MEMS MULTIMODE HIGH ISOLATION ON-OFF OPTICAL SWITCH

DiCon's MEMS Multimode On-Off Optical Switch has one input and one output fiber and provides the ability to turn on or off the optical signal passing through it. These fiber optic switches are compact cylindrical devices driven by a direct analog voltage and are intended to be integrated into a larger optical system.

FEATURES

- High Isolation (50 dB min)
- Proven MEMS Technology
- Qualified to GR-1221
- High Reliability

APPLICATIONS

MEMS Multimode On-Off Optical Switches are useful in secure optical communication applications where it is critical to control the flow of sensitive information, or in test applications where it is desired to simulate the cutting of fiber optic cables.

DiCon FIBEROPTICS

MEMS MULTIMODE ON-OFF OPTICAL SWITCH

OPTICAL SPECIFICATIONS[1]

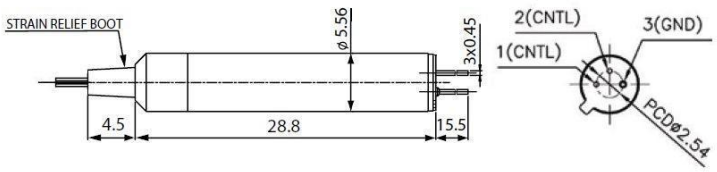
PARAMETER		RATING
Insertion Loss[2,3]		1.0 dB max.
Crosstalk	50 um	-50 dB max.
	62.5 um	-50 dB max.
Back Reflection		-20 dB max.
TDL		0.30 dB max.
Repeatability[4]		0.05 dB max.
Optical Power		500 mW max.
Durability		10^9 cycles min.
Switching Time[5]		10 ms max.
Operating Temp		-5 to 70°C
Storage Temp		-40 to 85°C
Fiber Type		Multi-mode, Bare Fiber

1. Specifications are without connectors.
2. IL is measured at CWL, 23°C. In "ON" State.
3. IL is for single-band. Dual-band adds 0.3 dB.
4. Repeatability is defined after 100 cycles.
5. When using optimized votlage ramp.

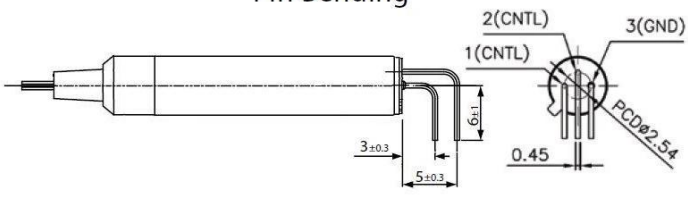
MECHANICAL DIMENSIONS

(Units: mm)

Housing



Pin Bending



ORDERING INFORMATION

MS - 10 - C - ☐ - ☐ - 50 - ☐ - ☐ - ☐ - ☐

Housing Type

C	Cylindrical

Switch Type

T	Transparent[1]
O	Opaque[2]

Wavelength Range

8	850 nm only
9	980 nm only
13	1290 - 1330 nm
15	1530 - 1570 nm
8/13	850 & 1310 nm

Off State Isolation

50	50 dB min.

Jacket Type

50/BF	50um core, bare fiber
50/LT	50um core, 900um loose tube
62/BF	62.5um core, bare fiber
62/LT	62.5um core, 900um loose tube

Connector Type

FC	FC/PC
LC	LC/PC
SC	SC/PC
ST	ST/PC
N	NONE

Pigtail Length

1	1 Meter
X	Specify X Meters

Tolerance is +/- 0.05 m

Pin Bending

S	Straight Pins
B	Bent Pins

1. Minimum IL is at 0V. Off state isolation is at 25-30V.
2. Off state isolation is at 0V. Minimum IL is at 25-30V.

ELECTRICAL SPECIFICATIONS

PARAMETER		RATING
Latching Type		Non-latching
Off State Drive Voltage	Transparent Type	25 - 30 VDC
	Opaque Type	0 VDC
Power Consumption		120 µW max.
Vcc Damage Threshold		40 VDC