

## Features:

- Broadband: DC to 43 GHz
- Extended Life: 2 million cycles
- Excellent Repeatability
- Low Insertion Loss
- Internal 50Ω 2W Terminations
- Available in 3, 4, 5 or 6 Positions



## 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:

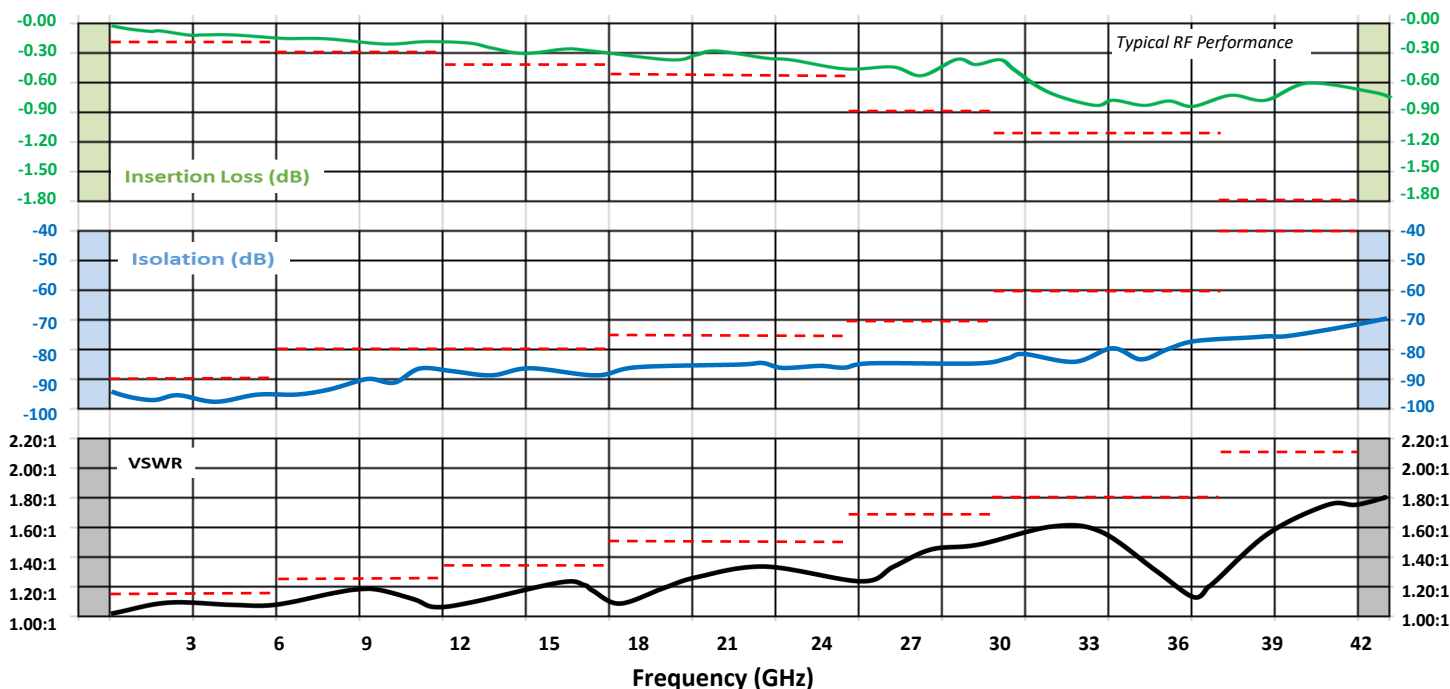
lab testing to production ATE requirements.

## Markets:

defense, telecom, aerospace, enterprise, consumer and IoT.

## RF Specification:

Frequency, (GHz)	DC-6	6-12	12-18	18-26.5	26.5-32	32-40	40-43
Ins. Loss dB (max)	0.20	0.30	0.40	0.50	0.90	1.10	1.80
Isolation dB (min)	90	80	80	75	70	60	40
VSWR (max)	1.15:1	1.25:1	1.35:1	1.50:1	1.70:1	1.80:1	2.10:1
Switching Time	20 mS (max)						
Switching Action	Break-Before-Make						
Impedance	50Ω						



## Specifications

Oper Temp	-25° C to +70° C
Oper Temp	-55° 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	2M cycles (may vary based on selected options)

## Popular Models

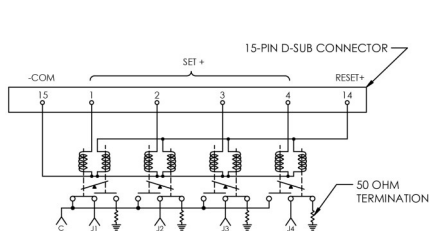
SP3T-9C-40A-T	SP3T, K, Latching, DC-40GHz, 12VDC, Internal Termination
SP4T-9C-40A-T	SP4T, K, Latching, DC-40GHz, 12VDC, , Internal Termination
SP6T-9C-40A-T	SP6T, K, Latching, DC-40GHz, 12VDC, Internal Termination
SP6T-9C-40A-TD	SP6T, K, Latching, DC-40GHz, 12VDC, Internal Termination, TTL

