



VARIABLE OPTICAL ATTENUATOR (ULTRA LOW LOSS VOA) COMPONENTS



IDIL Fibres Optiques supplies a continuous Variable Optical Attenuator (VOA) with an unmatched high dynamic range and an ultra low insertion loss.

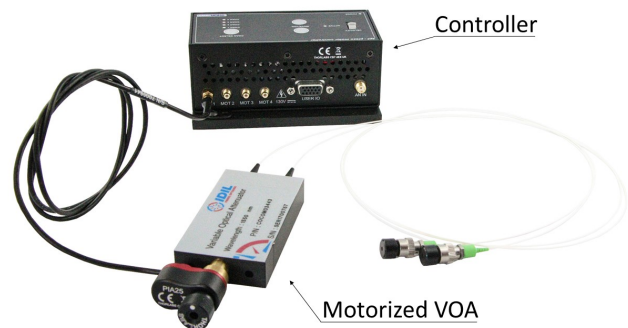
Our VOA is tuned thanks to a micrometric screw which allows an excellent repeatability but also a very high resolution since it can be over 30 dB. IDIL developed two mechanics regarding VOA.

Actually, our product is both compatible with single and multi-mode fibers. The packaging is the same in both cases. VOA provided by IDIL has been designed to be used within the context of telecommunications and instrumentation applications. However, beyond those areas, our band held product leads to other various applications.

Furthermore, IDIL can provide fixed attenuators. Those attenuators were designed thanks to a technique entirely based on optical fibers which allows a very good behaviour towards power. Thus our fixed attenuator withstands power over 5 W.

How it works

Variable Optical attenuators are commonly used to test optical parameters by temporarily adding a calibrated amount of signal loss, or installed permanently to properly match a fixed power signal. VOAs have the advantages of being stable and offering a large dynamic range > 30 dB. IDIL VOAs can be manual, motorized or cascaded.



Applications

- Telecommunications
- CATV
- EDFA
- High power source
- Instrumentation

Features

- Competitive ultra-low insertion loss
- Very high resolution
- Return loss
- Small packaging
- Fibered solution (no free space propagation)
- Facade layout
- Cascadable (60 dB attenuation achievable)
- High power handling

Specifications

VOA			
	CUSTOM VOA	VOA SINGLE MODE	VOA MULTI MODE
Travel mechanism	Manual or motorized	Manual micrometer	Manual micrometer
Wavelength	500 to 2000 nm	500 to 2000 nm	500 to 2000 nm
Attenuation range	< 30 dB or custom	30 dB	20 dB
Insertion loss	< 0.05 dB	< 0.05 dB	< 0.03 dB
Attenuation resolution	< 0.05 dB (0 -10 dB)	< 0.05 dB	< 0.05 dB
Polarization Dependent Loss	Depend on fiber type	< 0.1 dB (0 -10 dB), < 0.3 dB (10 -30 dB)	NA
Polarization Mode Dispersion	< 0.1 ps	< 0.1 ps	NA
Return loss	< 60 dB	< 60 dB	< 40 dB
Fiber type	SMF-28, PM, MMF, other upon request	SM, PM	MM 50/125, 100/125 (contact us for other)
Connectors	FC, LC, SC, SMA, ST, MU, E2000, other	FC, LC, SC, SMA, ST, MU, E2000, other	FC, LC, SC, SMA, ST, MU, E2000, other
Buffer	900 µm or 2.8 mm	900 µm or 2.8 mm	900 µm or 2.8 mm
Operating temperature	From -5°C to + 65°C	From -5°C to + 65°C	From -5°C to + 65°C
Storage temperature	From -40°C to + 85°C	From -40°C to + 85°C	From -40°C to + 85°C
Power handling	Up to 5 W	> 5 W	> 5 W
Dimensions	Upon request	65 x 44 x 15 mm ³	65 x 44 x 15 mm ³

Content (motorized VOA): User guide, calibration data, USB cable, controller, power supply, input and output fiber



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