

# Easidew PRO I.S.

## Intrinsically Safe Dew-Point Transmitter



The Easidew PRO I.S. intrinsically safe dew-point transmitter has been developed to provide a rugged version of the Easidew TX I.S.

The Easidew PRO I.S. shares its electrical design with the Easidew TX I.S. and therefore offers the same features. It has been certified by ATEX for use in hazardous area zone 0.

### Highlights

- 2-wire connection
- $\pm 2^{\circ}\text{C}$  /  $\pm 3.6^{\circ}\text{F}$  accuracy
- Output configurable in  $\text{ppm}_v$  moisture content
- Optional HDPE Guard
- IP66 / NEMA 4
- Improved measurement resolution and range for temperature compensation
- Configuration by digital communications

### Technical Specifications

| Performance                                  |   |               |
|--|---|---------------|
| <b>Measurement range (dew point)</b>         | -100 to +20°C / -148 to +68°F dew point   |               |
| <b>Accuracy (dew point)</b>                  | $\pm 2^{\circ}\text{C}$ / $\pm 3.6^{\circ}\text{F}$ dew point   |               |
| <b>Response time</b>                         | 5 mins to T95 (dry to wet)  |               |
| <b>Repeatability</b>                         | 0.5°C / 0.9°F dew point   |               |
| Electrical output/input                      |   |               |
| <b>Output signal</b>                         | 4–20 mA (2-wire) current source, configurable over the entire range<br>Dew point -100 to + 20°C<br>-148 to +68°F<br>0 - 3000 $\text{ppm}_v$<br>$\text{ppm}_v$ output or non-standard dew-point range must be specified at time of order |               |
| <b>Supply voltage</b>                        | 12-28 VDC   |               |
| <b>Load resistance</b>                       | Max 250 $\Omega$ @ 12 V / 500 $\Omega$ @ 24 V   |               |
| <b>Current consumption</b>                   | 23 mA max (depending on signal output)  |               |
| Operating conditions                         |   |               |
| <b>Operating humidity</b>                    | 0–100% RH   |               |
| <b>Operating temperature</b>                 | -40 to +60°C / -40 to +140°F  |               |
| <b>Operating pressure</b>                    | 45 MPa (450 barg / 6500 psi) max  |               |
| <b>Flow rate</b>                             | 1 to 5 NI/min mounted in standard sampling block; 0 to 10 m/sec direct insertion  |               |
| <b>Temperature coefficient</b>               | Temperature compensated across operating temperature range  |               |
| Mechanical specification                     |   |               |
| <b>Hazardous Area Certificates</b>           | ATEX - Ex II 1G EX ia IIC T4<br>FM - I.S. I 1 ABCD T4 (ta = +60°C)<br>CSA - IS Class 1 Div 1 Groups ABCD T4   |               |
| <b>Ingress protection</b>                    | IP66 in accordance with standard BS EN 60529:1992, and NEMA 4 in protection accordance with standard NEMA 250-2003  |               |
| <b>Housing material</b>                      | Stainless steel   |               |
| <b>Filter</b>                                | 80 $\mu\text{m}$ sintered guard<br>HDPE Guard <10 $\mu\text{m}$ (optional)  |               |
| <b>Weight</b>                                | 1.27kg / 2.8lbs   |               |
| <b>Electrical connections</b>                | Screw terminal  |               |
| <b>Fault conditions (factory programmed)</b> | <b>Condition</b>  | <b>Output</b> |
|  | Sensor fault  | 23 mA         |
|  | Under-range dew point   | 4 mA          |
|  | Over-range dew point  | 20 mA         |
| <b>Approved galvanic isolators</b>           | KFD2-CR-EX1.20200<br>KFD2-CR-EX1.30200<br>KFD0-CS-EX1.50P<br>KFD0-CS-EX2.50P<br>KFD2-STC4-EX1.H<br>MTL5041, MTL5040   |               |

