

DX 310



Digital combined temperature and relative humidity probe



- Interchangeable
- Low power
- Centesimal temperature and humidity resolution
- Direct mount on meter possible (skipping cable)
- Fast and accurate
- Multi-point relative humidity adjustment
- Optional DAkKS/ACCREDIA certification available

DESCRIPTION

DX 310 is a digital combined temperature and relative humidity probe for the PRO D01 / PRO D05 handheld meters.

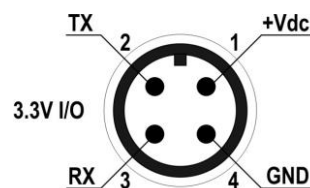
The probe supplies the following calculated quantities:

- Dew point
- Wet bulb temperature
- Absolute and specific humidity
- Mixing ratio
- Specific enthalpy
- Partial vapor pressure
- Frost point temperature
- Saturation vapor pressure above water and above ice

The probe is supplied factory-calibrated in multiple points for relative humidity, and it is ready to use. The probe can be optionally supplied with a DAkKS/ACCREDIA calibration certificate.

The calibration data are stored in the probe, allowing for interchangeability without the need for recalibration.

Equipped with 4-pin M12 connector.

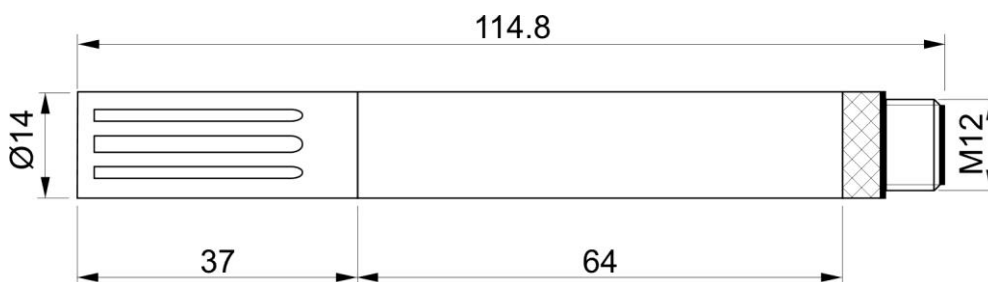


M12 DX 310 sensor pin out

The sensor can either be screwed directly onto the instrument (one-handed operation) or connected with a connection cable.

TECHNICAL SPECIFICATIONS

| | | |
|-----------------------|-------------|---|
| Sensor | RH | Capacitive, temperature compensated |
| | Temperature | Pt100 |
| Measuring range | RH | 0...100% |
| | Temperature | -40...+125 °C |
| Resolution | RH | 0.01% |
| | Temperature | 0.01 °C |
| Accuracy | RH | $\pm 1.2\%$ (0...85%) / $\pm 2\%$ (85...100%) @ T=0...50 °C (1.5 + 1.5% of the measured value)% @ T=remaining range |
| | Temperature | ± 0.1 °C $\pm 0.1\%$ of the measured value |
| RH response time | | 10 s (10 → 80 %RH; air speed=2 m/s @ constant temperature) |
| Long-term drift | RH | ± 0.5 %RH/year |
| | Temperature | ± 0.03 °C/year |
| Adjustment support | | Multipoint RH |
| Calculated quantities | | Dew point Wet bulb temperature Absolute humidity Specific humidity Mixing ratio Specific enthalpy Partial vapor pressure Frost point temperature Saturation vapor pressure above water Saturation vapor pressure above ice |
| Operating conditions | | -40...+80 °C / 0...100 %RH |
| Output | | UART (TTL 3.3V): DX-Sensor-Interface |
| Power consumption | | <1 mA typ. |
| Connection | | 4-pole M12 |
| Dimensions | | Stem: $\varnothing 14$ x 101 mm Overall: $\varnothing 14$ x 114.8 mm |
| Weight | | 20 g approx. |
| Material | | Stem and protector cap: PBT |



ORDERING CODES

DX 310-00 Digital combined temperature and relative humidity probe in carton box, stem Ø14 x 101 mm.

Art no. 486793

DX 310-L01 Digital combined temperature and relative humidity probe in carton box, stem Ø14 x 101 mm, incl. 1 m PVC connection cable M12

Art no. 486910

SUITABLE INSTRUMENTS

PRO D01 1-channel handheld meter for digital probes. Supplied with 4 x AA alkaline batteries

Art no. 486134

PRO D05.2 2-channel handheld data logger for digital probes. Supplied with 4 NiMH rechargeable batteries, USB cable and software downloadable from Senseca website.

Art no. 486136

PRO D05.3 3-channel handheld data logger for digital probes. Supplied with 4 NiMH rechargeable batteries, USB cable and software downloadable from Senseca website.

Art no. 486137

ACCESSORIES

CABLE-M12-L01 Connection cable M12 5 pole, 1m

Art no. 487020

HD11 Saturated solution for checking Relative Humidity at 11% RH.

Art no. 487623

HD33 Saturated solution for checking Relative Humidity at 33% RH.

Art no. 487624

HD75 Saturated solution for checking Relative Humidity at 75% RH.

Art no. 487625