

MC1

SPDT, SMA/K(2.92mm), DC-40GHz

The **MC1** Series features SMA or K connectors and an operation frequency range of DC to 40GHz. This series can be either failsafe or latching type. Available options include TTL, self-cutoff or pulse latching, indicator, and coil suppression, etc.

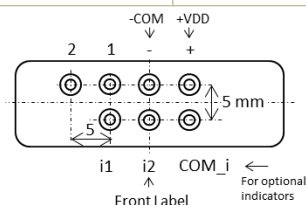
FAILSAFE



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 (Standard) 5,000,000 ("h" option)
Vibration (operating)	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	70g

Voltage (VDC)		12	18	24	28
Current (mA)	Failsafe	190	136	98	83



Top Solder Pin Arrangements

Note: 1=V1 (or A1), 2=V2 (or A2). A2 (or V2) is unused for Failsafe.

Consult with the factory for the DSUB option.

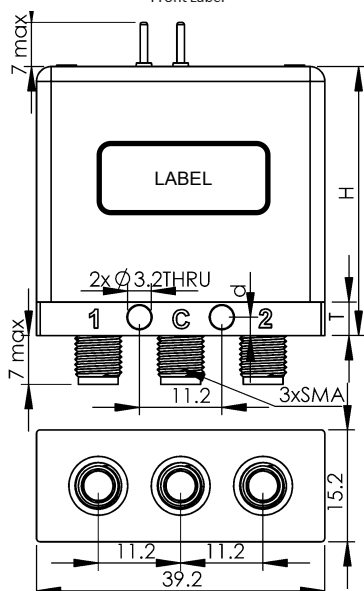
Optional Indicator Specifications

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

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

H (max)	Solder Pin	DSUB
Standard	38	42
TTL	38	52
Indicator	51	62

T = 4.6 (SMA)
= 5.5 (K-type)
d = 2.5 (SMA)
= 2.75 (K-type)



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

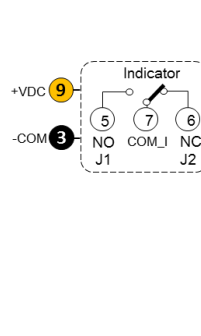
Standard

Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-6	1.20	0.20	70
6-12	1.30	0.25	70
12-18	1.40	0.40	60
18-26.5	1.70	0.70	55
26.5-32	1.90	0.80	50
32-40	2.00	1.00	50

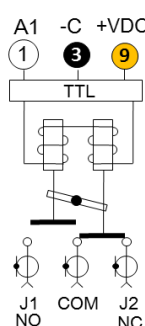
High Performance Option ("h")

Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-1	1.1	0.10	90
DC-6	1.2	0.15	80
6-12	1.2	0.15	80
12-18	1.3	0.25	70
18-26.5	1.7	0.5	60
26.5-32	1.9	0.5	55
32-40	1.9	0.8	55

Failsafe



Failsafe TTL



The **MC1** Series features SMA or K connectors and an operation frequency range of DC to 40GHz. This series can be either failsafe or latching type. Available options include TTL, self-cutoff or pulse latching, indicator, and coil suppression, etc.

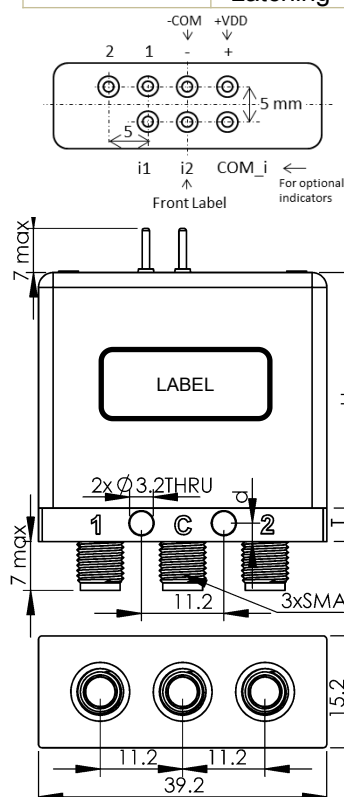
LATCHING



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 (Standard) 5,000,000 ("h" option)
Vibration (operating)	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	70g

