

# SimplControls

Quick Start Guide for  
Installation and Wiring

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SimplThermostat

SimplMeter

SimplGateway

SimplRelay

# SimplControls

- Install SimplMeter inside the main switchgear. See page 5.
- Plug the SimplGateway into a wall outlet and make sure that its signal strength for SimplMeter and the WiFi/4G signal to the cloud for SimplGateway are satisfactory. See page 8.
- Note that it may take several minutes before SimplGateway obtains its signals and starts communicating to Simpl's servers. Signal strength for various nodes are shown on the user interface only after this happens.
- Install SimplThermostat sensor(s). See page 3.
- Install SimplThermostat inside the RTU's control box and connect to the sensors. See page 4.
- Check all Signal Strengths. See page 8.

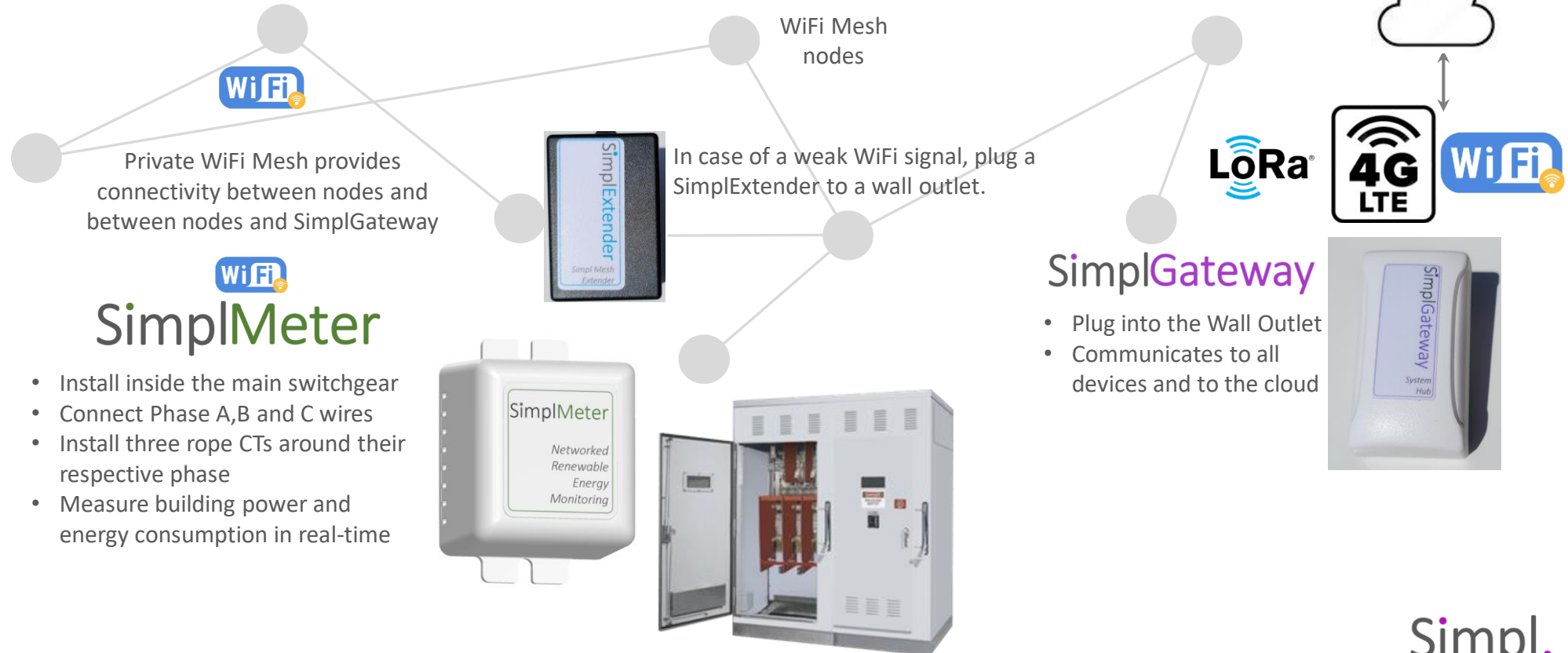
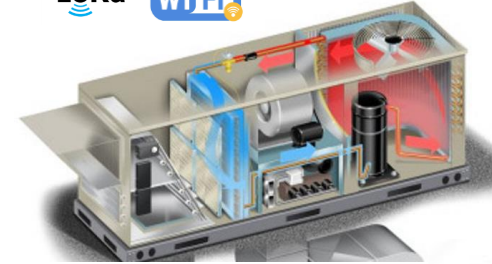
## SimplThermostat



