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Data Sheet

August 15, 2026

EIGENLIGHT

EigenLight 410 Optical Power Monitor-Attenuator

EigenLight 410 Series 400 Fiber Optic Power Monitor Attenuator The Model 410 is the highest-sensitivity member of EigenLight Series 400 inline power monitor-attenuators. OEM Series 400 table lists 40 dB variable attenuation at 0.1 dB resolution, power range minus 50 dBm to plus 16 dBm, minimum insertion loss less than 1.5 dB, absolute accuracy plus or minus 0.2 dB at output and calibrated wavelengths, return loss greater than 40 dB, single-mode fiber, four CR2032 lithium cells, typical 3-year battery life in slow mode, dual LCD 0.1 dB, refresh 0.1 s fast / 0.8 s slow, analog output 1 mV/dBm (0 dBm = 0 mV) into 40 kohm, auto on/off light-activated, 0 to 40 C operate, minus 10 to 60 C store, RH less than 95 percent non-condensing, housing 9.5 × 3.7 × 3.6 cm, 140 g with batteries, flame-retardant ABS. Sibling 420 is lowest-loss (IL less than 1.0 dB, minus 40 to plus 20 dBm). The Model 410 is the highest-sensitivity member of EigenLight Series 400 inline power monitor-attenuators. OEM Series 400 table lists 40 dB variable attenuation at 0.1 dB resolution, power range minus 50 dBm to plus 16 dBm, minimum insertion loss less than 1.5 dB, absolute accuracy plus or minus 0.2 dB at output and calibrated wavelengths, return loss greater than 40 dB, single-mode fiber, four CR2032 lithium cells, typical 3-year battery life in slow mode, dual LCD 0.1 dB, refresh 0.1 s fast / 0.8 s slow, an



MODEL

EigenLight 410

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

410

LISTING

<https://aumictechlabs.com/products/410-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The EigenLight 410 Power Monitor-Attenuator is a versatile device that integrates both variable optical attenuation and inline optical power monitoring into a single, compact unit. Designed for precise optical power control and measurement, it is suitable for laboratory, field, and production environments. The EigenLight 410 facilitates real-time monitoring of optical signal strength while providing adjustable attenuation levels.

Technical Specifications

- * **Product Name:** EigenLight 410 Power Monitor-Attenuator
- * **Product Family:** Series 400
- * **Functionality:** Combines a variable optical attenuator and an inline optical power monitor.
- * **Attenuation Range:** 40 dB variable attenuation.
- * **Attenuation Resolution:** 0.1 dB.
- * **Power Measurement Range:** -50 dBm to +16 dBm.
- * **Optical Interface:** SC/APC.
- * **Typical Operating Wavelength Range:** 1280 nm – 1580 nm.
- * **Calibration Wavelengths:** 1310 nm and 1550 nm.
- * **Insertion Loss:** Less than 1.5 dB (typically < 1.4 dB measured).
- * **Polarization Dependent Loss (PDL):** Less than 0.2 dB.
- * **Directivity:** Greater than 20 dB.
- * **Return Loss:** Greater than 40 dB.
- * **Power Readout:** Absolute or relative power readout with dual LCD displays.
- * **Auto Power On/Off:** Light-activated, no manual switch required.
- * **Battery Life:** Typical 3 years, due to a proprietary detection circuit that samples optical power for short durations.
- * **Construction:** Durable internal steel-tube construction.
- * **Pigtail Interface:** 1.5-meter pigtail on input/output is standard. All industry-standard fiber optic connectors are available upon specification.

Features

- * **Integrated Functionality:** Combines power monitoring and attenuation in one device, reducing the need for separate instruments.
- * **Dual LCD Displays:** Enables easy viewing of power readings in various configurations, eliminating the need to reposition the device or cable.
- * **Light-Activated Power:** Automatic power on/off triggered by optical signal presence conserves battery life.
- * **Optically Passive Design:** Exhibits low insertion loss, low polarization-dependent loss, and high return loss, ensuring minimal impact on signal integrity.
- * **Versatile Operation:** Supports both absolute and relative power measurements.
- * **Wavelength and Speed Control:** Allows selection of operating wavelength and response time (fast/slow mode).
- * **Optional Analog Output:** Available for data logging purposes via a microphone jack.

Applications

- * In-system power control and monitoring.
- * Fiber optic testing and laboratory applications.
- * Optical networking subsystems.
- * Fiber lasers and medical laser systems.
- * FTTX, Data Centers, Metro, and Long Haul optical networks.
- * Amplifier parameter control.
- * Manual bit-error measurement.
- * In-system gain measurement.
- * Saturation testing.
- * Alarm threshold testing.

Why Choose Aumictech for the EigenLight 410 Power Monitor-Attenuator? At Aumictech, we specialize in supplying high-end optical test and measurement equipment. Whether you need precise optical power control, real-time signal monitoring, or integrated attenuation and measurement capabilities, our team ensures the EigenLight 410 Power Monitor-Attenuator delivers maximum performance for your application.

410 Characteristics / Specifications

PARAMETER	VALUE
Model	410
Instrument Type	Inline fiber optic power monitor attenuator
Family	EigenLight Series 400
Fiber Type	single-mode (other fiber types available)
Attenuator Range	40 dB
Attenuator Resolution	0.1 dB
Power Range	minus 50 dBm to plus 16 dBm
Minimum Insertion Loss	less than 1.5 dB
Absolute Accuracy	plus or minus 0.2 dB at output and calibrated wavelengths
Return Loss	greater than 40 dB
Display Resolution	0.1 dB
Display Refresh	0.1 s fast mode / 0.8 s slow mode
Battery	four CR2032 lithium coin cells
Battery Life	3 years typical in slow mode
Analog Output	1 mV per dBm, 0 dBm = 0 mV
Analog Impedance	40 kohm
Operating Temperature	0 C to plus 40 C
Storage Temperature	minus 10 C to plus 60 C
Humidity	less than 95 percent non-condensing
Housing Size	9.5 × 3.7 × 3.6 cm (housing only)
Mass	140 g (5 oz) with batteries
Housing Material	flame retardant ABS plastic
Power On	light activated auto on/off
Manufacturer	EigenLight

PARAMETER	VALUE
Literature	EigenLight Series 400 power monitor attenuator datasheet Model 410 column

410 Specifications

PARAMETER	VALUE
Key Features	40 dB VOA plus inline power monitor
Minus 50 to plus 16 dBm (highest sensitivity)	Plus or minus 0.2 dB absolute accuracy
Technical Specifications	Model: 410

General Specifications & Supplementary Characteristics

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Storage temperature	minus 10 C to plus 60 C
Operating temperature	0 C to plus 40 C
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Power On	light activated auto on/off
Manufacturer	EigenLight
Literature	EigenLight Series 400 power monitor attenuator datasheet Model 410 column Notes From EigenLight Series 400 datasheet Model 410 (highest sensitivity) column. Connector (FC/PC vs SC/APC) and 1310/1550 calibration overlays belong on the specific unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.