

PCMini52

Digital Relative Humidity and Temperature Mini Probe w/Analog Output

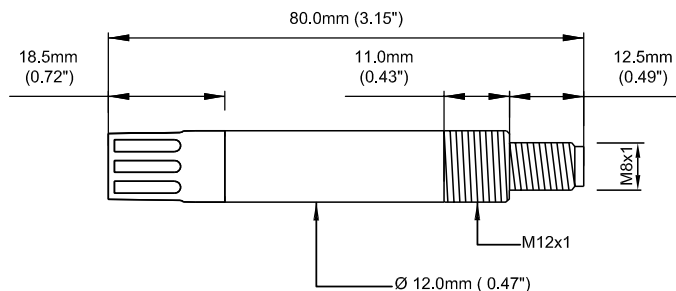


The microprocessor control and multi-point calibration gives the PCMini52 RH probe excellent performance in terms of accuracy and linearity. The mini probe can provide two linear analog outputs for temperature and relative humidity, dew point or absolute humidity.

Highlights

- Output can be % RH, calculated absolute humidity, dew point or wet bulb temperature + temperature
- Excellent linearity, (μ P) micro processor temperature compensated
- Low power consumption, fast settling time
- Small size: L = 80mm, ϕ 12mm (L = 3.15", ϕ 0.47")

Dimensions



Technical Specifications

| Performance | |
|--|--|
| Measurement range (RH) | 0–100% RH |
| Measurement range (T) | -20 to +80°C (-4 to +176°F) |
| Accuracy at 23°C (73°F) Humidity | <±2% RH (10–90% RH) |
| Accuracy at 23°C (73°F) Temperature | ±0.2°C (±0.36°F) |
| Stability – RH Sensor | ±1% RH/year |
| Response time – RH Sensor | <10 sec typical (for 90% of the step change) |
| Electrical output/input | |
| Output signal options | 0–1, 0–5, 0–10 V |
| Supply voltage | 14–35 V DC (for 0–5 / 10 V) 4.5–35 V DC (for 0–1 V) and 14–26 V AC |
| Operating conditions | |
| Operating humidity Probe, Housing, Storage | 5–95% RH (non-condensing) |
| Operating temperature Sensing element Housing Storage | -30 to +85°C (-22 to +185°F) -30 to +85°C (-22 to +185°F) -40 to +85°C (-40 to +185°F) |
| Mechanical specification | |
| Ingress protection | IP65 (NEMA4 level) |
| Housing material | Molded polymer or stainless steel (ordering option) |
| Dimensions | L=80mm, ϕ 12mm (L=3.15", ϕ 0.47") |
| Weight | 10g (0.35oz) |
| Electrical connections | 4 pin, M8 connector |

Accessories and Spare Parts

| | |
|---|------------------|
| 12mm (0.47") Slotted protection cap, black | A000003 |
| 12mm (0.47") PVDF filter | A000017 |
| 12mm (0.47") PVDF filter with protection cap, black | A000018 |
| 12mm (0.47") Mesh filter with protection cap, black | A000022 |
| 12mm (0.47") Flat SS sintered dust filter | A000023 |
| 12mm (0.47") Arrow 20 μ m SS sintered filter | A000028 |
| 12mm (0.47") Connector with 2m (6.5') cable | A000033 |
| 12mm (0.47") Connector with 5m (16') cable | A000036 |
| 12mm (0.47") Connector with 10m (33') cable | A000037 |
| 1/2" NPT SS adj fitting for SS probe | A000101 |
| Aluminum mounting flange for ϕ 12.0mm (ϕ 0.47") SS probes | A000111 |
| ϕ 90mm (3.54") WM weather prot. cap (in combination with A000111 for ϕ 12mm (0.47") probes) | A000120 |
| ϕ 120mm (4.72") WM weather prot. cap (in combination with A000111 for ϕ 12mm (0.47") probes) | A000125 |
| 12mm (0.47") Connector without cable (with solder terminals) | A000321 |
| 12mm (0.47") Connector with cable (customer spec length) | A000321XM |
| 12mm (0.47") Connector with 20m (25.6') cable | A000322 |
| You can check your hygrometer with the Control Kit HKC which is based on the principle of non-saturated salt solutions. Refer to technical data sheet CONTROL KIT | HKC |

Electrical Connections

| Cable | |
|-------|---|
| Brown | Supply voltage V + |
| White | Output RH, Dew Point or Absolute Humidity |
| Black | Output temperature |
| Blue | Common ground |

Ordering Example

PCMini52-BASE-4-XX-H-T1-CA-03

Relative humidity and temperature mini probe PCMini52, 0-5 V output, molded polymer body, 0-100% RH signal, -20 to +80°C (-4 to +176°F) temperature range, no cable, 12mm slotted protection cap black

Order Codes

| PCMini52 - Digital Relative Humidity and Temperature Mini Probe with Analog Output | | |
|--|----------------------|---|
| Feature: | Item | Description |
| Base Model | PCMINI52-BASE | Base unit |
| Sig Output | PCMINI52-3 | 0-10 V |
| | PCMINI52-4 | 0-5 V |
| | PCMINI52-5 | 0-1 V |
| Body | PCMINI52-SX | Stainless steel |
| | PCMINI52-XX | Molded polymer |
| Moist. Sig | PCMINI52-H | RH |
| | PCMINI52-D | Calculated dp temp & temp output (Range (Td) -40 to +60°C (-40 to +140°F) - Only possible with Temp Signal T1) |
| | PCMINI52-A | Calc absolute humidity (Abs) & temp output (Range Abs from 0-200g/m ³ - Only possible with Temp Signal T1) |
| | PCMINI52-W | Calculated wetbulb temp & temp output (Range (Tw) -40 to +60°C (-40 to +140°F) - Only possible with Temp Signal T1) |
| Temp. Sig | PCMINI52-X | No T output (Not available with 0 - 10 V) |
| | PCMINI52-T1 | -20 to +80°C (-4 to +176°F) |
| | PCMINI52-TX | Other output scaling available on request |
| Cable | PCMINI52-CA | No cable |
| | PCMINI52-CB | 12mm (0.47") Connector with 2m (6.5') cable |
| | PCMINI52-CC | 12mm (0.47") Connector with 5m (16') cable |
| | PCMINI52-CD | 12mm (0.47") Connector with 10m (33') cable |
| Filter | PCMINI52-03 | 12mm (0.47") Slotted protection cap, black |
| | PCMINI52-18 | 12mm (0.47") PVDF filter with protection cap, black |
| | PCMINI52-22 | 12mm (0.47") Mesh filter with protection cap, black |
| | PCMINI52-23 | 12mm (0.47") Flat SS sintered dust filter |
| | PCMINI52-28 | 12mm (0.47") Arrow 20 µm SS sintered filter |