



Weather sensor for humidity and temperature

- Parameters measured Air temperature and relative air humidity (measured), absolute air humidity, dewpoint and mixing ratio (calculated)
- Measurement range PT1000, capacitive
- Product Highlights Low power draw, long-term stable, suitable for extreme temperatures, protective housing included
- Interface SDI-12 V1.3

The compact, long-term stability weather sensor OTT TRH is responsible for the measurement of relative humidity and temperature. In addition it can calculate the values for absolute humidity, dew point and mixing ratio and output these via the SDI-12 interface. A protective cap prevents dust and dirt from entering the sensor system. The included protective housing provides weather and radiation protection.

Sensor TR2O

Sensor output	
measured	Temperature in °C or °F, relative humidity in %
calculated	Absolute humidity in g/m³, dew point in °C or °F, mixing ratio in g/kg









Technical Data OTT TRH



) 100 % RH
.0.0/ DL1/0.7 00.0/ DL1/40.7 140.0/ DL1/40.7
nax. ± 2 % RH (0 \Box 90 % RH)**; max. ± 3 % RH (90 \Box 100 % RH)**
for supply voltages of>15V DC, other accuracy values apply
temperature dependency: <±2% at -10°C 60°C
0.10%
0.1 %RH
1 % RH
yp. < ±1.5 %/year
RH90 typ. <15 s at 0.35 m/s
PT1000 DIN A
40 °C +80 °C
0.1 °C at 20 °C; ±0.5 °C at -40 °C, 80 °C linearity
0.01 °C
90 <300 s at 1 m/s airflow; T90 <250 s at 2 m/s airflow
) 1000 g/m³
0.1 g/m ³
f(:1)(1).

Dew point	
Measuring range	-40 °C +80 °C
Resolution	0.01 °C

Mixing ratio	
Measuring range	0 1000 g/kg
Resolution	0.1 g/kg
Interface	SDI-12 V1.3

4.5 V DC ... 28 V DC Supply voltage

Current consumption	
Quiescent	< 20 µA at 12 V
Temperature measurement	typ. 550 µA
Humidity measurement	typ. 260 µA

Ambient conditions	
Operating temperature	-40 °C +80 °C
Storage temperature	-50 °C +80 °C
Operating humidity	0 100 % RH

Protection class	IDCE
	IPNA
i lotection ctass	11 05









Technical Data OTT TRH



Sensor protection	Protection cap with metal grid filter
Material and dimensions	
Housing sensor	Polycarbonate
Dimension sensor	Ø 12 mm x 140 mm
Material cable	PUR (black), moulded/shielded
Available cable lengths	3.5 m and 10 m
Wiring	color code printed on housing
Standards	EG (2004/108/EG), EN 61326-1:2006
OTT RS7 Weather and Radiation	
Protection	
Number of lamellae	7
Operating temperature	-40 °C +80 °C
Material and dimensions	2 company to (DC DA)
Lamellae	2 components (PS, PA)
Bracket	stainless steel
Height incl. mount	230 mm
Mainbt (without concert	700 ~
Weight (without sensor)	700 g
Pola/sina diameter for	
Pole/pipe diameter for	2/4 F/4 inch /27 mm 42 mm)
horizontatr(pipe)	3/4 5/4 inch (27 mm 43 mm)

1 ... 2 inch (27 mm ... 60 mm)









vertikal (pole/pipe)