


**Transmitter PFT25K
as duct sensor**

- Measuring temperature and relative humidity with a „single-chip“-sensor
- Fast response time
- Digital transmission from sensor to the evaluation electronics
- Additional computed values: dew point temperature, absolute humidity, wet bulb temperature and enthalpy
- Analog outputs 0...10 V or 4...20 mA
- Sensor interchangeability without need for re-calibration
- Protection class IP 65

The climate transmitter PFT25 converts the directly measured values temperature and relative humidity into often used climatic values dew point temperature, absolute humidity, wet bulb temperature and enthalpy by digital calculation. The device has two analog outputs, output 1 is always set to temperature, whilst the second output can be set to 4 further values by a two stage dip-switch. The design of the PFT25 corresponds to the transmitter PFT22.

All measured and calculated values are shown with a resolution of 12 bits. For the calculation, a mean air pressure of 1000 hPa is used. To achieve maximum accuracy, the location of medium height and air pressure are given on the spot.


**Transmitter PFT25R
as door sensor with
2 x 4...20 mA output**

Operating Mode: Measuring mode
 Measured material: Temperature and humidity
 Sensor: Single-chip sensor for humidity and temperature with digital signal transmission and calibration memory on the chip
 Temperature in ° C; relative humidity in %
 Measuring unit: Temperature
 Output signal 1: Relative humidity, Dew point, wet bulb temperature, enthalpy
 Output signal 2: (Special range - absolute humidity)

TECHNICAL SPECIFICATIONS:

Resolution: 14 bit
 Response time: Approx. 20 seconds
 Reproducibility: ± 0,1 °C
 Tolerance: ±0,5 °C at 25 °C; ±2 °C at -40 °C, ±3 °C at +120 °C; narrower tolerance possible
 Measuring ranges: -30...+50 °C
 Characteristics: Linear

Output 1: TEMPERATURE

Resolution: 12 bit
 Response time: Aprox. 4 seconds (63 %-time, slightly moving air)
 Reproducibility: Typical < 1 % r.h. / year
 Tolerance: ± 0,1 % r.h.
 Measuring ranges

Output 2: SELECTABLE

Temperature: T = -30...+50°C, 0...50°C, 0...100°C;
 Relative humidity: r.h. = 0...100%;
 Dew point: dp = -30...+50°C;
 Wet bulb temperature: wbt = -30...+50°C;
 Enthalpy: E = 0...200kJ/kg;
 Absolute humidity: a.h. = 0...50g/kg

Measuring range selection: 4 selectable measuring ranges via DIP switch
 Characteristics: Linear (digital linearization)

PHYSICALLY:

Dimensions: See drawings
 Connections head: Plastic ABS
Electrical connection: 7 Connection terminals

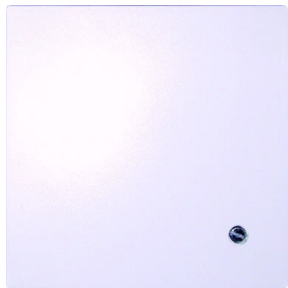
Channel sensor Sensor tube: stainless steel, 11 mm ø
 Protection class: IP 65 according to EN 60529
 Cable gland: M16 x 1.5

Outdoor sensor Sensor tube: double-walled sensor tube with wall holder
 Protection class: IP 65 according to EN 60529
 Cable gland: M16x1.5

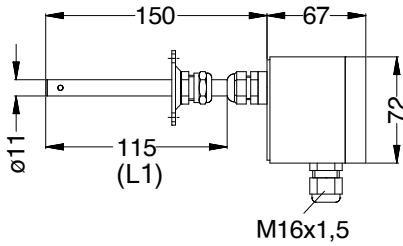
Room sensor Plastic housing for mounting on a flush-mounted switch box or surface-mounted wall mounting

ELECTRONIC:

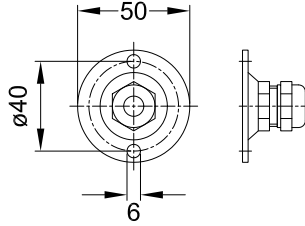
Power supply: 15 ... 30 Vdc or 24 Vac in three-wire circuit;
 13 ... 30 Vdc in two-wire circuit
 Output current: 2 x 0 ... 10 V in three-wire circuit;
 2 x 4 ... 20 mA in two-wire circuit


