

M SERIES
1P3T to 1P6T
MULTI POSITION SWITCH
DC-18 GHz ◆ **SMA**

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The **M Series** features SMA connectors and a frequency range of DC to 18 GHz.

This series is available with latching self cut-off or normally open functions.

RF Impedance:	50 ohms nominal
Temperature Range:	-35°C to +85°C ambient
Operating Life:	1,000,000 cycles min.
Switching Time:	15 mSec max.
Switching Sequence:	Break Before Make
Environmental:	Designed in Accordance to MIL-DTL-3928 (Testing and Operation Modes)

SPECIFICATIONS

Frequency	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dB min.)
DC-3 GHz	1.20	0.20	80
3-8 GHz	1.30	0.30	70
8-12.4 GHz	1.40	0.40	60
12.4-18 GHz	1.50	0.50	60

Actuator Current (typical)	12Vdc	12-15 Vdc	20-24 Vdc	24-30Vdc
Normally Open	240mA	240mA	170mA	140mA
Latching	500mA	370mA	180mA	180mA

* If reduced coil current is required, please contact Factory.

AVAILABLE OPTIONS

OPTION 2 RF CONNECTORS	OPTION 4 VOLTAGE	OPTION 5 ACTUATOR	OPTION 6 FREQUENCY	OPTION 8 SPECIAL OPTIONS
4 - SMA	1 - 6 Vdc +/- 10% 2 - 12 Vdc +/- 10% (USB Optional) 3 - 24-30 Vdc 4 - 48 Vdc +/- 10%	Latching Self Cut-Off	3 - DC to 18 GHz	L - TTL (High) LL - TTL (Low) 1 - Bracket F - Flange P - High Power Handling R - Reset (Latching Only) C - BCD U - USB
		D - Diodes (USB Optional) E - Diodes, Indicators (USB Optional)		
OPTION 3 TERMINALS	5 - 110 Vac +/- 10% 6 - 12-15 Vdc (USB Optional) 7 - 18-20 Vdc 8 - 20-24 Vdc	Normally Open	OPTION 7 POLARITY	
		G - Diodes, Indicators (USB Optional) H - Indicators J - Diodes (USB Optional) K - Standard N - Failsafe to Position 1 - Standard R - Failsafe to Position 1 - Diodes S - Failsafe to Position 1 - Diodes, Indicators		
1 - Solder Terminals 2 - Circular Connector 4 - Sub Miniature D-Shell Connector 5 - USB			0 - Not Applicable, USB 8 - Positive Common 9 - Negative Common	

Please Note: USB integration can only be applied to Voltage Options 12Vdc, & 15Vdc, Polarity Option # 3, and Terminals Option # 3. The switch has a mini-USB socket on the enclosure interface which provides communication between switch and computers. Additionally, the enclosure also has a Molex socket for 12Vdc connection, which is required to power RF switch. The switch is accompanied with a CD driver, a 3 ft. USB cable and a 12 Vdc AC/DC adapter.

M		-	4			3		
Option 1 Series	Option 1 Number of Positions	Option 2 RF Connectors	Option 3 Terminals	Option 4 Voltage	Option 5 Actuator	Option 6 Frequency	Option 7 Polarity	Option 8 Special Options

