ALLNET
ALL4418

Combination of temperature and humidity sensor for ALL3000 / 3418v2 / 3500 / 3500PoE / 3505 / 3692 / 4001 / 4076 / 4500 / 5000

- *new compact aluminum desktop- / wallmounting case*
- *I2C Bus for multiplexing use*
- *either black or white available*
- *angle fixings for wall mounting*

Measure, control and regulate automatically and independently

ALLNET for years been pursuing the concept of intelligent control of processes in building over network and Internet. Intelligent building not only offers comfort, but actively promotes the reduction of energy costs.

Centrally managed and via network / internet accessible the ALLNET Home Automation products allows intelligent building automation regardless of time and location.

The ALL4418 Combi sensor has a measuring range of -40...+80 °C and 0...100 % RH

Art.-Nr. 102436(sw) / 98823(w)

Note: Product specification is subject to change without notice.

Combi sensor temperature/humidity in desktop-/ wallmounting case

- measuring range of -40 to +80 °C (resolution 0,01 °C) / 0...100 % RH (resolution 0,5%)
- Aluminum housing with bracket for wall mounting
- Multiple multiplexing = multiple modules on one line
- Interfaces: 2x RJ45

Item	Specification
Sensor type	Temperature and relative humidity
Temperature measuring range:	-40 to +80 °C (resolution 0,01 °C)
Humidity measuring range:	0...100 % RH (resolution 0,5%)
Chip:	SHT71
Interfaces:	2x RJ45 (I2C Bus)
Multiplexing:	pay attention about the same types of sensors on the port! - see note below
LED Indicators:	1x PWR, 1x BUS
Housing:	metal case
Environment:	Temperature operating: -45 ~ 90 °C Humidity operating: 0% ~ 100% (non condensed) Temperature storage: -20 ~ 60 °C Humidity storage: 5% ~ 90% (non condensed)
Certificates:	CE, RoHS
Dimension:	79 x 50 x 24 mm (Length x Width x Height)
Weight:	230 Grams (only device)
Warranty:	36 months
package content:	1x ALL4418 Temperatore sensor 1x connection cable

Multiplexing - Note to the operation of several sensors on one sensor port

Basically, it is for the ARM and MIPS-based systems possible, unlike to the ALL3000/4000 to operate more than one sensor on a physical port.

Standard hardware requirement is that the sensors are equipped with 2 RJ45 connectors so that the sensor signal can be continued to the next sensor. The total cable length of 100 m does not increase thereby.

So that the sensors can be uniquely identified by the devices, it is necessary that these sensors have different software-I2C chip addresses and IDs. Sensors with the same address and adjustable chip ID can be combined. For sensors without adjustable ID address only one type of sensor can be connected per port.

Combined sensor of temperature and humidity

- Measuring range -40 bis +80 °C (resolution 0,01 °C) / 0...100 % RH (resolution 0,5%)
- 1m cable length

Sensor Performance

Relative Humidity

Parameter	Condition	min	typ	max	Units
Resolution[1]		0.4	0.05	0.05	%RH
		8	12	12	bit
Accuracy[2] SHT71	typ		±3.0		%RH
	max		see Figure 2		
Accuracy[2] SHT75	typ		±1.8		%RH
	max		see Figure 2		
Repeatability			±0.1		%RH
Hysteresis			±1		%RH
Nonlinearity	raw data		±3		%RH
	linearized		<<1		%RH
Response time[3]	tau 63%		8		s
Operating Range		0		100	%RH
Long term drift[4]	normal		< 0.5		%RH/yr

Temperature

Parameter	Condition	min	typ	max	Units
Resolution[1]		0.04	0.01	0.01	°C
		12	14	14	bit
Accuracy[2] SHT71	typ		±0.4		°C
	max		see Figure 3		
Accuracy[2] SHT75	typ		±0.3		°C
	max		see Figure 3		
Repeatability			±0.1		°C
Operating Range		-40		123.8	°C
		-40		254.9	°F
Response Time [6]	tau 63%	5		30	s
Long term drift			< 0.04		°C/yr
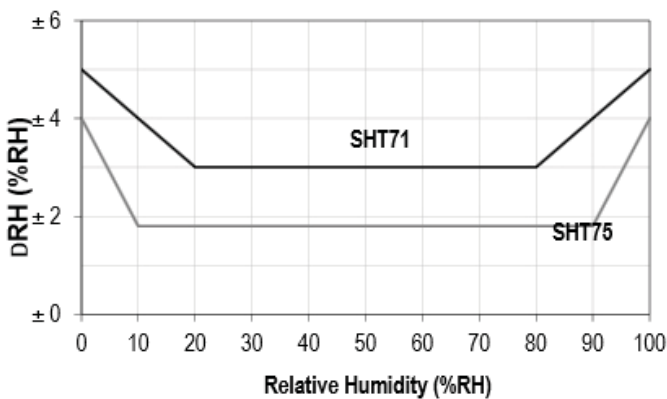
Figure 2: Maximal RH-tolerance at 25°C per sensor type.
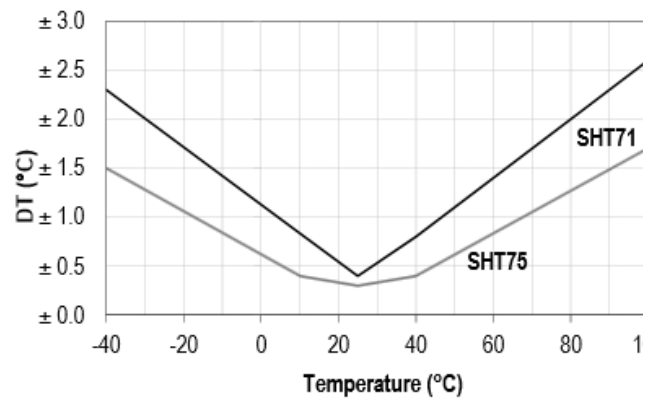
Figure 3: Maximal T-tolerance per sensor type.

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Calibration Certification

Product: SHT1x / SHT2x / SHT3x / SHT7x Series

Description: Digital Humidity and Temperature Sensors

The above mentioned products are calibrated to meet the specifications according to the corresponding Sensirion data sheet. Each device is individually tested after its calibration.

Sensirion uses transfer standards for the calibration. These transfer standards are themselves subject to a scheduled calibration procedure. The calibration of the reference itself used for the calibration of the transfer standards is performed by an ISO/IEC 17025 accredited laboratory.

The accreditation body is full member of the International Laboratory Accreditation Cooperation (www.ilac.org). Calibration certificates issued by facilities accredited by a signatory to the ILAC Mutual Recognition Arrangement (MRA) are accepted by all signatories to the ILAC MRA.

This provides traceability of measurement to recognized national standards and to units of measurement realized at the "National Physical Laboratory" (NPL) or other recognized national standards laboratories like "Physikalisch-Technische Bundesanstalt" (PTB) or "National Institute of Standards and Technology" (NIST).

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