



Easidew Transmitter

A low cost, rugged impedance dew-point transmitter for continuous measurement of compressed air or process gas humidity



- Calibrated -100 to +20 °C dp
- Fast and reliable
- Small footprint, IP66 rated
- Weighs only 150 g
- 12 to 28 V dc operation
- Linear 4-20 mA signal



Design Simplicity and Economy

The Easidew 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, dew point measurement is made as accessible as temperature and pressure with this fully configured, calibrated transmitter that can be instantly incorporated into your air or gas management and control system.

Easidew Transmitter is also economical to buy, install and operate. Volume manufacturing allows us to keep the price low. Installation costs are minimal because of its ruggedness and simplicity. And on-going operating costs are low, because Easidew Transmitter is incredibly reliable and long lasting. 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.

C2TX Technology

The key to the Easidew Transmitter's performance is its sensor technology. Michell's Advanced Ceramic Moisture Sensor is coupled with C2TX microprocessor based measurement circuitry to produce a fully calibrated and interchangeable sensor transmitter. All calibration data is stored within the C2TX module memory and so calibration exchange or service can be effected in seconds, even by untrained personnel. The Easidew Transmitter is simply disconnected, removed from its sampling block and replaced by a new, fully calibrated unit. Furthermore,

the Easidew Transmitter forms the front-end of both the Easidew On-Line and Portable Hygrometers. Total flexibility, interchangeability and ease of implementation.

Air and Gas Quality Measurement

The Easidew 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 ± 2 °C dew point. The inherent stability of our advanced Ceramic Moisture Sensor means that the Easidew 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 Transmitter is also fast to respond, ensuring that your process is always monitored in real time.

Simple Operation

Easidew Transmitter is so easy to install and operate. Powered by any dc source from 12 to 28 volts, it provides the user with a linear 4-20 mA signal calibrated from -100 to +20 °C dew point. So, once the input and output connection is made, the transmitter only needs a sample of air or process gas and measurements can be taken. As Easidew 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 30 MPa. Flow rate is not critical to measurement accuracy, though speed of response will of course be improved by operating a higher sample flow.

Rugged yet Lightweight

The Easidew Transmitter is constructed in 316 grade stainless steel, with a captive sealed, glanded cable connector and offers IP66 (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.

Self-Diagnostics

In the unlikely event that something goes wrong, the microprocessor embedded within Easidew's C2TX processor provides you with intelligent information on the failure mode. Sensor fault, under-range and over-range conditions are all

signalled by pre-determined output levels so you can easily establish the source of the problem, rectify it and get back to operation as quickly as possible.

The Easidew Range

We offer a family of low cost hygrometer products based on C2TX Technology and giving on-line and portable dew point measurement. Because all three products use the same processor-based transmitter technology, interchangeability is made so simple. If you need to monitor various points in your process - some with local display, others with direct mA feed to a central control system, the Easidew range is ideal. The Easidew Portable Hygrometer allows easy local spot checks to be carried out when necessary, perhaps at the point of use of the air or process gas. Easidew On-Line Hygrometer provides continuous in-process measurement of gas dew point. In order to maintain traceability, you only need to stock one sensor type for all three products - the Easidew Transmitter. Call us for further information on the Easidew Range.

Technical Specifications

Sensor type	Michell Advanced Ceramic Moisture Sensor
Calibration range	-100 to +20 °C dew point
Power supply	12-28 V dc
Output	4-20 mA current source over the entire dew-point range
Interchangeability	Fully interchangeable transmitters
Accuracy	±2 °C dew point
Operating temp	-40 to +60 °C
Temp coefficients	Temperature compensated
Operating pressure	30 MPa
Flow rate	1 to 5 Nlmin ⁻¹ mounted in standard sampling block; 0 to 10 msec ⁻¹ direct insertion (80 µm sintered guard)

Traceable certification	-75 to +20 °C dew point traceable to NPL (UK) and NIST (USA). [For dew points < -75 °C: direct reference to a fundamental cooled mirror dew-point hygrometer.]	
Environmental protection	IP66 (NEMA 4)	
Weight	0.15 kg	
Fault conditions (factory programmed)	Condition	Output
	Sensor fault	0 mA
	Under-range dew point	0 mA
	Over-range dew point	23 mA