## SimplThermostat

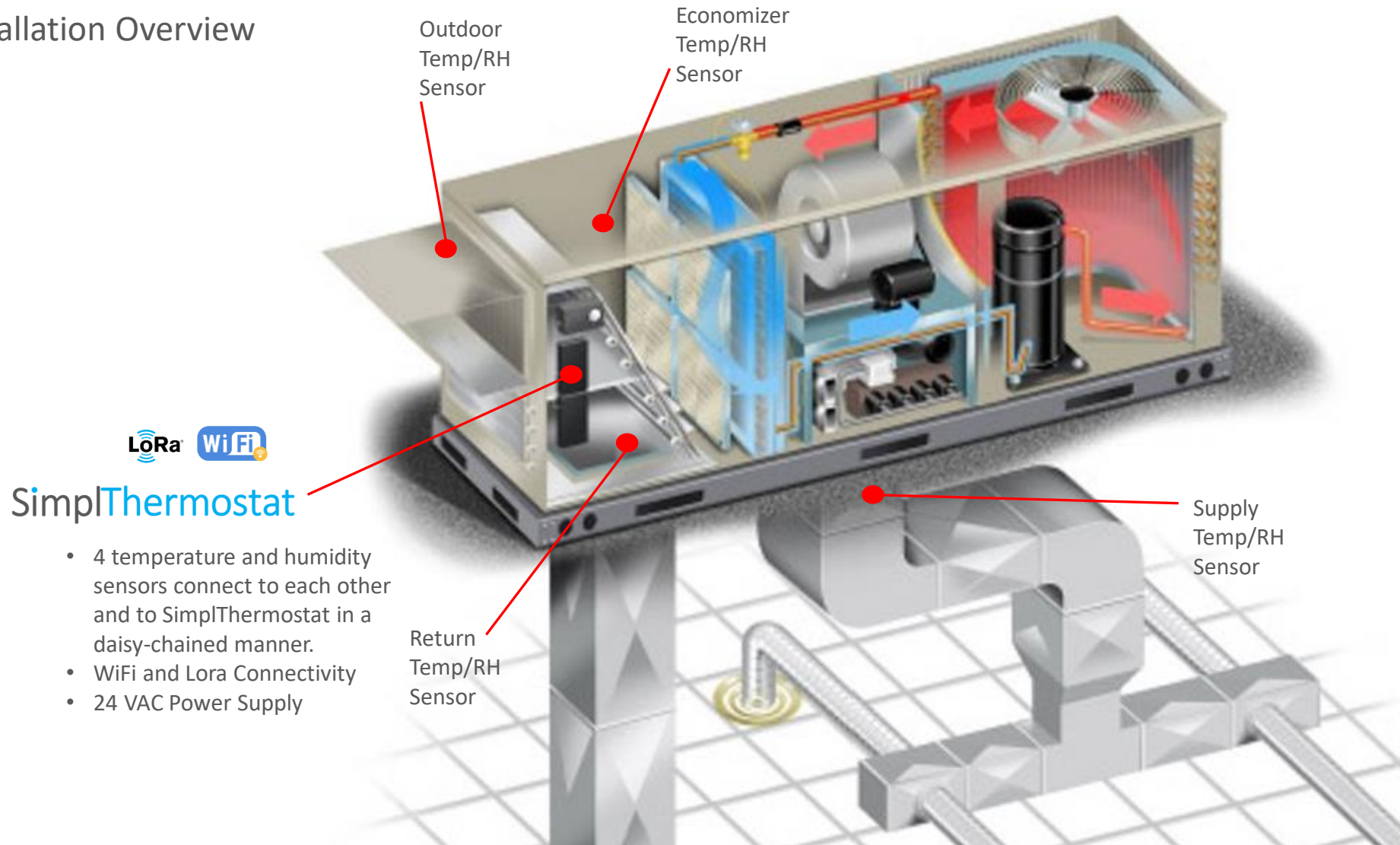


## SimplThermostat



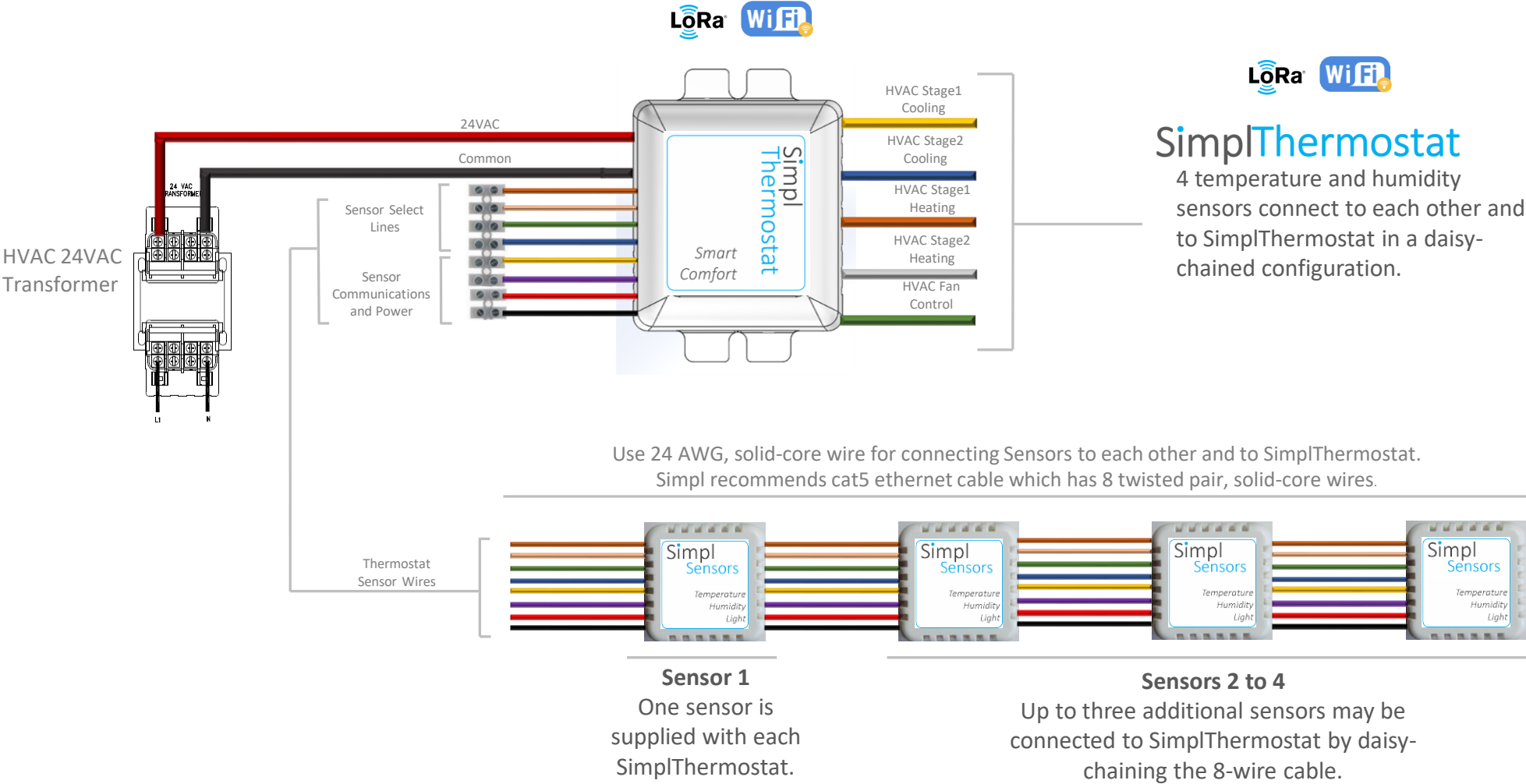
# SimplThermostat

## Installation Overview



# SimplThermostat

## Wiring Diagram

