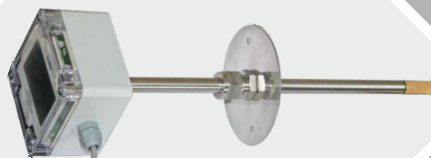
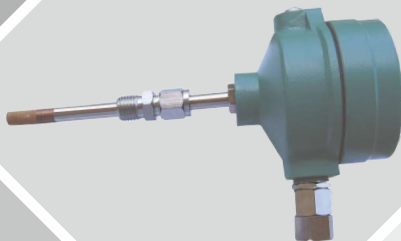
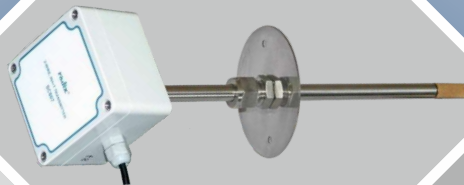


radix®

2-WIRE, RH+T TRANSMITTERS

2 x 4~20 mA OUTPUTS • IP65/IP66 • DUAL LCD DISPLAY • FLAMEPROOF

SC805, SC806, SC807



2-WIRE, RH+T TRANSMITTERS

SC805
Surface mount with
mini round sensor



SC805
Surface mount



SC805
Duct mount



SC806
Flameproof, Wall Mount



SC807
Surface mount with
mini round sensor



SC807
Surface mount



SC807
Duct mount



SC806
Flameproof, Duct mount



SC80X accurately measures humidity using capacitive sensor technology & temperature using band gap sensor technology.

It generates upto two, 2-wire mA outputs that can be assigned to RH or T using optional 7 segment LCD display and keys or remote display module or PC based configurator. Wall mount, duct mount or remote sensor versions available.

FEATURES

Transmitter features

- 2 analog outputs with true 2-wire operation
- Accuracy $\pm 2\%$ RH, $\pm 0.5\text{ }^\circ\text{C}$ for band gap
- Any output can be assigned to RH, T
- The loop drop of 4.5 V is the lowest among such products
- Both outputs are isolated from each other
- Dual row 7 segment LCD option to display RH & Temperature (SC805)
- Parameter configuration via PC configurator using USB to Serial Converter DCC501
- For flameproof version, the heavy-duty metal tube construction and IP66 protection allows use in rough industrial environments

Humidity & temperature sensor features

- Replaceable wall mount, duct mount or remote RH+T sensor option available
- Remote sensor option can be used where space is limited
- Mini round RH+T sensor option (See Fig 6)
- Long term stability of RH+T sensor
- Protected solder pads of sensor for anti corrosion
- Sensor is condensation resistant
- Sintered bronze filter cap, stainless steel or wiremesh option

APPLICATIONS

- Clean room monitoring
- HVAC/building monitoring
- Green house monitoring
- Process system monitoring
- Air economizers, Air quality monitor

2-WIRE, RH+T TRANSMITTERS

SPECIFICATIONS

All specifications at ambient of 25 °C, 24VDC unless specified otherwise

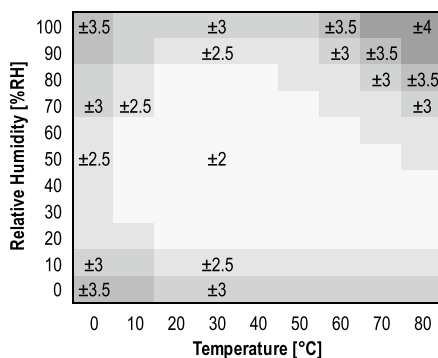
INPUT			OUTPUTS		
Sensor type	RH Temperature	Capacitive Semiconductor (Band gap)	Current output	Output1 Output2	2-wire, 4~20 mA (RH or T) 2-wire, 4~20 mA (RH or T)
Range limits	Default calibration Normal	0~100% RH, non-condensing 0~50 °C (0~158 °F) -40~120 °C (-40~248 °F) (See fig.1)	Permissible load	Current limit	800 Ω @ 24 V DC, 20 mA ~22 mA
Standard calibration	Maximum	0~100% RH : 4~20mA 0~50 °C : 4~20mA Other calibration ranges, eg. 25~95 %RH & 0~75 °C, can be programmed through USB to Serial Converter DCC501	ACCURACY		± 2% RH, ± 0.5 °C (See Fig 1) ± 0.5% of span / 25 °C ± 0.002% of span / V ± 0.005% of span
Display		Dual 7-segment, 4-digit, 0.5" (12.7 mm) LCD (For SC805)	POWER SUPPLY		Supply voltage 4.5~32 V DC loop supply
MONITORING			TEMPERATURE, HUMIDITY		Ambient, storage -20 to +70 °C Ambient, operation -10 to +50 °C Relative humidity 0 ~ 100% RH
Sensor break detection	Upscale current Downscale current	~22 mA ~3.9 mA	MECHANICAL		See Table 1

