

Pendulum humidity transmitter with display 0-10 V

Article number: 801311 2023

Our pendulum humidity transmitter with 0-10 V voltage output and display has a robust plastic housing with quick-release screws. The device measures both humidity and optionally temperature, with four switchable measuring ranges available. The relative humidity is recorded by a digital humidity sensor, which is housed in a plastic sintered filter and attached to the housing with a two-meter cable. The two-line display shows either the humidity or the temperature in large format.

Supply and output	
Output	0 - 10 V
Power consumption	< 1,1 VA / 24 V DC; < 2,2 VA / 24 V AC
Voltage supply	24 V AC (± 20 %) 15 - 36 V DC
Connection type	See connection diagrams

General information	
Load resistance	RI > 5 kOhm
Sensors	Digital humidity sensor, optionally with integrated temperature sensor

Humidity	
Measuring element humidity	Digital humidity sensor (low hysteresis, high long-term stability)
Measuring range humidity	0 % RH to 100 % RH
Output humidity	0-10 V
Accuracy humidity	± 2.0 % (20 % RH to 80 % RH) at +25 °C, otherwise ± 3.0 %
Long-term stability	± 1 % / year

Temperature	
Measuring element Temperature	Pt1000, DIN EN 60751, Class B
Measuring range temperature	multi-range switching with 4 switchable measuring ranges
Output temperature	0 - 10 V
Accuracy temperature	typically ± 0.2 K at +25 °C

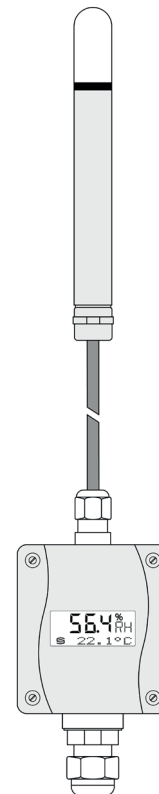
Ambient conditions	
Storage temperature	-5 °C to +60 °C
Operating temperature	-5 °C to +60 °C
Permissible air humidity	0 % RH to 95 % RH (without condensation)

Certifications / Standards	
Protection class	III (according to EN 60 730)
Protection type	IP 65 according to EN 60 529
Standards	CE conformity electromagnetic compatibility according to EN 61326 according to EMC Directive 2014/ 30/ EU



Configurable options

M - Measured variable



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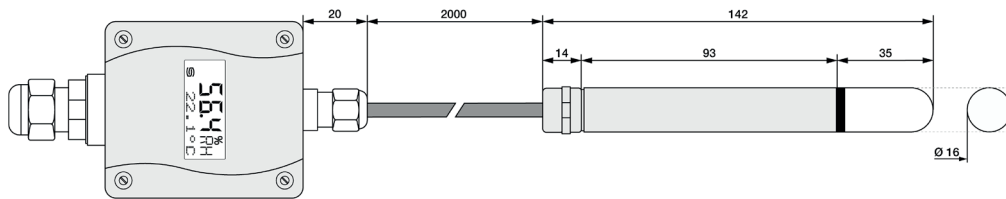
🌐 Please find our whole temperature probe and transmitter portfolio in our webshop at: www.testo-sensor.shop

Managing Director: Prof. Burkart Knospe, Martin Arndt, Timo Löffler

Amtsgericht Freiburg HRB 706025 | Umsatzsteuer-ID.: DE274417683

Housing		Drilling template
Material	Plastic, UV-resistant Material polyamide, 30 % glass bead reinforced	
Dimensions (L/W/H) (mm)	Aluminum die casting	
Color	Traffic white (similar to RAL9016)	
Screw connection	Cable gland, Plastic, M16x1,5, Strain relief, replaceable, max. 10,4 mm Ø Inner	
Electrical connection	0.14 - 1.5 mm ² , via screw terminals on circuit board	
Closure	with quick release screws	
Display		
Two lines, lighted, For display of actual temperature and self-diagnostics		
Cut-out (B/H) (mm)	ca. 36 x 15	

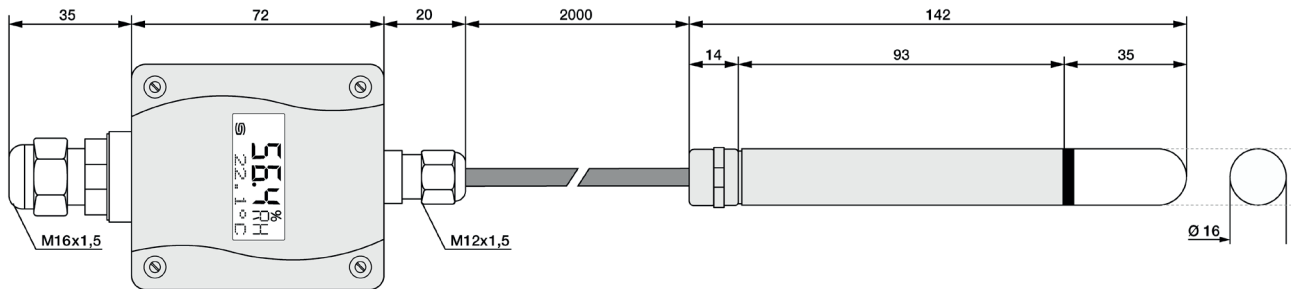
Cable		Pendulum		Sensor protection: Plastic sintered filter	
Cable material	PVC, LiYY	Material	Stainless steel 1.4301 SUS 304	Material	Plastic
Cable length (m)	2	Ø (mm)	16	Length (mm)	35
Color	White	Length (mm)	55	Ø outside (mm)	16
Cross section (mm ²)	6 x 0,14			Plastic sintered filter	replaceable



