

# SF52

## Dew point transmitter



The SF Series of Dew Point Transmitters from Michell Instruments can provide 4–20mA 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, makes the SF Series ideal for many dew point and moisture measurement applications.

### Highlights

- Dew point or absolute humidity outputs
- Current or voltage output signals
- Excellent linearity and temperature compensation
- Small size
- Digital recalibration
- Flush fitting filter disc for minimal flow disturbance

### Technical Specifications

#### Performance

|                                              |                                                     |
|----------------------------------------------|-----------------------------------------------------|
| <b>Measurement range (dew point)</b>         | -40 to +60°C, dew point temperature point)          |
| <b>Measurement range (absolute humidity)</b> | 0 to 200g/m <sup>3</sup>                            |
| <b>Accuracy (dew point)</b>                  | <±2°C (-20 to +60°C)                                |
| <b>Accuracy (absolute humidity)</b>          | 0.4–3g/m <sup>3</sup> on value of absolute humidity |
| <b>Stability</b>                             | <1°C/year                                           |
| <b>Response time</b>                         | <10 sec typical (90% of the step change)            |

#### Electrical output/input

|                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>Output signal</b>            | 0–1, 0–5, 0–10 V or 4–20mA           |
| <b>Supply voltage</b>           | 8–30VDC (14–30 VDC for 0–10V output) |
| <b>Current consumption</b>      | 9mA + load current                   |
| <b>Supply voltage influence</b> | ±0.005 % RH/V                        |

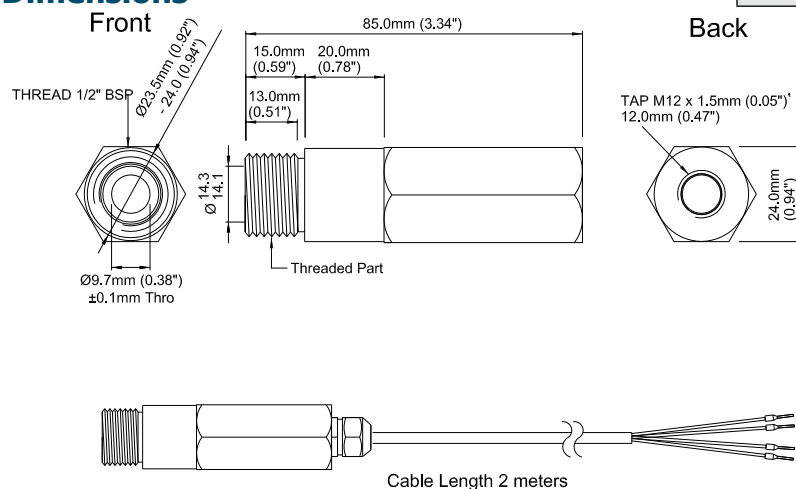
#### Operating conditions

|                                                           |                              |
|-----------------------------------------------------------|------------------------------|
| <b>Operating humidity</b><br>Probe, Housing, Storage      | 0–95% RH (non-condensing)    |
| <b>Operating temperature</b><br>Probe, Housing<br>Storage | -30 to +70°C<br>-40 to +75°C |
| <b>Operating pressure</b>                                 | 20 Barg maximum              |
| <b>Temperature coefficient</b>                            | ±0.05 %/°C                   |

#### Mechanical specification

|                               |                     |
|-------------------------------|---------------------|
| <b>Ingress protection</b>     | IP65                |
| <b>Housing material</b>       | Nickel-coated brass |
| <b>Dimensions</b>             | L=85mm, Ø24mm (max) |
| <b>Filter</b>                 | HDPE front filter   |
| <b>Weight</b>                 | 320g                |
| <b>Mechanical connections</b> | G1/2 (1/2" BSP)     |
| <b>Cable</b>                  | 2m                  |

### Dimensions

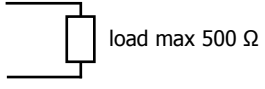


**Accessories and spare parts**

|                              |                |
|------------------------------|----------------|
| HDPE front filter (standard) | <b>A000019</b> |
| Bonded seal, G1/2"(BSP)      | <b>A000340</b> |
| Sample block                 | <b>A000350</b> |
| Sample block with filter     | <b>A000351</b> |

**Electrical Connections**

| Voltage output/mA output |            |
|--------------------------|------------|
| White                    | V+         |
| Green                    | output Td+ |
| Brown                    | GND        |


**Order codes**

Michell Instruments dew point transmitter

|      |   |   |    |
|------|---|---|----|
| SF52 | 4 | S | T1 |
|------|---|---|----|

| Output configuration, 3 wire      |   |
|-----------------------------------|---|
| 4–20mA (2 wire under development) | 2 |
| 0–10V                             | 3 |
| 0–5V                              | 4 |
| 0–1V                              | 5 |

| Moisture signal configuration |   |
|-------------------------------|---|
| Td°C dew point signal         | X |
| g/m <sup>3</sup> signal       | S |

| Temperature operating range                             |    |
|---------------------------------------------------------|----|
| -20 to +80°C temperature range                          | T1 |
| <i>The sensor is developed as a T-dew point sensor.</i> |    |

**Example: SF52 4 S T1**Michell Instruments dew point transmitter SF52, 0–5 volt output, g/m<sup>3</sup> moisture signal, -20 to +80°C operating range.**Please note: Michell Instruments adopts a continuous development programme which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: SF52\_0309**