

SF52

Dew-Point Transmitter

The SF52 dew-point transmitter is a simple, cost effective sensor designed for use in harsh industrial dryer applications where reliability and toughness are required at an economical cost.

The SF52 is available with a choice of G1/2" and 1/2" NPT process connections and voltage or mA outputs. A key feature of the unit is the recessed and protected measuring element giving an extended sensor life cycle.

Our polymer based sensor is calibrated on a high volume traceable calibration system, providing OEM quantities of units on short deliveries, each with a 3 point calibration certificate.



Highlights

- Ideal for OEM dryer use
- Dew-point measurement range -40 to $+60^{\circ}\text{C}$ (-40 to $+140^{\circ}\text{F}$)
- Fast response
- Rugged IP65 construction
- 3-Point traceable calibration certificate
- Accuracy $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$)
- Voltage or mA outputs

Technical Specifications

Performance

Measurement range	-40 to $+60^{\circ}\text{C}$ (-40 to $+140^{\circ}\text{F}$) dew point
Accuracy	$\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) dew point
Repeatability	0.5°C (0.9°F) dew point
Accuracy (absolute humidity)	0.4 to $3\text{g}/\text{m}^3$ on value of absolute humidity
Stability	$<1^{\circ}\text{C}$ ($<1.8^{\circ}\text{F}$) / year
Calibration	Traceable 3-point calibration certificate

Electrical Specifications

Output signal	0 to 1, 0 to 5, 0 to 10 V or 4–20 mA (3-wire)
Output	Dew point, absolute humidity
Analog output scaled range	Standard -40 to $+60^{\circ}\text{Cdp}$ (-40 to $+140^{\circ}\text{Fdp}$) -30 to $+30^{\circ}\text{Cdp}$ (-22 to $+86^{\circ}\text{Fdp}$) 0 to $200\text{g}/\text{m}^3$ Non-standard available upon request
Supply voltage	14 to 30V DC (for 0 to 10 V output) 8 to 30V DC (for 0 to 1 / 0 to 5 V / 4–20 mA output)
Current consumption	V output $<9\text{mA}$ mA output $<29\text{mA}$
CE marked	Certified

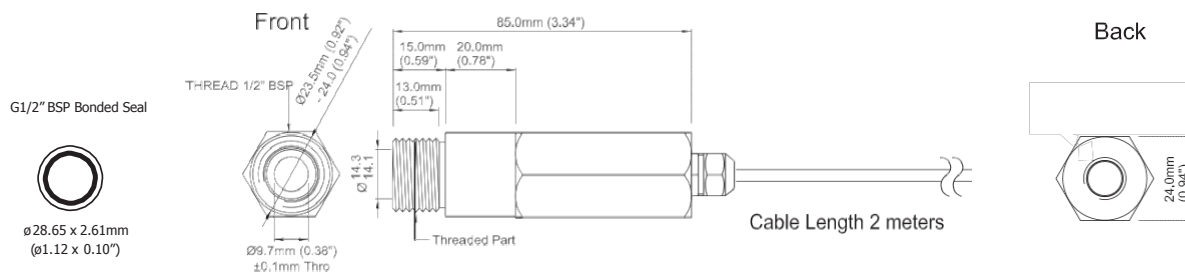
Operating Specifications

Operating humidity	0–100% RH
Operating temperature	-40 to $+60^{\circ}\text{C}$ (-40 to $+140^{\circ}\text{F}$)
Operating pressure	2MPa (20 barg / 290 psig maximum)
Thermal compensation	Characterized over operating range temperature

Mechanical Specifications

Ingress protection	IP66 in accordance with standard BS EN 60529:1992 NEMA 4 in protection accordance with standard NEMA 250-2003	
Housing material	Nickel-coated brass	
Dimensions	$L=85\text{mm}$, $\phi 24\text{mm}$ (maximum)	
Filter	HDPE front filter	
Process connection	G1/2" BSP, 1/2" NPT	
Weight	320g (11.3oz)	
Cable	2m ($6.6'$) of halogen-free TPE cable	
Diagnostic conditions (factory programmed)	Condition	Output
	Sensor fault	23mA
	Under-range dew point	4mA
	Over-range dew point	20mA

Dimensions



Electrical Connections

4–20 mA connections 3-wire		Voltage connections 3-wire	
White	Power	White	Power
Green	Output mA	Green	Output voltage
Brown	Common ground	Brown	Common ground

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