

Basic characteristic

- ▲ **S-line Scan 804** is interrogator with 4 optical channels consisting of S-line Scan 800 module and S-line Switch 1x4 module.
- ▲ **S-line Scan 804** is extendable with S-line Splitter or Computer modules.
- ▲ **S-line Scan 804** is provided with Sentinel 2.0 measurement software.
- ▲ **S-line Scan 804's** depolarized light source greatly reduces unwanted polarization effects.
- ▲ **S-line Scan 804** can be also simply re-configured into S-line Scan 816 by replacing the 1x4 switch with 1x16 switch modules.



Performance properties

Number of optical channels		4
Scanning frequency ¹⁾		1Hz
Wavelength range		80nm (1510-1590nm)
Temperature range	Operational	-5°C to +50°C
	Storage	-10°C to +60°C
Dynamic range ²⁾		30dB
Power budget ³⁾	@ Constant gain	18dB ⁴⁾
Accuracy ⁶⁾	@ FOTR ⁵⁾	+/-13pm
Repeatability ⁶⁾	@ 25°C	8pm ⁷⁾
	@ FOTR ⁵⁾	12pm ⁷⁾
Laser Class	IEC 60825-1	1

1) Our software Sentinel 2.0 works in 1Hz mode, slower data logging is available through down sampling. Higher scanning rates up to 500Hz per channel (or 2kHz with one channel only) are available only through Illumisense SW, which offers merely logging of wavelength values.

2) Maximum attenuation that can be inserted in the optical line between the interrogator and the measured FBG, or series of FBG's on a same power level (see [Figure 1](#)).

3) Maximum attenuation that can be inserted between the FBG's with the highest and lowest power level in one channel (see [Figure 2](#)).

4) 18dB is available only with Sentinel 2.0.

5) FOTR = Fully Operational Temperature Range (-5°C to +50°C).

6) With FBG's FWHM 450pm, Reflectivity 40%.

7) Peak-to-peak difference.

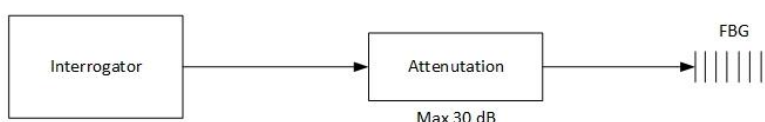


Figure 1: Max. allowed attenuation within optical line

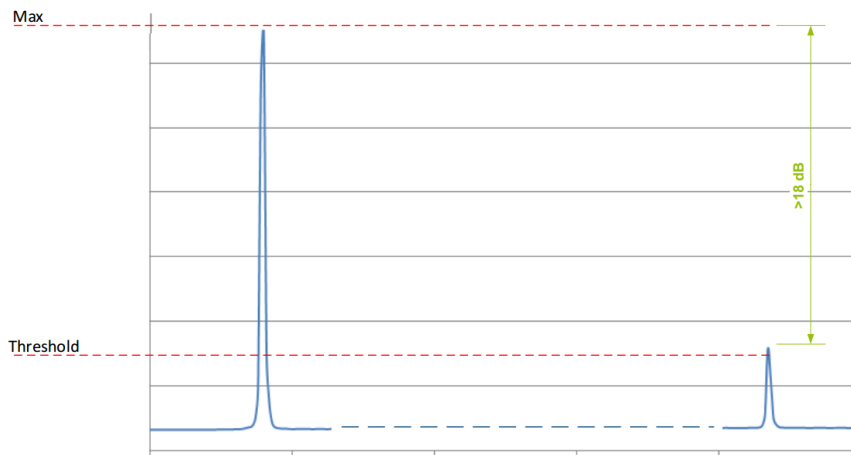


Figure 2: Power budget

Physical properties

Dimensions (without cable)	300x200x84mm
Weight (without cable)	4,27kg
Connector type	FC/APC
Power consumption	6W (9-18V) (universal adapter included)
Interface	USB

Packaging

Standard - Cardboard box with dimensions: 364x351x140mm (see [Figure 3](#))

Optional - Ruggedized transportation case with dimensions: 502x401x188mm (see [Figure 4](#))

