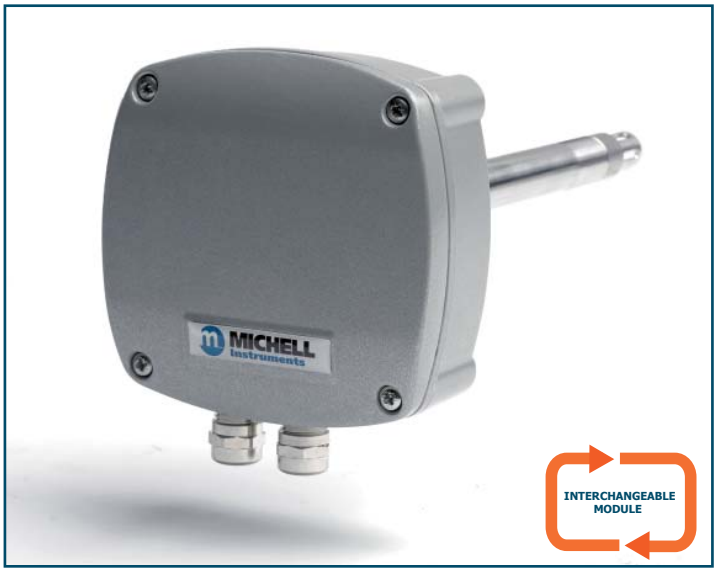
DT282

Digital Relative Humidity and Temperature Transmitter for Duct Installation



The DT282 relative humidity transmitter includes the interchangeable HYGROSMART module. The interchangeable module lets you recalibrate the transmitter simply by replacing the sensor head with the HYGROSMART module. As a result, maintenance costs are greatly reduced and machine down-time is minimized.

Highlights

- Analog and digital output standard
- Based on the interchangeable Hygrosmart module
- Analog output signals selectable through software
- Metric or US measurement units selectable through software

Technical Specifications

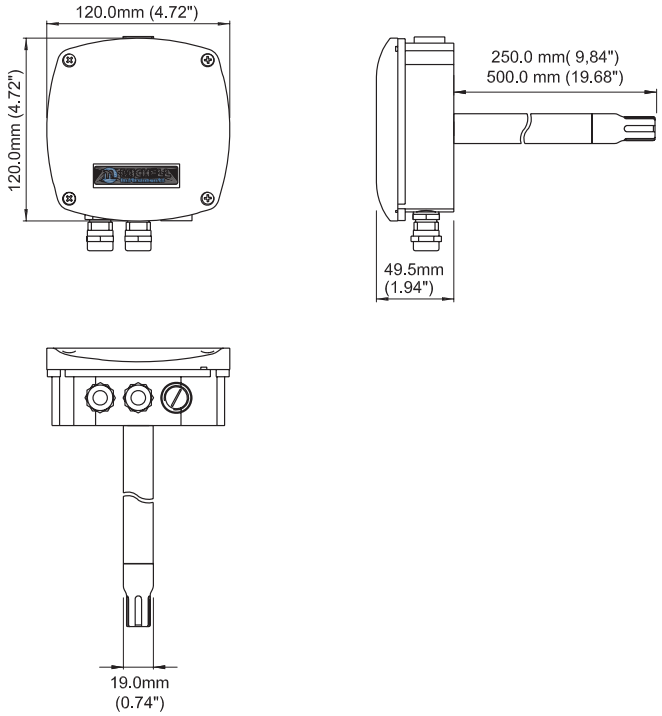
Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-22 to +160°F / -30 to +70°C
Accuracy at 23°C / 73°F Humidity	<±2% RH (5–95% RH)
Accuracy at 23°C / 73°F Temperature	±0.72°F / ±0.4°C
Stability – RH Sensor	<±1% RH/year
Response time – RH Sensor	<10 sec typical (for 90% of the step change)
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 Housing Storage	 -25 to +185°F / -30 to +85°C -25 to +160°F / -30 to +70°C -40 to +160°F / -40 to +70°C
Mechanical specification	
Ingress protection	IP67
Material Housing Probe	 Aluminum die casting AISI 316
Dimensions Housing Probe	 4.72 x 4.72 x 1.94" / 120 x 120 x 49.5mm L=3.54", ø 0.71" / L=90mm, ø18mm
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	**FLA019**
Cable USB for configuration "DIGICOR" (USB/TTL)	**F035263**
RS422/485 to PC (RD232) converter	**330185**
Hygrosmart with Pt100	**I7000.1**
AISI 316 cap with stainless steel mesh filter	**K6**
Stainless steel sintered filter	**H2**
Stainless steel sintered filter with teflon coating	**J2**
Stainless steel cap with polyester filter/PTFE	**Z6**

DT282

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

DT282	A	01	K6	N030	P070	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

Probe length	
10" / 250mm	01
20" / 500mm	02

Protections and filters	
AISI 316 cap with stainless steel mesh filter	K6
Stainless steel sintered filter	H2
Stainless steel sintered filter, teflon coated	J2
Stainless steel cap with polyester filter/PTFE	Z6

Temperature Units	
Fahrenheit	F
Celsius	C

Maximum temperature
See table A (not to exceed 160°F/70°C)

Minimum temperature
See table A

Table A	
-40°	N040
-20°	N020
0°	0000
+40°	P040
+70°	P070
+100°	P100
+120°	P120
+160°	P160
Other values may be specified following the same format	

Example: DT282 A 01 K6 N030 P070 F
Relative humidity and temperature transmitter DT282 with 4–20 mA 2-wire humidity signal, stainless steel probe 10" / 250mm length, with filter, -30 to +70˚F temperature range. In this example, the 4mA temperature signal is set for -30F and the 20mA is set for +70F.

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: DT282_1001US_P

Process Measurement & Controls, Inc.
Michell Instruments RH
11 Old Sugar Hollow Road
Danbury, CT 06810 USA
Email: sales@pmc1.com
Web: www.michell.com/us/rh
Tel: 203-792-8686
Fax: 203-743-2051

Represented by: