

## RH/T Programmable Probe RHV

- ◆ Excellent price-to-performance ratio
- ◆ 2- or 3-wire analog output
- ◆ RH/T programmable conversion modes
- ◆ Serial interface available
- ◆ IP65 all-stainless-steel case
- ◆ Optional stainless steel sintered filter
- ◆ M12 circular connector

COMECO's RHV probe is designed to replace the old RHS model for HVAC applications. Using thin-film sensor, whose capacitance varies proportionally to medium relative humidity, and a thin-film temperature sensor, the probe measures relative humidity and temperature of air and non-aggressive gases at atmospheric pressure, and transforms it into standard current or voltage output signal. The RHV transducer allows external control of the input/output conversion (RH or temperature) through a special programming input. Depending on the output wiring, 2 variants – 2-wire and 3-wire – are available, as both may have serial interface. The probe has a 4-pin M12 circular connector with IP65 mounted and can be optionally equipped with a stainless steel sintered filter for sensor protection. Thanks to its robust stainless steel case, flexible communication potential, and attractive price, the RHV transmitter can be widely used in HVAC and food industry control systems.



### Technical specifications

#### Input

<b>Humidity</b>	capacitive sensor, 0...100 %RH	
<b>Temperature</b>	Pt100 (w=1.385), -10...80 °C	
<b>Programming input</b>	external dry contact	

<b>Output</b>	'2'	'3'
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<b>Voltage</b>	-	0...10 V
- <b>minimum load</b>	-	1 MΩ
<b>Current</b>	4...20 mA	0(4)...20 mA
- <b>maximum load</b>	800 Ω at 24V/20mA	750 Ω at 24V/20mA
<b>Output conversion mode</b>	RH or temperature correspondence, depending on programming input	

#### Power supply

<b>Supply voltage:</b>	
- for variant '2'	8...36 VDC
- for variant '3'	9...40 VDC <sup>(1)</sup>

<b>Admissible variations</b>	1 Vp-p at 50 Hz
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#### Serial interface <sup>(2)</sup>

<b>Interface type</b>	RS232, ASCII protocol
<b>Interface cable type <sup>(3)</sup></b>	K9 or K9U

#### Accuracy

<b>RH measurement error</b>	≤ 2.0% from span
<b>Temperature measurement error</b>	≤ 0.4% from span
<b>Temperature drift for RH</b>	0.05% from span for 1 °C
<b>Temperature drift for temperature</b>	0.01% from span for 1 °C

#### Operating conditions

<b>Ambient temperature</b>	-10...60 °C
<b>Ambient humidity</b>	0...95 %RH, non-condensing

#### Design and materials

<b>Case material</b>	stainless steel
<b>Sensor protection</b>	plastic cap with stainless steel mesh
<b>Sintered filter (option)</b>	stainless steel, 75 μm
<b>Mounting</b>	free <sup>(4)</sup>
<b>Wiring</b>	4-pin detachable connector M12 (incl. female part)
<b>Dimensions (w/o female connector)</b>	case 'S': ø17x120 mm; case 'L': ø17x300 mm
<b>Weight</b>	max. 200 g (250 g for 'L')
<b>Protection class</b>	IP65

<sup>(1)</sup> 12...40 VDC for voltage output

<sup>(2)</sup> Instead of the programming input! Ask for availability!

<sup>(3)</sup> Ordered separately

<sup>(4)</sup> Small stainless steel flanges for in-hole mounting can be ordered separately (see 'Accessories').

### Ordering code RHV★ - G0.G9.G11.G15 - #1

Code	Feature or option	Code values
★	Variant	<b>2</b> - with 2-wire output line, <b>3</b> - with 3-wire output line
G0	Case	<b>S</b> - short (120 mm), <b>L</b> - long (300 mm)
G9	Serial interface <sup>(2)</sup>	<b>X</b> - none, <b>A</b> - RS232
G11	Output signal <sup>(5)</sup>	<b>E</b> - 0...20 mA, <b>F</b> - 4...20 mA, <b>K</b> - 0...10 V, <b>Z</b> - other
G15	Wiring connector	<b>C1A</b> - angled connector M12, <b>C1S</b> - straight connector M12
#1	Sintered filter	<b>X</b> - none, <b>S</b> - sintered filter mounted

<sup>(5)</sup> For variant '2' only 4...20 mA is available!