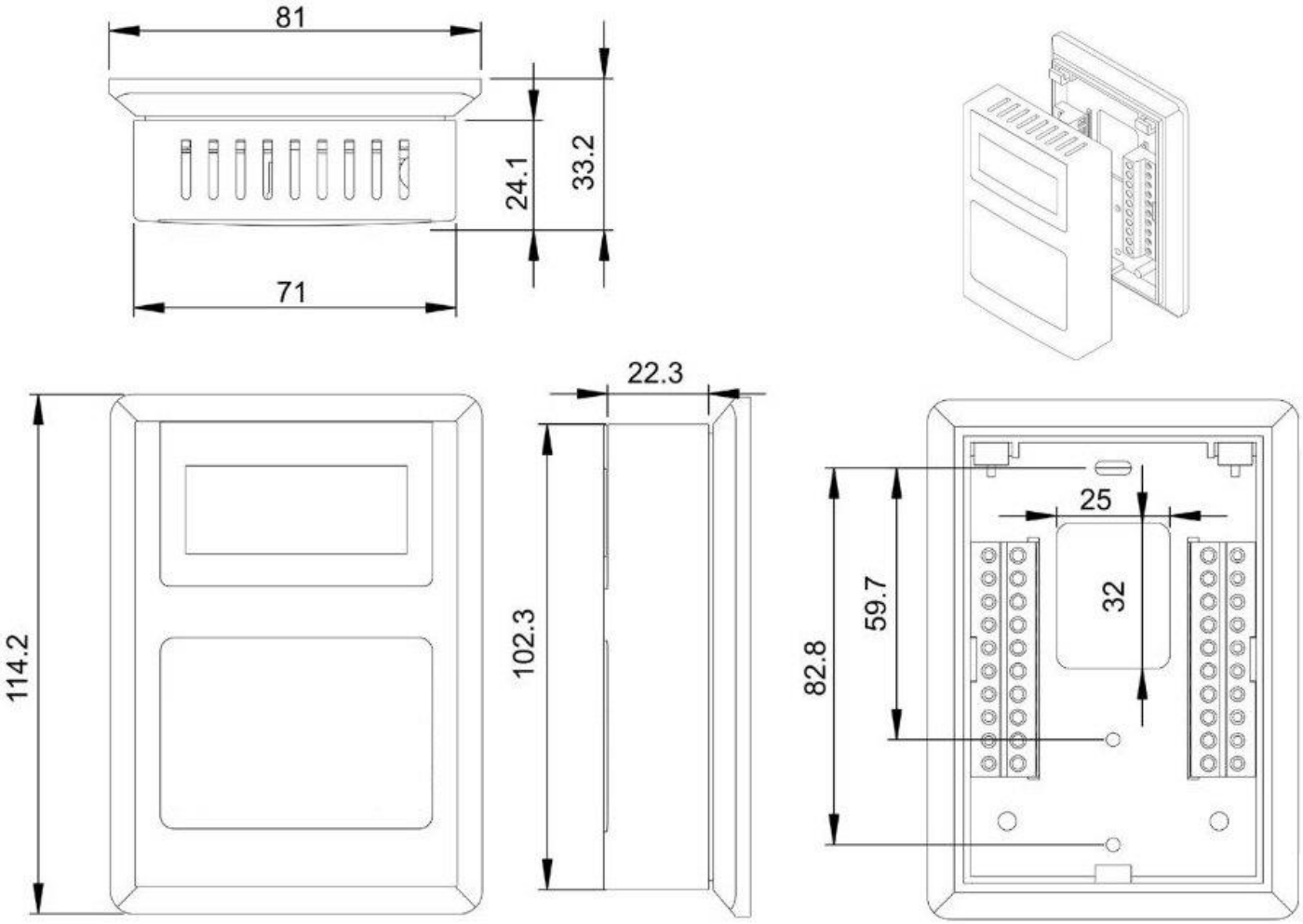
MBUS_RTH_LCD Tech Specs

Features:

- High Impact Plastic Enclosure provides durability in Industrial Environments
- Low Power Consumption
- Temperature and Humidity readings from a single sensor
- Network RS485 Communication via Modbus RTU
- Built-in 0-10V transducers to convert the sensor readings to analog outputs.
- Back-lit LCD Display

Supply voltage	12~24VAC +/- 20%, 50-60Hz: 12-24VDC +/- 20%
Power consumption	55mA at 24Vdc
Operation	5-50°C (40-122°F)
Ambient humidity range	0-95%Rh non condensing
Humidity Accuracy	+/- 3%RH @ 25C from 20-80%RH.
Material, enclosure	Flame proof plastic
Enclosure rating	IP31
Temperature sensor	10K thermistor (± 0.5°C Accuracy)
Color	White/Off-white
Weight	200g



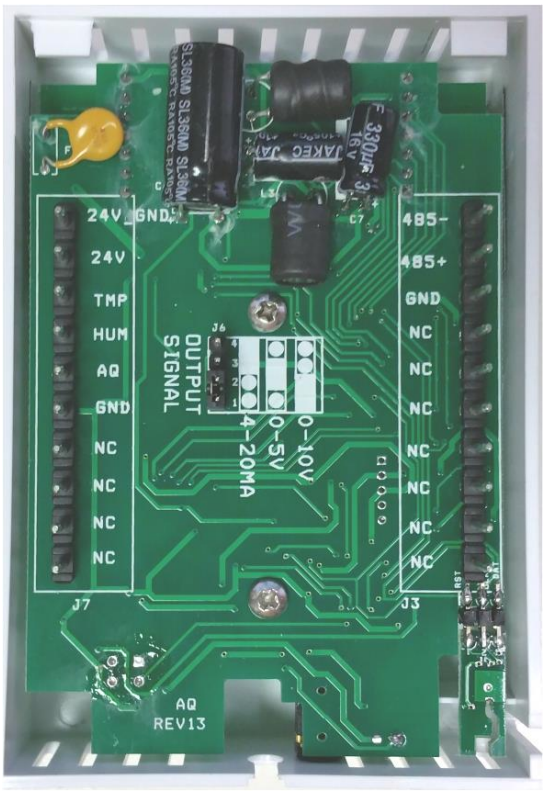
(dimensions shown in mm)

External wiring is connected to the back plate using screw terminals.

