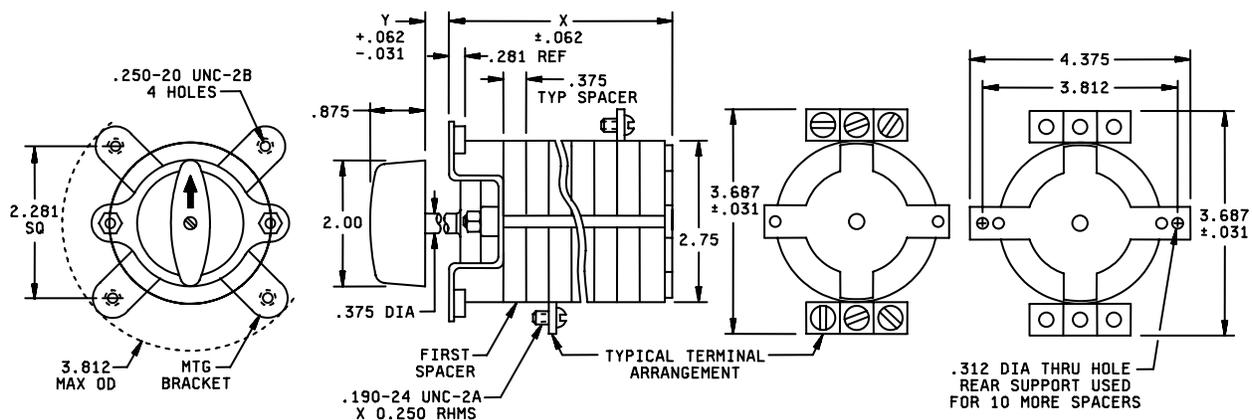


DETAIL SPECIFICATION SHEET

SWITCHES, ROTARY, SNAP ACTION CLASS 3SR FRONT MOUNTED, SIDE CONNECTED

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.



NOTE

1. Dimensions are in inches
2. Unless otherwise specified, tolerance is plus or minus 0.015

FIGURE 1 Front mounted, side connected.

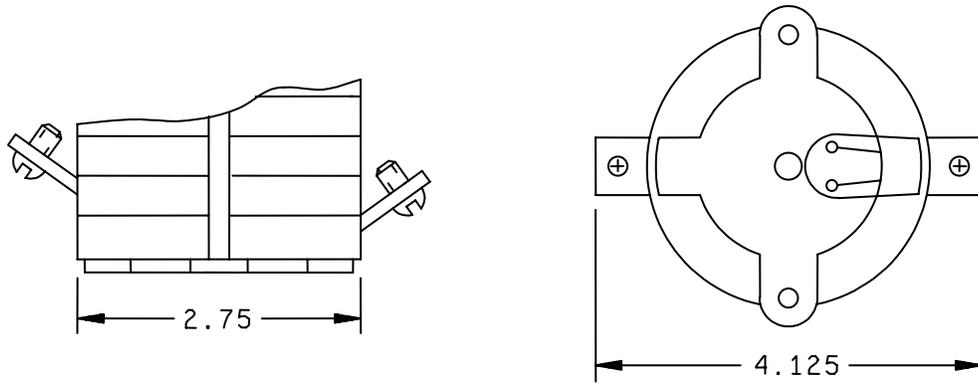


FIGURE 1A.

