Model SRH300

Humidity and Temperature Transmitter

Features

- Excellent long-term stability
- BACnet MS/TP and Modbus RTU compatible
- Sensor coating protects sensing element and extends performance
- Display with selectable layout
- Wall, duct, and remote probe options available

Applications

- HVAC
- Cleanrooms
- Operating rooms
- Patient isolation rooms
- Pharmaceutical labs
- Industrial manufacturing
- Compounding pharmacies

The Setra Model SRH300 meets the highest requirements in demanding climate control applications. In addition to the accurate measurement of relative humidity (RH) and temperature (T), the Model SRH300 calculates various RH related parameters such as dew point, absolute humidity and mixing ratio.

Compatible on multiple protocols

All measured and calculated values are available through analog, BACnet MS/TP or Modbus RTU communication. Up to three of these values can be shown simultaneously on the customizable display.

Suitable for harsh environments

Excellent performance of the Model SRH300 in aggressive or polluted environments is ensured by encapsulating the measurement electronics inside the sensing probe with a proprietary coating.

The Model SRH300 is available in wall or duct mounted versions as well as with remote probe. The IP65/NEMA4 enclosure minimizes installation costs and provides outstanding protection against contamination and condensation.

With the optional configuration accessories (SRHPCA1 and SRHPCA3), the user can set RS485 interface parameters, custom output scaling, and perform one or two-point adjustment of RH and temperature on any SRH300 unit.

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Ordering information

General

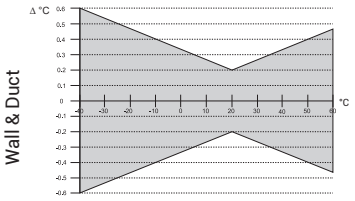
Power Supply	
for 4-20 mA, 2-wire:	10 V + R_L x 20 mA < V+ < 30 VDC
for 0-20 mA, 3-wire:	15-30 VDC or 24 VAC ±20%
0-5 V, 0-10 V, RS485:	15-30 VDC or 24 VAC ±20%
Current consumption at 24 V	
Voltage output:	DC supply max: 12 mA; w/display max: 23 mA AC supply max: 34 mA_{rms}; / display max: 49 mA_{rms}
Current output (2-wire):	DC supply max: 40 mA; w/display max: 40 mA
Current output (3-wire):	DC supply typ: 33 mA; w/display max: 44 mA AC supply typ: 65 mA_{rms}; / display max: 84 mA_{rms}
Digital interface:	DC supply typ: 5 mA; w/display max: 20 mA AC supply typ: 15 mA_{rms}; / display max: 35 mA_{rms}
Display	1, 2 or 3 lines, user configurable
Connection	Screw terminals, max. wire 16 AWG
Housing material	Housing: Polycarbonate, UL94V-0 Faceplate: Polycarbonate UL94HB
Protection class	IP65/ NEMA 4
Gland fitting	PG9
Remote probe cable	PVC, Ø 4.3mm, 4 x 23 AWG; Length: 1.5 or 3 m (4.9 or 9.8 ft.)
Electromagnetic compatibility	EN61326-1 EN61326-2-3 Industrial Environment
Temperature ranges	Operating: -4 to 122°F (-20 to 50°C) Storage: -4 to 140°F (-20 to 60°C)

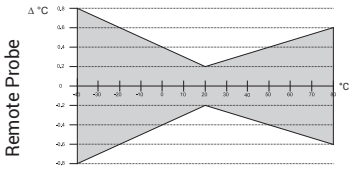
Specifications subject to change without notice.

Measured values

Relative humidity (RH) Sensor	HCT01-00D
Working range (RH)	0-100% RH
Accuracy including non-linearity, hysteresis, and repeatability at 5 to 105°F ; 50% RH	±1.45% RH
Remote probe accuracy including non-linearity, hysteresis, and repeatability at 5 to 70°F ; 50% RH	±2.5% RH

T-accuracy





Outputs

Analog output	
0-5 V, 0-10 V:	-1 mA < I_L < 1 mA
4-20 mA (2-wire):	R_L ≤ 500 Ω
0-20 mA (3-wire):	R_L ≤ 500 Ω
Digital output	RS485 (BACnet MS/TP or Modbus RTU), max. 32 SRH300 units on one bus

Ordering information

Example part number (base unit): SRH30011D105SSNAAA;
Model SRH300 humidity transmitter, 4-20 mA output, duct mount, one sensor port, 50mm probe length, SST sintered filter, non-metric units, Analog

S	R	H	3	0	0	☐	☐	☐	1	☐	☐	☐	☐	☐	☐	☐	☐
[1]						[2]		[3]	[4]	[5]		[6]		[7]	[8]	[9]	[10]

[1]

Model
SRH300

[2]

Output	
11	4 to 20 mA
2C	0 to 10 V
A2	BACnet
M3	Modbus

[3]

Type	
W	Wall mount
D	Duct mount
N	Duct mount (no display)
M	Wall mount (no display)

[4]

Number of sensor ports	
1	One

[5]

Probe length	
05[1]	50 mm long
20	200 mm long
1R	Remote probe 1.5M cable
3R[3]	Remote probe 3.5M cable

[6]

Filter type	
SS	Sintered

[7]

Units	
M	Metric
N	Non-metric

[8]

Baud rate	
A	Analog unit
1	9600
2	19200
3	38400
4[2]	51600
5[2]	76800
6[2]	115200

[9]

Parity	
A	Analog unit
B	BACnet unit
1	Odd
2	Even
N	No parity

[10]

Stop bits	
A	Analog unit
B	BACnet
1	1 stop bit
2	2 stop bits

[1] Wall mount probe length standard 50 mm.
[2] Only available with output option "A2".
[3] Configuration codes 6 through 10 can be re-configured after purchase

Accessories

Filters

SRHMF	Membrane filter
SRHSS	SST sintered filter
SRHPG	Plastic grid filter
SRHPF	PTFE filter, 12mm diameter
SRHMG	Metal grid filter
SRHHP	H_2O_2 filter

Probe configuration adapter

SRHPCA1	Configuration transmitter, RS232/USB
SRHPCA3	Configuration cable, SRH300 analog

Flanges

SRHSMF	SST mounting flange, 12mm
SRHPMFG	Plastic mounting flange, grey
SRHWMC	Wall mounting clip, 12mm probe diameter
SRHPMFB	Plastic mounting flange, 12mm, black

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