Series 091-101

(Normally Open and Normally Open with Termination)

SP9T-SP10T / DC-18 GHz SMA

RF Performance

Frequency Range (GHz)	DC-3	3-8	8-12.4	12.4-15.5	15.5-18
VSWR (Max)	1.2:1	1.3:1	1.4:1	1.5:1	1.7:1
Insertion Loss (Max dB)	0.2	0.3	0.4	0.5	0.7
Isolation (Min dB)	80	70	60	60	55

Additional Specifications

RF Impedance . . . . . 50 ohms nominal
Actuating Voltage* . . . . . 28 Vdc
Actuating Current* . . . . . Normally Open: 160 mA (max)
DA: 350 mA
Switching Time . . . . . 15 ms (max)
Switching Sequence . . . . . Break Before Make
Operating Ambient Temperature . -35°C to +70°C
Operating Life . . . . . 1 Million Cycles per Position
Designed to Meet MIL-S-3928

Options Available

GROUP 2 ACTUATION

- D - NORM OPEN
- DA - NORM OPEN FAILSAFE TO POSITION 1

GROUP 3 OPTIONS

- 0 - NONE
- 1 - 50-OHM TERMINATION
- 2 - INDICATOR CIRCUITRY
- 3 - SUPPRESSION DIODES
- 4 - TTL LOGIC HIGH
- 9 - OTHER (SPECIFY)
- V - MOSFET DRIVER
- Y - BCD TTL DECODER

GROUP 4 RF CONNECTORS

- A - SMA
- G - OTHER (SPECIFY)

GROUP 5 TERMINALS

- 1 - SOLDER (STANDARD)
- 2 - POWER CONNECTOR, FAST DISCONNECT (STANDARD)
- 3 - POWER CONNECTOR, FAST DISCONNECT (SUB MIN "D")
- 4 - SOLDER LOOP
- 5 - OTHER (SPECIFY)

GROUP 6 VOLTAGE

- B - 12 VDC
- C - 24 VDC
- D - 28 VDC
- E - 48 VDC
- G - OTHER (SPECIFY)
- H - 15 VDC
- I - 18 VDC

GROUP 7 FREQUENCY

- 0 - DC - 1 GHz
- 1 - DC - 3 GHz
- 2 - DC -8 GHz
- 3 - DC - 12.4 GHz
- 4 - DC - 18 GHz
- 7 - OTHER (SPECIFY)

GROUP 8 POLARITY

- A - COMMON PLUS
- B - COMMON MINUS
- C- NOT RELEVANT TO APPLICATION OR SWITCHES WITH LOGIC

GROUP 9 MOUNTING

- 0 - STANDARD MOUNTING HOLES
- 1 - BRACKET
- 2 - FLANGE
- 3 - OTHER (SPECIFY)

Switch Height (A) for Selected Options

DIM A ±.03	GROUP 2 ACTUATION	GROUP 3 OPTIONS
2.10	D, DA	1,3
2.50	D, DA	1,2,3
2.91**	D, DA	1,2,3,4 OR 5,Y,V

* Specifications for 28 Vdc, 25°C

** Dimension for switches with Standard Narda Power Connector MS3112E-16-26P mating with MS3116E-16-26S.

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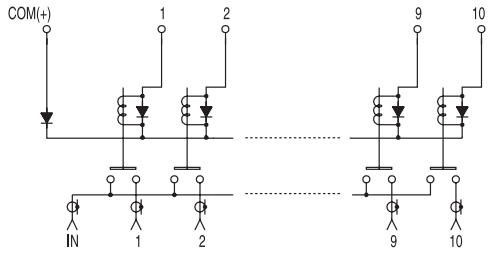
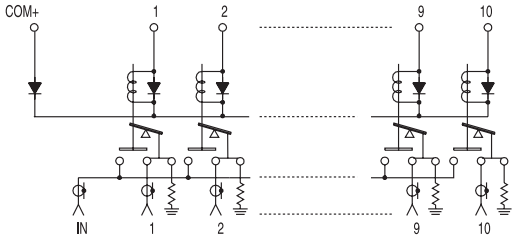
Typical Schematics

