



# Easidew TX I.S. Transmitter

From the Impedance Range

An ATEX certified, low cost, 2-wire, rugged impedance dew-point transmitter for continuous measurement in hazardous area applications



*Easidew TX I.S. Transmitter*

## Features

- ATEX Certified - Ex II 1 G Ex IIC T4
- Calibrated -100 to +20 °C dp
- 4-20mA linear output configurable within ranges:-


Dewpoint	(-100 to +20 °C)
	(-148 to +68 °F)
Moisture content	(0-3000ppm(v))
- 2-wire and 3-wire operation
- Fast and reliable
- Small footprint. (Weighs only 150 g)
- IP66 and NEMA 4
- 12 to 28 V dc operation
- Reverse polarity protected
- Pressures up to 40MPa

## Design Simplicity and Economy

The Easidew TX I.S. Transmitter is designed for ease of use, incorporating all the features you want to make installation and operation as simple as possible. For the first time, intrinsically safe dew point measurement is made as accessible as temperature and pressure with this fully configured, calibrated transmitter that can be instantly incorporated into your hazardous area air or gas management and control system.

Easidew TX I.S. Transmitter is also economical to buy, install and operate. Installation costs are minimal because of its ruggedness and simplicity. On-going operating costs are low, because Easidew TX I.S. Transmitter is very reliable and stable. Only periodic re-certification is required to maintain your traceability. We can even organise an exchange programme for you so that your process is never out of operation.

## Certified Intrinsically Safe

Easidew TX I.S. Transmitter is ATEX certified by BASEEFA for use in hazardous areas to  II 1G EEx ia IIC T4 when used with a galvanic isolator for signal and power supply connections (2-wire). Easidew TX I.S. Transmitter is pending approval from CSA (US certified to Ex ia (Class 1, Group D)). Easidew TX I.S. Transmitter can therefore be safely used in virtually all industrial gas measurement applications.

## Advanced Technology

The key to the Easidew TX I.S. Transmitter's performance is its sensor technology. Michell's Advanced Ceramic Moisture Sensor is coupled with the latest microprocessor based measurement circuitry to produce a fully calibrated and interchangeable sensor transmitter. All calibration data is stored within the transmitter's flash memory and so calibration exchange or service can be effected in seconds, even by untrained personnel. The Easidew TX I.S. Transmitter is simply disconnected, removed from its sampling block and replaced by a new, fully calibrated unit. Furthermore, the Easidew TX I.S. Transmitter forms the front-end of the Easidew I.S. On-Line. Total flexibility, interchangeability and ease of implementation.

## Air and Gas Quality Measurement

The Easidew TX I.S. Transmitter is calibrated traceable to International Standards in Michell's UKAS accredited laboratory at thirteen points over the range -100 to +20 °C dew point, to an accuracy of  $\pm 2$  °C dew point. The inherent stability of our advanced Ceramic Moisture Sensor means that the Easidew TX I.S. Transmitter will give years of reliable operation, with only the need for a periodic calibration to maintain traceability - vital for conformance with your own quality standards. Easidew TX I.S. Transmitter is also fast to respond, ensuring that your process is always monitored in real time.



**The Dew Point Specialists**



## Simple Operation

Easidew TX I.S. Transmitter is so easy to install and operate. Powered via a galvanic isolator by any dc source from 12 to 28 volts, it provides the user with a linear 4-20 mA signal. This output can be configured by the customer, using simple software, to represent any range within -100 to +20 °C, or -148 to +68 °F dew point, or 0 - 3,000 ppm(v). So, once the input and output connection is made, the transmitter only needs a sample of clean air or process gas and measurements can be taken.

As the Easidew TX I.S. Transmitter measures the water vapour pressure in the gas sample, it will give the user an accurate determination of the actual dew point conditions presented to it - at any pressure up to 40 MPa. Flow rate is not critical to measurement accuracy (1 to 5 NL/min), though speed of response will of course be improved by operating a higher sample flow.

