

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

michell.nt-rt.ru || mhc@nt-rt.ru

ДАТЧИКИ ВЛАЖНОСТИ

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

WM33 & 52

Relative Humidity and Temperature Transmitter, Wall Mount



The WM Series are wall-mounted units that have the ability to display and provide an output signal of % RH, dew point or absolute humidity and temperature. The WM Series offers excellent measurement accuracy and stability wherever a wall-mounted sensor is required.

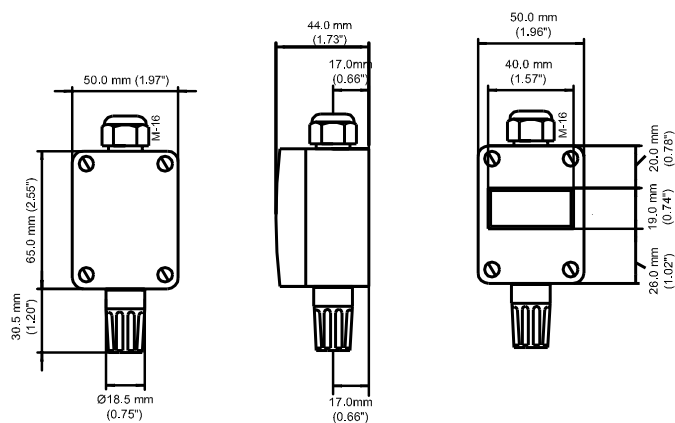
Highlights

- WM33 is designed for low cost HVAC applications
- WM52 has digital technology and is designed for accurate measurements in a controlled environment
- Easy to re-calibrate to maintain high accuracy

Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-20 to +80°C (-4 to +176°F)
Accuracy at 23°C (73°F) Humidity	WM52: <±2% RH (10–90% RH) WM33: <±3% RH (30–80% RH)
Accuracy at 23°C (73°F) Temperature	WM52: ±0.2°C (±0.36°F) WM33: ±0.3°C (±0.54°F)
Stability – RH Sensor	±1% RH/year
Response time – RH Sensor	<10 sec typical without filter (for 90% of the step change)
Electrical output/input	
Output signal	4–20 mA, 0–1, 0–5, 0–10 V
Supply voltage	14–30 V DC, 5–30 V DC (0–1 V & mA output)
Operating conditions	
Operating humidity Probe, housing, storage	5–95% non-condensing
Operating temperature Probe, Housing Storage	-30 to +85°C (-22 to +185°F) -40 to +85°C (-40 to +185°F)
PRT	
Measurement range	Pt100/1000: -50 to +200°C (-58 to +392°F)
Accuracy	Pt100/1000: ±0.15°C
Mechanical specification	
Housing material	White molded polymer
Weight	82g (2.89oz)
Electrical connections	Screw terminals
Alternative outputs	
Dew point	-40 to +60°C (-40 to +140°F)
Absolute humidity	0–200g/m³ (0–87.4gr/ft³)


Dimensions




Accessories and Spare Parts

19mm (0.75") Slotted protection cap white	A000001
19mm (0.75") PVDF filter	A000014
19mm (0.75") PVDF filter with protection cap white	A000016
19mm (0.75") Mesh filter with protection cap black	A000021
19mm (0.75") Arrow stainless steel sintered filter 5/10/20 µm	A000025/26/27
19mm (0.75") Foil filter 2µm with protection cap white	A000041
Oleophobic foil filter 0.7µm with protection cap white	A000043
19mm (0.75") Foil filter 1.5µm with protection cap white	A000045
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

3/4 wire V DC power supply voltage output	
Pin 1	
Pin 2	
Pin 2	Output temperature +
Pin 3	Common ground
Pin 4	Output RH +
Pin 5	Power supply V +

2 wire V DC power supply mA output	
Pin 1	
Pin 2	
Pin 1	Output temperature -
Pin 2	Output temperature +
Pin 3	Output RH +
Pin 4	Output RH -

3/4 wire with display	
Pin 1	Output temperature +
Pin 2	Common ground
Pin 3	Output RH , Dew Point, Absolute Humidity +
Pin 4	Power supply V+

Ordering Example

WM52-BASE-5-DX-H-T3

Relative humidity and temperature sensor WM52, 0-1 V output, with display, relative humidity configuration and 0 to 50°C temperature range

Order Codes

WM33 - Relative Humidity and Temperature Transmitter, Wall Mount, 1pt Calibration with 3% accuracy		
Feature	Item	Description
Base Model	WM33-BASE	Base unit
Sig Output	WM33-2	4-20 mA (only possible with WM33-X, WM33-T4 or WM33-T5)
	WM33-3	0-10 V
	WM33-4	0-5 V
	WM33-5	0-1 V
Temp	WM33-T1	-20 to +80°C (-4 to +176°F)
	WM33-T3	0 to +50°C (+32 to +122°F)
	WM33-T4	Pt100: -50 to +200°C (-58 to +392°F)
	WM33-T5	Pt1000: -50 to +200°C (-58 to +392°F)
	WM33-TX	Other output scaling available on request
	WM33-X	RH signal only. No temperature output