Voltage (VDC)	12	18	24	28
Current (mA)				
Latching	200	119	90	115



Top Solder Pin Arrangements

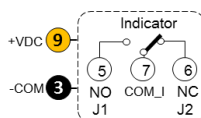
Note: 1=V1 (or A1), 2=V2 (or A2). A2 (or V2) is unused for Failsafe.

Consult with the factory for the DSUB option.

Optional Indicator Specifications

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

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



H (max)	Solder Pin	DSUB
Standard	38	42
TTL	38	52
Indicator	51	62

T = 4.6 (SMA)
= 5.5 (K-type)
d = 2.5 (SMA)
= 2.75 (K-type)

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

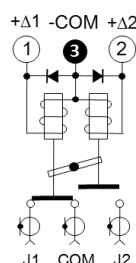
Standard

Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-6	1.20	0.20	70
6-12	1.30	0.25	70
12-18	1.40	0.40	60
18-26.5	1.70	0.70	55
26.5-32	1.90	0.80	50
32-40	2.00	1.00	50

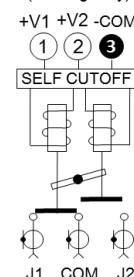
High Performance Option ("h")

Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-1	1.1	0.10	90
DC-6	1.2	0.15	80
6-12	1.2	0.15	80
12-18	1.3	0.25	70
18-26.5	1.7	0.5	60
26.5-32	1.9	0.5	55
32-40	1.9	0.8	55

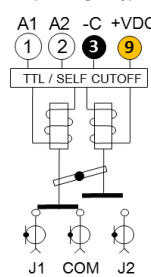
Pulse Latching



Self Cutoff (latching only)



TTL and Self Cutoff (latching only)



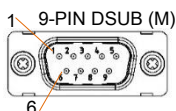
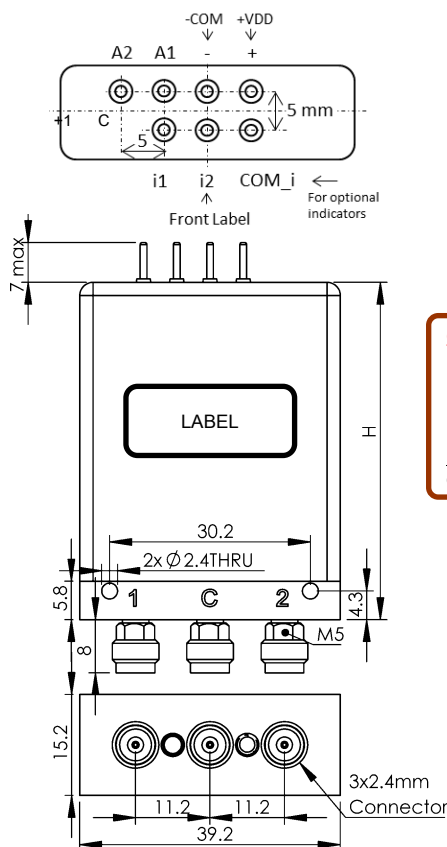
The **MC1-U50** Series features 2.4mm connectors and an operation frequency range of DC to 50GHz. This series can be either failsafe or latching type. Available options include TTL, self-cutoff or pulse latching, indicator, and coil suppression, etc.

