

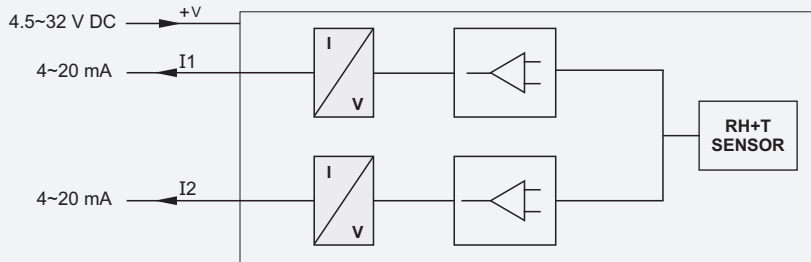
## 2 x 4~20 mA OUTPUTS, WALL / SURFACE - MOUNT



- 2 x 4~20 mA outputs
- True 2-wire operation
- Accuracy :  $\pm 2\%$  RH,  $\pm 0.3\text{ }^\circ\text{C}$
- Software calibration - no trimpots
- 4.5~32 V DC loop supply

SC803 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 sensor is integral with the enclosure.

### CONNECTION DIAGRAM



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

<b>INPUT</b>		<b>POWER SUPPLY</b>	
<b>Sensor type</b>	Capacitive for RH, Semiconductor (Band gap) for temperature	<b>Supply voltage</b>	4.5~32 V DC
<b>Range limits</b>	0~100% RH ,non-condensing -20~50 °C (-4~122 °F)	<b>TEMPERATURE, HUMIDITY</b>	
<b>Standard Calibration</b>	0~100% RH :: 4~20 mA, 0~50 °C :: 4~20 mA For other calibration ranges, eg. 25~95% RH & -20~+20 °C, please specify at the time of ordering	<b>Ambient, storage</b>	-25 to +70 °C
<b>MONITORING</b>		<b>Ambient, operation</b>	-20 to +50 °C
<b>Sensor break detection</b>		<b>Relative humidity</b>	0 ~ 100% RH
<b>Upscale current</b>	~22 mA	<b>MECHANICAL</b>	
<b>Downscale current</b>	~3.9 mA	<b>Dimensions</b>	See fig.2
<b>OUTPUTS</b>		<b>Mounting</b>	Surface / Wall
<b>Current output</b>		<b>Protection</b>	IP65, except filter
<b>Output1</b>	2-wire, 4~20 mA (RH or T)	<b>Cable gland</b>	PG7, suitable for cable dia 3 to 6.5 mm
<b>Output2</b>	2-wire, 4~20 mA (RH or T)	<b>Weight</b>	120 gms
<b>Permissible load</b>	800 @ 24 V DC, 20 mA (See fig.1)	<b>MOC</b>	
<b>Current limit</b>	~22 mA	<b>Enclosure</b>	ABS plastic
<b>ACCURACY</b>		<b>Sensor housing</b>	SS316
<b>Linearity &amp; calibration</b>	2% RH, $\pm 0.5\text{ }^\circ\text{C}$	<b>Filter</b>	Wire mesh, Stainless Steel
<b>Temperature effect on accuracy</b>	0.5% of span / 25 C		
<b>Supply voltage effect</b>	0.002% of span / V		
<b>Supply ripple effect,</b>	0.005% of span		

### OUTPUT LOAD

Fig 1



$$R_{LOAD} = (U-4.5)/0.022 \quad \text{Supply voltage U (VDC)}$$

### ORDERING INFORMATION

SC803 will be supplied with the following standard specifications :

Range	% RH	0 ~ 100%
	T	0 ~ 50 °C
Filter	Wire mesh, Stainless Steel	
Sensor break	> 20 mA	

#### ORDER CODE

2223	A
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A	Configuration	
	Output1 (RH)	Output2 (T)
00	1	1
01	1	0

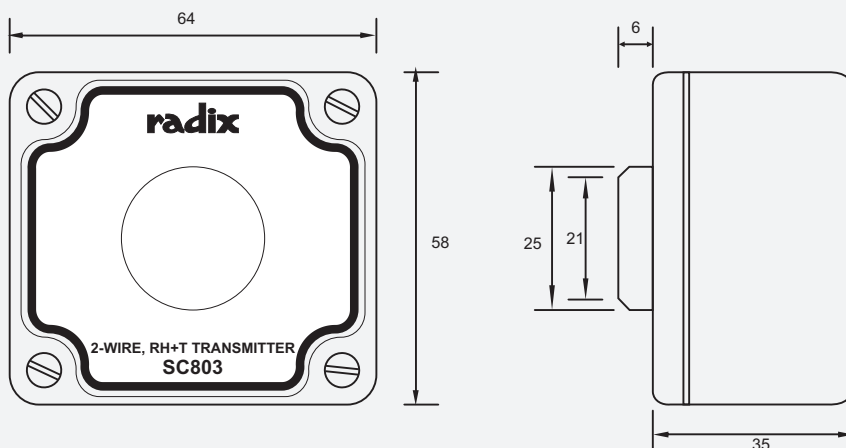
#### Ordering Options

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

Option details	
1.	Input :Remote sensor
2.	Dual % RH outputs - 2 x 4 to 20 mA
3.	Customer specified RH and T ranges

### DIMENSIONAL DETAILS

Fig 2



Product url : [www.radix.co.in/rhtx.htm](http://www.radix.co.in/rhtx.htm)

### OTHER PRODUCTS

#### 2-WIRE, RH+TEMPERATURE TRANSMITTER

SC802

2 x 4~20 mA OUTPUTS

DUCT-MOUNT

IP65



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INSTRUMENTS T : +91 22 42537777 x 701 F : +91 22 42537700 E : sales@radix.co.in  
 SENSORS T : +91 22 42537777 x 732 F : +91 22 42537700 E : sensors@radix.co.in  
 GAUGES T : +91 22 42537777 x 733 F : +91 22 42537700 E : gauges@radix.co.in  
 AUTOMATION C : 0-9322405471 C : 0-9324319150 E : automation@radix.co.in

SALES INQUIRIES

**1800-22-radix**  
**1800-22-7234**

Radix Electrosystems Pvt Ltd, B-14, 2nd Floor, Ghanshyam Indl Estate, Veera Desai Road, Andheri (West), Mumbai - 400 053, India  
 Tel : +91 22 42537777 Fax : +91 22 42537700 Email : sales@radix.co.in www.radix.co.in

[www.radix.co.in](http://www.radix.co.in)