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°C (–40 to +140°F)
- Fast response
- Rugged IP65 construction
- 3-Point traceable calibration certificate
- Accuracy ±2°C (±3.6°F)
- Voltage or mA outputs

Technical Specifications

Performance

Measurement range	–40 to +60°C (–40 to +140°F) dew point
Accuracy	±2°C (±3.6°F) dew point
Repeatability	0.5°C (0.9°F) dew point
Accuracy (absolute humidity)	0.4 to 3g/m³ on value of absolute humidity
Stability	<1°C (<1.8°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°Cdp (–40 to +140°Fdp) –30 to +30°Cdp (–22 to +86°Fdp) 0 to 200 g/m³ Non-standard available upon request
Supply voltage	14 to 30 V DC (for 0 to 10 V output) 8 to 30 V DC (for 0 to 1 / 0 to 5 V / 4–20 mA output)
Current consumption	V output <9 mA mA output <29 mA
CE marked	Certified

Operating Specifications

Operating humidity	0–100% RH
Operating temperature	–40 to +60°C (–40 to +140°F)
Operating pressure	2 MPa (20 barg / 290 psig maximum)
Thermal compensation	Characterized over operating range temperature

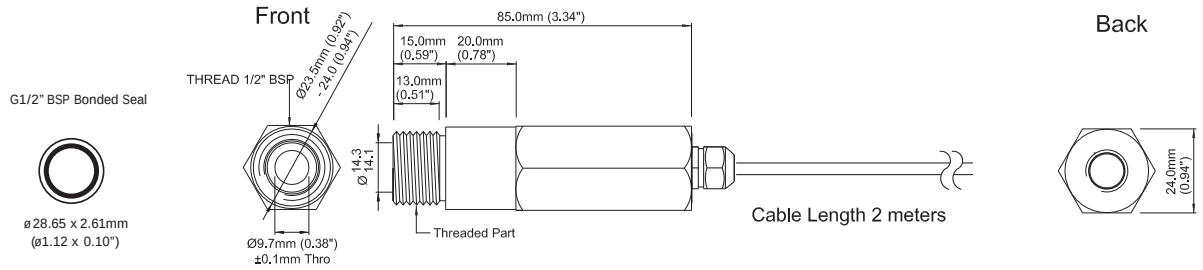
Mechanical Specifications

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=85mm, ø24mm (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	23 mA
	Under-range dew point	4 mA
	Over-range dew point	20 mA

SF52

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

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 C} + {Feature D} + {Feature E}

Order example: SF52-TX + 2 + X + D1 + B + F2
SF52 dew-point transmitter, 4–20 mA, dew-point scaling, dew-point range –40 to +60°C (-40 to +140°F), G1/2" BSP process connection, under-range/over-range diagnostics.

SF52-TX	2	X	D1	B	F2

Base Model {Feature A}	
Dew-point transmitter	SF52-TX

Signal Output {Feature B}	
4–20 mA (3-wire)	2
0 to 10 V	3
0 to 5 V	4
0 to 1 V	5

Output Scaling {Feature C}	
Absolute humidity g/m³*	S
Dew point °C	X

**Supplied with dew-point calibration certificate only*

Diagnostics {Feature F}	
Under-range/over-range off	F1
Under-range/over-range on	F2

Mount {Feature E}	
G1/2" BSP thread	B
1/2" NPT thread	N

Range {Feature D}	
–40 to +60°C (–40 to +140°F) dp output	D1
–30 to +30°C (–22 to +86°F) dp output	D2
0 to 200 g/m³	D3
Non-standard ranges available upon request	DX

Accessories and Spare Parts

HDPE filter	**A000019**
Bonded seal, (DIN ISO 228) G1/2" (BSP)	**A000340**
Sample block without filter (G1/2" BSP only)	**A000350**
Sample block with filter (G1/2" BSP only)	**A000351**

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