

Capacitive SMD-humidity sensor

Description



Characteristic features

- Temperature shock resistant
- Good linearity
- Low Hysteresis
- Dew resistant
- Compact size
- Mechanically robust
- Optimum price performance ratio
- RoHS conform

Areas of application

- Automotive
- Household appliances (white goods)
- Consumer products
- Air conditioning
- Instrumentation

Technical data

Capacitive Humidity Sensor KFS140-SMD	
Measuring principle	Capacitive polymer humidity sensor
Operating humidity range	0...100 % RH (max. d.p. = 80 °C)
Operating temperature range	-50...+150 °C
Sensitivity (at $C_{30} = 180$ pF)	0,3 pF / % RH (15 % RH to 90 % RH)
Loss factor	< 0,01 (at 23 °C, at 10 kHz, at 90 % RH)
Hysteresis	< 1,5 % RH
Response time	< 5 sec
Measurement frequency	1...100 kHz
Max. supply voltage	< 12 Vpp AC
Signal waveform	AC voltage (without DC-component)
Dimensions	6,35 x 2,54 x 0,4 mm
Contacts	SMD, for automatic equipment
Articel number	KFS140-SMD

Features

In the field of automobile technology, laundry dryers, household appliances (white goods) and also in the area of sensor technology, always sensor elements are required which work drift free for years together.

On the other hand, the price restrictions are so stiff, that only fully automatic replaceable sensors stand a chance in the market.

The KFS 140-SMD model fulfils this requirement especially because of its proven high performance polymer and the surface mountable SMD-model.

The sensors can offer a significantly better signal to noise ratio than comparable, fully integrated sensors, and are also characterised by excellent long term stability in continuous operation under rough conditions. Therefore, in combination with external electronics, they result into the best available price performance ratio.