

DETAIL SPECIFICATION SHEET

SWITCHES, RADIO-FREQUENCY TRANSMISSION LINE (COAXIAL)
(ELECTRICALLY OPERATED) CLASS 5, 1P2T

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

Requirements for acquiring the switches described herein
shall consist of this specification sheet and MIL-DTL-3928.

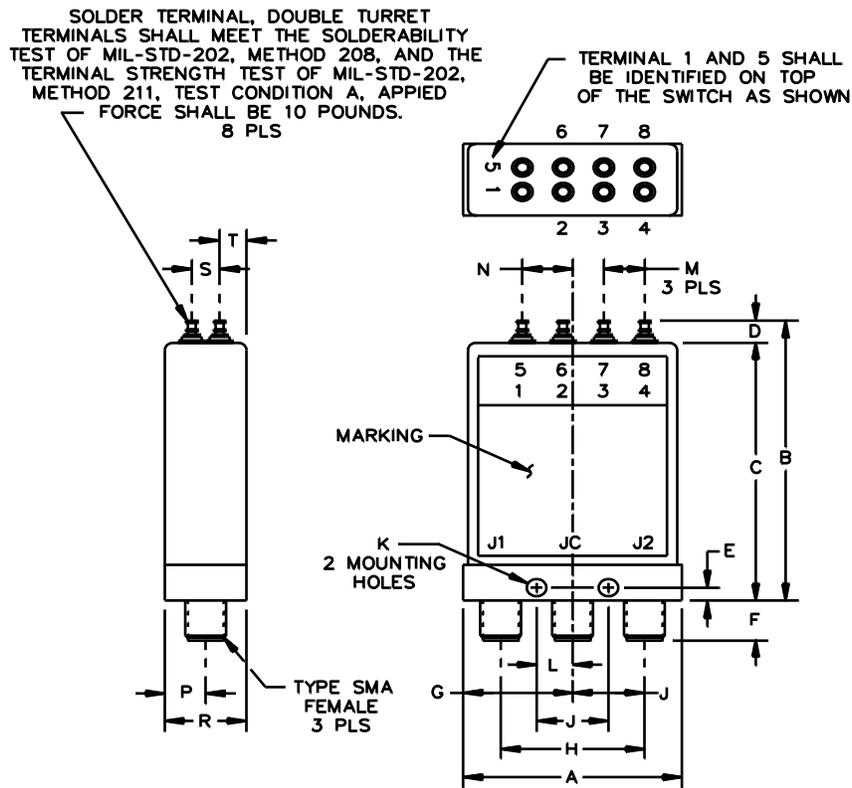
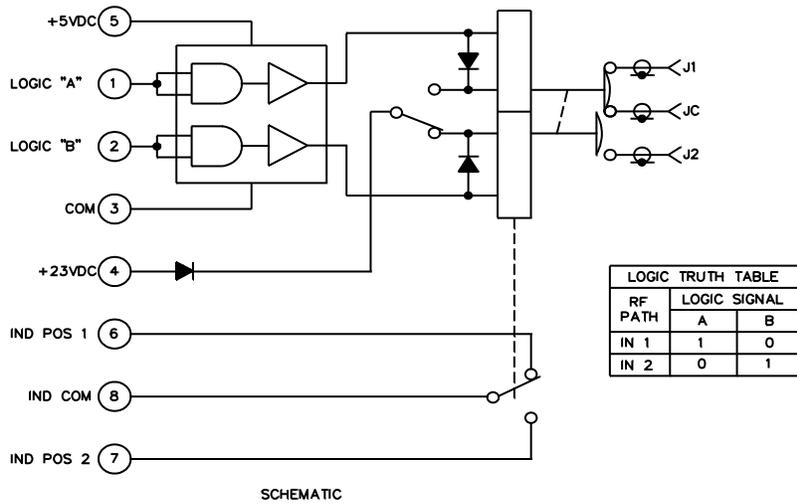


FIGURE 1. Switch configuration and schematic.

