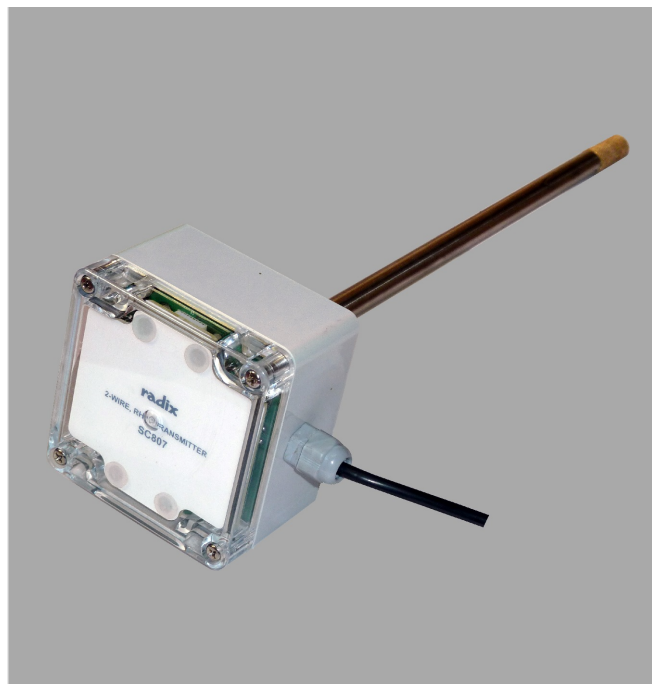




- 2 x 4~20 mA outputs
- True 2-wire operation
- Accuracy : $\pm 2\%$ RH, $\pm 0.5\text{ }^{\circ}\text{C}$
- Software calibration - no trim pots
- 4.5~32 V DC loop supply
- PC programmable

SC807 is a microcontroller based, high performance 2-wire RH+T transmitter.

It can be factory configured for 2 x RH outputs, 2 x Temperature outputs, or 1 x RH + 1 x T output.

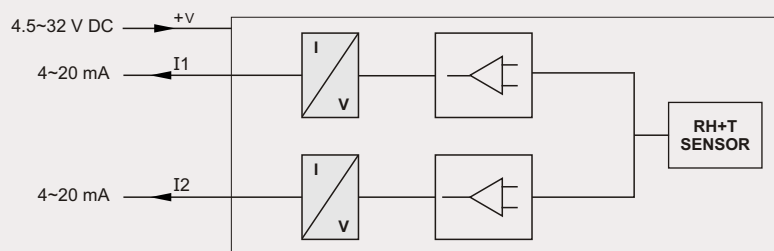
Its high reliability industrial design offers some unique functions.

The loop drop of 4.5 V is the lowest amongst such products.

The RH+T transmitter is available in surface mount, duct mount and remote sensor versions.

It is PC programmable using PC Configurator PCC82

CONNECTION DIAGRAM



2 x 4~20 mA OUTPUTS, IP65

SPECIFICATIONS All specifications at ambient of 25 °C, unless specified otherwise

INPUT

Sensor type	Capacitive for RH, Semiconductor (Band gap) for temperature
Range limits	
Normal	0~100% RH, non-condensing -20~100 °C (-4~212 °F)
Maximum	-40~120 °C (-40~248 °F) (See fig.1)
Standard Calibration	0~100% RH : 4~20 mA, 0~50 °C : 4~20 mA Other calibration ranges, eg. 25~95 %RH & 0~75 °C, can be programmed through PC using PC Configurator PCC82

MONITORING

Sensor break detection	
Upscale current	~22 mA
Downscale current	~3.9 mA

OUTPUTS

Current output	
Output1	2-wire, 4~20 mA (RH or T)
Output2	2-wire, 4~20 mA (RH or T)
Permissible load	800 Ω @ 24 V DC, 20 mA (See fig.2)
Current limit	~22 mA

