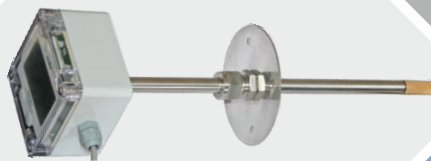
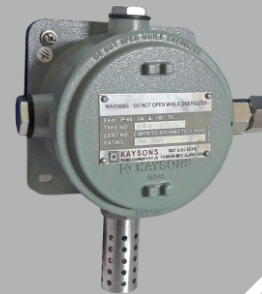
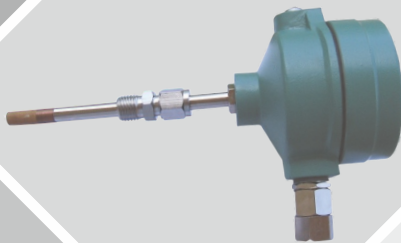
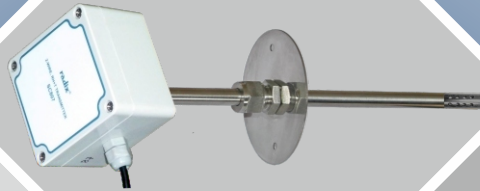




2-WIRE, RH/DEWPOINT+T TRANSMITTERS

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

SC805, SC806, SC807



2-WIRE, RH/DEWPOINT+T TRANSMITTERS



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 or Dewpoint 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
- Any output can be assigned to RH, T or Dewpoint
- 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 or Dewpoint (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
- Wiremesh RH+T sensor option (See Fig 5)
- 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/DEWPOINT+T TRANSMITTERS

SPECIFICATIONS

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

INPUT Sensor type RH Capacitive Temperature Semiconductor (Band gap)		
Range limits Default calibration Normal		0~100% RH, non-condensing 0~50 °C (0~158 °F) for temperature 0~50 °C (0~158 °F) for dewpoint -40~120 °C (-40~248 °F)
Maximum		(See fig.1) for temperature -40~120 °C (-40~248 °F) for dewpoint
Standard calibration		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
Display		Dual 7-segment, 4-digit, 0.5" (12.7 mm) LCD (For SC805)
MONITORING Sensor break detection Upscale current Downscale current		~22 mA ~3.9 mA
OUTPUTS Current output Output1 Output2 Permissible load Current limit		2-wire, 4~20 mA (RH or T or Dewpoint) 2-wire, 4~20 mA (RH or T or Dewpoint) 800 Ω @ 24 V DC, 20 mA ~22 mA
ACCURACY Linearity & calibration		± 3% RH For higher accuracy of 1% RH or 2% RH contact sales ± 0.5 °c for temperature and ± 1 °c for dewpoint
Temperature effect on accuracy Supply voltage effect Supply ripple effect, 50/60 hz, 5 Vp - p		± 0.5% of span / 25 °C ± 0.002% of span / V ± 0.005% of span
POWER SUPPLY Supply voltage		6~32 V DC loop supply
TEMPERATURE, HUMIDITY Ambient, storage Ambient, operation Relative humidity		-20 to +70 °C -10 to +50 °C 0 ~ 100% RH
MECHANICAL		See Table 1