DC TERMINAL FUNCTION

PIN	LATCHING				NORMALLY OPEN						NORMALLY OPEN - FAILSAFE TO POSITION 1					
	D	D w/ TTL	E	E w/ TTL	J	K	J, K w/ TTL	G	H	G, H w/ TTL	N	R	N, R w/ TTL	S	S w/ TTL	
1	NOTE #1	NOTE #1	NOTE #1	NOTE #1	N/A	N/A	N/A	C -/+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2	COM+/-	+A	COM+/-	+A	COM+/-	COM	+A	1 -/+	COM	+A	COM	COM+/-	+A	COM+/-	+A	
3	1 -/+	-B	1 -/+	-B	1 -/+	1	-B	2 -/+	1	-B	2	2 -/+	-B	2 -/+	-B	
4	2 -/+	1	2 -/+	1	2 -/+	2	1	3 -/+	2	1	3	3 -/+	2	3 -/+	2	
5	3 -/+	2	3 -/+	2	3 -/+	3	2	4 -/+	3	2	4	4 -/+	3	4 -/+	3	
6	4 -/+	3	4 -/+	3	4 -/+	4	3	5 -/+	4	3	5	5 -/+	4	5 -/+	4	
7	5 -/+	4	5 -/+	4	5 -/+	5	4	6 -/+	5	4	6	6 -/+	5	6 -/+	5	
8	6 -/+	5	6 -/+	5	6 -/+	6	5	N/A	6	5	N/A	N/A	6	N/A	6	
9	N/A	6	N/A	6	N/A	N/A	6	N/A	N/A	6	N/A	N/A	N/A	N/A	N/A	
A	N/A	N/A	COM	COM	N/A	N/A	N/A	COM	COM	COM	N/A	N/A	N/A	COM	COM	
B	N/A	N/A	1	1	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A	1	1	
C	N/A	N/A	2	2	N/A	N/A	N/A	2	2	2	N/A	N/A	N/A	2	2	
D	N/A	N/A	3	3	N/A	N/A	N/A	3	3	3	N/A	N/A	N/A	3	3	
E	N/A	N/A	4	4	N/A	N/A	N/A	4	4	4	N/A	N/A	N/A	4	4	
F	N/A	N/A	5	5	N/A	N/A	N/A	5	5	5	N/A	N/A	N/A	5	5	
G	N/A	N/A	6	6	N/A	N/A	N/A	6	6	6	N/A	N/A	N/A	6	6	

NOTE#1: RESET IF (R) OPTION IS SELECTED, OTHERWISE N/A

SCHEMATICS

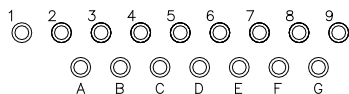
Pages 139-143

FIG.	25	26	25	26	29	29	30	29	29	30	33	33	34	33	34
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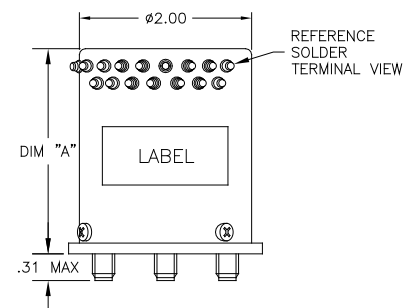
OUTLINE DRAWING DIMENSION "A"

2.38"	3.13"	2.38"	3.13"	2.13"	2.13"	2.63"	2.13"	2.13"	2.63"	2.13"	2.13"	2.63"	2.13"	2.63"
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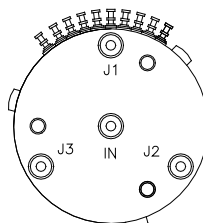
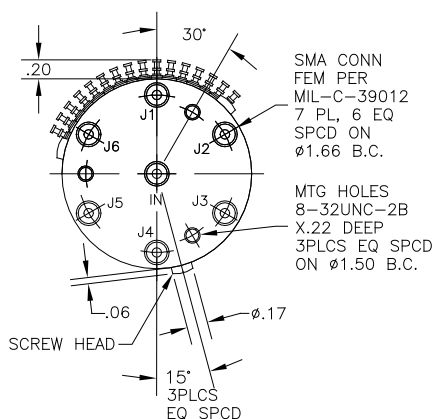
DC TERMINAL VIEW



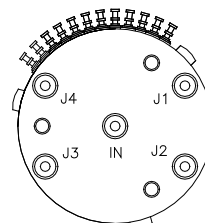
FRONT VIEW



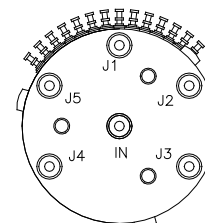
BOTTOM VIEW



SP3T



SP4T



SP5T