

INCH-POUND

MIL-DTL-15291/8B

6 February 2006

SUPERSEDING

MIL-S-15291/8A(SH)

22 July 1991

DETAIL SPECIFICATION SHEET

SWITCHES, ROTARY, SNAP ACTION CLASS 6SR FRONT MOUNTED, BACK CONNECTED

Inactive for new design after 17 April 1981. For new design, use MIL-DTL-15291/9(SH)

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

The complete requirements for acquiring the switch described herein shall consist of this specification and the latest issue of MIL-DTL-15291.

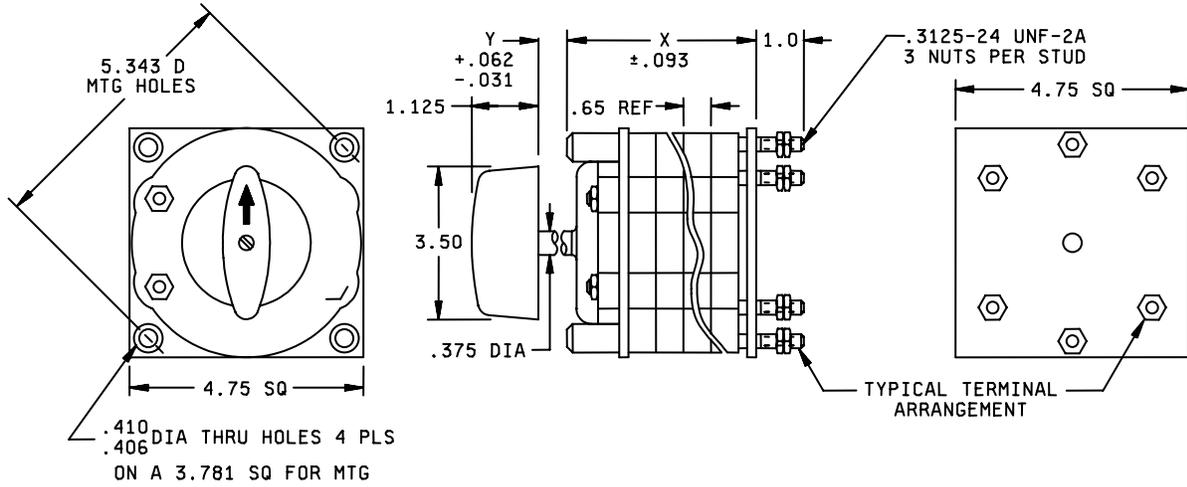


FIGURE 1. Class 6SR switch (up to 6 studs).

