

MIL-DTL-15291/7B

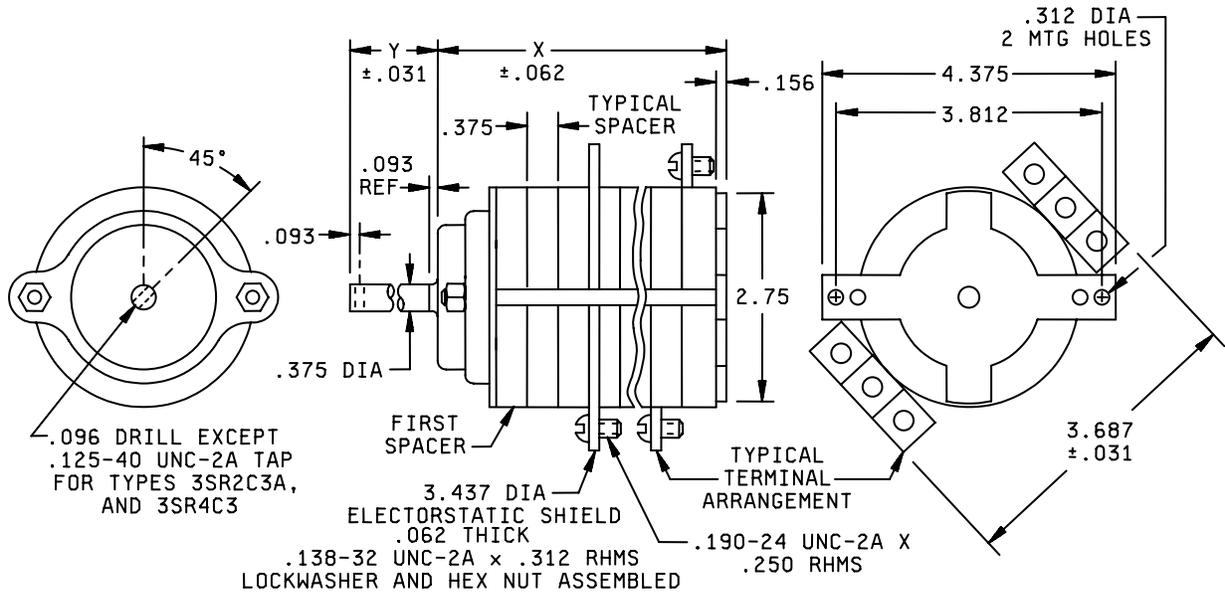


FIGURE 2. Base mounted, side connected, with electrostatic shield.

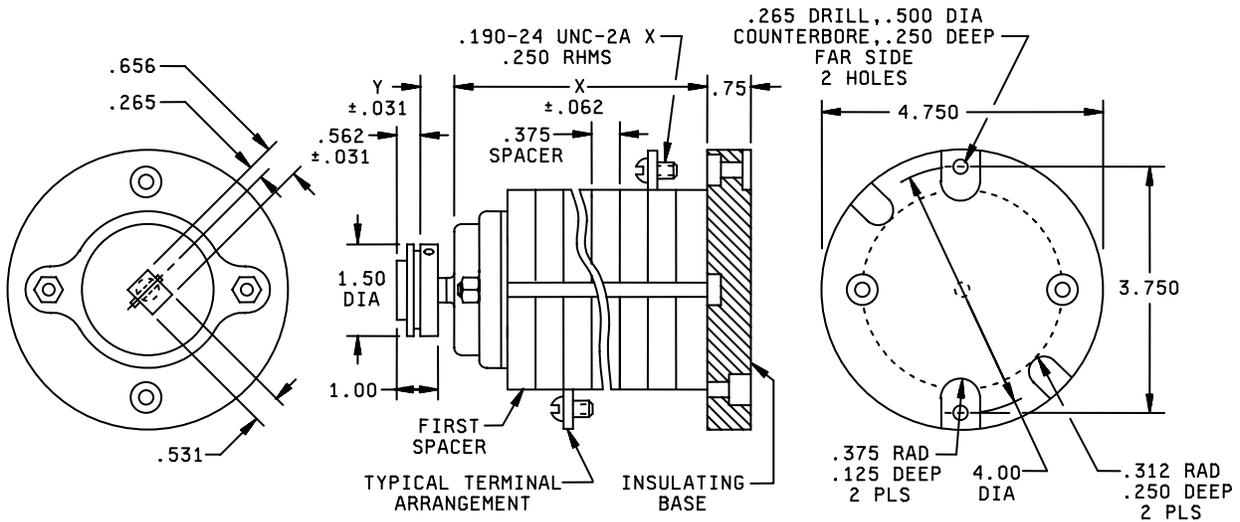


FIGURE 3. Side connected, with insulated base mounting.

TABLE I. Type and switching characteristics.

