

# WM261

## Relative Humidity & Temperature 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

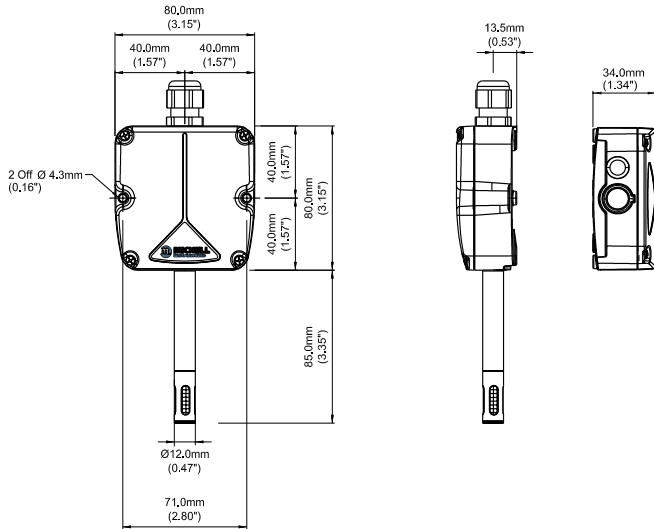
Performance	
<b>Measurement range (RH)</b>	0–100% RH
<b>Measurement range (T)</b>	-20 to +80°C / -4 to +176°F
<b>Accuracy at 23°C / 73°F Humidity</b>	<±2% RH (5–95% RH)
<b>Accuracy at 23°C / 73°F Temperature</b>	Pt100 1/3DIN direct ±0.2°C / ±0.36°F Current output ±0.3°C / ±0.54°F
<b>Stability – RH sensor</b>	<±1% RH/year
<b>Response time</b>	10 sec typical (for 90% of the step change)
Electrical output/input	
<b>Output signal (RH) configurable on request</b>	4–20 mA 0–1 V, 0–5 V, 0–10 V
<b>Output signal (T) configurable on request</b>	4–20 mA 3-wire 1/3 DIN Pt100 direct 0–1 V, 0–5 V, 0–10 V
<b>Supply voltage</b>	Output 4–20 mA: V + = 12–30 VDC Output 0–10 V: V + = 15–30 VDC Output 0–5 V: V + = 10–30 VDC Output 0–1 V: V + = 8–30 VDC
<b>Load resistance</b>	Output 4–20 mA: Rload < (Uv-9)/0.02 Output 0–10 V: R > 10 kΩ Output 0–5 V: R > 5 kΩ Output 0–1 V: R > 1 kΩ
<b>Current consumption</b>	2x20 mA max
Operating conditions	
<b>Operating humidity</b>	Sensing element 0–100% RH (Non-condensing) Housing, Storage 0–98% RH (Non-condensing)
<b>Operating temperature</b>	Measurement head -30 to +85°C / -22 to +185°F Housing -30 to +70°C / -22 to +158°F Storage -40 to +70°C / -40 to +158°F
Mechanical specification	
<b>Ingress protection</b>	IP65
<b>Housing material</b>	PPO
<b>Dimensions</b>	Housing 80 x 80 x 34mm / 3.15 x 3.15 x 1.34" Probe L=85mm, ø12mm / L=3.35", ø 0.47"
<b>Electrical connection</b>	Screw terminals
<b>Weight</b>	100g / 3.53oz

### 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 always
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 2	Common ground
Pin 3	Output RH +
Pin 4	Pt100 direct
Pin 5	
Pin 1	Power supply V+
Pin 2	Common ground
Pin 3	Output Temperature +
Pin 4	Output RH +

## 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 configuration	
No temperature output (standard)	0
Pt100 direct	1
-30 to +70°C / -22 to +158°F Range	3
-30 to +20°C / -22 to +68°F Range	4
0 to +50°C / 32 to +122°F Range	5
Other output scaling available on request	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\_97184\_V1\_UK\_1009**