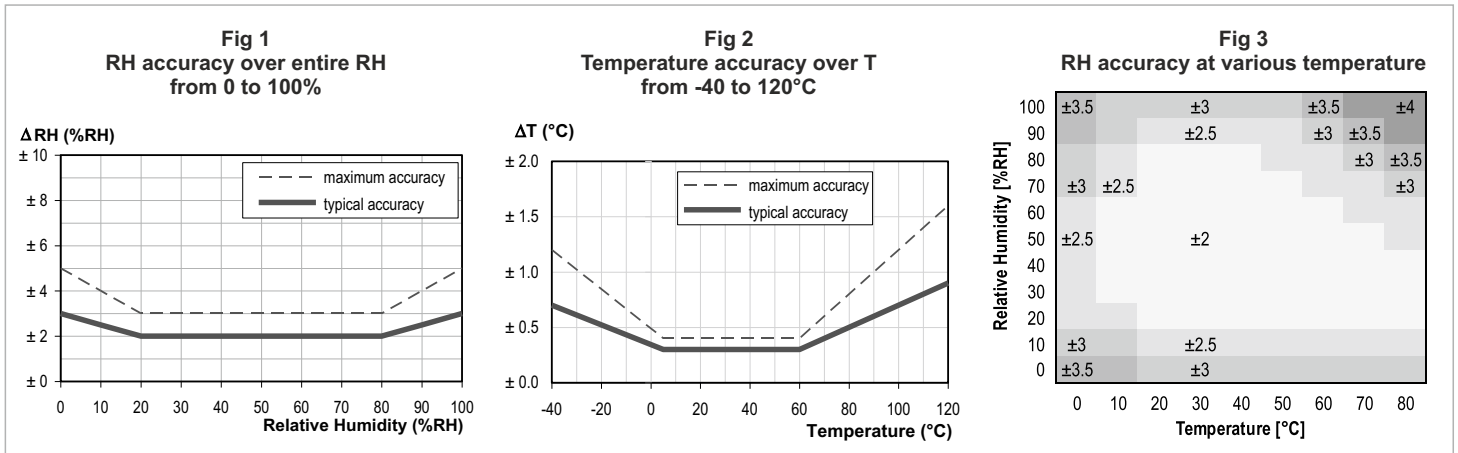
TABLE1 - MECHANICAL

Parameters	Wall mount	Duct mount	Flameproof wall mount	Flameproof duct mount
Dimensions (in mm)	See Fig 3 & 5	See Fig 4	See Fig 6	See Fig 7
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

