

# MC6-N

# 1P6T, N, DC-12.4GHz

MC6n: n=3-6 (e.g., n=6 for 1P6T)

**NORMALLY OPEN**

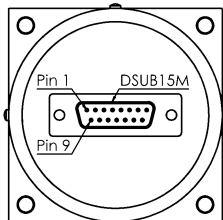
The MC6-N Series features N connectors and an operation frequency range from DC to 12.4 GHz. This series is of NORMALLY OPEN type with or without TTL, coil suppression diodes, and indicator options.

Specifications	
Contact Material	Plated Au
Switching Sequence	Break before Make
Switching Time (max)	15msec
Impedance	50Ω
Temperature Range	-25°C to +65°C (Standard) -55°C to +85°C ("e" option)
Relative Humidity	5 to 85%
Operation Life (cycles)	1,000,000
Vibration Operating	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	550g

Voltage (VDC)	12	18	24	28
Current (mA)	150	100	75	65



Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-3	1.3	0.3	70
3-8	1.5	0.5	60
8-12.4	1.7	0.7	50



Other options are available upon request.

### Optional Indicator Specifications

Max withstand voltage: 60V  
Max current capacity: 100mA  
Max "ON" resistance: 16Ω

Note: +VDC and -C must be connected to operate.

MC63-, 1P3T SWITCH  
MC64-, 1P4T SWITCH  
MC65-, 1P5T SWITCH  
MC66-, 1P6T SWITCH

### NORMALLY OPEN 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	Vn ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDCI

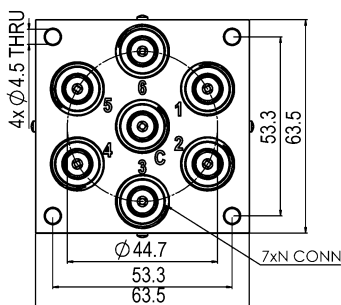
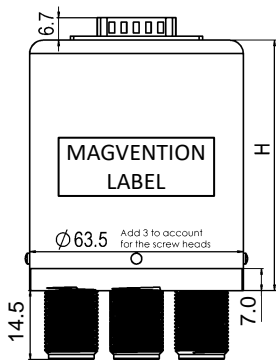
PIN 8-15: For optional INDICAOTRS only.

### NORMALLY OPEN TTL 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	An ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDC

PIN 8-14: For optional INDICAOTRS only.

Pin 1-6: The corresponding control signal inputs.



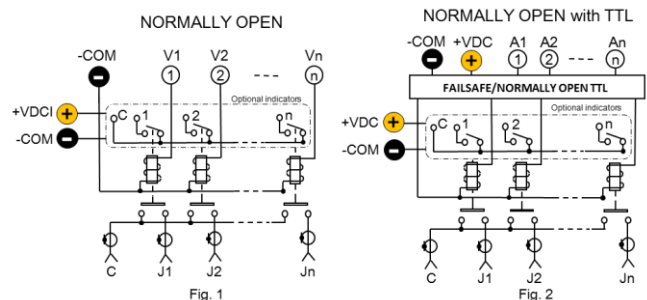
Mechanical drawings (unit: mm, tolerance +/-0.5mm).

### 1PnT PORT CONFIGURATIONS

1PnT	Ports Used
1P6T	1 2 3 4 5 6
1P5T	1 2 3 4 5
1P4T	1 2 4 5
1P3T	1 3 5

Note: "Blank" represents the unused RF and corresponding control ports.

H = 66 mm (max)  
H = 76 mm (max) for options with TTL



# MC6np-N

# 1P6T, N (high power), DC-12.4GHz

MC6n: n=3-6 (e.g., n=6 for 1P6T)

**NORMALLY OPEN**

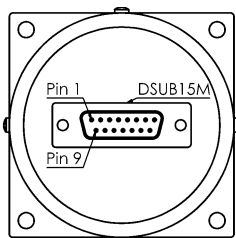
The MC6-N Series features N connectors and an operation frequency range from DC to 12.4 GHz. This series is of NORMALLY OPEN type with or without TTL, coil suppression diodes, and indicator options.

