

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

EIGENLIGHT

EigenLight 420-00 WDM Optical Power Monitor

EigenLight 420 WDM Optical Power Monitor Attenuator The EigenLight Series 400 Model 420 combines a 40 dB variable optical attenuator with an inline optical power monitor for single-mode fiber. OEM Series 400 datasheet rates Model 420 power range minus 40 dBm to plus 20 dBm, insertion loss less than 1.0 dB, return loss greater than 40 dB, and absolute accuracy plus or minus 0.2 dB at calibrated wavelengths. In-line WDM power leveling and monitoring in laboratory factory and field fiber systems without breaking the fiber path for a separate power meter. The EigenLight Series 400 Model 420 combines a 40 dB variable optical attenuator with an inline optical power monitor for single-mode fiber. OEM Series 400 datasheet rates Model 420 power range minus 40 dBm to plus 20 dBm, insertion loss less than 1.0 dB, return loss greater than 40 dB, and absolute accuracy plus or minus 0.2 dB at calibrated wavelengths. In-line WDM power leveling and monitoring in laboratory factory and field fiber systems without breaking the fiber path for a separate power meter.



MODEL

EigenLight 420-00

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

420-00

LISTING

<https://aumictechlabs.com/products/420-00-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Eigenlight 420-00 is a compact and versatile WDM Power Monitor-Attenuator (PMA) designed for precise in-line control and measurement of optical power within fiber optic systems. It integrates the functionality of a variable optical attenuator with an optical power monitor into a

single, solid unit, making it suitable for demanding applications in telecommunications, data centers, and laboratory environments. This device is engineered for single-mode fiber and operates across a broad wavelength range, offering flexibility for various WDM systems.

Technical Specifications

- * **Model:** Eigenlight 420-00
- * **Product Type:** WDM Power Monitor-Attenuator (PMA)
- * **Functionality:** Combines variable optical attenuation with inline optical power monitoring.
- * **Fiber Type:** Single-Mode
- * **Wavelength Range:** Operates across a broad spectral range, typically including 1310nm and 1550nm
- * **Optical Interface:** Available with SC/PC or SC/APC connectors
- * **Attenuation Range:** 40 dB
- * **Attenuation Resolution:** 0.1 dB
- * **Power Measurement Range:** -40 dBm to +20 dBm
- * **Insertion Loss:** Less than 1.0 dB (typical)
- * **Return Loss:** Greater than 40 dB
- * **Polarization Dependent Loss (PDL):** Less than 0.2 dB
- * **Directivity:** Greater than 20 dB
- * **Calibration Wavelengths:** 1310 nm, 1550 nm
- * **Electrical and Power**
- * **Power Source:** Typically powered by 4 button batteries
- * **Battery Life:** Typical battery life of 3 years, due to a proprietary detection circuit that samples optical power for short durations
- * **Auto Power On/Off:** Light-activated auto power on/off feature
- * **Optical Connectors:** Industry-standard fiber optic connectors are available, commonly SC/PC or SC/APC
- * **Pigtail Interface:** Input and output pigtails are standard on all models, allowing installation in place of a jumper cable
- * **Analog Output (Optional):** An optional microphone jack can provide an analog voltage output for data logging
- * **Physical Characteristics**
- * **Construction:** Durable internal steel-tube construction for robustness in field, factory, or laboratory environments
- * **Display:** Dual LCD displays on both front and back for easy viewing in any configuration
- * **Features and Operation**
- * **Dual LCD Displays:** Enable easy viewing of readings from any angle, eliminating the need to reorient the device
- * **Measurement Modes:** Supports both absolute (dBm) and relative (dB) power measurements
- * **Wavelength/Speed Control:** Allows selection of operating wavelength and switching between fast and slow response times
- * **Optically Passive Design:** Features low insertion loss, low polarization-dependent loss, and high return loss
- * **In-System Control:** Can be used in place of conventional attenuators for in-line power control and monitoring in various lightwave systems
- * **Applications:** Suitable for in-system power control, monitoring optical amplifiers, and in test and measurement setups
- * **Compatibility**
- * **Fiber Type:** Designed for use with single-mode optical fiber
- * **WDM Systems:** Compatible with Wavelength Division Multiplexing (WDM) systems due to its operational wavelength range and power monitoring capabilities

Why Choose Aumictech for Eigenlight 420-00? At Aumictech, we specialize in supplying high-end optical test and measurement equipment. Whether you need precise in-line power control, reliable optical power monitoring, or integrated attenuation and measurement capabilities, our team ensures the Eigenlight 420-00 delivers maximum performance for your application.

