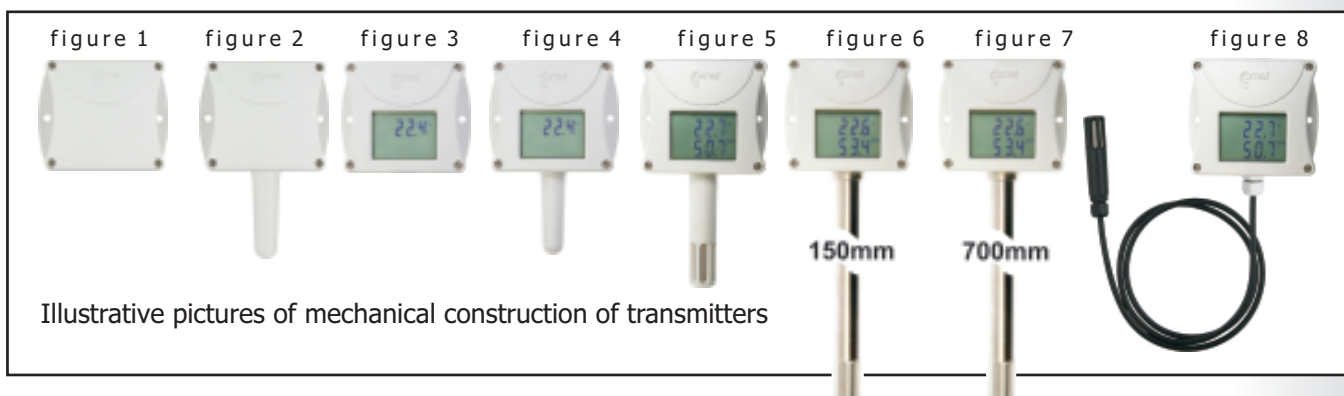


# SELECTION TABLES OF TEMPERATURE, HUMIDITY, PRESSURE CO<sub>2</sub> TRANSMITTERS Txxxx, Pxxxx

## INDUSTRIAL TRANSMITTERS of Txxxx, Pxxxx family:

MEASURED VALUE / OUTPUT	4 to 20mA	0 to 10V	RS485	RS232	Ethernet
temperature	<b>P0120</b> figure 2 page 42	<b>T4211</b> figure 3 page 47	<b>T0410</b> figure 4 page 49	<b>T0310</b> figure 4 page 51	<b>P86xx</b> figure 2 page 53
	<b>Px1x1</b> figure 1 page 42		<b>T4411</b> figure 3 page 49	<b>T4311</b> figure 3 page 51	<b>P85xx</b> figure 2 page 55
	<b>T0110</b> figure 4 page 43				<b>T0510</b> figure 4 page 57
	<b>T4111</b> figure 3 page 43				<b>T4511</b> figure 3 page 59
humidity	<b>T1110</b> figure 5 page 43				
atmospheric pressure	<b>T2114</b> figure 3 page 45	<b>T2214</b> figure 3 page 45	<b>T2414</b> figure 3 page 49	<b>T2314</b> figure 3 page 51	<b>T2514</b> figure 3 page 59
temperature+humidity	<b>T3110</b> figure 5 page 43	<b>T0210</b> figure 5 page 47	<b>T3411</b> figure 5 page 49	<b>T3311</b> figure 5 page 51	<b>T3510</b> figure 5 page 57
	<b>T3113</b> figure 6 page 43	<b>T0213</b> figure 6 page 47	<b>T3413</b> figure 6 page 49	<b>T3313</b> figure 6 page 51	<b>T3511</b> figure 8 page 59
	<b>T3117</b> figure 7 page 43	<b>T0211</b> figure 8 page 47	<b>T3417</b> figure 7 page 49	<b>T3319</b> figure 8 page 51	
	<b>T3111</b> figure 8 page 43		<b>T3419</b> figure 8 page 49		
temperature+humidity +atmospheric pressure			<b>T7410</b> figure 5 page 49	<b>T7310</b> figure 5 page 51	<b>T7510</b> figure 5 page 57
CO <sub>2</sub>	<b>T5140</b> figure 3 page 46	<b>T5240</b> figure 3 page 47	<b>T5440</b> figure 3 page 49	<b>T5340</b> figure 3 page 51	<b>T5540</b> figure 3 page 57
	<b>T5141</b> figure 8 page 46	<b>T5241</b> figure 8 page 47	<b>T5441</b> figure 8 page 49	<b>T5341</b> figure 8 page 51	<b>T5541</b> figure 8 page 59
temperature+humidity+ CO <sub>2</sub>			<b>T6440</b> figure 5 page 49	<b>T6340</b> figure 5 page 51	<b>T6540</b> figure 5 page 57