Specifications	
Contact Material	Plated Au
Switching Sequence	Break before Make
Switching Time (max)	15msec
Impedance	50Ω
Temperature Range	-25°C to +65°C (Standard) -55°C to +85°C ("e" option)
Relative Humidity	5 to 85%
Operation Life (cycles)	1,000,000
Vibration Operating	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	550g

Voltage (VDC)	12	18	24	28
Current (mA)	240	160	140	120



Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-3	1.3	0.3	70
3-8	1.5	0.5	60
8-12.4	1.7	0.7	50



Other options are available upon request.

### Optional Indicator Specifications

Max withstand voltage: 60V  
Max current capacity: 100mA  
Max "ON" resistance: 16Ω

Note: +VDC and -C must be connected to operate.

- MC63-, 1P3T SWITCH
- MC64-, 1P4T SWITCH
- MC65-, 1P5T SWITCH
- MC66-, 1P6T SWITCH

### NORMALLY OPEN 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	Vn ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDCI

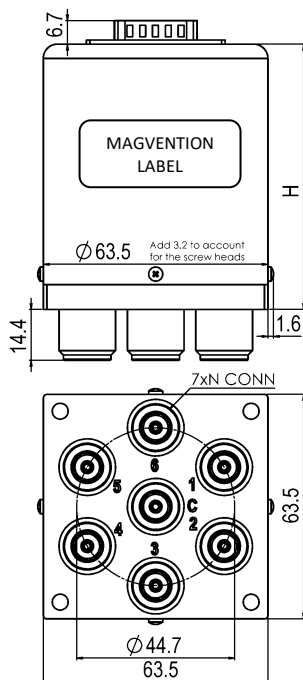
PIN 8-15: For optional INDICATORS only.

### NORMALLY OPEN TTL 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	An ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDC

PIN 8-14: For optional INDICATORS only.

Pin 1-6: The corresponding control signal inputs.



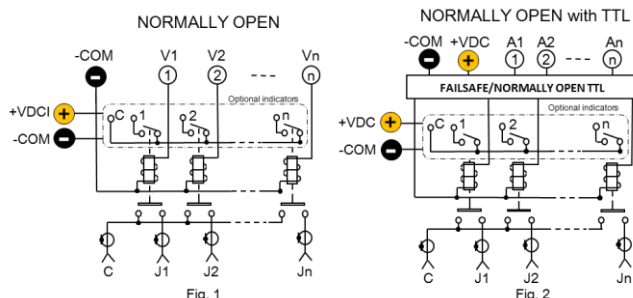
Mechanical drawings (unit: mm, tolerance +/-0.5mm).

### 1PnT PORT CONFIGURATIONS

1PnT	Ports Used					
1P6T	1	2	3	4	5	6
1P5T	1	2	3	4	5	
1P4T	1	2	4	5		
1P3T	1	3	5			

Note: "Blank" represents the unused RF and corresponding control ports.

H = 66 mm (max)  
H = 76 mm (max) for options with TTL



# MC6-C

# 1P6T, SC, DC-6.5GHz

MC6n: n=3-6 (e.g., n=6 for 1P6T)

NORMALLY OPEN

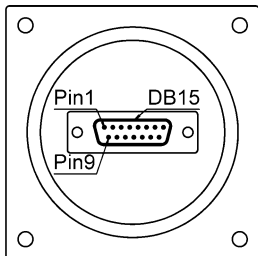
The MC6-C Series features SC connectors and an operation frequency range from DC to 6.5 GHz. This series is of NORMALLY OPEN type with or without TTL, coil suppression diodes, and indicator options.



Specifications	
Contact Material	Plated Au
Switching Sequence	Break before Make
Switching Time (max)	15msec
Impedance	50Ω
Temperature Range	-25°C to +65°C (Standard) -55°C to +85°C ("e" option)
Relative Humidity	5 to 85%
Operation Life (cycles)	1,000,000
Vibration Operating	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	580g

Voltage (VDC)	12	18	24	28
Current (mA)	240	160	140	120

Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-4	1.25	0.3	70
4-6.5	1.45	0.4	60



Other options are available upon request.