ACCURACY

Linearity & calibration	± 2% RH, ± 0.5 °C
Temperature effect on accuracy	± 0.5% of span / 25 °C
Supply voltage effect	± 0.002% of span / V
Supply ripple effect, 50/60 hz, 5 Vp - p	± 0.005% of span

POWER SUPPLY

Supply voltage	4.5~32 V DC
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TEMPERATURE, HUMIDITY

Ambient, storage	-25 to +70 °C
Ambient, operation	-20 to +50 °C
Relative humidity	0 ~ 100% RH

MECHANICAL

SURFACE/WALL MOUNT

Dimensions	See fig.3
Cable gland	PG7, suitable for cable dia 3 to 6.5 mm

DUCT MOUNT

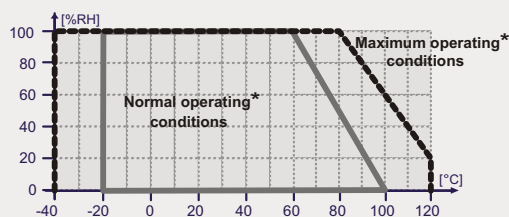
Dimensions	See fig.4
Process connection	½" BSP adjustable compression fitting
Cable gland	PG7, suitable for cable dia 3 to 6.5 mm

MOC

Enclosure	ABS plastic
Sensor tube	SS304
Filter	Sintered bronze
Protection	IP65, except sensor tube

OPERATING RANGE OF SENSOR

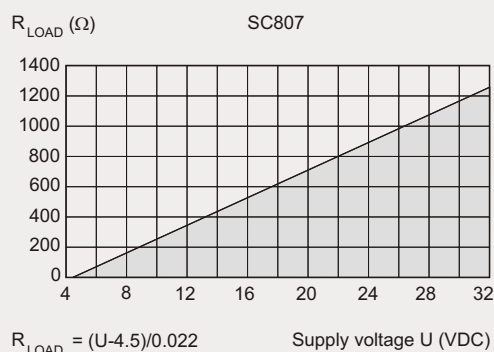
Fig 1



* Normal operating conditions : RH+T limits for continuous safe use
Maximum operating conditions : RH+T limits for use for short
periods of time without damage

OUTPUT LOAD

Fig 2

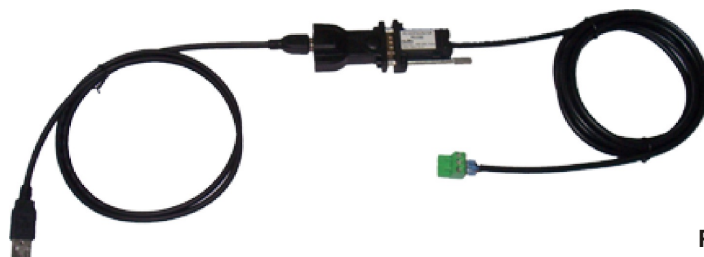


2-WIRE, RH + TEMPERATURE TRANSMITTER — SC807

2 x 4~20 mA OUTPUTS, IP65

PCC82 - PC CONFIGURATOR FOR SC807

SC807 can be configured using the PC Configurator PCC82. This can be connected to the USB port of any computers. PCC82 is supplied with an installable software on 1 CD.



PCC82 - with USB adaptor

PCC82- v79.1 PC Configurator For RH+T Transmitters - Advanced Version

radix

CONFIGURATION | CALIBRATION | ADVANCED | README

INPUT PARAMETERS

RELATIVE HUMIDITY		TEMPERATURE	
ZERO CORRECTION (BIAS)	RESOLUTION	ZERO CORRECTION (BIAS)	RESOLUTION
0.0 %RH Adjust Permitted Values -10.0 %RH 10.0 %RH MIN MAX	☒ 1 ☐ 0.1	0.0 °C Adjust Permitted Values -10.0 °C 10.0 °C MIN MAX	☒ 1 ☐ 0.1
		UNIT	
		☒ °C ☐ °F	