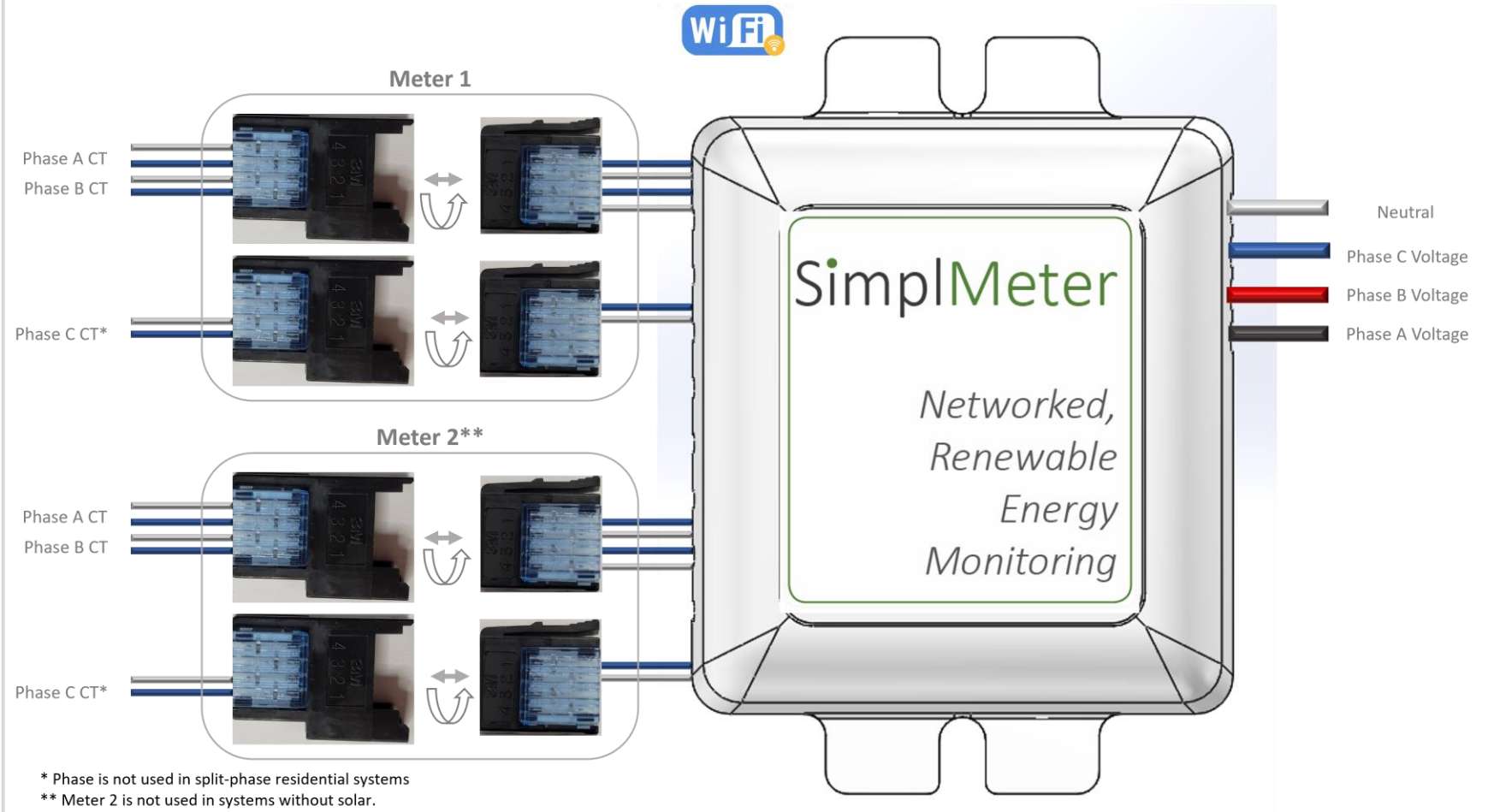


# SimplMeter

- SimplMeter has two independent power/energy meters.
- Meter 1 is typically used for building consumption.
- Meter 2 is typically used for solar energy generation. Leave Meter 2 unconnected if no solar electricity generation facility is installed.
- Residential systems typically use split-phase voltage. In this case, Phase C is not connected and may be left unconnected.