### Optional Indicator Specifications

Max withstand voltage: 60V  
Max current capacity: 100mA  
Max "ON" resistance: 16Ω

Note: +VDC and -C must be connected to operate.

- MC63-, 1P3T SWITCH
- MC64-, 1P4T SWITCH
- MC65-, 1P5T SWITCH
- MC66-, 1P6T SWITCH

### NORMALLY OPEN 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	Vn ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDCI

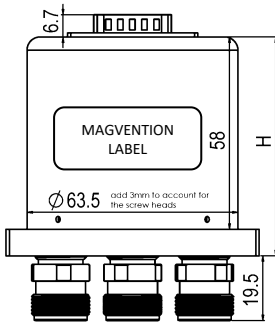
PIN 8-15: For optional INDICAOTRS only.

### NORMALLY OPEN TTL 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	An ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDC

PIN 8-14: For optional INDICAOTRS only.

Pin 1-6: The corresponding control signal inputs.

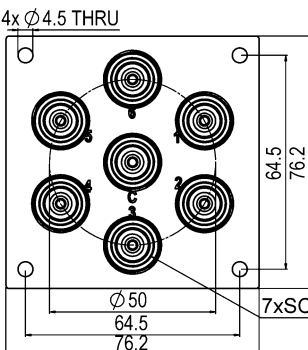


### 1PnT PORT CONFIGURATIONS

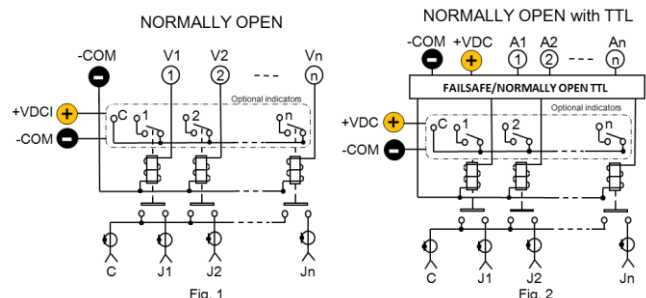
1PnT	Ports Used					
1P6T	1	2	3	4	5	6
1P5T	1	2	3	4	5	
1P4T	1	2	4	5		
1P3T	1	3	5			

Note: "Blank" represents the unused RF and corresponding control ports.

H = 66 mm (max)  
H = 76 mm (max) for options with TTL



Mechanical drawings (unit: mm, tolerance +/-0.5mm).



# MC6-T

# 1P6T, TNC, DC-16GHz

MC6n: n=3-6 (e.g., n=6 for 1P6T)

**NORMALLY OPEN**

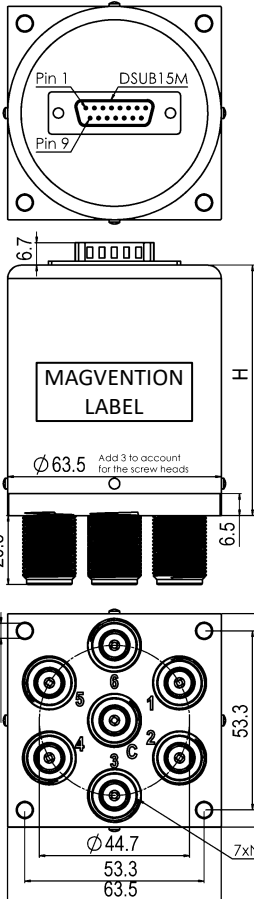
The MC6-T Series features TNC-type connectors and an operation frequency range from DC to 16 GHz. This series is of NORMALLY OPEN type with or without TTL, coil suppression diodes, and indicator options.

Specifications	
Contact Material	Plated Au
Switching Sequence	Break before Make
Switching Time (max)	15msec
Impedance	50Ω
Temperature Range	-25°C to +65°C (Standard) -55°C to +85°C ("e" option)
Relative Humidity	5 to 85%
Operation Life (cycles)	1,000,000
Vibration Operating	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	500g

Voltage (VDC)		12	18	24	28
Current (mA)	Standard	140	100	70	60



Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-6	1.4	0.4	70
6-12.4	1.6	0.6	60
12.4-16	1.8	0.8	50



Other options are available upon request.

