

Stabilized Light Source Selection Guide



What Customization is right for me?

The Stabilized Light Source (SLS) platform provides a wide range of configurations and options to meet diverse requirements. Whether you need to specify the source type, fiber size, wavelength, output power, or other parameters, the SLS is designed to be robust and flexible. Learn about the various light source options and configurations available, as well as some of the most common systems, below.

SLS configuration types

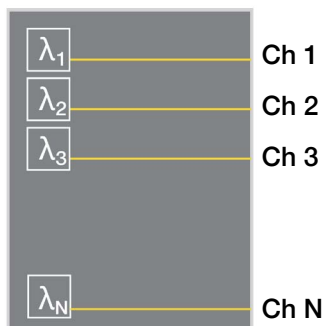
SLS-100 is the most common configuration type. This configuration has discrete sources for each output channel. Each channel can have a single wavelength source or combined output consisting of two or more wavelengths. The most common configurations consist of:

Banks of single wavelength sources: These can consist of multiple channels with a single wavelength light source on each. One can also choose multiple clusters of channels with the same wavelength. Common systems include 24ch 1310 nm FP lasers, where all ports have a discrete laser for each channel or the system can be split into multiple clusters, like having ports 1 to 6 at 1310, 7 to 12 at 1490 nm, 13 to 18 at 1550 nm, and 19 to 24 at 1625 nm.

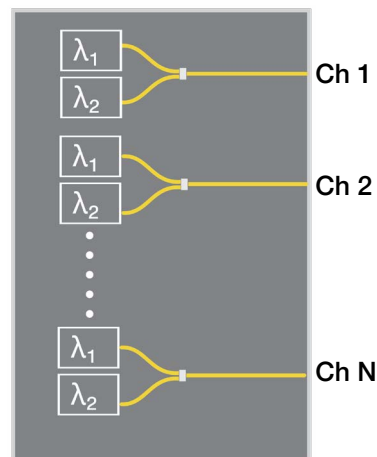
Banks of dual wavelength sources: This system might consist of 24 channels with 850 nm and 1300 nm LEDs coupled into each channel. In this case, one wavelength is active on each port at a time and the user can toggle between 850 or 1300 nm for each channel.

Source with coupler or splitter option: These systems can have couplers internally to split source power across multiple ports.

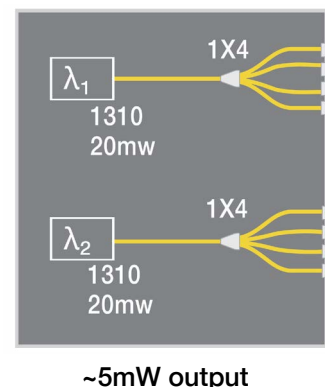
Multi wavelength bank of sources



Multi-dual wavelength bank of sources



CPLR Option

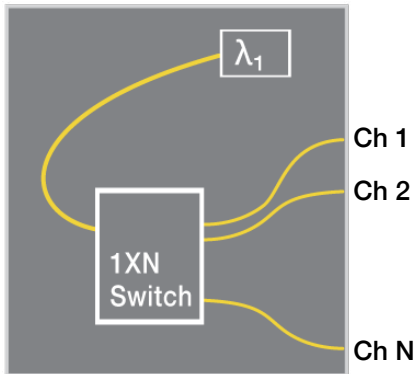


SLS configuration types

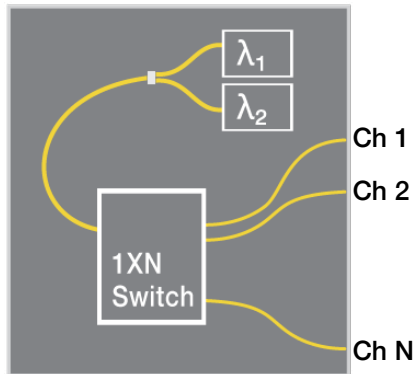
SLS-110 is the internally switched configuration. This configuration allows for one set of sources that get switched into multiple output channels. The most common configurations include:

Switched set of sources: One example is a set of 1310 nm FP and 1550 nm FP lasers combined and switched to 24 outputs. This provides 1310/1550 across 24 channels. For the SLS-110 light is only present on one port at a time.

Switched single wavelength



Switched dual wavelength



SLS-120 is a CWDM configuration. This configuration allows for all CWDM wavelengths (1270nm to 1610nm with 20nm spacing) using DFB sources ± 5 nm from nominal. Some common configurations are:

CWDM4: This is a system with 4 outputs consisting of DFB lasers at 1270, 1290, 1310, 1330nm.