**Transmitter PFT25R
as door sensor with
2 x 0...10 V output**

Dimensions (mm) PFT25K



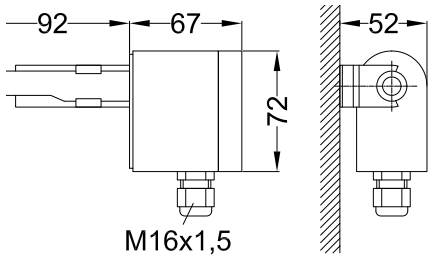
Mounting flange MF-M90



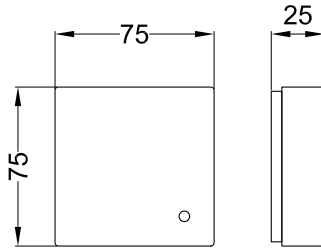
Output 2 - selectable values

| DIP-switch | Output | range |
|-------------|----------------------|------------------|
| 1 off 2 off | relative humidity | 0...100 % |
| 1 on 2 off | dew point | -30...0...+50 °C |
| 1 off 2 on | Wet bulb temperature | -30...0...+50 °C |
| 1 on 2 on | Enthalpy | 0...200 kJ/kg |

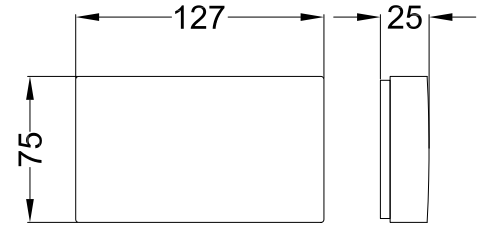
Dimensions (mm) PFT25A



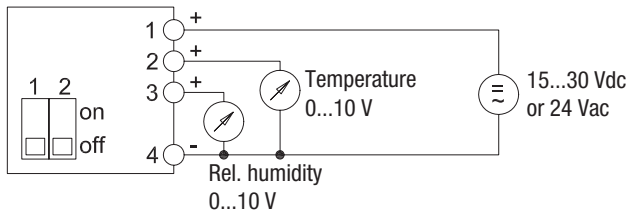
Dimensions (mm) PFT25R with 0...10 V output



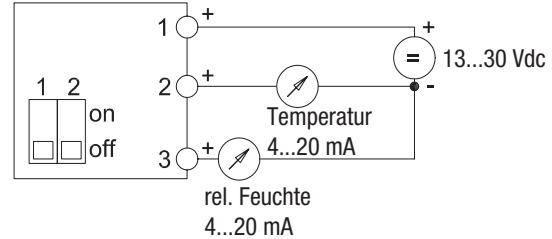
Dimensions (mm) PFT25R with 4...20 mA output



Connections - 2 x supply voltage



Connections - 2 x power output



| | | Item no. |
|--|--|--------------|
| Humidity & temperature transmitter PFT25K as duct sensor | | |
| Output 1: Temperature -30...0...+50 °C | | |
| Output 2: Customer-specific presetting required! | | |
| Housing: pastic ABS light grey, protection class IP 65 according EN 60529, tube stainless steel | | |
| Accessories: mounting flange | | |
| Output: 2 x 0...10 V, 3-wire technology | Supply voltage: 15...30 Vdc or 24 Vac | 7390 |
| Output: 2 x 4...20 mA, 2-wire technology | Supply voltage: 13...30 Vdc | 7391 |
| Humidity & temperature transmitter PFT25A as outdoor sensor | | |
| Output 1: Temperature -30...0...+50 °C | | |
| Output 2: Customer-specific presetting required! | | |
| Housing: plastic ABS light grey, protection class IP 65 according EN 60529, tube stainless steel | | |
| Accessories: wall bracket | | |
| Output: 2 x 0...10 V, 3-wire technology | Supply voltage: 15...30 Vdc or 24 Vac | 7392 |
| Output: 2 x 4...20 mA, 2-wire technology | Supply voltage: 13...30 Vdc | 7393 |
| Humidity & temperature transmitter PFT25R as room sensor | | |
| Output 1: Temperature -30...0...+50 °C | | |
| Output 2: Customer-specific presetting required! | | |
| Output: 2 x 0...10 V, 3-wire technology | Supply voltage: 15...30 Vdc or 24 Vac; Housing: plastic 72 x 72 mm | 7394 |
| Output: 2 x 4...20 mA, 2-wire technology | Supply voltage: 13...30 Vdc; Housing: plastic 72 x 72 mm | 7395 |
| Special lenght L1 | Customer-specific presetting required! | 72193 |
| Special configuration of measured variables to output 2 | | 7399 |
| Customer-specific presetting of output 1 & output 2 are required! | | |