

# DT269

## Duct Mount Digital Relative Humidity & Temperature Transmitter

The DT269 transmitter has a I7000 Hygrosmart module. 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.



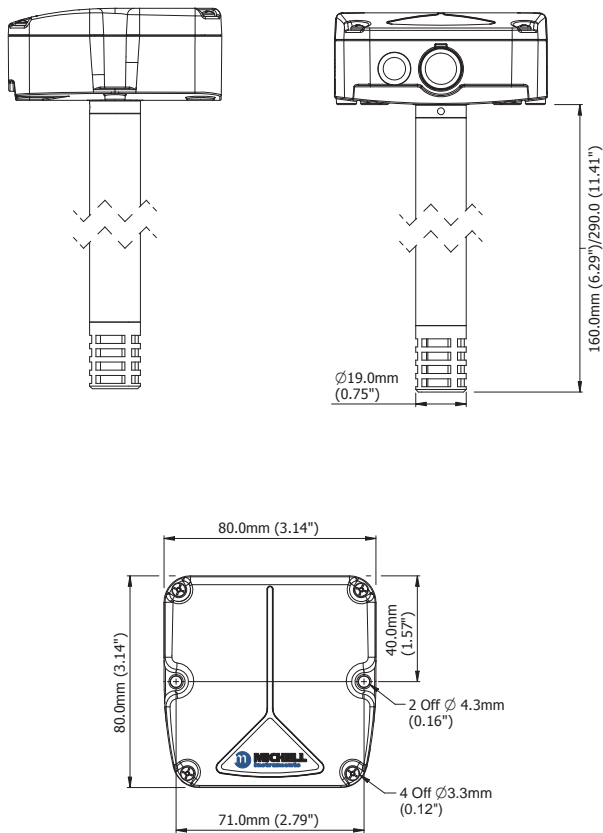
### Highlights

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

### Applications

- HVAC
- Pharmaceutical
- Meteorological
- Environmental Agriculture

## Dimensions



## Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-20 to +80°C (-4 to +176°F)
Accuracy at 23°C (73°F) Humidity	<±2% RH (5–95% RH)
Accuracy at 23°C (73°F) Temperature	Pt100 1/3 DIN direct $\pm 0.2^\circ\text{C}$ ( $\pm 0.36^\circ\text{F}$ )
Stability – RH Sensor	<±1% RH/year
Response time – RH Sensor	<10 sec typical (for 90% of the step change)
Electrical output/input	
Output signal (RH) configurable on request	4–20 mA 0–1, 0–5, 0–10 V
Output signal (T) configurable on request	4–20 mA 3-wire 1/3 DIN Pt100 direct 0–1, 0–5, 0–10 V
Supply voltage	Output 4–20 mA: V+ = 12–30 V DC Output 0–10 V: V+ = 15–30 V DC Output 0–5 V: V+ = 10–30 V DC Output 0–1 V: V+ = 8–30 V DC
Load resistance	Output 4–20 mA: Rload < (Uv-9) / 0.02 Output 0–10 V: R > 10 k $\Omega$ Output 0–5 V: R > 5 k $\Omega$ Output 0–1 V: R > 1 k $\Omega$
Current consumption	2 x 20 mA max
Operating conditions	
Operating temperature	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	
Ingress protection	IP65 (NEMA 4 level)
Material	PPO + POM
Dimensions	Housing: 80 x 80 x 34.5mm (3.14 x 3.14 x 1.35") Probe: L=85/178mm, $\varnothing 19\text{mm}$ (L=3.35/7.01", $\varnothing 0.75$ ")
Weight	100g (3.53oz)
Electrical connections	Screw terminals

## Electrical Connections

Version mA output and Pt100 direct	Version mA output for RH and Temperature	Version V output and Pt100 direct	Version V output for RH and Temperature
Pin 1 Output RH + Pin 2 Output RH - Pin 3 Pin 4 Pt100 direct Pin 5	Pin 1 Output temperature + Pin 2 Output Temperature - Pin 3 Output RH + Pin 4 Output RH - <b>Warning:</b> Temperature channels Pin 1 and Pin 2 must be powered always	Pin 1 Power supply V + Pin 2 Common ground Pin 3 Output RH + Pin 4 Pin 5 Pt100 direct	Pin 1 Power supply V + Pin 2 Common ground Pin 3 Output Temperature + Pin 4 Output RH +

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Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Issue No: DT269\_97188\_V3\_UK\_0716