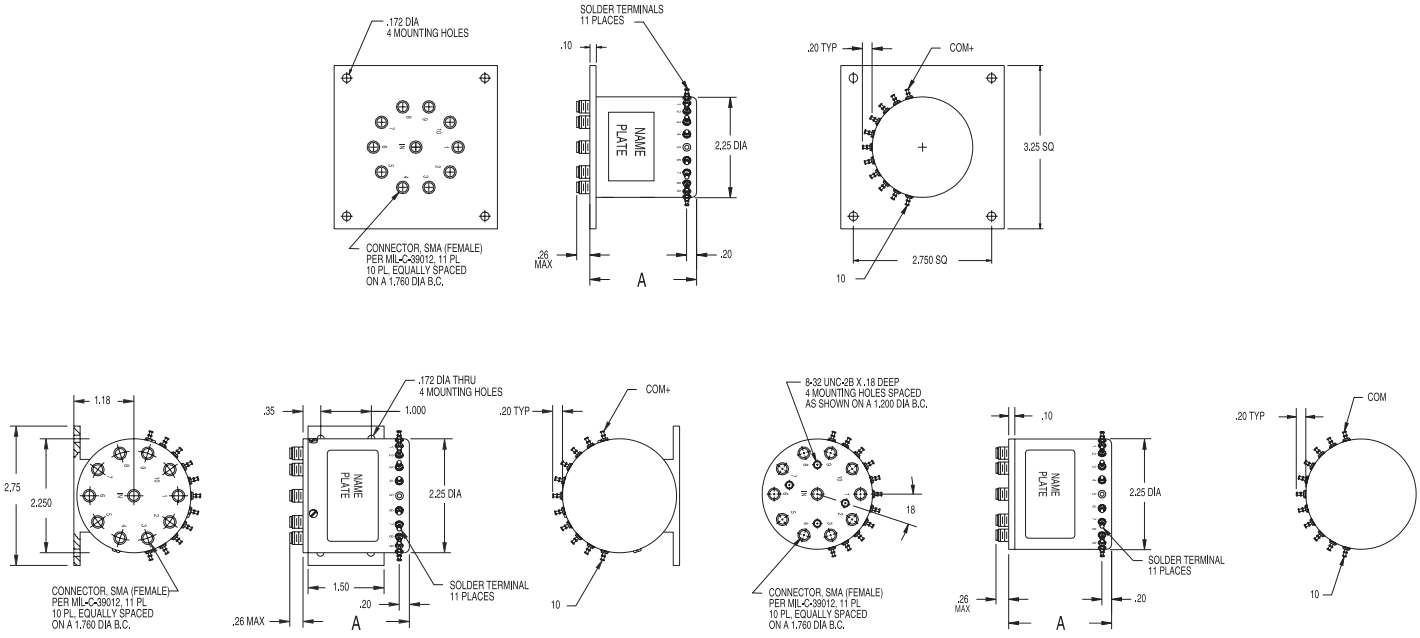


Normally Open SP10T switch with suppression diodes. Shown in position 1 (common plus). (D3)



Normally Open SP10T switch with suppression diodes and 50-ohm termination on each unused position (common plus). (D13)

Typical Outline Drawings



NOTE: For 091 Series Switches, eliminate position 10.

Series 091-101

(Latching and Latching with Termination)

SP9T-SP10T / DC-18 GHz SMA

RF Performance

Frequency Range (GHz)	DC-3	3-8	8-12.4	12.4-15.5	15.5-18
VSWR (Max)	1.2:1	1.3:1	1.4:1	1.5:1	1.7:1
Insertion Loss (Max dB)	0.2	0.3	0.4	0.5	0.7
Isolation (Min dB)	80	70	60	60	55

Additional Specifications

RF Impedance . . . . . 50 ohms nominal
Actuating Voltage* . . . . . 28 Vdc
Actuating Current* . . . . . Latching: (n)[1] x 100 mA (max)
Switching Time . . . . . 15 ms (max)
Switching Sequence . . . . . Break Before Make
Operating Ambient Temperature . -35°C to +70°C
Operating Life . . . . . 1 Million Cycles per Position
Designed to Meet MIL-S-3928

Options Available

GROUP 2 ACTUATION

- B - LATCHING
- C - LATCHING RESET

GROUP 3 OPTIONS

- 0 - NONE
- 1 - 50-OHM TERMINATION
- 2 - INDICATOR CIRCUITRY
- 3 - SUPPRESSION DIODES
- 4 - TTL LOGIC HIGH
- 7 - SELF-DE-ENERGIZING CIRCUITRY
- 9 - OTHER (SPECIFY)
- V - MOSFET DRIVER
- Y - BCD TTL DECODER

GROUP 4 RF CONNECTORS

- A - SMA
- G - OTHER (SPECIFY)

GROUP 5 TERMINALS

- 1 - SOLDER (STANDARD)
- 2 - POWER CONNECTOR, FAST DISCONNECT (STANDARD)
- 3 - POWER CONNECTOR, FAST DISCONNECT (SUB MIN "D")
- 4 - SOLDER LOOP
- 5 - OTHER (SPECIFY)

GROUP 6 VOLTAGE

- B - 12 VDC
- C - 24 VDC
- D - 28 VDC
- E - 48 VDC
- G - OTHER (SPECIFY)
- H - 15 VDC
- I - 18 VDC

GROUP 7 FREQUENCY

- 0 - DC - 1 GHz
- 1 - DC - 3 GHz
- 2 - DC -8 GHz
- 3 - DC - 12.4 GHz
- 4 - DC - 18 GHz
- 7 - OTHER (SPECIFY)