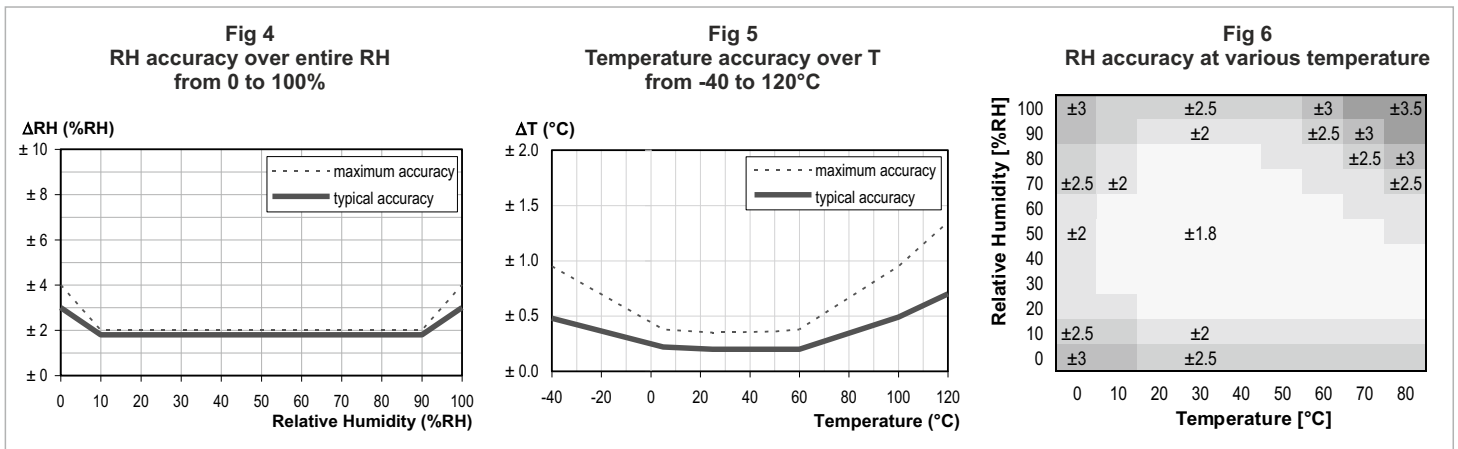
2-WIRE, RH/DEWPOINT+T TRANSMITTERS

ACCURACY OF HUMIDITY & TEMPERATURE

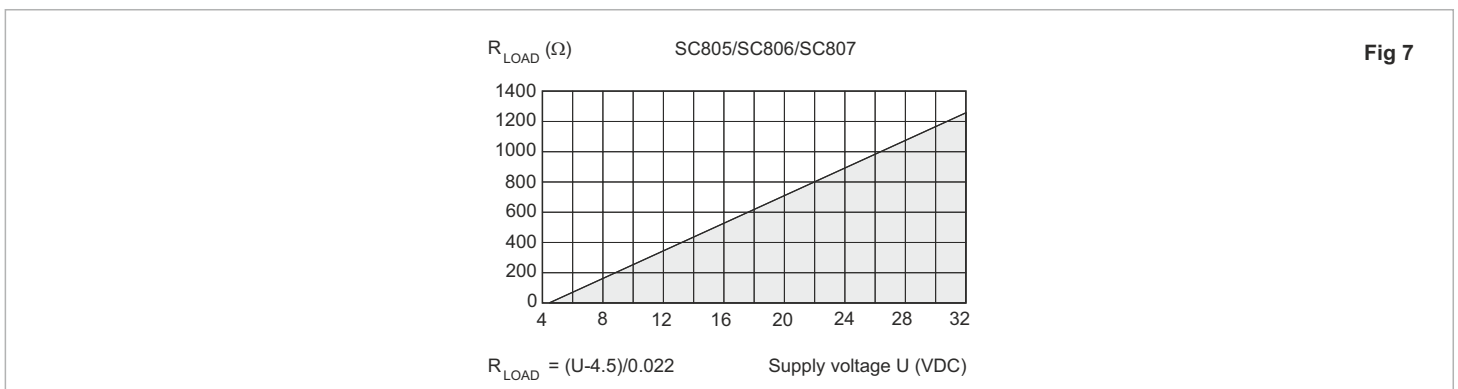
ORDER CODE : 27xx x0 (3% Accuracy)



ORDER CODE : 27xx x1 (2% Accuracy)

