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NBAR-I2C-POD Relative Humidity Sensor



Description:

The NBAR-I2C-POD is an ultra-compact sensor for relative humidity and temperature. It includes a sensing element and a mixed signal ASIC to provide the measurement information through digital serial interfaces.

The sensing element consists of a polymer dielectric planar capacitor structure capable of detecting relative humidity variations and is manufactured using a dedicated ST process.

The NBAR-I2C-POD is available in a small top-holed cap land grid array (HLGA) package guaranteed to operate over a temperature range from -40°C to +120°C.

Features:

- 0 to 100% relative humidity range
- Supply voltage: derive power directly from the controller
- Low power consumption: 2µA @ 1 Hz ODR
- Selectable ODR from 1 Hz to 12.5Hz
- High rH sensitivity: 0.004% rH/LSB
- Humidity accuracy: ± 3.5% rH, 20 to +80% rH

NBAR-I2C-POD Relative Humidity Sensor

- Temperature accuracy: $\pm 0.5^{\circ}\text{C}$, 15 to $+40^{\circ}\text{C}$
- Embedded 16-bit ADC
- 16-Bit humidity and temperature output data
- I²C interface
- Factory calibrated
- Operates over a temperature range from -40°C to $+120^{\circ}\text{C}$

Typical Applications:

- Air conditioning, heating and ventilation
- Air humidifiers
- Refrigerators
- Wearable devices
- Smart home automation
- Industrial automation
- Respiratory equipment
- Asset and goods tracking

Ordering Codes:

NBAR-I2C-POD	Relative humidity Sensor, Humidity range of 0 - 98% in 0.03% increments, POD Powered. (End point sensor)
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