MIL-DTL-3928/30



Dimensions											
Letter	Inches		Millimeters		Letter	Inches		Millimeters			
	Min	Max	Min	Max		Min	Max	Min	Max		
A	1.34 ± .030	1.31	1.37	33.3	34.8	K	.120 ± .010	.110	.130	2.79	3.30
B	2.15 max	---	2.15	---	54.6	L	.220 ± .010	.210	.230	5.33	5.84
C	1.81 ± .020	1.79	1.83	45.5	46.5	M	.25 ± .030	.22	.28	5.6	7.1
D	.35 max	---	.35	--	8.9	N.308 ± .032	.276	.340	7.01	8.65	
E	.09 ± .030	.06	.12	1.5	3.0	P	.25 ± .030	.22	.28	5.6	7.1
F	.28 ± .030	.25	.31	6.4	7.9	R	.50 ± .032	.468	.532	11.88	13.51
G	.670 ± .010	.660	.680	16.76	17.27	S	.17 ± .030	.14	.20	3.6	5.1
H	.88 ± .030	.85	.91	21.6	23.1	T	.16 ± .030	.13	.19	3.3	4.8
J	.440 ± .010	.430	.450	10.92	11.43						

NOTES:

1. Dimensions are in inches.
2. Metric equivalents may be determined using 1.00 inch = 25.4 mm.

FIGURE 1. Switch configuration and schematic, part or identifying numbers M3928/30-01. Continued

TABLE I. Electrical and performance characteristics. 1/ 2/

Part or identifying number M3928/30-	Housing	Frequency range GHz	Frequency rating GHz	VSWR Max	Insertion loss (dB) Max	Isolation (dB) Min	Switch time (ms) Max	Position indication circuit and rating	Life cycles x 1000 Min 3/	Fail-safe or latching	Operating current (A) Max	Holding current (A) Max	Nominal operating voltage	Pickup voltage (less than)	Dropout voltage (less than)	Power and indicator connector	Weight (oz) Max
M3928/30-01 N,S	I	DC -18	DC -4.0	1.2:1	0.1	80	20	.5 A at 30 Vdc	1000	L	.16	---	23 ± 5% Vdc	20Vdc	----	8 solder terminals	5
			4.0-12.4	1.3:1	0.2	70											
			12.4- 18.0	1.5:1	0.3	60											

1/ Average RF power: 15 Watts 0 to 10 GHz; 12 Watts 10 to 15 GHz; 10 Watts 15 to 18 GHz.

2/ Voltage rating: 350 Volts RMS.

3/ RF contact power switching 100 mW max.

REQUIREMENTS:

Dimensions and configuration: See figure 1.
Termination: Open.
Nominal impedance: 50 ohms.

RF connections: Connector shall be SMA Female configuration and shall meet the requirement of MIL-PRF-39012. The center contact shall be captivated and shall be capable of withstanding an axial force of 10 pounds minimum.

Electrical and performance characteristics: See table I.

RF contacts: Break before make.

Indicator contacts: Make before break.

Operating temperature: - 55°C to +95°C.
Storage: - 65°C to +125°C.

Drive Circuits:

Driver Voltage: 4.5 to 5.5 Vdc.
Driver current 70 MA max.

Logic "0" Voltage: 0 to .4 Vdc
Logic "1" Voltage: 2.4 To 5.5 Vdc with pulse width 20 ms Minimum.

Terminal: Terminals shall meet the solderability test of MIL-STD-202. Method 208 and Terminal strength test of MIL-STD-202, Method 211 test condition A, Applied force shall be 10 pounds.

Referenced documents: In addition to MIL-DTL-3928, this document references the following
MIL-PRF-39012
MIL-STD-202

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5985-2014-033)

Review activities:
Army - MI
Navy - AS, MC, OS
Air Force - 19, 99

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/>.