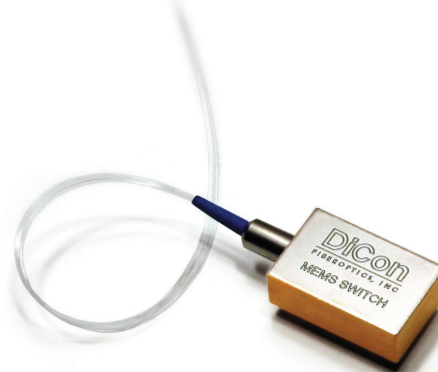


MEMS 3X3 BLOCKING SWITCH

DiCon's MEMS 3x3 Blocking Switch is based on a micro-electro-mechanical system (MEMS) chip. The MEMS chip consists of an electrically moveable mirror on a silicon support. A voltage applied to the MEMS chip causes the mirror to rotate, which changes the coupling of light between three input fibers and three output fibers.

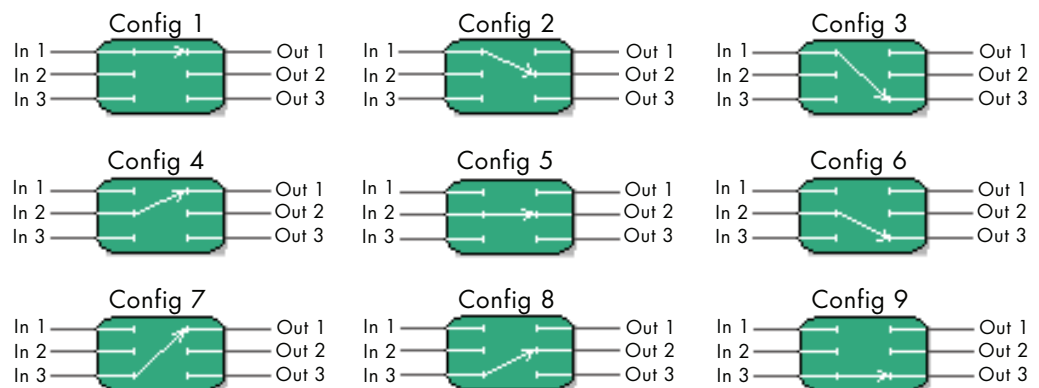


FEATURES

- Small optical switch package
- Based on DiCon's proven MEMS platform
- TTL parallel or SMBus/I²C serial control interface

APPLICATIONS

The MEMS 3x3 Blocking Switch is often used in telecommunication networks, fiber-based sensing, and bio-medical and scientific research. Excellent reliability, repeatability and temperature performance makes the MEMS 3x3 Blocking switch ideal for a variety of applications.



DiCon
FIBEROPTICS, INC

MEMS 3X3 BLOCKING SWITCH

OPTICAL SPECIFICATIONS¹

PARAMETER		RATING
Insertion Loss ^{2,3}	Single-Band	0.8 dB max.
	Dual-Band	0.9 dB max.
Crosstalk ⁴		-50 dB max.
Back Reflection		-50 dB max.
Switching Time		30 ms max.
TDL		0.30 dB max.
WDL ⁵		0.20 dB max.
PDL		0.10 dB max.
Repeatability ⁶		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		9/125 μm single mode

- Specifications are without connectors.
- IL is measured at CWL, 23°C.
- IL is for standard opaque model.
- Power off isolation is same as crosstalk.
- WDL is measured in a +/- 20nm range at 23°C.
- Repeatability is defined after 100 cycles.

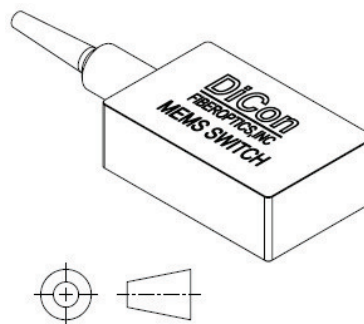
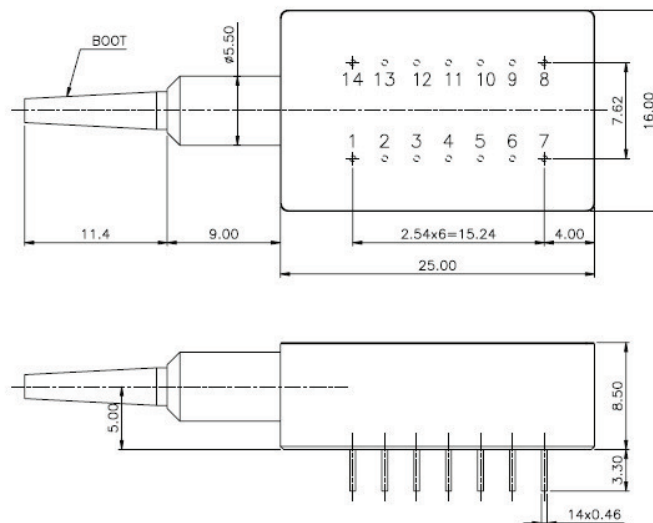
ELECTRICAL SPECIFICATIONS

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

MECHANICAL DIMENSIONS

(Units: mm)

Top View



ORDERING INFORMATION

MS1- 3x3/BK - - - 9/BF - -

Product Code

MS1 MEMS Switch

3x3/BK 3x3 Blocking Switch

Control Interface

TTL TTL

I²C I²C

Wavelength Range

13 1290 - 1330 nm
 15 1530 - 1570 nm
 16 1570 - 1610 nm
 13/15 1290 - 1330 & 1530 - 1570 nm
 15/16 1530 - 1570 & 1570 - 1610 nm

Pigtail Length

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

Connector Type

FC/SPC FC/SPC
 FC/APC FC/APC
 N NONE

Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC

Fiber and Jacket Type

9/BF Corning SMF-28, bare fiber
 Or other equivalent 9μm Singlemode fiber