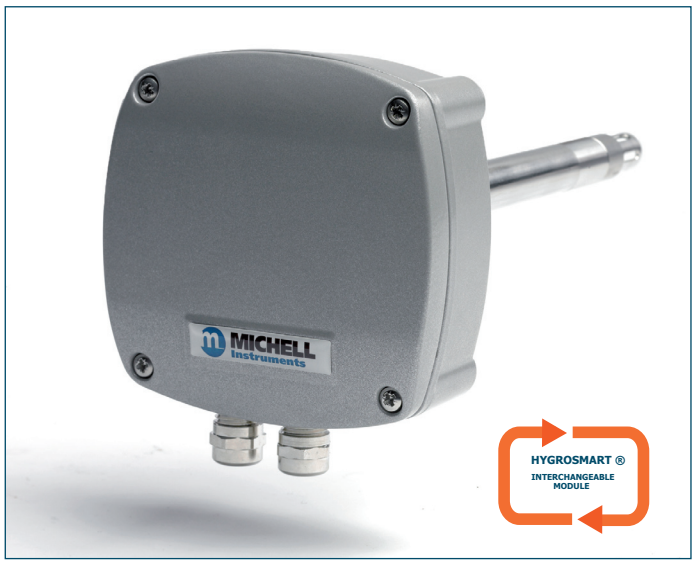
DT282

Digital Relative Humidity and Temperature Transmitter - Duct Mount



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 down-time is minimized.

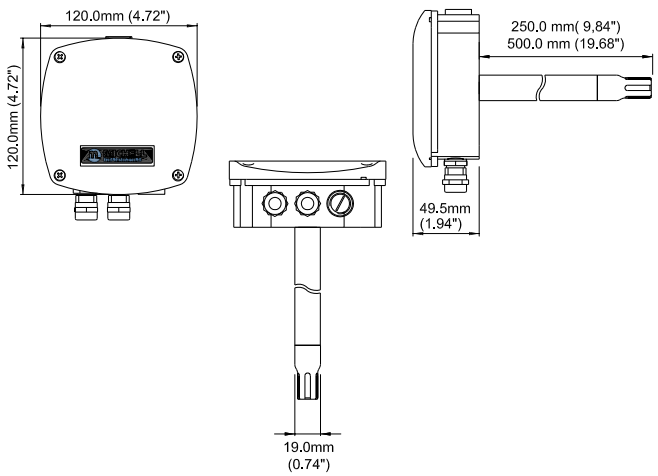
Highlights

- 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)	-30 to +70°C (-22 to +158°F)
Accuracy at 23°C (73°F) Humidity	<±2% RH (5–95% RH)
Accuracy at 23°C (73°F) Temperature	±0.4°C (±0.72°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	0–1, 0–5, 0–10 V 0–20 mA, 4–20 mA, RS485
Supply voltage	15 - 27 V AC / 18 - 38 V DC
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	 -30 to +85°C (-22 to +185°F) -30 to +70°C (-22 to +158°F) -40 to +70°C (-40 to +158°F)
Mechanical specification	
Ingress protection	IP67
Material Housing Probe	 Aluminum die casting Stainless steel AISI 316
Dimensions Housing Probe	 120 x 120 x 49.5mm (4.72 x 4.72 x 1.94") L=250/500mm ø19mm (L=9.84/19.68" ø0.74")
Weight	450g (15.87oz)
Electrical connections	Screw terminals

Dimensions



Accessories and Spare Parts

RS422/485 to PC (RS232) converter	**330185**
USB cable/software for configuration	**F035263**
Al mounting flange for ø19mm (0.75") SS probes	**FLA019**
SS sintered filter	**H2**
SS sintered filter with teflon coating	**J2**
AISI 316 cap slotted with SS mesh filter	**K6**
SS cap slotted with PTFE filter	**Z6**
Hygrosmart with Pt100 output (RH = 0-1 V)	**I7-0-00-1**
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	**HKC**

Issue No: DT282_97189_V2_UK_1110

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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.

DT282

Electrical Connections

Pin		Pin	
1	Power Supply V +	8	Output Channel 2 Ground
2	Power Supply V -	9	RS485 Data +
3	Output RS485 Ground	10	RS485 Data -
4	Ground	11	Not connected
5	Output Channel 1 Temperature +	12	Not connected
6	Output Channel 1 Ground	13	Output Channel 3 (not connected)
7	Output Channel 2 RH +	14	Output Channel 3 Ground (not connected)
Do not connect pin 2 (V -) to pin 4 (Ground)			

Ordering Example

DT282-BASE-A-01-K6-N030-P070
RH & temp transmitter DT282, 4-20 mA output, stainless steel probe 250mm (9.84”), AISI 316 cap slotted with stainless steel mesh filter, temp range -30 to +70ºC (-22 to +158ºF)

Order Codes

DT282 - Digital Relative Humidity and Temperature Transmitter, Duct Mount		
Feature	**Item**	**Description**
Base Model	**DT282-BASE**	Base unit
Sig Output	DT282-**A**	4-20 mA
	DT282-B	0-10 V
	DT282-C	0-5 V
	DT282-D	0-1 V
	DT282-E	0-20 mA
Length	DT282-**01**	250mm (9.84")
	DT282-02	500mm (19.68")
Filter	DT282-H2	SS sintered filter
	DT282-J2	SS sintered filter with teflon coating
	DT282-**K6**	AISI 316 cap slotted with SS mesh filter
	DT282-Z6	SS cap slotted with PTFE filter
Temp Low	DT282-0000	0°C (+32°F)
	DT282-N020	-20°C (-4°F)
	DT282-**N030**	-30°C (-22°F)
Temp High	DT282-P020	+20°C (+68°F)
	DT282-P030	+30°C (+86°F))
	DT282-P050	+50°C (+122°F)
	DT282-**P070**	+70°C (+158°F)
	DT282-XXXX	Other output scaling available on request

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