OUTPUT PARAMETERS

SELECT OUTPUT NO. **OUTPUT1 ASSIGNED TO**

OUTPUT 1 ☒ RH ☐ T

INPUT RANGE FOR OUTPUT1	OUTPUT1 TYPE	OUTPUT1 SENSOR BREAK DETECTION
Lower Value Upper Value 0 %RH 100 %RH Adjust Adjust Range Limits 0 %RH 100 %RH Low High	☒ 4-20 mA ☐ 20-4 mA	Output Action ☐ Downscale ☒ Upscale Preset Output Value 22.0 mA Adjust
DISPLAY OUTPUT1		
☐ yes ☒ No		

PV 1	OUTPUT 1
23.5 °C	8.576 mA
PV 2	OUTPUT 2
75.1 %RH	10.66 mA

SAVE TO DEVICE **READ DEVICE** **EXIT CONFIGURATOR**

2-WIRE, RH + TEMPERATURE TRANSMITTER

SC807

2 x 4~20 mA OUTPUTS, IP65

DIMENSIONAL DETAILS

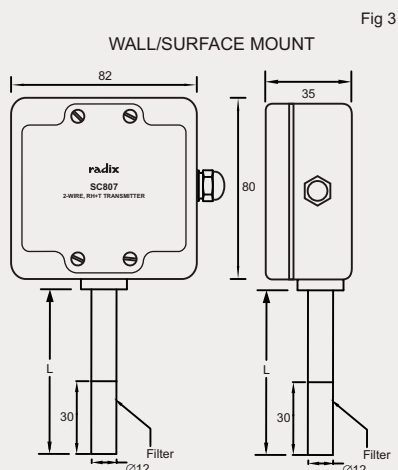


Fig 3

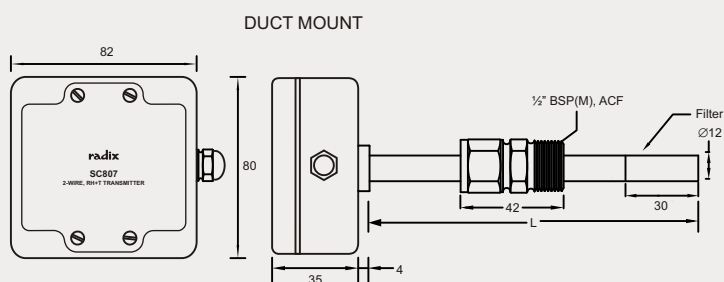


Fig 4

ORDERING INFORMATION

SC807 - Surface / Wall Mount will be supplied with the following standard specifications :

Range	% RH	0 ~ 100%
	T	0 ~ 50 °C
Immersion length (L)		70 mm (See Fig 3)
Filter		Sintered bronze
Sensor break		> 20 mA

ORDER CODE : 2340

Ordering Options

The following ordering options are available on request. Minimum order quantity and/or minimum order value may apply.

Option details
1. Customer specified immersion length (>70 mm)
2. Dual % RH outputs - 2 x 4 to 20 mA
3. Customer specified RH and T ranges
4. Remote sensor (upto 25 meters from instrument)
5. SS wiremesh filter

SC807 - Duct Mount will be supplied with the following standard specifications :

Range	% RH	0 ~ 100%
	T	0 ~ 50 °C
Immersion length (L)		300 mm (See Fig 4)
Filter		Sintered bronze
Sensor break		> 20 mA

ORDER CODE : 2323

Ordering Options

The following ordering options are available on request. Minimum order quantity and/or minimum order value may apply.

Option details
1. Customer specified immersion length
2. Dual % RH outputs - 2 x 4 to 20 mA
3. Customer specified RH and T ranges
4. SS wiremesh filter

PC CONFIGURATOR - PCC82

Order code

2292

OTHER RELATED PRODUCTS

2-WIRE, RH + TEMPERATURE TRANSMITTER

SC805



Similar to SC807, but with LCD display

ELIPSE SCADA FOR DATALOGGING



radix®

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TTC Indl. Area, MIDC, Mahape
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