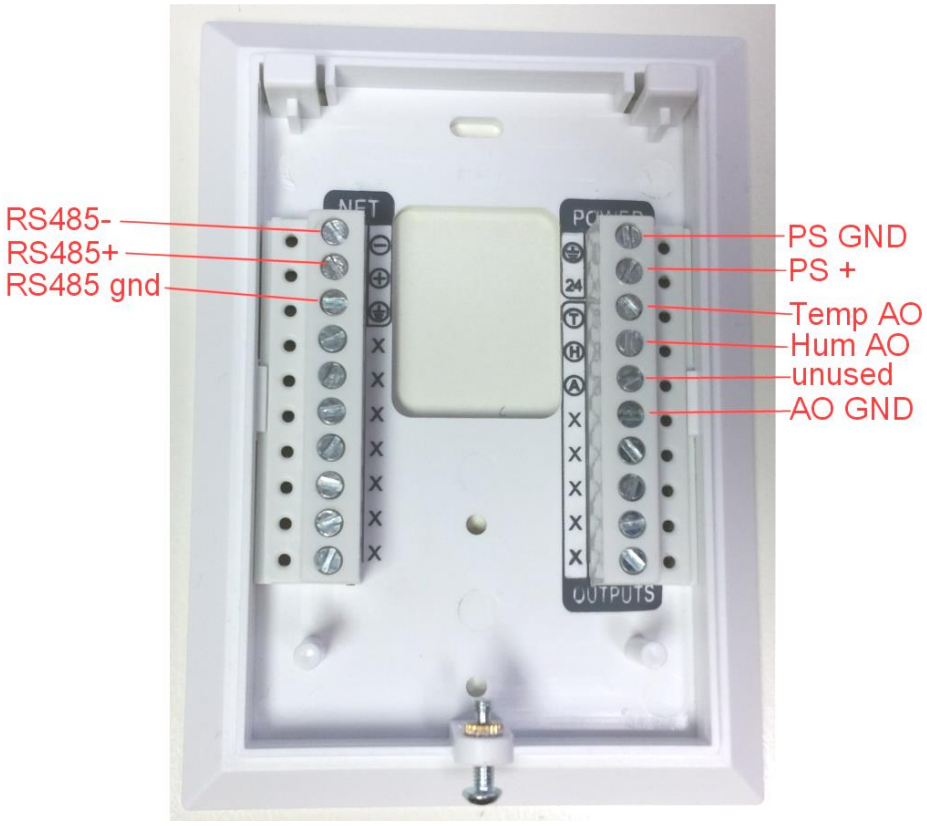
PS+ = 24VAC or + 12-24VDC
PS GND = DC Gnd or AC Common/Neutral

Temp AO = 0-10V or 0-5V or 4-20mA
Hum AO = 0-10V or 0-5V or 4-20mA
AO GND = use this GND for AO points.

(back of sensor)



(back plate)



MODBUS Registers.

- Communication defaults: RS485 at 19200, 8, None, 1

REG	BYTES	RANGE	DEFAULT	DESCRIPTION
6	1	0-255	254	ADDRESS. Modbus device address
100	2	0-3000	- -	**ROOM TEMPERATURE reading in DegF x 10**
101	2	0-3000	- -	**ROOM TEMPERATURE reading in DegC x 10**
102	2	0-1000	- -	**ROOM HUMIDITY reading in %RH x 10**
104	2	0-1000	500	Temperature Calibration Offset Value
107	2	0-1000	500	Humidity Calibration Offset Value
121	1	0-1	0	0=DegC, 1=DegF

(continued on next page…)

180	1	1,2,3	3	Analog Output jumper configuration (set by jumpers - Read only) 1=0-10V, 2=0-5V, 3=4-20mA
185	1	0-1	1	Baudrate: 0=9600, 1=19200
304	2	0-1000	- -	Current Humidity Sensor reading
305	2	0-10000	--	Current Humidity Sampling Value
312	2	0-1000	- -	humidity calibration RH value # 1
313	2	0-10000	- -	humidity calibration Sampling value # 1
314	2	0-1000	- -	humidity calibration RH value # 2
315	2	0-10000	- -	humidity calibration Sampling value # 2
.				
.				
330	2	0-1000	- -	humidity calibration RH value # 10
331	2	0-10000	- -	humidity calibration Sampling value # 10
332	2	0-1000	0	AO Scale Low for temperature
333	2	0-1000	1000	AO Scale High for temperature
334	2	0-1000	0	AO Scale Low for Humidity
335	2	0-1000	1000	AO Scale High for Humidity
345	1	0,1,2	1	Display config: 0=scroll, 1=temp only, 2=humidity only
361	1	0-255	5	LCD Backlight: 0=Off always, 255=On always, 1-254 = turn on light for X sec after receiving modbus request