

# DATA SHEET

## Humidity sensor KFS140-TO

### Description



### Characteristic features

- Humidity sensor in TO-Housing
- Integrated stainless steel sinter filter
- Pressure resistant model
- Mechanically robust
- Good linearity
- Dew formation resistant
- Alcohol resistant
- Low Hysteresis
- RoHS conformance

### Areas of application

- Pressure dew point measurement
- Industrial application

### Technical data

Measuring principle	Capacitive polymer humidity sensor
Humidity application range	0...100 % RH
Pressure range	-1...+10 bar
Max. Dew point	+80 °C
Temperature application range	-30...+150 °C
Capacitance	180 pF ±50 pF (at 23 °C and 30 % RH)
Gradient	0,3 pF / % RH
Loss factor	< 0,01
Hysteresis	< 1,5 % RH
Response time	< 30 s
Frequency range	1...100 kHz
Max. evaluation voltage	< 12 V <sub>pp</sub> ~
Signal form	AC voltage (without DC-component)
Protection filter	Stainless steel 40 µm
Housing	TO 5
Dimensions	Ø 9 x 19,5 mm
Ordering Number	KFS140-TO

### Features

The KFS 140 is a capacitive humidity sensor in TO-housing with integrated stainless steel sinter filter. The mechanical construction of the sensor is extremely robust because of the metallic housing.

Further specialities are its wide application range, low hysteresis and linear characteristics. The high performance polymer used in the sensor is resistant against dew formation and many chemical effects and also guarantees an outstanding long-term stability.

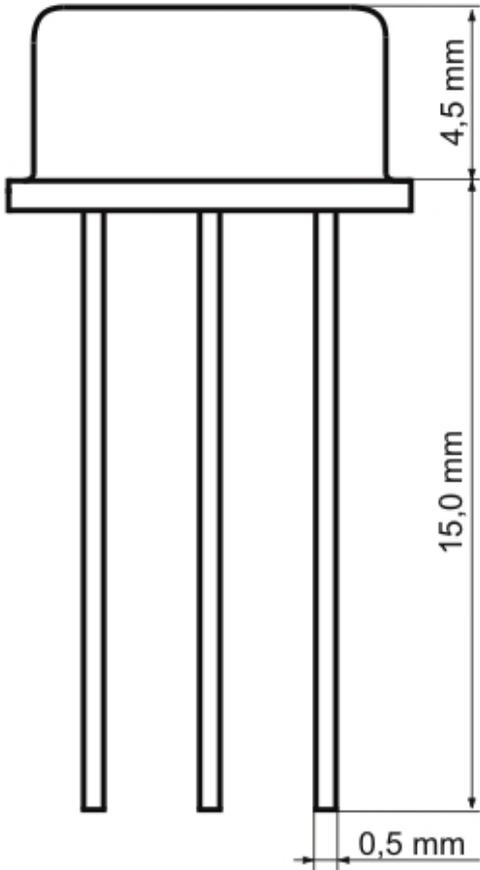
The connections are vitrified and air tight in the base plate, so that the housing is suitable as a pressure tight separating point between the test chamber and evaluation electronics.

Typical areas of application are, for example, pressure dew point measurement in pneumatic systems. Due to its optimum performance, the sensor is also ideally suitable for meticulous jobs in industrial measuring systems.

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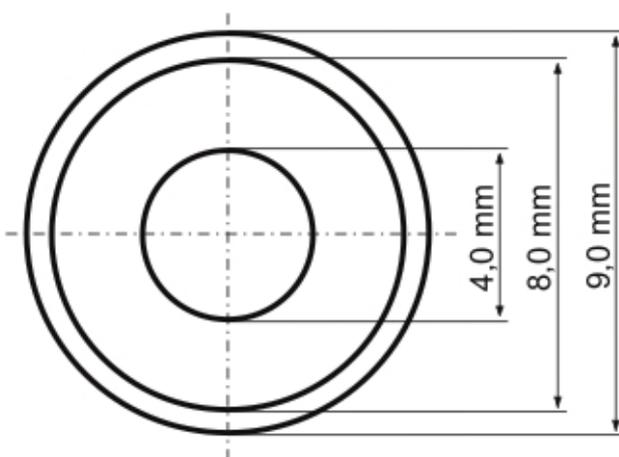
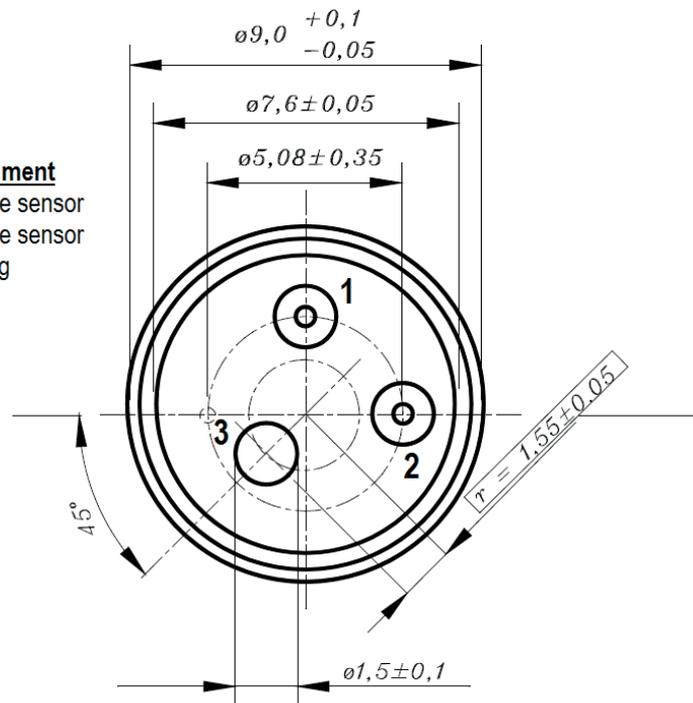


## Humidity sensor KFS140-TO



### Pin assignment

1. capacitive sensor
2. capacitive sensor
3. grounding



For further information, visit our website:  
[www.bb-sensors.com](http://www.bb-sensors.com)