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 (Standard)
Vibration (operating)	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	70g

Voltage (VDC)		12	18	24	28
Current (mA)	Failsafe	190	136	98	83
	Latching	200	119	90	115

Solder Pins or DSUB 9

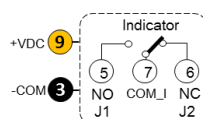


Pin No.	PINOUT
1	A1/V1 (J1-COM)
2	A2/V2 (J2-COM)
3	COM-
4	UNUSED
5	1 (IND.)
6	2 (IND.)
7	COM-1 (IND.)
8	UNUSED
9	+VDC/+VDCI

Optional Indicator Specifications

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

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



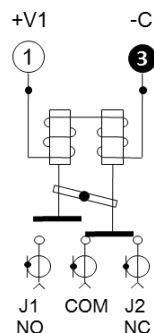
H (max)	Solder Pin	DSUB
Standard	38	42
TTL	38	52
Indicator	51	62



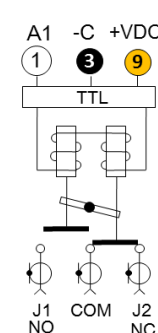
Standard

Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-6	1.20	0.20	70
6-12	1.30	0.25	70
12-18	1.40	0.40	60
18-26.5	1.70	0.70	55
26.5-32	1.90	0.80	50
32-50	2.00	1.00	50

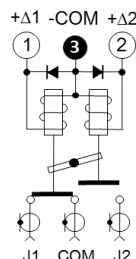
Failsafe



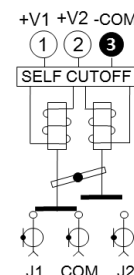
Failsafe TTL



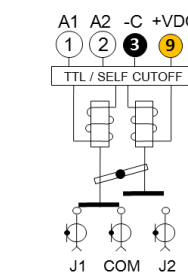
Pulse Latching



Self Cutoff (latching only)



TTL and Self Cutoff (latching only)



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

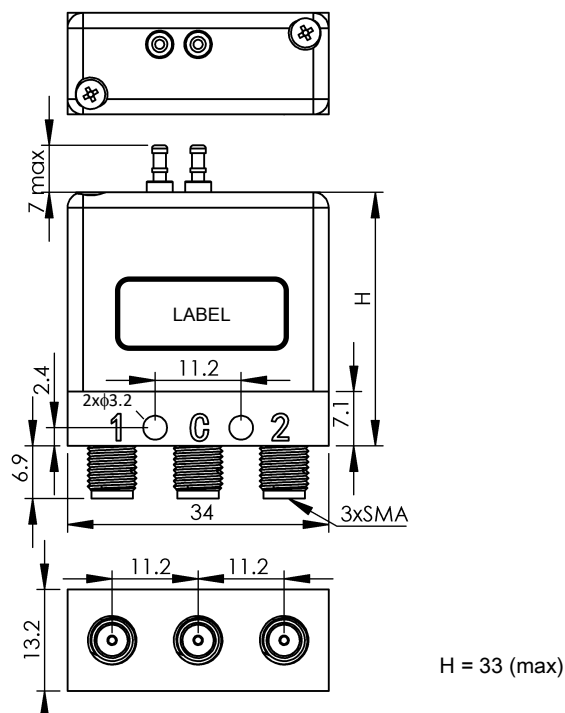
The **MC1 (-s)** Series features SMA connectors and an operation frequency range of DC to 18GHz. This model option has a small profile. The series can be either failsafe or latching type. Available options include TTL, self-cutoff or pulse latching, indicator, and coil suppression, etc.

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 (Standard) 5,000,000 ("h" option)
Vibration (operating)	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	70g

Voltage (VDC)		12	18	24	28
Current (mA)	Failsafe	190	136	98	83
	Latching	200	119	90	115

- Contact company if reduced coil current is required. Other coil voltage options are available upon request.



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

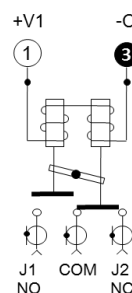


Standard

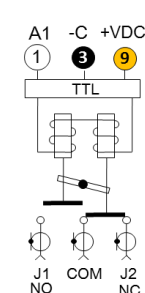
Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-6	1.20	0.20	70
6-12	1.30	0.25	70
12-18	1.40	0.40	60

Higher frequency ranges are also available upon request..