TABLE1 - MECHANICAL

Parameters	Surface mount	Duct mount	Flameproof surface mount	Flameproof duct mount
Dimensions (in mm)	See Fig 3 & 6	See Fig 4	See Fig 7	See Fig 8
Enclosure housing	ABS plastic	ABS plastic	LM6, pressure die-cast	LM6, pressure die-cast
Protection	IP65	IP65	IP65	IP66
Cable gland	PG7, suitable for cable dia 3 to 6.5 mm	PG7, suitable for cable dia 3 to 6.5 mm	3/4" ET threading gland	3/4" ET threading gland
Certification	-	-	Flameproof for gas group I, IIA & IIB	Flameproof for gas group I, IIA & IIB
Sensor housing Material	SS304 sensor tube or wiremesh filter	SS304 sensor tube with flange	SS304	SS304 with adjustable flange
Size	ø12mm, length 70mm	ø12mm, length 300mm	ø25mm, length 50mm	ø12mm, length 300mm

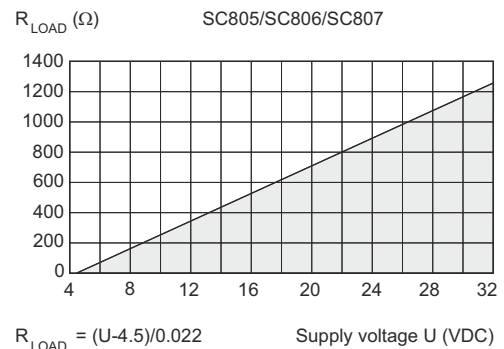
ACCURACY OF HUMIDITY & TEMPERATURE

Fig 1



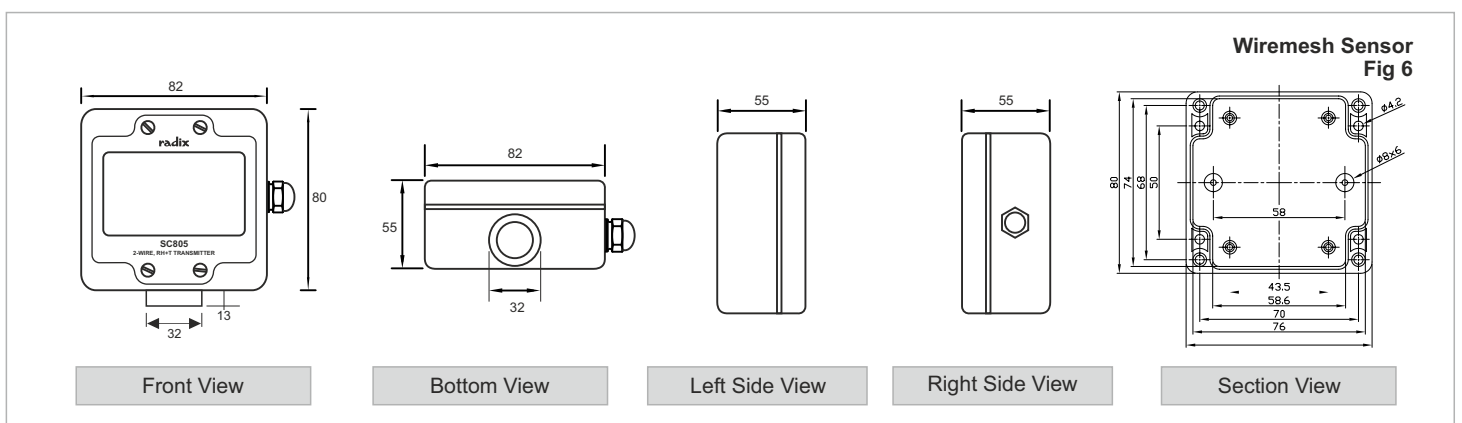
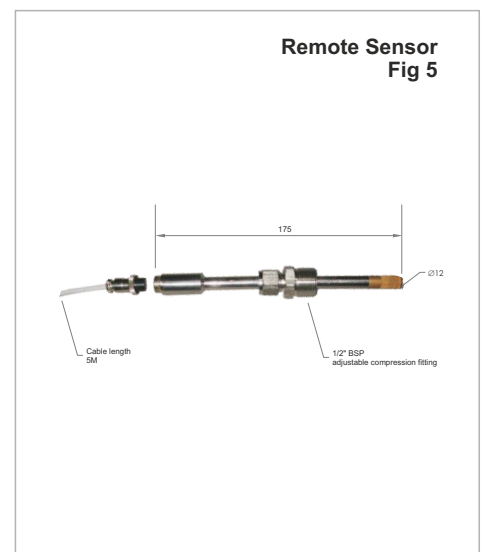
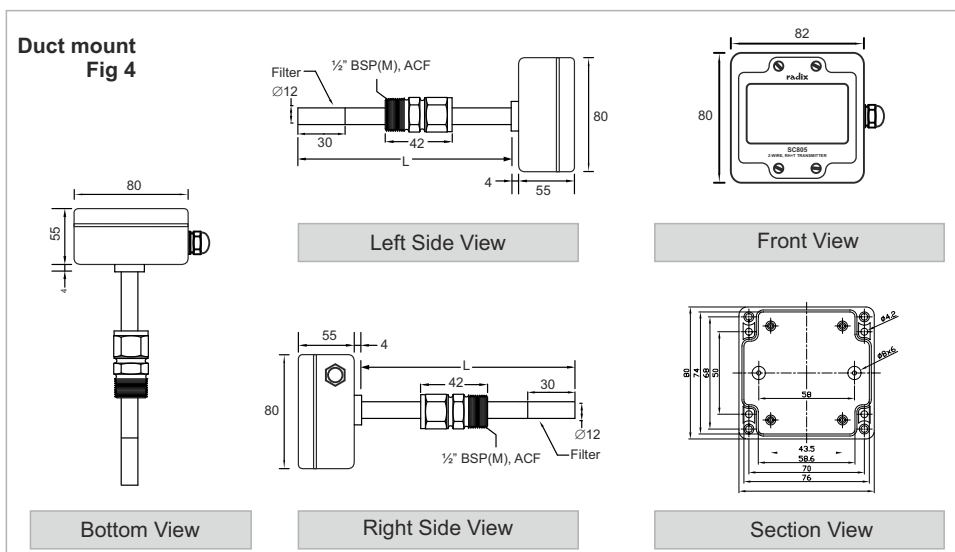
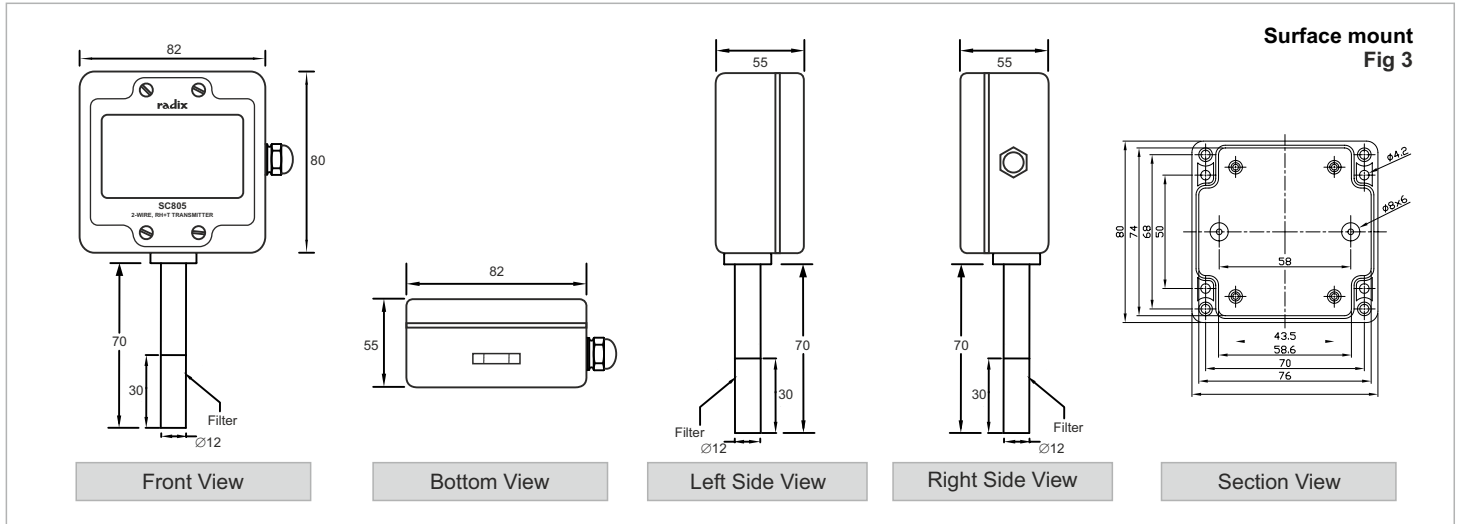
OUTPUT LOAD