**Optional Indicator Specifications**

Max withstand voltage: 60V  
 Max current capacity: 100mA  
 Max "ON" resistance: 16Ω

*Note:* +VDC and -C must be connected to operate.

- MC63-, 1P3T SWITCH
- MC64-, 1P4T SWITCH
- MC65-, 1P5T SWITCH
- MC66-, 1P6T SWITCH

1PnT PORT CONFIGURATIONS	
1PnT	Ports Used
1P6T	1 2 3 4 5 6
1P5T	1 2 3 4 5
1P4T	1 2 4 5
1P3T	1 3 5

*Note:* "Blank" represents the unused RF and corresponding control ports.

H = 66 mm (max)  
 H = 76 mm (max) for options with TTL

*Note:* The listed RF results are for the model with standard power. Consult with the company for the high-power versions.

**NORMALLY OPEN 15-PIN D-SUB PINOUT**

Pin No.	PINOUT
n=1-6	Vn ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDCI

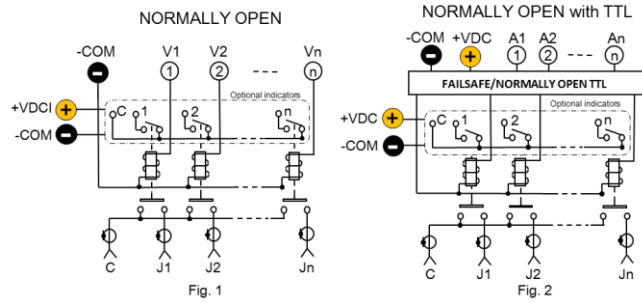
PIN 8-15: For optional INDICATORS only.

Pin 1-6: The corresponding control signal inputs.

**NORMALLY OPEN TTL 15-PIN D-SUB PINOUT**

Pin No.	PINOUT
n=1-6	An ( Jn-COM )
7	COM(-)
8	1 (IND: J1-C)
9	2 (IND: J2-C)
10	3 (IND: J3-C)
11	4 (IND: J4-C)
12	5 (IND: J5-C)
13	6 (IND: J6-C)
14	COM_I
15	+VDC

PIN 8-14: For optional INDICATORS only.



Mechanical drawings (unit: mm, tolerance +/-0.5mm).

# MC6-R

# 1P6T, 4.3-10, DC-6GHz

MC6n: n=3-6 (e.g., n=6 for 1P6T)

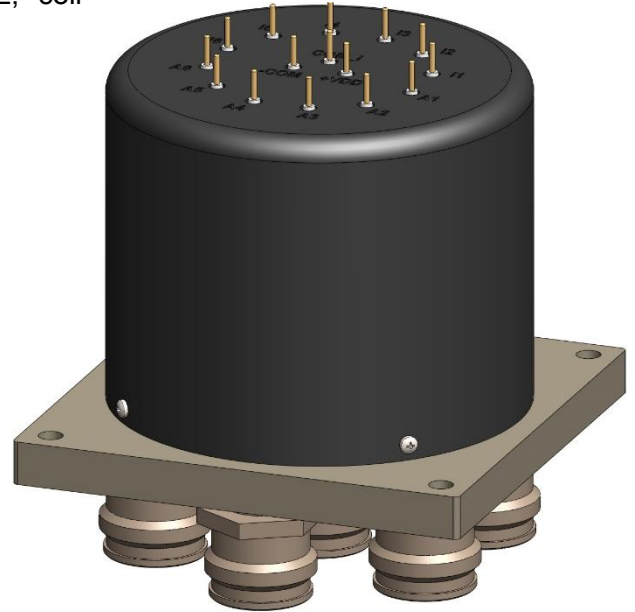
**NORMALLY OPEN**

The **MC6-R** Series features 4.3-10 connectors and an operation frequency range from DC to 6 GHz. This series is of **NORMALLY OPEN** type with or without TTL, coil suppression diodes, and indicator options.

