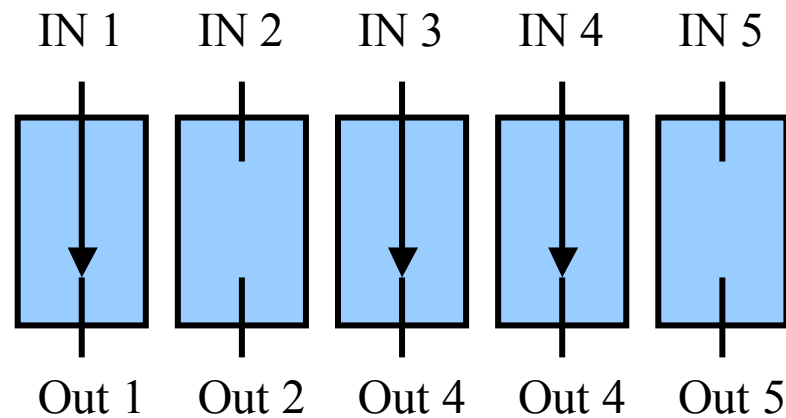


# MEMS ON-OFF OPTICAL ARRAY SWITCH

DiCon's MEMS On-Off Array Optical Switch allows precise control of up to 5 On-Off optical switches all through a single control interface, and housed in a compact housing. The On-Off switches can be controlled individually or synchronously. DiCon's MEMS 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.



## FEATURES

- High Reliability
- Proven MEMS Technology
- Lifetime > 1 Billion Switch Cycles
- Controls up to 5 MEMS On-Off Optical Switches

## APPLICATIONS

- Simulate Cutting of Fiber Optic Cables
- Secure Optical Communication
- Test & Measurement



# MEMS ON-OFF OPTICAL ARRAY SWITCH

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

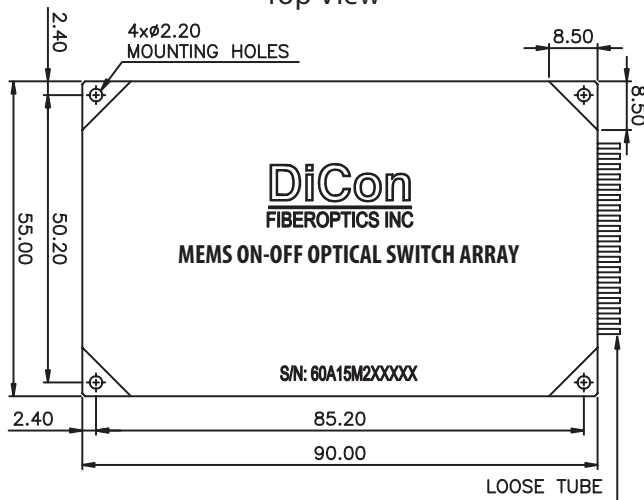
PARAMETER	RATING
Insertion Loss <sup>2</sup>	0.8 dB max.
Back Reflection	-50 dB max.
Switching Time	30 ms max.
TDL	0.30 dB max.
WDL <sup>3</sup>	0.20 dB max.
PDL	0.10 dB max.
Repeatability <sup>4</sup>	0.05 dB max.
Durability	10 <sup>9</sup> cycles min.
Optical Power	500 mW max.
Operating Temp	-5 to 70°C
Storage Temp	-40 to 85°C
Fiber Type	9/125 μm single mode

- Specifications are without connectors.
- IL is measured at CWL, 23°C. In "ON" State.
- WDL is measured in a +/- 20nm range at 23°C.
- Repeatability is defined after 100 cycles.

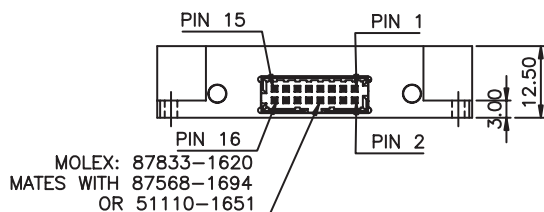
## MECHANICAL DIMENSIONS

(Units: mm)

Top View



Side View



## ORDERING INFORMATION

MQ2-□-□-□-□-50-□-□-□

### Product Code

MQ2 MEMS Switch

### Switch Configuration

M/1X1 M On-Off Switches (M≤5)

### Control Interface

I2C I<sup>2</sup>C  
RS2 RS232

### Switch Type

T Transparent<sup>1</sup>  
O Opaque<sup>2</sup>

### Wavelength Range

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

### Off State Isolation

50 50 dB min.

### Fiber and Jacket Type

9/BF Corning SMF-28, bare fiber  
9/LT Corning SMF-28, 900um loose tube

### Connector Type

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

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

### Pigtail Length

1 1 Meter  
X Specify X Meters

Tolerance is +/- 10 cm

- Minimum IL with no power.
- Off state isolation with no power.

## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I <sup>2</sup> C or RS232
Vcc Voltage	12 VDC
Power Consumption	700 mW max.
Connector Type	Molex 87833-1620