Fig 2



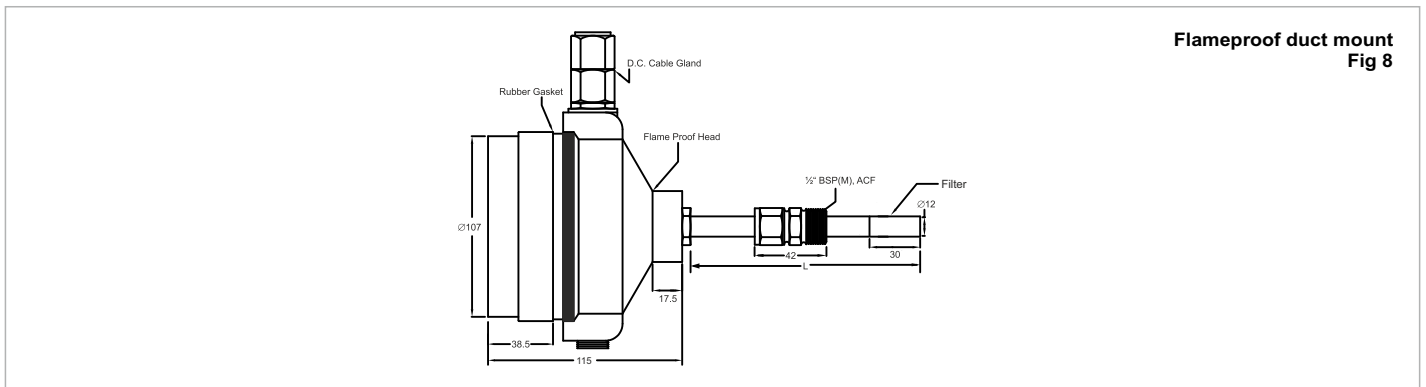
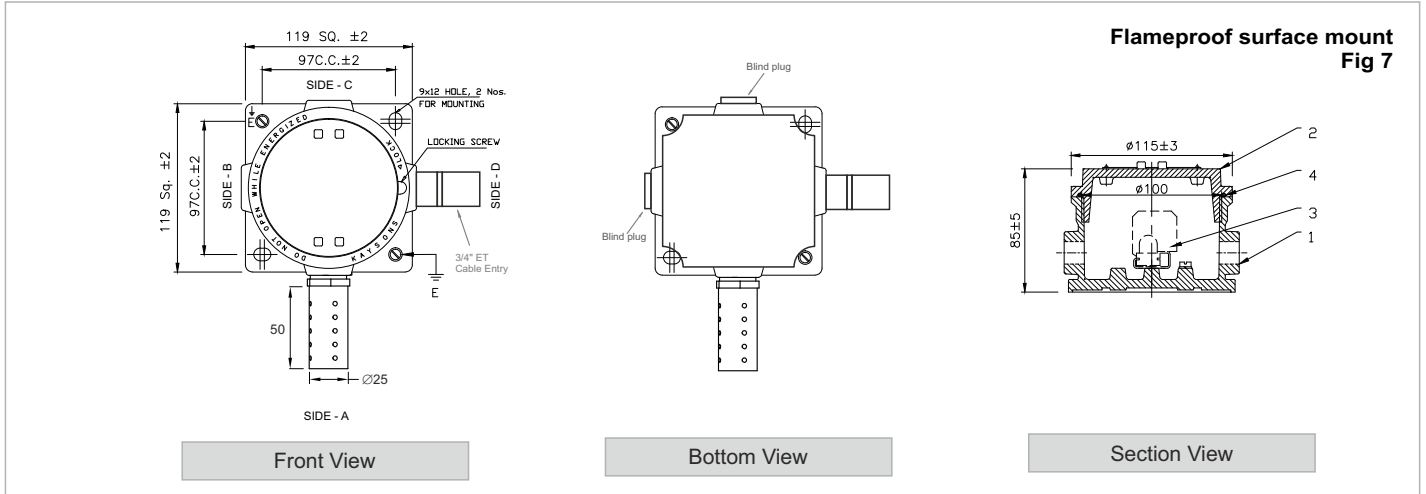
2-WIRE, RH+T TRANSMITTERS

