

DT269

Relative Humidity 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

Control Kit HKC

Aluminum mounting flange for fixing probe

FLA019

HYGROSMART without Pt100 output

I7000.0

HYGROSMART with Pt100 output

I7000.1

Stainless steel sintered filter

H4

Noryl cap with polyester filter/PTFE

Z2

Technical Specifications

Performance

Measurement range (RH)	0–100% RH
Measurement range (T) configurable on request	-22 to +176°F / -30 to +80°C
RH Accuracy at 23°C / 73°F	<±2% RH (5–95% RH)
Temperature Accuracy	Pt100 1/3 DIN direct ±0.36°F / ±0.2°C Current output ±0.54°F / ±0.3°C
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 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	2 x 20 mA max

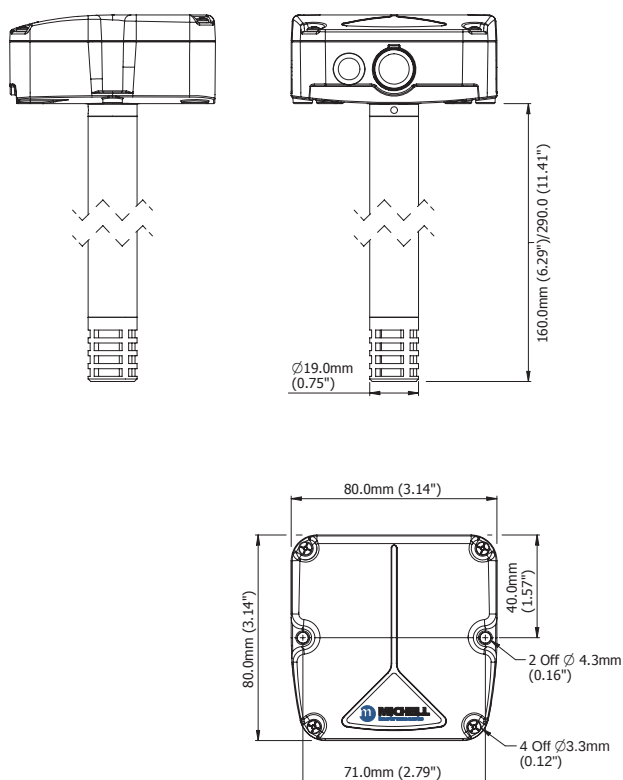
Operating conditions

Operating humidity	
Probe	0–100% RH
Housing, Storage	0–98% RH (non-condensing)
Operating temperature	
Probe	-22 to +185°F / -30 to +85°C
Housing	-22 to +158°F / -30 to +70°C
Storage	-40 to +158°F / -40 to +70°C

Mechanical specification

Ingress protection	IP65
Material	PPO + POM
Dimensions	
Housing	3.14 x 3.14 x 1.35" / 80 x 80 x 34.5mm
Probe	L=3.35/7.01", ø 0.75" L=85/178mm, ø19mm
Weight	3.6oz / 100g
Electrical connections	Screw terminals

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 +	Warning: Temperature channels Pin 1 and Pin 2 must be powered.
Pin 2	Output	
Pin 3	Output RH +	
Pin 4	Output RH -	

Version V output and Pt100 direct

Pin 1	Power supply V+
Pin 2	Common ground
Pin 3	Output RH +
Pin 4	
Pin 5	

Version V output for RH and Temperature

Pin 1	Power supply V+
Pin 2	Common ground
Pin 3	Output Temperature +
Pin 4	Output RH +

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 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
-4 to +176°F / -20 to +80°C Range	6
Other ranges available - consult factory	TX

Protections and filters

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

Extension

Length 6.3" / 160mm (standard)	0
Length 11.5" / 290mm	1

Example: DT269 A 4 0 H4

Relative humidity and temperature transmitter DT269 with 4–20 mA humidity signal, 6.3" / 160mm extension, filter, -22 to +68°F / -30 to +20°C 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_1001US_M