WM52 - Relative Humidity and Temperature Transmitter, Wall Mount, 2pt Calibration with 2% accuracy		
Feature	Item	Description
Base Model	WM52-BASE	Base unit
Sig Output	WM52-2	4-20 mA (only possible with WM52-X, WM52-T4 or WM52-T5)
	WM52-3	0-10 V
	WM52-4	0-5 V
	WM52-5	0-1 V
Display	WM52-DX	Display version
	WM52-XX	No display
Moist. Sig	WM52-A	Absolute Humidity (g/m3) (only with T1)
	WM52-D	Dew-point (Tdew) (only with T1)
	WM52-H	Relative humidity
Temp	WM52-T1	-20 to +80°C (-4 to +176°F)
	WM52-T3	0 to +50°C (+32 to +122°F)
	WM52-T4	Pt100: -50 to +200°C (-58 to +392°F) class A
	WM52-T5	Pt1000: -50 to +200°C (-58 to +392°F) class A
	WM52-TX	Other output scaling available on request
	WM52-X	RH signal only. No temperature output

WM261

Digital Relative Humidity & Temperature Transmitter, Wall Mount



The WM261 has been developed for high precision measurement of relative humidity and temperature. This transmitter is available with a range of outputs.

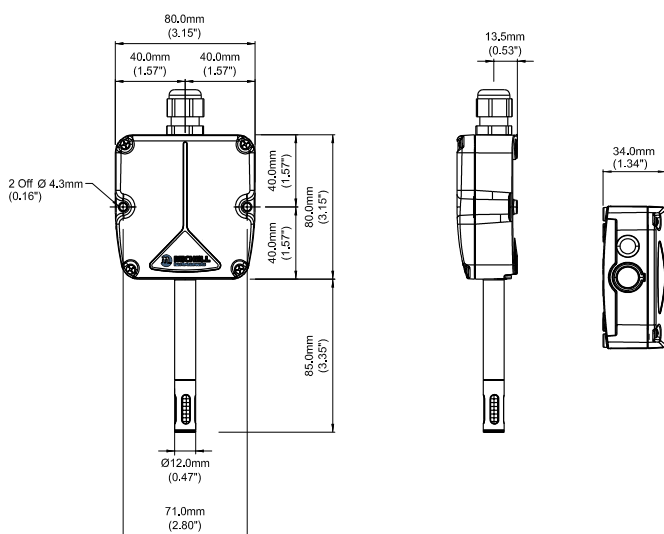
Highlights

- Designed for accurate measurement in a controlled environment
- Temperature output scaling configurable on request
- Linearization for a specific isotherm on request

Technical Specifications

Performance		
Measurement range (RH)	0–100% RH	
Measurement range (T)	-20 to +80°C (-4 to +176°F)	
Accuracy at 23°C (73°F) Humidity	<±2% RH (5–95% RH)	
Accuracy at 23°C (73°F) Temperature	Pt100 1/3DIN direct ±0.2°C (±0.36°F) Current output ±0.3°C (±0.54°F)	
Stability – RH sensor	<±1% RH/year	
Response time	10 sec typical (for 90% of the step change)	
Electrical output/input		
Output signal (RH) configurable on request	4–20 mA 0–1, 0–5, 0–10 V	
Output signal (T) configurable on request	4–20 mA 3-wire 1/3 DIN Pt100 direct 0–1, 0–5, 0–10 V	
Supply voltage	Output 4–20 mA: Output 0–10 V: Output 0–5 V: Output 0–1 V:	V + = 12–30 V DC V + = 15–30 V DC V + = 10–30 V DC V + = 8–30 V DC
Load resistance	Output 4–20 mA: Output 0–10 V: Output 0–5 V: Output 0–1 V:	Rload < (Uv-9) / 0.02 R > 10 k Ω R > 5 k Ω R > 1 k Ω
Current consumption	2 x 20 mA max	
Operating conditions		
Operating humidity	Probe Housing, Storage	
	0–100% RH (Non-condensing) 0–98% RH (Non-condensing)	
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	IP65 (NEMA 4 level)	
Housing material	PPO + POM	
Dimensions	Housing Probe	
	80 x 80 x 34mm (3.15 x 3.15 x 1.34") L=85mm, ø12mm (L=3.35", ø0.47")	
Weight	100g (3.53oz)	
Electrical connections	Screw terminals	

Dimensions








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

HKC

Electrical Connections

Version mA output and Pt100 direct	Version mA output for RH and Temperature	Version V output and Pt100 direct	Version V output for RH and Temperature
Pin 1 Output RH +	Pin 1 Output temperature +	Pin 1 Power supply V +	Pin 1 Power supply V +
Pin 2 Output RH -	Pin 2 Output Temperature -	Pin 2 Common ground	Pin 2 Common ground
Pin 3 	Pin 3 Output RH +	Pin 3 Output RH +	Pin 3 Output Temperature +
Pin 4 	Pin 4 Output RH -	Pin 4 	Pin 4 Output RH +
Pin 5 	Warning: Temperature channels Pin 1 and Pin 2 must be powered always	Pin 5 	

Ordering Example

WM261-BASE-A-1-Z10

Relative humidity transmitter WM261 with 4-20 mA output, Pt100 direct signal, noryl slotted cap and polyester PTFE filter

Order Codes

WM261 - Digital Relative Humidity and Temperature Transmitter, Wall Mount		
Feature	Item	Description
Base Model	WM261-BASE	Base unit
Sig Output	WM261-A	4-20 mA output
	WM261-B	0-10 V
	WM261-C	0-5 V
	WM261-D	0-1 V
Temp	WM261-0	No temperature output
	WM261-1	Pt100 direct
	WM261-3	-30 to +70°C (-22 to +158°F)
	WM261-4	-30 to +20°C (-22 to +68°F)
	WM261-5	0 to +50°C (+32 to +122°F)
	WM261-TX	Other output scaling available on request
Filter	WM261-Z10	Noryl cap slotted & polyester PTFE filter

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.

