Close-Loop *et*MEMS™ VOA Power Controller

(patent pending)

Product Description

The close-loop Variable Optic Attenuator provides real-time monitoring and control of optical power. The close-loop monitoring and control eliminates most of the power variations, such as PDL, WDL, TDL, etc. The close-loop series VOA is particularly suitable for continuous power regulating operation and optical transient suppression, as well as analog signal modulation applications.

The close-loop *et*MEMS™ Series VOA is available in either normally-open or normally-closed configurations.

Features

- High Reliability
- Close-loop control
- Low IL and PDL
- Precision optical power control
- Epoxy-Free Optical Path

Applications

- Optical Power Control
- Optical Power Regulation
- Optical Power Balance
- Instrumentation

Performance Specifications

Close-loop SS VOA			Unit
Wavelength		850, 1260~1360, 1510~1610	nm
Insertion Loss [1]		< 0.8	dB
Wavelength Dependent Loss (WDL)		< 0.2	dB
Temperature Dependent Loss (TDL)		< ± 0.15	dB
Polarization	0 to 10dB	< 0.10	dB
Dependent Loss (PDL)	>10dB	< 0.20	
Return Loss		> 55	dB
Dynamic Range		> 25	dB
Response Time		< 0.01 to 5ms	μs
Electrically Power consumption		< 0.2	W
Resolution		Continuous	dB
Operating Optical Power		< 500	mW
Operating Voltage		0~5	V
Operating Temperature		-5 ~ 70	^{o}C
Storage Temperature		-40 ~ 85	^{o}C
Fiber Type		Corning SMF-28	
Package Dimension		(L)115x(W)76X(H)25	mm

Notes:
1. Excluding Connectors

Close-Loop VOA Power Controller

Mechanical Footprint Dimensions (Units: inch)

9-pin D-sub Connector

Output fiber
Input Fiber

1: Vin 2: Vout   3:Gnd 4. +5V
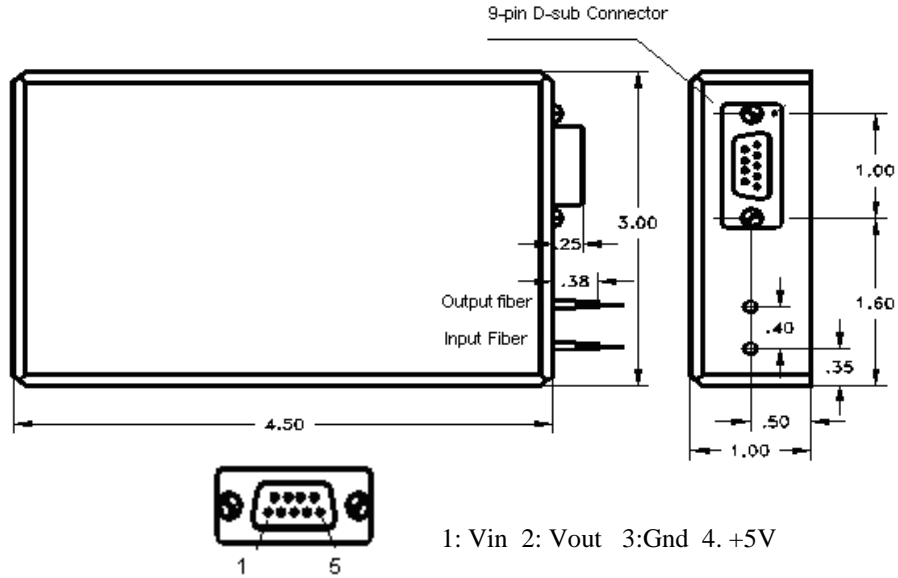
All Pin diameter = .45mm

Electrical Connector Configurations

Pin Name	Vin	Vout	Gnd	+5V
Specification	Control Voltage input, 0-4V	Power monitor, output, 0- 4V	Ground for Vin, Vout and +5V	4.5V to 5.5V

Ordering Information

CVOA					1				
	Type	**Wavelength**	**Off State**	**Package Type**	**Fiber Type**			**Fiber Length**	**Connector Type**
	Standard=11 Special=00	1310=3 1410=4 1550=5 850 =8 1260-1620= 2 Special=0	Normally open = 1 Normally closed = 2		SMF-28 250um =1 SMF-28 900um =2 Special = 0	Bare fiber=1 900um tube=3 Special=0		0.25m= 1 0.5m = 2 1.0 m= 3 Special =0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0