

INDUSTRIAL TEMPERATURE & HUMIDITY TRANSMITTER

Humid-XP Series Digital Transmitter

The Humid-XP Sensor Probe is a versatile and high-precision transmitter designed for accurate measurement of relative humidity and temperature in industrial and HVAC applications.

Engineered for seamless integration, the Humid-XP offers flexible output options including 4–20 mA, 0–1 V, and 0–10 V, ensuring compatibility with a wide range of control systems, PLCs, and data acquisition devices.

This model is a 3-wire transmitter, providing enhanced flexibility, improved signal stability, and reliable performance in electrically noisy industrial environments.

The Humid-XP is designed as a remote sensor probe, allowing easy installation in ducts, chambers, or process environments while keeping the control electronics safely integrated within the system.

Widely used in HVAC systems, pharmaceutical storage, food processing, clean rooms, environmental monitoring, and stability chambers, the Humid-XP delivers consistent and dependable performance in critical applications.

The compact and rugged probe design, combined with easy mounting options, ensures quick, secure, and hassle-free installation across a variety of industrial setups.



Feature

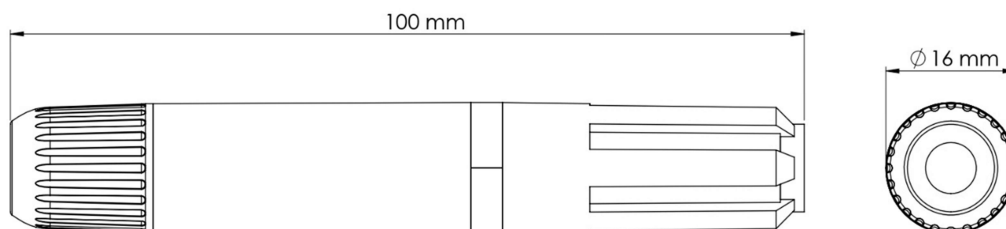
- ✓ Precision-engineered humidity & temperature sensing
- ✓ High-resolution output (0.01) for enhanced accuracy
- ✓ Flexible outputs: 4–20 mA, 0–1 V, 0–10 V
- ✓ Optimized airflow enclosure for reliable measurements

Specification

General	Humid-XP
Device type	Humidity temperature transmitter
Circuit type	3-wire
Mechanical configuration	
Mounting Type	Flange Mounting
Housing material	Sintered ABS Plastic
Diameter	16mm
Length	100 mm
Weight	90 Gram Approx.
Power Supply and Connection	
Supply voltage	12-15 V DC
Nominal current consumption	< 50mA
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 25°C <TA< 60°C 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, 0-1V, 0-10V
Short circuit tolerant	Yes
Maximum external load	250 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
Humid-XP C	3101	3 -Wire	4-20mA
Humid-XP V	3111	3 -Wire	0-1V / 0-10V