Pxxxx, Txxxx



## INTERIOR TRANSMITTERS of Txx18 family

MEASURED VALUE / OUTPUT	4 to 20mA page 63	0 to 10V page 63	RS485 page 65	RS232 page 65
temperature	T0118	T0218	T0418	T0318
atmospheric pressure	T2118	T2218		
temperature + humidity	T3118	T3218	T3418	T3318
temperature + humidity + atmospheric pressure			T7418	T7318



	<p><b>DBS</b></p>	<p><b>DBS Sensor Monitor</b> - - database program</p> <ul style="list-style-type: none"> <li>- enables online data acquisition and analysis of actually measured and stored values from unlimited number of Comet sensors connected to Ethernet</li> <li>- it is a data acquisition system of client-server type</li> <li>- it contains:             <ul style="list-style-type: none"> <li>*software for server computer:</li> <li>*SOAP server for data acquisition</li> <li>*Administration program database</li> <li>*Microsoft SQL or MySQL database server (third party freeware)</li> <li>*one licence of DBV Database Viewer.</li> </ul> </li> </ul> <p>More information further in catalog.</p>
	<p><b>MP046</b></p>	<p>Universal holder for Tx5xx, P8xxx transmitters for easy mounting to rack 19".</p>
	<p><b>MP047</b></p>	<p>Universal holder for probes for easy mounting to rack 19" (probes not included).</p>
	<p><b>Pt1000 probes</b></p>	<p>Temperature probes for Tx5xx transmitters with Pt1000 RTD sensor without connector - there is a symbol /0 behind probe name. Recommended is watertight probe Pt1000TR160/0 on the shielded PVC cable 2 x 0.14mm<sup>2</sup>. Specify required cable length 1, 2, 5, 10, 15 or 20 meters. Enclosure diameter 6mm, length 20mm. Diameter of the cable 3.5mm.</p>
	<p><b>TL-POE</b></p>	<p>TL-POE10R Power over Ethernet (PoE) adapter from company TP-Link. The adapter is supposed to be connected to Ethernet switch supporting PoE. Only for models without PoE function.</p>
	<p><b>TP-LINK-TL</b></p>	<p>TP-LINK TL-WA5110G wifi adapter for wireless connection of transmitter or data logger to Ethernet network. Including replaceable antenna and power adapter. Long term proved operation.</p>
	<p><b>A1515</b></p>	<p>AC/DC adapter 230V-50Hz/12V for transmitter range Tx5xx.</p>

# INTERIOR TEMPERATURE, HUMIDITY, ATMOSPHERIC PRESSURE TRANSMITTERS

with analog 4-20mA, 0-10V output

temperature\*barometric pressure\*relative humidity\*dew point temperature\*

absolute humidity\*specific humidity\*mixing ratio\*specific enthalpy

**APPLICATIONS - measuring of temperature, humidity and pressure at:**

- residential and official buildings
- building energy management and HVAC systems
- pharmaceutical industry
- museums, archives, galleries

Temperature, humidity, barometric pressure transmitters are specially designed for use in exacting interiors in building energy management and HVAC systems. Are designed for easy installation on ordinary KU68 wiring boxes for household switches and sockets.

Large dual line LCD for display of temperature, humidity, barometric pressure or other computed value is an advantage. Display is possible to switch off. Computerized design ensures temperature compensation of the humidity and pressure sensors and fail indication. Transmitters are designed for use in non-aggressive environment.