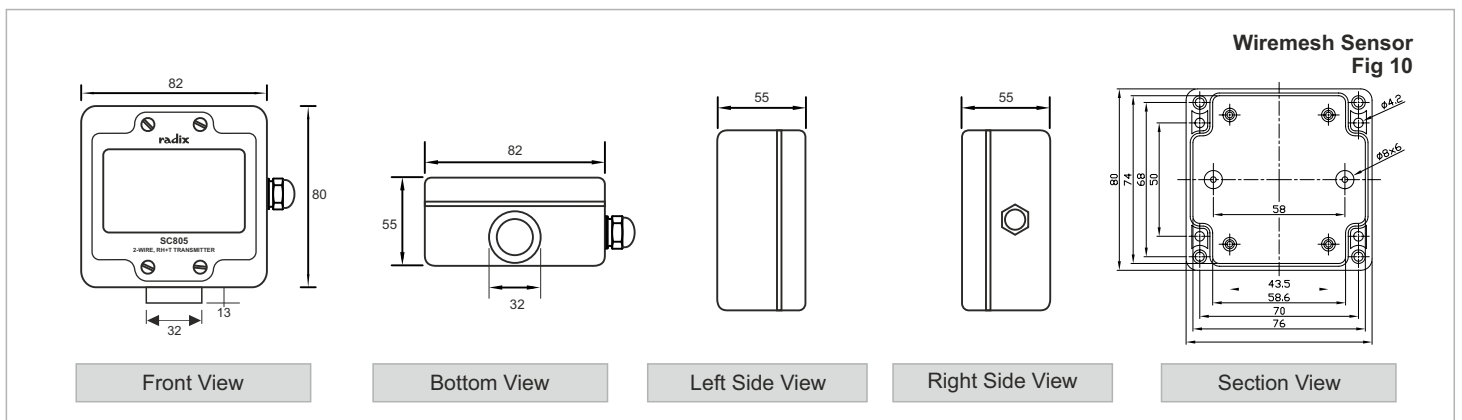
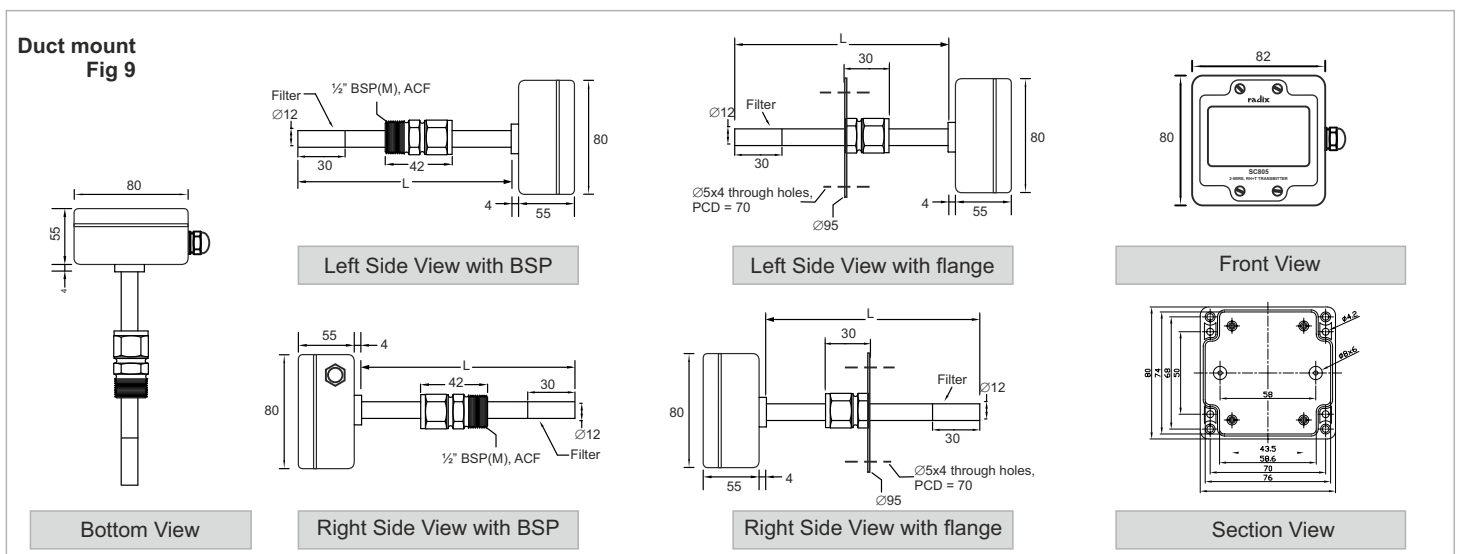
