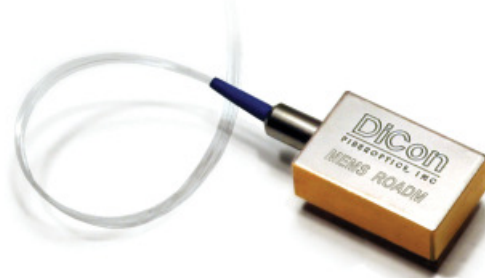


# MEMS WDM ADD/DROP OPTICAL SWITCH

DiCon's MEMS WDM Add/Drop Switch provides single channel MUX and DEMUX functionality in a compact package. The switch combines DiCon's proprietary thin film coating and MEMS technologies. The thin film filter is used to DEMUX a single channel from the input signal, while the MEMS mirror changes the coupling of the DEMUX signal between the add/drop or out fibers.

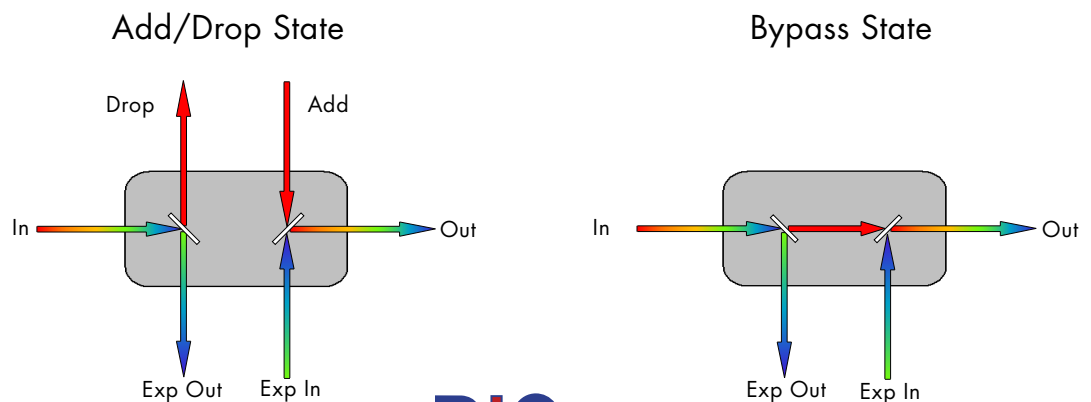


## FEATURES

- Proven MEMS Durability and Reliability
- Compact Form Factor
- Fast Switching Time
- Unique Scalable Configuration
- Based on GR-1221 Qualified Platform

## APPLICATIONS

- ROADM Networks
- Secure Communications



**DiCon**  
FIBEROPTICS

# MEMS WDM ADD/DROP OPTICAL SWITCH

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

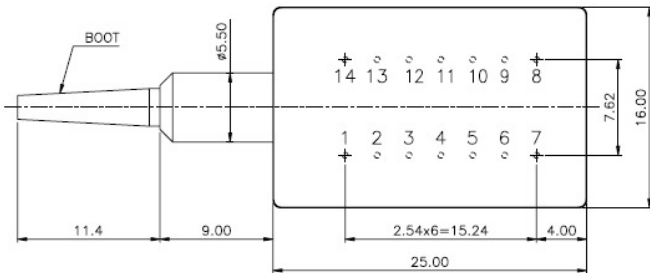
PARAMETER		RATING
Wavelength Range		1421 to 1621 nm.
Channel Spacing		20 nm
Passband		13 nm min.
Insertion Loss <sup>2</sup>	In-Drop	1.0 dB max.
	In-Exp Out	0.7 dB max.
	In-Out	1.0 dB max.
Isolation	In-Drop	25 dB min.
	In-Exp Out	12 dB min.
Back Reflection		40 dB min.
Switching Time		30 ms max.
Ripple <sup>3</sup>		0.3 dB max.
PDL		0.1 dB max.
Directivity / Crosstalk		35 dB min.
Repeatability <sup>4</sup>		+/- 0.05 dB max.
Durability		10 <sup>9</sup> cycles min.
Optical Power		500 mW max.
Operating Temp		0 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
- Within channel passband
- Repeatability is defined after 100 cycles.

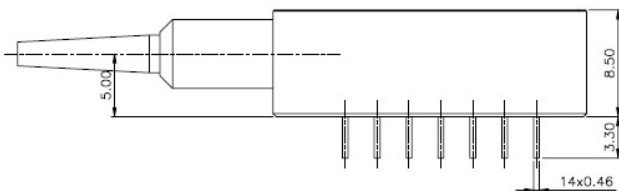
## MECHANICAL DIMENSIONS

(Units: mm)

Top View



Side View



## ORDERING INFORMATION

MS1 - 22/WDM -  -  - 9/BF -  -

<b>Product Code</b>		MS1	MEMS Switch
<b>Switch Configuration</b>		22/WDM	Add/Drop Switch (WDM)
<b>Control Interface</b>		TTL	TTL
		I <sup>2</sup> C	I <sup>2</sup> C
<b>CWDM Center Wavelength</b>		XXXX	Specify Center Wavelength
		Available CWL: 1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611	
<b>Fiber and Jacket Type</b>		9/BF	Corning SMF-28, bare fiber
		Or other equivalent 9μm Singlemode fiber	
<b>Connector Type</b>		FC	FC/SPC
		FC/APC	FC/APC
		N	NONE
		Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC	
<b>Pigtail Length</b>		1	1 Meter
		X	Specify X Meters
		Tolerance is +/- 10 cm	

## 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.
Vcc Damage Threshold	15 VDC