## COMMON TECHNICAL PARAMETERS

Operating temperature range:	0 to +50°C
Range of measured values:	user adjustable from the PC
Power of transmitters with 4-20mA output:	9-30Vdc
Power of transmitters with 0-10V output:	15-30Vdc, maximum consumption 20mA
Dimensions (W x H x D):	88 x 106 x 33mm
Protection:	IP20
Material of the case:	ABS, white
Warranty:	two years

## TRANSMITTERS WITH CURRENT OUTPUT 4-20mA:

TYPE	MEASURED VALUE	OUTPUT 1	OUTPUT 2	DESCRIPTION
T0118	temperature	0-50°C	-	Output 4 to 20mA / 0 to +50°C. Accuracy $\pm 0,5$ °C Display reading and temperature output are user selectable in degrees Celsius or Fahrenheit.
T2118	barometric pressure	800-1100hPa	-	Maximum pressure range: 600 to 1100hPa. Accuracy: $\pm(1,3hPa+0.06\%$ from adjusted output span) at 23°C from 800 to 1100hPa. Display reading and pressure output is user selectable in these units: hPa, kPa, mbar, mmHg, inHg, inH <sub>2</sub> O, PSI, oz/in <sup>2</sup>
T3118	temperature humidity	0-50°C	0-100%RH	Output 1: 4 to 20mA / 0 to +50°C Output 2: 4 to 20mA / 0 to 100%RH Both outputs are galvanically isolated. Output values and range are user adjustable. Display reading and temperature output are user selectable in degrees Celsius or Fahrenheit. Measured relative humidity and temperature are also converted to other humidity interpretation - dew point temperature, absolute humidity, specific humidity, mixing ratio or specific enthalpy.

## TRANSMITTERS WITH VOLTAGE OUTPUT 0-10V:

TYPE	MEASURED VALUE	OUTPUT 1	OUTPUT 2	DESCRIPTION
T0218	temperature	0-50°C	-	Output 0 to 10V / 0 to +50°C. Accuracy $\pm 0,5$ °C Display reading and temperature output are user selectable in degrees Celsius or Fahrenheit.
T2218	barometric pressure	800-1100hPa	-	Maximum pressure range: 600 to 1100hPa. Accuracy: $\pm(1,3hPa+0.06\%$ from adjusted output span) at 23°C from 800 to 1100hPa. Display reading and pressure output is user selectable in these units: hPa, kPa, mbar, mmHg, inHg, inH <sub>2</sub> O, PSI, oz/in <sup>2</sup>
T3218	temperature humidity	0-50°C	0-100%RH	Output 1: 0 to 10V / 0 to +50°C Output 2: 0 to 10V / 0 to 100%RH Both outputs are not galvanically isolated, have common ground. Output values and range are user adjustable. Display reading and temperature output are user selectable in degrees Celsius or Fahrenheit. Measured relative humidity and temperature are also converted to other humidity interpretation - dew point temperature, absolute humidity, specific humidity, mixing ratio or specific enthalpy.

### TECHNICAL PARAMETERS OF TRANSMITTERS T3118, T3218

Measuring range of relative humidity:	5 to 95%
Accuracy of relative humidity measurement:	$\pm 2.5\%$ RH from 5 to 60%RH, $\pm 3.0\%$ RH from 60 to 95%RH at 23°C
Accuracy and range of temperature measurement:	$\pm 0.5^\circ\text{C}$ from 0 to $+50^\circ\text{C}$ , switchable to degrees Fahrenheit
Accuracy and range of dew point temperature:	$\pm 1.6^\circ\text{C}$ at ambient temperature $< 25^\circ\text{C}$ and RH $>30\%$ , range $-60$ to $+80^\circ\text{C}$
Accuracy and range of absolute humidity:	$\pm 3\text{g/m}^3$ at ambient temperature $T < 40^\circ\text{C}$ , range 0 to $400\text{ g/m}^3$
Accuracy and range of specific humidity:	$\pm 2\text{g/kg}$ at ambient temperature $T < 35^\circ\text{C}$ , range 0 to $550\text{ g/kg}$
Accuracy and range of mixing ratio:	$\pm 2.2\text{g/kg}$ at ambient temperature $T < 35^\circ\text{C}$ , range 0 to $995\text{ g/kg}$
Accuracy and range of specific enthalpy:	$\pm 3.5\text{kJ/kg}$ at ambient temperature $T < 25^\circ\text{C}$ , range 0 to $995\text{ kJ/kg}$

Any measured value - temperature, relative humidity, dew point temperature, absolute humidity, specific humidity, mixing ratio or specific enthalpy can be assigned to any of the two outputs of T3118 or T3218 transmitter. Also identical value can be assigned to both outputs. Outputs are adjusted to maximum range from the manufacturer (0 to  $50^\circ\text{C}$ , 0 to 100%RH). Output range is user adjustable from the PC by means of the optional cable SP003 - see below.