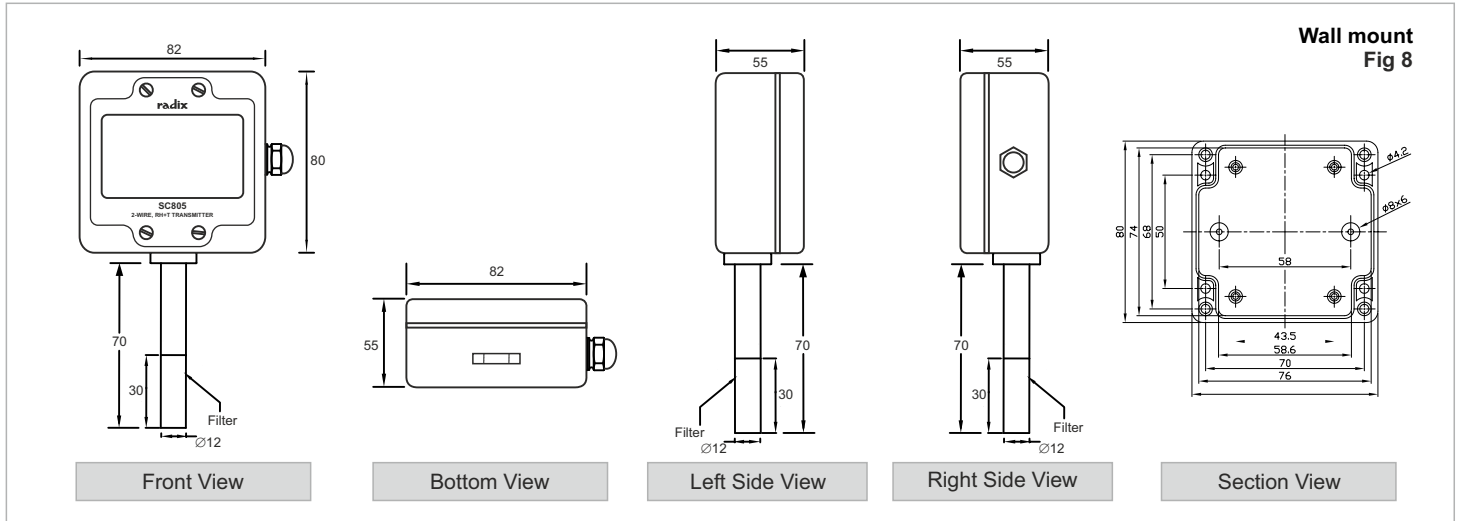


