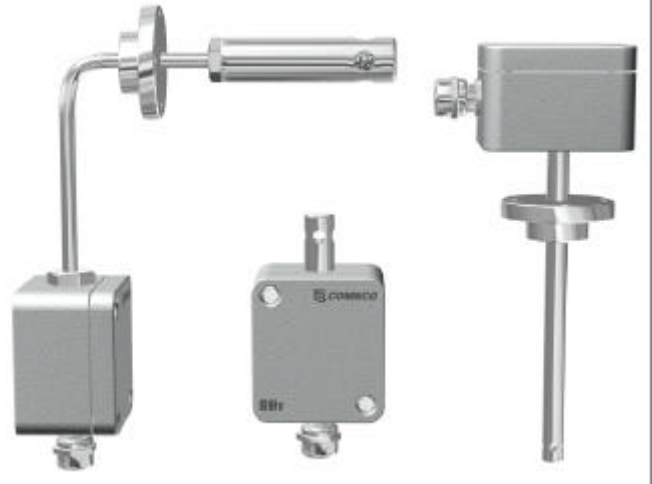


2-wire Relative Humidity Transmitters RHT

- ◆ Low cost
- ◆ Temperature compensation system
- ◆ Built in two-wire temperature transmitter
- ◆ Protection at sensor break
- ◆ High protection class - IP 66

The COMECO RHT transmitters measure relative humidity of air and non-aggressive gases and convert it into standard 4...20mA two wire current signal. These transmitters use thin film or solid state sensors, which capacitance changes proportionally to environmental relative humidity value. All RHT transmitters have a built in temperature drift compensation system, which guarantees good stability of measurement. An additional platinum temperature sensor or second two-wire transmitter may be built in for measurement of both medium relative humidity and temperature. RHT transmitters are available in three modifications with different cases, mounting and temperature ranges. The specific design of the electronic block allows the user to adjust the output on site. All this in addition to the high environment protection class, the small size and the low price make RHT probes convenient solution for many relative humidity measurement applications.



RH

Technical specifications

Input	
<i>RH sensor thin film</i>	0 to 100 %RH
<i>RH sensor solid state</i>	5 to 95 %RH
<i>Pt100 (w=1.385) (optional)</i>	-20 to +120 °C
<i>Pt500 (w=1.385) (optional)</i>	-20 to +120 °C
<i>Pt1000 (w=1.385) (optional)</i>	-20 to +120 °C
<i>Adjustment of RH - zero (offset)</i>	by trimmer ±20% from span
<i>Adjustment of RH - range</i>	by trimmer ±20% from span
<i>Adjustment of T - zero (offset)</i>	by trimmer ±20% from span
Output	
<i>RH current output</i>	Two-wire: 4 to 20 mA
<i>Output range corresponding</i>	0 to 100 %RH
<i>T current output (option)</i>	Two-wire: 4 to 20 mA
<i>Input range corresponding</i>	min. -20 to max. +120 °C ⁽¹⁾
<i>Linearity</i>	to measured value
<i>Output current limit</i>	max. 23 mA

Accuracy (percents from span)	
<i>Measurement error for RH</i>	< 2.5 %
<i>Measurement error for T</i>	< 0.5 %
<i>Non-linearity</i>	within measurement error
<i>Temperature drift (per °C)</i>	RH: 0.1%; T:0.01%
Power supply	
<i>Voltage</i>	8 to 32 VDC
<i>Admissible variations</i>	1 Vp-p @ 50Hz
<i>Max. line load</i>	700Ω @24V/20mA
Operating conditions (only for the electronic block)	
<i>Operating temperature</i>	From min. -10 to max. 75 °C
<i>Operating humidity</i>	0 to 98 %RH
Design and materials	
<i>Case material</i>	Stainless Steel and aluminum
<i>Wiring</i>	With hidden screw terminals
<i>Protection (except sensor)</i>	IP 66

⁽¹⁾ Exact correspondence is specified by client order within the stated limits

Model	A	B1	B2	D
Specification				
<i>Sensitive element</i>	Thin film	Thin film	Solid state	Solid state
<i>Medium temperature</i>	-10 to 60 °C	-10 to 60 °C	-10 to 90 °C	-20 to 120 °C
<i>Ambient temperature</i>	-10 to 60 °C	-10 to 60 °C		-10 to 60 °C
<i>Weight (without cable)</i>	150 g	170 g		220 g
<i>Mounting</i>	on wall	in hole (or free mounting)		in hole

Ordering code



RHT* - #1

Code	Feature or option	Code values
*	Variant	A - wall mounting, B1 - hole mounting, B2 - increased temperature, D - high-temperature two-part model
#1	Temperature option	X - none, D - Pt100, F - Pt500, G - Pt1000, T - two-wire transmitter