WR285

Digital Relative Humidity Transmitter - Remote Probe for Pressurized Applications up to 30 bar (400 psi)

The WR285 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 measurement element and its small overall size. The interchangeable probe allows for simple recalibration and lower maintenance costs.

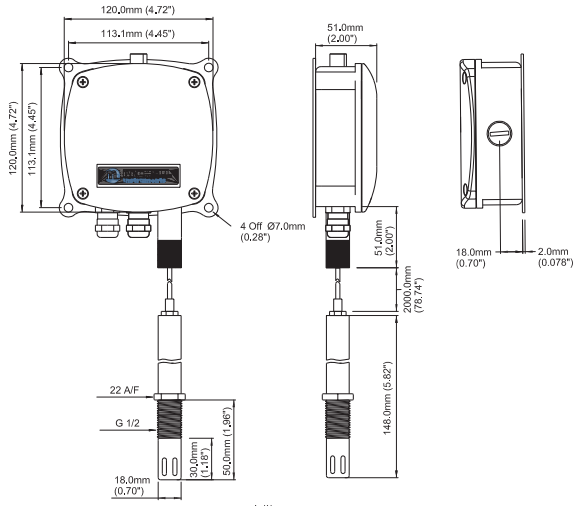
Highlights

- Up to 30 bar (400 psi) pressure
- Analog and digital output standard
- Interchangeable probe
- Analog output signals selectable through software
- Metric or US measurement units selectable through software
- Can withstand temperatures up to 120°C (248°F)

Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Accuracy at 25°C (77°F) Humidity	<±2% RH (5–95% RH)
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 temperature	
Probe	-30 to +120°C (-22 to +248°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	Stainless steel
Dimensions	
Housing	120 x 120 x 51mm (4.72 x 4.72 x 2.00")
Probe	L=148mm, ø18mm (L=5.82", ø0.70")
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 interchangeable probe with 2m (6.56') cable	**USTE015**
SS cap slotted with mesh filter	**K1**
SS cap slotted with PTFE filter	**Z1**
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**

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WR285

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	Not connected	12	Not connected
6	Not connected	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}

Order example: WR285+A+15+K1
Digital RH transmitter WR285, 4-20 mA output, stainless steel probe with 2m (6.56') cable, stainless steel cap with mesh filter