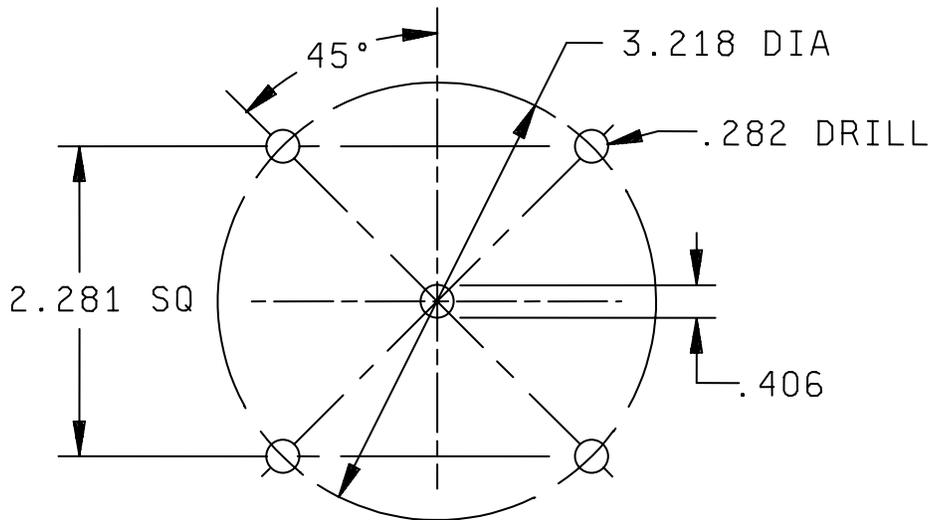


FIGURE 2. Panel mounting dimensions

TABLE I Type and switching characteristics

M15291/6 DASH NO. TYPE DESIGNATION	DETAIL REF	DIM "X"	HANDLE OR SHAFT POSITION	CIRCUIT AND SPACER CONFIGURATIONS ROTOR POSITION, SPACER LOCATIONS, TERMINAL MARKING AND LOCATIONS											NOTES
	TORQUE IN-LBS	DIM "Y"		NO 1	NO 2	NO 3	NO 4	NO 5	NO 6	NO 7	NO 8	NO 9	NO 10	NO 11	
-001	FIG 1	1.875													
	9	.375													
-002	FIG 1	2.250													
	9	.375													
-003 3SR3A2	FIG 1	2.625													
	9	.375													
-004 3SR4A2	FIG 1	3.000													
	9	.375													
-005	FIG 1	3.375													
	9	.375													
-006 3SR6A2	FIG 1	3.750													
	9	.437													
-007	FIG 1	4.125													
	9	.437													
-008 3SR8A2	FIG 1	4.500													
	9	.437													
-009 3SR9A2	FIG 1	5.125													
	10	.437													
-010	FIG 1	5.500													
	10	.437													

TABLE I. Type and switching characteristics – Continued

M15291/6 DASH NO. TYPE DESIGNATION	DETAIL REF	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	NO 10	NO 11	NO 12	
-019 3SR3C2	FIG 1	3.375														
	9	.437														
-020	FIG 1	4.125														
	9	.437														
-021	FIG 1	4.875														
	9	.437														
-022	FIG 1	5.625														
	9	.437														
-023	FIG 1	2.250														
	9	.437														
-024	FIG 1	3.000														
	9	.437														
-025 3SR3E2A	FIG 1	3.750														
	9	.437														
-026	FIG 1	4.500														
	9	.437														

TABLE I. Type and switching characteristics – Continued

M15291/6 DASH NO. TYPE DESIGNATION	DETAIL REF	DIM "X"	HANDLE OR SHAFT POSITION	CIRCUIT AND SPACER CONFIGURATIONS ROTOR POSITION, SPACER LOCATIONS, TERMINAL MARKING AND LOCATIONS													NOTES	
	TORQUE IN-LBS	DIM "Y"		NO 1	NO 2	NO 3	NO 4	NO 5	NO 6	NO 7	NO 8	NO 9	NO 10	NO 11	NO 12	NO 13		
-027	FIG 1	2.250																
	9	.437																
-028	FIG 1	3.000																
	9	.437																
-029	FIG 1	3.750																
	9	.437																
-030 3SR8F2	FIG 1	4.750																
	18	.437																
-031 3SR10F2	FIG 1	5.500																
	18	.437																
-032	FIG 1	6.250																
	18	.437																
-033 3SR6A2A	FIG 1	4.500																
	9	.437																
-034 3SR3E2	FIG 1	3.750																
	9	.437																
-035 3SR3S2	FIG 1	3.750																
	FIG 1A	.250																
	9																	TERM CONFORM TO FIG 14

9

MIL-DTL-15291/6C

REQUIREMENTS:

Applicable specification: MIL-DTL-15291

Dimensions and mounting: See figures 1 and 2

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): High impact, MIL-S-901

Contact resistance: 0.01 milliohms maximum

Dielectric withstanding voltage: 2,000 Vrms

Insulation resistance: 200 megohms minimum

Temperature rise: 50°C maximum

Mounting screws: .250-20UNC-2A (4) length and headstyle to suit application, screws not furnished.

Handle: M15291/5-100

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)	30	500	20,000	30	10,000
Direct current	30	250	15,000	15	--

Terminal marking: Terminal markings shown in table I locate terminals as viewed from the front of the switch (handle end) Markings shall be stamped in rear surfaces of terminals, clear of the screw heads.

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 arrangement, 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 at 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.

Sealed mounting: Switches listed in table I as having "Y" dimension not less than 7/16 inch can be mounted with a kit, figure 3, to effect a submersible seal (SBM 15) between switch and mounting panel. Panel drilling must comply with figure 4. Kits not supplied unless specified (see 6.2 of MIL-DTL-15291).