420 Characteristics / Specifications

PARAMETER	VALUE
Model	420
Also Known As	420-00
Instrument Type	WDM power monitor attenuator
Fiber Type	single mode
Attenuator Range	40 dB
Attenuator Resolution	0.1 dB
Power Range	minus 40 dBm to plus 20 dBm
Minimum Insertion Loss	less than 1.0 dB
Absolute Accuracy	plus or minus 0.2 dB
Return Loss	greater than 40 dB
Display Resolution	0.1 dB
Display Refresh Fast	0.1 s
Display Refresh Slow	0.8 s
Analog Output Scale	1 mV per dBm
Analog Output Impedance	40 kOhm
Power Source	4 CR2032 lithium coin cells
Battery Life Typical	3 years slow mode
Operating Temperature	0 C to plus 40 C
Storage Temperature	minus 10 C to plus 60 C
Relative Humidity	less than 95 percent non-condensing
Housing Size	9.5 × 3.7 × 3.6 cm
Mass With Batteries	140 g
Housing Material	flame retardant ABS
Wavelength Range Class	1280 nm to 1580 nm
Calibration Wavelengths	1310 nm and 1550 nm

PARAMETER	VALUE
PdI Class	less than 0.2 dB
Directivity Class	greater than 20 dB
Wavelength range	Class: 1280 nm to 1580 nm
Humidity	less than 95 percent non-condensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 10 C to plus 60 C
Operating temperature	0 C to plus 40 C
Operating Temperature	0 C to plus 40 C
Humidity	less than 95 percent non-condensing
Relative Humidity	less than 95 percent non-condensing
Housing Size	9.5 × 3.7 × 3.6 cm
Mass With Batteries	140 g
Housing Material	flame retardant ABS
Wavelength Range Class	1280 nm to 1580 nm
Calibration Wavelengths	1310 nm and 1550 nm
PdI Class	less than 0.2 dB
Directivity Class	greater than 20 dB Notes From EigenLight Series 400 Fiber Optic Power Monitor Attenuators datasheet Model 420 column and Artisan 420-00 configuration notes.

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	
Specifications	
PARAMETER	VALUE
Model	420
Also Known As	420-00
Instrument Type	WDM power monitor attenuator
Fiber Type	single mode
Attenuator Range	40 dB
Attenuator Resolution	0.1 dB
Power Range	minus 40 dBm to plus 20 dBm
Minimum Insertion Loss	less than 1.0 dB
Absolute Accuracy	plus or minus 0.2 dB
Return Loss	greater than 40 dB
Display Resolution	0.1 dB
Display Refresh Fast	0.1 s
Display Refresh Slow	0.8 s
Analog Output Scale	1 mV per dBm
Analog Output Impedance	40 kOhm
Power Source	4 CR2032 lithium coin cells
Battery Life Typical	3 years slow mode
Operating Temperature	0 C to plus 40 C
Storage Temperature	minus 10 C to plus 60 C
Relative Humidity	less than 95 percent non-condensing
Housing Size	9.5 x 3.7 x 3.6 cm
Mass With Batteries	140 g
Housing Material	flame retardant ABS
Wavelength Range Class	1280 nm to 1580 nm
Calibration Wavelengths	1310 nm and 1550 nm
Pdl Class	less than 0.2 dB

PARAMETER	VALUE
Directivity Class	greater than 20 dB

Notes
From EigenLight Series 400 Fiber Optic Power Monitor Attenuators datasheet Model 420 column and Artisan 420-00 configuration notes.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

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