



Total Sulfur Analyzers

Continuous measurement of all present sulfur compounds.

Model TSA-100 w/ Gas Pyrolysis

- » All sulfur compounds pyrolyzed to SO₂ (ASTM method)
- » UV-Vis full-spectrum spectrophotometer
- » Analyzes hydrocarbon gas streams

Model OMA-300 Total Sulfur Direct

- » Direct analysis of gas/liquid sample
- » Multi-Component measurement of up to 5 sulfur compounds in the stream
- » UV-Vis full-spectrum spectrophotometer



TSA-100 Measurement:

total
sulfur

Example OMA-300 Measurement:

H₂S

SO₂

COS

MeSH

CS₂

5 available software benches

Note: 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.

Total Sulfur Analyzer Specifications

	TSA-100 Total Sulfur Gas Analyzer	OMA-300 Total Sulfur Direct
Detector	nova-II™ UV-Vis diode array spectrophotometer	
Method	Controlled oxidation of sample sulfur to SO ₂ via pyrolysis (R-S + R-H + O ₂ > SO ₂ + CO ₂ + H ₂ O) and measurement of resultant SO ₂	Direct multi-component analysis of up to 5 sulfur compounds in the process stream
Light Source	Pulsed Xe lamp (average 5 year lifespan)	
Sample Conditioning	Custom design per application	
Accuracy	Application-dependent <i>Inquire with Sales about your application.</i>	<i>Example components & ranges below; custom analysis available. System accuracy for your measurement application will need to be confirmed with Engineering.</i> H₂S / SO₂ / mercaptans (liquid phase) 0-10 mg/L: ±0.1 mg/L 0-100 mg/L: ±1% full scale or 0.1 mg/L, whichever larger H₂S / SO₂ / mercaptans (gas phase) 0-10 ppm (@10 bar): ±0.1 ppm 0-10 ppm (@1 bar): ±1 ppm 0-100 ppm: ±1% full scale or 1 ppm, whichever larger 0-10,000 ppm: ±1% full scale 0-100%: ±1% full scale
Analyzer Calibration	Calibrated at factory or site with certified calibration fluid (never requires re-calibration)	
Verification	Simple verification with samples or neutral density filters	
Ambient Temperature	Standard: 0 to 35 °C (32 to 95 °F) With optional temperature control: -20 to 55 °C (-4 to 131 °F) <i>To avoid radiational heating, use of a sunshade is recommended for systems installed in direct sunlight.</i>	
Electrical Requirements	Analyzer: 85 to 264 VAC 47 to 63 Hz	
Power Consumption	Analyzer: 45 Watts	
Environment	Indoor/Outdoor — no shelter required	
Human Machine Interface	Touch-screen industrial controller with 640x480 LCD	
Standard Outputs	1 galvanically isolated 4-20mA output per measurement 2 digital outputs for fault and SCS control	
Optional Outputs	Modbus TCP/IP; RS-232; RS-485; Fieldbus; Profibus; HART; more	
Weight	Analyzer: 32 lbs. (15 kg)	
Size	Analyzer: 24" H x 20" W x 8" D (610 x 508 x 203 mm)	
Enclosure	<i>Various enclosures available.</i> Standard: wall-mounted carbon steel NEMA 4 enclosure	
Sample Cell	<i>Other materials available.</i> Standard: stainless steel 316L flow cell	

MADE IN THE USA

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