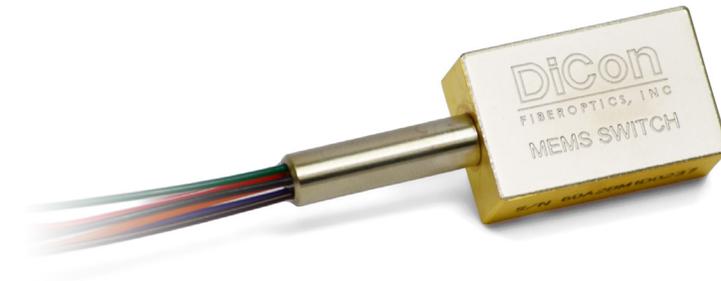


MEMS VISIBLE 1xN OPTICAL SWITCH

DiCon's MEMS Visible 1xN optical switch allows for the automated connection between one input fiber to anyone of N output fibers. The switch is bidirectional and can also be used in the reverse direction as a Nx1 selector switch. Based on DiCon's industry proven MEMS technology, DiCon uses proprietary techniques to optimize the performance in the visible wavelength region.



FEATURES

- Proven MEMS Durability and Reliability
- Lifetime > 1 Billion Switch Cycles
- Compact Size

APPLICATIONS

- Biomedical Instrumentation
- Diffuse Optical Tomography
- Source or Target Selector



MEMS VISIBLE 1XN OPTICAL SWITCH

OPTICAL SPECIFICATIONS^{1,2}

PARAMETER		RATING
Insertion Loss ^{3,4}	1x2	1.6 dB max.
	1x4 ⁵	1.8 dB max.
Crosstalk ⁶	50 μ m	-25 dB max.
	62.5 μ m	-20 dB max.
Back Reflection		-20 dB max.
Switching Time		20 ms max.
TDL		0.20 dB max.
Repeatability ⁷		0.02 dB max.
Durability		10 ⁹ cycles min.
Optical Power		500 mW max.
Operating Temp		-5 to 70°C
Storage Temp		-40 to 85°C
Fiber Type		Multi-mode, Bare Fiber

- Specifications are without connectors.
- Aligned for broadband use. With parking state on channel (N+1)
- IL is measured at 632 nm, 23°C.
- IL is for standard opaque model.
- Transparent model only for 62.5 μ m core fiber.
- Power off isolation is same as crosstalk.
- Repeatability is defined after 100 cycles.

ORDERING INFORMATION

MS1 - - - - - -

Product Code

MS1 MEMS Switch

Switch Configuration

1xN 1xN Switch
Specify N, where N \leq 4

Control Interface

TTL TTL
I²C I²C

Wavelength Range

6 500 - 800 nm

Fiber and Jacket Type

50/LT 50 μ m core, 900 μ m Loose Tube
62/LT 62.5 μ m core, 900 μ m Loose Tube

Connector Type

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

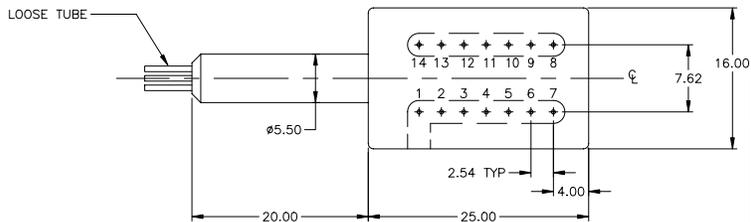
Pigtail Length

1 1 Meter
X Specify X Meters
Tolerance is +/- 10 cm

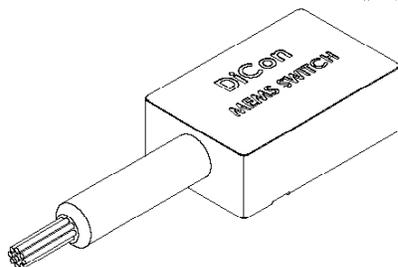
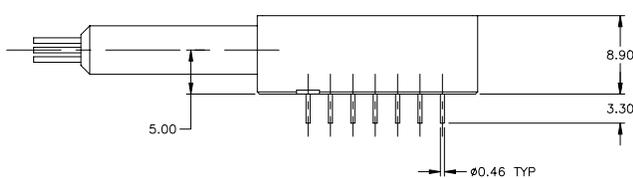
MECHANICAL DIMENSIONS

(Units: mm)

Top View



Side View



ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I ² C and TTL
Vcc Voltage	12 VDC
Power Consumption	170 mW max.
Vcc Damage Threshold	15 VDC