

Easidew I.S.

Dew-Point Transmitter

(For Hazardous Area Applications)



The Easidew I.S. (intrinsically safe) transmitter is a dew-point transmitter designed and certified for use in hazardous area applications (flammable or explosive gases) in all regions with certification from: IECEx, CSA, FM and ATEX.

The Easidew I.S. is available with a choice of G1/2" BSP, 3/4" or 5/8" UNF process connections. It is designed for ease of use, incorporating all of the features needed to make installation and operation into your air or gas management system as simple as possible.

Michell's Advanced Ceramic Moisture Sensor technology based transmitter is calibrated to international standards and is delivered with a traceable calibration certificate.

Highlights

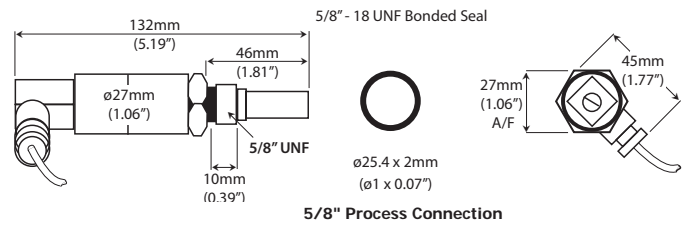
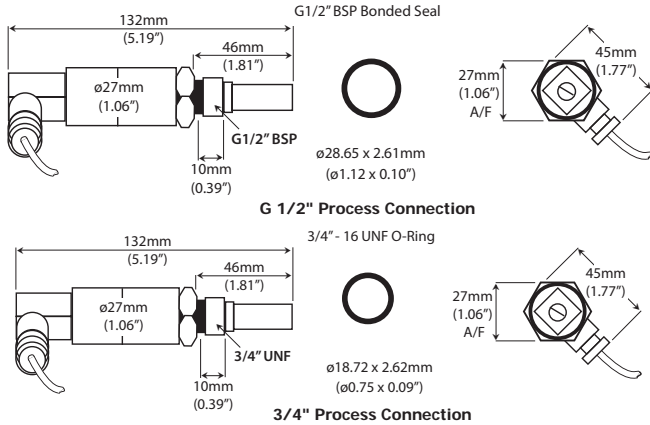
- IECEx, CSA, FM, ATEX certified transmitter for use in hazardous areas
- G1/2" BSP, 3/4" or 5/8" UNF process connection
- Dew-point or ppm_v moisture content
- 2-wire loop powered connection
- Rugged 316 stainless steel IP66 construction
- Measurement range -100 to +20°C
- Accuracy ±2°Cdp
- Calibration Certificate (NPL, NIST)

Technical Specifications

Performance									
Measurement range	-100 to +20°C dew point								
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								
Electrical Specifications									
Output signal	4-20 mA (2-wire connection, current source) User configurable over range								
Output	Dew point or moisture content for ppm _v								
Analog output scaled range	Dew point: -100 to +20°C Moisture content in gas: 0-3000 ppm _v Non-standard available upon request								
Supply voltage	12 to 28 V DC								
Load resistance	Max 250 Ω @ 12 V (500 Ω @ 24 V)								
Current consumption	20 mA max								
CE marked	Certified								
Operating Specifications									
Operating temperature	-40 to +70°C								
Operating pressure	45 MPa (450 barg) maximum								
Overpressure rating	x2 operating pressure 90 MPa (900 barg)								
Flow rate	1 to 5 NI/min mounted in standard sampling block; 0 to 10m/sec direct insertion								
Temperature coefficient	Temperature compensated across operating temperature range								
Mechanical Specifications									
Ingress protection	IP66 in accordance with standard BS EN 60529:1992, NEMA 4 in protection accordance with standard NEMA 250-2003								
Hazardous area certificates	ATEX - II 1 G Ex ia IIC T4 (-20°C ≤ Ta ≤ +70°C) FM - IS / I / I / ABCD / T4 Ta = +70°C CSA - IS Class I Div I Groups ABCD T4 IECEx - Ex ia IIC T4 (-20°C ≤ Ta ≤ +70°C)								
Housing material	316 stainless steel								
Dimensions	L=132mm x ø45mm (with connector)								
Filter (sensor protection)	Standard: HDPE Guard <10µm Optional: 316 stainless steel sintered guard <80µm								
Process connection and material	G1/2" BSP, 3/4" - 16 UNF, 5/8" - 18 UNF 316 stainless steel								
Weight	150g								
Interchangeability	Fully interchangeable transmitter								
Electrical connections	Hirschmann GDS series (DIN 4350-C)								
Diagnostic conditions (factory programmed)	<table border="1"> <thead> <tr> <th>Condition</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>Sensor fault</td> <td>23 mA</td> </tr> <tr> <td>Under-range dew point</td> <td>4 mA</td> </tr> <tr> <td>Over-range dew point</td> <td>20 mA</td> </tr> </tbody> </table>	Condition	Output	Sensor fault	23 mA	Under-range dew point	4 mA	Over-range dew point	20 mA
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Approved galvanic isolators	<table border="1"> <tbody> <tr> <td>KFD2-CR-EX1.20200</td> <td>KFD0-CS-EX2.50P</td> </tr> <tr> <td>KFD2-CR-EX1.30200</td> <td>KFD2-STC4-EX1.H</td> </tr> <tr> <td>KFD0-CS-EX1.50P</td> <td>MTL5041</td> </tr> <tr> <td></td> <td>MTL5040</td> </tr> </tbody> </table>	KFD2-CR-EX1.20200	KFD0-CS-EX2.50P	KFD2-CR-EX1.30200	KFD2-STC4-EX1.H	KFD0-CS-EX1.50P	MTL5041		MTL5040
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KFD0-CS-EX1.50P	MTL5041								
	MTL5040								

