



MK33

Capacitive Humidity Sensor

Product

Our mature capacitive humidity sensor which features a basic capacity of 300 pF provides a large Humidity-Temperature-Range and therefore it is suitable for many applications. The choice of the connectors opens the customer almost unlimited possibilities in probe constructions.

Advantages

- Employment in extreme environment conditions like e.g. hot oil, in swimming pool, in piggery, in humidity generators
- Dewing resistant – fast recovering time after dewing, also at very high dewpoint temperatures
- Excellent drift values
- Extreme resistance to various chemicals
- Extreme wide temperature operating range
- Various wired solutions available
- RoHs conform

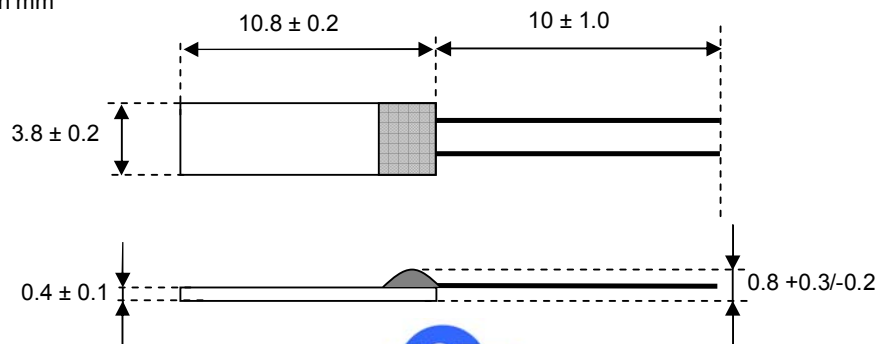


Technische Daten

Humidity Operating Range:	0 ... 100% Relative Humidity
Operating temperature range:	-40 ... +190°C
Capacitance:	300 pF ± 40 pF (at 30% RH and 23°C)
Sensitivity:	0,45 pF / %RH (20 ... 95% RH)
Loss Factor:	≤ 0.01 (at 23°C, at 10kHz, at 90% RH)
Nonlinearity:	± 2,0% RH (15 ... 90% RH at 23°C, after one point calibration)
Hysteresis: 1h, 20% RH at 23°C	< 2,0% RH
→ 1h, 85% RH at 70°C	
→ 1h, 20% RH at 23°C	
Response Time T ₆₃ :	< 6 s (50% RH → 0% RH) at 23°C
Frequency Range:	1 ... 100 kHz (recommend 10 kHz)
Maximum Operating Voltage:	< 12 V _{pp} AC
Signal Form:	alternating signal without DC bias
Connectors:	Wires or customer specific, optional SMD or mini-design

Construction Sizes

Dimension in mm



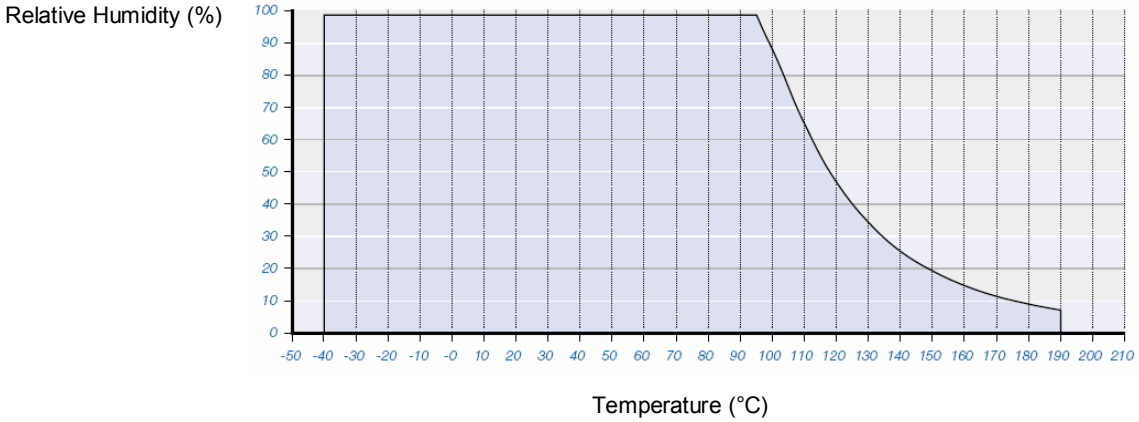
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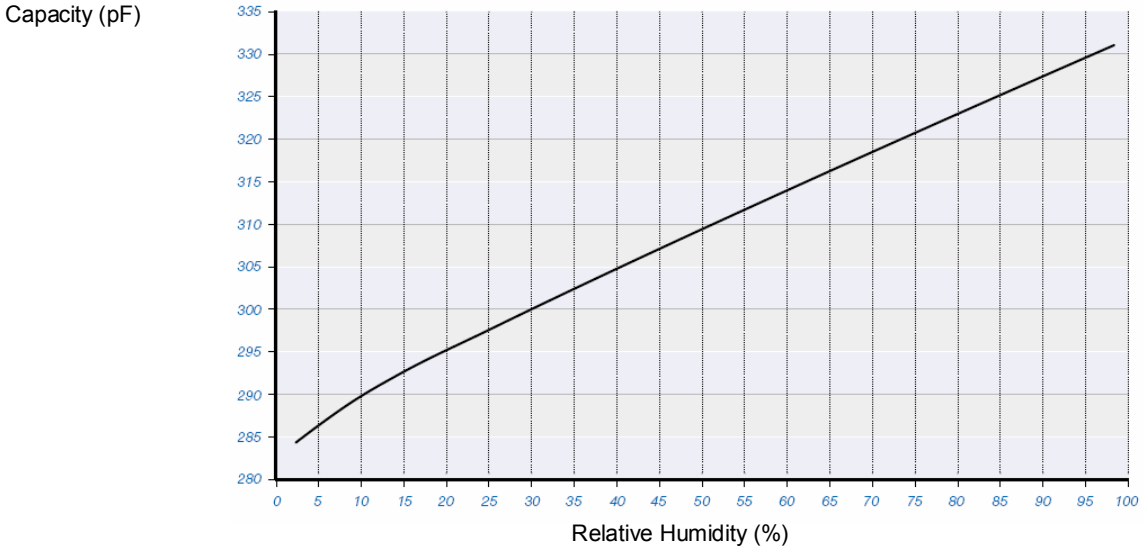
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Allowed Humidity-Temperature-Range, operating conditions at atmospheric pressure (1bar)



Sensor Characteristic



All mechanical dimensions are valid at 25°C ambient temperature, if not differently indicated. ■ All data except the mechanical dimensions only have information purposes and are not to be understood as assured characteristics. ■ Technical changes without previous announcement as well as mistakes reserve. ■ The information on this data sheet was examined carefully and will be accepted as correct. No liability in case of mistakes. ■ Load with extreme values during a longer period can affect the reliability. All rights reserved. The material contained herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner. Typing errors and mistakes reserved. Product specifications are subject to change without notice.



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