# Easidew PRO I.S.

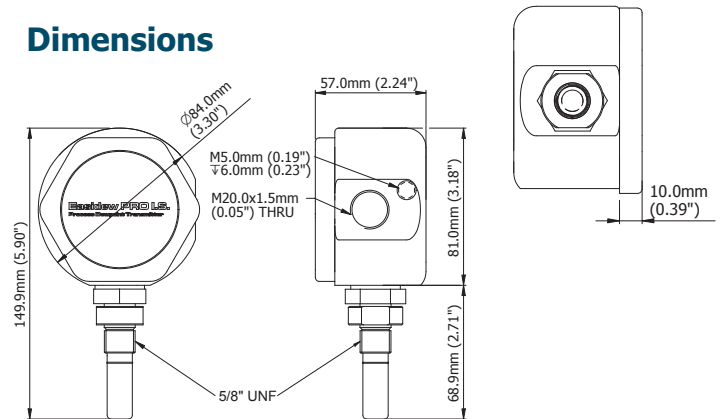
## Options and accessories

|  |                    |
|--|--------------------|
| <b>Panel Meter</b> An economical panel or bench-mounted meter with digital display, analog outputs and dual alarm relays. Display and output configurable as dew point (°C or °F) or ppm moisture content. | <b>EA2-OL-100</b>  |
| <b>Easidew Sampler</b> A self-contained sampling system, with filtration and flow control, for measurement of pressure or atmospheric dew point  | <b>EA2-SAM</b>     |
| <b>Sample Block</b> Stainless Steel sample block to contain Easidew Transmitter, with 1/8" NPT ports   | <b>CSB</b>         |
| <b>Optional HDPE Guard</b> Pack of 10 HDPE Guards to replace sintered guard  | <b>EA2-HDPE-10</b> |
| <b>Galvanic Isolator</b> KFDO-CS-ED1.50p galvanic isolator to allow connection of the Easidew PRO IS complying with ATEX, FM or CSA regulations  | <b>9934042</b>     |
| <b>Replacement Sintered Guard</b> Stainless Steel sintered guard, for protection of ceramic sensor   | <b>9980237</b>     |
| <b>Easidew Communication Kit</b> For connection to Easidew Transmitter and reconfiguration of range and output via Michell Configuration Software (available free of charge from Michell)                  | <b>EA2-CK</b>      |

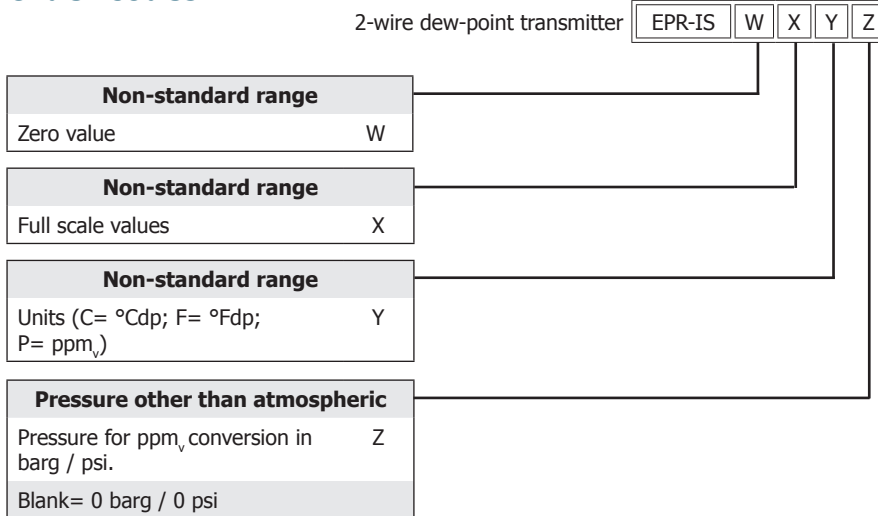
## Electrical Connections

| 4-20mA connections 2-wire |         |
|---------------------------|---------|
| Pin 1                     | 4-20 mA |
| Pin 3                     | POWER   |

## Dimensions



## Order codes



### Example:

**Standard product:** EPR-IS

- Non-standard products:**
- EPR-IS -60 / 20°C  
2-wire dew-point transmitter with range -60 to +20°C @ 0 barg
  - EPR-IS -78 / 68°F  
2-wire dew-point transmitter with range -78 to +68°F @ 0 barg
  - EPR-IS 0/1000 p2  
2-wire dew-point transmitter with range 0-1000 ppm @ 2 barg

**Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: Easidew PRO IS\_97208\_V2\_UK\_1009**