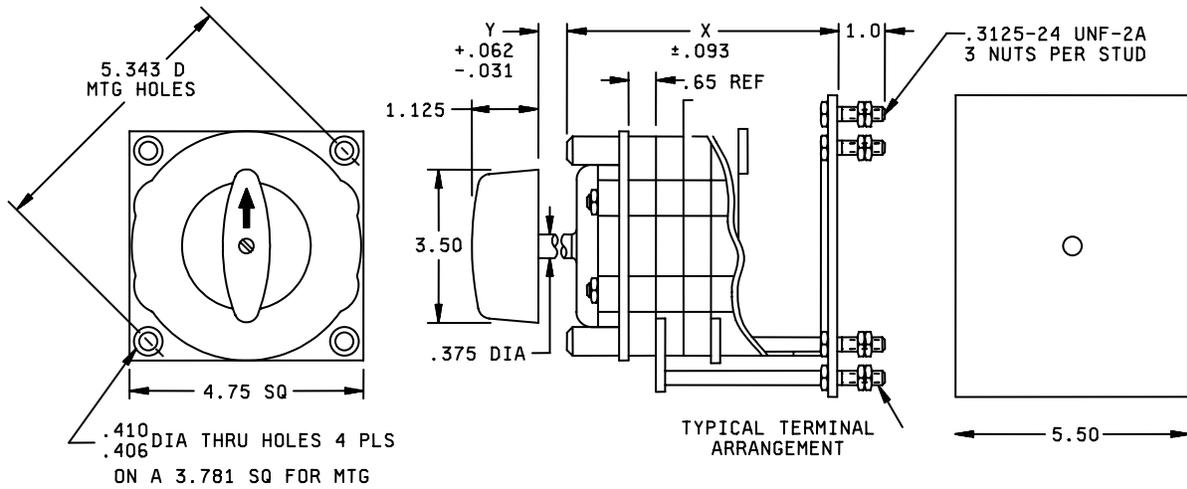
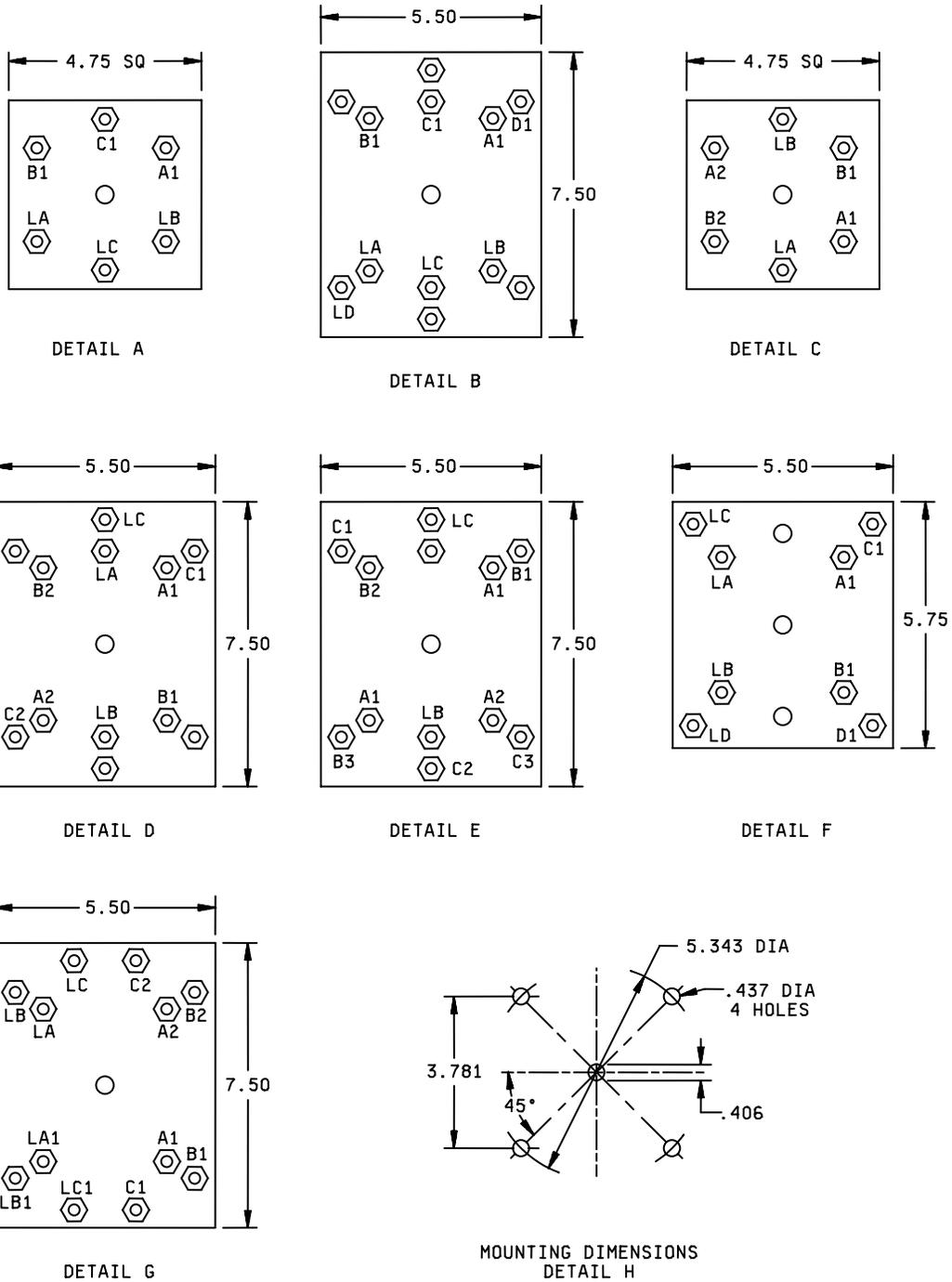


FIGURE 2. Class 6SR switch (up to 12 studs).

MIL-DTL-15291/8B



NOTE: Terminal studs viewed from rear.

FIGURE 3. Mounting dimensions and terminal stud locations.

MIL-DTL-15291/8B

TABLE I. Type and switching characteristics.

M15291/8 DASH NO. TYPE DESIGNATION	DETAIL REF TORQUE IN-LBS	DIM "X" DIM "Y"	HANDLE OR SHAFT POSITION	CIRCUIT AND SPACER CONFIGURATIONS ROTOR POSITION, SPACER LOCATIONS, TERMINAL MARKING AND LOCATIONS									NOTES	
				NO 1	NO 2	NO 3	NO 4	NO 5	NO 6	NO 7	NO 8	NO 9		
-001 6SR2A1	FIG 1 DETAIL A	3.437	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-002 6SR3A1	FIG 1 DETAIL A	4.093	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-003 6SR4A1	FIG 2 DETAIL B	4.750	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-004 6SR2B1	FIG 1 DETAIL C	4.750	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-005 6SR3B1	FIG 2 DETAIL D	6.062	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-006 6SR2E1	FIG 2 DETAIL E	4.750	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-007 6SR3E1	FIG 2 DETAIL E	6.062	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-008 6SR4F1	FIG 2 DETAIL F	4.750	OFF 0 N 1											
	26	.437	OFF 0 N 1											
-009 6SR6F1	FIG 2 DETAIL G	6.062	OFF 0 N 1											
	26	.437	OFF 0 N 1											

MIL-DTL-15291/8B

REQUIREMENTS:

Applicable specification: MIL-DTL-15291.