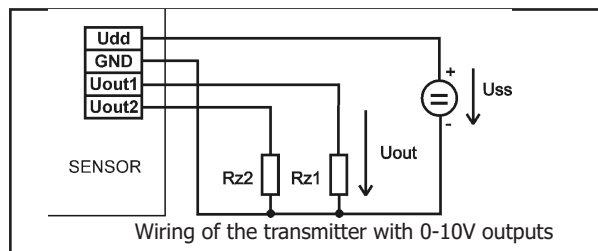
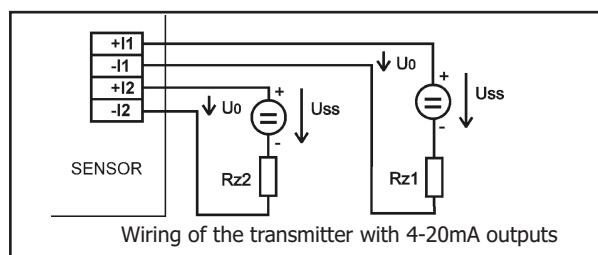
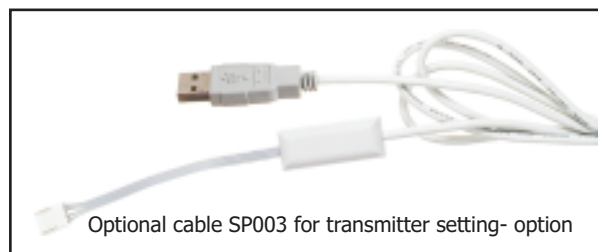
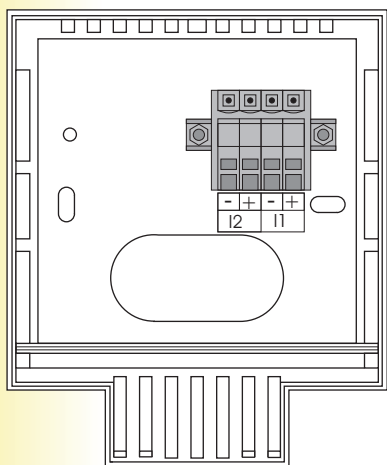
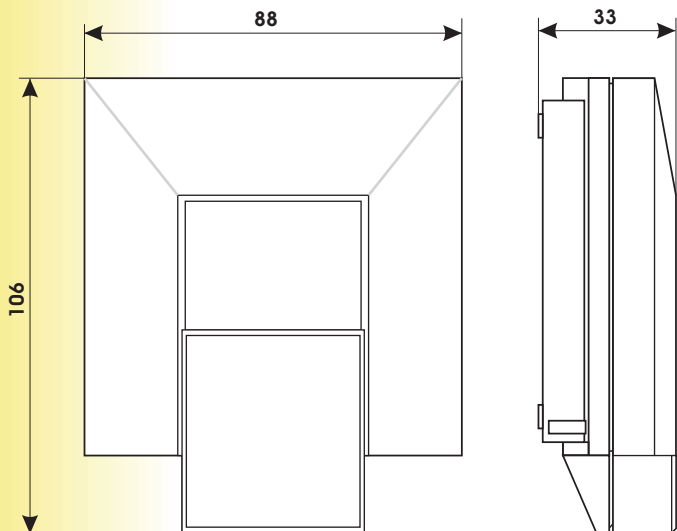
Free configuration program TSensor for transmitter adjustment is ready to download anytime.

If different adjustment of outputs and output ranges are required, please specify required output values (RH, T, Tdp, ..) and required ranges.

Barometer T2118 or T2218 enables to measure sea level pressure by setting of correction to altitude above sea level.

