J22 TDLAS gas analyzer

Proven technology for accurate and reliable measurement of $\text{H}_2\text{O}$ in natural gas

Benefits:
- Ensures highest availability for production, transmission, storage and distribution of natural gas
- User-friendly interface with intuitive menu and web server software
- Integrated diagnostic and verification with Heartbeat Technology
- Automatically-stored historical data and spectrum logging
- NIST-traceable calibration providing superior accuracy and repeatability
- Robust design for easy installation, commissioning, and repair
- Field serviceable components and modules for minimal downtime

Specs at a glance
- Measured Variables: Concentration, Dew Point, Cell Pressure, Cell Temperature
- Hazardous area approvals: ATEX / IECEx / UKEx Zone 1, PESO / KTL / CML Zone 1, INMETRO Zone 1, CSA Class I, Division 1 CSA Class I, Zone 1

Field of application: The J22 gas analyzer uses patented tunable diode laser absorption spectroscopy (TDLAS) technology to provide accurate measurement of $\text{H}_2\text{O}$ in natural gas. Featuring the reliable diagnostic capabilities of Heartbeat Technology, the J22 analyzer determines the concentration of a gas without coming into physical contact with streams. It allows pipeline operators and suppliers to meet quality specifications, prevent pipeline corrosion, and stop hydrate formation to ensure safety and asset integrity.

Features and specifications

More information and current pricing: www.endress.com/J22
Measuring principle
TDLAS

Product Headline
Best-in-class gas analyzer for moisture (H2O) that is exceptionally reliable and tailored for the natural gas industry. The sensor measures gas using a tunable diode laser absorption spectroscopy (TDLAS) to determine the concentration of the gas without coming into physical contact with the stream. Heartbeat Technology ensures compliance and process safety at all times.

Channels
1

Analyte and Measurement ranges
H2O (Moisture):
0 to 50 ppmv (minimum)
0 to 6000 ppmv (maximum)

Measured Variables
Concentration
Dew Point
Cell Pressure
Cell Temperature

Ambient Temperature range
-20 to 60°C (~4 to 140°F)

Operating Pressure range
Inlet Pressure: 140 to 310 kPa (20 to 45 psig)
Sample Cell: 800 to 1200 mbara or 800 to 1700 mbara (optional)

Analyzer Wetted materials
316L stainless steel
FKM O-Rings
Glass
H2O

**Power supply**
Without heater: 24 VDC ±20% or 100 to 240 VAC ±10%, 50/60 Hz, 10W
With optional heater: 100 to 240 VAC ±10%, 50/60 Hz, 80W

**Communication**
Service webserver interface: Ethernet RJ45
I/O1: Modbus RS485 or Modbus TCP
I/O2 and 3: Relay output or Universal I/O (UIO); UIO can be configured as analog input/output (4-20 mA) or digital/status output

**Housing materials**
Electronics: Copper-free aluminum
Sample System Enclosure: 304 stainless steel or 316 stainless steel
Sample System Panel: Anodized aluminum

**Hazardous area approvals**
ATEX / IECEX /UKEx Zone 1
PESO / KTL / CML Zone 1
INMETRO Zone 1
CSA Class I, Division 1
CSA Class I, Zone 1

**Degree of protection**
IP66, Type 4X

**Product safety**
CE
RCM
FCC
CRN

More information [www.endress.com/J22](http://www.endress.com/J22)