Specifications	
Contact Material	Plated Au
Switching Sequence	Break before Make
Switching Time (max)	15msec
Impedance	50Ω
Temperature Range	-25°C to +65°C -55°C to +85°C ("e" option)
Relative Humidity	5 to 85%
Operation Life (cycles)	1000000
Vibration Operating	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	700g

Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-3	1.30	0.30	70
3-4	1.40	0.40	60
4-6	1.50	0.50	50

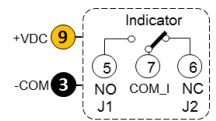
Voltage (VDC)	12	18	24	28
Current (mA)	240	160	140	100



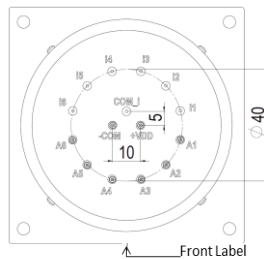
### Optional Indicator Specifications

Max withstand voltage: 60V  
Max current capacity: 100mA  
Max "ON" resistance: 16Ω

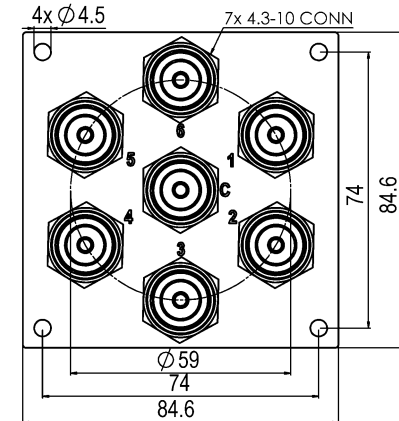
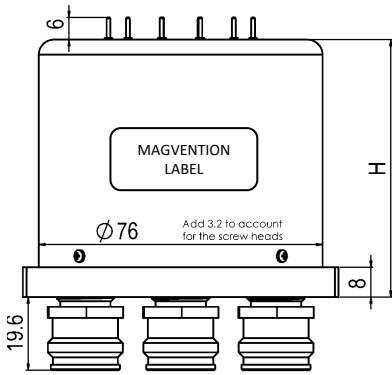
**Note:** +VDC and -C must be connected to operate.



Top Solder Pin Arrangements



MC33-, 1P3T SWITCH  
MC34-, 1P4T SWITCH  
MC35-, 1P5T SWITCH  
MC36-, 1P6T SWITCH



### 1PnT PORT CONFIGURATIONS

1PnT	Ports Used					
1P6T	1	2	3	4	5	6
1P5T	1	2	3	4	5	
1P4T	1	2	4	5		
1P3T	1	3	5			

Note: "Blank" represents the unused RF and corresponding control ports.

H = 66 mm (max)  
H = 76 mm (max) for options with TTL

### NORMALLY OPEN 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	Vn ( Jn-COM )
7	COM(-)
8	1 (ind: J1-C)
9	2 (ind: J2-C)
10	3 (ind: J3-C)
11	4 (ind: J4-C)
12	5 (ind: J5-C)
13	6 (ind: J6-C)
14	com_i
15	+VDCI

PIN 8-15: For optional INDICAOTRS only.

### NORMALLY OPEN TTL 15-PIN D-SUB PINOUT

Pin No.	PINOUT
n=1-6	An ( Jn-COM )
7	COM(-)
8	1 (ind: J1-C)
9	2 (ind: J2-C)
10	3 (ind: J3-C)
11	4 (ind: J4-C)
12	5 (ind: J5-C)
13	6 (ind: J6-C)
14	com_i
15	+VDC

PIN 8-14: For optional INDICAOTRS only.

Pin 1-6: The corresponding control signal inputs.

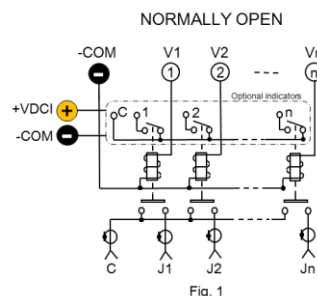


Fig. 1

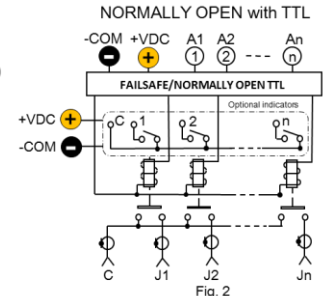


Fig. 2