

HUMIDITY SENSORS



HUMIDITY AND TEMPERATURE (NTC) COMPONENTS

Analog Voltage and Digital Output



| | HS1101LF | HTU2X | HTU2XF |
|-----------------------------|---|---|---|
| Package | Through hole TO39 with side opening plastic cap | DFN type | DFN type |
| Type | Capacitive humidity | Digital RH and NTC temperature | Digital RH and NTC temperature |
| Operating RH Range | 0 to 100% RH | 0 to 100% RH | 0 to 100% RH |
| Operating Temp. | -60°C to 140°C | -40°C to 125°C | -40°C to 125°C |
| Unique Features | <ul style="list-style-type: none"> • Robust and recognized component • Suitable for most humidity applications • Cost effective solution | <ul style="list-style-type: none"> • Low power consumption • Fast response time • Very low temperature coefficient • I²C interface or PWM interface or SDM interface | <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 | 180 pF, ±3 pF at 55% RH | ±3% RH at 25°C (10 to 95% RH) ±0.3°C at 25°C | ±3% RH at 25°C (10 to 95% RH) ±0.3°C at 25°C |
| Dimensions (mm) | 10 x 10 x 19 | 3.0 x 3.0 x 1.0 | 3.0 x 3.0 x 1.0 |
| Typical Applications | Applications requiring a robust humidity sensor in appliance, HVACR, consumer electronics, printing, meteorology | Humidity and temperature plug and play transducers for OEM demanding applications in appliance, printer, medical, HVACR | Humidity and temperature plug and play transducers for OEM demanding applications in appliance, printer, medical, HVACR |

HUMIDITY AND TEMPERATURE (NTC) MINI-MODULES

Analog Voltage and Digital Output



| | HTU3535PVBM/Wire | HTU383X/Wire | HTG351xCH |
|-----------------------------|---|---|--|
| Package | Cost effective, small size mini-module | Cost effective small size mini-module | Cost effective small size mini-module |
| Type | Analog voltage RH and NTC temperature | Digital RH and NTC temperature | Analog voltage RH and NTC temperature |
| Operating RH Range | 0 to 100% RH | 0 to 100% RH | 0 to 100% RH |
| Operating Temp. | -40°C to 110°C | -40°C to 110°C | -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 | <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 | <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 | ±3% RH at 55% RH; ±0.25°C at 25°C | ±3% RH at 55% RH; ±0.25°C at 25°C | ±3% RH at 55% RH; ±0.25°C at 25°C |
| Dimensions (mm) | 27 x 11.9 x YY (Depending on the connector, from 6 to 10.8 mm length) | 27 x 11.9 x YY (Depending on the connector, from 6 to 10.8 mm length) | 27 x 11.9 x 6.7 |
| Typical Applications | Humidity and temperature plug and play transducers for OEM demanding applications in HVACR, home appliance, printer and medical | Humidity and temperature plug and play transducers for OEM demanding applications in HVACR, home appliance, printer and medical | Humidity and temperature plug and play transducers for OEM applications in HVACR, appliance, printer and medical |

HUMIDITY AND TEMPERATURE (NTC) PROBES

Analog Output



HM1500LF

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|-----------------------------|--|
| 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 |



HM1520LF

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|-----------------------------|--|
| 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 |



HTM2500LF

| | |
|-----------------------------|--|
| 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, cabinets |

HUMIDITY AND TEMPERATURE (NTC) SENSORS

Frequency Output Systems (Digital)



HTF3000LF

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|-----------------------------|--|
| 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 | HVACR, printer, cabin comfort, hygrostat |