COM.AIR

Precision Compressed Air Chilled Mirror Dew/Frost Point Hygrometer

A Robust, High Accuracy, Dew/Frost Point Hygrometer for Monitoring and Controlling Compressed Air Systems

The COM.AIR dew/frost point monitor offers the highest level of reliability and accuracy available in compressed air systems dew/frost point measurement. It is highly regarded by manufacturing engineers for its robust packaging, accuracy, long life, fast response and ease of use. The COM.AIR is available with a variety of primary method chilled mirror sensors including Edgetech Instruments' S Series for most compressed air applications, or the X3 Series when corrosion resistance or lower dew/frost point measurement is needed.

The COM.AIR employs a highly developed chilled mirror sensor, the most accurate commercial dew/frost point sensor type available, to deliver continuous, drift-free dew/frost point measurement in compressed air systems without the need for regular calibration or sensor replacement. It utilizes programmable Automatic Balance Control (ABC) to correct for the effects of mirror contaminants and provide continuous monitoring with very little or no maintenance. Its modular sensor may be configured for the user's dew/frost point range requirements. The COM.AIR offers the highest level of reliability and accuracy available in a compressed air system dew/frost point measurement instrument.

The COM.AIR is a complete dew/frost point monitoring system contained in a NEMA-12 enclosure for use in rugged industrial environments. The wall-mountable package contains the sensor, control circuitry and flow control assembly. After mounting, installation of a single sample line and power connection put the COM.AIR into operation. An alarm relay, horn and visual indication as well as an analog output are included.

Edgetech Instruments hygrometers are manufactured in the USA, in a modern, well staffed facility that is ISO 9001:2015 registered with ISO/IEC 17025:2005 accredited calibration laboratory. All calibrations and certifications are traceable to NIST.

COM.AIR Dew/Frost Point Hygrometer

Applications include:

- Compressed air
- Dryer systems
- Heat treating
- Fluidized bed dryers
- Plastics blow and injection molding
- Pharmaceutical processes
- MAP systems
- Power and energy systems
- Verification of polymer and metal oxide sensor based hygrometers

Features:

- Precise, drift-free dew/frost point measurement
- Primary method chilled mirror sensor
- Automatic Balance Control
- Easily serviceable sensor
- Audible and visual alarms
- Multiple interface options
- Integral sample flow meter

Made in USA

Edgetech Instruments

ISO/IEC 17025:2005 Accredited
ISO 9001:2015 Registered

Technical Specifications

COM.AIR

Sensor Type:

Primary method chilled mirror dew/frost point

Dew/Frost Point Range (at 25°C ambient)**:**

S Series sensors:

S2 two-Stage: -40°F to 122°F (-40°C to 50°C)

S3 three stage: -103°F to 122°F (-75°C to 50°C)

Liquid cooling is required to measure frost points below -60°C with S Series sensors

X3 Series sensors:

X3 Standard: -50°F to 165°F (-45°C to 75°C)

X3F Fan Cooled: -85°F to 165°F (-65°C to 75°C)

X3SF High Efficiency: -95°F to 165°F (-70°C to 75°C)

X3LC Liquid Cooled: -130°F to 165°F (-90°C to 75°C)

Liquid cooling is required to measure frost points below -70°C with X3 Series sensors

Accuracy:

Dew/Frost Point:

S Series: ± 0.5°F (± 0.28°C)

X3 Series: ± 0.36°F (± 0.20°C)

General:

Display: Red LED, 0.5 in (1.27 mm) tall; 8 digit alphanumeric

Operating temperature: 32°F to 122°F (0°C to 50°C)

Sample connection: 1/4 in compression fitting, standard model configured for positive pressure

Sample flow rate: 0.5 to 5 SCFH; integral flow meter

Pressure: 0 to 150 psig (10.34 bar).

Higher pressures available, consult factory

Power:

90 to 230 Vac ±10%, 50 to 400 Hz

Cord and ON-OFF switch provided

Outputs:

Analog: 0 to 5 Vdc or 4-20 mA scaled for sensor

Compliance: 9.0 Vdc, 450 ohms

Serial: RS-232

Alarms:

Audible: Greater than 98 dba at 2 ft.

Relay: 1 Form C, non-latching 10 A at 240 Vac, 8 A at 24 Vdc, 1/2 HP at 240 Vac

Visual: Flashing “ALARM” message

Initiating Automatic Balance Control

Weights & Dimensions:

Weight: 6 lb. (2.7 kg)

Enclosure Dimensions:

10.7 in H x 14.0 in W x 6 in D

(27.3 cm H x 35.6 cm W x 15.2 cm D)

Environmental:

Enamel Coated Steel NEMA 12 (IP52)

Options:

Vacuum pump for sample extraction

Extended range sensors

RS-232 digital output

Pressure transducer (for gr/lb. or PPMv measurement)

In-line particulate/coalescing filter

Remote sensor mounting kit

Strobe alarm light

High pressure sensor

Chrome, platinum or stainless steel mirror

Made in USA

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