SF72 Dew-Point Transmitter

The SF72 dew-point transmitter is a compact sensor designed for use in industrial dryer applications at the key −50 to +10°Cdp measuring points, where response speed, reliability and long term stability of data within a control process is critical.

The transmitter is pressure rated to 450 bar, ensuring process gas safety, through the use of a 10-year field-proven stainless steel body and glass-to-metal seal. The SF72 has three alternative industry-standard sample block connections giving form, fit & function benefits.

Our polymer based sensor is calibrated on a high volume traceable calibration system, providing OEM quantities of units, each with an 8-point traceable calibration certificate.

**Highlights**
- Ideal for membrane and refrigeration dryer use
- Compatible with *Compressed Air Quality ISO8573.1* Class 2 to 6 requirements
- Dew point measurement range −60 to +60°Cdp
- Fast response
- 316 stainless steel IP66 construction
- 8-Point traceable calibration certificate
- Accuracy ±2°Cdp
- G 1/2” BSP, 3/4” and 5/8” UNF process connections
- Service exchange program

**Applications**
- Compressed air
- Membrane dryers
- Desiccant dryers
- Breathing air
- Hydrogen coolant
- Inert and bulk gases
- Glove boxes
- Welding gases
- Hazardous areas
Technical Specifications

**Performance**
- **Measurement range (dp)**: –60 to +60°C dew point
- **Accuracy (dp)**: ±2°C dew point
- **Repeatability**: ±0.2°C dew point
- **Long term stability**: Less than 1% per year at reference conditions
- **Calibration**: Traceable 8-point calibration certificate

**Electrical Specifications**
- **Output signal**: 4–20 mA (2-wire connection, current source)
- **Output**: Dew point
- **Analog output scaled range**: Standard –60 to +60°C
- **Accuracy (dp)**: ±2°C dew point
- **Repeatability**: ±0.2°C dew point
- **Long term stability**: Less than 1% per year at reference conditions
- **Calibration**: Traceable 8-point calibration certificate
- **Supply voltage**: 12–28 V DC
- **Load resistance**: Max 250 Ω @ 12 V (500 Ω @ 24 V)
- **CE conformity**: Approved

**Operating Specifications**
- **Operating temperature**: –40 to +60°C
- **Operating pressure**: 45 MPa (450 barg) maximum
- **Over pressure rating**: x2 operating pressure 90 MPa (900 barg)
- **Flow rate**: 1 to 5 Nl/min mounted in standard sampling block; 0 to 10 m/sek (0 to 32.8 fps) direct insertion
- **Thermal compensation**: Characterized over operating range

**Mechanical Specifications**
- **Ingress protection**: IP66 in accordance with standard BS EN 60529:1992
- **Housing material**: NEMA 4 in protection accordance with standard NEMA 250-2003
- **Dimensions**: L=132mm (incl. connector & HDPE Filter) x ø27mm
- **Filter**: Standard HDPE Guard <10μm
- **Process connections and material**: Optional Sintered guard 80μm
- **G 1/2" BSP, 3/4" — 16 UNF, 5/8" — 18 UNF Stainless steel
- **Weight**: 150g
- **Electrical connections**: Hirschmann GDS series (DIN 4350-C)
- **Digital diagnostic communications**: RS485, 2-wire Modbus RTU

**Dimensions**

- ** SENSOR**
  - ø27mm (1.06”)
  - 1/4’’ UNF
  - ø27mm (1.06”)
  - 46mm
  - ø18.72 x 2.62mm (ø0.75 x 0.09”)
  - 3/4” - 16 UNF O-Ring

- **SENSOR**
  - ø27mm (1.06”)
  - 5/8” UNF
  - ø25.4 x 2.6mm (ø1 x 0.10”)
  - 5/8” - 18 UNF Bonded Seal

- **SENSOR**
  - ø27mm (1.06”)
  - G1/2” BSP Bonded Seal
  - ø28.65 x 2.61mm (ø1.12 x 0.10”)
  - 5/” 8 Process Connection

**Electrical Connections**
- **4-20 mA connections 2-wire**
  - Pin 1: 4–20 mA
  - Pin 3: POWER

**Related Process Products**

- **SF52**: Dew Point Transmitter
- **PCMMini52**: Digital Relative Humidity and Temperature Mini Probe
- **MDM300 I.S.**: Advanced Dew-Point Hygrometer
- **MDM50**: Portable Hygrometer

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

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