Delivery and Packing	
Delivery	Transmitter, Operating instructions
Packing	individually packed in cardboard box

Your order code		M - Measured variable	
Article number	Measured variable	code	Measured variable
801311 2023	---	M1	% RH (Relative humidity)
		M2	°C + % RH (Temperature and relative humidity)

Technical drawing	
Configurable options	All dimensions in mm
M - Measured variable	



MW / KS / 05.09.2024

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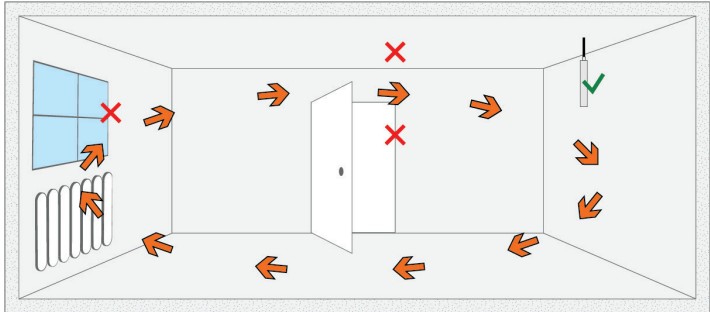
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Important assembly instructions

For an accurate measurement of the humidity and temperature in the room, it is important to take the temperature dynamics into account. Air circulation should not distort the measurement. For this reason, the transmitter should be installed away from objects or obstacles that shield air movements. Please also avoid uncontrolled air currents (draughts) and uncontrolled exposure to sunlight by installing near doors or windows (or other heat sources).

When connecting several probes to a common 24 V AC power supply, pay attention to the polarity to avoid short circuits. Please note that the voltage outputs are short-circuit-proof, but an overvoltage or the application of the power supply to the voltage output can destroy the device.



Circuit diagrams and assignment (Please also read the operating instructions before connecting the transmitter)

Default configuration	Set scaling via DIP switch	Wiring diagram	Assignment % RH																	
<p>Werkseinstellungen: Skalierung: 0 .. 50 °C</p>	<p>Messbereichumschaltung via DIP-Schalter Changing measuring range via DIP switches</p> <table border="1"> <tr> <td>on</td> <td>on</td> <td rowspan="4">Scaling Range</td> </tr> <tr> <td>DIP 1</td> <td>DIP 2</td> </tr> <tr> <td>on</td> <td>on</td> <td>-35 .. +75°C</td> </tr> <tr> <td>off</td> <td>off</td> <td>-35 .. +35°C</td> </tr> <tr> <td>off</td> <td>on</td> <td>0 .. +50°C</td> </tr> <tr> <td>on</td> <td>off</td> <td>0 .. +80°C</td> </tr> </table> <p>Temperature table in OI</p>	on	on	Scaling Range	DIP 1	DIP 2	on	on	-35 .. +75°C	off	off	-35 .. +35°C	off	on	0 .. +50°C	on	off	0 .. +80°C	<p>DIP-Schalter Messbereichumschaltung DIP switches Measuring range changeover</p>	<p>1 = +UB 24V DC 2 = Output Humidity 0-10 V 3 = free 4 = UB GND</p> <p>Assignment °C + % RH</p> <p>1 = +UB 24V DC 2 = Output Humidity 0-10 V 3 = Output temperature 0-10 V 4 = UB GND (for display lighting)</p>
on	on	Scaling Range																		
DIP 1	DIP 2																			
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on	off	0 .. +80°C																		

Please observe the operating instructions for correct connection

Accessoires: Monuting flange

Plastic flange MF-16-K	
Article number	809500 7000
Material	Plastic
Fastening	2 x Ø 5,2 mm drill holes
Hole (mm)	16,2

Accessoires: Sintered filter

Metal sintered filter		
Article image	Your order code	Technical drawing
	Article number	809990 0005
	Material	Stainless steel 1.4404 316L
	Length (mm)	32
	Ø outside (mm)	16

Plastic sintered filter		
Article image	Your order code	Technical drawing
	Article number	809990 0006
	Material	Plastic
	Length (mm)	35
	Ø outside (mm)	16

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