

Features:

- Broadband: DC - 40 GHz
- Extended Life: 5 million cycles
- Excellent Repeatability
- Low Insertion Loss
- Available in 3, 4, 5 or 6 Positions

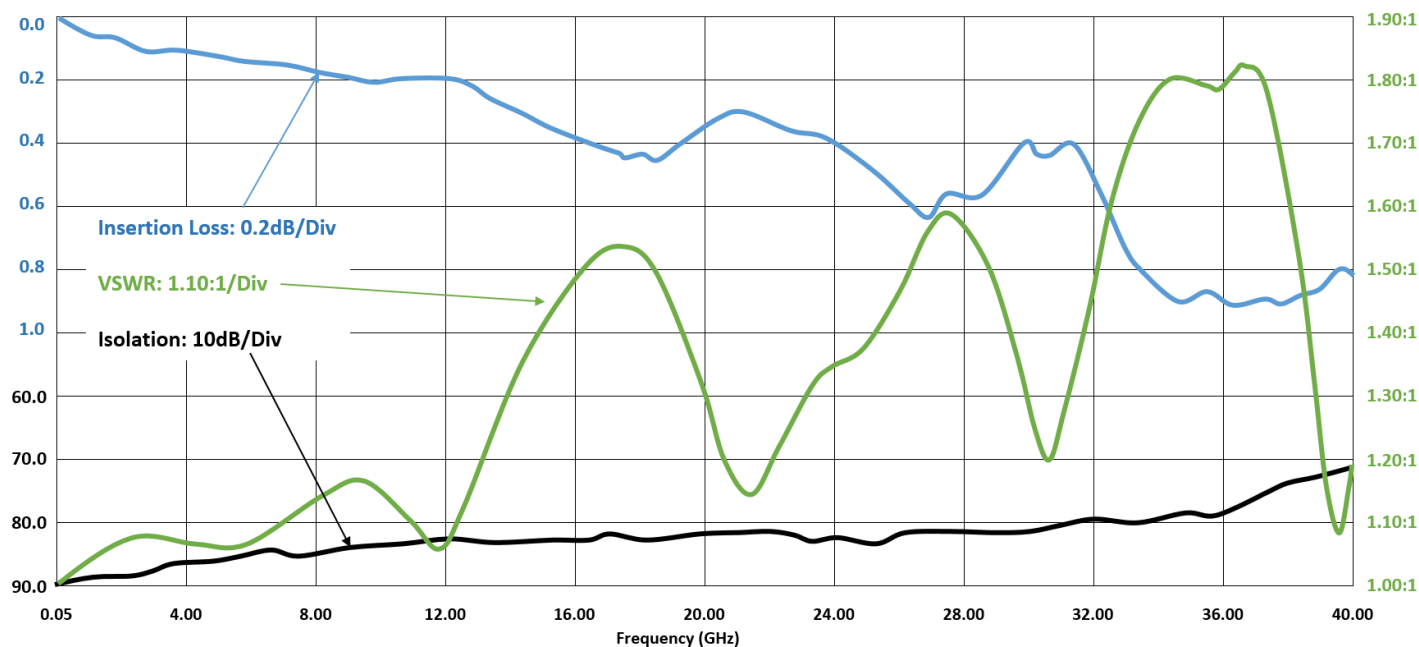
Note: See series SP3T-SP6T Option T for 50Ω terminations



RF Specification:

Frequency, (GHz)	DC - 6	6 - 12	12 - 18	18 - 26.5	26.5 - 32	32 - 40	Operation	Specification
Ins. Loss dB (max)	0.30	0.30	0.60	0.80	0.80	1.10	Switching Time	20 mS (max)
Isolation dB (min)	80	75	70	70	60	60	Switching Action	Break-Before-Make
VSWR (max)	1.25:1	1.30:1	1.60:1	1.70:1	1.80:1	1.95:1	Impedance	50 Ω

Description: High reliability and low loss performance makes these switches ideal for all testing applications. Magnetically latched in place after control voltage is removed. Available in 3, 4, 5 or 6 position versions with a wide selection of features are available to meet most requirements. Good low to medium power handling. **Applications:** lab testing to production ATE requirements. **Markets:** defense, telecom, aerospace, enterprise, consumer and IoT.



Specifications	
Oper Temp	-25° C to +70° C
Oper Temp	-54° C to +85° C (M version)
Storage Temp	-55° C to +100° C
Humidity	Moisture resistant or immersion sealing available
Shock	MIL-STD-202 Method 213, Condition D, 500G (non oper)
Vibration	MIL-STD-202 Method 214, Condition D, 10G RMS (non oper)
Cycle Life	5M cycles (may vary based on selected options)

Voltages and Current				
Nominal Voltage, Vdc	12	15	24	28
Voltage Range, Vdc	11-13	14-16	22-26	26-30
Current (mA)*	250	200	150	140

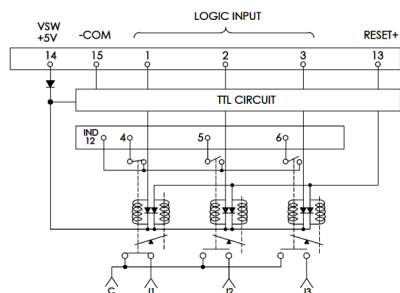
Note: Reset current = Current rating x (# of positions)

