

## RSTH Range

TEMPERATURE  
& HUMIDITY SENSORS



BLANK VERSION

LED VERSION

DISPLAY SCREEN

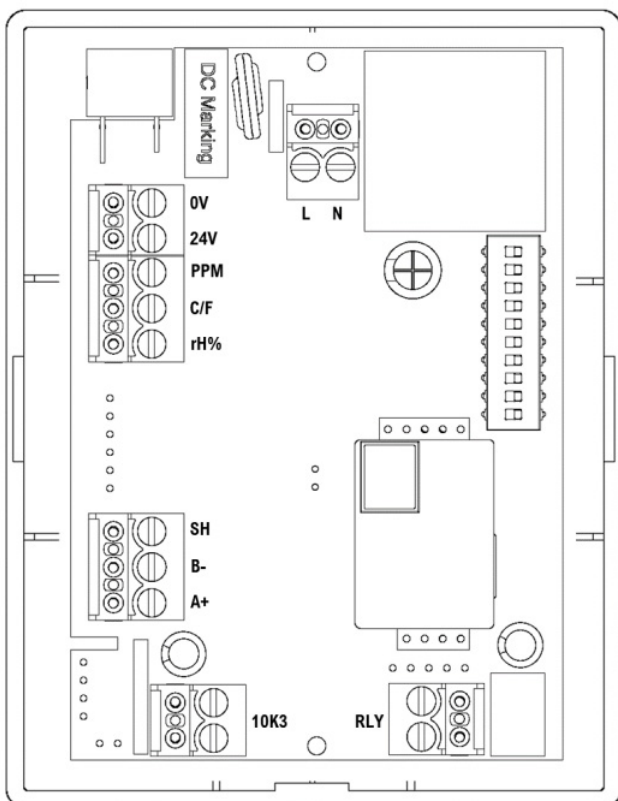
### Product Overview:

The RSTH Range: Featuring Temperature Sensors & Humidity Sensors, designed to monitor and measure vital indoor air quality environmental parameters with precision and reliability. Engineered to be used across residential, public, commercial, and light industrial settings, these sensors offer digital & analog outputs and exceptional performance features.

### Key Features:

- Digital RS-485: Modbus RTU or BACnet MS/TP communication protocols
- Analog: 2x Linear 0-10V/2-10V Temperature & Humidity.
- 10k3 Thermistor

### Circuit Board Diagram:



#### CONNECTION

230V AC IN

24V AC/DC INPUT

ANALOG OUT/P

DIGITAL OUT/P

THERMISTOR

CO2 VFC RELAY

#### LABEL

POWER LIVE IN

24V IN

+10V OUT

RS-485

10K3

RLY 70mA

#### TERMINATION

L (Line)  
N (Neutral)

+24V  
0V (Common GND)

°C/F (Temperature O/P)  
%RH (Humidity O/P)

A+  
B-  
SH (Shield)

(No Polarity)

Disabled On This Model

## Technical Specifications

Mechanical	
Mounting	Wall Mounted
Entry	1/2" DIA Rear Entry
Size (W x H x D)	Display Screen - 3.38" x 4.48" x 1.3" / Blank & LED - 3.38" x 4.48" x 0.98"
Weight	0.167kg
Enclosure	ABS UL Flame retardant - IP40
Electrical	
24V AC/DC Power Rating	12-24VDC (11-32 VDC) / 24VAC, (20-27 VAC) 50-60Hz
230VAC Power Rating	Nominal 230VAC, (90-250V AC), 50-60H
Internal Fuse	Resettable PPTC 110VAC, 400mA
Communication	127 Units Max
Power Consumption	5W Max
Environmental	
Operating Temperature	14°F to 122°F / -10°C to 50°C
Storage	32-86°F / 0°C to 30°C
Room Humidity	0 to 95% RH (continuous) Non-Condensing
Atmospheric Pressure	80 to 110Pa
Altitude	<6562ft
Installation Cat (230V Voltage)	II (Class 2) Pollution Degree 2
Installation Cat (24V Voltage)	III (Class 3) Pollution Degree 2
Inputs / Outputs	
Analog Outputs	2 x Linear 0-10V/2-10V Temperature & Humidity. Thermistor (10K3).
Digital Networks	BACnet MS/TP or MODBUS RTU (Parity: None Data bit: 8bit Stop bit: 1)
Relay Outputs	Disabled On This Model
Cable Spec	
Power	22 - 24 AWG
Analog Output	22 - 24 AWG
Relay	Disabled On This Model
Digital Output	22 - 24 AWG twisted pair + ground, shielded cable with 120 Ω characteristic impedance.
User Interface	
Lanugage	English
Optional Display	2.8" TFT
Indication	Green: Power (OK) / Yellow: Warning (Pre-Alarm) / Red: Danger (Alarm)
Safety & EMC	
Safety	IEC 61010-1
Electromagnetic Compatibility	FCC
Compliance	CE, EMC, RoHS, REACH and WEEE Compliant
Temperature (°F or °C)	Humidity (%RH)
Fully Calibrated	Fully Calibrated
Normal Indication Range: 32-122°F	Indication Range: 0-100% RH
Response: t63% @ 77°F ~20s	Quick Response: t63% @ 77°F ~8s
Typical Excellent long term stability	Excellent long term stability
Strong anti-interference	Strong anti-interference
Warm Up Time: 1 minute	Warm Up Time: 1 minute
Accuracy: ±0.5° @ 50-113°F	Accuracy: ±2% @ 59-86°F (20-90%RH)
Resolution: 0.1°	Resolution: 0.1%