

TDL-406 Rackmount Laser Gas Analyzer

Applied Analytics Data Sheet No. DS-011A — Revised 30 November 2023

NH₃

HCl

H₂O

CH₄

CO₂



The TDL-406 is a tunable diode laser for real-time monitoring of several components in gases. The system fits a standard 19" rack, designed for easy integration in analyzer shelters and laboratory settings.

Measurements

- » NH₃ – Low Range: 0-20ppm; High Range: 0-100ppm
- » HCl – Low Range: 0-50ppm; High Range: 0-100ppm
- » H₂O – 0-30%
- » CH₄ – 0-100ppm
- » CO₂ – 0-1000ppm

Features

- » Optical, contact-less measurement
- » Accurate laser-diode electro-optics
- » High selectivity
- » Fast response
- » Self-contained
- » Continuous sensor status monitoring
- » Low maintenance
- » Low cost-of-ownership
- » Digital and analog data interfaces
- » Hot-gas measurement up to 190°C

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All performance specifications are subject to the assumption that the sample conditioning system and unit installation are approved by Applied Analytics. For any other arrangement, please inquire directly with Sales.

Subject to modifications. Specified product characteristics and technical data do not serve as guarantee declarations.

Technical Data	
General	
Measurement Principle	Tunable Diode Laser Spectrometry (TDLS)
Sample Medium	Gas
Analyzer Calibration	Factory calibrated
Reading Verification	Via zero and span gases
Human Machine Interface	Applied Analytics standard HMI: industrial controller with touch-screen LCD display Data sheet: http://aai.solutions/documents/AA_DS202A_HMI.pdf
Software	ECLIPSE™ online TDL
Data Storage	Solid State Drive Data sheet: http://aai.solutions/documents/AA_DS204A_SSD.pdf
Enclosure	19" 5U Rackmount
Ambient Conditions	
Analyzer Environment	Indoor
Ambient Temperature	15 – 50 °C
Physical Specifications	
Dimensions	8.64"H x 19.00"W x 14.05"D
Weight	30 lbs.
Process Connections	1/4" tube fittings
Utility Requirements	
Electrical Requirements	100-240 VAC
Power Consumption	370 Watts
Outputs/Communication	
Outputs	1x 4-20mA analog output 1x Fault Relay (Dry Contact) 1x Ethernet connection for remote control 1x Optional serial connection for Modbus



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