



# os9200

Optical Pressure Sensors

**Luna's os9200s are fiber Bragg grating (FBG) based high-accuracy pressure sensors, enabling rugged and stable monitoring systems that can be easily distributed over long distances.**

The os9200 features a novel approach to pressure sensing for both liquid and gaseous environments, utilizing FBG technology to measure minute changes in pressure. The sensor features a pressure range of 0-100 bar and a resolution of down to 0.1% full scale.

Up to 96 os9200 sensors can be integrated on a single HYPERION interrogator platform, and can also be combined on the same optical network with other FBG sensors to simultaneously capture other parameters, such as temperature, strain, displacement, acceleration, tilt, etc.

The os9200 sensors are compatible with ENLIGHT Sensing Analysis Software, an integrated suite of tools for data acquisition, computation and analysis of optical sensor networks, as well as with the HYPERION's comprehensive Application Programming Interface (API) and examples written in LabVIEW, Python, Matlab, C++ and C#.

## Key Features

- Ease of installation, simple and repeatable
- Rugged, multipoint monitoring; up to 96 sensors on a single HYPERION instrument
- Ultra high resolution
- Multiparameter, various physical parameters measurements coupled onto the same instrumentation platform
- Internally temperature-compensated

## Applications

- Machine Monitoring
- Power Generation
- Tank Monitoring
- Marine
- Process Monitoring
- Hydraulic Test Stands

**Rugged, ultra high resolution, multipoint pressure measurements**

## Performance

Specifications		os9210
Measurement Type	Pressure, with integrated temperature compensation	
Measurement Range	0 to 100 bar	
Resolution	0.1% full scale	
Precision	<0.5% full scale	
Accuracy	<1% full scale	
Protection	IP 67	
Construction Material	SS 304	
Measurement Points	Up to 6 sensors per channel (up to 96 sensors with 16 channel si255 interrogator)	
Wavelength Options	6 standard wavelengths available, custom available by request (1460 to 1620 nm)	
Physical Properties		
Dimensions	Diameter	30 mm
	Length	121 mm
Operating Temperature	-20 to 60° C	
Operating Humidity	0 to 95% relative humidity	
Burst Pressure	Up to 150% full scale	
Weight	400 g	
Inlet Thread	G 1/8th	

## Ordering Information

### os9210-pppp/pppp-1xx-1yy

Example: os9210-1529/1532-1FC-1FC

**pppp/pppp** FBG Wavelengths  
Pressure/Pressure Wavelengths (+/- 1nm)  
Standard 1516/1519, 1529/1532, 1542/1545,  
1555/1558, 1568/1571, and 1581/1584

**xx** Termination Type  
1xx Cable 1, Length & Connector  
1 1 m Standard, Cable Length  
UT Underminated  
FC FC/APC Connector

**yy** Termination Type  
1yy Cable 2, Length & Connector  
1 1 m Standard, Cable Length  
UT Underminated  
FC FC/APC Connector