

Programmable Optical Variable Attenuator OVA-920

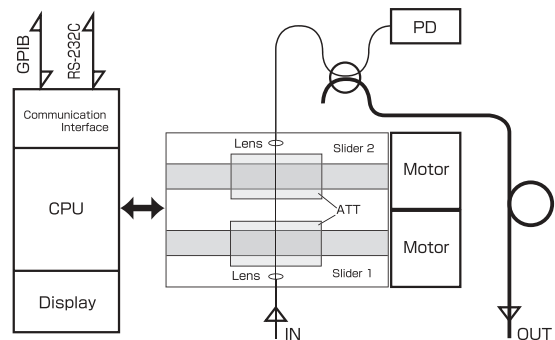
Santec has recently extended its range of benchtop fiber-optic test and measurement equipment with the OVA-920 Optical Variable Attenuator. This fully GPIB-controllable, high-specification unit is well-suited for both laboratory and production environments. The OVA-920 provides up to 60 dB attenuation, with resolution of 0.001 dB and low minimum insertion loss (2.0 dB). Exhibiting extremely low PDL and low wavelength dependence, the OVA-920 can be used in both C and L-band DWDM applications. A power monitor is incorporated as a standard feature, enabling automatic power control. When this function is enabled, attenuation is automatically adjusted to maintain a constant output power independent of input power level.



Features

- ▶ 60 dB attenuation range
- ▶ Low insertion loss (2.0 dB)
- ▶ Low wavelength dependence (<0.2 dB loss variation over 40 nm)
- ▶ Optical power monitor included
- ▶ Automatic Power Control (APC) mode to maintain constant output power
- ▶ Front-panel or GPIB/RS-232C control interface
- ▶ High resolution (0.001 dB)
- ▶ Low PDL/PMD
- ▶ FC/PC or FC/APC connector interface
- ▶ Utility software available

Principle of Operation



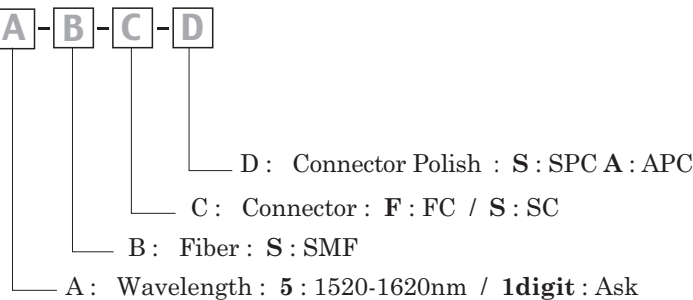
The OVA-920 incorporates two highly linear neutral density filters. These are mounted on independently controlled sliders and allows for customization of both the attenuation range and resolution. In the standard configuration an element with 40dB maximum attenuation is mounted on one slider, and an element with 20dB maximum attenuation is mounted on the second. This combination achieves a high 60dB attenuation range whilst maintaining resolution of better than 0.001dB.

■ Specifications

| Type | Parameter | Unit | Spec | Notes |
|--------------------------|-----------------------------------|-------|----------------|-------------------------------|
| Optical Characteristics | Attenuation Range | dB | 0-60 | |
| | Attenuation Resolution | dB | 0.001 | |
| | Attenuation Accuracy | dB | <±0.1 | Mechanical resolution |
| | Attenuation Repeatability | dB | <±0.1 | |
| | Wavelength range | nm | 1520-1620 | |
| | Wavelength Dependency | dB/nm | 0.2/40 | |
| | Input Power | dBm | +20 | @1530-1610nm |
| | Power Accuracy | dB | <±0.1 | |
| | Insertion Loss | dB | <2.0 | @1530-1610nm |
| | PDL | dB | <0.1 | |
| | Return Loss | dB | >45 | |
| PMD | ps | <0.1 | | |
| Environmental Conditions | Operating Temp. Range | °C | 20~30 | Design guaranteed performance |
| | Operating Humidity Range | % | <80 | |
| | Storage Temp. Range | °C | 10~40 | Non condensing |
| | Storage Humidity Range | % | <80 | |
| | Recommendation Calibration Period | Year | 1 | Non condensing |
| Interface | Optical Connector | - | FC or SC | |
| | Connector Polish | - | SPC or APC | |
| | GP-IB & RS-232C | - | Yes | IEEE-488 |
| Power supply | Voltage | V | AC100-240 | |
| | Power Consumption | VA | 11 | (Typ.) |
| | Frequency | Hz | 50/60 | |
| | Max. Power Consumption | W | 40 | |
| Dimensions | Width x Height x Depth | mm | 210 x 80 x 300 | |
| | Weight | kg | 4 | |

■ Ordering Code

OVA-920 - **A** - **B** - **C** - **D**



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