DIMENSIONS mm



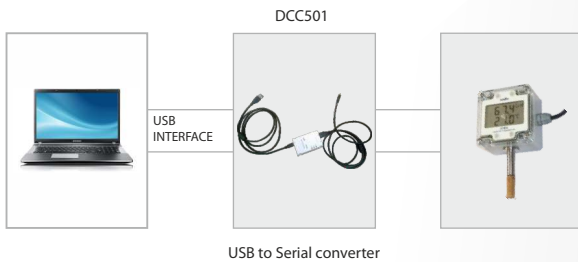
2-WIRE, RH+T TRANSMITTERS

DIMENSIONS mm

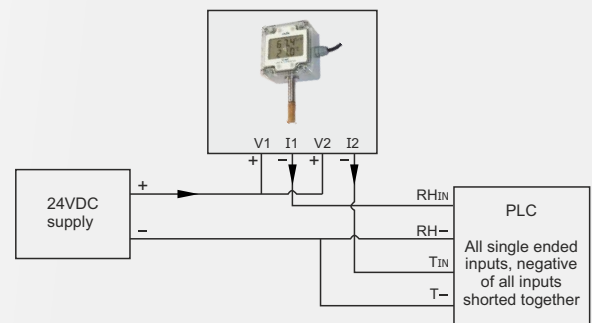


PC CONFIGURATOR

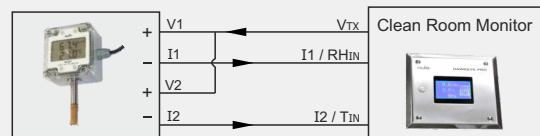
DCC501 USB to Serial converter can be used to program the parameters. The Programmer DCC501 must be purchased separately.



CONNECTION DIAGRAM



Note : Supply voltage to V1 & I1 is mandatory.
In case only one O/P require then V1 & I1 terminal to be used one o/p to be assigned to RH or T as per requirement.