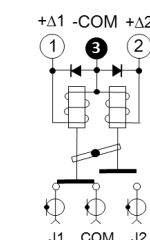
Failsafe



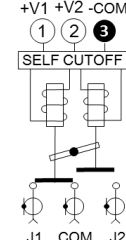
Failsafe TTL



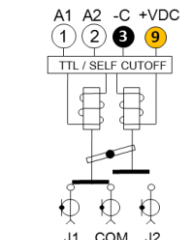
Pulse Latching



Self Cutoff (latching only)

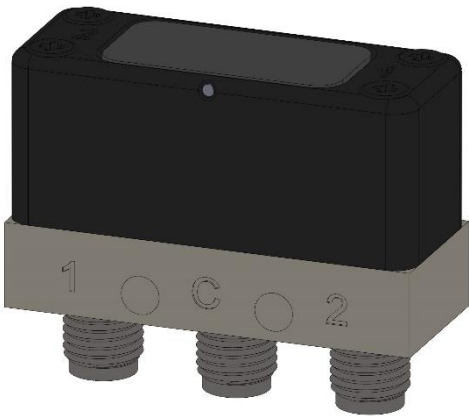


TTL and Self Cutoff (latching only)



The MC1 (-s) Series features SMA connectors and an operation frequency range of DC to 18GHz. This model option has a small profile. The series can be either failsafe or latching type. Available options include TTL, self-cutoff or pulse latching, indicator, and coil suppression, etc.

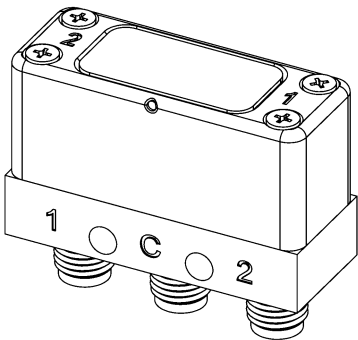
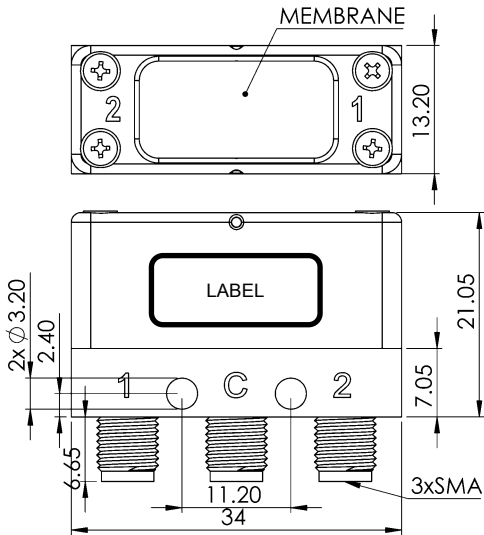
Specifications	
Contact Material	Plated Au
Switching Sequence	Break before Make
Switching Time (max)	15msec
Impedance	50Ω
Temperature Range	-25°C to +65°C (Standard) -55°C to +85°C ("e" option)
Relative Humidity	5 to 85%
Operation Life (cycles)	1,000,000 (Standard)
Vibration (operating)	10G RMS, 20-2000Hz
Mechanical Shock (non-operating)	50G, 1/2 Sine, 11msec
Weight (approx.)	70g



Standard			
Frequency Range (GHz)	VSWR (max)	Insertion Loss (dB) (max)	Isolation (dB) (min)
DC-6	1.20	0.20	70
6-12	1.30	0.25	70
12-18	1.40	0.40	60

Higher frequency ranges are also available upon request..

Manual Operation	Port 1 - C	Port 2 - C
Push Left Side	Open	Closed
Push Right Side	Closed	Open



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