ATAC Analytical Technology & Control Ltd

Luminos TDL

Model 34 Online H_2S Analyser

The ATAC Luminos TDL hydrogen sulphide (H_2S) analyser utilizes a tunable laser for precise measurement, even at very low concentrations.

Benefits

- Factory calibrated
- Direct Absorption Spectroscopy
- No field calibration required
- Intrinsically Linear
- Ultra-low Noise
- Low Maintenance
- Simple, automated field validation

Features

- Laser based analyser with no moving parts
- No expensive consumables or hazardous tapes
- Superb linearity is intrinsic to the measurement method
- Excellent long term stability
- Laser lifetimes typically greater than 10 years
- Specific measurement, no interference from other gases
- Single factory calibration over the whole range
- Real time measurement with fast response time
- Sample wetted parts are treated to avoid sulphur absorption
- Large dynamic ranges up to 4,000ppm
- Repeatability better than 0.5ppm

Applications

- Natural gas processing, storage and distribution.
- Refinery processes and final products.
- Petrochemical processes & Catalyst Protection
- LNG processing and NGL products.
- Speciality gases and other non-condensable gases on request.

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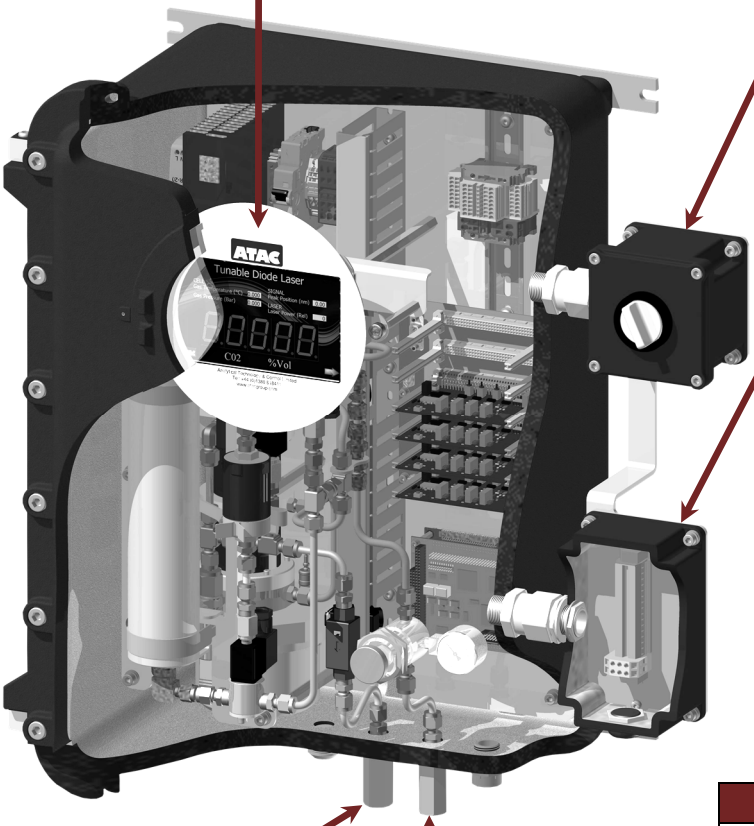
Infra Red Spectroscopy: The instrument operates by measuring the absorbance of infra-red light by the gas species of interest. The range of operational wavelength depends on the specific instrument but is typically 0.7 to 2.6µm. Most gases have absorption chromophores in this range, and the instrument can be factory configured, by selection of the laser diode fitted, to measure a wide range of analytes.

Human Machine Interface (HMI)	
Local Display	7” Colour Touch Screen



Electrical Connections	
Connections	Electrical: M20 Ex e (Power)
Power Supply	86V to 264VAC Frequency: 50/60 Hz (24 VDC Optional)
Consumption	150-500VA

Communications & Networking	
Connections	Electrical: M25 Ex e (Signal)
Can Bus	Local Machine Highway
Serial	Various communications options are available, please consult the factory for details
Analogue Outputs	1 x 4-20mA Isolated Output - Sample Concentration
	1 x 4-20mA Isolated Output – Sample Flow
Analogue Inputs	1 x 0-24Vdc Input – Remote Validation
Relays	2 off 0v Contact Relays (8 Off Relays Optional)
Local Display	7” Colour Touch Screen

Sample Outlet	
Connections	Sample ¼ O/D Swagelok

Sample Inlet	
Connections	Sample ¼ O/D Swagelok
Sample Conditions at Inlet	Pressure: 2.0bar (30psi) Max – High pressure alarm >2 bar
	Temperature <50°C (High Temperature Optional)

Performance Specifications	
Configuration	7.6 Meter Multi-Pass Herriot Cell
Standard Range	0-4000 ppm (other ranges are available)
Low Range	0-300ppm
Repeatability	±5% of range on low range
Limit Of Detection	0.5% of Range
Linearity	1% Of Full Scale
Zero Drift	<5% Of Full Scale/Year
Response Time T90	<90 Seconds (Flow Rate Dependant)
Gas Flow Rate	1 – 3.6L/min
Explosion Protection	IECEx & ATEX Zone 1 IIB+H2 T4
Dimensions	Width: 582mm
	Depth: 360mm
	Height: 659mm
Weight	80kg+ (Configuration Dependant)
Operating Temp.	0°C to +50°C (Ambient)
Environmental	
Ambient	0°C to 50°C
It is recommended that low range units are installed inside a temperature controlled shelter	

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