

SF52

Dew-Point Transmitter



The SF52 dew-point transmitter from Michell Instruments can provide 4–20 mA or voltage signal for either dew point or absolute humidity with excellent accuracy and linearity. The robust housing, together with an operating pressure of up to 20 barg (300 psig), makes the SF52 ideal for many dew-point and moisture measurement applications.

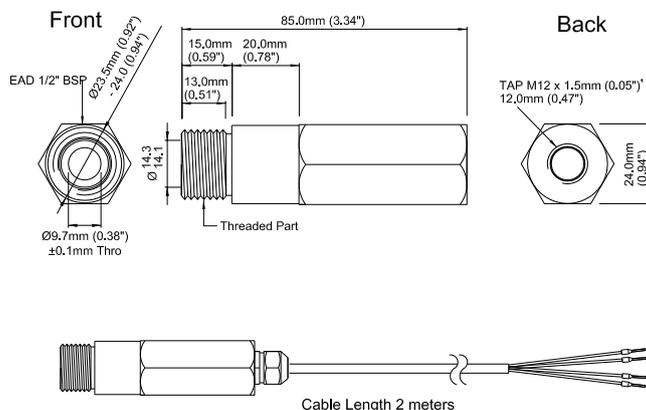
Highlights

- Designed for OEM applications
- Dew-point or absolute humidity output
- Flush fitting filter disc for minimal flow disturbance
- Excellent linearity and temperature compensation

Technical Specifications

Performance	
Measurement range (dew point)	-40 to +60°C (-40 to +140°F), dew-point temperature
Measurement range (absolute humidity)	0 to 200 g/m ³ (0 to 87.4 gr/ft ³)
Accuracy (dew point)	<±2°C (-40 to +60°C) (<±3.6°F (-40 to +140°F))
Accuracy (absolute humidity)	0.4 to 3 g/m ³ (0.175 to 1.311 gr/ft ³) on value of absolute humidity
Stability	<1°C / year (<1.8°F / year)
Response time	<10 sec typical (for 90% of the step change)
Electrical output/input	
Output signal	0–1, 0–5, 0–10 V or 4–20 mA
Supply voltage	8–30 V DC (14–30 V DC for 0–10 V output)
Current consumption	9 mA + load current
Supply voltage influence	±0.005 % RH/V
Operating conditions	
Operating humidity Probe, Housing, Storage	0–95% RH (non-condensing)
Operating temperature Probe, Housing Storage	-30 to +85°C (-22 to +185°F) -40 to +85°C (-40 to +185°F)
Operating pressure	20 barg (300 psig) maximum
Temperature coefficient	Temperature compensated across operating temperature range
Mechanical specification	
Ingress protection	IP65 (NEMA 4 level)
Housing material	Nickel-coated brass
Dimensions	L=85mm, ø24mm (L=3.34", ø0.94") (max)
Filter	HDPE front filter
Weight	320g (11.29oz)
Mechanical connections	G ½" BSP (DIN ISO 228) or ½" NPT
Cable	2m (6.5')

Dimensions



Accessories and Spare Parts

HDPE filter	A000019
Bonded seal, (DIN ISO 228) G½" (BSP)	A000340
Sample block without filter	A000350
Sample block with filter	A000351

Electrical Connections

Cable	Voltage output/ mA output
White	Power supply V+
Green	Output Td+
Brown	Common ground



load max 500 Ω

Ordering Example

SF52-BASE-4-X-T1-N

Dew-point transmitter SF52, 0-5 V output, Td °C/°F dp signal -40 to +60°C (-40 to +140°F), temperature range -20 to +80°C (-4 to +176°F), 1/2" NPT pressure port

Order Codes

SF52 - Dew-Point Transmitter		
Feature	Item	Description
Base Model	SF52-BASE	Base unit
Sig Output	SF52-2	4-20 mA
	SF52-3	0-10 V
	SF52-4	0-5 V
	SF52-5	0-1 V
Moist. Sig	SF52-S	g/m ³
	SF52-X	Td °C/°F dp -40 to +60°C (-40 to +140°F)
Temp	SF52-T1	-20 to +80°C (-4 to +176°F)
Mount	SF52-B	1/2" BSP thread
	SF52-N	1/2" NPT thread