Easidew Transmitters

Industrial Dew-Point Transmitters

Simple to install and maintain, the Easidew transmitter series measures dew point and moisture content and is available with a range of process connections and electrical connectors. The Easidew I.S. transmitter has global intrinsically safe certifications and all Easidew models are available with service exchange program which reduces the cost of maintenance.





Highlights

- Measurement ranges -110 up to +20°Cdp
- Dew point or ppm_V moisture content output
- 2-wire loop power connection
- Accuracy ±2°Cdp
- Traceable calibration certificate
- Power supply 12 to 28 V DC
- Easidew I.S. IECEx, cCSAus, FM and ATEX approvals
- Low cost of ownership and easy maintenance with sensor exchange program
- 316 Stainless steel sensor and sample blocks
- 5/8" UNF, 3/4" UNF, G 1/2" process connections
- MiniDIN 43650, M12 electrical connectors
- Oxygen Service cleaned

Applications

- Compressed air Class 1 to Class 6 dryers
- Breathing air
- Hydrogen coolant
- Inert and bulk gases
- Glove boxes
- Welding gases
- Hazardous areas
- Oxygen purity



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The Universal Moisture Transmitter

The Easidew transmitter has a wide measurement range from -110 to +20°Cdp and one stocked product can be used across all class 1 to class 6 industrial dryer applications.

The Easidew family of industrial transmitters incorporates the latest Michell advanced ceramic technology providing stable, reliable and repeatable moisture measurements for all dew point applications.

Ease of Installation

Flexible product design ensures the unit can be quickly and economically installed.

- Mini DIN 43650 form C or M12 5 pin electrical connectors
- 5/8" UNF, 3/4" UNF, G1/2" BSP process connections
- 316 stainless steel transmitter sample blocks
- On site configuration and diagnostic communication tool

Service Exchange / Recalibration Program

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

- **Sensor Exchange** - Customers place an order for a guaranteed, reconditioned sensor. 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 they are inspected, checked and re-calibrated before being returned. This provides on-going sensor traceability for the process.

Global Certifications

The Easidew series has a broad range of certifications to ensure a single stocked unit can be used in any global application.

- Easidew I.S. - ATEX & IECEx
- Easidew I.S. - cCSAus (US and Canada) & FM
- Easidew I.S. - EX-TC TR
- Easidew - UL approval
- All Easidews - Canadian pressure vessel approved (CRN)

Michell has a large team of experienced field and factory based application engineers who are available to assist with any dew point sensor application.

Safety and Integrity

The mechanical design 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 450 bar 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 transmitter uses Michell's market leading ceramic measurement technology coupled with the latest generation, sophisticated microcontroller electronics to provide accurate and stable measurement across the transmitters product life.

- Accuracy ±2°Cdp
- Fast response to moisture changes

Flexibility of Ownership

The Easidew transmitter 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°Cdp range
- Moisture scaling — dew point, ppm_V

Speed of Supply

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

- Calibration manufacturing system is traceable to globally recognised NPL and NIST ISO 17025 standards

Installation Accessories

Transmitters are available with a range of practical accessories.

- 5/8" UNF, 3/4" UNF, G1/2" BSP Sample blocks
- Compact simple sample systems
- Process connection adaptors

Customisation

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

Technical Specifications

Product	Easidew, Easidew M12 and Easidew 34 Transmitter	Easidew I.S. Transmitter
Performance Specifications		
Measurement range	–110 to +20°C dew point; –100 to +20°C dew point; non standard ranges available on request	
Accuracy	±2°C dew point*	
Response time	5 mins to T95 (dry to wet)	
Repeatability	0.5°C dew point	
Calibration	Traceable 13 point calibration certificate	
Electrical Specifications		
Output signal	4–20 mA (2-wire connection, current source); User configurable over range **Easidew M12:** Modbus RTU over RS485	
Output	Dew point or moisture content	
Analog output scaled range	**Dew point:** –110 up to +20°C; **Moisture content in gas:** 0– up to 3000 $ppm_{V;}$	
Supply voltage	12 to 28 V DC	
Load resistance	Max 250 Ω @ 14 V (500 Ω @ 24 V)	
Current consumption	23 mA max, depending on output signal	
CE conformity	Approved	
UL61010-1 & CAN/CSA C22.2 No. 61010-1		
Operating Specifications		
Operating temperature	–40 to +60°C	
Compensated temperature range	-20 to +50°C	
Storage Temperature	-40 to +60°C	
Operating pressure	45 MPa (450 barg) maximum	
Flow rate	1 to 5 Nl/min mounted in standard sampling block; 0 to 10 m/sec direct insertion	
Mechanical Specifications		
Ingress protection	IP66 in accordance with standard BS EN 60529:1992; NEMA 4 protection in accordance with standard NEMA 250–2003 **Easidew M12**: IP65	
Intrinsically safe area certificates		ATEX: II 1 G Ex ia IIC T4 Ga (-20 to +70 °C) IECEx: EX ia IIC T4 Ga (-20 to +70 °C) TC TR@ 0Ex ia IICT4 Ga (-20 to +70 °C) FM: Class I, Division 1, Groups A B C D, T4 $_{C}CSA_{US}$: Class I, Division 1, Groups A B C D, T4
Oxygen service	**Optional:** Cleaned for enriched oxygen service	
Housing material	316 stainless steel	
Dimensions	MiniDIN 43650 form C L=132mm x ø45mm (with connector cable) **Easidew M12:** M12 5 pin L = 155mm x ø45mm (with connector cable)	
Filter (sensor protection)	**Standard:** HDPE <10µm **Optional:** 316 stainless steel sintered guard <80µm	
Process connection	**Easidew:** 5/8" - 18 UNF **Easidew 34:** 3/4" - 16 UNF **Easidew M12:** 5/8" -18 UNF, 3/4" - 16 UNF, G1/2" BSP	5/8" -18 UNF, 3/4" - 16 UNF, G1/2" BSP
Weight	150g	
Electrical connections	**Easidew:** MiniDIN 43650 form C **Easidew M12:** M12 5 Pin (A coded)	MiniDin 43650 form C
Mating Electrical Connectors	Mating connector supplied as standard **Easidew M12:** optional 0.8, 2, 5 metre M12 A coded connector/cable available	
Diagnostic conditions (factory programmed)	**Conditions** Sensor fault Under-range dew point Over-range dew point **Output** 23 mA 4 mA 20 mA	
Approved galvanic isolators		KFD2-CR-EX1.20200 KFD2-CR-EX1.30200 KFD0-CS-EX1.50P KFD0-CS-EX2.50P KFD2-STC4-EX1.H MTL5041 MTL5040