Historical Custom Configurations

SLS-100-24-8-FP-50-FA

- 24 channel 850 nm FP Laser System

SLS-100-01-11-FP-09-FA

- Single output 1130 nm FP Laser Source with modulation input

SLS-100-24-6-FP-09-FA

- 24 channel 650 nm FP Laser Source for optical alignment

Common Applications

- Optical Alignment
- Real Time IL Monitoring
- Environmental testing of IL for cables and optical components

Light Source Types

Wavelength Types:

- Standard LED options include 650nm, 850nm, 1300nm.
- Standard FP Laser options include 650nm, 850nm, 1310nm, 1490nm, 1550nm, 1625nm.
- Standard DFB Laser options include 1310nm, 1550nm.
- CWDM wavelengths are available (± 5 nm from nominal.)
- FBG Lasers available upon request.
- There are many other options available as well if the source you are looking for is not listed. Please contact a sales rep.

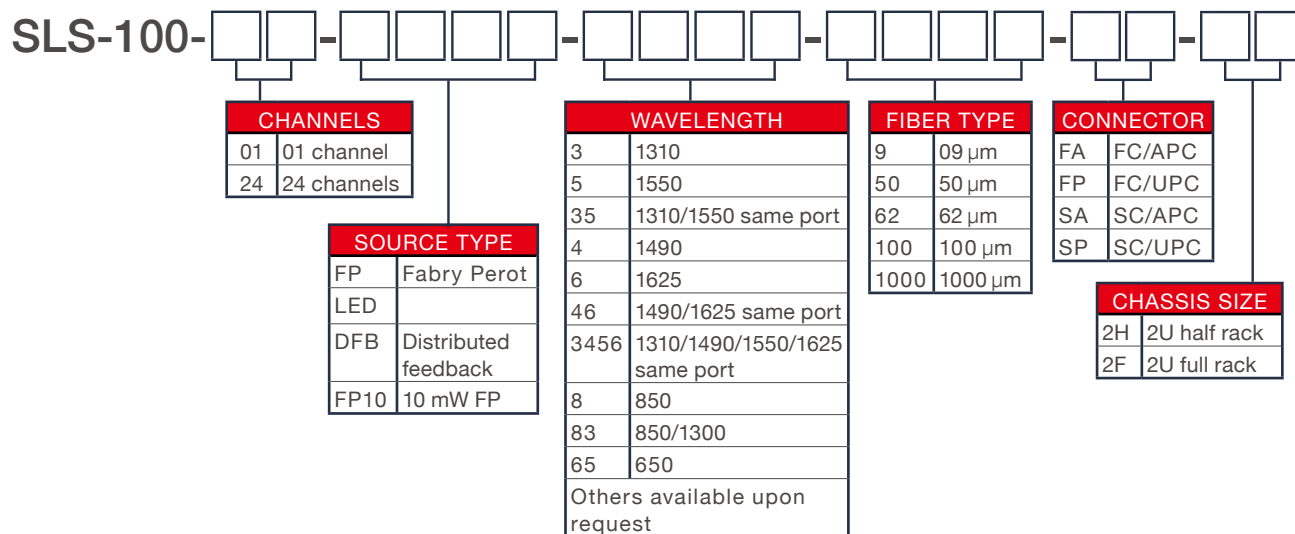
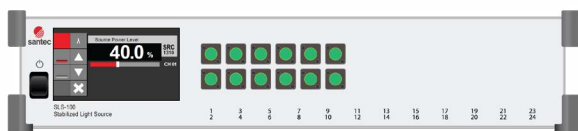
Output Power Levels:

- Available FP output power: 1mW, 10mW, 20mW for standard wavelengths.
- Available DFB output power: 1mW, 10mW, 20mW for standard wavelengths.
- LED typical output power:

	50 μm	62.5 μm Fiber
850nm	-18dBm	-15dBm
1300nm	-23dBm	-21dBm

SLS Specifications

Source Type	Central Wavelength (nm)	Source Bandwidth (nm)	Source Stability (dB)
FP Laser	< 15	< 10	± 0.02 per 1°C
DFB Laser	< 3	< 1	± 0.02 per 1°C
LED	< 30	> 30	± 0.02 per 1°C



The Mesomatic logo features a blue square icon with white diagonal lines, followed by the word "mesomatic" in white lowercase letters and "fiberoptics" in blue lowercase letters below it. To the right is a blue square device with a white screen showing a line graph and a white cable. Below the logo, the text "Mesomatic Messtechnik AG" is in white, followed by "Birkenstrasse 47" and "6343 Rotkreuz" in blue. Further down, the phone number "+41 41 748 60 22" and the website "info@mesomatic.ch | www.mesomatic.ch" are in white. At the bottom right, the text "Emitec Group" is in white, followed by three colored squares (yellow, red, blue) and "#1 in Test & Measurement, worldwide." in white.

right to make changes in equipment design, components or specifications without notice.

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