

Humidity-/Temperature Probe DKRF300-Series

with I²C-Interface and Digital Two-wire Sensirion Sensor

Humidity / Temperature Probe

The probes of the DKRF300 series we provide are based on the combined humidity and temperature probes SHT2X and SHT3X by Sensirion (refer to separate spec sheet).

These offer an I²C protocol. The models with the SHT2x furthermore operate with the proprietary protocol known from older sensors (SHT11/15/71/75).

Its different designs allow you to use the probe series in practically every environment from normal indoor or outdoor applications to compressed air applications and difficult to access measuring points, realizable through minimised sensor dimensions.

| Features |
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| Stainless steel probe for relative humidity and temperature in different models |
| High measurement accuracy ($\pm 2\%$ RH / $\pm 0.3^\circ\text{C}$ without recalibration!) |
| Digital, calibrated output signal via I ² C interface (Sensirion SHT1x/7x protocol possible for SHT21/25) |
| Fast response time for the humidity value (4 seconds) |
| Filter solutions available |
| Temperature range $-40\dots+80^\circ\text{C}/+120^\circ\text{C}$ |

Models

DKRF300: The basic model of the series. For standard measuring tasks and moderate temperature influence. The measuring head is delivered with a dust filter. Tmax = 80°C, filter cap Tmax = 120°C

DKRF300S: Minimized dimensions and a detached sensor head for applications with increased temperatures. Design with integrated dust filter. Tmax = 120°C

DKRF310: Rod probe for narrow measuring points e.g. for joints or interlayers. Tmax = 80°C, probe end Tmax = 120°C

DKRF310XXS: The smallest device of the series for tight conditions of use and increased temperatures. Tmax = 80/120°C, depending on the cable's material.

DKRF315: Variant for rough environments and pressure resistant up to 2 bar, equipped with a robust sintered filter. Tmax = 80°C, sinterd filter Tmax = 120°C

DKRF317: With screw-in thread for direct process monitoring. Suitable for compressed air applications up to 30 bar. Tmax = 80°C, sensor end Tmax = 120°C

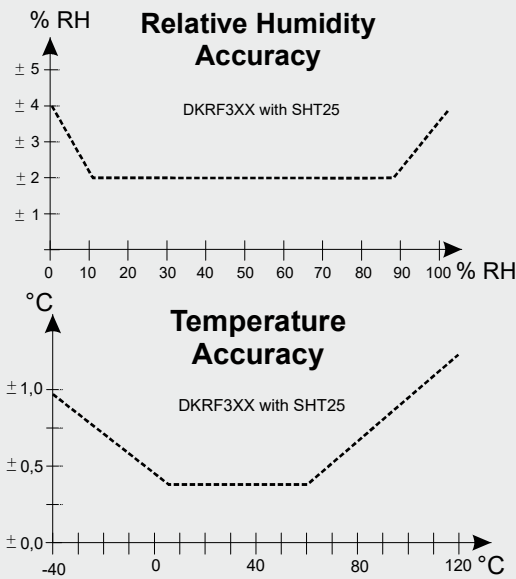
DKRF374: Robust probe for compressed air applications up to 100 bar. Cast measuring head outfitted with sintered filter. Tmax = 80°C, sintered filter Tmax = 120°C



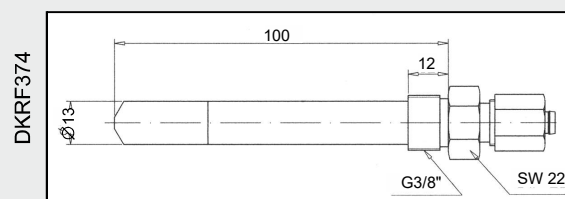
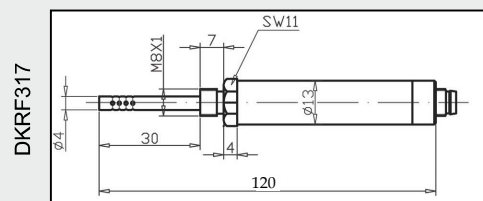
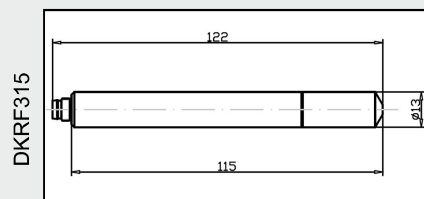
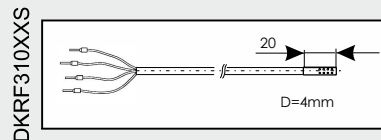
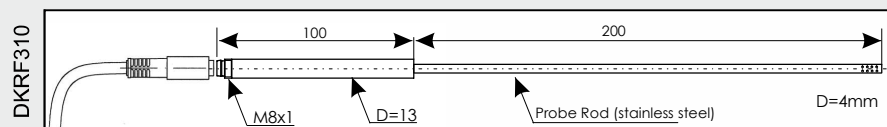
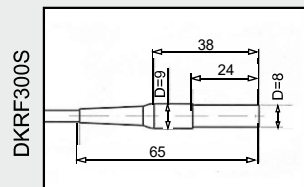
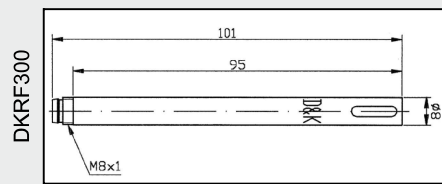
Digital & Precise Humidity Sensor

The heart of the DKRF300 series is an extremely durable and accurate SHT sensor from Sensirion. In place of the standard SHT25 sensor, here depicted, probes of the DKRF300 series can be equipped with SHT21, SHT31, and SHT35 sensors. For details on sensor specifications, please refer to the spec sheet of the respective sensor installed.

Specifications



Dimensions



Order Code

The following order code applies to the DKRF300 series:

MODELL-ST-CT-CO

Models DKRF300
DKRF300S
DKRF310XS
DKRF310XXS
DKRF315
DKRF317
DKRF374

ST = sensor type 21 = SHT21
25 = SHT25
31 = SHT31
35 = SHT35

CT = cable* 2000* = 2 m cable (pluggable)
Tmax up to 80°C
5000* = 5 m cable (pluggable)
Tmax up to 80°C on
V2000 = 2 m PVC cable (fixed to probe)
Tmax up to 80°C
V5000 = 5 m PVC cable (fixed to probe)
Tmax up to 80°C
G2000 = 2 m PFA cable (fixed to probe)
Tmax up to 120°C
G5000 = 5 m PFA cable (fixed to probe)
Tmax up to 120°C
Other cable types on request
*Not applicable for DKRF310XXS

CO = connector O = without plug / open ends
S = connector (please specify details when ordering)

Optional Accessories

Mounting flange, calibration certificate, calibration set MHT Kit, radiation shield TR351 for outdoor use.