NOTES * Over Compensated Temperature Range

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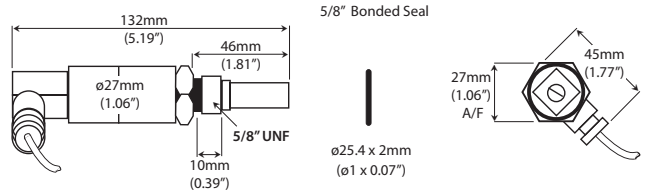
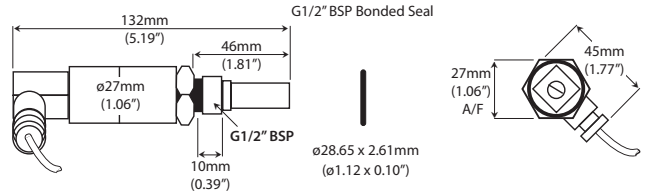
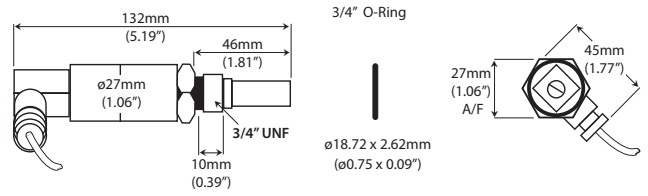
Product Dimensions

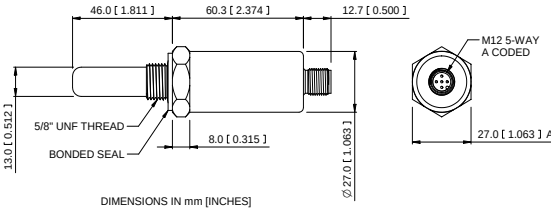
Easidew & Easidew I.S.

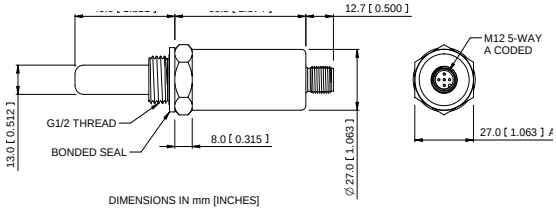


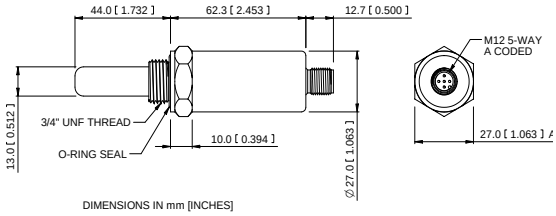


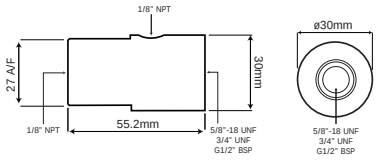


Easidew M12









Optional Sample Block
(see accessories and spare parts)

Related Process Products



Easidew Online
Dew-Point Hygrometer



Optidew 501
Chilled Mirror Hygrometer



Easidew PRO X.P.
Explosion Proof Moisture Transmitter



Easidew PRO I.S.
Intrincically Safe Moisture Transmitter



MDM50
Portable Hygrometer



MDM300 I.S.
Dew-Point Hygrometer



ES20
Compact Sampling System



S8000 RS
High Precision Chilled Mirror Hygrometer

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