Panametrics

Datasheet

DewPro® MMR31

Moisture transmitter

The DewPro MMR31 loop-powered moisture transmitter represents a simple, cost-effective solution for mid-range moisture measurements. The DewPro MMR31 uses a proven polymer capacitive sensor to provide a measurement range of 0 to 100% RH with an accuracy of ±2% in the range of 0 to 90% and ±3% in the range of 90 to 100%. A patented second isolated loop for temperature measurement is also available. The optional integrated display with user interface provides full programming and diagnostic capability. In addition, the unit is available with FM approval for hazardous area use.

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The DewPro MMR31 provides a wide range of process humidity measurements, including relative humidity, dew point temperature, absolute humidity, and mixing ratio. These key parameters will help monitor and control critical processes. Whether you need to improve product economy, increase product quality, maintain comfort levels, or preserve the properties of stored foods or other supplies, the DewPro MMR31 allows application flexibility.

Features

- Loop-powered, 4 to 20 mA transmitter
- Proven polymer capacitive sensor for fast response and calibration stability
- Trouble-free indoor or outdoor mounting
- Simple field recalibration with salt bottles
- Microcontroller electronics in Type 4X/IP67 enclosure

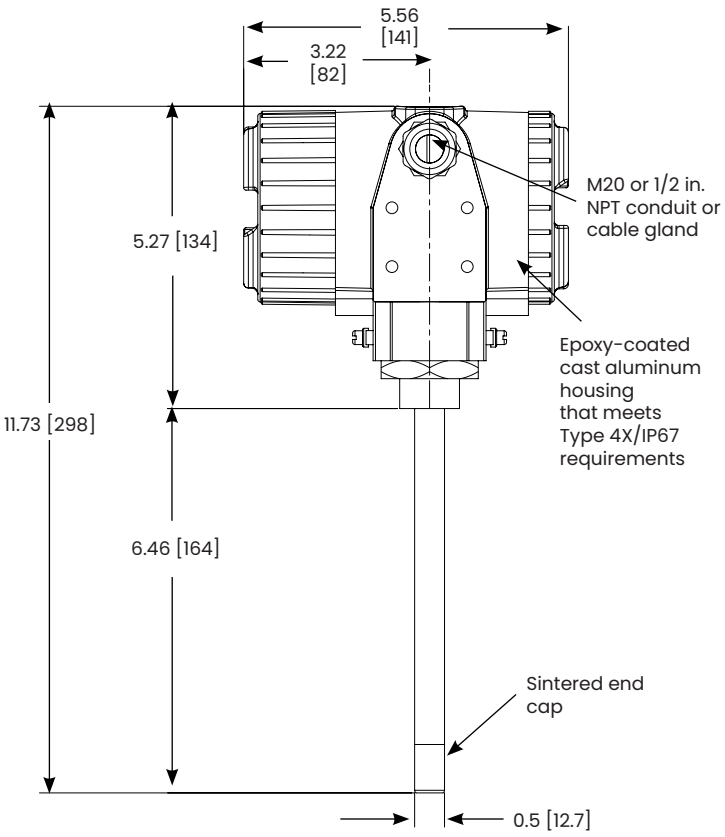
Options

- FM approved explosion proof
- Integral display with user interface
- English or metric fittings
- External display available with loop-powered supply and alarm contacts
- Second isolated loop (patented) for temperature
- Wall mount kit

DewPro MMR31 Specifications

Sensing element	Silicon-based polymer, capacitance principle, IC electronics
RH range	0 to 100%
RH accuracy at 77°F (25°C)	• ±2% in the range of 0% to 90% • ±3% in the range of 90% to 100%
Dew point range	5°F to 185°F (-15°C to 85°C)
Dew point accuracy	±1.8°F (±1°C) above 32°F (0°C) dewpoint @ 25°C
Operating temperature range	• Process: 5°F to 185°F (-15°C to 85°C); temperature signal available with second loop • Electronics: -40°F to 185°F (-40°C to 85°C)
Temperature accuracy	±0.9°F (±0.5°C)
Absolute humidity range	1 to 350 g/m^3
Mixing ratio range	1 to 830 g/kg
Maximum operating pressure	250 psia (17 bar) Filter element: 100 microns sintered stainless steel
Outputs	Loop current 4 to 20 mA, 16 :A resolution. Optional output for temperature.
Hardware selectable units	% RH, dew point temperature in °F or °C, absolute humidity in g/m^3, or mixing ratio in g/kg
Optional display	Four-digit numeric display with bar graph and matrix position indication. Four user interface keys for unit selections, output adjustments and ranging.
Power supply	24 VDC nominal, 12 to 30 VDC range
Protection	Type 4X/IP67
Probe tube	316 stainless steel, 1/2 in (12.7mm) diameter, insertion length 3.0 in (75mm) to 5.9 in (150mm), adjustable
Typical probe mounting	1/2 in tube x 1/2 in NPT-M or 1/2 in tube x G 1/2 compression fitting
Weight	3.3 lb (1.5 kg)

European compliance	Complies with EMC Directive 2004/108/EC and PED 97/23/EC for DN<25
Hazardous (classified) location option	• FM approved XP-IS Class 1, Div. 1 • Groups A, B, C and D Type 4X T5 Ta=60°C



DewPro MMR31 with optional display

Per avere più informazioni
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