



**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
- Analogue 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 analogue 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 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: tf = -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)

Output 2: SELECTABLE

PHYSICALLY:

Abmessungen: See drawings
Anschlusskopf: Plastic ABS
Elektrischer Anschluss: 7 Connection terminals

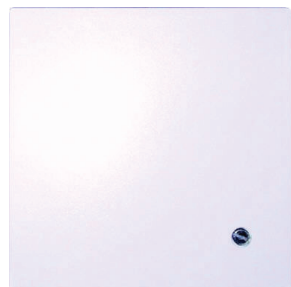
Channel sensor Sensor tube: stainless steel, 11 mm ø
 Protection class: IP 65 according to EN 60529
 Cable gland: M16 x 1.5

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:

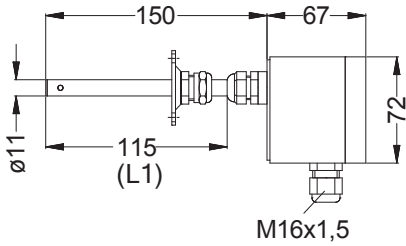
Power supply: 15 ... 30 Vdc or 24 Vac in three-wire circuit;
 13 ... 30 Vdc in two-wire circuit
Output current: 2 x 0 ... 10 V in three-wire circuit;
 2 x 4 ... 20 mA in two-wire circuit



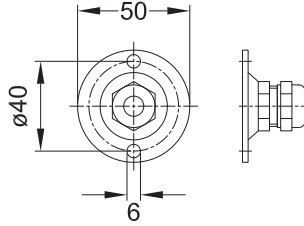
**Transmitter PFT25R
as door sensor with
2 x 0...10 V output**

CLIMATE TRANSMITTER PFT25

Dimensions (mm) PFT25K



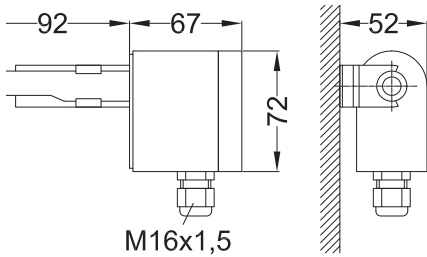
Mounting flange MF-M90



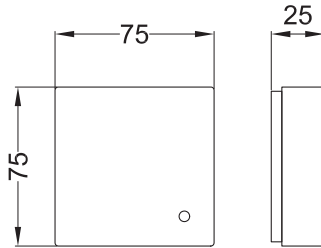
Output 2 - selectable values

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

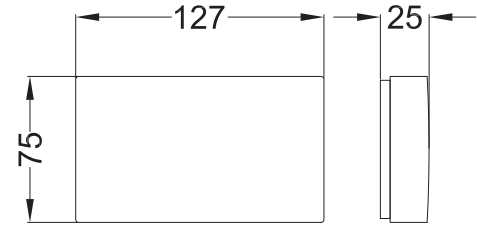
Dimensions (mm) PFT25A



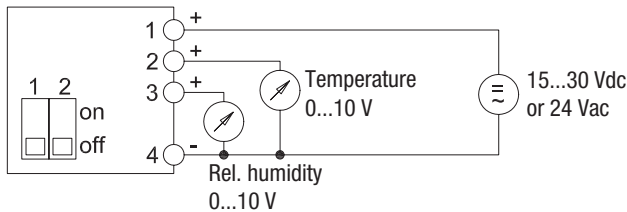
Dimensions (mm) PFT25R with 0...10 V output



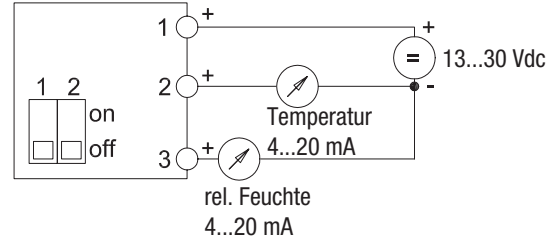
Dimensions (mm) PFT25R with 4...20 mA output



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!