

# SLS-1XX

## Stabilized Light Source - Switched Output



### Product Overview

The SLS-1xx series of fixed light sources is a highly configurable system with many different options for light sources. There are three different versions of the SLS series. The SLS-100 is a fixed bank of light sources, the SLS-110 is a switched optical source, and the SLS-120 is a fixed bank of light sources dedicated to CWDM DFB laser sources. Each of these systems come in either a half rack or full rack 2U enclosure.

The SLS-100 can be configured with up to 24 discrete LEDs or lasers (1 mW type) or the system can be mixed and matched with different source types, wavelengths, or fiber types to accommodate various applications in one box.

The SLS-110 is a system that has an internal source or sources that can be combined and switched at the output. This is convenient if one needs combined wavelengths out of many port, such as 24 channels with 1310,1490,1550,1625, which would not be possible in the SLS-100 series.

For dedicated CWDM applications, the SLS-120, can accommodate all ITU-T G.694.2 channels (1270 to 1610, 20 nm apart) in one box with standard 1 mW DFB sources. Also available with 10 mW or 20 mW DFB lasers with at least 30 dB of side mode suppression ratio.

#### Features

- Factory configurable wavelength mix
- Adjustable output power
- Customer defineable launch conditions
- Wide wavelength selection
- Support common connector types
- Compact
- Always on configurations
- LEDs, Lasers, SLED options available

#### Applications

- Optical alignment
- Environmental testing of IL for cables and optical components
- Real time IL monitoring

#### Compliance

- Available with controlled launch conditions (EF, 70/70, AS100, etc.)

### Factory Configurable Wavelength Mix

Each SLS system is highly configurable. The system can have a mix of LED sources, laser sources, different fiber types and different output power levels. If a standard configuration does not fit the application, please contact a sales representative to discuss the possibility.

### Compact Benchtop System

The SLS systems come in both a half rack system with up to 4 discrete sources and a full rack system with up to 24 ports of optical sources. This compact size allows for more working bench space for the technician.

### Calibration Not Required

Due to the stability of these optical sources in power and wavelength, there is no need to get them calibrated unless specified by quality processes.

### Support for Most Common Connector Types

The SLS systems accommodate standard connector types such as SC, LC, FC, ST, etc.

### USB and Ethernet Communication Interfaces

Integrate the SLS system into an automation process using the USB SDK or via ethernet commands to control the instrument.

# Ordering Scheme & Instructions

## 1. Configure SLS Stabilized Light Source

SLS-100-

| CHANNELS |             |
|----------|-------------|
| 01       | 01 channel  |
| 24       | 24 channels |

| SOURCE TYPE |                      |
|-------------|----------------------|
| FP          | Fabry Perot          |
| LED         |                      |
| DFB         | Distributed feedback |
| FP10        | 10 mW FP             |

| WAVELENGTH                    |                               |
|-------------------------------|-------------------------------|
| 3                             | 1310                          |
| 5                             | 1550                          |
| 35                            | 1310/1550 same port           |
| 4                             | 1490                          |
| 6                             | 1625                          |
| 46                            | 1490/1625 same port           |
| 3456                          | 1310/1490/1550/1625 same port |
| 8                             | 850                           |
| 83                            | 850/1300                      |
| 65                            | 650                           |
| Others available upon request |                               |

| FIBER TYPE |         |
|------------|---------|
| 9          | 09 μm   |
| 50         | 50 μm   |
| 62         | 62 μm   |
| 100        | 100 μm  |
| 1000       | 1000 μm |

| CONNECTOR |        |
|-----------|--------|
| FA        | FC/APC |
| FP        | FC/UPC |
| SA        | SC/APC |
| SP        | SC/UPC |