Easidew I.S.

Dimensions



Electrical Connections

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

Ordering Codes

To construct the order code, select the relevant feature from the tables below, starting with the base model, which is {Feature A} and then add on options to create a string: {Feature A}+{Feature B}+{Feature C}+{Feature D}

<table border="1"> <thead> <tr> <th colspan="2">Base Model {Feature A}</th> </tr> </thead> <tbody> <tr> <td>Base unit. Easidew Hazardous Area Transmitter 2-wire 4-20 mA</td> <td>EA2-IS-TX</td> </tr> </tbody> </table>	Base Model {Feature A}		Base unit. Easidew Hazardous Area Transmitter 2-wire 4-20 mA	EA2-IS-TX	<table border="1"> <thead> <tr> <th colspan="2">Protection {Feature D}</th> </tr> </thead> <tbody> <tr> <td>Standard HDPE guard (with protection against fine particulate (<10µm))</td> <td>D1</td> </tr> <tr> <td>Stainless steel sintered guard</td> <td>D2</td> </tr> </tbody> </table>	Protection {Feature D}		Standard HDPE guard (with protection against fine particulate (<10µm))	D1	Stainless steel sintered guard	D2				
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Order example: EA2-IS-TX+B1+C1+D2
 Easidew Hazardous Area, 2 wire, 4-20 mA output, G1/2" BSP process connection, -100 to +20°Cdp range, stainless steel sintered guard

Accessories and Spare Parts

		Process Connection Size		
		G1/2"	3/4"	5/8"
Sensor Protectors	Pack of 10 replacement HDPE guards for protection against fine particulate <10µm	EA2-HDPE	EA2-HDPE	EA2-HDPE
	Stainless steel sintered guard replacement for protection against fine particulate <80µm	SSG	SSG	SSG
	Pack of 10 particulate filter cartridges for protection against fine particulate <25µm (for Sampler kits)	SSF-PF-10PK		SSF-PF-10PK
Connection Adaptors	G 1/2" BSP to 5/8" UNF adaptor			APT-GEI
	1/2" NPT to 5/8" UNF adaptor			APT-TSO
	3/4" NPT to 5/8" UNF adaptor			APT-PAN
Sampling Blocks	G1/2" 316 stainless steel sample block (with 1/8" NPT inlet & outlet ports)	SB-12		
	G1/2" 316 stainless steel sample block with filter (with 1/8" BSP & 1/4" BSP ports)	A000351		
	3/4" 316 stainless steel sample block with (1/8" NPT inlet & outlet ports)		SB-34	
	5/8" 316 stainless steel sample block (with 1/8" NPT inlet & outlet ports)			CSB
	5/8" Sampler kit – For atmospheric or pressure dp measurements (145 psig/10 barg max)			EA2-SAM
	5/8" HP sampler kit – For atmospheric or pressure dp measurements (2900 psig/200 barg max)			EA2-SAM-HP
Other Parts	KFD0-CS-EX1.50P galvanic isolator (for Easidew I.S. - Pepperl & Fuchs)	GI-PF-01	GI-PF-01	GI-PF-01
	PTFE sample tube – 6mm outside diameter, thick-walled (for sampler kit) (if more than the standard 0.5mm is required)	PTFE-xx		PTFE-xx
	Cable – 0.8m with mini-DIN mating socket (for NON I.S. sensors)	EA2-CAB-08	EA2-CAB-08	EA2-CAB-08
	Additional cable – total length (if more than the standard 0.8m is required)	EA2-CAB-xx	EA2-CAB-xx	EA2-CAB-xx
	Additional/replacement transmitter labels - 2 labels	GEN-LABEL	GEN-LABEL	GEN-LABEL
	O-rings/Bonded seals for process connection – 5 seals	1/2-BS	3/4-OR	5/8-BS
	Sensor connector	EA2-SC	EA2-SC	EA2-SC
	Easidew communications kit for EA2	EA2-CK	EA2-CK	EA2-CK