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

NOTE

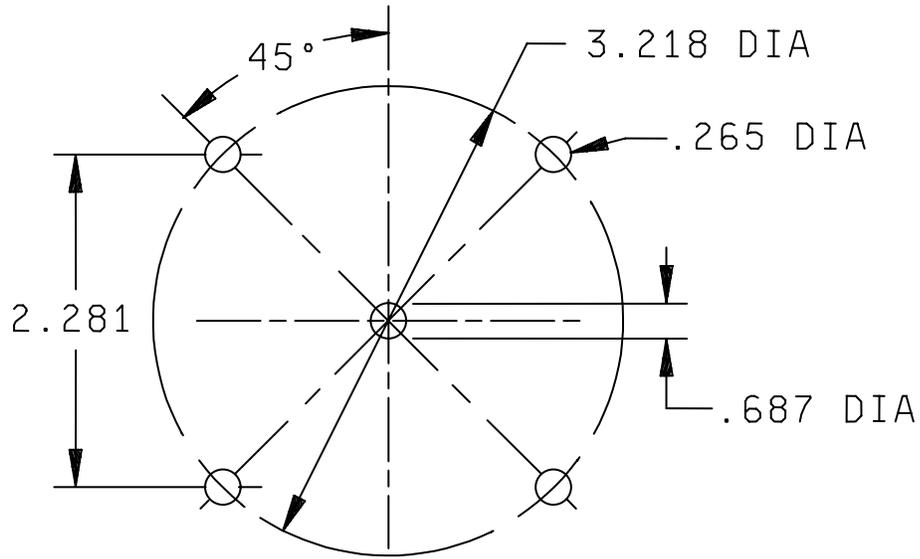


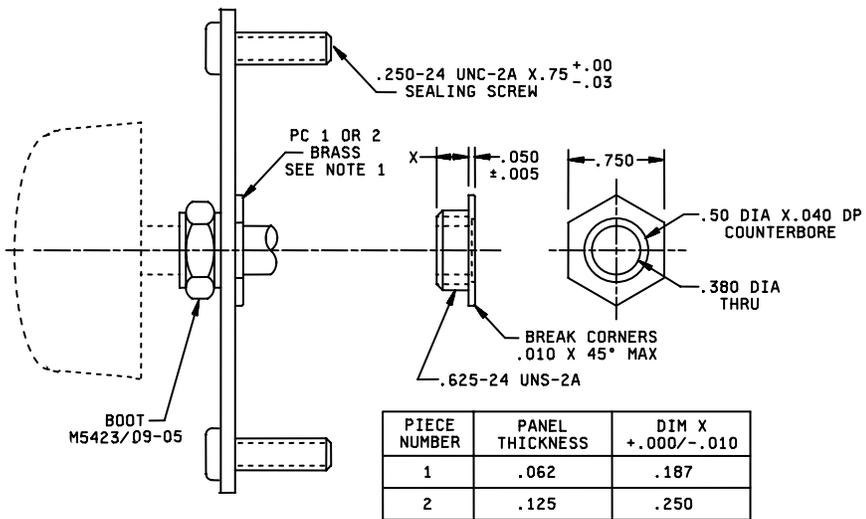
TABLE III. Extended ratings.

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
1 All C,E,F A, B ¹	30	20,000	30	20,000	30	20,000	30	20,000	30	20,000	30	20,000
	40	6,000	40	6,000	--	--	--	--	--	--	--	--
	40	6,000	40	6,000	30	6,000	30	6,000	30	6,000	30	6,000
	DC											
	120 volts				250 volts				350 volts			
	Resistive or Lamp load		Inductive load ²		Resistive or Lamp load		Inductive load ²		Resistive or Lamp load		Inductive load ²	
	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations	Amp.	Operations
All	30	13,000	25	6,000	15	13,000	--	--	--	--	--	--
A, B	30	15,000	25	6,000	25	6,000	25	6,000	15	6,000	15	6,000
A, B ³	--	--	--	--	30	15,000	--	--	--	--	--	--

¹Single pole break – all other ratings are based on breaking both sides of the line in accordance with figures 1 and 2 of MIL-DTL-15291.

²0.08 henry for inductive circuit

³Switch with special arc snuffers



NOTE

- 1 Finish shall be zinc and dichromate, ASTM B 633

FIGURE 3. Kit for panel seal mounting.

TABLE IV. Application and acquisition guide.

M15291/6 dash No.	Type designation	For new or existing design	For re- placement	Circuit configuration
-001				A (off-on-off-on)
-002				A (off-on-off-on)
-003				A (off-on-off-on)
-004				A (off-on-off-on)
-005				A (off-on-off-on)
-006				A (off-on-off-on)
-007				A (off-on-off-on)
-008				A (off-on-off-on)
-009				A (off-on-off-on)
-010				A (off-on-off-on)
-011				A (off-on-off-on)
-012				B (off-on-1-off-on 2)
-013				B (off-on-1-off-on 2)
-014				B (off-on-1-off-on 2)
-015				B (off-on-1-off-on 2)
-016				B (off-on-1-off-on 2)
-017				B (off-on-1-off-on 2)
-018				C (on 1-on 2-on 1-on 2)
-019				C (on 1-on 2-on 1-on 2)
-020				C (on 1-on 2-on 1-on 2)
-021				C (on 1-on 2-on 1-on 2)
-022				C (on 1-on 2-on 1-on 2)
-023				C (on 1-on 2-on 1-on 2)
-024				E (off-on 1-on 2-on 3)
-025				E (off-on 1-on 2-on 3)
-026				E (off-on 1-on 2-on 3)
-027				E (off-on 1-on 2-on 3)
-028				F (off-on 1-on 1 & 2-on 2)
-029				F (off-on 1-on 1 & 2-on 2)
-030				F (off-on 1-on 1 & 2-on 2)
-031				F (off-on 1-on 1 & 2-on 2)
-032				F (off-on 1-on 1 & 2-on 2)
-033				A (off-on-off-on)
-034				E (on- 2-on 3-off-on 1)
-035				S (on 1-on 2-off-off)

Referenced Documents:

MIL-DTL-15291
MIL-S-901
MIL-STD-167-1
ASTM-B633

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 5930-1902)

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/> .