

WM281

Digital Relative Humidity & Temperature Transmitter, Wall Mount



The WM281 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.

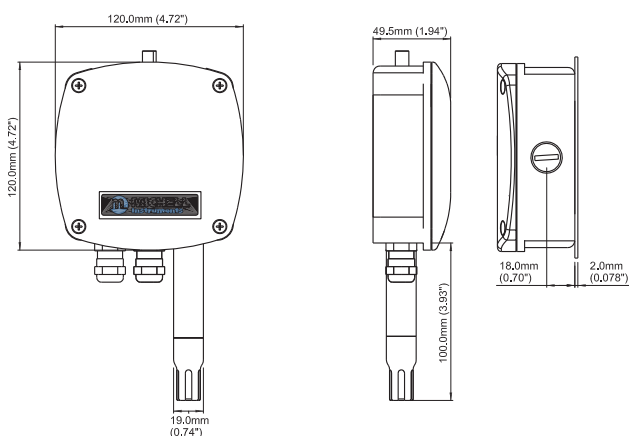
Highlights

- 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 configurable on request	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 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	IP67
Material Housing	Aluminum die casting
Probe	Delrin
Dimensions Housing	120 x 120 x 49.5mm (4.72 x 4.72 x 1.94")
Probe	L=100mm, ø 19mm (L=3.93", 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
SS sintered filter	H2
SS sintered filter with teflon coating	J2
Delrin cap slotted with SS mesh filter	K7
Delrin cap slotted with PTFE filter, white	Z7
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

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 Codes

To construct the order code, select the relevant feature from the tables below, starting with the base model, which is {Feature A} and then add on options to create a string: {Feature A}+{Feature B}+{Feature C}+{Feature D}+{Feature E}

Order example: WM281+A+K7+N030+P070

Digital RH and temperature transmitter WM281, 4-20 mA output, delrin cap slotted with stainless steel mesh filter, temp range -30 to +70°C (-22 to +158°F)