OUTPUT LOAD



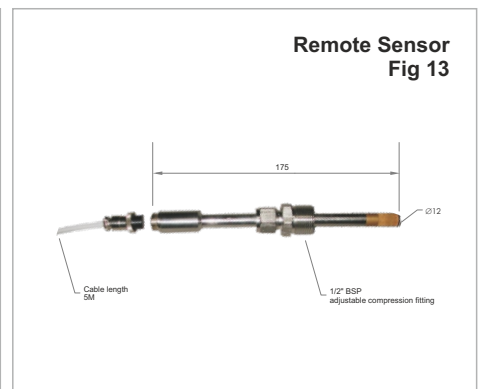
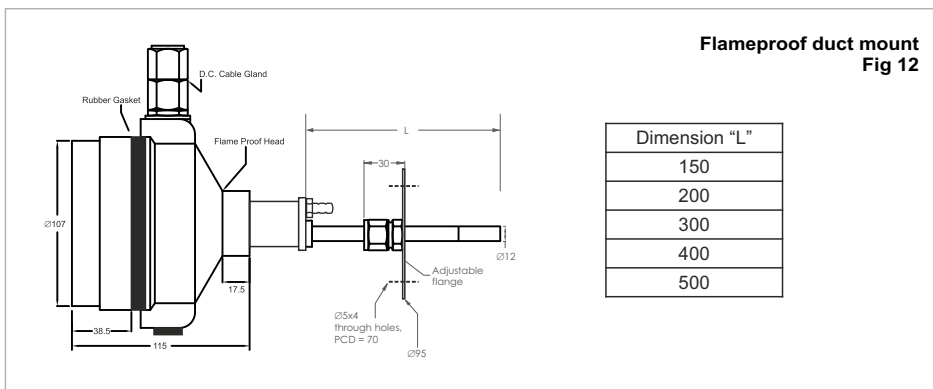
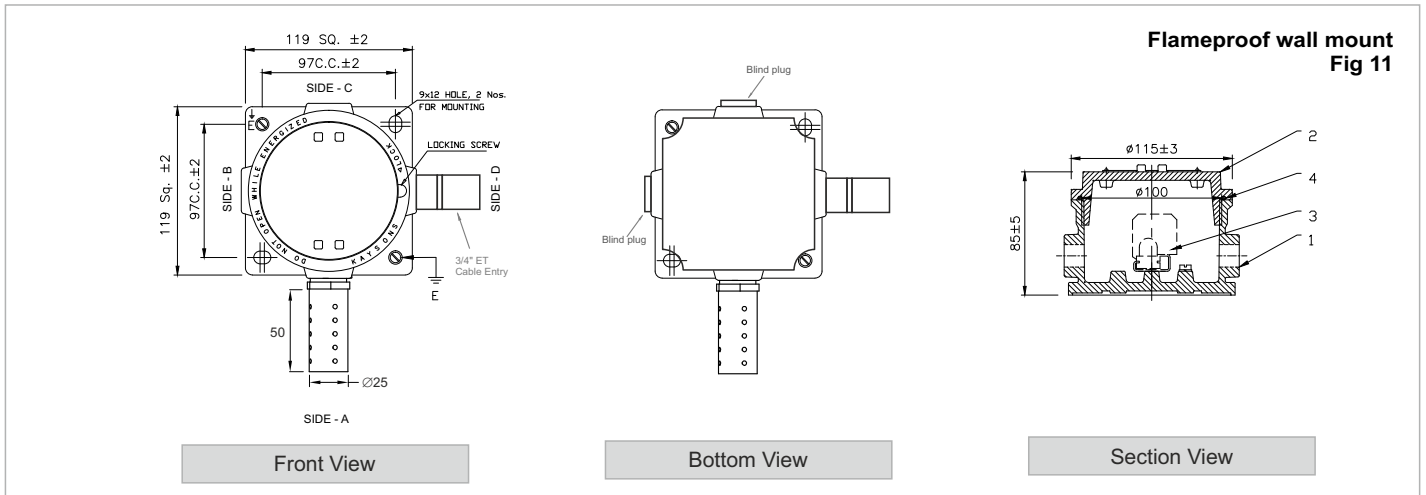
2-WIRE, RH/DEWPOINT+T TRANSMITTERS

DIMENSIONS mm



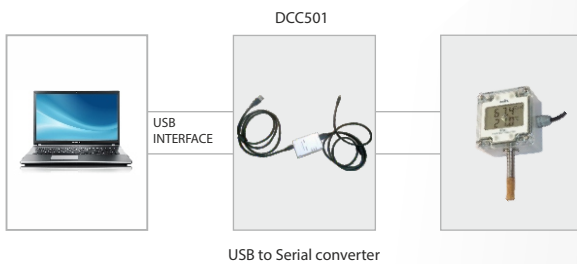
2-WIRE, RH/DEWPOINT+T TRANSMITTERS

DIMENSIONS mm

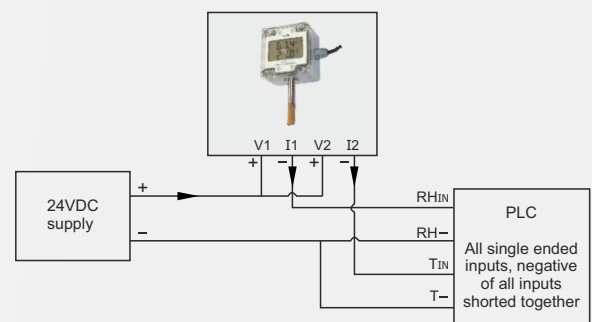


PC CONFIGURATOR

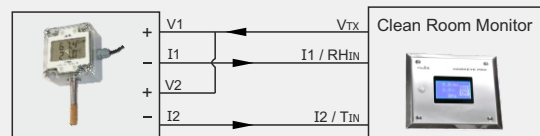
DCC501 USB to Serial converter can be used to program the parameters. The Programmer DCC501 must be purchased separately.



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.