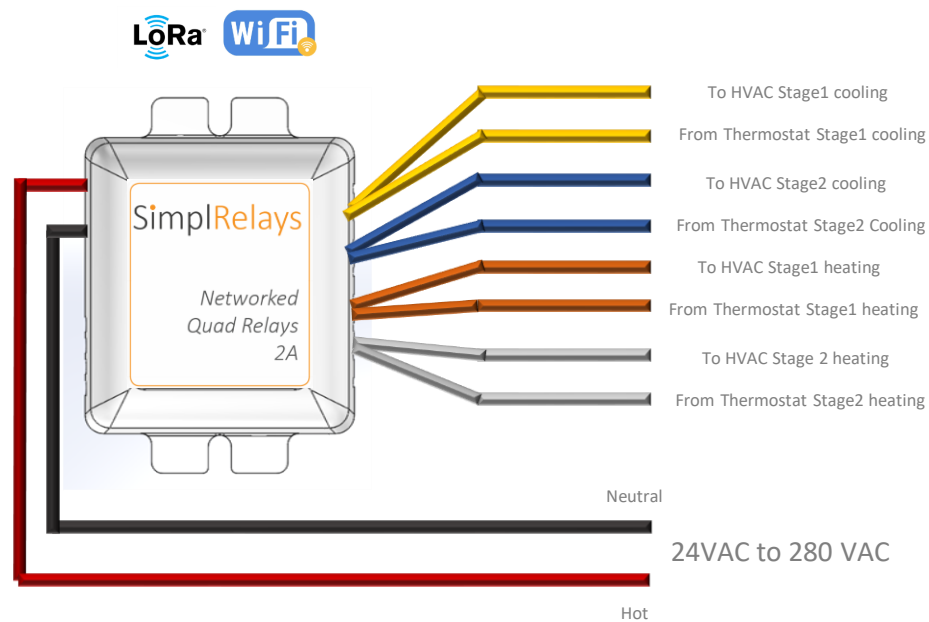
## IMPORTANT:

- Be sure to connect the CT that is looped around the Phase A bus bar/cable to the specific location of Phase A.
- Repeat the above for phases B and C.
- In other words, do not interchange CTs from one phase by connecting it to another phase.
- If this is not done correctly, the phase measurements may show negative power flow or very low power factors even when no solar is present.
- Check power factors by turning off the solar system first.



