

# Easidew Online

## Universal Dew-Point Hygrometer

Easy to install and maintain, the Easidew Online Hygrometer measures and displays dew point and moisture content for use in a wide range of moisture applications. The Easidew Online display provides analog, digital, and dual relay alarm outputs.



### Highlights

- Measurement range -100 to +20 °C (-148 to +68 °F) dew point
- Dew point or ppm<sub>v</sub> moisture content output
- Accuracy ±2 °C (±3.6 °F) dew point
- 4 to 20 mA output
- Modbus RTU over RS485 output
- Dual configurable alarm outputs
- Choice of AC or DC Power Supply
- Sample block and cable included
- Traceable 13-point calibration certificate

### Applications

- Membrane dryers
- Adsorption dryers
- Medical and surgical air
- Breathing air
- Additive manufacturing
- Glove boxes
- Plastic injection molding



## Easidew Online

### Easy-to-use Hygrometer

The Easidew Online has been developed as a universal, quick-to-install hygrometer system for the complete dew-point measurement range of -110 up to +20°C (-166 up to 68°F) dew point, which covers most moisture measurement applications.

This hygrometer incorporates the latest Michell ceramic metal-oxide technology, providing stable, reliable, and repeatable moisture measurements.

### Ease of Installation

The Easidew Online is supplied complete with all the parts required to install the sensor in a gas stream and start measuring quickly and easily.

- Easidew 2-wire sensor
- Configurable display with 1/8 DIN mount format
- Stainless-steel sensor sample block with 1/8" NPT inlet and outlets
- Sensor cable – selectable length

The system is supplied with a 13-point calibration certificate from -100 to +20°C (-148 to +68°F) dew point, traceable to national standards.

### Service Exchange/Recalibration Program

Michell offers 2 services for customers who want minimum downtime and sensor traceability, while maintaining the reliability of their online system:

- **Sensor Exchange** – Customers place an order for a guaranteed, reconditioned sensor, supplied with a 13-point traceable calibration. When this arrives, they exchange it for the installed sensor which is returned to Michell, resulting in zero process downtime.
- **Recalibration** – Customers return their installed sensor to Michell, where it is inspected, checked, and recalibrated before being returned. This provides on-going sensor traceability for the process.

### Flexible Output Signals

The Easidew Online has 3 output signal variants, which can be reconfigured as required within the display menu system:

- 4–20 mA or 0–20 mA
- Modbus RTU over RS485
- 2 programmable relay alarms

### Safety and Integrity

The mechanical design of the sensor considers the health and safety quality requirements of the end user, offering an ultra-high process pressure barrier, along with meticulous levels of product traceability and quality.

- High-performance 525 bar (7614 psi) process media barrier
- Optional gas wetted parts BS EN 10204 3.1 material certified
- Optional cleaning for enriched oxygen service
- 13-point calibration certificate

### Measurement Performance

The online system uses Michell's market-leading ceramic metal-oxide measurement technology coupled with the latest-generation, sophisticated microcontroller electronics to provide accurate and stable measurement across the transmitter's product life.

- Accuracy  $\pm 2^{\circ}\text{C}$  ( $\pm 3.6^{\circ}\text{F}$ ) dew point
- Fast response to moisture changes

### Flexibility of Ownership

The Easidew sensor used within the online system has a RS485 communication system, which gives customers the opportunity to re-range and re-scale with a communication kit for a wide variety of moisture measurements.

- Re-ranging 4–20 mA within the -110 to +20°C (-166 to +68°F) dew-point range
- Moisture scaling – dew point,  $\text{ppm}_v$

### Speed of Supply

The online system is manufactured within Michell's world-leading high-volume moisture transmitter manufacturing center in the United Kingdom, which ensures reliability and repeatability of delivery and field supported by a network of Michell's global service centers.

- Manufacturing calibration system traceable to NPL and NIST
- ISO17025 UKAS accredited calibration available on request

### Customization

If your application requires a customized online system, we have specialized design and manufacturing capability to cover your requirements.

## Technical Specifications

### Performance Specifications

<b>Measurement Range</b>	-110 to +20°C (-166 to +68°F) dew point; -100 to +20°C (-148 to 68°F) dew point; non-standard dew-point ranges and ppm <sub>v</sub> ranges available on request
<b>Accuracy</b>	±2°C (±3.6°F) dew point*
<b>Response Time</b>	5 mins to T95 (dry to wet)
<b>Repeatability</b>	0.5°C (0.9°F) dew point
<b>Sensor Calibration</b>	Traceable 13-point calibration certificate

### Electrical Specifications

<b>Online Output Signals</b>	4–20 mA or 0–20 mA; Modbus RTU over RS485; dual programmable relay alarms
<b>Online Output</b>	Dew point or moisture content
<b>Maximum Analog Output Scaled Range</b>	<b>Dew point:</b> -110 up to +20°C (-166 up to +68°F); <b>Moisture content in gas:</b> 0 up to 3000 ppm <sub>v</sub>
<b>Online Supply Voltage</b>	AC: 85 to 264V; DC: 24V
<b>Online Current Consumption</b>	60 mA maximum
<b>Electrical Safety</b>	EN61010-1

