SAVANT

Sensor Module with Four 10K Thermistor Inputs
Quick Reference Guide

Box Contents

(1) HVAC 10K Sensor Module - (CLI-10K4IN)
(2) 3 Position Screw Down Plug-In Terminal Block (028-0736)
(1) 6 Position Screw Down Plug-In Terminal Block (028-0737)
(1) 6 Position Screw Down Plug-In Terminal Block (028-9352)
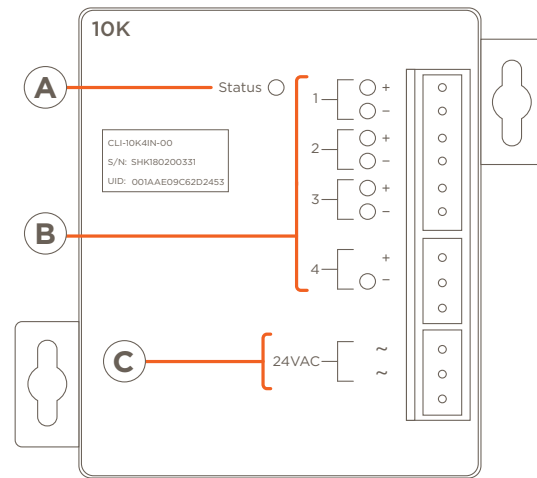(1) Product and Regulatory Insert (009-1703)

Supported Sensors (available on the Savant Store)

Remote Temperature Sensor - Flush Mount (SST-TEMP1)
Outdoor Remote Temperature Sensor (SST-0TEMP1)
PLENOM Remote Sensor - Commercial (CLI-PLEN1C)
PLENOM Remote Sensor - Residential (CLI-PLEN1R)
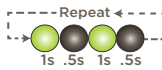SLAB Remote Sensor (CLI-SLAB1)

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% Rel Humidity (non-condensing)

Dimensions and Weights				
	Height	Width	Depth	Weight
CLI-10K4IN	3.77 inch (9.58 cm)	3.16 inch (8.03 cm)	.91 inch (2.3114 cm)	< 1 lbs (< .5 kg)
Shipping	6.25 inch (15.88 cm)	4.8 inch (12.19 cm)	1.25 inch (3.175 cm)	< 1 lbs (< .5 kg)

Power	
Input Power	24V AC (19.2 - 28.8V AC)
Max Current Draw	.1 amps (rms)

Maximum Wiring Distances	
RS-485	Up to 1000 feet (304.8 meters) cumulative.
Power	#24 AWG - 20 feet (6.10 meters)
	#20 AWG - 57 feet (17.37 meters)
	#18 AWG - 90 feet (27.43 meters)
	#16 AWG - 143 feet (43.59 meters)
	#14 AWG - 228 feet (69.49 meters)

Regulatory	
Safety and Emissions	FCC Part 15 FC
Contains FCC ID:	2AEHU-MESHTEK-H52
Contains IC:	20059-MESHTEK52
RoHS	Compliant

Minimum Supported Release	
Climate Config App	Version 1.1.2

Top Panel

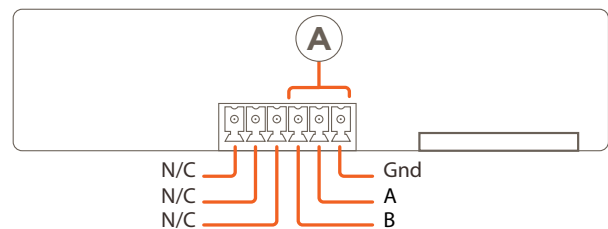|		
A	**Blinking Green**	RS-485 communications is not established. Once powered is applied, it can take up to 20 seconds to establish communications.
		HELPFUL! If communications was established and subsequently lost, the LED will stay solid for about 1 minute before it starts blinking.
	Solid Green	RS-485 communication is established and module is communicating with thermostat.

B	**Thermistor inputs 1-4** - Connect one thermistor per port (1-4). When wiring the thermistors, polarity is not observed.
C	**24V AC input** - Connect 24V AC from HVAC transformer or similar to power the module. Input power is an AC signal so polarity is not observed.

