

HUMIDITY SENSORS

We offer a complete range of calibrated and amplified products that measure relative humidity (RH). Based on our robust patented capacitive technology, these sensors provide accurate measurement of dew point and absolute humidity by combining relative humidity and temperature measurements. Our sensors are qualified for the most demanding applications, including automotive, heavy truck, aerospace and home appliances. We offer a variety of output signals such as digital (Frequency, I²C) and analog voltage, as well as, customized and proprietary output signals including PWM, PDM, LIN and CAN.



HUMIDITY AND TEMPERATURE (NTC) COMPONENTS

Analog Output



MEAS HS1101LF

Package	Through hole TO39 with side opening plastic cap
Type	Capacitive humidity
Operating RH Range	0 to 100% RH
Operating Temp.	-60°C to 140°C
Unique Features	<ul style="list-style-type: none"> • Robust and recognized component • Suitable for most humidity applications • Cost effective solution
Accuracy	180 pF, ± 3 pF at 55% RH
Dimensions (mm)	10 x 10 x 19
Typical Applications	Applications requiring a robust humidity sensor in automotive, home appliance, outdoor, HVACR, consumer, printer, meteorology

Digital Output



MEAS HTU2X Series

Package	DFN type
Type	Digital RH and NTC temperature
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 125°C
Unique Features	<ul style="list-style-type: none"> • Low power consumption • Fast response time • Very low temperature coefficient • I²C interface or PWM interface or SDM interface
Accuracy	$\pm 3\%$ RH at 25°C (10 to 95% RH) $\pm 0.3^\circ\text{C}$ at 25°C
Dimensions (mm)	3.0 x 3.0 x 1.0
Typical Applications	Humidity and temperature plug and play transducers for OEM demanding applications in automotive, home appliance, printer, medical, humidifier



MEAS HTU2XF Series

Package	DFN type
Type	Digital RH and NTC temperature
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 125°C
Unique Features	<ul style="list-style-type: none"> • Low power consumption • Fast response time • Very low temperature coefficient • I²C interface or PWM interface or SDM interface • Optimal filter
Accuracy	$\pm 3\%$ RH at 25°C (10 to 95% RH) $\pm 0.3^\circ\text{C}$ at 25°C
Dimensions (mm)	3.0 x 3.0 x 1.0
Typical Applications	Humidity and temperature plug and play transducers for OEM demanding applications in automotive, home appliance, printer, medical, humidifier

HUMIDITY AND TEMPERATURE (NTC) MINI-MODULES

Analog Voltage and Digital Output



MEAS HTU3535PVBM/Wire

Package	Cost effective, small size mini-module
Type	Analog voltage RH and NTC temperature
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 110°C
Unique Features	<ul style="list-style-type: none"> • PTFE filter (Optional) • Electronics fully protected (5 V) • Multiple connector choices (JST, Samtec board to board through hole) • Based on HTU21
Calibration	$\pm 3\%$ RH at 55% RH; $\pm 0.25^\circ\text{C}$ at 25°C
Dimensions (mm)	27 x 11.9 x YY (Depending on the connector, from 6 to 10.8 mm length)
Typical Applications	Humidity and temperature plug and play transducers for OEM demanding applications in HVACR, home appliance, printer, medical, and outdoor



MEAS HTU383X/Wire

Package	Cost effective small size mini-module
Type	Digital RH and NTC temperature
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 110°C
Unique Features	<ul style="list-style-type: none"> • PTFE filter (Optional) • Electronics fully protected (5 V) • Multiple connector choices (JST, Samtec board to board through hole) • Based on HTU21
Calibration	$\pm 3\%$ RH at 55% RH; $\pm 0.25^\circ\text{C}$ at 25°C
Dimensions (mm)	27 x 11.9 x YY (Depending on the connector, from 6 to 10.8 mm length)
Typical Applications	Humidity and temperature plug and play transducers for OEM demanding applications in HVACR, home appliance, printer, medical, and outdoor



MEAS HTG351xCH

Package	Cost effective small size mini-module
Type	Analog voltage RH and NTC temperature
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 110°C
Unique Features	<ul style="list-style-type: none"> • Electronics fully protected with potting material (3.3 V or 5 V) • Multiple connector choices (JST, Samtec board to board through hole)
Calibration	$\pm 3\%$ RH at 55% RH; $\pm 0.25^\circ\text{C}$ at 25°C
Dimensions (mm)	27 x 11.9 x 6.7
Typical Applications	Humidity and temperature plug and play transducers for OEM low cost consumer applications

