



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 (SETRAPCA1 and SETRAPCA3), 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:	$10\text{ V} + R_L \times 20\text{ mA} < V+ < 30\text{ VDC}$
for 0-20 mA, 3-wire:	15-30 VDC or 24 VAC $\pm 20\%$
0-5 V, 0-10 V, RS485:	15-30 VDC or 24 VAC $\pm 20\%$

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.

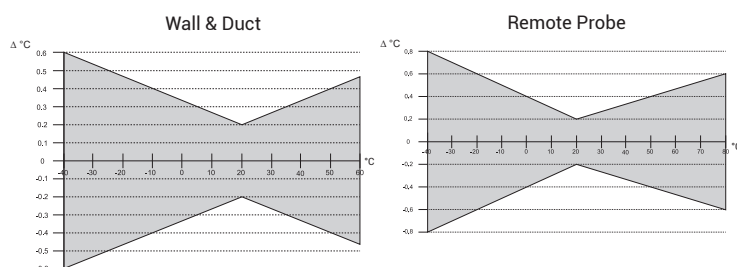
Measured values

Working range (RH) 0-100% RH

Accuracy including non-linearity, hysteresis, and repeatability at 5 to 105°F ; 50% RH $\pm 1.45\%$ RH

Remote probe: accuracy including non-linearity, hysteresis, and repeatability at 68°F $\pm 2.5\%$ RH

T-accuracy



Outputs

Analog output

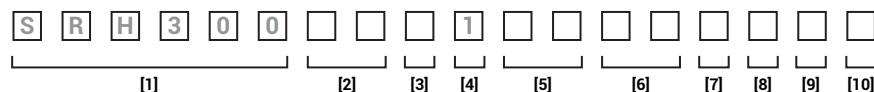
0-5 V, 0-10 V: $-1\text{ mA} < I_L < 1\text{ mA}$

4-20 mA (2-wire): $R_L \leq 500\ \Omega$

0-20 mA (3-wire): $R_L \leq 500\ \Omega$

Digital output RS485 (BACnet MS/TP or Modbus RTU),
max. 32 SRH300 units on one bus

Ordering information



Integrated probe model

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

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Model	Output	Type	Number of sensor ports	Probe length	Filter type	Units	Baud rate	Parity	Stop bits
SRH300	11 4 to 20 mA	W Wall mount	1 One	05¹ 50 mm long	SS Sintered	M Metric	A Analog unit	A Analog unit	A Analog unit
	2C 0 to 10 V	D Duct mount		20 200 mm long		N Non-metric	1 9600	B BACnet unit	B BACnet
	A2 BACnet	N Duct mount (no display)					2 19200	1 Odd (Modbus)	1 1 stop bit (Modbus)
	M3 Modbus	M Wall mount (no display)					3 38400	2 Even (Modbus)	2 2 stop bits (Modbus)
							4² 51600	N No parity	
							5² 76800		
							6² 115200		

¹ Wall mount probe is only available in 50mm length.

² Only available with output option "A2" BACnet.

³ Configuration codes [6] through [10] can be re-configured after purchase with a configuration adapter.

The "Type" [3] configuration selects the mounting hardware for the probe.

wall mount configuration includes (SRHWMC)

duct mount configuration includes (SRHMF)

Remote probe model

Example part number (base unit): SRP30011D1RPNNAAA;

Model SRP300 humidity transmitter, 4-20 mA output, duct mount, one sensor port, remote probe length, no filter type, non-metric units, Analog

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Model	Output	Type	Number of sensor ports	Probe length	Filter type	Units	Baud rate	Parity	Stop bits
SRH300	11 4 to 20 mA	W Wall mount	1 One	RP Remote probe	NN N/A	M Metric	A Analog unit	A Analog unit	A Analog unit
	2C 0 to 10 V	D Duct mount				N Non-metric	1 9600	B BACnet unit	B BACnet
	A2 BACnet	N Duct mount (no display)					2 19200	1 Odd (Modbus)	1 1 stop bit (Modbus)
	M3 Modbus	M Wall mount (no display)					3 38400	2 Even (Modbus)	2 2 stop bits (Modbus)
							4² 51600	N No parity	
							5² 76800		
							6² 115200		

Probe & cable assembly (Ordered with the Remote probe model)

Model	Measurement	Filter type	Probe material	Cable length
SRP300	HT RH & Temp	SS Sintered filter	P Polycarbonate	E 1.5m cable
				T 3m cable

The "Type" [3] configuration selects the mounting hardware for the probe.

wall mount configuration includes (SRHWMC)

duct mount configuration includes (SRHMF)

¹ Only available with Output option "A2" BACnet

² Configuration codes [6] through [10] can be re-configured after purchase with a configuration adapter.

Accessories

Filters

SRHMF	Membrane filter
SRHSS	SST sintered filter
SRHPG	Plastic grid filter
SRHPF	PTFE filter
SRHMG	Metal grid filter
SRHHP	H ₂ O ₂ filter

Recalibration

SRH300SCAL	SRH300 calibration to ISO standard
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Flanges

SRHPMFB	Plastic duct mounting flange, black
SRHPMFG	Plastic duct mounting flange, grey
SRHWMC	Wall mounting clip

Probe configuration adapter

SETRAPCA1	Configuration transmitter, RS232/USB
SETRAPCA3	Configuration cable, SRH300 analog/digital & SRH200 digital



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