Dimensions and mounting: See figures 1 through 3.

Switching characteristics: See table I.

Angle of throw: 90 degrees.

Switching action: Snap action, reciprocating.

Electrical and endurance ratings: See table II.

Stop strength (applicable to switches with stops): 100 inch-pounds.

Vibration: 50 Hz, MIL-STD-167-1.

Shock: High impact, MIL-S-901.

Contact resistance: 0.005 ohms maximum.

Dielectric withstanding voltage: 2,000 V rms.

Insulation resistance: 200 megohms minimum.

Temperature rise: 50°C maximum.

Mounting bolts: (2), 2/8 diameter, length, and headstyle to suit application. Bolts not furnished.

Handle: M15291/9-100.

Terminal marking: Terminal marking shall be in accordance with details A through G, as specified in table I. Terminal markings in table I are shown as viewed from the front (handle end) of the switch.

TABLE II. Electrical and endurance ratings.

Tests	Current (amperes)	Voltage (volts)	Electrical operations (number of operations)	Test rate (operations per minute)	De-energized operations (number of operations)
Alternating current (rms)	60	500	6,000	10	4,000
Direct current	60	250	4,000	5	---

MIL-DTL-15291/8B

GENERAL INFORMATION:

Switches not covered by specification sheets: Switches which are fabricated from standard parts, as used in qualified switches, but which do not comply with switches detailed herein with respect to circuit characteristics, switching action, mounting arrangements, and handle details may be acquired under this specification from contractors having qualification approval under this specification.

Extended ratings: Switches detailed herein have been tested and found satisfactory at the extended ratings listed in table III. Reduced life expectancy must be anticipated for switches used in these increased voltage or current levels. Tests under the conditions of table III are not required for qualification acceptance and they are not repeated routinely as for maintenance of qualification. Supplemental evaluations and tests applicable to particular circuit requirements are recommended.

TABLE III. Extended ratings.

Switching characteristics	AC -60 or 400 Hz											
	125 volts				250 volts				500 volts			
	Resistive or lamp load		Inductive load 0.75 p. f.		Resistive or lamp load		Inductive load 0.75 p. f.		Resistive or lamp load		Inductive load 0.75 p. f.	
	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations
All	60	6,000	60	6,000	60	6,000	60	6,000	60	6,000	60	6,000
E, F	75	3,000	75	3,000	---	---	---	---	---	---	---	---
A, B <u>1/</u>	75	3,000	75	3,000	60	6,000	60	3,000	60	3,000	60	3,000
All A, B	DC											
	120 volts				250 volts				350 volts			
	Resistive or lamp load		Inductive load <u>2/</u>		Resistive or lamp load		Inductive load <u>2/</u>		Resistive or lamp load		Inductive load <u>2/</u>	
	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations
	60	3,000	50	1,500	30	3,000	---	---	---	---	---	---
	60	4,000	60	4,000	60	4,000	50	3,000	30	3,000	30	3,000

1/ Single pole break: All other ratings are based on breaking both sides of the line in accordance with figures 1 and 2.

2/ 0.04 henry for inductive circuit.

MIL-DTL-15291/8B

APPLICATION AND ACQUISITION GUIDE: PIN and type designation cross reference shall be as shown in table IV.

TABLE IV. Application and acquisition guide.

M15291/8 dash number	Type designation	For replacement only In new design, use M15291/9	Circuit configuration
-001	6SR2A1	-001	A (off-on-off-on)
-002	6SR3A1	-002	A (off-on-off-off)
-003	6SR4A1	-003	A (off-on-off-on)
-004	6SR2B1	-008	B (on 1-off-on 2-off)
-005	6SR3B1	-009	B (on 1-off-on 2-off)
-006	6SR2E1	-012	E (off-on 1-on 2-on 3)
-007	6SR3E1	-013	E (off-on 1-on 2-on 3)
-008	6SR4F1	-016	F (off-on 1-on 1 & 2-on 2)
-009	6SR6F1	-017	F (off-on 1-on 1 & 2-on 2)

Referenced Documents:

- MIL-DTL-15291
- MIL-S-901
- MIL-STD-167-1

Changes from previous issue: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Navy - SH
DLA - CC

Preparing activity:
DLA - CC

(Project 5930-1905)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil/> .