

# H<sub>2</sub>S IN LIQUIDS ANALYZER

CONTINUOUS ON-LINE PROCESS

**CRUDE, FUEL OIL, DIESEL, DRILLING FLUID, WATER**

**Model 205HV**



- **Fast response time** of only seconds
- **Specific only to H<sub>2</sub>S**, no interferences, utilizing ASTM approved Colorimetric Tape Method
- **No routine calibrations required**  
Maintains accuracy long term
- **Long tape life** - Only 4-7 tape changes per year on average
- **Rugged built** Stainless Steel Powder coated enclosure for off-shore/desert/marine environments
- **Sample Transfer Stripper (STS)** for years of **dependable & hassle-free** performance  
Capable of wide range viscosity samples
- **Accurate at PPB, PPM and % Ranges**



**Awarded 'Preferred Vendor' by Saudi Aramco  
for the Model 205 H<sub>2</sub>S in Crude Analyzer**

Virtually **no moving parts** in the sampling system allows for extremely high reliability.

## Description & Principle of Operation

The Model 205 H<sub>2</sub>S in Liquids Analyzer offers high dependability & performance with the ability to measure H<sub>2</sub>S in a wide range of viscous samples including crude oil, fuel oil, diesel, drilling mud, water and others. The design is based on years of field experience with model 205s installed throughout the world. This model establishes Analytical Systems as the true worldwide leader for hydrogen sulfide measurement in liquids.

The ability to analytically quantify H<sub>2</sub>S in liquids, such as naphtha, water, crude oil, fuel oil, drilling mud and gasoline, are enhanced with the Sample Transfer Stripper™ (STS) exclusive ASI Membrane Technology Model 174HV and ratiometric colorimetric technologies offered by Analytical Systems. The principle of operation requires a continuous free flowing liquid sample into a heated enclosure where the Sample Transfer Stripper™ unit separates the liquids from the H<sub>2</sub>S gas sample. An H<sub>2</sub>S free or nitrogen carrier then sweeps the H<sub>2</sub>S gas sample to the H<sub>2</sub>S analyzer for quantitative analysis in ppbw, ppmw, and up to saturation levels. A liquid validation by PermTube™ is optional. The detection technology is based on chemically specific density changes. The lead acetate sensing tape utilized in our analyzers is the only detection method that is specific only to H<sub>2</sub>S. Optical illumination & detection are integrated for maximum resolution accuracy. Economic payout is increased because of this automated continuous process analyzer.



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ASTM approved Colorimetric Tape Method H2S Analyzer is specific only to H2S and has no interferences. Consumes only 4-7 tapes per year

The 205-HV features a temperature controlled oven capable of high heat to melt wax that may be present in the liquid samples

Precision mass flow controller ensures a reliable carrier air flowrate to the detector at all times

Sample Transfer Stripper 174-HV with ASI Membrane Technology strips H2S from the liquid ensuring a clean, dry sample. The design eliminates any liquid carry-over and requires little to no maintenance

Convenient Cleaning System with Quick-Connect port allows for occasional, hassle-free cleaning of entire flow system

The all-in-one package includes Automatic cleaning filters built inside analyzer cabinet

### ***ANALYTICAL PERFORMANCE:***

*(APPLICATION DEPENDENT)*

Ranges available: PPB, PPM to Saturation  
Accuracy: + 2% of Full Scale  
Repeatability: + 1% of Full Scale  
Resolution: <10 PPB  
Linearity: + 1% of Full Scale  
Drift: Nil  
Temp. Coefficient: 0.01% 1 Degrees C  
Analysis Time: 0.7 Seconds (Concentration Dependent)

### ***OPTIONS:***

High and Low Concentration Relay  
Diagnostic Trouble Shooting Includes:  
Carrier Air, Purge Flow & Temp. Alarm  
RS-232/485, Remote Troubleshooting  
Quick-Cleaning System  
True Validation System (auto or manual)

### ***AREA CLASSIFICATIONS:***

General Purpose (Standard)  
Purge Class I Div. II or I, GR. B,C,D (Optional)

### ***CABINET DIMENSIONS & WEIGHT:***

Stainless Steel Cabinet  
4 Ft. H x 3 Ft. W x 12 In. D  
280 lbs. (Without Options)

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](http://www.asikeco.com)