



Wall mounted room transmitters for measuring humidity and temperature in indoor environments.

TTUA

Humidity and temperature transmitter
for room mounting

- Output signal 0...10 V or Modbus
- With or without display
- Good long-term stability
- Humidity range 0...100 RH%
- Temperature range 0...50°C

Function

The sensor is mounted in the cover-part of the casing. The cover is easy to detach from the back by means of snap-in grips and detachable terminals which makes mounting easy. Furthermore, no cables have to be disconnected, simplifying service and replacement.

TEMPERATURE

The transmitter has a built in temperature sensor, which gives output signal 0...10 V and has a temperature range of 0...50 °C. In the versions ... -M the output will result in a Modbus signal.

RELATIVE HUMIDITY

The transmitters have a capacitive thin-film element which gives a signal that is proportional to the relative humidity. The measuring signal is converted by the built-in electronics to output signal 0...10 V (corresponding to 0...100 % RH). The sensor element has rapid response to changes in humidity, and excellent long-term stability. The element also has good durability in contaminated environments.

SUPPLY VOLTAGE

The transmitter uses a supply voltage of max. 24 V AC ±10 % / 15...35 V DC.

Appearance

The transmitter comes in a discreet white housing. The version ...-D has a LCD display showing temperature and humidity in an alternating series.

Installation

The transmitter should be mounted in a location with good air circulation where it can be expected to give a representative reading. It can be mounted on a wall box or directly on the wall.

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Technical data

Supply voltage	24 V AC ± 10 % / 15...35 V DC
Power consumption	< 1 W
Transformer power	>=2 VA
Working range, temperature	0...50 °C
Working range, humidity	0...100 % RH
Ambient temperature	0...50 °C
Ambient humidity	10...90 % RH (non-condensing)
Accuracy, humidity	±3 % RH at 20°C
Protection class	IP30
Isolation class	III

Models

Article	Description	Display	Output signal	Accuracy, temperature
TTUA	RH + °C	-	0...10 V + 0...10 V	± 0.4 °C
TTUA-PT100	RH + PT100, 100 Ohm (0 °C)	-	0...10 V + ohm	± 0.3 °C
TTUA-PT1000	RH + PT1000, 1000 Ohm (0 °C)	-	0...10 V + ohm	± 0.3 °C
TTUA-NTC1.8	RH + NTC 1.8, 1800 Ohm / 25 °C	-	0...10 V + ohm	± 0.5 °C
TTUA-NTC2.2	RH + NTC 2.2, 2252 Ohm / 25 °C	-	0...10 V + ohm	± 0.2 °C
TTUA-NTC10-01	RH + NTC 10, 10 kOhm / 25 °C	-	0...10 V + ohm	± 0.2 °C
TTUA-NTC10-02	RH + NTC 10, 10 kOhm / 25 °C	-	0...10 V + ohm	± 0.3 °C
TTUA-NTC10-03	RH + NTC 10, 10 kOhm / 25 °C	-	0...10 V + ohm	± 0.25 °C
TTUA-NTC20	RH + NTC 20, 20 kOhm / 25 °C	-	0...10 V + ohm	± 0.2 °C
TTUA-NI1000-01	RH + Ni1000, 1000 Ohm / 0 °C	-	0...10 V + ohm	± 0.5 °C
TTUA-NI1000-02	RH + Ni1000, 1000 Ohm / 0 °C	-	0...10 V + ohm	± 0.5 °C
TTUA-M	RH + °C	-	Modbus	± 0.2 °C
TTUA-D	RH + °C	x	0...10 V + 0...10 V	± 0.4 °C
TTUA-D-PT100	RH + PT100, 100 Ohm (0 °C)	x	0...10 V + ohm	± 0.3 °C
TTUA-D-PT1000	RH + PT1000, 1000 Ohm (0 °C)	x	0...10 V + ohm	± 0.3 °C
TTUA-D-NTC1.8	RH + NTC 1.8, 1800 Ohm / 25 °C	x	0...10 V + ohm	± 0.5 °C
TTUA-D-NTC2.2	RH + NTC 2.2, 2252 Ohm / 25 °C	x	0...10 V + ohm	± 0.2 °C
TTUA-D-NTC10-01	RH + NTC 10, 10 kOhm / 25 °C	x	0...10 V + ohm	± 0.2 °C
TTUA-D-NTC10-02	RH + NTC 10, 10 kOhm / 25 °C	x	0...10 V + ohm	± 0.3 °C
TTUA-D-NTC10-03	RH + NTC 10, 10 kOhm / 25 °C	x	0...10 V + ohm	± 0.25 °C
TTUA-D-NTC20	RH + NTC 20, 20 kOhm / 25 °C	x	0...10 V + ohm	± 0.2 °C
TTUA-D-NI1000-01	RH + Ni1000, 1000 Ohm / 0 °C	x	0...10 V + ohm	± 0.5 °C
TTUA-D-NI1000-02	RH + Ni1000, 1000 Ohm / 0 °C	x	0...10 V + ohm	± 0.5 °C
TTUA-D-M	RH + °C	x	Modbus	± 0.2 °C

CE

Low Voltage Directive (LVD) standards: This product conforms to the requirements of the European Low Voltage Directive (LVD) 2014/35/EU through product standards EN 60730-1/A16

EMC emissions & immunity standards: This product conforms to the requirements of the EMC Directive 2014/30/EU through product standards EN 61000-6-1 and 61000-6-3.

RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council through standard 50581:2012.

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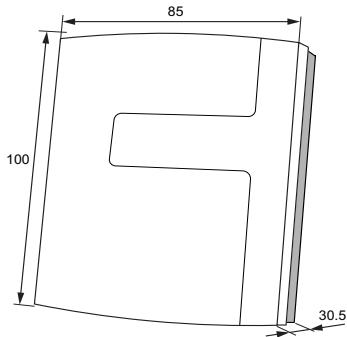
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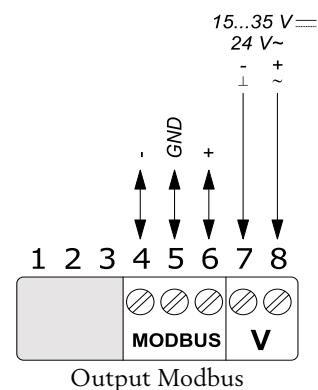
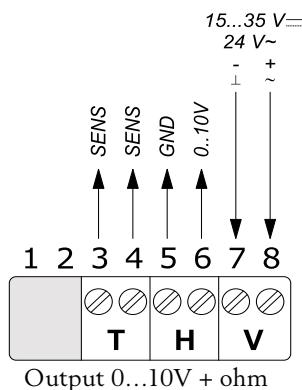
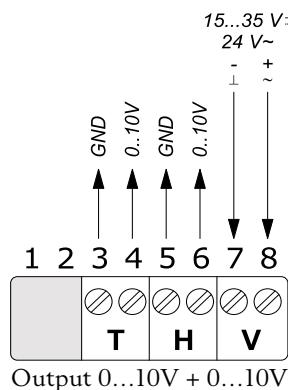
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Dimensions



Wiring



Product documentation

Document	Description
Instruction TTUA	Instruction for installation and commissioning

The product documentation can be downloaded from www.industrietechnik.it

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