



**COMET SYSTEM, s.r.o.**

1.maje 1220

756 61 Roznov pod Radhostem

CZECH REPUBLIC

Tel.: +420 571 653 990

E-mail: [info@cometsystem.com](mailto:info@cometsystem.com)

## T0211 Temperature and humidity probe with 1m cable and 0-10V output



code: T0211

Humidity, temperature transmitter. Outdoor, indoor use.

Humidity, temperature probe on a cable. Measured values are also converted to other humidity interpretation: dew point temperature, absolute humidity, specific humidity, mixing ratio, specific enthalpy.

The device is supplied with T+RH probe with 1m cable. Cable lengths 2m or 4m available optionally.

**NEW - AC Power - now also powered from 24 Vac !**

Included in delivery:

- Traceable calibration certificate
- Quick start manual
- Free program TSensor for configuring of the transmitter is ready to [Download](#)

### Features

Programmable temperature and humidity transmitter is equipped with temperature and relative humidity sensors. Measured values are also converted to other humidity interpretation - dew point temperature, absolute humidity, specific humidity, mixing ratio or specific enthalpy. Degrees Celsius and Fahrenheit are user selectable. Transmitter contains a microprocessor based control circuitry in a durable plastic case with connection terminals and sensors in a filter with stainless steel mesh. Transmitters are available with two 0-10V outputs. Configuration of outputs and output range are user adjustable. Large dual line LCD for simultaneous display of T+RH or other humidity interpretation is an advantage. Display is possible to switch off. Computerized design ensures temperature compensation of the humidity sensor and fail indication. State-of-the-art capacitive polymer sensor ensures excellent calibration long term stability, inertia against water and condensation. Transmitters are designed for use in non-aggressive environment.

### APPLICATIONS - measuring and control of air humidity at:

- building HVAC management
- building HVAC automation
- warehouses
- glasshouses
- manufacturers
- museums, archives, galleries
- air-conditioned rooms
- weather stations

Transmitters are approved and homologated by

**RENAULT** and by **PSA (PEUGEOT / CITROEN)** car manufacturers.

Outputs are set to maximum range from the manufacturer (-30 to +105°C, 0 to 100%RH).

**To set other range by the user buying of SP003 cable is necessary** - see Optional accessory.

Free configuration program TSensor for transmitter adjustment is ready to download anytime.

If different adjustment of outputs is required, please specify required output values (RH, T, Tdp, ..) and required ranges in the order. Adjustment is free of charge.

Any measured value - temperature, relative humidity, dew point temperature, absolute humidity, specific humidity, mixing ratio or specific enthalpy can be assigned to each output of dual output transmitters. Also identical value can be assigned to both outputs.

