

BlueEye™ Ex-D



Gas quality analyzer
Reliable, no moving parts
Fast response time
Low CAPEX, no OPEX



About the BlueEye™ Ex-D

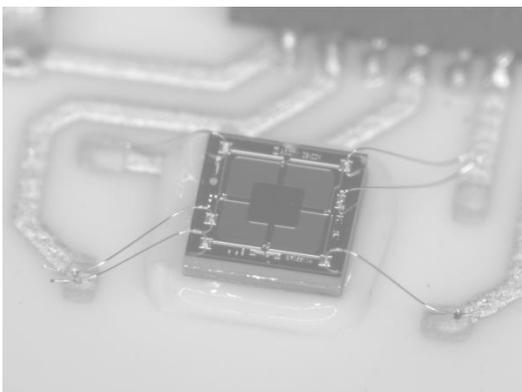
The BlueEye™ Ex-D is a low CAPEX gas analyzer designed for continuous measurement of combustible gases. The device can measure the combustion properties and calorific content of gas mixtures, even when containing high CO₂ and H₂ content.

Gas is flowing in and out the BlueEye™ Ex-D through Swagelok connectors and measurement output options are 4-20 mA current loop and Modbus RTU.

The BlueEye™ Ex-D uses Bright Sensors' patented MEMS gas viscometer technology combined with other off-the-shelf inference measuring MEMS sensors. It is specifically developed for biomethane injection, hydrogen blending, combustion control and gas grid monitoring.

Features

- Measurement output - WI, HHV or LHV
- Accurate, <2% on pipeline gas
- Maintenance free
- Continuous 10 seconds measurement
- ExD certified enclosure
- Reliable - No moving parts or chemical reactions
- Communication - 4-20mA, Modbus RTU
- Input Power - 12-24V
- CE, IECEx, OILM R140 Class B in progress
- Plug-and-play installation



BlueEye™ Ex-D Specifications

Measurement Range	Wobbe Index (WI)	30-60 MJ/m ³ - 15°C/15°C
	Higher Heating Value (HHV)	25-55 MJ/m ³ - 15°C/15°C
	Lower Heating Value (LHV)	22-50 MJ/m ³ - 15°C/15°C
Accuracy	<2% of reading	
Precision	±0.1MJ/m ³	
Dynamics	One measurement every 10s, reaction time T90 < 60s	

Gas Composition Range	Methane	60-100 mol%	Carbon Dioxide	<12 mol%
	Ethane	0-14 mol%	Oxygen	<3 mol%
	Propane	0-5 mol%	Hydrogen	<20 mol%
	Butane	0-3 mol%	Water (Gaseous)	<1 mol%
	Higher Alcanes	0-1 mol%	Particulates, Liquids	Without
	Nitrogen	0-22 mol%		

Electrical and Mechanical Specifications

Measurement Output	4-20mA current loop
	Modbus RTU
Supply Voltage	12 to 24V, < 2W
Dimensions and Weight	140mm x 135mm x 125mm, 2.6kg
Gas Connections	Swagelok 1/8" or 3 mm

Operating Conditions

Operating Temperature	-20°C to 70°C
Operating Humidity	0-95 %RH, non-condensing
Storage Temperature	-40°C to 70°C
Operating Gage Pressure	< 250 mbar
Flow	> 5mL/min
Certifications	CE, IECEx and OIML R140 Class B in progress

BlueEye Ex-D Specs June 2020