* at nominal voltage and +20°C

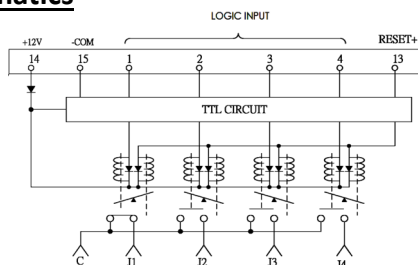
Popular Models	
SP3T-9C-40A	SP3T, K connector, Latching, DC-40GHz, 12VDC
SP3T-9C-40A-D	SP3T, K connector, Latching, DC-40GHz, 12VDC, TTL
SP4T-9C-40A	SP4T, K connector, Latching, DC-40GHz, 12VDC
SP4T-9C-40A-D	SP4T, K connector, Latching, DC-40GHz, 12VDC, TTL
SP6T-9C-40A	SP6T, K connector, Latching, DC-40GHz, 12VDC
SP6T-9C-40A-D	SP6T, K connector, Latching, DC-40GHz, 12VDC, TTL

- See backside for a full list of available features and options
- Contact us for high power and custom designs

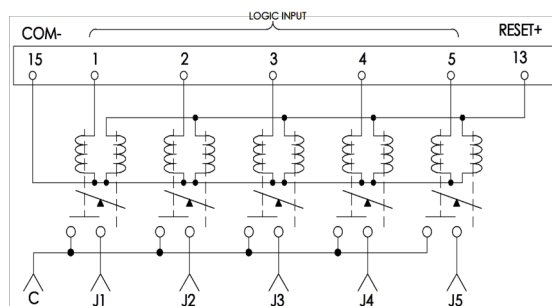
Schematics



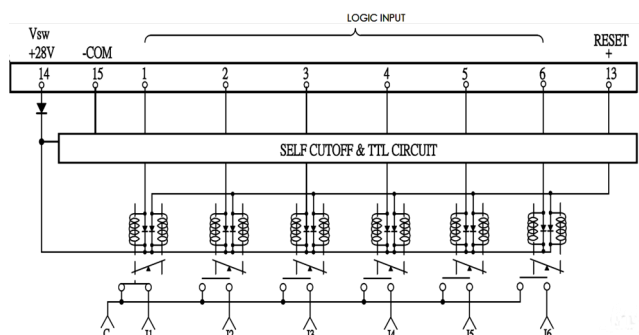
SP3T w/ TTL & Indicators in position J1



SP4T w/ TTL in position J1



SP5T in reset position



SP6T w/TTL & Self Cutoff in position J1

TTL Control

Logic "1": 2.4 to 5.0 VDC
Logic "0": 0 to 0.8 VDC

Actuation Control

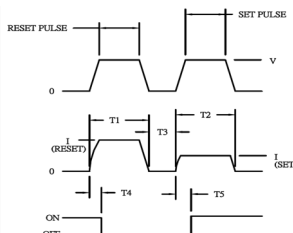
Requires two sequential pulses
"Reset and Set" (see below)

T1 & T2 = 30mS min.

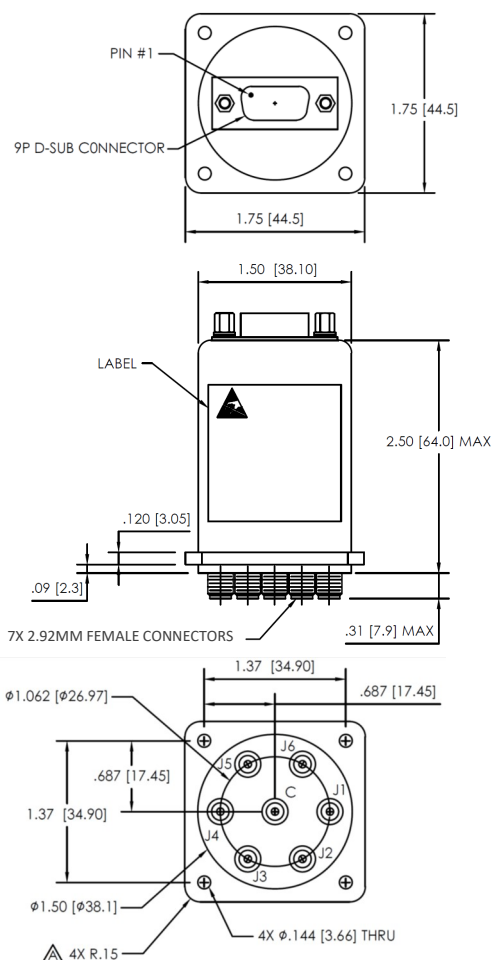
T3 = 10mS min.

T4 & T5 = 20mS max

Contact factory for full operating sequence, pin assignments and truth tables



Outline



Model Numbering System

Example: SP3T-9C-40A-D-

(SP3T, K Connector, Latching without indicator, DC-40GHz, 12VDC, TTL Driver, D-Sub Control)

No. of Outputs

3 : SP3T
4 : SP4T
5 : SP5T
6 : SP6T

Connector Type

0: SMA
1: N
2: TNC
3: RF PIN
4: F (75Ω)
5: SC
6: SMB
7: 7/16 DIN
8: BNC
9: K (2.92mm)
10: Mini DIN

SP3T - 9C - 40A - D -

Actuator Type

C : Latching without Indicator
D : Latching with Indicator

Frequency Range

03 : DC-3GHz
08 : DC-8GHz
12 : DC-12GHz
18 : DC-18GHz
22 : DC-22GHz
26 : DC-26.5GHz
40 : DC-40GHz

Actuator Voltage

A : 12VDC
B : 15VDC
C : 28VDC
D : 24VDC
E : 20VDC
F : 5VDC
G : 18VDC

Control Options

Default : D-Sub Control
PIN : Pin Terminal Control

Options

D : TTL Driver
E : Decoder
H : High Power
I : Suppression Diodes
P : Positive + Common
S : Self Cutoff
Y : Moisture Seal
C : Custom



* D-Sub connectors are standard for SPMT, no designation on model number needed