# SimplRelay

## Wiring Diagram

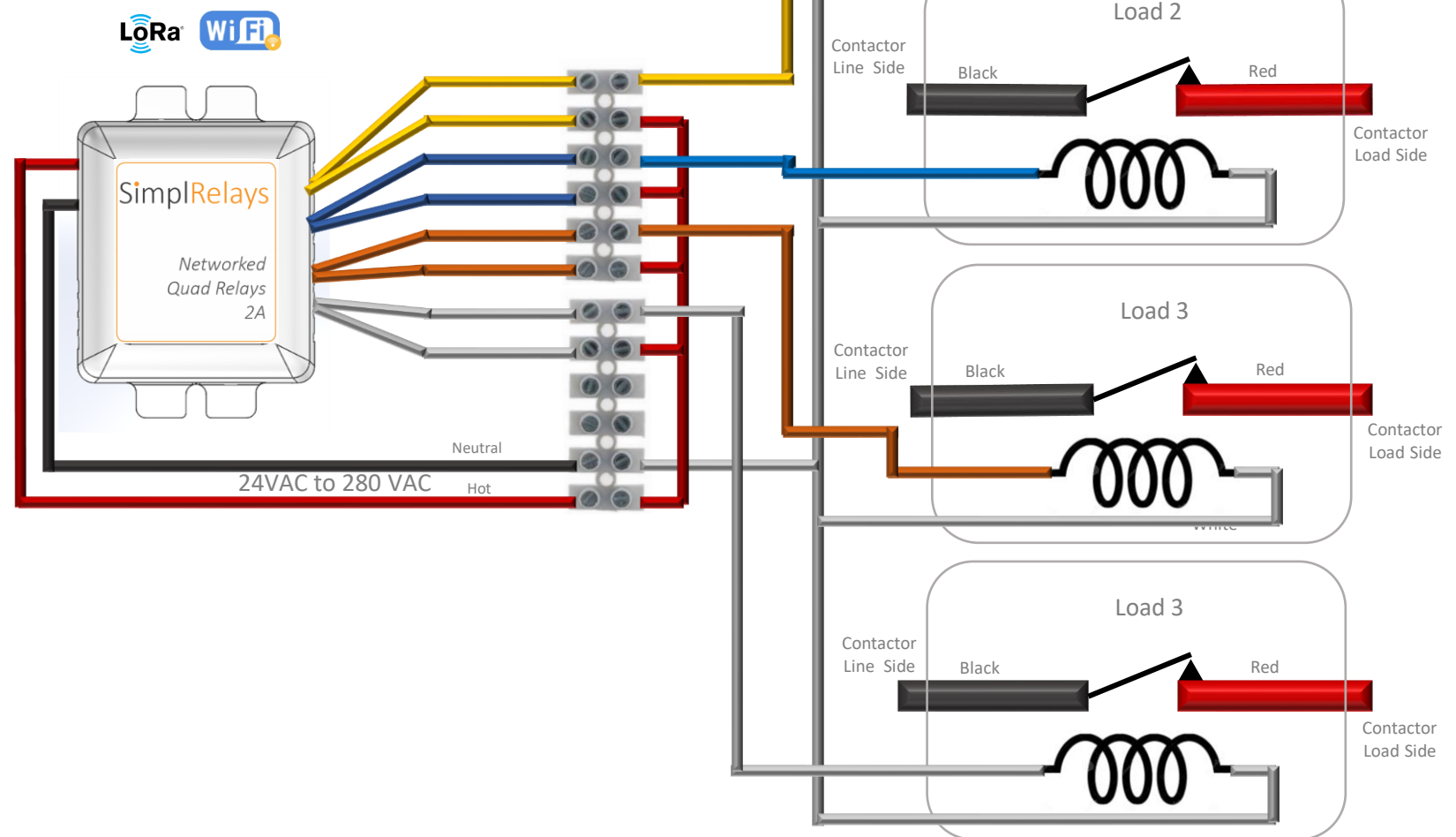


When not controlling an HVAC units these Four dry contacts/relays may be used with any load in the normally closed position

# SimplRelay

## Lighting and Appliance Controls With Pre-installed Contactors

- Up to 4 loads are controlled by a single SimplRelays 2A
- Required coil current for the pre-installed contactors must be less than 2A.
- Required coil voltage for the pre-installed contactors should be no more than 120V.