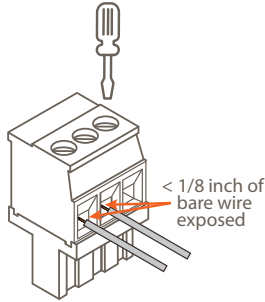## Left Side Panel

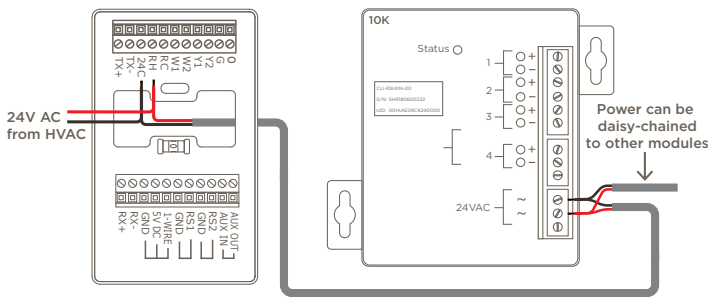|	
A	**RS-485 port -** As shown in the image above, the right three pins connect to the RS-485 connections in the thermostat. No connections are made to the leftmost 3 pins. Refer to the RS-485 Connections section for more information on wiring.

Making Connections

When making connections, follow the guidelines set below to ensure a safe and secure connection.

1. With a small slotted screwdriver, turn the screws on the connector counterclockwise (CCW) until the silver crimps open enough to slide a wire into the square slots.
2. Strip back insulation on each wire to $1/4$ inch and insert the stripped wire into the proper connection.
3. Turn the screw clockwise (CW) until the crimps tighten around each wire. Tug on each wire a bit to verify they are secure.
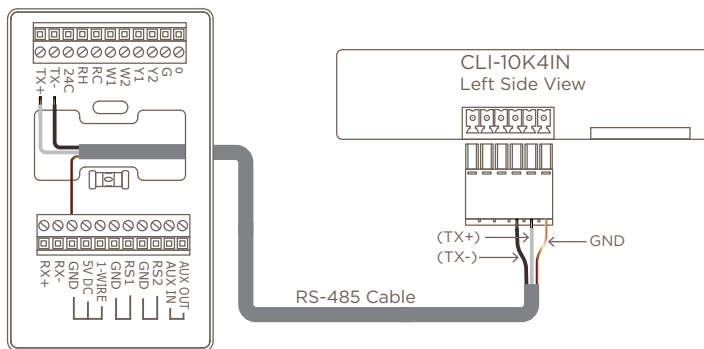

< 1/8 inch of bare wire exposed

Power Connections

Use the diagrams below when making the power connections between the thermostat and the CLI-10K4IN climate module.

24V AC from HVAC

Power can be daisy-chained to other modules

– Power can be daisy-chained between modules.
– The cable lengths vary depending on the size of the wire. See the specifications table on page 1 for more information.
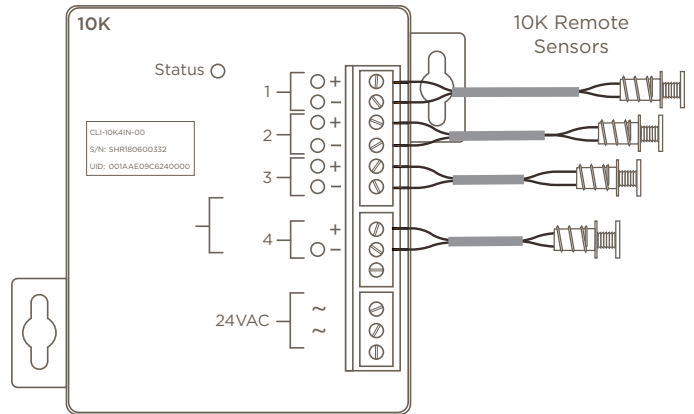
RS-485 Connections

Use the diagrams below when making the RS-485 connections between the thermostat and CLI-10K4IN climate module.

CLI-10K4IN
Left Side View

(TX+)
(TX-)
GND

RS-485 Cable

– Max cable length is 1000 feet (304.8 meters).
– Savant recommends using standard RS-485 cable for wire runs.

Thermistor Connections

Use the diagram below when wiring the 10K temperature sensors.

10K Remote Sensors

24VAC

– Supports a maximum of four sensors per CLI-10K4IN module.
– There is no polarity to the 10K temperature sensors.
– Max cable length = 500 feet (152.4 meters).
– Minimum size wire = 24 AWG.
– A twisted pair is recommended (e.g. Cat 5e/6/7).
– Any 10K type temperature sensor is supported. See the Supported Sensors section on page 1.
– Climate modules can be daisy-chained to increase the number of sensors.
– Two or more ports can be combined and the average of these sensors taken.

Additional Information

Refer to the following documents located on the **Savant Customer Community** for additional information.

– Multistat Smart Thermostat Deployment Guide (009-1636)
– Multistat Thermostat with Touchscreen (009-1593)