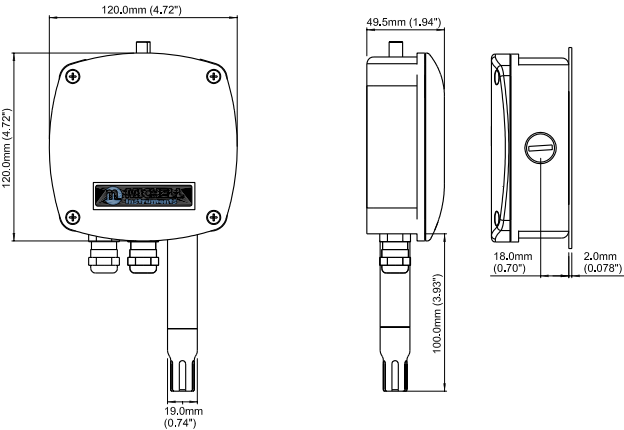
Highlights

- 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 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 Delrin
Dimensions Housing Probe	120 x 120 x 49.5mm (4.72 x 4.72 x 1.94") 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 Example

WM281-BASE-A-K7-N030-P070

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

Order Codes

WM281 - Digital Relative Humidity and Temperature Transmitter, Wall Mount		
Feature	Item	Description
Base Model	WM281-BASE	Base unit
Sig Output	WM281-A	4-20 mA
	WM281-B	0-10 V
	WM281-C	0-5 V
	WM281-D	0-1 V
	WM281-E	0-20 mA
Filter	WM281-H2	SS sintered filter
	WM281-J2	SS sintered filter with teflon coating
	WM281-K7	Delrin cap slotted, with SS mesh filter
	WM281-Z7	Delrin cap slotted, with PTFE filter, white
Temp Low	WM281-0000	0°C (+32°F)
	WM281-N020	-20°C (-4°F)
	WM281-N030	-30°C (-22°F)
Temp High	WM281-P020	+20°C (+68°F)
	WM281-P030	+30°C (+86°F)
	WM281-P050	+50°C (+122°F)
	WM281-P070	+70°C (+158°F)
	WM281-XXXX	Other output scaling available on request

WM291

Digital Relative Humidity & Temperature Transmitter, Wall Mount



The WM291 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.

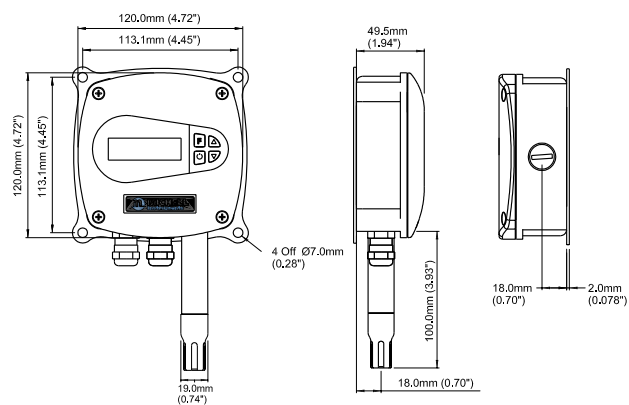
Highlights

- Three outputs
- 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
- Available with calculated absolute humidity, dew-point, frost point, mixing ratio or specific enthalpy output

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	0–100% RH
Probe, Housing, Storage	
Operating temperature	
Probe	-30 to +85°C (-22 to +185°F)
Housing	-20 to +70°C (-4 to +158°F)
Storage	-30 to +70°C (-22 to +158°F)
Mechanical specification	
Ingress protection	IP65 (NEMA 4 level)
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, ø19mm (L=3.93", ø0.74")
Weight	450g (15.87oz)
Electrical connections	Screw terminals
Display resolution	LCD, 2 lines x 16 characters

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 (optional)
7	Output Channel 2 RH +	14	Output Channel 3 Ground (optional)
Do not connect pin 2 (V -) to pin 4 (Ground)			

Ordering Example

WM291-BASE-A-0-K7-N030-P070

RH & temp transmitter WM291 for wall-mounting, 4-20 mA output, dp display -40 to +100°C, Delrin cap slotted, with stainless steel mesh filter, temp range -30 to +70°C (-22 to +158°F)

Order Codes

WM291 - Digital Relative Humidity and Temperature Transmitter, Wall Mount		
Feature	Item	Description
Base Model	WM291-BASE	Base unit
Sig Output	WM291-A	4-20 mA
	WM291-B	0-10 V
	WM291-C	0-5 V
	WM291-D	0-1 V
	WM291-E	0-20 mA
3rd Output	WM291-0	Dew point: -40 to +100°C
	WM291-1	Mixing ratio: 0-500 gr/Kg
	WM291-2	Absolute Humidity: 0 - 600 g/m ³
	WM291-3	Specific enthalpy: -40 to 1500 KJ/Kg
	WM291-4	Frost point: -50 to +10°C
Filter	WM291-H2	SS sintered filter
	WM291-J2	SS sintered filter with teflon coating
	WM291-K7	Delrin cap slotted, with SS mesh filter
	WM291-Z7	Delrin cap slotted, with PTFE filter, white
Temp Low	WM291-0000	0°C (+32°F)
	WM291-N020	-20°C (-4°F)
	WM291-N030	-30°C (-22°F)
Temp High	WM291-P020	+20°C (+68°F)
	WM291-P030	+30°C (+86°F)
	WM291-P050	+50°C (+122°F)
	WM291-P070	+70°C (+158°F)
	WM291-XXXX	Other output scaling available on request

