

Model 5000 Sample Systems

AMETEK Process Instruments offers its Model 5000 moisture analyzers with a series of optional single and multi-point sample systems. These sample systems are the culmination of extensive experience at thousands of moisture analyzer installations worldwide. These systems are engineered to optimize the performance of all AMETEK moisture analyzers. AMETEK's total system approach offers:

- || Confidence in the accuracy and reliability of the moisture measurement
- || Single-supplier accountability
- || Reduced cost per measurement point through automatic stream switching
- || Lower total installation cost

Each 5000 Sample System comprises a floor mounted painted steel cabinet with the proper complement of sample handling components. Basic components of all systems include: bulkhead fittings, shutoff valves, filters, pressure regulator(s) with gauges, bypass flow meter(s), relief valve(s), and reference gas dryers. In addition, AMETEK has engineered a number of optional accessories that fully configure 5000 sample systems for specific application requirements. A few examples: stainless steel cabinets, clamshell enclosures with and without windows, membrane gas/liquid separators, fast loop sampling, and remote pressure reduction.

The Model 5000 Sample Systems, although designed for use with the Model 5000 Moisture Analyzer, are available for use with other AMETEK moisture analyzer models such as the 2850, 3050-RM, 5800, 5812 and 5830 among others although non-5000 moisture analyzers are limited to a single sample stream. Separate specification sheets are available that describe the exceptional performance capabilities of these moisture analyzers. Contact AMETEK Process Instruments or your local representative for more details.



2-pt. Zone 1 Sample System (above); 4-pt. Gas Sample System (inset)

Performance Specifications

Number of Sample Streams: 1 to 4

Multi-stream Switching Time:
Programmable from 2 minutes to many minutes per stream. (The optimum dwell time will be determined for your application.)

Sample Wetted Parts: Stainless steel

Sample Pressure: 2.1 to 6.9 bar (30 to 100 psi) or up to 137.9 bar (2000 psi) with optional pressure reducer

Sample Flow Requirement: 1500 sccm

Liquid Stream Capability:

Atmospheric pressure boiling points up to 40°C (104°F)

Utility Requirements: A/C power:

100 to 240 V, 50/60 Hz, 190 W for the sampling system, 175W (maximum) for the moisture analyzer, 500 W (maximum) for the optional cabinet heater

Maximum separation between Model 5000 Moisture Analyzer field unit and controller: 600 m (2000 ft.)

Ambient Temperature:

-20°C to 50°C (-4°F to 122°F) without heat

-40°C to 50°C (-40°F to 122°F) with optional electric heat

Vortex cooler option available for high temperature operation

Physical Dimensions (H x W x D):

Single point field unit: 153 x 77 x 46 cm (60 x 30 x 18 in.)

2, 3, 4 point field unit: 168 x 92 x 46 cm (66 x 36 x 18 in.)

Weight: Can vary up to about 350 kg (770 lb.) depending on options

Approvals and Certifications:

NEC/CEC General Safety Requirements

Field Unit:

NEC/CEC Class I, Division 1, Groups B, C, D;

ATEX II 2 G EEx d IIC T6

(optional: CSA Special Acceptance)

Controller:

NEC/CEC Class I, Division 2, Groups A, B, C, D T4

Optional:

Class I, Division 1, Groups B, C, D

ATEX II 2 G EEx d IIC T6

Sample System:

NEC/CEC Class I, Division 2, Groups B, C, D

Optional:

NEC/CEC Class I, Division 1, Groups B, C, D T6 to T3

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Russian Gosstandart Pattern Approval

Russian Ex Proof Certification 1ExdIIC T6

Complies with all relevant European directives

Options and Accessories

Remote Pressure Reducer:

Electrically heated vaporizing regulator, Division 1/Zone 1, including pressure gauge, shut off valve and relief valve mounted in painted steel (stainless optional) NEMA 4X box. Approximate dimensions (H x W x D): 31 x 37 x 16 cm (12.3 x 14.8 x 6.4 inches) .

Electric Cabinet Heating: Division 1, 400W or Zone 1, 500W

Clamshell Enclosure (Single Point Systems only): Painted or stainless steel, with or without window, pedestal design, flush mounting for space-saving installation

Vortex Cooler: Recommended for locations where the ambient temperature routinely exceeds 40°C (104°F), thermostatically controlled. Requires 100 psig instrument air; consumes 25 SCFM when operating

Fast Loop: Designed to speed instrument response to moisture changes in the process

Membrane Gas/Liquid Separator: Separates liquid contaminants from the gas sample stream, protecting the sensor for liquid contamination



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One of a family of innovative process analyzer solutions from AMETEK Process Instruments.
Specifications subject to change without notice.

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