

PRODUCT DATA SHEET

Heated Acid Gas (HAG) Sampling Probe

Fully integrated, electrically heated probe assembly

The HAG Sampling Probe is a fully integrated, electrically heated sample handling probe assembly designed to be incorporated with AMETEK hydrogen sulfide (H₂S) analyzers, including the IPS-4 feed gas analyzer.

With integrated shut-off valves, the HAG probe does not need to be removed from the process for maintenance. An integrated, serviceable membrane filter protects the downstream analyzer from entrained liquids. In addition, the HAG Sampling Probe is temperature-controlled by an integrated electric heater to ensure that no sample condensation occurs within the probe.

The HAG probe provides the motive force necessary to circulate the sample through the analyzer system. The sample is extracted and transported through the probe and analyzer sample system by a heated aspirator built into the probe's sample return path. In addition, the probe is compliant with NACE MR0175-2002 for use in sour gas service.

Single process connection

The HAG Sampling Probe requires only a single process connection for both sample extraction and return. This reduces installation costs by eliminating the need for additional vent systems or taps in the process line.

Easy to maintain

The HAG probe contains double block integrated shut-off valves that allow servicing without removal from the process.



KEY BENEFITS

- Returns sample to process
- Maintains sample temperature above the dew point
- Prevents ingress of liquids and solids
- Double block valve configuration (Single block valve option available)

APPLICATIONS

- Sulfur recovery unit acid gas
- Sulfur recovery tail gas treating unit
- Sample transport for any low pressure H₂S source

KEY MARKETS

- Sulfur recovery
- Acid gas sampling

PERFORMANCE SPECIFICATIONS

Process pressure limitations	6.9 barg (100 psig) at 121°C (250°F)
Ambient temperature	-29°C to 70°C (-20.2°F to 158°F)
Utility requirements	120/240V, 50/60 Hz, 150W less than 30 L/min (1.0 SCFM) instrument air (or nitrogen, or steam) at 2.1 barg (30 psig) above process pressure
Process connection	1 1/2 in. M-NPT standard. Various ANSI flange adaptors available (ex: 1 1/2" to 3" at 150 lb or 300 lb)
Ingress protection	NEMA Type 4 Meets IP55
Dimensions	127 mm D x 229 mm H (5 in. D x 9 in. H) (requires 51 mm [2 in.] on either side for installation purposes)
Weight	13.6 kg (30 lbs) approximate
Approvals and certifications	CSA certification to CSA and UL Standards for General Safety Requirements CSA certification to CSA and UL Standards for Class I, Division 1, Groups B, C and D Ex d IIB + H ₂ T3 (Class I, Zone 1, Group IIB + H ₂) ATEX: II 2 G Ex db IIB + H ₂ T3 Gb or II 2 G EX db IIB + H ₂ Tx IECEx: Ex db IIB + H ₂ T3 Gb or Ex db IIB + H ₂ T3 (IECEx DEK 15.0035x) Complies with all relevant European Directives

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