Ordering example: Transmitter T3118, output 1: RH 10 to 90%, output 2: temperature 0 to  $35^\circ\text{C}$

Interior sensors



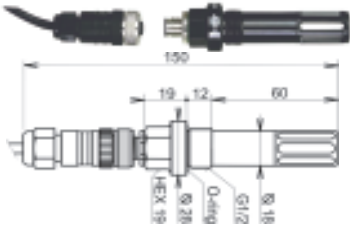






#### Included accessory:

Traceable calibration certificate from the manufacturer, instruction manual. Calibration certificate with declared metrological traceability of etalons is based on requirements of EN ISO/IEC 17025 standard.





Free program TSensor for configuring of the transmitter is ready to be downloaded from [www.cometsystem.cz](http://www.cometsystem.cz).

Transmitters are directly compatible with sixteen channel Comet data acquisition system MSx.

# OPTIONAL ACCESSORIES FOR HUMIDITY TRANSMITTERS

<p>New - probe for compressed air</p>	<p>Order code</p>	
	<p><b>TxxxxP</b> <b>Hxxxx1P</b></p>	<p>Optional temperature, humidity, dew-point probe designed for compressed air measurement up to 25 bars. Cable lengths 1, 2 or 4m available. Length 110mm, diameter 18mm, G1/2 thread. Available with TxxxxP, HxxxxP transmitters.</p>
	<p><b>SH-PP</b></p>	<p>Flow chamber for compressed air measurement up to 25 bars - stainless steel DIN 1.430. Inlet and outlet connection - G1/8 thread. Humidity probe connection - G1/2 thread. Screw-coupling not included.</p>
	<p><b>TxxxxL</b> <b>HxxxxL</b></p>	<p>Transmitter version with watertight male connector IP67 Lumberg RSFM4 instead of cable gland for easy connection/disconnection of the output. Specify please your order with letter L behind model code - e.g. T3110L or H3020L</p>
	<p><b>K1427</b></p>	<p>Female connector ELKA 4012PG7 for TxxxxL, HxxxxL transmitters with male connector Lumberg for easy connection/disconnection of the output. Cable is easily connected to screw terminals of the connector. IP67 protection.</p>
	<p><b>without LCD</b></p>	<p>Transmitter version with blind lid without LCD. Specify please the requirement in your order.</p>
	<p><b>OEM</b></p>	<p>Transmitters are also available without Comet logo as OEM products. Specify please the requirement in your order. Minimum order of OEM transmitters without Comet logo is 100 pcs.</p>
	<p><b>F8000</b></p>	<p>Solar radiation shield for transmitters with T+RH probe on a cable.</p>

# OPTIONAL ACCESSORIES FOR HUMIDITY TRANSMITTERS

	<b>Order code</b>	
	F5200	grey sensor cover with filter from stainless steel mesh, filtering ability 0,025mm
	F5200B	black sensor cover with filter from stainless steel mesh, filtering ability 0,025mm
	SP003	Cable for transmitter adjustment via USB port - for models Tx1xx, Tx2xx with analog outputs and models Hx0xx.
	PP4	flat plastic circular flange for duct mounting
	PP90	right-angled stain-less steel flange for wall mounting
	SP004	plastic gland for direct mounting of the humidity probe to a 29 mm diameter hole
	SP005	tool for easy wire connection to WAGO terminals Wago - for transmitters with current and voltage output
	SP006	tool for easy wire connection to WAGO terminals Wago - for Txxxx transmitters with serial output RS485 and RS232 and Hxxxx transmitters
	MD036	self adhesive Dual Lock for easy installation
	A1515	ac/dc adapter 230V-50Hz/12Vdc for Ethernet transmitters Tx5xx, Hx5xx - with co-axial connector
	A1510	ac/dc adapter 230V-50Hz/12Vdc for serial output Txxxx transmitters and Hxxxx transmitters - for connection to terminals
	MD046	<b>ACCESSORIES FOR EASY RELATIVE HUMIDITY CALIBRATION AND ADJUSTMENT</b> anodized duraluminum vessel for relative humidity calibration and adjustment
	HM023	set of 5 humidity standards 10% RH with 5 application pads
	HM024	set of 5 humidity standards 80% RH with 5 application pads