Pre-installed  
Contactors

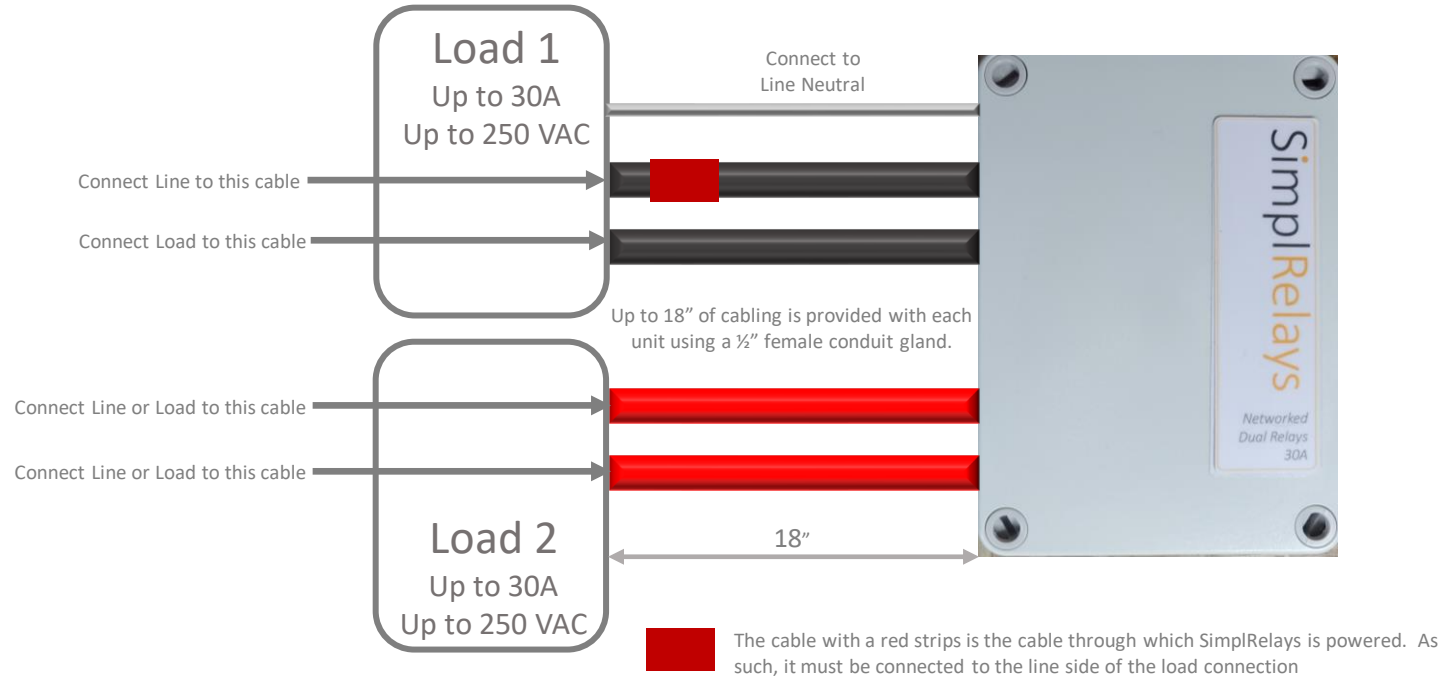


# SimplRelay

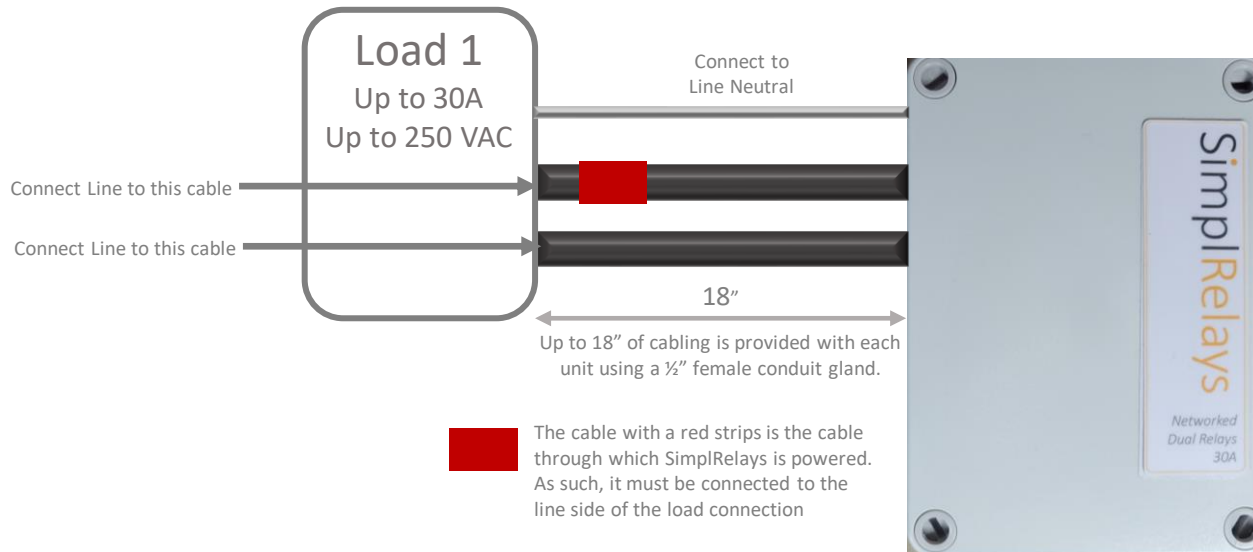
## Lighting and Appliance Controls Without Contactor