DT269

Digital Relative Humidity & Temperature Transmitter, Duct Mount

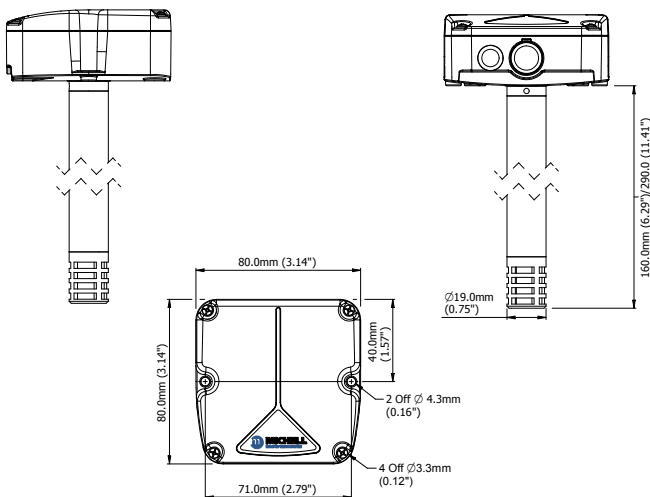


The DT269 transmitter has a I7000 Hygrosmart module. Thanks to this solution, the sensor can be changed on site quickly and simply, providing greatly reduced maintenance costs. The transmitter does not need re-calibration after the sensor is changed.

Highlights

- Designed for accurate measurement in a controlled environment
- Based on the interchangeable Hygrosmart module
- Temperature output scaling configurable on request
- Linearization for a specific isotherm on request

Dimensions





Technical Specifications

Performance		
Measurement range (RH)	0–100% RH	
Measurement range (T)	-20 to +80°C (-4 to +176°F)	
Accuracy at 23°C (73°F) Humidity	<±2% RH (5–95% RH)	
Accuracy at 23°C (73°F) Temperature	Pt100 1/3 DIN direct ±0.2°C (±0.36°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 (RH) configurable on request	4–20 mA 0–1, 0–5, 0–10 V	
Output signal (T) configurable on request	4–20 mA 3-wire 1/3 DIN Pt100 direct 0–1, 0–5, 0–10 V	
Supply voltage	Output 4–20 mA: Output 0–10 V: Output 0–5 V: Output 0–1 V:	V+ = 12–30 V DC V+ = 15–30 V DC V+ = 10–30 V DC V+ = 8–30 V DC
Load resistance	Output 4–20 mA: Output 0–10 V: Output 0–5 V: Output 0–1 V:	Rload < (Uv-9) / 0.02 R > 10 k Ω R > 5 k Ω R > 1 k Ω
Current consumption	2 x 20 mA max	
Operating conditions		
Operating humidity	Probe 0–100% RH Housing, Storage 0–98% RH (non-condensing)	
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	IP65 (NEMA 4 level)	
Material	PPO + POM	
Dimensions	Housing 80 x 80 x 34.5mm (3.14 x 3.14 x 1.35") Probe L=85/178mm, ø19mm (L=3.35/7.01", ø0.75")	
Weight	100g (3.53oz)	
Electrical connections	Screw terminals	

Accessories and Spare Parts

Al mounting flange for Ø19mm (0.75") SS probes	FLA019
SS sintered filter	H4
ABS cap slotted with PTFE filter, white	Z2
Hygrosmart without Pt100 output (RH = 0–1 V)	I7-0-00-0
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

Version mA output and Pt100 direct		Version mA output for RH and Temperature		Version V output and Pt100 direct		Version V output for RH and Temperature	
Pin 1	Output RH +	Pin 1	Output temperature +	Pin 1	Power supply V +	Pin 1	Power supply V +
Pin 2	Output RH -	Pin 2	Output Temperature -	Pin 2	Common ground	Pin 2	Common ground
Pin 3	 Pt100 direct	Pin 3	Output RH +	Pin 3	Output RH +	Pin 3	Output Temperature +
Pin 4		Pin 4	Output RH -	Pin 4	 Pt100 direct	Pin 4	Output RH +
Pin 5		Warning: Temperature channels Pin 1 and Pin 2 must be powered always		Pin 5			

Ordering Example

DT269-BASE-A-4-E0-H4

RH & temp transmitter DT269, 4-20 mA output, -30 to +20°C (-22 to +68°F) temp range, 160mm (6.30") probe length, stainless steel sintered filter

Order Codes

DT269 - Digital Relative Humidity and Temperature Transmitter, Duct Mount		
Feature	Item	Description
Base Model	DT269-BASE	Base unit
Sig Output	DT269-A	4-20 mA
	DT269-B	0-5 V
	DT269-C	0-10 V
	DT269-D	0-1 V
Temp	DT269-0	No temperature output
	DT269-1	Pt100 direct
	DT269-3	-30 to +70°C (-22 to +158°F)
	DT269-4	-30 to +20°C (-22 to +68°F)
	DT269-5	0 to +50°C (+32 to +122°F)
	DT269-6	-20 to +80°C (-4 to +176°F)
	DT269-TX	Other output scaling available on request
Length	DT269-E0	160mm (6.29") probe length
	DT269-E1	290mm (11.41") probe length
Filter	DT269-H4	SS sintered filter
	DT269-Z2	ABS cap slotted with PTFE filter, white

DT722

Rugged Industrial Relative Humidity and Temperature Transmitter, Duct Mount



The DT722 is a rugged industrial relative humidity and temperature transmitter designed for process applications where accurate, stable measurement and control of humidity and temperature is required.

