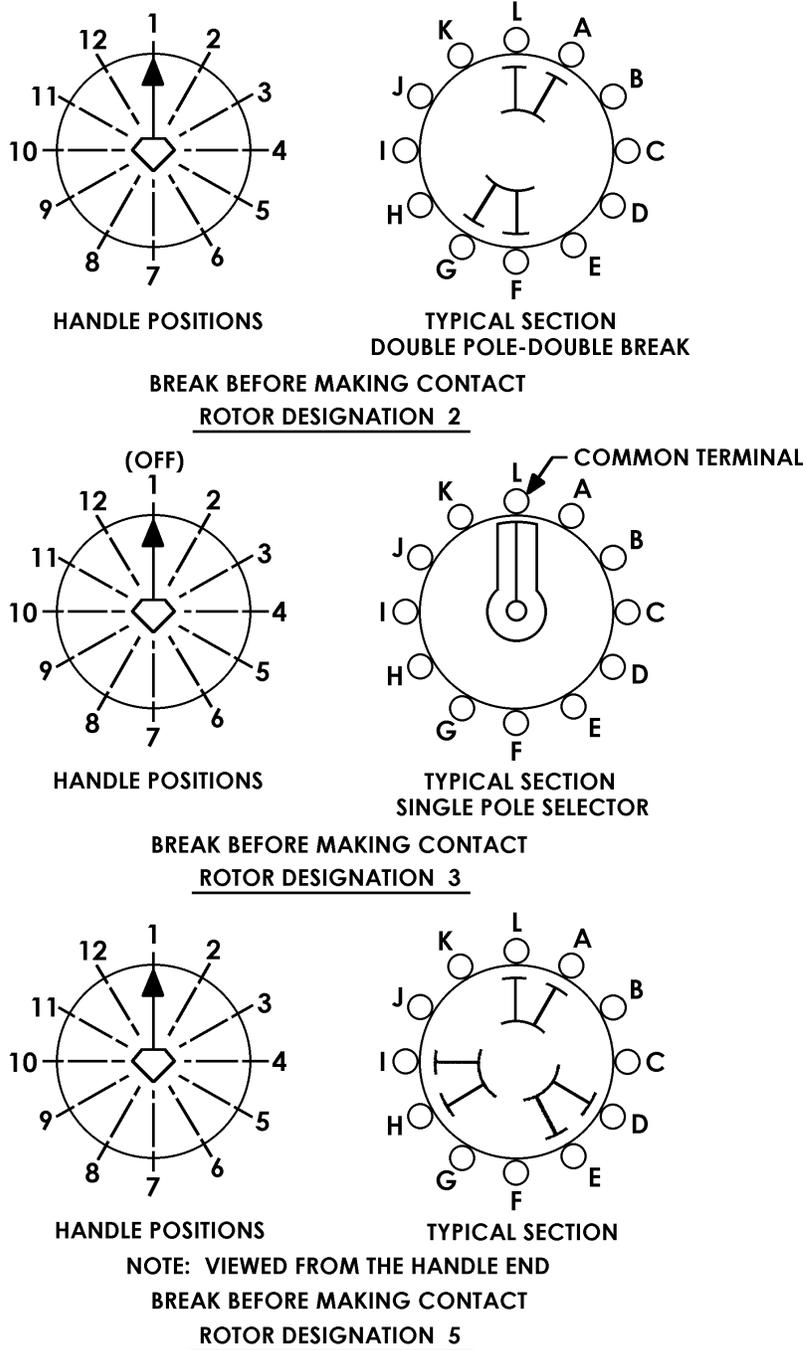


FIGURE 2. Rotor contact configuration and handle positions.

MIL-DTL-21604/4B

REQUIREMENTS:

Dimensions and configuration: See figure 1, figure 2, and table I.

Angle of throw: 30 degrees.

Switching action: Detent.

Electrical loads:

AC current: 7.5 ampere.

Voltage: 125 volts (at 60 and 400 Hz, 0.80 inductive power factor).

Temperature rise: 30°C maximum.

Contact material:

Rotor: Silver-overlay phosphor bronze.

Stator: Silver-overlay copper.

Barriers: See figure 1.

Terminal marking: See figure 1 and figure 2.

Stop marking: See figure 1.

Qualification samples: See table II.

TABLE I. Type designation and switching characteristics.

Type designation		Style	Number of sections	Dimension "X" ^{2/} ± .062 (1.57)	Approximate weight (ounces)	Maximum rotational torque (inch-pounds)
Component	Rotor designation ^{1/}					
S	2	JM	5	3.81 (96.82)	25	20
S	2	JM	10	5.75 (146.05)	40	25
S	2	JM	15	8.09 (205.59)	59	45
S	2	JM	20	10.41 (264.31)	75	50
S	2	JM	25	12.34 (313.54)	90	55
S	3	JM	5	3.81 (96.82)	25	20
S	3	JM	10	5.75 (146.05)	40	25
S	3	JM	15	8.09 (205.59)	59	45
S	3	JM	20	10.41 (264.31)	75	50
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S	5	JM	20	10.41 (264.31)	75	50
S	5	JM	25	12.34 (313.54)	90	55

^{1/} For rotor designation, see figure 2.

^{2/} Dimensions are in inches. Metric equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.

TABLE II. Qualification test samples.

Sample switch	Test number <u>1/</u>	Sample switch	Test number
S2JM25	1	S3JM25	4
S2JM25	2	S5JM25	1
S2JM25	3	S5JM25	2
S2JM25	4	S5JM25	3
S3JM25	1	S5JM25	4
S3JM25	2	S5JM25	5
S3JM25	3	S5JM25	6

1/ Test numbers in accordance with table II of MIL-DTL-21604.

Custodians:
Navy - SH
DLA - CC

Preparing activity:
DLA - CC

(Project 5930-1749-03)