



Digital Temperature and Humidity Sensor SHT 11

SHT 11

- _ Relative humidity and temperature measurement
- _ Both dew point
- _ All calibration, digital output,
- Excellent long-term stability
- No additional components
- Ultra-low power
- _ Surface Mount or 4-pin fully interchangeable installation
- Ultra-small size
- Auto Sleep



SHT11

SHT11series chip-type temperature and humidity sensor chip; full scale calibration, two-line digital output; humidity measuring range: 0 ~ 100% RH; humidity measuring range: -40 ~ +123.8 °C; humidity measuring accuracy: ±3% RH; temperature measurement accuracy: ±0.4% °C Response time: <8s; low power (typ. 30μW); can be completely submerged.

SHT11 Product Overview

SHT xx series of single-chip sensor is a digital signal output with a calibrated temperature and humidity combined sensor. It uses patented the process of industrial micro-processing technology COMS (CMOSens ®), to ensure that products with high reliability and excellent long term stability. Sensor includes a capacitive polymer humidity measuring device and a gap-type temperature measurement devices, and with a 14-bit A / D converter and serial interface circuit on the same chip to achieve seamless connectivity. Therefore, the product has excellent quality,

fast response, anti-interference ability, high cost and

other advantages. Each SHTxx sensors

are extremely accurate calibration of humidity calibration chamber. Calibration coefficients stored in the OTP program memory, internal sensor, signal processing in the detection process to call these calibration coefficients. Two-wire serial interface and internal reference voltage, the system integration becomes simpler and quicker. Ultra-small size, low power consumption, making it a wide range of applications and even the most demanding applications

Block diagram SCK Check Memory **Figures** DATA 2 - wire interface & CRC GND generator VDD CMOSens

is the best choice. Available surface mount LCC (lead-free chip) or 4-pin single-row pin package. Special packages can be provided according to user needs.

Application areas: data acquisition process control transmitter auto industry automation & HVAC building control power measurement test the pharmaceutical industry

021-51083595

Similar selection of digital temperature and humidity sensor

| Product Image | Product Name | Mode | Humidity Accuracy(% RH) | Temperature accuracy (℃) | Package |
|---------------|---|---------|----------------------------|-----------------------------|---|
| | Original patch | SHT10 | ±4.5 | ±0.5℃at 25℃ | SMD SO-8 |
| | Temperature and | SHT11 | ±3.0 | ±0.4℃at 25℃ | SMD SO-8 |
| | humidity sensor | SHT15 | ±2.0 | ±0.3℃at 25℃ | SMD SO-8 |
| | 1.27 pitch pin-type Temperature and humidity sensor | SHT71 | ±3.0 | +0 4°C at 25°C | 1.27mm pitch, 4-pin pin |
| | numbers sensor | SHT75 | ±1.8 | ±0.3℃at 25℃ | 4-pin pin |
| | Universal Protection Type | SLHT1-1 | ±4.5 | ±0.5℃at 25℃ | Metal protection package, 1 meter lead |
| and even | 2.54 pitch pin-type | SLHT2-1 | ±4.5 | ±0.5℃at 25℃ | 4-pin pin, |
| | Temperature and | SLHT2-2 | ±3.0 | ±0.4℃at 25℃ | 2.54mm pitch |
| | humidity sensor | SLHT2-3 | ±2.0 | ±0.3℃at 25℃ | |
| | Micro-protection-type | SLHT3-1 | ±3.0 | 1+0.4 Cat 25 C | Lead Protection |
| | | SLHT3-2 | ±1.8 | L+0.3°Cat 25°C | Lead Protection |
| | | SLHT4-1 | ±4.5 | ±0.5℃at 25℃ | |
| | Industrial Protective | SLHT4-2 | ±3.0 | ±0.4℃at 25℃ | Galvanized metal to |
| | type | SLHT4-3 | ±2 | ±0.3℃at 25℃ | prevent the |
| | | SLHT4-4 | ±3 | ±0.3℃at 25℃ | dust, good air permeability |
| | | SLHT4-5 | ±1.8 | ±0.3℃at 25℃ | |

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| | Soil-specific temperature and humidity digital sensor | SLHT5 | ±3.0 | ±0.4℃at 25℃ | Industrial Protective Packaging |
|--|---|---------|--------------|---------------|--|
| ###################################### | Wall-mounted digital temperature and humidity sensors | | ±1.8 ±3.0 | | Can be used to measure the wet concrete |
| | | SLHT6-3 | ±1.8 | ±0.3℃at 25℃ | |
| | Install temperature | SLHT7-1 | ±3.0 | ±0.4℃at 25℃ | Easy |
| | and humidity digital | SLHT7-2 | ±1.8 | +0.3°Cat 25°C | installation, the lead output |
| | sensor | SLHT7-3 | ±1.8 | ±0.3℃at 25℃ | |

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