HUMIDITY AND TEMPERATURE (NTC) PROBES

Analog Output



MEAS HM1500LF

Package	Probe, RH only
Type	Cost effective analog voltage RH probe
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 60°C
Unique Features	<ul style="list-style-type: none"> • Electronics fully protected with potting material • Optional wiring length and connectors
Calibration	±3% RH at 55% RH
Dimensions (mm)	57 x 11 x 11 (Standard wire length of 200 mm)
Typical Applications	Medical, telecommunication cabinets, green houses, process control, industrial



MEAS HM1520LF

Package	Probe, RH only
Type	Dedicated to low RH accurate measurement
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 60°C
Unique Features	<ul style="list-style-type: none"> • Electronics fully protected with potting material • Optional wiring length and connectors
Calibration	±3% RH at 10% RH
Dimensions (mm)	57 x 11.5 x 11.5 (Standard wire length of 200 mm)
Typical Applications	Medical, drying cabinets, low humidity, meteorology



MEAS HMT2500LF

Package	Probe, RH and temperature
Type	Cost effective analog voltage RH
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 85°C
Unique Features	<ul style="list-style-type: none"> • Electronics fully protected with potting material • Optional wiring length and connectors
Calibration	±3% RH at 55% RH ±0.25°C at 25°C
Dimensions (mm)	86 x 11.5 x 11.5 (Standard wire length of 200 mm)
Typical Applications	Hygrostat, data loggers, baby cabinets

HUMIDITY AND TEMPERATURE (NTC) SENSORS

Frequency Output Systems (Digital)



MEAS HTF3000LF

Package	PCB for board to board
Type	Frequency output for RH, direct NTC for temperature
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 85°C
Unique Features	<ul style="list-style-type: none"> • Voltage supply from 3 to 8 VDC • Through hole or SMD • T and R available
Calibration	±3% RH at 55% RH ±0.25°C at 25°C
Dimensions (mm)	12.5 x 18.5 x 11.2
Typical Applications	Passenger comfort improvement, hygrostat, HVACR, printer

E&V HUMIDITY AND TEMPERATURE MODULES



MEAS H2TG, H2TD Series*

Package	Cost effective module for automotive defogging application
Type	<ul style="list-style-type: none"> • Dew point and windshield temperature measurement • Analog or digital (LIN) output
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 85°C
Unique Features	<ul style="list-style-type: none"> • Electronics fully protected with potting material
Calibration	±1.5°DP at 10°C ±0.8°C at 25°C
Dimensions (mm)	27 x 32 x YY (Depending on the connector, from 6 to 10.8 mm length)
Typical Applications	Fogging and cabin energy control



MEAS H2TD368x*

Package	Cost effective module for truck defogging application
Type	<ul style="list-style-type: none"> • Dew point and windshield temperature measurement • LIN output
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 85°C
Unique Features	<ul style="list-style-type: none"> • Optional bracket and cover for installation • Electronics fully protected with potting material • 12 V or 24 V power supply
Calibration	±1.5°DP at 10°C ±0.8°C at 25°C
Dimensions (mm)	22 x 43 x 10
Typical Applications	Fogging and cabin energy control



MEAS HTM2500B6Cy*

Package	Engine probe for truck and automotive
Type	<ul style="list-style-type: none"> • Dew point measurement • Analog output
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 105°C
Unique Features	<ul style="list-style-type: none"> • Electronics fully protected with potting material
Calibration	±3% RH at 55% RH ±0.8°C at 25°C
Dimensions (mm)	70 x 64.5 x 54.5 (Integrated connector)
Typical Applications	Humidity and temperature engine control



MEAS HTD2800B11C6*

Package	Trican engine probe for truck and automotive
Type	<ul style="list-style-type: none"> • Temperature, humidity, pressure measurement • CAN output
Operating RH Range	0 to 100% RH 0 to 150 g/Kg
Operating Temp.	-40°C to 125°C
Pressure Range	1 kPa to 115 kPa
Unique Features	<ul style="list-style-type: none"> • Configurable CAN Frame • Self diagnostic capabilities to comply with J1939, EPA / EURO and CARB requirements
Calibration	SH: ±2.5 g/Kg Temperature: ±2°C at 25°C Pressure: ±1% FS
Dimensions (mm)	76.3 x 64.3 x 55.9 (Integrated connector)
Typical Applications	Emission control application such as NOx control with air intake measurements, engine management



MEAS HTD2610*

Package	Engine probe for truck and automotive
Type	<ul style="list-style-type: none"> • Dew point measurement • LIN output
Operating RH Range	0 to 100% RH
Operating Temp.	-40°C to 125°C
Pressure Range	—
Unique Features	<ul style="list-style-type: none"> • 12 V power supply
Calibration	±1° DP at 25°C
Dimensions (mm)	62.24 x 24.0 x 54.0 (Integrated connector)
Typical Applications	Humidity and temperature automotive passenger car, engine and emission management

*Custom options available. Please consult factory.