### Operating Specifications

<b>Operating Temperature</b>	Sensor: -40 to +60°C (-40 to +140°F); Monitor: 0 to +50°C (+32 to +122°F)
<b>Compensated Temperature Range</b>	Sensor: -20 to +50°C (-4 to +122°F); Monitor: not applicable
<b>Storage Temperature</b>	Sensor: -40 to +60°C (-40 to +140°F); Monitor: -10 to +60°C (+14 to +140°F)
<b>Operating Pressure</b>	52.5 MPa (525 barg / 7614 psig) maximum
<b>Sensor Flow Rate</b>	1 to 5 Nl/min mounted in standard sampling block; 0 to 10 m/sec direct insertion

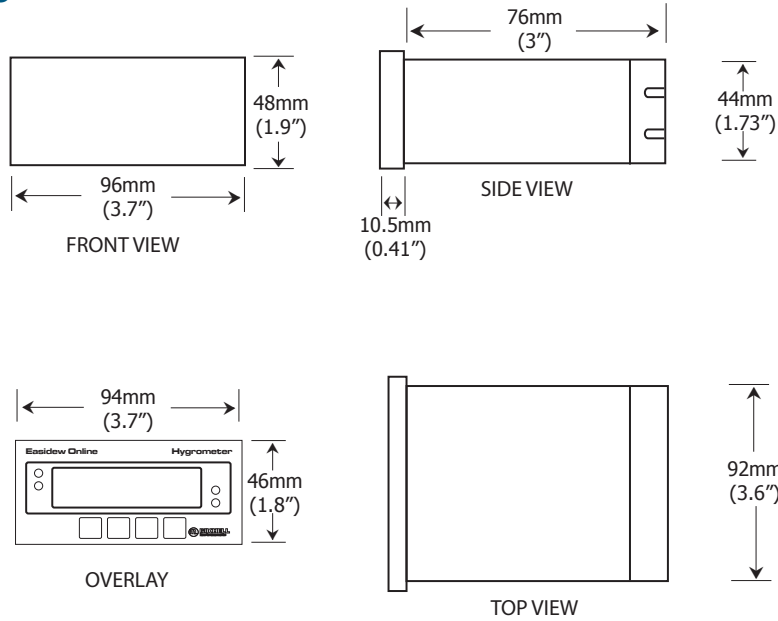
### Mechanical Specifications

<b>Ingress Protection</b>	Sensor: IP66 in accordance with standard BS EN 60529:1992+A2:2013; NEMA 4 protection in accordance with standard NEMA 250–2014 Monitor: IP65 (NEMA 4X) front panel only
<b>Sensor Oxygen Service</b>	<b>Optional:</b> Cleaned for enriched oxygen service
<b>Sensor Housing Material</b>	316 stainless steel
<b>Dimensions</b>	Sensor: L=132mm x ø45mm / L=5.2" x ø1.77" (with connector cable) Monitor: 1/8 DIN Case, 96 x 48 x 85mm / 3.78 x 1.89 x 3.35" (w x h x d)
<b>Filter (Sensor Protection)</b>	<b>Standard:</b> HDPE <10µm <b>Optional:</b> 316 stainless steel sintered guard <80µm
<b>Sensor Process Connection</b>	5/8" - 18 UNF
<b>KF40 Flange Accessories</b>	Flange for 5/8" 18 UNF process connections
<b>Sensor Weight</b>	150 g (5.29 oz)
<b>Sensor Electrical Connections</b>	MiniDIN 43650 form C
<b>Online Sensor Cable</b>	0.8, 2, 5, 10 meter (2.62, 6.5, 16.4, 32.81 ft) connector/cable available
<b>Sensor Diagnostic Conditions (factory programmed)</b>	Sensor fault: 23 mA Under-range dew point: 4 mA Over-range dew point: 20 mA

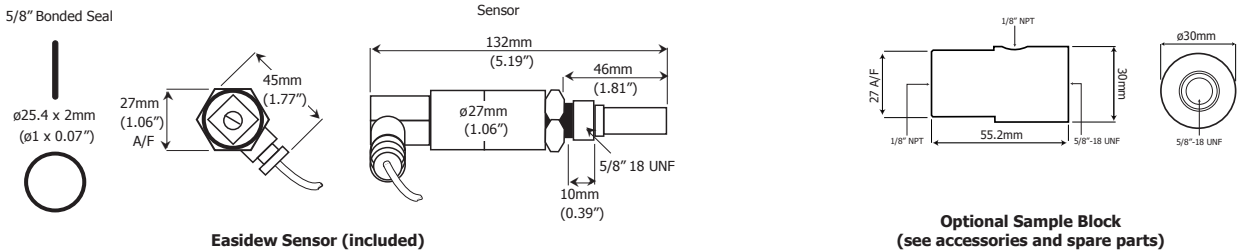
NOTES \* Over Compensated Temperature Range

# Easidew Online

## Product Dimensions



Easidew Online Monitor



## Related Process Products



**SF82**  
Fast-Response Dew-Point Transmitter



**Optidew 501**  
Chilled Mirror Hygrometer



**Easidew PRO X.P.**  
Explosion Proof Moisture Transmitter



**Senz-TX**  
Oxygen Transmitter



**MDM50**  
Portable Hygrometer



**MDM300 I.S.**  
Dew-Point Hygrometer



**ES20**  
Compact Sampling System



**YellowBox Portable**  
Portable Oxygen Analyzer

Michell Instruments adopts a continuous development programme which sometimes necessitates specification changes without notice.  
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