**Ordering example:** Humidity transmitter T0211, output 1: RH 10 to 90%, output 2: temperature 0 to 35°C

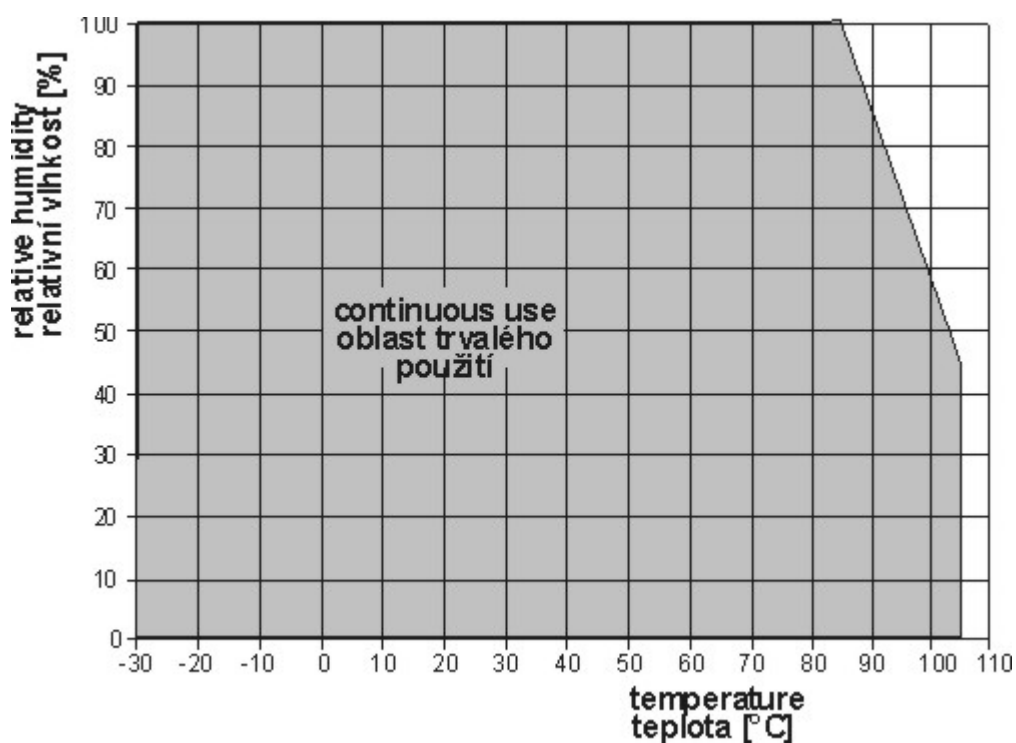
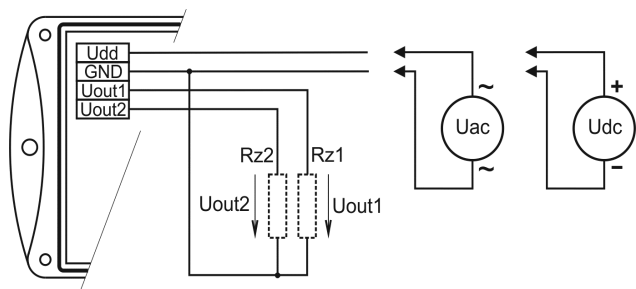


Figure: Relative humidity operating range



### Typical application wiring

$U_{ac} = 24 \text{ Vac}$

$U_{dc} = 15 \text{ to } 30 \text{ Vdc}$

Maximum loading current of each voltage output is 0.5 mA.

## Technical Data

Technical parameters	Value
Output	0-10V
Measured Value	Temperature + Relative Humidity
Construction Type	With T+RH Probe on Cable
Design	Industrial
Temperature Measuring Range	-30 to 105 °C
Relay Output	No
Two-State Input	No
Lcd Display	Yes
PoE	No
Relative humidity range	0 to 100%
Accuracy of relative humidity measurement	±2.5% relative humidity from 5 to 95% at 23°C
Accuracy of temperature output	±0.4°C from -30 to +100°C ±0.4% from reading over +100°C
Available temperature units	degrees Celsius, Fahrenheit
Accuracy and range of dew point temperature output - for more details see graphs	±1.5°C at ambient temperature T<25°C and RH>30% range -60 to +80 °C
Accuracy and range of absolute humidity output	±1.5g/m <sup>3</sup> at ambient temperature T < 25°C range 0 to 400 g/m <sup>3</sup>
Accuracy and range of specific humidity output	±2g/kg at ambient temperature T < 35°C range 0 to 550 g/kg
Accuracy and range of mixing ratio output	±2g/kg at ambient temperature T < 35°C range 0 to 995 g/kg
Accuracy and range of specific enthalpy output	±3kJ/kg at ambient temperature T < 25°C range: 0 to 995 kJ/kg
Temperature operating range of case with electronics	-30 to +80°C
Temperature operating range of LCD display	readable to operating temperature +70°C, it is recommended to switch OFF the LCD over +70°C
Range of humidity sensor temperature compensation	all temperature range
Voltage outputs	0-10V, outputs are not galvanic isolated - have common ground
Configuration of outputs and output range	user adjustable from the PC
Filtering ability of sensor cover	0.025mm - filter with stainless steel mesh
Protection of the case with electronics	IP65 electronics, IP40 sensors
Power	15-30Vdc, maximum consumption 20mA; 24 Vac
Length of the probe cable	1m, 2m or 4m optionally
Dimensions	display unit 88.5 x 114 x 39.5 mm (W x H x D), probe length 88 mm, probe diameter 18mm
Weight	approximately 210g
Warranty	3 years

