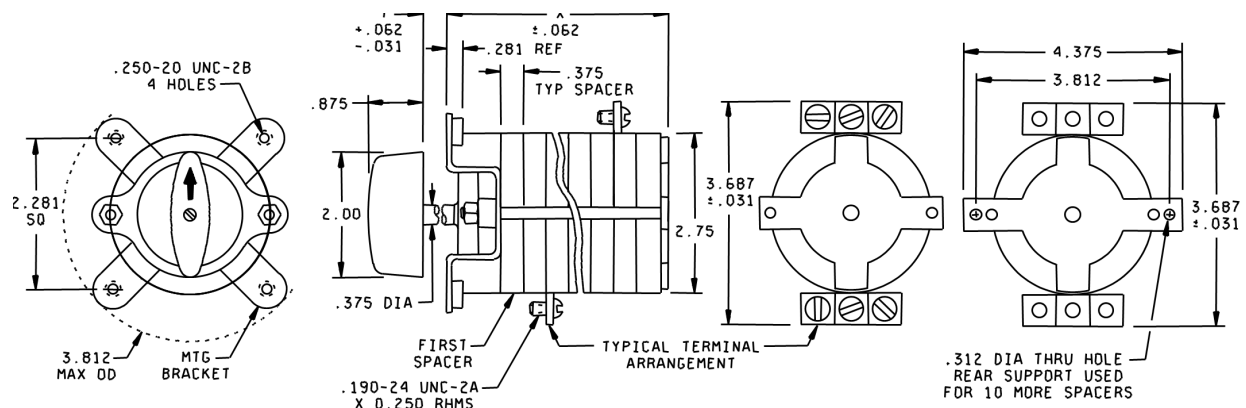


DETAIL SPECIFICATION SHEET

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.

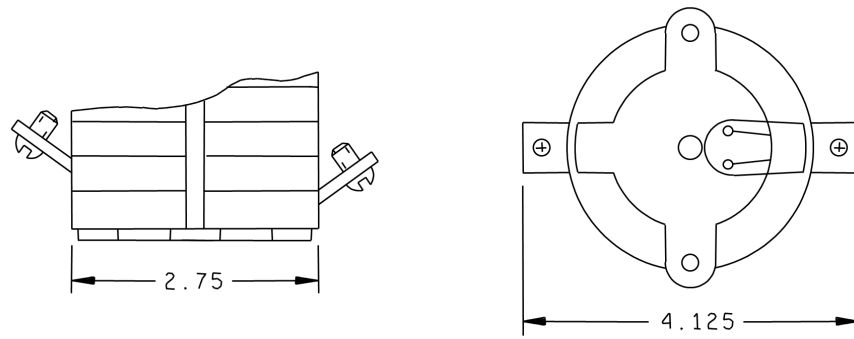


FIGURE 1A.

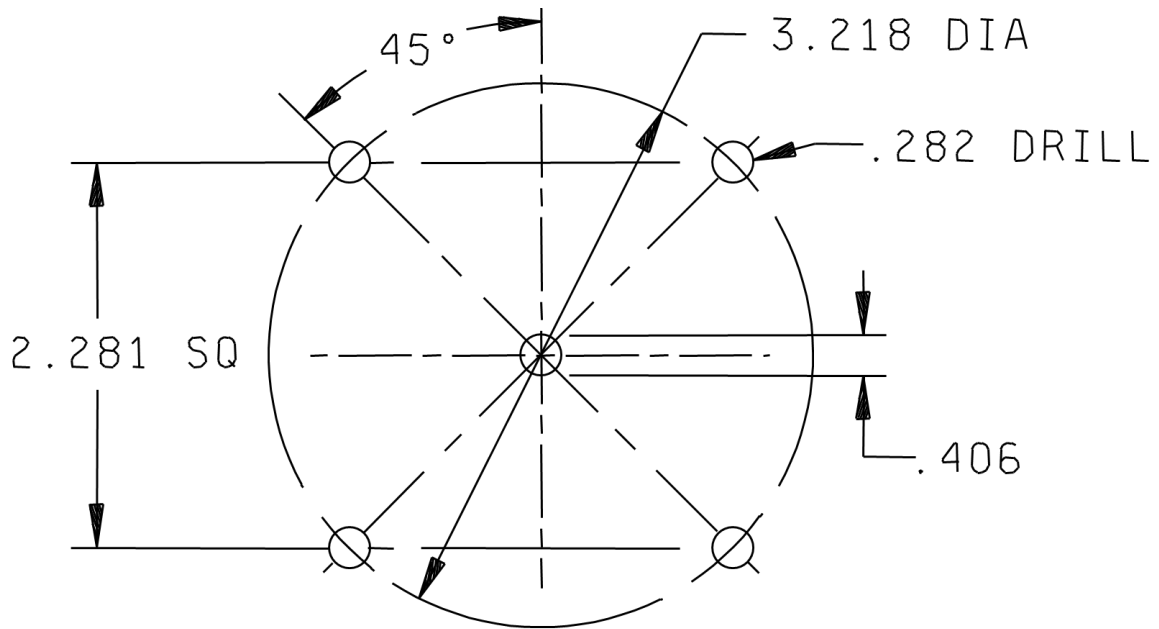


FIGURE 2. Panel mounting dimensions.

