MEMS SINGLE MODE ADD/DROP 2X2 SWITCH

CYLINDRICAL PACKAGE

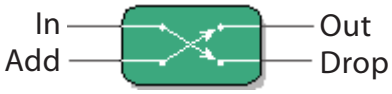
DiCon's MEMS single mode Add/Drop 2x2 Switch is based on a micro-electromechanical system (MEMS) chip. The MEMS chip consists of an electrically moveable mirror on a silicon support. A voltage applied to the MEMS chip causes the mirror to rotate, which changes the coupling of light between two input fibers and two output fibers.

FEATURES

- Proven MEMS Durability and Reliability
- Compact Form Factor
- Direct Voltage Control
- Qualified to Telecordia GR-1221

APPLICATIONS

MEMS single mode Add/Drop 2x2 Switches are two position devices that are commonly used in Optical Add/Drop Multiplexers. In the Bypass state, the Input and Output ports are connected to each other. In the Inserted state, the Input and Drop ports are connected to each other, while at the same time the Add and Output ports are connected to each other.



Inserted State

Bypass State

DiCon FIBEROPTICS, INC

MEMS SINGLE MODE ADD/DROP 2X2 SWITCH

CYLINDRICAL PACKAGE

OPTICAL SPECIFICATIONS[1]

PARAMETER		RATING
Insertion Loss[2]	Single-Band	1.0 dB max.
	Dual-Band	1.2 dB max.
Crosstalk		-50 dB max.
Back Reflection		-50 dB max.
Switching Time		20 ms max.
TDL		0.30 dB max.
WDL[3]		0.20 dB max.
PDL		0.10 dB max.
Repeatability[4]		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

1. Specifications are without connectors.
2. IL is measured at CWL, 23°C.
3. WDL is measured in a +/- 20nm range.
4. Repeatability is defined after 100 cycles.

ORDERING INFORMATION

MSB - 2X2AD - 0 - ☐ - 9/BF - ☐ - ☐ - ☐

Product Code

MSB	Cylindrical MEMS Switch

Switch Configuration

2x2AD	2x2 Add/Drop Switch

Default state is inserted

Control Interface

0	Direct Voltage

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

Fiber and Jacket Type

9/BF	Corning SMF-28, bare fiber

Or other equivalent 9 μm Singlemode fiber

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 +/- 0.05 m

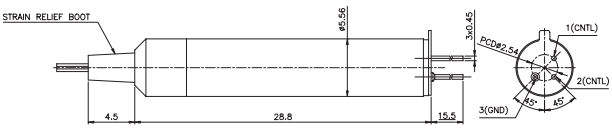
Pin Bendng

S	Straight Pins
B	Bent Pins

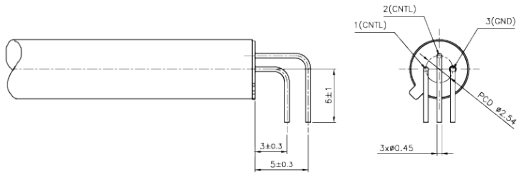
MECHANICAL DIMENSIONS

(Units: mm)

Housing



Pin Bending



ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	Direct Voltage[1]
Vcc Voltage	0-30 VDC
Power Consumption	120 μW max.
Vcc Damage Threshold	40 VDC

1. Tolerance is +/- 10 mV to meet optical specifications.

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