



## os4500

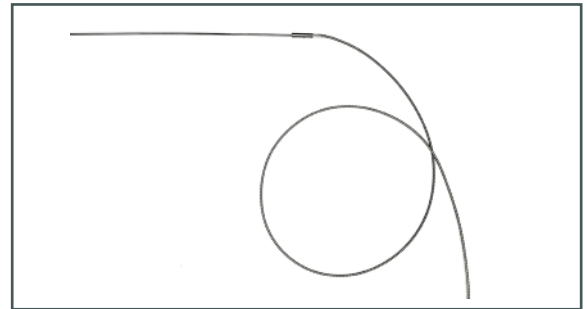
### Multipoint High Temperature Probe

Luna's os4500 series Multipoint, High Temperature Probes are sealed, stainless steel tubes that are designed to make handling easy and sensor installation fast and repeatable in the most challenging environments. It is based on femtosecond grating technology, and since there are no epoxies holding the fiber to the tube, long term stability is ensured by design.

In side by side comparisons with conventional thermocouples, the os4500 is equally sensitive and accurate, while providing sub-second response time, wider operating range, no calibration, and no EMI noise. The os4500 Temperature Probe is qualified for use in harsh environments and delivers the many advantages inherent to all FBG based sensors.

This sensor can be used alone or in series at the end of an FBG sensor array. Installation and cabling for such arrays is much less expensive and cumbersome than comparable electronic gage networks. Options include packages that operate like conventional thermocouples with armored cables and protected connectors, and small probes that provide the user with both installation flexibility and sub-second response time.

The os4500 series of sensors is compatible with ENLIGHT Sensing Analysis Software, which provides an integrated suite of tools for data acquisition, computation and analysis of optical sensor networks as well as the HYPERION platforms comprehensive Application Programming Interface (API) and examples written in LabVIEW, Python, Matlab, C++ and C#



### Key Features

**Multipoint Temperature** measurements on the same probe

**Ease of installation:** simple and repeatable

**500 and 700°C capable up to 304 sensors on a single HYPERION instrument**

**Multiparameter** - various physical parameters measurements coupled onto the same instrumentation platform

**Includes ENLIGHT's sensor templates allow for quick and easy optical to temperature conversions**

### Applications

**Automotive**

**Power Generation**

**Oil and Gas**

**Nuclear Reactors**

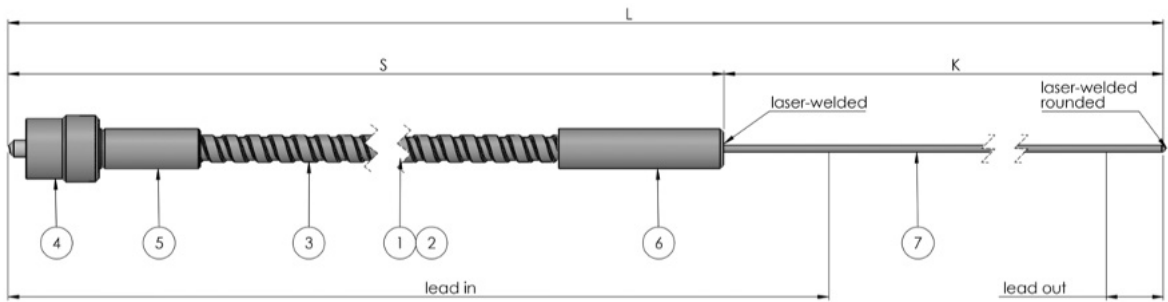
**Aerospace**

**Solar Collectors**

**Industrial Processes**

# Performance

Specifications	os4510	os4520
Operating Temperature Range	Up to 500 °C	Up to 700 °C
Probe Length	Available in 1 and 2 meter configurations	
Number of Sensing Points	Available in both 10 and 20 point configurations	
Accuracy	+/- 3	+/- 4
Housing Material	SS304 Probe	
Connector	High Temperature FC/ACP (150 °C capable)	
Scan Frequency	1kHz and 5kHz instrument options available	
Wavelength Options	1512 to 1548nm for 10 sensing point probes and 1512 to 1588nm for 20 sensing points	
Custom Options		
Probe Length	Custom lengths available up to 6 meters	
Number of Sensing Points	Customizable from 1460 to 1620nm	
Cabling	Custom lengths and reinforced cable available	



# Ordering Information

## os45xx-1512-tttt-pp-1xx

os45xx	os4510 - Up to 500 °C os4520 - Up to 700 °C
tttt	Temperature FBG wavelength - 1548nm for 10 sensing point probes and 1588nm for 20 sensing point probes
pp	Number of sensing points
xx	Termination type 1xx Cable, Length & Connector 1 1 m Standard, Cable Length UT Unterminated FC FC/APC Connector