

PCMini52

Digital Relative Humidity and Temperature Mini Probe

The micro processor 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, absolute humidity or wet bulb temperature.



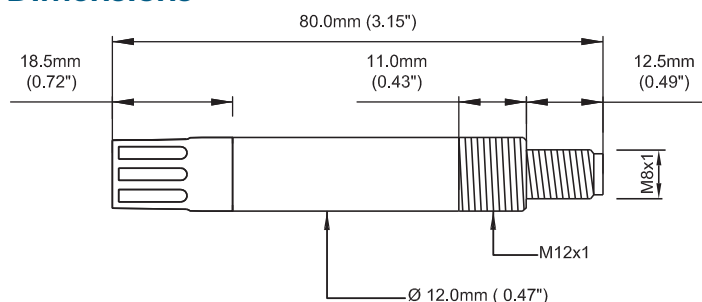
Highlights

- Analog voltage outputs
- Output can be % RH, calculated absolute humidity, dew point or wet bulb temperature and temperature
- Excellent linearity, micro processor temperature compensated
- Low power consumption, fast settling time
- Small size: L = 80mm, Ø12mm (L = 3.15", Ø0.47")
- Stainless steel and molded polymer variants

Technical Specifications

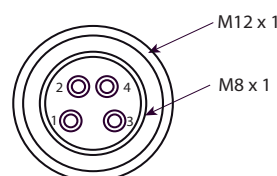
Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-20 to +80°C (-4 to +176°F)
Accuracy @ 23°C (73°F) humidity	<±2% RH (10–90% RH)
Accuracy @ 23°C (73°F) temperature	±0.2°C (±0.36°F)
Stability – RH sensor	±1% RH/year
Response time – RH sensor	<10 sec typical (for 90% of the step change)
Electrical Specifications	
Output signal options	0 to 1, 0 to 5, 0 to 10 V
Supply voltage	14 to 35 V DC (for 0 to 5 / 10 V output) 6 to 35 V DC (for 0 to 1 V output)
Current consumption	4 mA on a typical voltage lead
CE marked	Certified
Operating Specifications	
Operating temperature	
Sensing element	-30 to +85°C (-22 to +185°F)
Housing	-30 to +85°C (-22 to +185°F)
Storage	-40 to +85°C (-40 to +185°F)
Mechanical Specifications	
Ingress protection	IP65 (NEMA 4 level)
Housing material	Molded polymer / stainless steel (options)
Dimensions	L=80mm, Ø12mm (L=3.15", Ø0.47")
Filter	PVDF / HDPE / mesh / sintered (options)
Weight	10g (0.35oz)
Electrical connections	4 pin, M8 connector

Dimensions



Electrical Connections

Mating Cable		Pin
Brown	Supply voltage V +	1
White	Output RH, dew point or absolute humidity	2
Blue	Common ground	3
Black	Output temperature	4



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Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Issue No: PCMini52_97176_V5.1_NL_0716



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Ordering Codes

To construct the order code, select the relevant feature from the tables below, starting with the base model, which is {Feature A} and then add on options to create a string: {Feature A} + {Feature B} + {Feature D} + {Feature E} + {Feature F}

Order example: PCMINI52-X + 4 + H + T1 + CA + F03

PCMini52, 0 to 5 V output, molded polymer body, 0-100% RH signal, -20 to +80°C (-4 to +176°F) temperature range, no cable, 12mm (0.47") slotted protection cap black

PCMINI52-X		4	H	T1	CA	F03
Base Model {Feature A}						
Digital relative humidity and temperature mini probe (Stainless steel body)	PCMINI52-S					
Digital relative humidity and temperature mini probe (Molded polymer body)	PCMINI52-X					
Signal Output {Feature B}						
0 to 10 V	3					
0 to 5 V	4					
0 to 1 V	5					
{Feature C} - No longer required						
Product configuration changed June 2016)						
Moisture Signal {Feature D}						
RH	H					
Calculated dew-point temperature (Range (Td) -40 to +60°C (-40 to +140°F) - Only possible with Temperature Signal T1	D					
Calculated absolute humidity (Abs) (Range Abs from 0-200g/m³ - Only possible with Temperature Signal T1)	A					
Calculated wetbulb temperature (Range (Tw) -40 to +60°C (-40 to +140°F) - Only possible with Temperature Signal T1)	W					
Filter {Feature G}						
12mm (0.47") Slotted protection cap, black	F03					
12mm (0.47") PVDF filter with protection cap, black	F18					
12mm (0.47") Mesh filter with protection cap, black	F22					
12mm (0.47") Flat SS sintered dust filter	F23					
12mm (0.47") Arrow 20µm SS sintered filter	F28					
13mm (0.51") HDPE protection cap	F46					
Cable Length {Feature F}						
No cable	CA					
12mm (0.47") Connector with 2m (6.5') cable	CB					
12mm (0.47") Connector with 5m (16') cable	CC					
12mm (0.47") Connector with 10m (33') cable	CD					
12mm (0.47") Connector with 20m (66') cable	CE					
Non standard cable length available upon request						
Temperature Signal {Feature E}						
No T output (Not available with 0 to 10 V)	X					
0 to +100°C (32 to +212°F)	T0					
-20 to +80°C (-4 to +176°F)	T1					
0 to +50°C (32 to +122°F)	T3					
-40 to +60°C (-40 to +140°F)	T6					
Other output scaling available on request	TX					

Accessories and Spare Parts

Item	Product / Description
A000003	12mm (0.47") Slotted protection cap black
A000017	12mm (0.47") PVDF filter
A000018	12mm (0.47") PVDF filter w/ protection cap black
A000022	12mm (0.47") Mesh filter w/ protection cap black
A000023	12mm (0.47") Flat SS sintered dust filter
A000028	12mm (0.47") Arrow 20µm SS sintered filter
A000033	12mm (0.47") connector with 2m (6.5') cable
A000036	12mm (0.47") connector with 5m (16') cable
A000037	12mm (0.47") connector with 10m (32.8') cable
A000322	12mm (0.47") Connector with 20m (25.6') cable
A000046	13mm HDPE Protection cap
A000101	1/2" NPT SS adj. fitting for SS probes
A000111	Al mounting flange for ø12mm (0.47") SS probes (outside ø40mm (1.57"))
A000120	ø90mm (3.54") WM weather prot. cap (for ø19mm (0.75") probes)
A000125	ø120mm (4.72") WM weather prot. cap (for ø19mm (0.75") probes)
A000321	12mm (0.47") connector without cable (with solder terminal)
A000321-xx	12mm (0.47") connector with XX (length) cable
HKC	Control Kit for relative humidity

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