

INDUSTRIAL TEMPERATURE & HUMIDITY TRANSMITTER

Humid-X Series Digital Transmitter

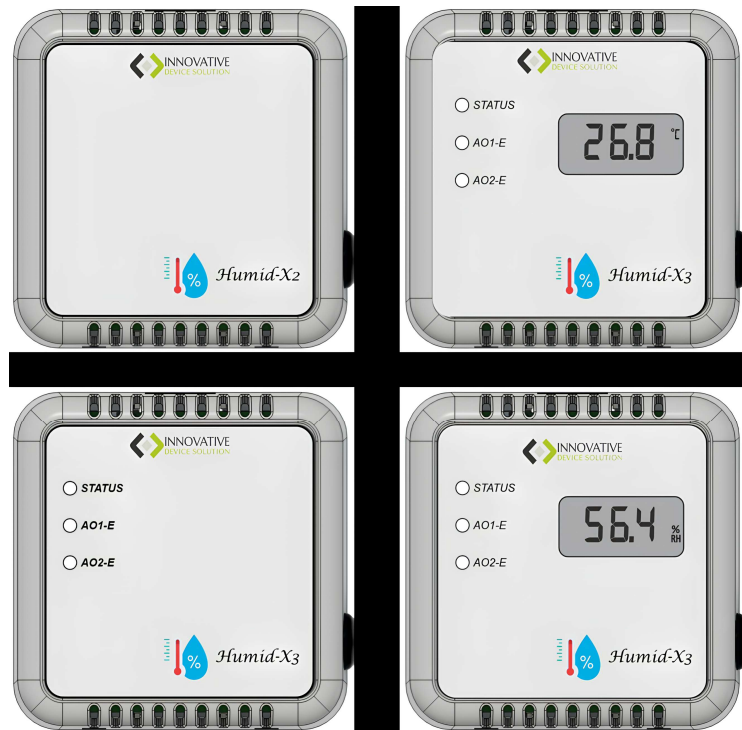
The Humid-X Series is a versatile range of digital transmitters designed for precise measurement of relative humidity and temperature in industrial and HVAC applications. Engineered for seamless integration, the series offers flexible output options including 4–20 mA, 0–1 V, and 0–10 V, ensuring compatibility with a wide range of control and monitoring systems.

The product line includes two models:

- Humid-X2 2-wire loop-powered transmitter with 4–20 mA output for simple and cost-effective installations.
- Humid-X3 3-wire transmitter supporting multiple output signals for enhanced flexibility.

Widely used in HVAC systems, pharmaceutical storage, food processing, clean rooms, and stability chambers, the Humid-X Series delivers reliable performance in critical environments.

An optional LCD display (available in Humid-X3) provides real-time monitoring of humidity and temperature with a 3-second refresh rate. The compact design with snap-fit enclosure ensures quick, easy, and secure installation.



Feature

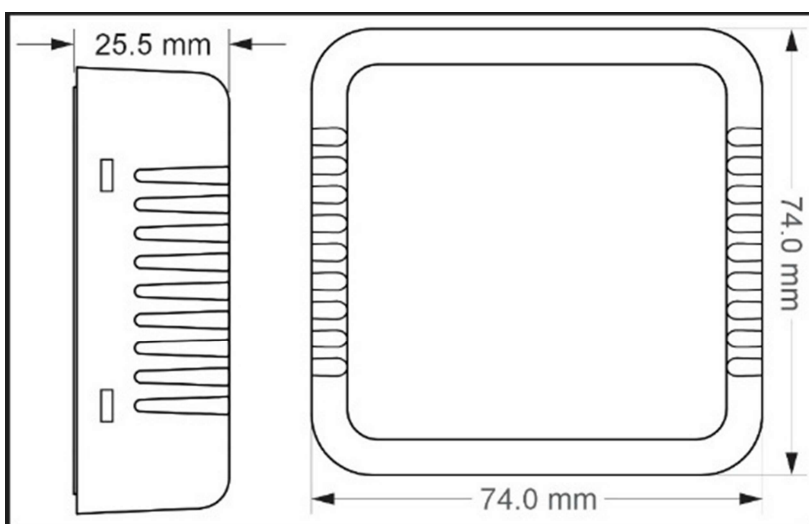
- ✓ Precision-engineered humidity & temperature sensing
- ✓ Optional LCD display with real-time updates
- ✓ Integrated LED diagnostics for real-time fault indication
- ✓ High-resolution output (0.01) for enhanced accuracy
- ✓ Flexible outputs: 4–20 mA, 0–1 V, 0–10 V
- ✓ Optimized airflow enclosure for reliable measurements
- ✓ Tool-free installation with snap-fit design

Specification

General	Humid-X2M	Humid-X3M	Humid-X3V
Device type	Humidity temperature transmitter		
Circuit type	2-wire, loop powered	3-wire	
Display		LCD 2 decimals resolution no backlight (Optional)	
Fault Indication	No	Yes Output short, Output open Power supply under voltage	
Mechanical configuration			
Mounting Type	Wall Mount		
Housing material	ABS UL94-V0		
IP Rating	IP20		
Physical dimensions	74x74x25.5mm		
Weight	90 Gram Approx.		
Power Supply and Connection			
Supply voltage	12-30 V DC	12-30 V DC	
Nominal current consumption	2 x 20mA	< 50mA	
Electrical connections	Screw terminal		
Polarity protection	Yes		
Humidity measurement			
Sensor	MEMS - Micro-Electro-Mechanical Systems		
Measuring range	0-100 % RH		
Measurement accuracy at 25 °C Typical/max	±1.0/±2.5, 10%-80% RH ±1.5/±3.0, 10%-90% RH		
Repeatability	±0.1		
Long term stability	±0.25		
Sensor time constant	4 Sec Typical 10% to 90% RH t63% step		
Protective Options	IP67 Filter		
NIST Traceability	Yes		
Temperature measurement			
Sensor	MEMS - Micro-Electro-Mechanical Systems		
Measuring range	-40 - 60 °C		
Measurement accuracy at 25 °C	±0.25 / ±0.5, 0°C - 50°C		
Repeatability	±0.1		
Long term stability	±0.05		
Sensor time constant	3 Sec Typical 25C <TA< 60C t63% step		
Start-up time and data refresh rate			
Start-up time	3s Typical		
Data refresh rate	3s Typical		
Analog outputs			
Output 1 parameter	Temperature		
Output 1 default scale	0 - 60 °C		
Output 2 parameter	Relative humidity		
Output 2 default scale	0-100 % RH		
Signal type	4 - 20 mA	4-20 mA ,0-10V	

Short circuit tolerant	Yes	
Maximum external load	500 Ohm	500 Ohm
Standards compliance		
ROHS	Yes	
Fire Protection class	UL94-HB	
Environmental limits		
Storage Temperature	-40 - +70 °C	
Operating Temperature	-20 - +70 °C	
Operating Humidity	0-10 % RH	
Maximum air velocity	20 m/s (3,935 ft /min)	
Critical environments	sensor: as per DV04-14.0803.02 - Critical chemicals	

Mechanical Dimension



Order Code

Model	Order Code	Wiring	Output Type	Display
Humid-X2C	3000	2 - Wire	4-20mA	No
Humid-X3C	3100	3 -Wire	4-20mA	No
Humid-X3V	3110	3 -Wire	0-10V	No
Humid-X3C	3101	3 -Wire	4-20mA	Yes
Humid-X3V	3111	3 -Wire	0-10V	Yes