Quality statement

All interrogators are 100% tested at SYLEX

Interrogator is manufactured according to ISO 9001:2008 and ISO 14001:2004

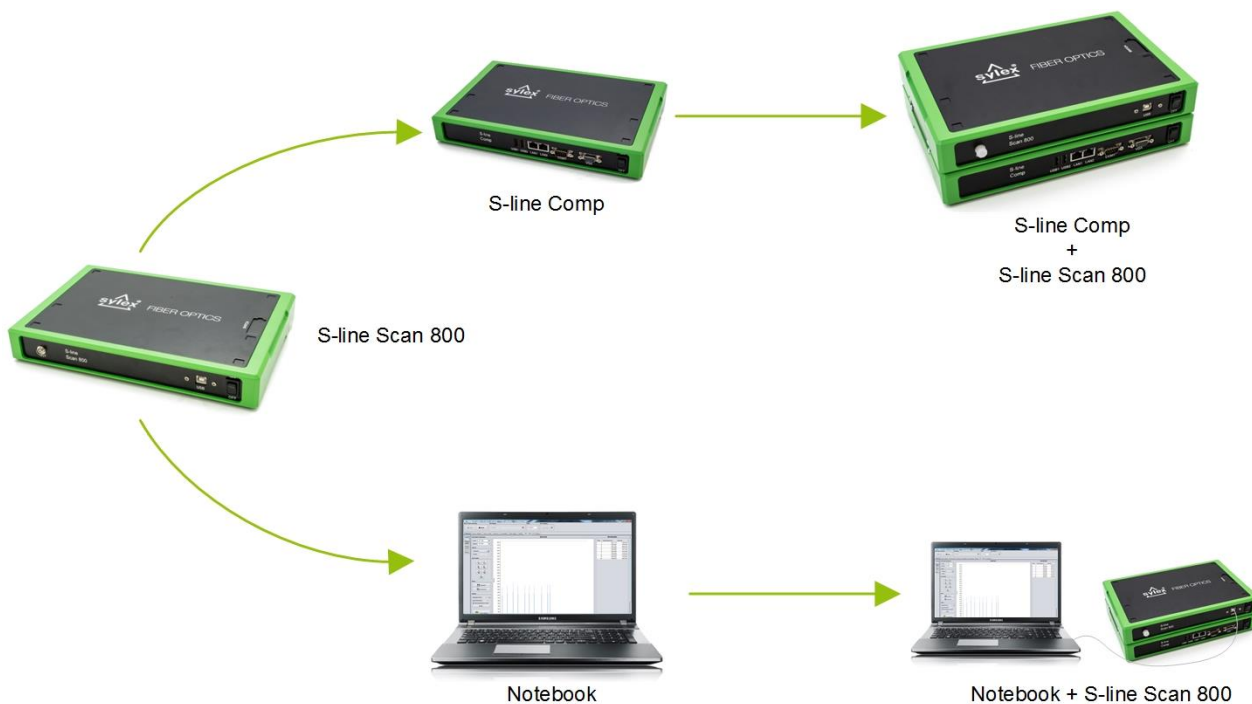
Accessories (included):

- ▲ Sentinel 2.0 – automated data acquisition and evaluation software
- ▲ Standard extension patchcord (SPA-02)
- ▲ Power adapter, 90-264V input range, 12V/2A output, with EU-UK-US compatible sockets

Recommended accessories within S-line family:

- ▲ S-line Comp 2 (SPC-02)
- ▲ S-line Splitters – 1x2 (SPL-02), 1x4 (SPL-04), 4x16 (SPL-16)
- ▲ S-line View 1.0 – web-based data management software for collection, analysis, validation and visualization of measured data
- ▲ Transportation case

Communication options example



Packaging options



Figure 3: Cardboard box as standard packaging



Figure 4: Watertight, crushproof and dust proof transportation case as optional packaging

Benefits of S-line family



- ▲ All modules can be bought as separate units.
- ▲ Variable instrument configuration - all modules are stack-able to form standalone instruments of your desired configuration.
 - ▲ Simple upgrade from single channel interrogator to 4 or 16 channel interrogator just by adding 1x4 or 1x16 S-line Switch modules.
 - ▲ S-line Comp or Splitter modules can optionally be stacked on.
- ▲ Flexible configurations of connection network - more of individual sensors or sensor arrays can be coupled into one optical channel using S-line Splitter 1x2, 1x4 or 4x16 modules.
- ▲ No external electrical wiring is required between the modules. The communication and power supply between modules is realized through embedded connector.
- ▲ Remote or in-site communication with interrogator can be realized through S-line Comp - an industrial computer with Wifi and 3G options.

For more information contact our sales team at sales@sylex.sk

* Specifications are subject to change without notice