GROUP 8 POLARITY

- A - COMMON PLUS
- B - COMMON MINUS
- C- NOT RELEVANT TO APPLICATION OR SWITCHES WITH LOGIC

GROUP 9 MOUNTING

- 0 - STANDARD MOUNTING HOLES
- 1 - BRACKET
- 2 - FLANGE
- 3 - OTHER (SPECIFY)

Switch Height (A) for Selected Options

DIM A ±.03	GROUP 2 ACTUATION	GROUP 3 OPTIONS
2.10	D, DA	1,3
2.60	B, C	1,2,3,7
2.60	D, DA	1,2,3
2.98**	B, C	1,2,3,4, or 5,7,Y
2.98**	D, DA	1,2,3,4 or 5,Y

* Specifications for 28 Vdc, 25°C

** Dimension for switches with Standard Narda Power Connector MS3112E-16-26P mating with MS3116E-16-26S.

[1] n = # of positions

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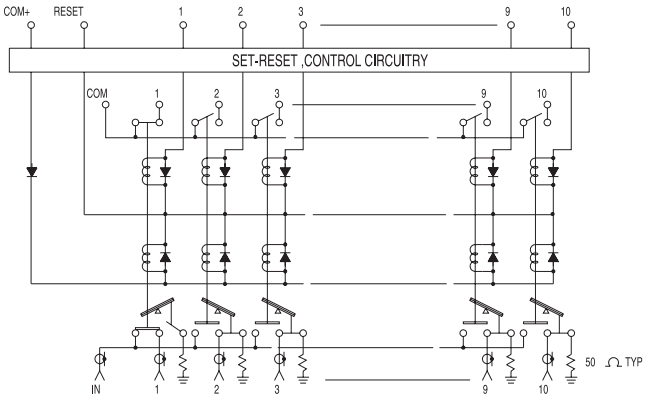
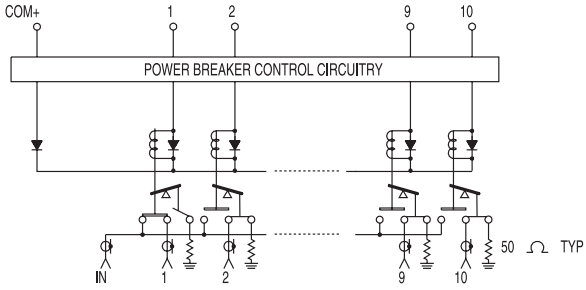
Typical Schematics

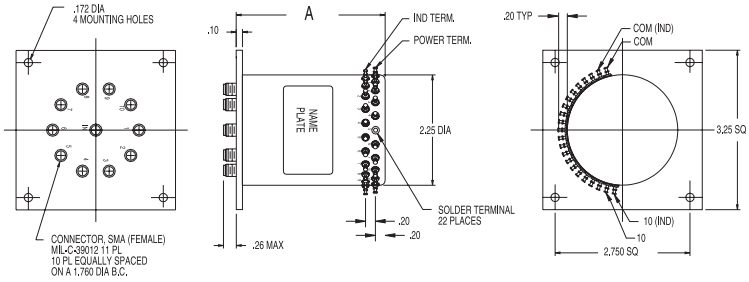


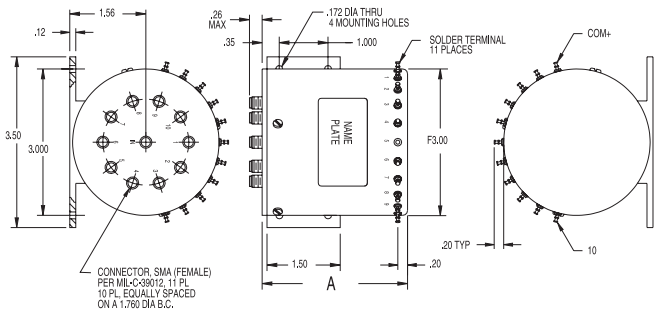
Latching SP10T switch with reset function, self de-energizing circuitry and suppression diodes. Shown in position 1 (common plus). (C1237)

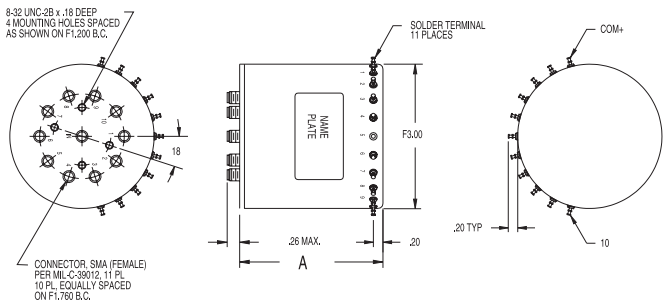


Latching, SP10T switch with reset functions, self de-energizing circuitry, suppression diodes and 50-ohm termination on each unused position. Shown in position 1 (common plus). (B137)

Typical Outline Drawings







NOTE: For 091 Series Switches, eliminate position 10.