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

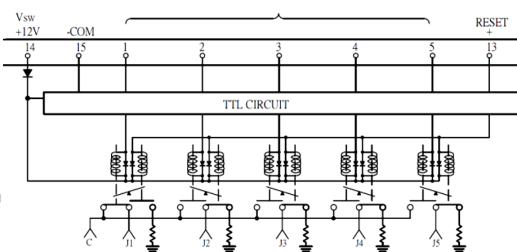
## Voltages and Current

Nominal Voltage, Vdc	12	15	24	28
Voltage Range, Vdc	11-13	14-16	22-26	26-30
Current (mA)*	280	250	150	110
Reset Current (mA)	1680	1500	900	660

Note: Reset current = Current rating x (# of positions)  
\* at nominal voltage and +20°C



SP4T in position J1



SP5T w/ TTL in position J1

### TTL Control

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

### Actuation Control

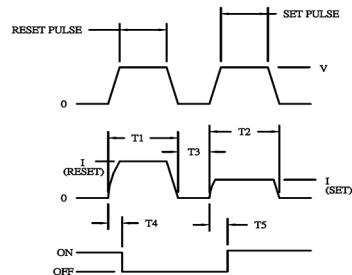
Requires two sequential pulses  
"Reset and Set" (see below)

T1 & T2 = 30ms min.

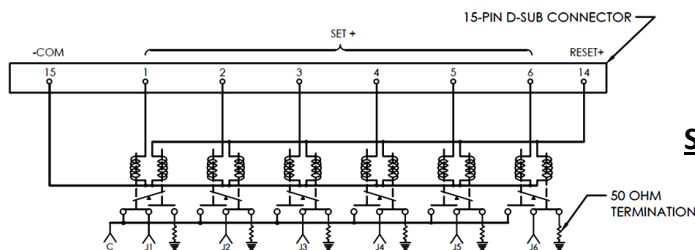
T3 = 10ms min.

T4 & T5 = 20ms max

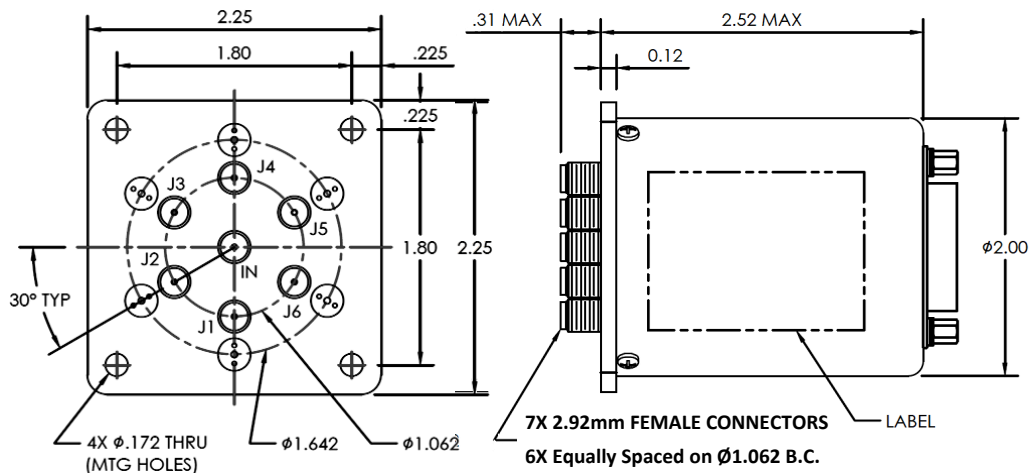
Contact factory for full operating sequence, and truth tables



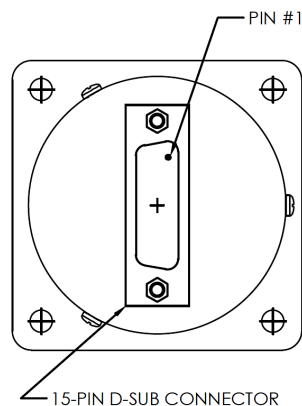
### Schematics



SP6T in position J1



### Outline



### Model Numbering System

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

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

No. of Outputs
3 : SP3T
4 : SP4T
5 : SP5T
6 : SP6T

Connector Type
9: K (2.92mm)

Actuator Type
C : Latching without Indicator
D : Latching with Indicator

Frequency Range
40 : DC-40GHz
43 : DC-43GHz

Actuator Voltage
A : 12VDC
B : 15VDC
C : 28VDC
D : 24VDC

Control Options
Default : D-Sub Control
PIN : Pin Terminal Control

Options
H : High Power
T : Internal Terminations
D : TTL Driver
P : Positive + Common
A : Auto Reset
S : Self Cutoff
I : Suppression Diodes
E : Decoder
Y : Moisture Seal
C : Custom