MEMS BIOMEDICAL OPTICAL ATTENUATOR

DiCon's MEMS Biomedical Optical Attenuator allows a precise amount of attenuation to be added to an optical path.

FEATURES

- Fast Response Time
- Proven DiCon MEMS Technology
- High Reliability
- Lifetime > 1 Billion Cycles

APPLICATIONS

MEMS Biomedical Optical Attenuators are ideal for providing accurate and precise control of power levels in biomedical applications such as Optical Coherence Tomography (OCT).

DiCon FIBEROPTICS

MEMS BIOMEDICAL OPTICAL ATTENUATOR

OPTICAL SPECIFICATIONS[1]

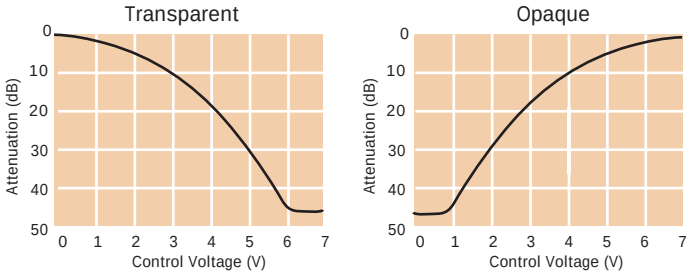
PARAMETER		RATING
Excess Loss[2]		0.8 dB max
WDL[3]	0 to 5 dB	0.4 dB max.
	6 to 10 dB	0.9 dB max.
	11 to 15 dB	1.3 dB max.
	16 to 20 dB	1.9 dB max.
PDL	0 to 10 dB	0.20 dB max.
	11 to 15 dB	0.30 dB max.
	16 to 20 dB	0.35 dB max.
Attenuation Slope		20 dB/V max.
Back Reflection		-50 dB max.
Optical Power		500 mW max.
Response Time		2 ms max.
Repeatability[4]		0.1 dB max.
Durability		1 x 10^9 cycles min.
Fiber Type		9/125 single mode fiber

1. All Specifications at room temperature, without connectors.
2. Insertion loss is measured at 1310nm, 23°C.
3. WDL is measured from 1260 - 1360nm.
4. Repeatability is defined after 100 cycles

ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Actuation type	Non-latching
DC Drive Voltage	0-5 VDC (7 V for opaque)
Voltage Damage Threshold	10 VDC max.
Resistance	2 MΩ min.
Power Consumption	20 uWatt max.

OPTICAL PERFORMANCE



ORDERING INFORMATION

MT- C-☐-12/13-☐-☐-9-☐-☐-☐-☐-☐

Housing Type
C Cylindrical

Attenuator Type
T Transparent[1]
O Opaque[2]

Wavelength Range
12/13 1260 - 1360 nm

Attenuator Range
20 20 dB min.
X Specify X dB min. (X <= 20)

Ripple Type
S Slow ripple (broad band)

Fiber Type
9 9/125 µm Singlemode

Jacket Type
2B 250 µm barefiber
9L 900 µm loosetube

Connector Type
FC FC/SPC
FC/APC FC/APC
N None
Also Available: FC/UPC, SC, SC/APC, SC/UPC, ST, ST/UPC, LC, LC/APC

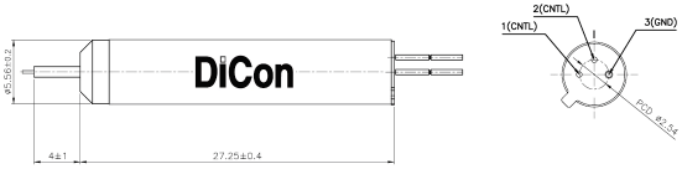
Pigtail Length
1 1 meter
X Specify X meters

Pin Bending
S Straight Pins
B Bent Pins

1. Minimum insertion loss at 0 V.
2. Minimum insertion loss at 6 - 7 V (high isolation at 0 V).

MECHANICAL DIMENSIONS

Straight Pins



Bent Pins