

WM261

Relative Humidity Transmitter



The WM261 has been developed for high precision measurement of relative humidity and temperature. This transmitter is available with a range of outputs.

Highlights

- Designed for accurate measurement in a controlled environment
- Output signal configurable on request
- Linearization for a specific isotherm on request

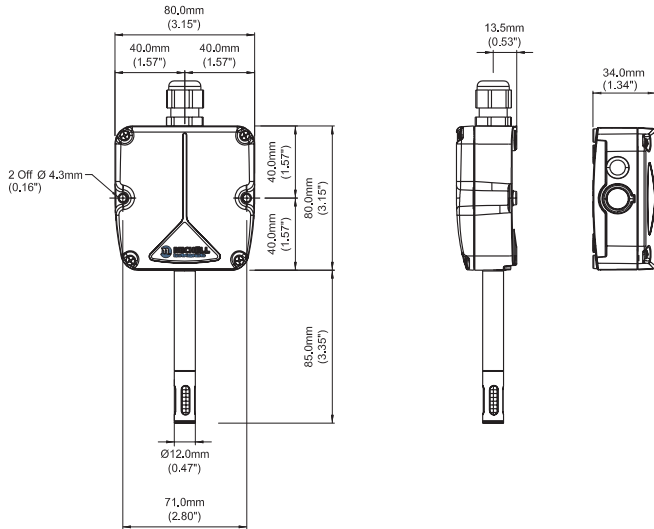
Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T) configurable on request	-22 to +158°F / -30 to +70°C
RH Accuracy at 73°F / 23°C	<±2% RH (5–95% RH)
Temperature Accuracy	Pt100 1/3DIN direct ±0.36°F / ±0.2°C Current output ±0.54°F / ±0.3°C
Stability – RH sensor	<±1% RH/year
Response time	10 sec typical (for 90% of the step change)
Electrical output/input	
Output signal (RH) configurable on request	4–20 mA 0–1 V, 0–5 V, 0–10 V
Output signal (T) configurable on request	4–20 mA 3-wire 1/3 DIN Pt100 direct 0–1 V, 0–5 V, 0–10 V
Supply voltage	Output 4–20 mA: E= 12–30 VDC Output 0–10 V: E= 15–30 VDC Output 0–5 V: E= 10–30 VDC Output 0–1 V: E= 8–30 VDC
Load resistance	Output 4–20 mA: Rload < (Uv-9)/0.02 Output 0–10 V: R > 10 k Ω Output 0–5 V: R > 5 k Ω Output 0–1 V: R > 1 k Ω
Current consumption	2x20 mA max
Operating conditions	
Operating humidity	Sensing element 0–100% RH (Non-condensing) Housing, Storage 0–98% RH (Non-condensing)
Operating temperature	Measurement head -25 to +185°F / -30 to +85°C Housing -25 to +160°F / -30 to +70°C Storage -40 to +160°F / -40 to +70°C
Mechanical specification	
Ingress protection	IP65
Housing material	PPO
Dimensions	Housing 3.15 x 3.15 x 1.34" / 80 x 80 x 34mm Probe L=3.35", ø 0.47" / L=85mm, ø12mm
Electrical connection	Screw terminals
Weight	3.5oz / 100g

Accessories and spare parts

You can check your hygrometer with the control kit HKC which is based on the principle of non-saturated salt solutions. Refer to technical data sheet CONTROL KIT. **Control Kit HKC**

Dimensions



Electrical Connections

Version mA output and Pt100 direct	
Pin 1	Output RH +
Pin 2	Output RH -
Pin 3	Pt100 direct
Pin 4	
Pin 5	

Version mA output for RH and Temperature		
Pin 1	Output temperature +	Warning: Temperature channels Pin 1 and Pin 2 must be powered.
Pin 2	Output temperature -	
Pin 3	Output RH +	
Pin 4	Output RH -	

Version V output and Pt100 direct		Version V output for RH and Temperature	
Pin 1	Power supply V+	Pin 1	Power supply V+
Pin 2	Common ground	Pin 2	Common ground
Pin 3	Output RH +	Pin 3	Output Temperature +
Pin 4	Pt100 direct	Pin 4	Output RH +
Pin 5			

Order codes

Relative humidity transmitter **WM261 A 1 Z10**

Humidity signal output	
4–20 mA	A
0–10 V	B
0–5 V	C
0–1 V	D

Protections and filters	
Polyester mesh + PTFE filter	Z10

Temperature output range and configuration	
No temperature output (standard)	0
Pt100 direct	1
-22 to +158°F / -30 to +70°C Range	3
-22 to +68°F / -30 to +20°C Range	4
32 to +122°F / 0 to +50°C Range	5
Other ranges available - consult factory	TX

Example: WM261 A 1 Z10

Relative humidity transmitter WM261 with 4–20 mA output, Pt100 direct signal, Polyester mesh and PTFE filter.

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: WM261_1001US_P