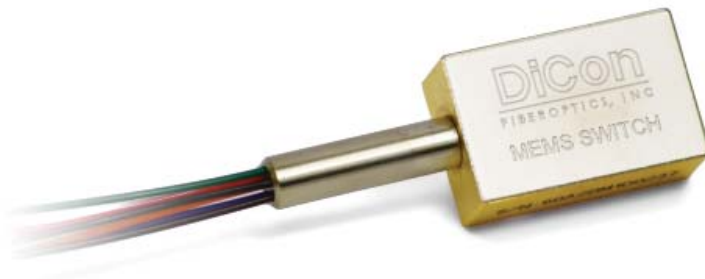


# MEMS BIOMEDICAL 1XN SWITCH

DiCon's MEMS Biomedical 1xN optical Switch allows one input fiber to connect to one of N output fibers. These can be used to either select from one of many input sources, or to select an output fiber from one of many. Based on DiCon's industry proven MEMS technology, DiCon uses proprietary techniques to optimize the performance of traditional telecommunications fiber optic switches for OEM biomedical use.



## FEATURES

- Proven MEMS Technology
- Lifetime > 1 Billion Switch Cycles
- Optimized for Biomedical Usage
- Compact Size

## APPLICATIONS

- OEM Biomedical Instruments
- Diffuse Optical Tomography
- Oximetry
- Source or Target Selector



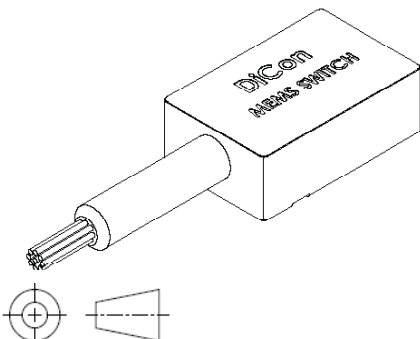
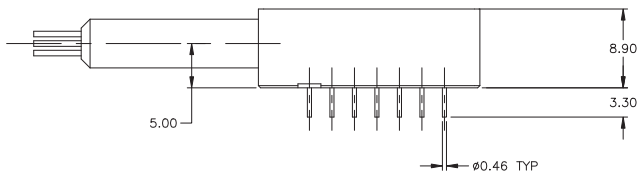
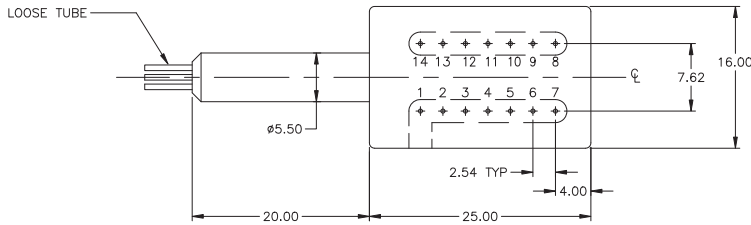
# MEMS BIOMEDICAL 1xN SWITCH

## OPTICAL SPECIFICATIONS<sup>1,2</sup>

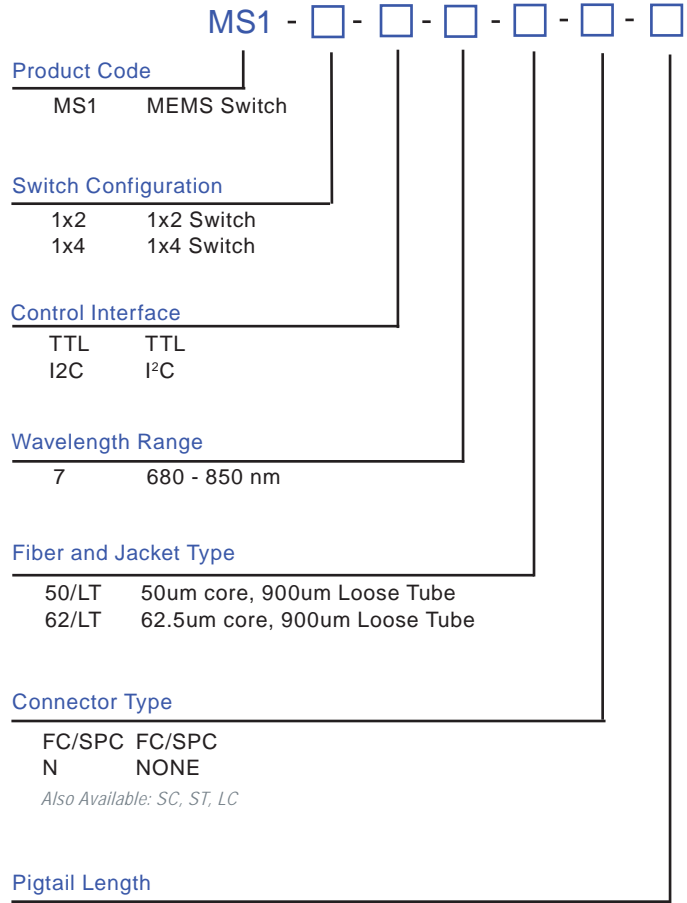
PARAMETER		RATING
Insertion Loss <sup>3</sup>		1.3 dB max.
Crosstalk	50 $\mu$ m	-25 dB max.
	62.5 $\mu$ m	-20 dB max.
Back Reflection		-20 dB max.
Switching Time <sup>4</sup>		20 ms max.
TDL		0.2 dB max.
Repeatability <sup>5</sup>		0.02 dB max.
Durability		10 <sup>9</sup> cycles min.
Optical Power		500 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) for Biomedical usage.
- IL is measured at 850 nm, 23°C.
- Power off isolation is same as crosstalk.
- Repeatability is defined after 100 cycles.

## MECHANICAL DIMENSIONS (Units: mm)



## ORDERING INFORMATION



## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I <sup>2</sup> C and TTL
Vcc Voltage	12 VDC
Power Consumption	170 mW max.