

JT33 TDLAS gas analyzer

Reliable H₂S measurement for increased quality, process control, and asset integrity



More information and current pricing:

www.ca.endress.com/JT33

Benefits:

- Continuous, real-time TDLAS measurements with proven metrology to meet measurement specifications
- Robust patented differential technology which tolerates contaminants and stream changes in tough applications
- Auto-validation to confirm analyzer health in the field
- **Heartbeat Technology** for automatically stored historical data, spectrum logging, diagnostics, and verification reporting for custody transfer applications
- NIST-traceable factory calibration with superior accuracy and repeatability
- Field-serviceable components and modules for minimal downtime and maximum repair flexibility
- User-friendly interface with an intuitive menu and integrated web server software

Specs at a glance

- **Measuring principle** TDLAS
- **Analyte and measurement ranges** H₂S (Hydrogen sulfide): 0 to 10 ppmv 0 to 500 ppmv other ranges by request
- **Hazardous area approvals** ATEX / IECEx / UKEx Zone 1 PESO / KTL / JPNEx Zone 1 INMETRO Zone 1 CNEx Zone 1 CSA Class I, Division 1 CSA Class I, Zone 1

Field of application: The JT33 gas analyzer offers continuous, real-time H₂S measurement with low maintenance requirements. It enables plant operators and owners to meet gas quality standards, improve process control, and ensure asset integrity. Using proven differential technology, the JT33 tolerates stream changes while meeting measurement performance specifications. It also features auto-validation and advanced

diagnostics supported by **Heartbeat Technology** for verification reporting.

Features and specifications

H₂S

Measuring principle

TDLAS

Product headline

The JT33 TDLAS H₂S analyzer provides reliable, continuous, real-time H₂S measurement with proven metrology and is distinguished by a robust differential measurement technology. It can monitor H₂S in light or heavy streams, has a fast response to stream changes, and an ability to tolerate contamination with minimal maintenance for exceptional analyzer availability. It is supported by Heartbeat Technology for advanced diagnostics and utilizes superior measurement algorithms.

Channels

1

Analyte and measurement ranges

H₂S (Hydrogen sulfide):

0 to 10 ppmv

0 to 500 ppmv

other ranges by request

Measured variables

Concentration

Cell pressure

Cell temperature

Ambient temperature range

JT33 TDLAS gas analyzer system:

–20 to 50 °C (–4 to 122 °F)

–10 to 60 °C (14 to 140 °F)

H2S

Operating pressure range

Application dependent

800 to 1200 mbara (standard)

800 to 1700 mbara (optional)

Analyzer wetted materials

316L stainless steel

FKM O-Rings

Glass

PCTFE/PTFE

Power supply

For controller (spectrometer):

AC 100 to 240 V tolerance $\pm 10\%$, 50/60 Hz, 10W

DC 24 V tolerance $\pm 20\%$, 10W

UM = AC 250 V

For sample conditioning system electronics:

AC 100 to 240 V $\pm 10\%$, 50/60 Hz, 275W

UM = AC 250 V

Communication

I/O1: Modbus RTU/RS485 or Modbus TCP/Ethernet

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

Service web server interface: Ethernet RJ45

Housing materials

Electronics: Coated copper-free aluminum or Cast stainless steel

Sample system enclosure: 304 stainless steel or 316 stainless steel

Sample system panel: Anodized aluminum

Enclosure window (optional): Polycarbonate

H2S

Hazardous area approvals

ATEX / IECEx / UKEx Zone 1

PESO / KTL / JPNEx Zone 1

INMETRO Zone 1

CNEEx 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.ca.endress.com/JT33