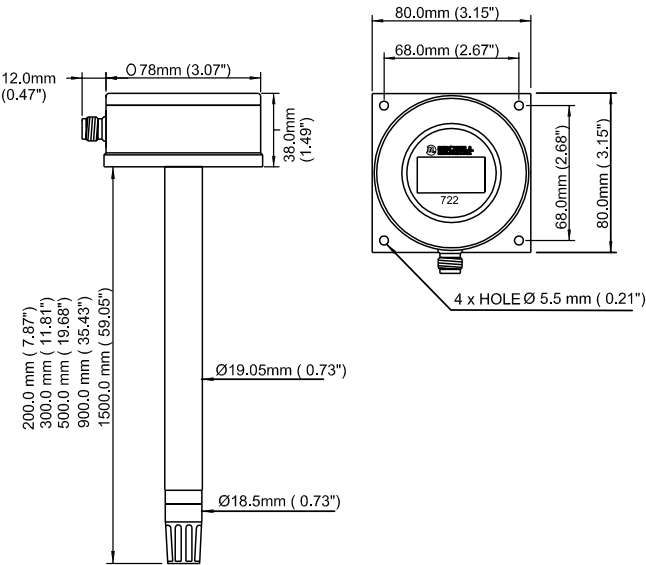
Highlights

- Designed for accurate measurement in a harsh environment
- Can withstand temperatures up to 150°C (300°F)
- Stainless steel housing
- Calculated moisture signal output, optional

Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	–40 to +150°C (–40 to +302°F)
Accuracy at 25°C (77°F) Humidity	<±2% RH (5–95% RH)
Accuracy at 25°C (77°F) Temperature	±0.2°C (±0.36°F) typical
Stability – RH Sensor	±1% RH/year
Response time – RH Sensor	<10 sec typical (for 90% of the step change)
Electrical output/input	
Output signal	4–20 mA
Supply voltage	8–35 V DC
Supply voltage influence	±0.01 % RH/V typical
Operating conditions	
Operating humidity	Probe, Housing, Storage 10–95% RH (non-condensing)
Operating temperature	Probe –40 to +150°C (–40 to +302°F) Housing –30 to +70°C (–22 to +158°F) Storage –40 to +75°C (–40 to +167°F)
Mechanical specification	
Ingress protection	IP65 (NEMA 4 level)
Housing material	Stainless steel
Weight	200mm: 800g (7.87": 28.22oz) 300mm: 900g (11.81": 31.75oz) 500mm: 1040g (19.69": 2.29lb)
Electrical connections	4 pin, M12

Dimensions



Accessories and Spare Parts

19mm (0.75") Slotted protection cap black	A000002
19mm (0.75") PVDF filter	A000014
19mm (0.75") PVDF filter w/ protection cap black	A000015
19mm (0.75") Mesh filter w/ protection cap black	A000021
19mm (0.75") Arrow SS sintered filter 5µm / 10µm / 20µm	A000025/26/27
19mm (0.75") connector, no cable, w/screw terminal	A000030
19mm (0.75") Connector, with cable (customer spec length)	A000030XM
19mm (0.75") connector with 2m (6.5') cable	A000031
19mm (0.75") connector with 5m (16') cable	A000032
19mm (0.75") Foil filter 2µm w/protection cap black	A000040
Oleophobic foil filter 0.7µm w/prot cap black	A000042
19mm (0.75") Foil filter 1.5µm w/protection cap black	A000044
3/4" NPT SS adj. fitting for SS probes	A000100
Al mounting flange for ø19mm (0.75") SS probes (outside ø80mm (3.15"))	A000110
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

Connections		
Cable	Pin	
White	Pin 1	Output RH +
Brown	Pin 3	Output RH -
Green	Pin 4	Output T +
Yellow	Pin 2	Output T -
Connect RH + with T + by user		

Ordering Example

DT722-BASE-SX-A-HT0-03-CA-F02

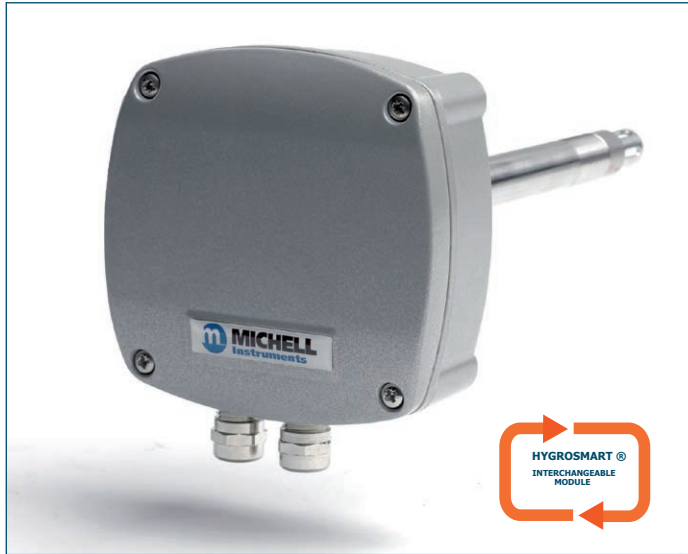
RH & temp transmitter DT722, no display, Output 1 - calc absolute humidity, Output 2 - temp output 0 to +100°C (+32 to +212°F), 300mm (11.81") probe length, no cable, 19mm slotted protection cap black