SLS-110-

| CHANNELS |             |
|----------|-------------|
| 01       | 01 channel  |
| 24       | 24 channels |

| SOURCE TYPE |                      |
|-------------|----------------------|
| FP          | Fabry Perot          |
| LED         |                      |
| DFB         | Distributed feedback |
| FP10        | 10 mW FP             |

| WAVELENGTH                    |                               |
|-------------------------------|-------------------------------|
| 3                             | 1310                          |
| 5                             | 1550                          |
| 35                            | 1310/1550 same port           |
| 4                             | 1490                          |
| 6                             | 1625                          |
| 46                            | 1490/1625 same port           |
| 3456                          | 1310/1490/1550/1625 same port |
| 8                             | 850                           |
| 83                            | 850/1300                      |
| Others available upon request |                               |

| FIBER TYPE |        |
|------------|--------|
| 9          | 09 μm  |
| 50         | 50 μm  |
| 62         | 62 μm  |
| 100        | 100 μm |

| CONNECTOR |        |
|-----------|--------|
| FA        | FC/APC |
| FP        | FC/UPC |
| SA        | SC/APC |
| SP        | SC/UPC |

SLS-120-

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| CHANNELS |             |
|----------|-------------|
| 01       | 01 channel  |
| 24       | 24 channels |

| SOURCE TYPE |                      |
|-------------|----------------------|
| DFB         | Distributed feedback |
| DFB10       | 10 mW DFB laser      |
| DFB20       | 20 mW DFB laser      |

| WAVELENGTH |         |
|------------|---------|
| 27         | 1271 nm |
| to         |         |
| 61         | 1611 nm |

| FIBER TYPE |       |
|------------|-------|
| 9          | 09 μm |

| CONNECTOR |        |
|-----------|--------|
| FA        | FC/APC |
| FP        | FC/UPC |
| SA        | SC/APC |
| SP        | SC/UPC |

*\*Max of 6 channels for DFB10, DFB20 Sources*

*\*\*20 nm increments*

## SLS Optical / Electrical Specifications

| Parameter                             | Specification                    |                           |                               |
|---------------------------------------|----------------------------------|---------------------------|-------------------------------|
|                                       | FP Laser                         | DFB                       | LED                           |
| Fiber Type (μm)                       | 9/125                            | 9/125                     | 50/125, 62.5/125 or 105/125   |
| Launch Condition                      | N/A                              | N/A                       | Available upon request        |
| Nominal Wavelengths (nm) <sup>1</sup> | 1310 / 1490 / 1550 / 1625        | 1271 to 1611 <sup>3</sup> | 850 / 1300                    |
| Center Wavelength Accuracy (nm)       | < 15                             | < 3                       | < 30                          |
| Source Bandwidth (nm)                 | < 10                             | < 1                       | > 30                          |
| Output Power (typ.) (dBm)             | 0                                | 0, 10 or 13               | -18 @ 850 nm<br>-21 @ 1300 nm |
| Source Stability (dB) <sup>2</sup>    | ± 0.02                           |                           |                               |
| Remote Interface                      | USB or Ethernet                  |                           |                               |
| Display                               | 4.3" touch screen                |                           |                               |
| Power Supply                          | Input: 90 - 264 V AC, 47 - 63 Hz |                           |                               |
|                                       | Output: 18V DC, 5 A              |                           |                               |
| Power Consumption (VA)                | 36 maximum                       |                           |                               |

Notes:

<sup>1</sup> Custom sources available upon request

<sup>2</sup> Over 1 hour with maximum temperature variation of 1 °C

<sup>3</sup> Selectable in 20 nm increments

Mechanical / Environmental Specifications

| Parameter                     | Specification               |
|-------------------------------|-----------------------------|
| Maximum Channel Count         | 24                          |
| Unit Dimension W x H x D (cm) | 42.5 x 8.9 x 20.3           |
| Operating Temperature (°C)    | 5 to 40                     |
| Humidity (Non-condensing)     | Maximum 80% RH <sup>1</sup> |

Notes:  
<sup>1</sup> From 5 to 31 °C; decreasing linearly to 50% RH at 40 °C



In the Box

SLS-1xx - Stabilized Light Source - Switched Output

- SLS-1xx
- Power Cable
- 18V AC-DC Power Supply
- USB Cable



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