

# HTK T 220 Dew Point Sensor



## Very fast response time

### ensures safe and reliable measurements

The HTK T 220 dew point meter provides reliable and long term stable dew point monitoring in industrial applications, with a range of -100 ... +20 °C Td. It makes it an ideal choice for dew point measurements in high tech requirements and conditions.

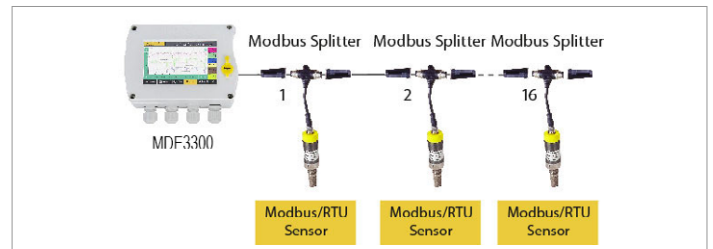
## Benefits

- Compact size makes them ideal for dryer installations.
- Optional display for on-site values. Display can be rotated by 340 ° to fit your needs.
- User friendly signal outputs:
  - 2-wire analog 4... 20 mA or
  - 3-wire analog 4...20 mA + Modbus/RTU
- IP65 casing provides robust protection.
- Low maintenance costs due to stable and reliable measurements which increase calibration intervals.
- Measured values available in several units:
  - °C Td • g/m<sup>3</sup> • mg/m<sup>3</sup> • ppmv • g/kg (@ reference pressure) • % RH and more, please ask our support for other measurement units.

## Modbus Sensor-Network

The Modbus/RTU bus allows to connect several sensors to a single bus line via Daisy-Chain.

For example up to 16 sensors to a Datalogger.



## Display Option

The OLED display directly mounted on the sensor provides on-site real time values. The display can be easily rotated by 340 ° to fit your application.



## Sensor Protection

The stainless steel sinter filter cap protects the sensor from dust and other impurities. At the same time it offers fast response times and reliable measurement results.



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## COMPACT DESIGN

Makes it easy to fit into the application

## SIGNAL OUTPUT

4 ... 20 mA Modbus/RTU

## PRESSURE SENSOR

integrated as option

## PRECISE MEASUREMENT

$\pm 2$  °C Td Accuracy

## DISPLAY OPTION

For on-site values

## AIR QUALITY

Monitors humidity

## HIGH TECH APPLICATIONS

QCM + Polymer -100 ... 20 °C Td CD

## DUAL SENSOR SYSTEM

High precision over the whole range

## Robust Materials

The main body is made from high class aluminum alloy with a soft finish. The process connection is a 1.4301 (SUS 304) stainless steel connection, made to last forever.

Top cover made from aluminum at the same quality as the main body. The optional display cover is made from robust Polycarbonate with ABS reinforcement to withstand the rough environment.



## Unique Sensor Elements

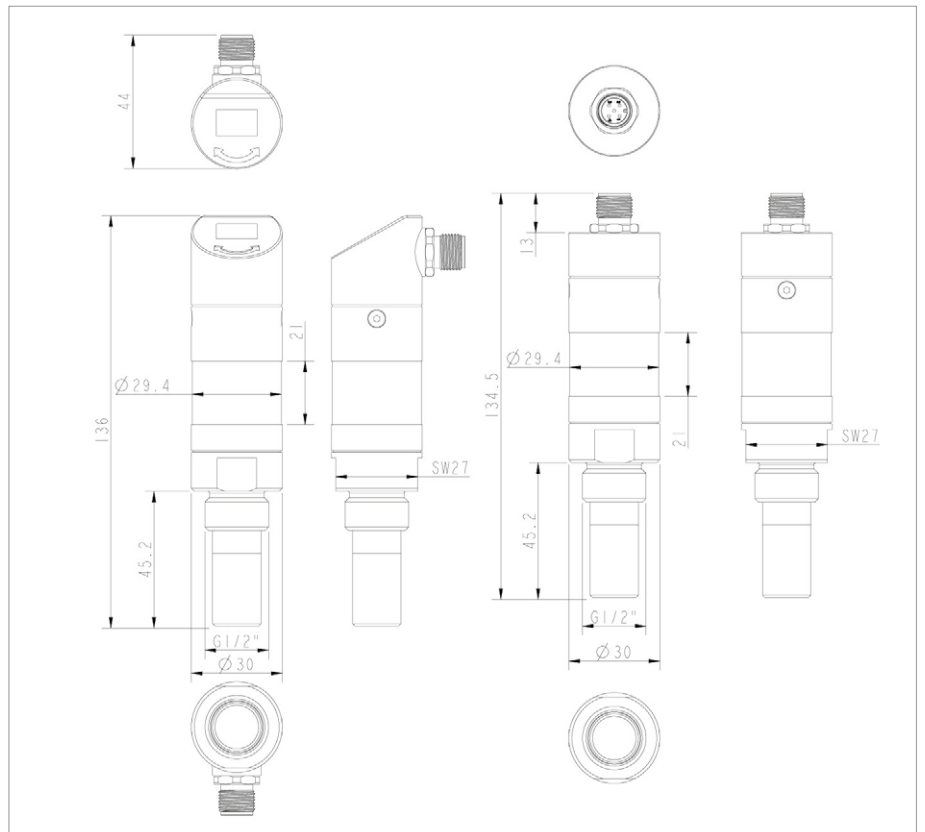
Our QCM sensor is the result of years of high-tech research and development. The sensor was especially designed for low dew point applications where other sensor types fail.