Order Codes

DT722 - Rugged Industrial Relative Humidity and Temperature Transmitter, Duct Mount		
Feature	Item	Description
Base Model	DT722-BASE	Base unit
Display	DT722-SD	Display
	DT722-SX	No display
Moist. Sig	DT722-H	RH
	DT722-D	Calculated dp temp & temp output (Range (Td) -40 to +60°C (-40 to +140°F)) (Choose only HT0)
	DT722-A	Calc absolute humidity (Abs) & temp output (Range Abs from 0-200g/m3) (Choose only HT0)
	DT722-W	Calculated wetbulb temp & temp output (Range (Tw) -40 to +60°C (-40 to +140°F)) (Choose only HT0)
Temp	DT722-HT0	0 to +100°C (+32 to +212°F)
	DT722-HTS	-40 to +150°C (-40 to +302°F)
	DT722-TX	Other output scaling available on request
Length	DT722-02	200mm (7.87") probe length
	DT722-03	300mm (11.81") probe length
	DT722-05	500mm (19.69") probe length
	DT722-09	900mm (35.43") probe length
	DT722-15	1500mm (50.06") probe length
Cable	DT722-CA	No cable
	DT722-CB	19mm (0.75") connector, no cable, w/screw terminal
	DT722-CC	19mm (0.75") connector with 2m (6.5') cable
	DT722-CD	19mm (0.75") connector with 5m (16') cable
Filter	DT722-F02	19mm (0.75") slotted protection cap black
	DT722-F15	19mm (0.75") PVDF filter with protection cap black
	DT722-F21	19mm (0.75") Mesh filter with protection cap, black
	DT722-F25	19mm (0.75") Arrow SS sintered filter 5µm
	DT722-F26	19mm (0.75") Arrow SS sintered filter 10µm
	DT722-F27	19mm (0.75") Arrow SS sintered filter 20µm
	DT722-F40	19mm (0.75") Foil filter 2µm with protection cap black
	DT722-F42	Oleophobic foil filter 0.7µm with protection cap black
	DT722-F44	19mm (0.75") Foil filter 1.5µm w/protection cap black

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.

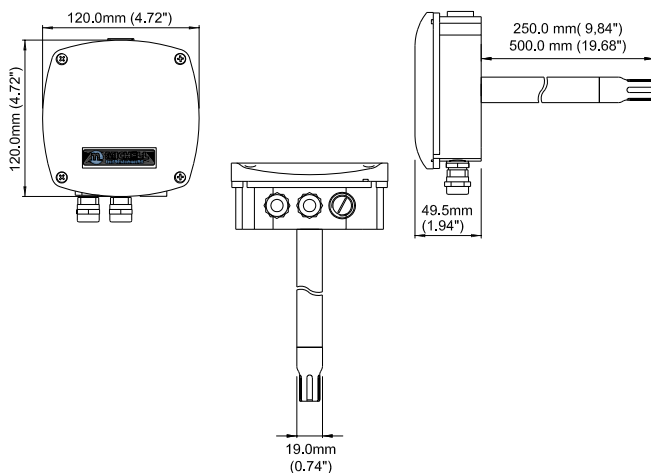
Highlights

- 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: $R \leq 500 \Omega$
Power consumption	1.7 W
Operating conditions	
Operating humidity	0–100% RH
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	Stainless steel AISI 316
Dimensions	
Housing	120 x 120 x 49.5mm (4.72 x 4.72 x 1.94")
Probe	L=250/500mm \varnothing 19mm (L=9.84/19.68" \varnothing 0.74")
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 \varnothing 19mm (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

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

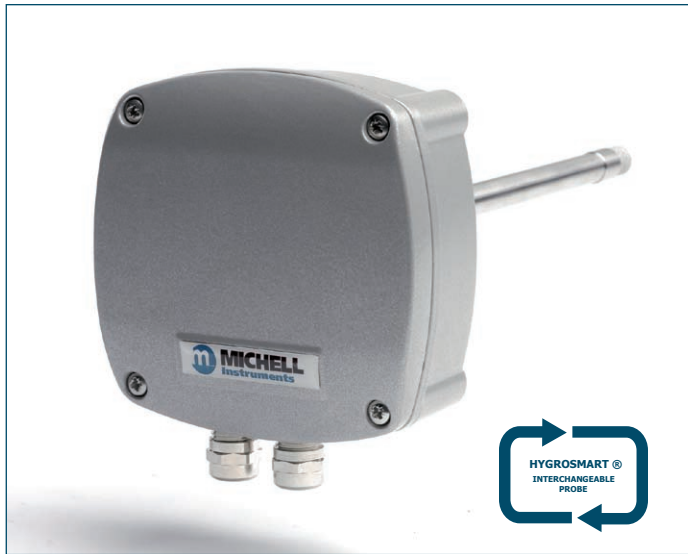
RH & temp transmitter DT282, 4-20 mA output, stainless steel probe 250mm (9.84"), AISI 316 cap slotted with stainless steel mesh filter, temp range -30 to +70°C (-22 to +158°F)

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

DT284

Digital Relative Humidity and Temperature Transmitter - Duct Mount



The DT284 relative humidity transmitter 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.

