

physical. chemical. biological.













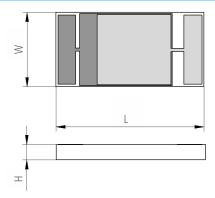


Benefits & Characteristics

- High chemical resistance
- Wide temperature range
- Resistance to condensation
- Fast recovery time

- Very low drift
- Excellent price-performance ratio
- Solderable and bondable (fully automated assembly)
- Customer-specific sensor available upon request

Illustration¹⁾



1) For actual size, see dimensions

Technical Data

Dimensions (L x W x H in mm):	4 x 2 x 0.4	
Operating humidity range:	0 % RH to 100 % RH (maximal dew point +85 °C)	
Operating temperature range:	-50 °C to +150 °C	
Capacitance (C ₃₀):*	180 pF ±50 pF (at 30 % RH and +23 °C)	
Sensitivity (at $C_{30} = 180 \text{ pF}$):	0.3 pF/% RH (15 % RH to 90 % RH)	
Loss factor:	< 0.01 (at 23 °C, at 10 kHz, at 90 % RH)	
Linearity error:	< 1.5 % RH (15 % RH to 90 % RH at +23 °C after one point calibration)	
Hysteresis:	< 1.5 % RH	
Response time t ₆₃ :	< 3 s (50 % RH to 0 % RH at +23 °C)	
Temperature dependence (typical):	Δ % RH = (B1 x % RH + B2) x T [°C] + (B3 x % RH + B4)	
	B1 = 0.0014 [1/°C]	B2 = 0.1325 [% RH/°C]
	B3 = -0.0317	B4 = -3.0876 [% RH]
Measurement frequency:	1 kHz to 100 kHz (recommended 10 kHz)	
Maximal supply voltage:	< 12 V _{pp} AC	
Signal form:	alternating signal without DC bias	
Connections:	SMD, automatic assembly compatible	

^{*} Customer-specific alternatives available

The calibration of the sensor must be done 5 days after soldering at the earliest.



physical. chemical. biological.



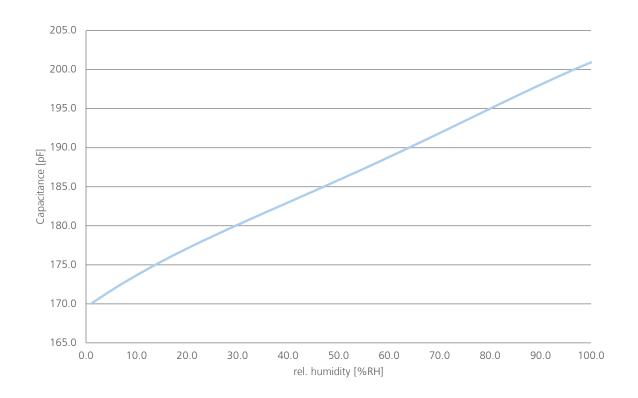








Characteristic Curve



Order Information - SMD

P14 FemtoCap-G (180pF ±50pF) 040.00111 Order code



