

Polarization Scrambler

IQS-5100B



Very low activation dependent loss (ADL)

High-performance technical specifications

Wide spectral range of 1260 nm to 1650 nm

Production line testing requires a fast, reliable instrument with low activation dependent loss, coupled with a wide wavelength range. The dependability of the IQS-5100B comes from its unique fiber-based design, which features no mechanical parts.

The IQS-5100B's activation loss is much lower than other polarization scramblers, resulting in very small power variations at the scrambler output. Accurate polarization measurements are dependent on low activation loss since it is impossible to compensate for power variations at the scrambler output. The IQS-5100B's low ADL helps you to achieve fast, simple polarization dependent measurements.

Applications

- Polarization-dependent loss (PDL) measurements on passive components
- Polarization-dependent gain (PDG) measurements on EDFAs
- Polarization-dependent responsivity (PDR) measurements for detectors and receivers

Many types of polarization tests require varying the polarization states to cover most of the Poincaré sphere. Perform fast and random changes of the polarization state of a signal with the IQS-5100B Polarization Scrambler.

Combine the IQS-5100B Polarization Scrambler with the IQS-3400B PDL Meter and the IQS-2600B Tunable Laser Source or the IQS-2400 WDM Laser Source for a fast, complete PDL testing system.



Fiber-optic T&M,
monitoring, manufacturing
and assembly solutions

EXFO

The IQS-500 Intelligent Test System

The new IQS-500 Intelligent Test System provides a flexible approach to optical test and measurement for manufacturing, automation, optical qualification and R&D. It combines powerful features and control capabilities for up to 100 modules.

Based on standard industrial PC architecture, the IQS-500 Intelligent Test System is a scalable modular platform that includes controllers, expansion units and a comprehensive range of plug-in test modules. The IQS-500 is also backward-compatible with most modules from EXFO's IQ generation, allowing you to maximize the return on previous investments. The IQS-500 Intelligent Test System offers a powerful, easy-to-use environment to match your most demanding needs.

Specifications¹

| | | |
|--------------------------------|---------------------------|----------------------------|
| Wavelength range (nm) | 1260 to 1650 | |
| Activation dependent loss (dB) | 0.006 (typ.) | 0.01 (max.) |
| Extinction ratio (dB) | > 40 | |
| Insertion loss (dB) | < 0.1 | (excluding connectors) |
| | ≤ 1 | (with connectors) |
| Return loss (dB) | ≥ 50 (UPC Connector) | |
| Scrambling (s) | 1 to 99.9 s | |
| Poincaré sphere coverage | 1 scrambling period: 98 % | 2 scrambling periods: 99 % |

General Specifications

| | | |
|------------------------|----------------------------|--------------------------------------|
| Operating temperature | 0 °C to 40 °C | (32 °F to 104 °F) |
| Storage temperature | -20 °C to 70 °C | (-4 °F to 158 °F) |
| Dimensions (H x W x D) | 12.5 cm x 3.6 cm x 28.2 cm | (4 15/16 in x 1 7/16 in x 11 1/8 in) |
| Weight | 0.84 kg | (1.85 lb) |

Ordering Information

IQS-5100B-01-B-XX

Output connector^{2,3}

EI-EUI-28 = UPC/DIN 47256

EI-EUI-89 = UPC/FC narrow key

EI-EUI-91 = UPC/SC

EI-EUI-95 = UPC/E-2000

Also available for the IQ-200 Optical Test System

Example: IQS-5100B-01-B-EI-EUI-89

NOTES

- At 23 °C and 1550 nm. Insertion loss changes with connector type.
- Input connector APC Universal Interface only.
- Output connector UPC Universal Interface only.

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. **Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.** For the most recent version of this spec sheet, please go to the EXFO website at <http://www.exfo.com/support/techdocs.asp>. In case of discrepancy, the Web version takes precedence over any printed literature.