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"	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	
-011	FIG 1	2.250															
	9	.437															
-012	FIG 1	3.000															
	9	.437															
-013 3SR3B2	FIG 1	3.750															
	9	.437															
-014 3SR4B2	FIG 1	4.500															
	9	.437															
-015	FIG 1	5.250															
	9	.437															
-016	FIG 1	6.000															
	9	.437															
-017	FIG 1	1.875															
	9	.437															
-018	FIG 1	2.625															
	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
		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	
-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	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 FIG 1A	3.750															
	9	.250															TERM CONFORM TO FIG 14

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-DTL-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 per [MIL-DTL-15291/5](#).

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.

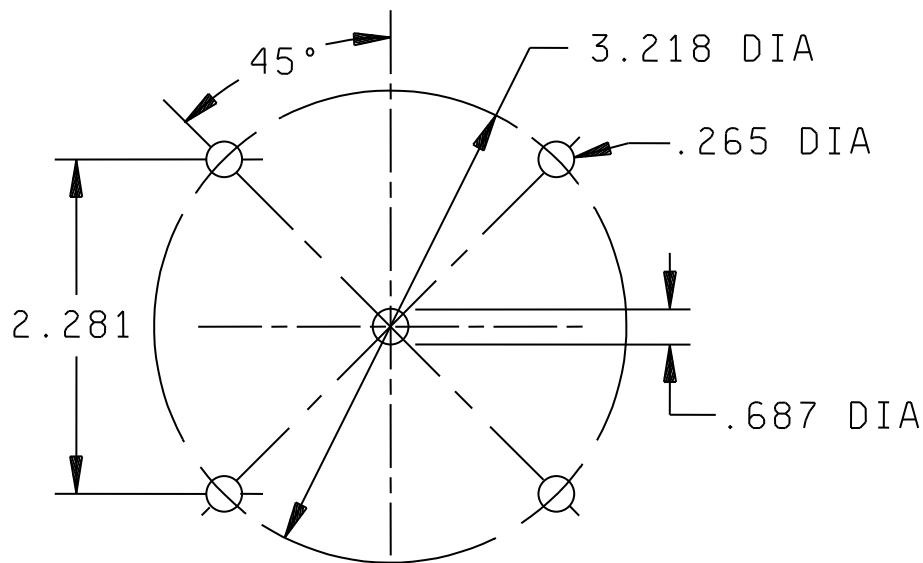
GENERAL INFORMATION:

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

1. Do not chamfer mounting holes. Breaking 1/64 maximum permissible.

FIGURE 4. Panel drilling for mounting kit.

TABLE III. Extended ratings.

Switching character- istics	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 <u>1/</u>	30	20,000	30	20,000	30	20,000	30	20,000	30	20,000	30	20,000
C, E, F	40	6,000	40	6,000	--	--	--	--	--	--	--	--
A, B <u>1/</u>	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 ³		Resistive or Lamp load		Inductive load ³		Resistive or Lamp load		Inductive load ³	
	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 <u>3/</u>	--	--	--	--	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

TABLE IV. Application and acquisition guide.

M15291/6 dash No.	Type designation	For new or existing design	For re- placement	Circuit configuration
-001	-	X		A (off-on-off-on)
-002	-	X		A (off-on-off-on)
-003	3SR3A2	X		A (off-on-off-on)
-004	3SR4A2	X		A (off-on-off-on)
-005	-	X		A (off-on-off-on)
-006	3SR6A2	X		A (off-on-off-on)
-007	-	X		A (off-on-off-on)
-008	3SR8A2	X		A (off-on-off-on)
-009	3SR9A2	X		A (off-on-off-on)
-010	-	X		A (off-on-off-on)
-011	-	X		A (off-on-off-on)
-012	-	X		B (off-on-1-off-on 2)
-013	-	X		B (off-on-1-off-on 2)
-014	3SR4BS	X		B (off-on-1-off-on 2)
-015	-	X		B (off-on-1-off-on 2)
-016	-	X		B (off-on-1-off-on 2)
-017	-	X		B (off-on-1-off-on 2)
-018	-	X		C (on 1-on 2-on 1-on 2)
-019	3SR3C2	X		C (on 1-on 2-on 1-on 2)
-020	-	X		C (on 1-on 2-on 1-on 2)
-021	-	X		C (on 1-on 2-on 1-on 2)
-022	-	X		C (on 1-on 2-on 1-on 2)
-023	-	X		C (on 1-on 2-on 1-on 2)
-024	3SR2E2	X		E (off-on 1-on 2-on 3)
-025	3SR3E2A	X		E (off-on 1-on 2-on 3)
-026	-	X		E (off-on 1-on 2-on 3)
-027	-	X		E (off-on 1-on 2-on 3)
-028	-	X		F (off-on 1-on 1 & 2-on 2)
-029	-	X		F (off-on 1-on 1 & 2-on 2)
-030	3SR8F2	X		F (off-on 1-on 1 & 2-on 2)
-031	3SR10F2	X		F (off-on 1-on 1 & 2-on 2)
-032	-	X		F (off-on 1-on 1 & 2-on 2)
-033	3SR8A2A	X		A (off-on-off-on)
-034	3SR3E2	X		E (on- 2-on 3-off-on 1)
-035	3SR3S2	X		S (on 1-on 2-off-off)

Referenced Documents:

[MIL-DTL-15291](#)
[MIL-DTL-15291/5](#)
[MIL-DTL-5423/9](#)
[MIL-DTL-901](#)
[MIL-STD-167-1](#)
[ASTM-B633](#)

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the previous issue.

Custodians:
Navy - SH
DLA - CC

Preparing activity:
DLA - CC

(Project 5930-2025-040)

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 <https://assist.dla.mil/>.