

[OESEN-HUM-100,200]

Fiber Humidity Sensor

Features:

- High sensitivity
- High reliability and long-term stability
- Suitable for humidity sensor arrays
- Works even in corrosive environments
- Cost Effective

Applications:

- Manufacturing
- Food processing and storage
- Health sector
- Research and development Etc.



Fig1. OESEN-HUM-100

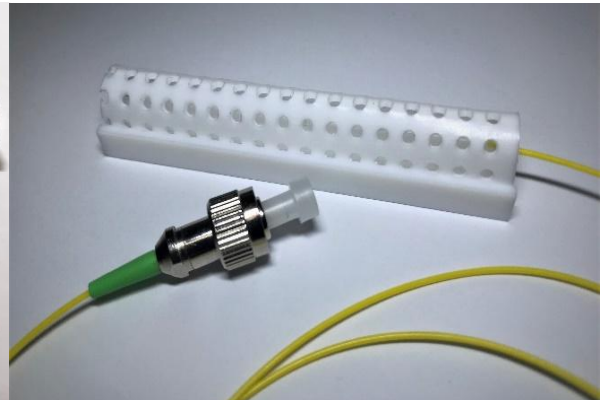


Fig2. OESEN-HUM-200

Product description:

The humidity sensor OESEN-HUM-100 is based on a patent pending technology and profits from our advanced fiber Bragg grating (FBG) writing facilities. Fiber grating humidity sensors are used to measure the relative humidity (RH) in a wide range with high accuracy and sensitivity. An optional temperature sensor can be built in beside humidity sensor for monitoring both humidity and temperature at the same time.

The humidity sensor is available in metal packaging (OESEN-HUM-100) or in PTFE known as Teflon (OESEN-HUM-200) for applications where the metal packaging cannot be used like in corrosive environments. The sensor is by default for using in the reflection mode, but we can make it with both-end fiber to be used in transmission mode too. Although individual humidity sensors can be used in various applications, multiple-FBG humidity sensor arrays can be made in the same optical fiber.

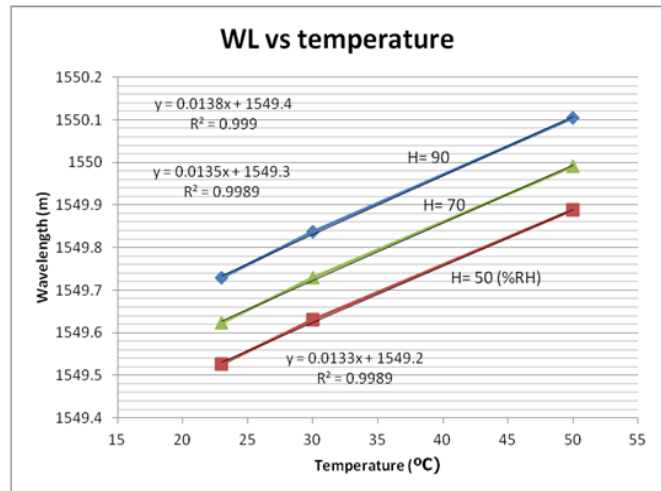
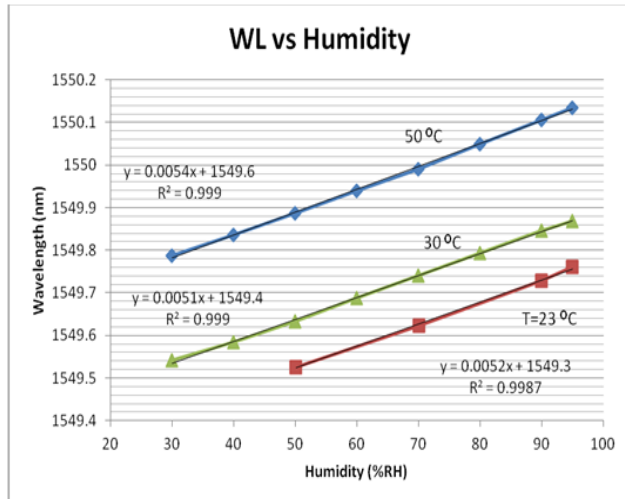
Product specifications:

Parameters	Unit	OESEN-HUM-100	OESEN-HUM-200
Center wavelength	nm	1310, 1550 or custom	
Bandwidth	nm	0.2 ± 0.1	
Reflectivity	%	> 75	
Humidity range	%RH	10-95	
Sensitivity	pm/%RH	> 5*	
Temperature sensor	-	B version: Built-in	
Packaging material		Metal	Teflon
Dimensions	mm	Ø9x95	15x12x70
Operation temperature	(°C)	0-80	
Fibre cable		900 um / 3 mm	
Fiber output		Single or double	

* Some limitations apply.

** Tuning range can significantly vary depending on FBG specifications.

*** Recommended values. The ambient environment temperature can limit the performance, incl. the tuning range.



Ordering number:

OESEN-HUM-N-T:	N	T
	100: Metal 200: PTFE (Teflon)	A: No Temp. sensor B: Built-in Temp. Sensor
Example:	OESEN-HUM-100-B	