

# HTK 220 Dew Point Sensor



## Very fast response time

### Ensures safe and reliable measurements

The dew point sensor HTK 220 provides long term stable and reliable dew point measurements at very low dew points in industrial applications.

## Mode of operation

The sensor technology used in the sensor is developed especially for the HTK 220 and offers superior measurement signals at very low moisture applications, allowing reliable measurements down to  $-100^{\circ}\text{C}$ .

The included sinter cap protects the sensor from dust and other particles, this ensures a stable measurement and low maintenance at the same time.

The measured sensor data is transmitted via different signals. Depending on the selected model multiple measurement values, like dew point and pressure can be output at the same time.

The various analog output options or digital Modbus outputs make the HTK 220 the perfect dew point sensor to fit into any low moisture application.

## Benefits

- Small size makes it ideal for dryer installations
- Measures dew points down to  $-100^{\circ}\text{C Td}$
- Version with integrated pressure measurement
- Various output versions available: 1 x 4 ... 20 mA, 2 x 4 ... 20 mA, RS-485 (Modbus), 4 ... 20 mA loop powered

- IP65 casing provides robust protection in rough industrial environment
- Can be installed directly into dryers through G 1/2" thread
- High accuracy of  $\pm 2^{\circ}\text{C}$  dew point
- M12 connector

## Sensor Technology

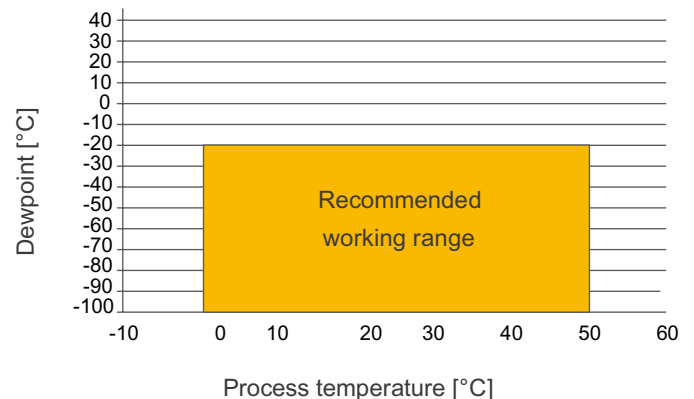
The innovative QCM Sensor Technology measures moisture changes in parts per billion range.

Stated accuracy under following conditions:

- Ambient temperature  $23^{\circ}\text{C} \pm 3^{\circ}\text{C}$
- Process temperature  $23^{\circ}\text{C} \pm 3^{\circ}\text{C}$
- Ambient humidity < 95%, no condensation
- Airflow > 2 l/min at sensor tip



## Recommended working range



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We control GASES - since 1978



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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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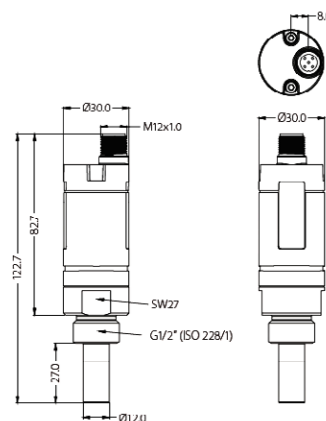
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| Technical Data                            |   |
|---|---|
| Measurement range                         | Dew point -100 ... 0°C Td<br>Temperature -30 ... +70°C<br>Pressure -0.1 ... 1.6 MPa |
| Dew point sensor                          | QCM   |
| Temperature sensor                        | Pt100   |
| Pressure sensor                           | Piezo resistive type  |
| Accuracy                                  | Dew point ±2°C Td<br>Temperature 0.3°C<br>Pressure 0.05 bar                         |
| Operating Pressure                        | -0.1 ... 1.6 MPa  |
| Operating Temperature (Medium)            | -30 ... +70°C   |
| Measured gases (Medium)                   | Non-corrosive gases   |
| Response Time t <sub>90</sub> (@ 4 l/min) | -80°C Td -> -20°C Td = 20 sec<br>-20°C Td -> -80°C Td = 180 sec                     |
| Ambient Temperature                       | 0 ... +50°C   |
| Ambient Humidity                          | 0 ... 100% rH   |
| Supply Voltage                            | 12 ... 30 VDC   |
| Current consumption (model dep.)          | 30 mA @ 24 VDC 3-Wire/ 20 mA @ 24 VDC 2-Wire  |
| Output signals (model depending)          | 4 ... 20 mA 3-Wire<br>4 ... 20 mA 2-Wire<br>Modbus/RTU                              |
| Electrical connection                     | M12, 5-poles  |
| Process connection                        | G 1/2" thread (ISO 228/1)/ Stainless steel 1.4301 (SUS 304)                         |
| Casing material                           | Zinc alloy  |
| Classification                            | IP65  |
| EMC                                       | IEC 61326-1   |
| Approval                                  | -   |
| Sensor protection                         | Sinter filter   |
| Transport Temperature                     | -30 ... +70°C   |
| Storage Temperature                       | -20 ... +50°C   |
| Weight                                    | 204 g   |

### Dimension Drawing



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