

PC33 & 52

Analog Relative Humidity and Temperature Probe

The PC33 & 52 series offers a comprehensive range of relative humidity probes for accurate, stable and repeatable measurements. Available with analog output signals, the PC series can be installed in a wide variety of applications.

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	PC52: $\pm 2\%$ RH (10–90% RH) PC33: $\pm 3\%$ RH (30–80% RH)
Accuracy @ 23°C (73°F) temperature	PC52: $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$) PC33: $\pm 0.3^\circ\text{C}$ ($\pm 0.54^\circ\text{F}$)
Stability – RH Sensor	$\pm 1\%$ RH / year
Response time – RH Sensor	<math>< 10</math> sec typical (for 90% of the step change)

Electrical Specifications

Output signal options	4–20 mA, 0 to 1, 0 to 5, 0 to 10 V
Supply voltage	14 to 30 V DC (for 0 to 5 / 0 to 10 V output) 5 to 30 V DC (0 to 1 V & mA output)

Operating Specifications

Operating temperature	
Probe, Housing	-30 to +85°C (-22 to +185°F)
Storage	-40 to +85°C (-40 to +185°F)

Mechanical Specifications

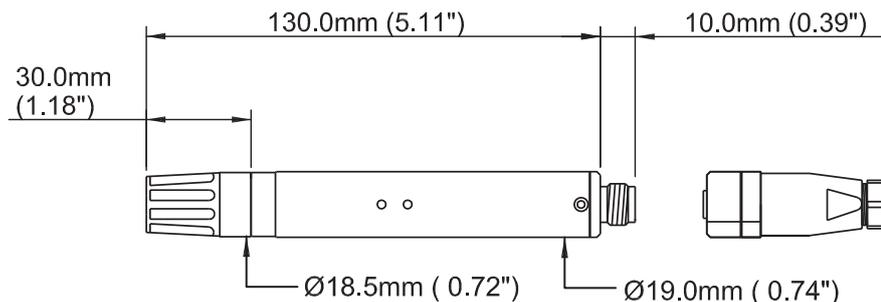
Ingress protection	IP65 (NEMA 4 level)
Housing material	Molded polymer or stainless steel (ordering option)
Dimensions	L=130mm, \varnothing 19mm (L=5.11", \varnothing 0.74")
Weight	30g (1.06oz) without cable (molded polymer version)
Electrical connections	M12



Highlights

- Low cost PC33 with analog output is designed for HVAC applications
- PC52 with analog output is designed for accurate measurement in controlled environments
- Analog zero and span adjustment

Dimensions



Electrical Connections

Voltage Output		
Mating Cable		Pin
White	Power Supply V +	1
Yellow	Output temperature +	2
Brown	Common ground	3
Green	Output RH +	4

4-20 mA Output 2-wire		
Mating Cable		Pin
White	Output RH +	1
Yellow	Output temperature -	2
Brown	Output RH -	3
Green	Output temperature +	4

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Michell Instruments adopts a continuous development programme which sometimes necessitates specification changes without notice.
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