The combination of QCM and the well known Polymer sensor makes the HTK T 220 the worlds first model to measure accurate over the whole range, from -100 °C Td up to +20 °C Td by switching automatically between the two sensor elements as needed.

By fitting additionally a pressure sensor into the measurement unit, We are combining 4 sensor elements (Polymer, QCM, Pt100, pressure) into a single dew point sensor.



## Dimension Drawing



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## Analysers from HTK

### We are your partner for tailor-made gas analysis technology

The use of fixed and mobile gas analysers is widespread in many industries, and the demand continues to grow.

HTK Hamburg develops and builds equipment to provide effective solutions, from the small manual analyser up to the complex analysis unit in the food sector, welding & cutting and in many other industries.

Planning, manufacturing, service and calibrating analysers for the measuring gases such as O<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>, SF<sub>6</sub> - and many more - isn't a challenge for us; it's our mission each and every day.

Our aim is to ensure safe, consistent and accurate analysis in your process - thus maintaining quality.



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| Technical Data              |   |
|-----------------------------|---|
| Measuringrange              | Dew point -100 ... +20°C Td<br>Temperature -30 ... +70°C<br>Pressure 0 ... 1.6 MPa  |
| Dew point sensor            | Polymer + QCM   |
| Operating pressure          | -0.1 ... 1.6 MPa  |
| Process connection          | G 1/2" (ISO 228/1), stainless steel 1.4301 (SUS 304)  |
| Operating conditions        | Medium Temp.: -30 ... +70°C<br>Ambient Temp.: 0 ... +50°C<br>Ambient Humidity: 0 ... 100 % rH   |
| Supply voltage              | 15 ... 30 VDC   |
| Materials                   | Casing: Aluminum alloy<br>Process thread: Stainless steel 1.4301 (SUS 304)<br>Display cover: PC + ABS   |
| Protection class & Approval | IP65 / CE   |
| Sensor protection           | Sinter filter (stainless steel)   |
| Transport & Storage         | Transport Temperature: -30 ... + 70 °C / Storage Temperature: -20 ... + 50 °C   |
| Weight                      | 180 g   |
| Measured gases              | Air, Ar, O <sub>2</sub> , N <sub>2</sub> , CO <sub>2</sub> *  |
| Output Signal               | 4...20 mA 2-wire,<br>4... 20 mA 3-wire + SDI,<br>4... 20 mA 3-wire + Modbus/RTU   |
| Current consumption         | 2-wire: 4 ... 20 mA<br>3-wire: 40 mA @ 24 VDC<br>3-wire with display: 50 mA @ 24 VDC  |
| Accuracy                    | Dew point:<br>+/- 1 °C Td (0 ... 20 °C Td)<br>+/- 2 °C Td (-60 ... 0 °C Td / +20 ... +50 °C Td)<br>+/- 3 °C Td (-100 ... -60 °C Td)<br>Temperature: +/- 0.3 °C<br>Pressure: 0.5% FS |
| Sensor types                | Temperature sensor: Pt100 / Pressure sensor: Piezo resistive type   |
| Display option              | 0.66" OLED display, indicates the measured value and unit   |

\* CO<sub>2</sub> medium:

The HTK T 220 must be set to CO<sub>2</sub> ex works (please state at the order if HTK T 220 will be used in CO<sub>2</sub>)

The direct way to our website:

[www.htk-hamburg.com](http://www.htk-hamburg.com)

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