

SWITCHES

MEMS ON-OFF SWITCH

DiCon's MEMS On-Off Switch is based on a micro-electro-mechanical system (MEMS) chip. The MEMS chip consists of an electrically movable mirror on a silicon support. A voltage applied to the chip causes the mirror to rotate, which changes the coupling of light between the input and output fibers of the MEMS On-Off Switch.



Cylindrical Package

FEATURES

- Small On-Off Switch package
- Ultra low current consumption
- Available in opaque or transparent versions
- Qualified to GR-1221
- Available in both cylindrical and 14-Pin DIP package

APPLICATIONS

MEMS On-Off Switches are used for distributed power equalization within OADMs, MUX/DMUXes, Band Equalizers, Channel Equalizers, Optical Cross-Connects, Line Cards and Transponders. MEMS On-Off Switches can also be used for gain tilt and input power adjustment in erbium-doped fiber amplifiers.



SWITCHES

OPTICAL SPECIFICATIONS^{1,2}

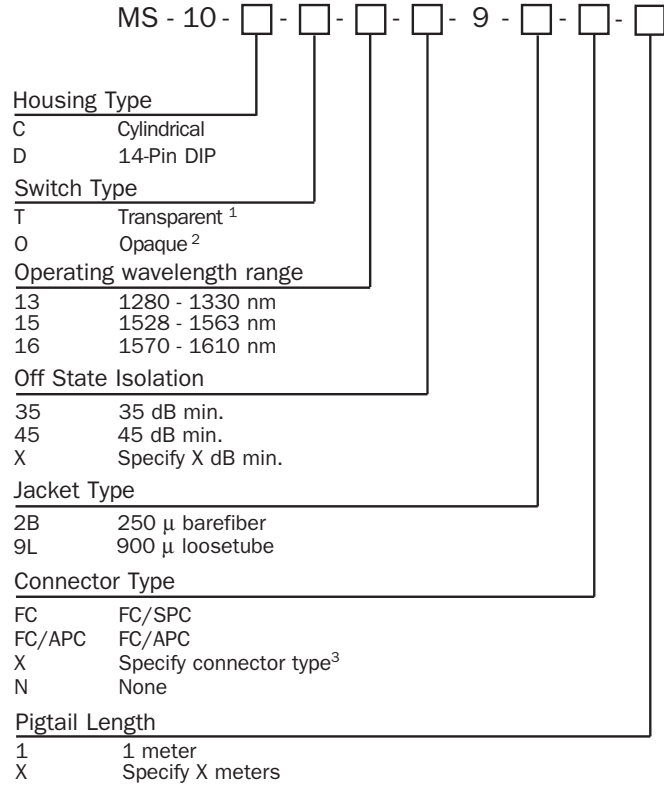
Insertion loss	0.8 dB max.
Temperature dependence ³	0.3 dB max.
Flatness	0.1 dB max.
PDL	0.1 dB max.
PMD	0.05 ps max.
Back-reflection	-50 dB max.
Optical power	500 mW max.
Switching time	5 ms max.
Repeatability	0.1 dB max.
Wear-out	1 x 10 ⁹ cycles min.
Fiber type	9/125 single mode fiber
Operating temperature	-5° C to +70° C
Storage temperature	-40° C to +85° C

1. All specifications referenced without connectors.
2. Relative to 23° C.
3. Over operating temperature.

ELECTRICAL SPECIFICATIONS

Actuation type	Non-latching	
Off State drive voltage	Transparent type	4.5 - 5 VDC
	Opaque type	-0.2 - +0.2 VDC
Voltage damage threshold	10 VDC max.	
Resistance	2 MΩ min.	
Power consumption	20 uWatt max.	

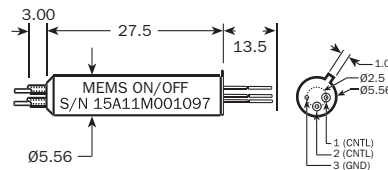
ORDERING INFORMATION



1. Minimum insertion loss @ 0V
2. Minimum insertion loss @ 5V
3. Connector Types: FC/UPC, SC, SC/APC, SC/UPC, LC, LC/UPC, MU/UPC

HOUSING DIMENSIONS

Cylindrical Package



14-pin DIP Package