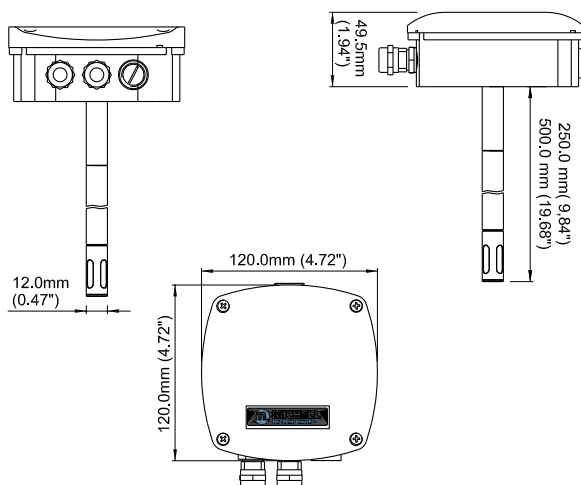
Highlights

- 12mm (0.47") probe diameter
- 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 140°C (284°F)

Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-30 to +140°C (-22 to +284°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 +140°C (-22 to +284°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
Dimensions Housing Probe	120 x 120 x 49.5mm (4.72 x 4.72 x 1.94") L=250/500mm ø12mm (L=9.84/19.68" ø0.47")
Weight	450g (15.87oz)
Electrical connections	Screw terminals

Dimensions



Accessories and Spare Parts

SS probe 250mm (9.84"), SS cover & mesh filter	USTE003
SS probe 500mm (19.69"), SS cover & mesh filter	USTE010
SS probe 250mm (9.84"), SS cover & sinter filter	USTE011
SS probe 500mm (19.69"), SS cover & sinter filter	USTE012
PEEK probe 250mm (9.84") & cover, SS mesh filter	USTE013
PEEK probe 500mm (19.69") & cover, SS mesh filter	USTE014
RS422/485 to PC (RS232) converter	330185
USB cable/software for configuration	F035263
Al mounting flange for ø12mm (0.47") SS probes	FLA012
SS sintered filter	H3
SS sintered filter with teflon coating	J3
SS mesh filter	K8
PEEK protection cap with SS mesh filter	K9
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 Example

DT284-BASE-A-11-N030-P140

RH & temp transmitter DT284, 4-20 mA output, stainless steel probe 250mm (9.84"), stainless steel cover and sintered filter, temp range -30 to +140°C (-22 to +284°F)

Order Codes

DT284 - Digital Relative Humidity and Temperature Transmitter, Duct Mount		
Feature	Item	Description
Base Model	DT284-BASE	Base unit
Sig Output	DT284-A	4-20 mA
	DT284-B	0-10 V
	DT284-C	0-5 V
	DT284-D	0-1 V
	DT284-E	0-20 mA
Probe Type	DT284-3	SS probe 250mm (9.84"), SS cover & mesh filter
	DT284-10	SS probe 500mm (19.69"), SS cover & mesh filter
	DT284-11	SS probe 250mm (9.84"), SS cover & sinter filter
	DT284-12	SS probe 500mm (19.69"), SS cover & sinter filter
	DT284-13	PEEK probe 250mm (9.84") & cover, SS mesh filter
	DT284-14	PEEK probe 500mm (19.69") & cover, SS mesh filter
Temp Low	DT284-0000	0°C (+32°F)
	DT284-N020	-20°C (-4°F)
	DT284-N030	-30°C (-22°F)
Temp High	DT284-P020	+20°C (+68°F)
	DT284-P030	+30°C (+86°F)
	DT284-P050	+50°C (+122°F)
	DT284-P070	+70°C (+158°F)
	DT284-P100	+100°C (+212°F)
	DT284-P140	+140°C (+284°F)
	DT284-XXXX	Other output scaling available on request

WR283

Digital Relative Humidity and Temperature Transmitter - Remote Probe for High Temperatures



The WR283 relative humidity sensor uses the Hygrosmart module, integrated in the interchangeable probe and cable. This device can be used in high-temperature applications thanks to the remote placing of the measurement element and its small overall size. The interchangeable probe allows for simple re-calibration and lower maintenance costs.

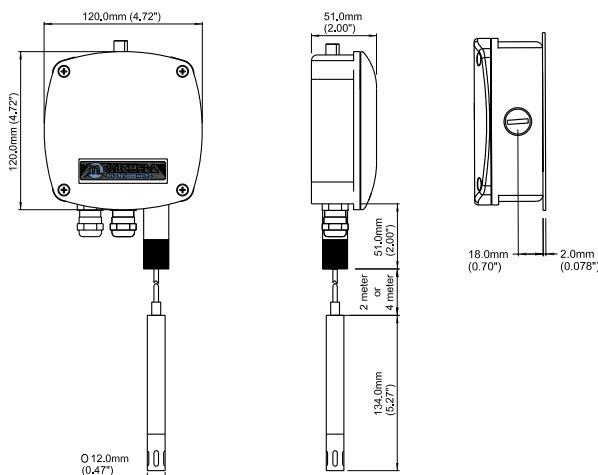
Highlights

- 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 200°C (392°F)

Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-30 to +200°C (-22 to +392°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 +200°C (-22 to +392°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
Dimensions Housing Probe	120 x 120 x 51mm (4.72 x 4.72 x 2.00") L=134mm, ø12mm (L=5.27", ø0.47")
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
AI mounting flange for ø12mm (0.47") SS probes	FLA012
SS sintered filter	H3
SS sintered filter with teflon coating	J3
SS mesh filter	K8
PEEK protection cap with SS mesh filter	K9
SS probe, cover & mesh filter, 2m (6.56') cable	USTE002
SS probe, cover & mesh filter, 4m (13.12') cable	USTE005
SS probe, cover & sinter filter, 2m (6.56') cable	USTE006
SS probe, cover & sinter filter, 4m (13.12') cable	USTE007
PEEK probe, cover, SS mesh filter, 2m (6.56') cable	USTE008
PEEK probe, cover, SS mesh filter, 4m (13.12') cable	USTE009
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 Example

WR283-BASE-A-7-N030-P180

RH & temp transmitter WR283 with 4-20 mA output, stainless steel probe with 4m (13.12') cable and stainless steel sintered filter, temp range -30 to +180°C (-22 to +356°F)

Order Codes

WR283 - Digital Relative Humidity and Temperature Transmitter, Remote Probe for High Temperatures		
Feature	Item	Description
Base Model	WR283-BASE	Base unit
Sig Output	WR283-A	4-20 mA
	WR283-B	0-10 V
	WR283-C	0-5 V
	WR283-D	0-1 V
	WR283-E	0-20 mA
Probe Type	WR283-2	SS probe, cover & mesh filter, 2m (6.56') cable
	WR283-5	SS probe, cover & mesh filter, 4m (13.12') cable
	WR283-6	SS probe, cover & sinter filter, 2m (6.56') cable
	WR283-7	SS probe, cover & sinter filter, 4m (13.12') cable
	WR283-8	PEEK probe, cover, SS mesh filter, 2m (6.56') cable
	WR283-9	PEEK probe, cover, SS mesh filter, 4m (13.12') cable
Temp Low	WR283-0000	0°C (+32°F)
	WR283-N020	-20°C (-4°F)
	WR283-N030	-30°C (-22°F)
Temp High	WR283-P020	+20°C (+68°F)
	WR283-P030	+30°C (+86°F)
	WR283-P050	+50°C (+122°F)
	WR283-P070	+70°C (+158°F)
	WR283-P100	+100°C (+212°F)
	WR283-P140	+140°C (+284°F)
	WR283-P150	+150°C (+302°F)
	WR283-P180	+180°C (+356°F)
	WR283-P200	+200°C (+392°F)
	WR283-XXXX	Other output scaling available on request

WR285

Digital Relative Humidity Transmitter - Remote Probe for Pressurized Applications up to 30 bar (3Mpa)



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 re-calibration 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: $R \leq 500 \Omega$
Power consumption	1.7 W

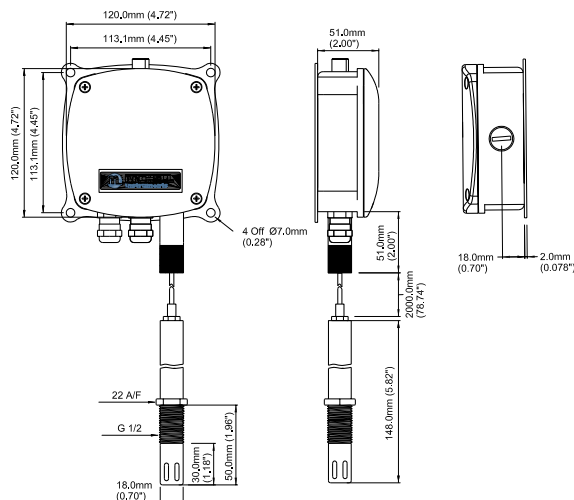
Operating conditions

Operating humidity	Probe, Housing, Storage 0–100% RH
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, \varnothing 18mm (L=5.82", \varnothing 0.70")
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

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 Example

WR285-BASE-A-15-K1

Relative humidity transmitter WR285, 4-20 mA output, stainless steel probe with 2m (6.56') cable, stainless steel cap with mesh filter

Order Codes

WR285: Digital Relative Humidity Transmitter - Remote Probe for Pressurized Applications up to 30 bar (3Mpa)		
Feature	Item	Description
Base Model	WR285-BASE	Base unit
Sig Output	WR285-A	4-20 mA
	WR285-B	0-10 V
	WR285-C	0-5 V
	WR285-D	0-1 V
	WR285-E	0-20 mA
Probe Type	WR285-15	SS interchangeable probe with 2m (6.56') cable
Filter	WR285-K1	SS cap slotted with mesh filter
	WR285-Z1	SS cap slotted with PTFE filter

WR293

Digital Relative Humidity and Temperature Transmitter - Remote Probe for High Temperatures

Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-30 to +200°C (-22 to +392°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 +200°C (-22 to +392°F) -30 to +70°C (-22 to +158°F) -40 to +70°C (-40 to +158°F)
Mechanical specification	
Ingress protection	IP65 (NEMA 4 level)
Material Housing Probe	Aluminum die casting Stainless steel
Dimensions Housing Probe	120 x 120 x 51mm (4.72 x 4.72 x 2.00") L=134mm, ø12mm (L=5.27", ø0.47")
Weight	450g (15.87oz)
Electrical connections	Screw terminals
Display resolution	LCD, 2 lines x 16 characters



The WR293 relative humidity transmitter 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 re-calibration and lower maintenance costs.

Highlights

- Three outputs
- Analog and digital output standard
- Interchangeable probe
- Analog output signals selectable through software
- Metric or US measurement units selectable through software
- Available with calculated absolute humidity, dew-point, frost point, mixing ratio or specific enthalpy output
- Can withstand temperatures up to 200°C (392°F)

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