

H₂S IN WATER ANALYZER

CONTINUOUS ON-LINE PROCESS

Model 205 / 204H



205 Colorimetric Tape Method



204H Electrochemical Sensor

IECEX / ATEX

 AVAILABLE

FEATURES - EXCLUSIVE

- Normal Calibrations Not Required
- Conformity to ASTM Methods (Tape Method)
- Specific to H₂S Only (Tape Method)
- Accurate and Continuous Analysis
- Quantitative Measurement in PPB, PPM & Percent Levels
- Push Button Validation (optional)
- Proven Reliability
- Calibrations Not Required
- Fast Response Time

Description & Principle of Operation

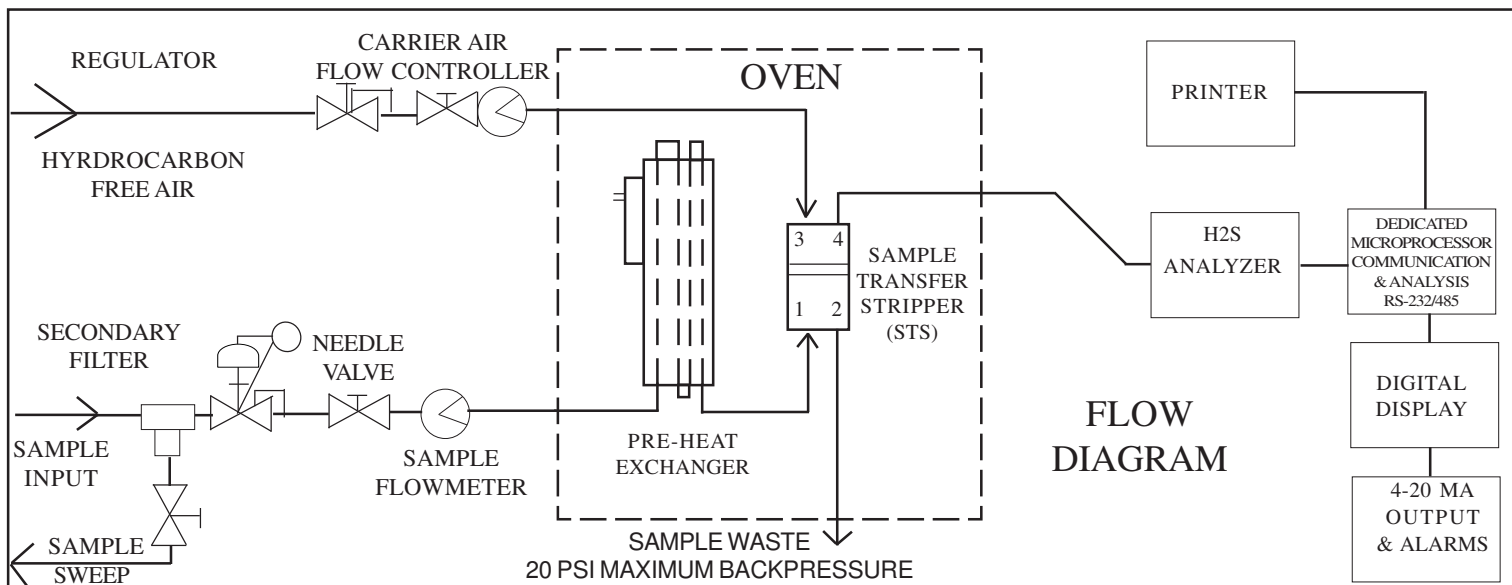
The ability to analytically quantify H₂S in Water online is enhanced with the Sample Transfer Stripper™ STS (Exclusive Membrane Technology) and the ratiometric colorimetric or solid state sensor technologies offered by Analytical Systems International (ASI). Economic payout is increased because of this automated continuous process monitor.