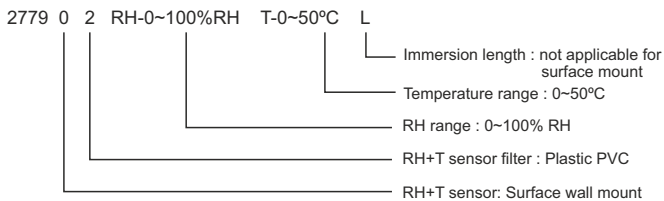
2-WIRE, RH+T TRANSMITTERS

ORDERING INFORMATION

MODEL : SC805

Example	2779	0	0	RH	T	L	
Product code	2779						
RH+T sensor		0					Surface wall mount (see fig.3)
		1					Duct wall mount (see fig.4)
		2					Mini round sensor (see fig.6)
		3					Remote sensor (see fig.5)
RH+T sensor filter			0				Sintered bronze
			1				Stainless steel
			2				Plastic PVC
RH range				RH			Please specify range for RH within the range limits
Temperature range					T		Please specify range for T within the range limits
Immersion length for duct mount sensor in mm						L	Default length is 300mm. User can specify a different length (See special order codes)

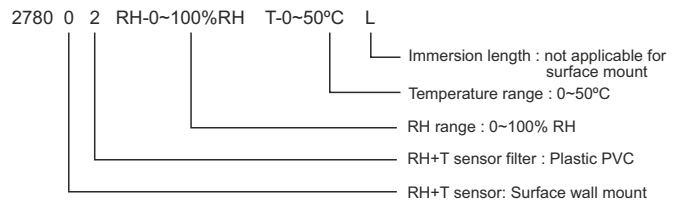
EXAMPLE / DEFAULT ORDER CODE



MODEL : SC807

Example	2780	0	0	RH	T	L	
Product code	2780						
RH+T sensor		0					Surface wall mount (see fig.3)
		1					Duct wall mount (see fig.4)
		2					Mini round sensor (see fig.6)
		3					Remote sensor (see fig.5)
RH+T sensor filter			0				Sintered bronze
			1				Stainless steel
			2				Plastic PVC
RH range				RH			Please specify range for RH within the range limits
Temperature range					T		Please specify range for T within the range limits
Immersion length for duct mount sensor in mm						L	Default length is 300mm. User can specify a different length (See special order codes)

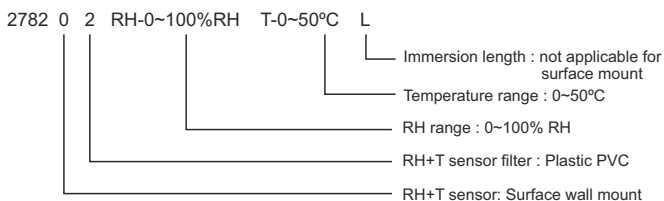
EXAMPLE / DEFAULT ORDER CODE



MODEL : SC806

Example	2782	0	0	RH	T	L	
Product code	2782						
RH+T sensor		0					Flameproof surface mount (see fig.7)
		1					Flameproof duct mount (see fig.8)
RH+T sensor filter			0				Sintered bronze
			1				Stainless steel
			2				Plastic PVC
RH range				RH			Please specify range for RH within the range limits
Temperature range					T		Please specify range for T within the range limits
Immersion length for duct mount sensor in mm						L	Default length is 300mm. User can specify a different length (See special order codes)

EXAMPLE / DEFAULT ORDER CODE



PC CONFIGURATOR

Parameter	Model	Order Code
USB-to-Serial Converter	DCC501	2555

SPECIAL ORDER CODES

A. Tube length for duct mount 'L'	0	100 mm
	1	300 mm
	2	450 mm
	3	User specified
B. Cable length for remote sensor	0	5 meter
	1	10 meter
	2	15 meter
	3	20 meter

CAT#352R4/A

ENQUIRIES

Instruments: sales@radix.co.in
Sensors: sensors@radix.co.in
Gauges: gauges@radix.co.in
Automation: automation@radix.co.in
Level: level@radix.co.in

RADIX ELECTROSYSTEMS PVT LTD
 EL-135/136/137, Electronics Zone
 TTC Indl. Area, MIDC, Mahape
 Navi Mumbai - 400 710, India
 + 91 22 42537707 • sales@radix.co.in