

MOD1040 IN-SITU OXYGEN ANALYZER

The **MOD-1040** is an advanced in-situ industrial oxygen analyzer designed to deliver accurate and reliable measurements of oxygen concentrations in both high- and low-pressure applications. It is ideally suited for a wide range of industrial environments where direct in-situ measurement and low maintenance are essential. Equipped with state-of-the-art optical sensor technology and built with rugged construction, the MOD-1040 ensures precise performance even under the harshest operating conditions. Its user-friendly interface and intuitive controls simplify operation, while its compact, robust design enables direct installation on the process line—eliminating the need for sample extraction systems

Features:

- High-accuracy measurement of oxygen levels up to 100%
- Low-maintenance
- Explosion proof certified: ATEX
- SIL2 Certified
- Response time (T90): <5 sec
- Ambient temperature: -20 to 60°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-1040 Oxygen Analyzer is the ideal solution for precise and reliable oxygen 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 oxygen analysis. Traditional oxygen analysis technologies, including paramagnetic, zirconia, coulometric and TDL, are not designed to withstand high gas pressures and therefore require gas sample extraction and conditioning prior to analysis. MOD-1040 allows for direct measurement of oxygen content in high-pressure pipelines, eliminating the need for gas sample extraction or conditioning.



MOD1040 General Specifications

Measurement Technology	Optical Fluorescent Quenching
Measurement Range	0-10%,0-100%
Lower Detection Limit (LDL)	Lower detection limit: 0.01% @ atmospheric pressure < 2 ppm @ 200 Barg / < 4.9 ppm @ 40 Barg
Accuracy:	2% of reading, but not better than LDL
Zero Drift	< 1 %/ year
Response Time (T90)	< 5 sec
Electrical Specification	
Power Supply	24 VDC,50mA(1.2Watt)
Optically Isolated Active Outputs	2x4-20 mA DC
	MODBUS RTU via RS485
Communication Interface	MODBUS RTU via RS485
Operating Conditions	
Ambient temperature	-20 to 60 Deg.C
Operating Temperature range	-20 to 60 Deg.C
Max process Temperature	65 Deg.C
Max Process Pressure	200 Barg
Process connection	½ inch NPT
Wetted parts and body material	316L SST
Ingress Protection	IP67
Options	Titanium, Tantalum, Hastelloy C, PTFE, etc.
	Tropicalization
	SSS/Aluminum Junction Box Remote Display, Fully programmable PLC Calibration Manifold: (extends the temperature range to 90 Deg C)
Cable Length	3M
Functional Safety Certificate	SIL2
Flame Proof Ex d	ATEX and IECEx
	Ex d, II 2 G Ex db IIC T4 Gb -20°C ≤ Ta ≤ +60°C

