

MOD-1060 In-situ Hydrogen ANALYZER

MOD-1060 Hydrogen Analyzer is designed to provide accurate and reliable measurements of Hydrogen levels in high-pressure pipeline, making it ideal for a range of industrial applications. With its advanced thermal conductivity sensor technology and rugged construction, MOD-1060 delivers precise measurements even in the harshest of conditions. Its user-friendly interface and intuitive controls make it easy to operate, while its compact design allows for easy installation directly on process pipe without any sample extraction.

FEATURES:

Key features of the Hydrogen Analyzer for high-pressure applications include:

- Precise, fast and sensitive measurement of (quasi-) binary gas mixtures
- Explosion proof certified: ATEX
- Response time (T90): <1 sec
- Ambient temperature: -40 to 90°C
- Rugged construction and compact design for reliable operation in harsh environments
- Flexible installation options to suit a variety of industrial applications

BENEFITS:

Whether you're working in the oil and gas industry, Hydrogen production, chemical processing, or any other process industry, the MOD-1060 Hydrogen Analyzer is the ideal solution for precise and reliable hydrogen measurement in high-pressure applications.

Industrial gas production systems, including those for Hydrogen and Oxygen, typically involve the use of equipment rated for both non-hazardous and hazardous locations. One approach to lowering installation costs is to utilize general-purpose equipment, but this may only be feasible if the risk of gas leaks is minimized.

Reducing the potential for leaks can create difficulties in sampling gas from high-pressure pipelines, making it challenging to perform accurate Hydrogen analysis. MOD-1060 allows for direct measurement of Hydrogen content in high-pressure pipelines, eliminating the need for gas sample extraction or conditioning. The measurement is based on the thermal conductivity principle, which is extremely well suited for the measurement of gases with widely differing thermal conductivity, e.g. H₂ and Ar. By perfecting this method, it has become possible to detect the measurement of even small concentrations of less ppm.



TECHNICAL DATA

Analyzer Performances:

Max Span:	0-100%
Min Span:	0-0.5%
Noise:	< 10 ppm
Detection Limit:	< 50 ppm
Repeatability:	< 100 ppm
Measured value drift:	< 100 ppm/week
Linearity deviation:	1% of calibrated span
Temperature effect:	< 50 ppm per 10°C
Pressure effect:	< 1000 ppm / 0.1 Bar; from 10 Bar < 100 ppm / 0.1 Bar
Flow effects:	
<i>Zero effect with Nitrogen:</i>	< 25 ppm / m/s
<i>Span Effect with Hydrogen:</i>	< 100 ppm / m/s
Response time (T90):	< 1 sec
Ultra-fast response time:	< 30 msec

Technical Details:

Power supply:	24 VDC (±6V), 5W
Outputs:	4-20 mA, 3-wire connection
Communication interface:	RS485, Baud rate 38400 / 8bit
Operation temperature:	-40 to 90°C
Ingress protection:	IP 67
Material:	Stainless Steel (SS316)
Hazardous area:	ATEX/IECEX Zone 2 Zone (II 2 G Ex d IIC T4 Gb)
Safety Integrity Level certified:	SIL2 as per IEC61508-2:2010 (020195:3266-1-P1)
Options:	- Tropicalization - Remote display - Sample manifold

Sample Requirements:

Maximum sample pressure:	200 Barg
Maximum sample temperature:	90 °C
Gas requirements:	clean / non-corrosive
Process connection:	NPT ½"
Material:	Stainless Steel (SS316)