## Rugged yet Lightweight

The Easidew TX I.S. Transmitter is constructed in 316 grade stainless steel, with a captive sealed, glanded cable connector and offers IP66 and NEMA 4 protection from the environment. This rugged construction makes it perfectly suited for industrial applications whilst, weighing only 150 g, it is light enough to be supported directly by its connection to a 6 mm or ¼ inch sample pipe without any additional mounting brackets. Again, design for operation is a key benefit.

### Options:

**Panel Meter** - An economical panel or bench-mounted meter with digital display, analogue outputs and dual alarm relays. Display and output configurable as dew point (°C or °F) or ppm moisture content - Part number EA2-OL-100

**Easidew Sampler** - A self-contained sampling system, with filtration and flow control, for measurement of pressure or atmospheric dewpoint - Part number 9990278

**Sample Block** - Stainless Steel sample block to contain Easidew Transmitter, with 1/8" NPT ports - Part number - 9960665

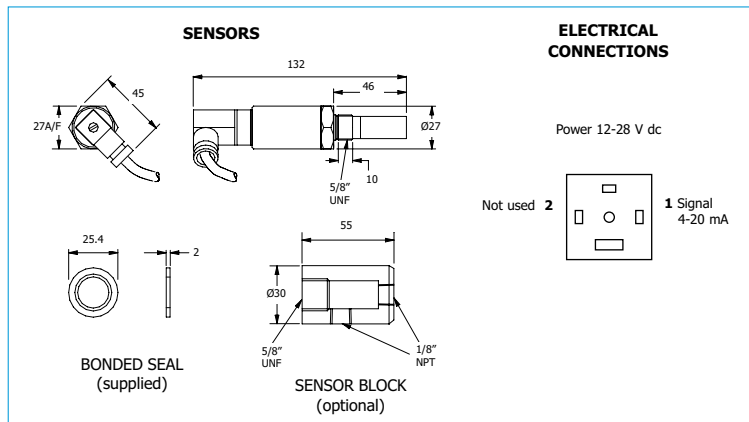
**Replacement HDPE Guard** - Pack of 10 HDPE Guards - Part number - EA2-HDPE-10

**Sintered Guard** - Stainless Steel sintered guard, for protection of ceramic sensor (in place of standard HDPE Guard) - Part number 9980237

## Technical Specifications

Sensor type	Michell Advanced Ceramic Moisture Sensor	
Certification	Ex II 1 G Ex IIC T4 -20 °C to + 60 °C Atex Certificate No: 06ATEX0330X	
Calibration range	-100 to +20 °C dew point	
Power supply	12-28 V dc	
Output	4-20 mA current source, configurable over the entire range Dewpoint -100 to + 20 °C -148 to +68 °F ppm(v) 0 - 3000	
Accuracy	±2 °C dew point	
Operating temp	-40 to +60 °C	
Temp coefficients	Temperature compensated across operating temperature range	
Operating pressure	40 MPa,max.	
Flow rate	1 to 5 Nlmin <sup>-1</sup> mounted in standard sampling block; 0 to 10 msec <sup>-1</sup> direct insertion	
Interchangeability	Fully interchangeable transmitters	
Sensor Protection	HDPE Guard < 10 µm 80 µm sintered guard (optional)	
Environmental protection	IP66 in accordance with standard BS EN 60529:1992, and NEMA 4 in accordance with standard NEMA 250-2003	
Weight	0.15 kg	
Fault conditions	<b>Condition</b>	<b>Output</b>
(factory programmed)	Sensor fault	23 mA
	Under-range dew point	4 mA
	Over-range dew point	20 mA
Approved Galvanic Isolators	KFD2-CR-EX1.20200 KFD2-CR-EX1.30200 KFD0-CS-EX1.50P MTL5041 MTL5040	
<b>Easidew TX I.S. Transmitter Part Numbers</b>		
Standard Transmitter:	EA2-TX	
Non Standard Range:	EA2-TX-w/xyz	
	w = Zero value	
	x = Full scale values,	
	y = Units (C = °C dp, F = °F dp & P = ppm(v))	
	z = Pressure for ppm(v) conversion in BarG.      Blank = 0 BarG	

## Dimensions



Dimensions mm

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