M15291/7 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	
-001 3SR2A3	FIG 1	2.875	ON OFF OFF ON										
	9	1.562											
-002 3SR2A4	FIG 1	2.875	ON OFF OFF ON										
	9	.562											
-003 3SR2A4A	FIG 3	3.468	ON OFF OFF ON										
	9	.562											
-004 3SR3A3	FIG 1	3.250	ON OFF OFF ON										
	9	1.562											
-005 3SR3A4	FIG 1	2.500	ON OFF OFF ON										
	9	.562											
-006	FIG 1	3.625	ON OFF OFF ON										
	9	.562											
-007 3SR2B4	FIG 1	2.875	OFF ON OFF ON 2										
	9	.562											
-008 3SR3B3	FIG 1	3.375	ON 1 OFF OFF ON 2										
	9	1.562											
-009 3SR3B4	FIG 1	3.625	ON 1 OFF OFF ON 2										
	9	.562											

See footnotes at end of table.

TABLE I. Type and switching characteristics - Continued.

M15291/7 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 9		
-010 3SR4B4	FIG 1	4.375	ON 1 OFF													
	9	.562	OFF ON 2													
-011 3SR2C3	FIG 1	3.625	ON 2 ON 1												SEE NOTE	
	9	1.562	ON 1 ON 2													
-012 3SR2C4	FIG 1	2.875	ON 1 ON 2												SEE NOTE	
	9	.562	ON 2 ON 1													
-013 3SR2C4A	FIG 2	2.562	ON 1 ON 2			SHIELD									SEE NOTE	
	9	.562	ON 2 ON 1			SHIELD										
-014 3SR3C3	FIG 2	3.250	ON 1 ON 2												SEE NOTE	
	9	1.562	ON 2 ON 1													
-015 3SR4C4	FIG 1	3.312	ON 1 ON 2				SHIELD								SEE NOTE	
	9	.562	ON 2 ON 1				SHIELD									
-016 3SR5C4	FIG 1	4.750	ON 1 ON 2													SEE NOTE
	9	.562	ON 2 ON 1													
-017 3SR4D4	FIG 1	4.375	ON 1 ON 2													SEE NOTE
	9	.562	OFF OFF													
-018 3SR754	FIG 1	3.250	4 1												SEE NOTE	
	9	.562	3 4													

1/ External connectors shown on -011 through -016 are not supplied.

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REQUIREMENTS:

Applicable specification: MIL-DTL-15291.

Dimensions and mounting: MIL-DTL-15291.

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.

Overload: 600 percent of ac rating, 50 make and break operations.

Contact resistance: 0.01 ohms maximum.

Dielectric withstanding voltage: 2,000 V rms.

Insulation resistance: 200 megohms minimum.

Temperature rise: 50°C maximum.

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

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	---

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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 front 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 rating 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.

TABLE III. Extended ratings.

Switching characteristics	AC - 60 or 400 Hertz											
	125 volts				250 volts				500 volts			
	Resistive or lamp load		Inductive load 0.75 pF		Resistive or lamp load		Inductive load 0.75 pF		Resistive or lamp load		Inductive load 0.75 pF	
	Amp	Operations	Amp	Operations	Amp	Operations	Amp	Operations	Amp	Operations	Amp	Operations
All	30	20,000	30	20,000	30	20,000	30	20,000	30	20,000	30	20,000
C, D	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 <u>4/</u>		Resistive or lamp load		Inductive, load <u>4/</u>		Resistive or lamp load		Inductive, load <u>4/</u>	
	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	---	---	---	---	---	---

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

2/ 0.08 henry for inductive current.

3/ Switch with special arc snuffers.

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

TABLE IV. Application and acquisition guide.

M15291/3 dash no.	Type designation	For new or existing design	For replacement	Circuit configuration
-001	3SR2A3		X	A (on-off-on-off)
-002	3SR2A4	X		A (on-off-on-off)
-003	3SR2A4A	X		A (on-off-on-off)
-004	3SR3A3		X	A (on-off-on-off)
-005	3SR4A4	X		A (on-off-on-off)
-006	---	X		A (on-off-on-off)
-007	3SR2B4	X		A (off-on1-off-on 2)
-008	3SR3B3		X	A (off-on1-off-on 2)
-009	3SR3B4	X		A (off-on1-off-on 2)
-010	3SR4B4	X		A (off-on1-off-on 2)
-011	3SR2C3		X	C (on 1-on 2-on 1-on 2)
-012	3SR2C4	X		C (on 1-on 2-on 1-on 2)
-013	3SRSC4A	X		C (on 1-on 2-on 1-on 2)
-014	3SR3C3		X	C (on 1-on 2-on 1-on 2)
-015	3SR4C4	X		C (on 1-on 2-on 1-on 2)
-016	3SR5C4	X		C (on 1-on 2-on 1-on 2)
-017	3SR4D4	X		D (on 1-on 2-off-off)
-018	3SR7S4	X		S (see table I)

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 5930-1904)

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/> .