

Pro sensors


Measurement sensors to IP Thermo Professional network

Temperature, humidity, air pressure, air velocity, wet sensors indoor and outdoor

		T-05 Temperature sensor
		TH-05 Temperature, humidity sensor
		THP-05 Temperature, humidity, air pressure sensor
		AV-05 Air velocity (wind) sensor
		T-PT100 Measurement component adaptor
		WS-01 Wet / water stroke sensor

The IP Thermo Professional network sensors are for your special needs. They are communicating through RS485 databus. You can measure temperature, humidity, air pressure, air velocity, wet sensors indoor and outdoor with connecting them to the IP Thermo Online Bridge, and through the bridge, your PC.

[With qualified fully calibrated probes!](#)

	IP 65 casing Outdoor, aluminium case, water resistant, cable gland
Types:	
<ul style="list-style-type: none"> • T-05A • TH-05A • THP-05A 	

Types:

- T-05 (Temperature)
- TH-05 (Temperature, humidity)
- THP-05 (Temperature, humidity, air pressure)
- AV-05 (Air velocity (wind))
- T-PT100 (Measurement component adaptor)
- WS-01 (Wet / water stroke sensor)

T-05



The T-05 sensor is for measuring the environmental **temperature**. Indoor version, in black ABS case.

Outdoor, IP 65, aluminium cased version is: T-05A.

Specifications:

- **Temperature** measuring sensor
- [LM92](#) built-in sensor
- **Measuring range: -25 °C to 70 °C**
- Accuracy: $\pm 0,5^{\circ}\text{C}$ in 10-50 °C temp. range
- RS485 interface
- PCS or WTP protocol
- 2pcs RJ45 connector
- ONLINE
- max. 1000m total line length (RS485 line on CAT5 cable)
- Power: 5V DC Po485
- Consumption: 50mA
- Plastic ABS case, black, indoor (Outdoor, IP 65, aluminium cased version is: T-05A.)
- Dimensions: 55 x 90 x 22 mm
- Firmware: baud independent

TH-05



The TH-05 sensor is for measuring the environmental **temperature** and **humidity**. Indoor version, in black ABS case.

Outdoor, IP 65, aluminium cased version is: TH-05A.

Specifications:

- **Temperature and humidity** measuring sensor
- **SHT15** built-in sensor
- Automatic self-calibrating
- **Measurement range:**
 - Temperature: -40°C-től 70°C-ig
 - Humidity: 0-99.9%
- Accuracy:
 - ±0,5°C (in 0-40°C temp range)
 - ±2% accuracy (in 10-90% humidity range)
- RS485 interface
- PCS or WTP protocol
- 2pcs RJ45 connector
- ONLINE
- max. 1000m total line length (RS485 line on CAT5 cable)
- Power: 5V DC Po485
- Consumption: 50mA
- Plastic ABS case, black, indoor (Outdoor, IP 65, aluminium cased version is: TH-05A.)
- Dimensions: 55 x 90 x 22 mm
- Firmware: baud 115200



SHT15 built-in sensor
Sensirion.com

THP-05



THP-05 sensor

The THP-05 sensor is for measuring the environmental **temperature, humidity and air pressure**. In black ABS case.

Outdoor, IP 65, aluminium cased version is: THP-05A.

Specifications:

- **Temperature, humidity and air pressure** measuring sensor
- **Measurement range:**
 - Temp: -40°C-tól 70°C-ig
 - Humidity: 0-99.9%
 - Pressure: 900-1200 mPa
- Accuracy:
 - $\pm 0,5^{\circ}\text{C}$ (in 5-45°C temp range)
 - $\pm 4\%$ accuracy (in 10-90% humidity range)
 - $\pm 4\%$ accuracy in pressure measurement
- Automatic self-calibrating
- RS485 interface
- PCS or WTP protocol
- 2pcs RJ45 connector
- ONLINE
- max. 1000m total line length (RS485 line on CAT5 cable)
- Power: 5V DC Po485
- Consumption: 50mA
- Plastic ABS case, black, indoor (Outdoor, IP 65, aluminium cased version is: THP-05A.)
- Dimensions: 55 x 90 x 22 mm
- Firmware: baud independent

AV-05



The AV-05 sensor is for measuring the air velocity (wind / air speed). Casing: black ABS.

Specifications:



- **Air velocity** (wind / air speed) measuring sensor
- **Measurement range: 0-4 m/s**
- RS485 interface
- PCS or WTP protocol
- RJ45 connector
- ONLINE
- max. 1000m total line length (RS485 line on CAT5 cable)
- Power: 5V DC Po485
- Consumption: 50mA
- Plastic ABS case, black, indoor
- Dimensions: 55 x 90 x 22 mm
- Firmware: baud independent

WS-01



The WS-01 sensor is for measuring wetness, dampness, water stroke. With laying the sensor surface on the ground, WS-01 can detect the water puring into the ground over 1,5mm water level. Casing: grey ABS.

