

# DT269

## Relative Humidity & Temperature Transmitter



The DT269 transmitter has a I7000 HYGROSMART sensor. Thanks to this solution, the sensor can be changed on site quickly and simply, providing greatly reduced maintenance costs. The transmitter does not need recalibration after the sensor is changed.

### Highlights

- Designed for accurate measurement in a controlled environment
- Based on the interchangeable Hygrosmart module
- Output signal configurable on request
- Linearization for a specific isotherm on request

### 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	<b>Control Kit HKC</b>
Aluminum mounting flange for fixing probe	<b>FLA019</b>
HYGROSMART without Pt100 output	<b>I7000.0</b>
HYGROSMART with Pt100 output	<b>I7000.1</b>
Stainless steel sintered filter	<b>H4</b>
Noryl cap with polyester filter/PTFE	<b>Z2</b>

### 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 1/3 DIN 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 – RH Sensor</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 k Ω Output 0–5 V: R > 5 k Ω Output 0–1 V: R > 1 k Ω
<b>Current consumption</b>	2 x 20 mA max
Operating conditions	
<b>Operating humidity</b>	Probe: 0–100% RH Housing, Storage: 0–98% RH (non-condensing)
<b>Operating temperature</b>	Probe: -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>Material</b>	PPO + POM
<b>Dimensions</b>	Housing: 80 x 80 x 34.5mm / 3.14 x 3.14 x 1.35" Probe: L=85/178mm, ø19mm L=3.35/7.01", ø 0.75"
<b>Weight</b>	100g / 3.53oz
<b>Electrical connections</b>	Screw terminals

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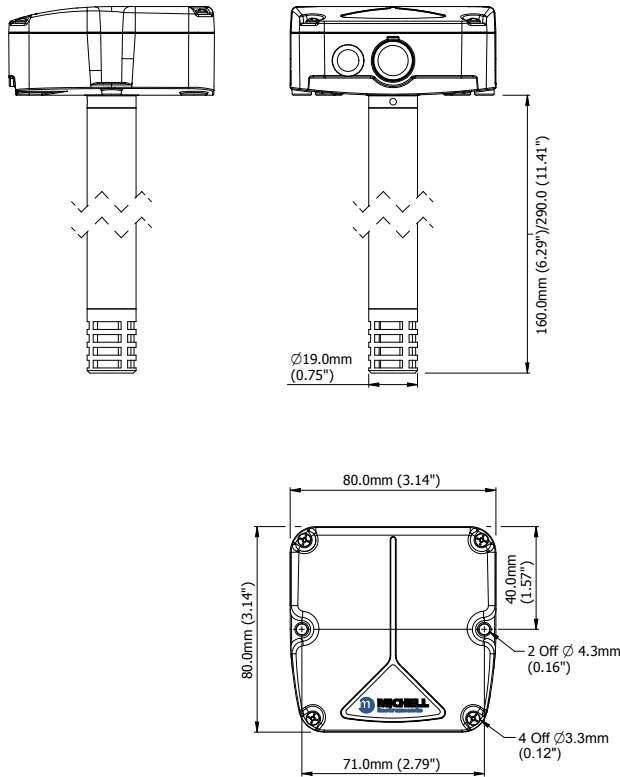
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**Dimensions**



**Electrical Connections**

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

Version mA output for RH and Temperature	
Pin 1	Output temperature +
Pin 2	Output temperature -
Pin 3	Output RH +
Pin 4	Output RH -

Warning: Temperature channels Pin 1 and Pin 2 must be powered always.

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	Output RH -
Pin 5	

**Order codes**

Relative humidity and temperature transmitter **DT269 A 4 0 H4**

Output configuration	
4–20 mA	A
0–10 V	B
0–5 V	C
0–1 V	D

Temperature output configuration	
No temperature output (standard)	0
Pt100 direct	1
-30 to +70°C / -22 to +158°F	3
-30 to +20°C / -22 to +68°F	4
0 to 50°C / 32 to 122°F	5
-20 to +80°C / -4 to +176°F	6
Other output scaling available on request TX	

Protections and filters	
Stainless steel sintered filter	H4
Noryl cap with polyester filter/PTFE	Z2

Extension	
Length 160.0mm / 6.30" (standard)	0
Length 290.0mm / 11.42"	1

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**Example: DT269 A 4 0 H4**

Relative humidity and temperature transmitter DT269 with 4–20 mA humidity signal, 160.0mm / 6.30" extension, filter, -30 to +20°C / -22 to +68°F temperature range.

**Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: DT269\_97188\_V1\_UK\_1009**