

DESCRIPTION

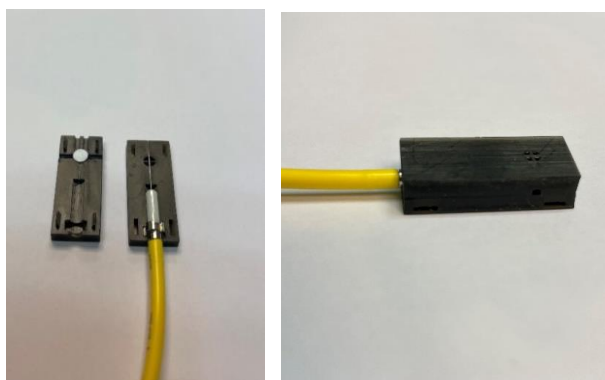
CALSENS offers single mode fiber (SMF) Fiber Bragg Grating (FBG) based sensor to measure H2 concentration in conventional environments. A single point fiber sensor that measures H2 concentration and translate it into FBG wavelength changes that can be measured by any conventional interrogator in the market. Manufactured used proprietary CALSENS know-how, provide a excellent wavelength accuracy, stability and precision in its measurements to detect changes with precision below 0.5% H2 concentration. Compact design without moving parts, 100% fiber based, immune and neutral in EM emissions (designs available with no metallic parts).

KEY FEATURES

- Designed for H2 concentrations below 10%
- Customizable packaging and sensor distribution
- 0.5% concentration precision
- Long-life reliable wavelength response

APLICACIONES

- Industrial & Chemical process monitorization
- H2 leak detection systems
- Green H2 storage security
- H2 generation catalyzer operation



Optical Parameters		
Central Wavelength	1460-1620 (others available on demand)	nm
Fabrication Tolerance	+/- 0.5	nm
Reflection bandwidth (FWHM)	0.1 – 2.0	nm
Reflectivity	>40 (available on demand)	%
SLSR	>10 (other values available)	dB
H2 concentration response	135	pm/1%
Physical Parameters		
Sensor Dimensions	20 x 10 x 5 ¹	mm
Operation temperature	0-50 ²	°C
Maximum H2 concentration	4-10	%
Response Time	10 ³	min/1%
Fiber Pigtail Length	1 (other values available)	m
Fiber Type	SMF G.652 (custom options available)	
Optical Connector	FC/APC (custom options)	
Fiber protection options	3.5 mm jacket (custom options)	

¹ Custom Packaging dependant. Other design and sensor configuration available on demand

² Wider temperatura rango not tested

³ Time required for a total stabilization, dependant on the H2 concentration change