Specifications:



WS-01 sensor

- **Vízbetörés** érzékelés
- **Measurement range:** over 1,5mm water level
- Accuracy: ± 1 mm, 60 sec
- RS485 interface
- PCS protocol
- 1db RJ45 connector
- ONLINE
- max. 1000m total line length (RS485 line on CAT5 cable)
- Power: 5V DC Po485
- Casing: grey ABS.
- Firmware: baud independent

Inside sensors

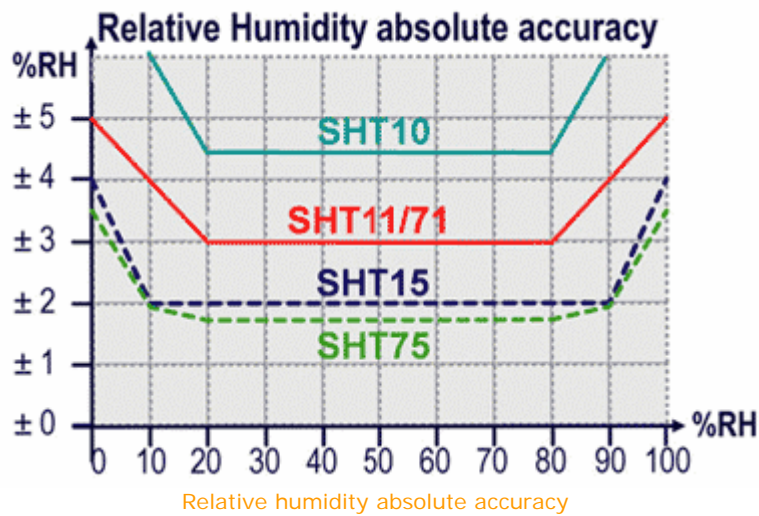
Most of the inside OEM sensors of the IPThermo Pro sensors are qualified, professional, intelligent self-calibrating sensors by [Sensirion AG](#) german centered international company. Fully calibrated digital output. - Excellent long-term stability - No external components required - Ultra low power consumption - Surface mountable or 4-pin fully interchangeable - Small size - Automatic power down



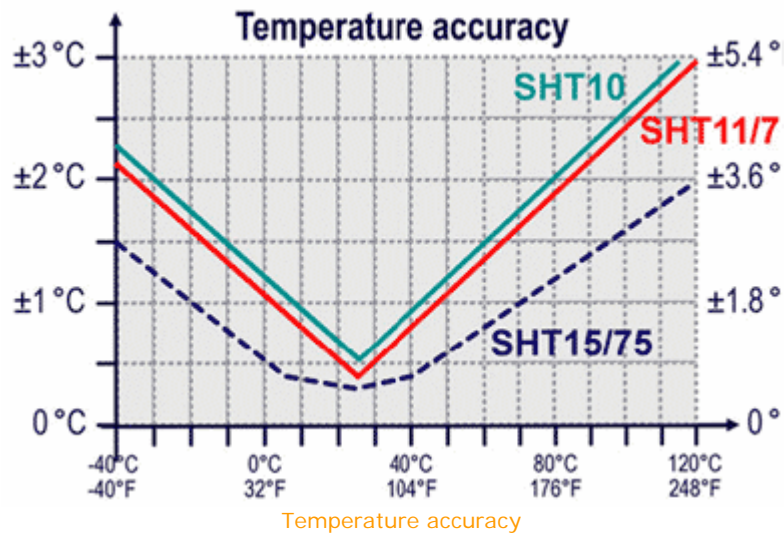
Parameter	LM 92	SHT 15	SHT 11
Power	5V DC	2,4-5,5V DC	2,4-5,5V DC
consumption:	250 μ A	550 μ A	550 μ A
Shutdown	4 μ A	4 μ A	4 μ A
Measurement range	-25 °C to 70 °C	-40°C to 70°C-ig (optional: 123,8 °C)	-40°C to 70°C (optional: 123,8 °C)
resolution	0,06 C° A osztály 0,5 C° B osztály	0,03% RH 0,01 C°	0,03% RH 0,01 C°
Accuracy	\pm 0.5 @ 25 °C	\pm 2.0 %RH, \pm 0.4 C° accuracy in 0-40°C range	\pm 3,5 %RH, \pm 0.5 C° accuracy @ 25 °C

1 Sensor Performance Specifications					
Parameter	Conditions	Min.	I Typ.	I Max.	Units
Humidity					
Resolution (2)		0,5	0,03	0,03	%RH
		8	12	12	bit
Repeatability			\pm 0.1		%RH
Accuracy (1) Uncertainty	linearized	see figure			
Interchangeability		Fully interchangeable			
Nonlinearity	raw data		\pm 3		%RH
	linearized		\ll 1		%RH
Range		0		100	%RH
Response time	1/e (63%)		4		s

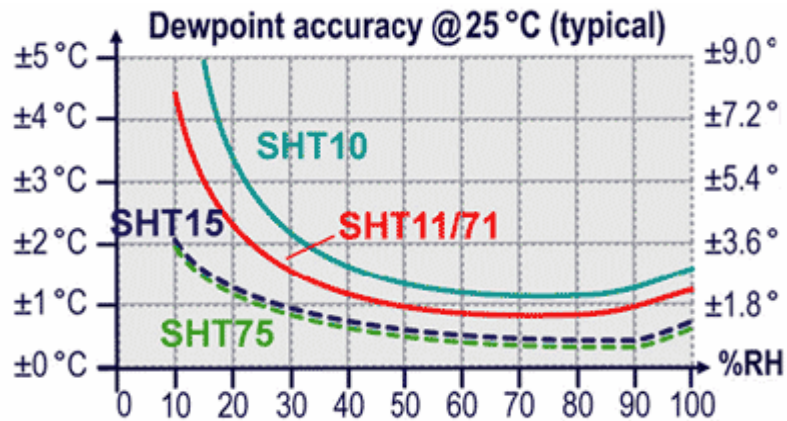
	air				
Hysteresis			±1		%RH
Long term stability	typical		< 1		%RH/yr
Temperature					
Resolution (2)		0,04	0,01	0,01	°C
		0,07	0,02	0,02	°F
		12	14	14	bit
Repeatability			±0.1		°C
			±0.2		°F
Accuracy		see figure			
Range		-40		123,8	°C
		-40		254,9	°F
Response Time	1/e (63%)	5		30	s



PROCONTROL ELECTRONICS LTD.



Temperature accuracy



Dewpoint accuracy



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