

# OA5 | Programmable Optical Attenuators



## Product Description

JGR's programmable OA5 Optical Attenuators enables precise optical power control featuring high accuracy and superior repeatability.

The OA5's are ideal for lab and production applications including power level adjustment in automated test systems, BER testing of transmitters and receivers, and channel equalization in WDM systems.

The OA5 model is a benchtop instrument offering dynamic range of up to 100 dB (depending on the model configuration). The OA5 remote interface can be controlled via GPIB, RS232, USB\*, or locally via the user-friendly front panel keypad and display, simplifying the selection and confirmation of attenuation levels.

OA5 series attenuators may be calibrated to particular wavelengths and made to a variety of configuration options offering flexibility for all applications.

\*USB interface via-USB-DB9 adapter

## KEY FEATURES

- Precise optical power
- $\pm 0.1$  dB Accuracy
- $\pm 0.01$  dB Repeatability
- 100 dB Dynamic range
- Optional new Flexcore
- (5/125  $\mu\text{m}$ ) Fiber testing

## APPLICATIONS

- Manufacturing production testing
- BER testing
- Channel equalization

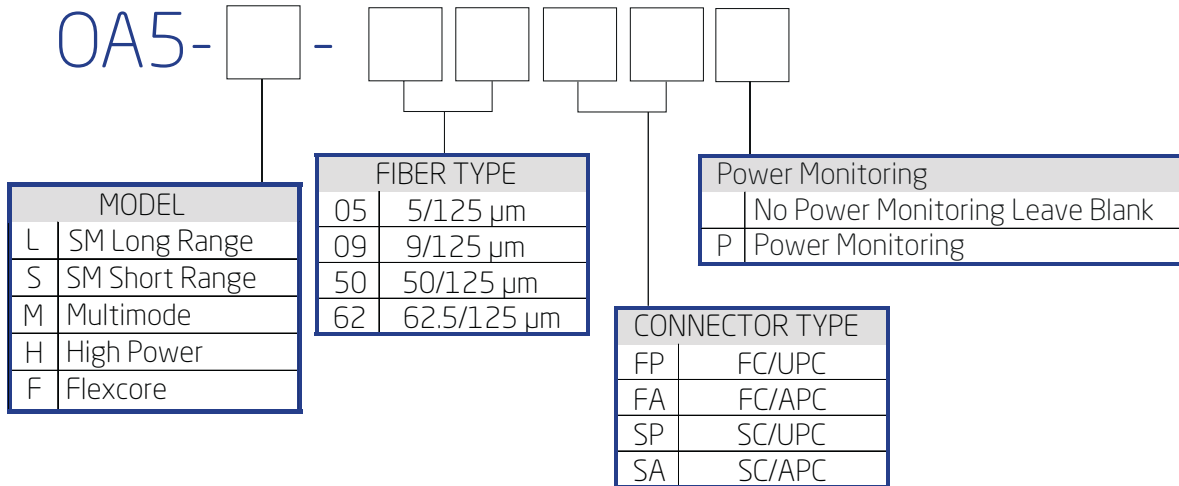
## COMPLIANCE

- UL/CSA 61010
- IEC 61010
- FCC Part 15 (Class A)
- EN 61326 (Class A)

## IN THE BOX

- OA5 Attenuator
- AC power cord

## Ordering Scheme



## Specifications

| OPTICAL / ELECTRICAL SPECIFICATIONS  |               |   |           |                  |            |
|--------------------------------------|---------------|---|-----------|------------------|------------|
| Parameter                            | Specification |   |           |                  |            |
|                                      | Single-mode   |   | Multimode | High Power       | Flexcore   |
|                                      | Long          | Short   |           |                  |            |
| Wavelength Range (nm)                | 1200-1700     | 1200-1700                                     | 750-1700  | 1200-1700        | 980-1700   |
| Attenuation Range (dB)               | 100           | 60  | 60        | 60               | 90         |
| Insertion Loss (dB) <sup>1</sup>     |               |   |           |                  |            |
| HI1060 (5 / 125µm) <sup>2</sup>      |               |   |           |                  | 1.8        |
| SM (9 / 125µm) <sup>3</sup>          | 1.5           | 1.2   |           | 2.0 <sup>4</sup> |            |
| MM (50 or 62.5 / 125µm) <sup>5</sup> |               |   | 1.8       |                  |            |
| Return Loss (dB)                     |               |   |           |                  |            |
| HI1060 (5 / 125µm)                   |               |   |           |                  | 55         |
| SM (9 / 125µm)                       |               | 60  |           | 55               |            |
| MM (50 or 62.5 / 125µm) <sup>6</sup> |               |   | 35        |                  |            |
| PDL (dB)                             |               |   | < 0.1     |                  |            |
| Repeatability (dB)                   |               |   | ± 0.01    |                  |            |
| Resolution (dB)                      |               |   | ± 0.01    |                  |            |
| Absolute Accuracy (dB) <sup>7</sup>  |               |   | ± 0.1     |                  |            |
| Max. Optical Input Power (dBm)       |               | 23 (200mW)                                    |           | 30 (1W)          | 23 (200mW) |
| Beam Block (dB)                      |               |   | > 100     |                  |            |
| Input Voltage                        |               | 110 - 220 V AC, 50 - 60 Hz                    |           |                  |            |
| Interface                            |               | Front Panel / GPIB / RS232 / USB <sup>8</sup> |           |                  |            |

**Notes:**

<sup>1</sup> Excluding connectors and couplers.

<sup>2</sup> At 980nm and 1060nm.

<sup>3</sup> At 1550nm. 0.3 dB higher at 1310nm.

<sup>4</sup> At 1550nm 1.0dB higher at 1310nm.

<sup>5</sup> At 850nm. 0.3dB lower at 1310nm.

<sup>6</sup> At 800-1350nm.

<sup>7</sup> At calibration wavelength.

<sup>8</sup> USB interface via USB-DB9 adapter.

## MECHANICAL / ENVIRONMENTAL SPECIFICATIONS

| Parameter                              | Specification               |
|--|-----------------------------|
| Unit Dimensions W x H x D (cm)         | 26 x 11 x 26                |
| Shipping Box Dimensions W x H x D (cm) | 37 x 25 x 38                |
| Unit Weight (kg)                       | 3                           |
| Total Shipment Weight (kg)             | 4                           |
| Operating Temperature (°C)             | 0 to 40                     |
| Storage Temperature (°C)               | -40 to 70                   |
| Humidity (Non-condensing) (°C)         | Maximum 95% RH from 0 to 40 |