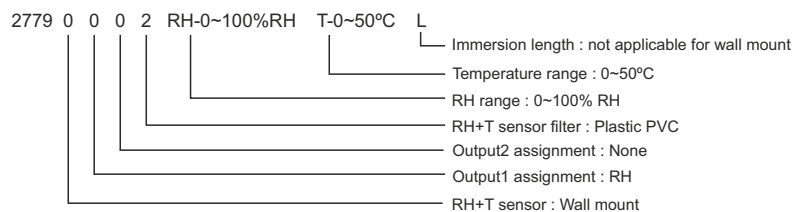
2-WIRE, RH/DEWPOINT+T TRANSMITTERS

ORDERING INFORMATION

MODEL : SC805

Example	2779	0	0	0	2	RH	T	L		
Product code	2779									
RH+T sensor	0								Wall mount (see fig.3)	
	1								Duct mount with adjustable flange (see fig.4)	
	2								Duct mount with adjustable compression fitting (see fig.4)	
	3								Wall mount with wiremesh sensor (see fig.5)	
	4								Remote duct mount sensor (see fig.8)	
Output1 assignment		0							RH	
		1							Temperature	
		2							Dewpoint	
Output2 assignment			0						None	
			1						RH	
			2						Temperature	
			3						Dewpoint	
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)

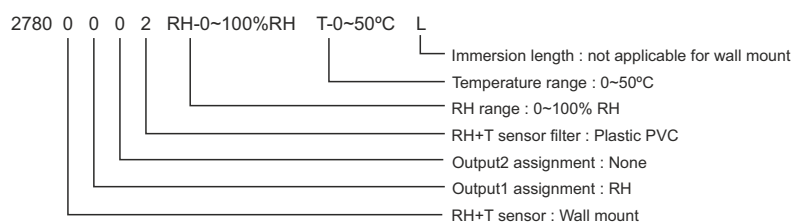
EXAMPLE / DEFAULT ORDER CODE



MODEL : SC807

Example	2780	0	0	0	2	RH	T	L		
Product code	2780									
RH+T sensor	0								Wall mount (see fig.3)	
	1								Duct mount with adjustable flange (see fig.4)	
	2								Duct mount with adjustable compression fitting (see fig.4)	
	3								Wall mount with wiremesh sensor (see fig.5)	
	4								Remote duct mount sensor (see fig.8)	
Output1 assignment		0							RH	
		1							Temperature	
		2							Dewpoint	
Output2 assignment			0						None	
			1						RH	
			2						Temperature	
			3						Dewpoint	
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



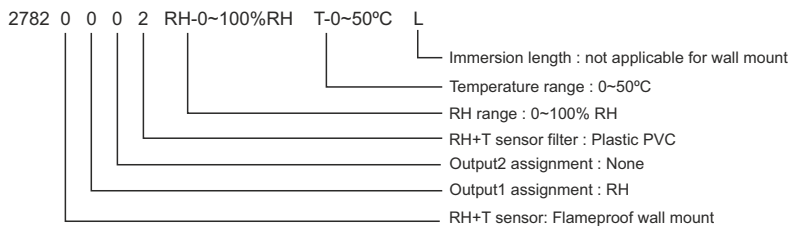
2-WIRE, RH/DEWPOINT+T TRANSMITTERS

ORDERING INFORMATION

MODEL : SC806

Example	2782	0	0	0	2	RH	T	L	
Product code	2782								
RH+T sensor		0							Flameproof wall mount (see fig.6)
		1							Flameproof duct mount with adjustable flange (see fig.7)
		2							Flameproof duct mount with adjustable compression fitting
Output1 assignment			0						RH
			1						Temperature
			2						Dewpoint
Output2 assignment				0					None
				1					RH
				2					Temperature
				3					Dewpoint
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

ENQUIRIES

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Gauges: gauges@radix.co.in
Automation: automation@radix.co.in
Level: level@radix.co.in

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