

# Model 934 Sensor Specific Gas Analyzer

## Benefits

- ▶ No-moving-parts design
- ▶ Sample return to process (with HAG probe option)
- ▶ Minimal sample conditioning
- ▶ Low maintenance design
- ▶ Minimal calibration drift
- ▶ Stream switching capability

## Typical Applications

- ▶ Amine-based tail gas treating (H<sub>2</sub>TGTU Absorber Overhead)

## Introduction

The Model 934 is a rugged, analyzer adapted from the Model 931/932 UV analyzer platform for measurement of Hydrogen in TGTU Applications where the UV (H<sub>2</sub>S) is not required. The Model 934 analyzer system has a heated cell to avoid any hydrocarbon or water condensation. A fully integrated AMETEK Process Instruments sample system ensures reliable dew point control without running the risk of plugging, contaminating, or flooding the analyzer. Many process applications require the detection of species which do not absorb ultraviolet light.



## Performance Specifications

**Methodology:** Thermal Conductivity

**Standard Range**

H<sub>2</sub>: 0 to 5% or 0 to 10%.

Other components and ranges are available upon request. Other measurements include COS, CS<sub>2</sub>, & H<sub>2</sub>S.

**Accuracy:**

(TCD) H<sub>2</sub> sensor for TGTU applications: ±5% of full scale  
Optional (IR) sensor for THC, CO<sub>2</sub>: application specific, consult factory

**Linearity:** Better than ±1% of full scale for H<sub>2</sub>S

**Zero Drift:** Better than ±2% of full scale, with auto zero disabled over 24-hour period

**Speed of Response:** Typically less than 30s to T90 (excluding sample system)

**Number of Gases:** one

**Zero Gas:** Nitrogen or instrument air

**Maximum Sample Cell Pressure:** 6.9 barg (100 psig)

**Maximum Sample Gas Temperature:** 165 °C (329 °F)

**Typical Sample Flow:** 2.5 L/min (5 SCFH)

**Sample Transport:** Application dependant (options include Heated Acid Gas probe)

**Outputs:** Up to 4 isolated 4-to-20 mA, loop or self-powered, 30 VDC Max; 4 non-isolated 1 to 5 VDC; 5 independent sets of SPDT, Form C, potential free alarm relay contacts, 2 A at 240 VAC

**Digital Communication:** RS485 Modbus port; RS232 / RS485 service port

**Utility Requirements:**

120 VAC (104 to 132 VAC), 47 to 63 Hz, <3A

240 VAC (207 to 264 VAC), 47 to 63 Hz, <2A

**Power Consumption:** 500 W max. (with heated probe and cell)

**Ambient Temperature:** 0 to 50°C (32 to 122°F)

**Physical Dimensions:** 1185 x 780 x 254 mm  
(46.65 x 30.7 x 9.97 in.)

**Weight:** Approximately 145 kg (320 lbs)

**Approvals and Certifications:**

CEC Class I, Division 1, Groups C&D; Ex dIIB T3

NEC Class I, Division 1, Groups C&D; AEx dIIB T3

ATEX II 2 G Ex d IIB T3 Gb

Complies with all relevant European directives

# Model 934 Single Gas Analyzer



Optional: NEC Class I Div. 2 Groups B-D

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One of a family of innovative process analyzer solutions from AMETEK Process Instruments.  
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