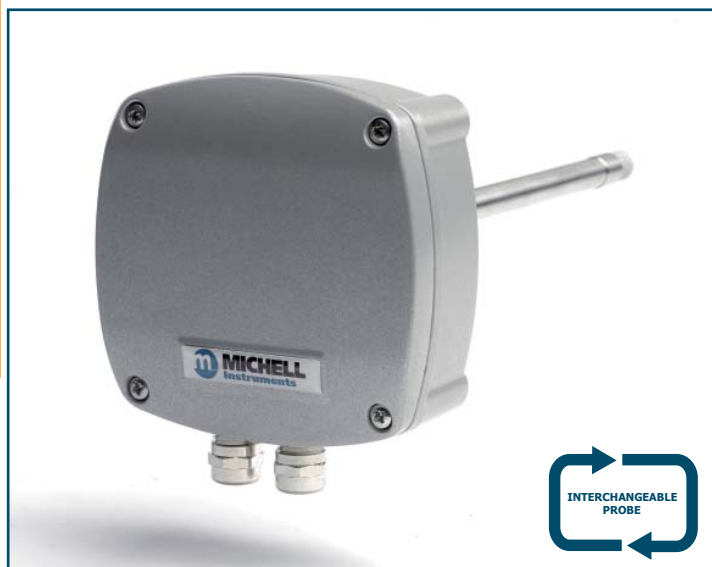


DT284

Digital Relative Humidity and Temperature Transmitter Remote Version



The DT284 relative humidity sensor uses the HYGROSMART module, integrated in the interchangeable probe. This device can be used in high-temperature applications due to the remote placing of the measurement element and its small overall size.

Highlights

- 0.47" / 12mm probe diameter
- Analog and digital output standard
- Interchangeable probe
- Analog output signals selectable through software
- Metric or US measurement units selectable through software

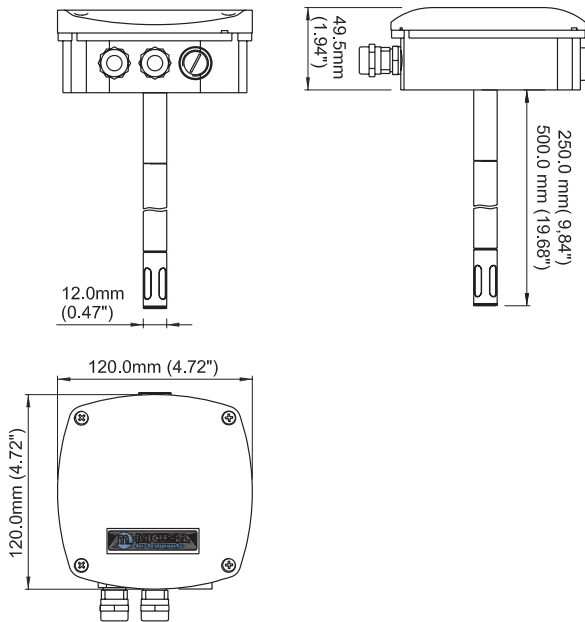
Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-22 to +285°F / -30 to +140°C
Accuracy at 23°C / 73°F Humidity	<±2% RH (5–95% RH)
Accuracy at 23°C / 73°F Temperature	±0.72°F / ±0.4°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	0–1 VDC, 0–5 VDC, 0–10 VDC 0–20 mA, 4–20 mA, RS485
Supply voltage	15 ≤ VAC ≤ 27 / 18 ≤ VDC ≤ 38
Load resistance	Current output: R ≤ 500 Ω
Power consumption	1.7 W
Operating conditions	
Operating humidity Probe, Housing, Storage	0–100% RH
Operating temperature Probe	-22 to +285°F / -30 to +140°C
Housing	-22 to +160°F / -30 to +70°C
Storage	-40 to +160°F / -40 to +70°C
Mechanical specification	
Ingress protection	IP67
Material Housing	Aluminum die casting
Probe	Stainless steel
Dimensions Housing	4.72 x 4.72 x 1.94" / 120 x 120 x 49.5mm
Probe	L=10/20", ø 0.47" / L=250/500mm, ø12mm
Weight	16oz / 450g
Electrical connections	Screw terminals

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	FLA012
Cable USB for configuration "DIGICOR" (USB/TTL)	F035263
RS422/485 to PC (RD232) converter	330185
Stainless steel mesh filter	K8
PEEK protection cap with stainless steel mesh filter	K9
Stainless steel sintered filter	H3
Stainless steel sintered filter, teflon coated	J3

Dimensions



Electrical Connections

Pin	
1	V+
2	V-
3	RS485 output Ground
4	Ground
5	Output Channel 1 Temperature
6	Output Channel 1 Ground
7	Output Channel 2 RH
8	Output Channel 2 Ground
9	RS485 Data+
10	RS485 Data-
11	Not connected
12	Not connected
13	Not connected
14	Not connected

Do not connect V - (pin 2) to Ground

Order codes

Relative humidity and temperature transmitter

DT284 A X 11 N030 P140 F

Temperature and humidity output	
4-20 mA	A
0-10 V	B
0-5 V	C
0-1 V	D
0-20 mA	E

Temperature Units	
Fahrenheit	F
Celsius	C

Maximum temperature	
See table A (not to exceed 285°F / 140°C)	

Minimum temperature	
See table A	

Interchangeable Probe	
Stainless steel probe 10" / 250mm, and stainless steel cover with stainless steel mesh filter (standard)	3
Stainless steel probe 20" / 500mm, and stainless steel cover with stainless steel mesh filter	10
Stainless steel probe 10" / 250mm, and stainless steel sintered filter	11
Stainless steel probe 20" / 500mm, and stainless steel sintered filter	12
Probe 10" / 250mm with Victrex PEEK termination and cover and stainless steel mesh filter	13
Probe 20" / 500mm with Victrex PEEK termination and cover and stainless steel mesh filter	14

Table A	
-40°	N040
-20°	N020
0°	0000
+40°	P040
+70°	P070
+100°	P100
+140°	P140
+275°	P275
Other values may be specified following the same format	

Example: DT284 A X 11 N030 P140 F

Relative humidity and temperature transmitter DT284 for high-temperature applications. Temperature range -30°F to +140°F, 4-20 mA 2-wire temperature/humidity signal, interchangeable stainless steel probe 10" / 250mm and stainless steel sintered filter. In this example, the 4mA temperature signal is set for -30F and the 20mA is set for +140F.

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: DT284_1001US_P



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