The process of measuring H₂S in liquid samples requires the H₂S to be representatively separated from the liquid for measurement in the gas phase. Sparging, or the problematic & complicated “headspace” system, which often suffers from liquid carry-over, is not required for this separation. ASI utilizes the state-of-the-art Sample Transfer Stripper (STS) with exclusive ASI Membrane Technology to efficiently and reliably separate the H₂S from the liquid sample. The STS is an extremely simple device that provides an ultra-clean and dry sample to the analyzer for analysis. This results in radically reduced maintenance requirements when compared to the headspace method and also enhances analytical reliability. ASI is established as the world-wide leader in H₂S in Liquids analysis due to the many benefits of this exclusive technology.

The principle of operation requires a continuous free flowing water sample into the heated compartment where the Sample Transfer Stripper™ STS (Exclusive Membrane Technology) unit separates the H₂S from the water sample. An H₂S free air or nitrogen carrier then sweeps the H₂S gas sample to the H₂S detector for quantitative analysis in PPBw, PPMw, and up to saturation levels. A liquid validation by Perm Tube™ is optional.

ASI offers two detection technology choices for H₂S measurement in water: The ASTM approved tape method (model 205) and the Electrochemical Cell (model 204H).

The lead acetate sensing tape utilized in our analyzers is the only detection method that is absolutely specific to H₂S. Optical illumination & detection are integrated for maximum resolution and accuracy. Measurements in the low ppm and even ppb ranges are practical with this technology. The sensing tape method does not suffer from 'zero drift' due to the inherent automatic zero ability. The electrochemical sensor is ideal for remote installations and does not require tape changes. Patents and Patents Pending based on letters that are available on request.



MODEL 205 SPECIFICATIONS (TYPICAL)

POWER INPUT:

- 110 VAC 50/60Hz @ 400 Watts.
- 220 VAC 50/60Hz (Optional)

TEMPERATURE:

- Operating: 5C to 50C (Heating Optional)
- Storage: 0C to 70C

ANALYTICAL PERFORMANCE:

(APPLICATION DEPENDENT)

- Range Customer Specified: PPB W Thru PPM W to Saturation (Lower Detectable Limit < 100 PPBW)
- Accuracy: $\pm 2\%$ of Full Scale (Tape method)
- Repeatability: $\pm 1\%$ of Full Scale (Tape method)
- Resolution: 5 PPB (Tape method)
- Linearity: $\pm 1\%$ of Full Scale (Tape method)
- Drift: Nil (Tape method)
- Temp. Coefficient: 0.01% 1 Degrees C
- Analysis Time: 0.7 Seconds (Concentration Dependent)

ACCESSORY OPTIONS:

- Auto-Clean Filter w 1 liter/min. sweep
- Type Z Purge, Type X Purge
- Special Sampling Systems
- Validation System
- Air Purifier For Hydrocarbon Free Carrier

DISPLAY:

- Alpha Numeric LCD

MEMORY / COMPUTER INTERFACE:

- RS-232/485 Serial Port

ANALOG OUTPUT SIGNAL:

- 4-20ma Linearized (standard)
- 4-20ma Isolated Linearized (Optional)

UTILITY GASES:

- Air carrier clean and H₂S free 200 ml/min.
- Air or Nitrogen Purge Supply (Optional)

ALARM CONTACTS (Optional):

- High and Low Concentration Relay
- Diagnostic Trouble Shooting Includes:
- Sample, Air, Purge Flow & Temp. Alarm

AREA CLASSIFICATIONS:

- General Purpose (Standard)
- Hazardous Area (purge) Zone 1 or Zone 2 (Div I or Div II)
- ATEX / IECEx Certification (optional for 204H)

GABINET DIMENSIONS & WEIGHT:

- Stainless Steel NEMA 4X
36" H x 36" W x 12" D
200 lbs. or 100 Kilograms (Without Options)

Quotation Information:

Analytical Systems International provides design and application engineering assistance for the user's analyzer requirements. For a quotation, please complete ASI Analyzer Quote Request Form at www.ASIKECO.com

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