- For applications that do not include a pre-existing contactor or relay, we recommend using SimplRelays 30A Single or SimplRelays 30A, Dual for single or dual lighting and appliance controls.
- It is important to make sure that the current draw of the appliance or the lighting circuit is less than 30A per circuit.
- SimplRelays, 30A supports loads up to 250 VAC.
- Note that SimplRelays is powered using the black cable with a red stripe on it. As such the black cable with the red stripe MUST always be connected to the line side of the electrical wiring.

### SimplRelays 30A-Dual Channel



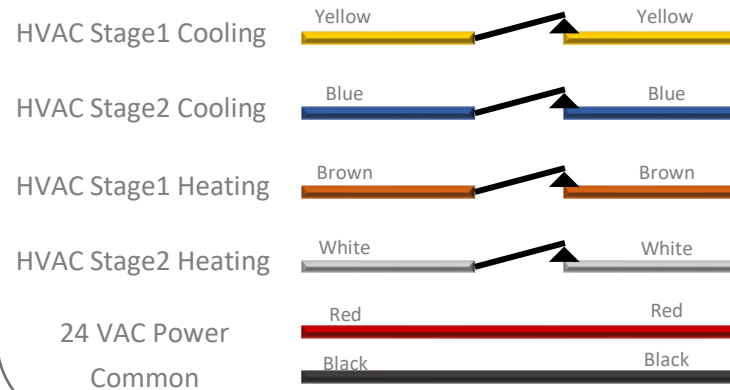
### SimplRelays 30A-Single Channel



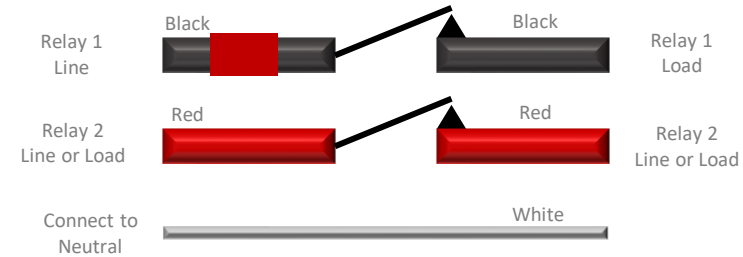


# SimplRelays Quick Start Guide

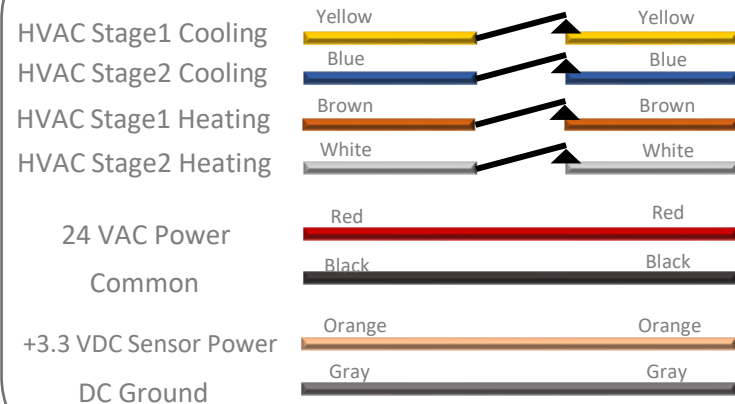
## SimplRelays 2A: HVAC Controls



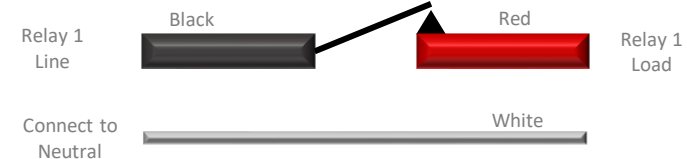
## SimplRelays 30A-Dual Channel



## HVAC Controls with Powered Sensor

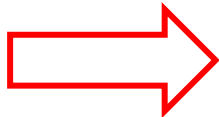
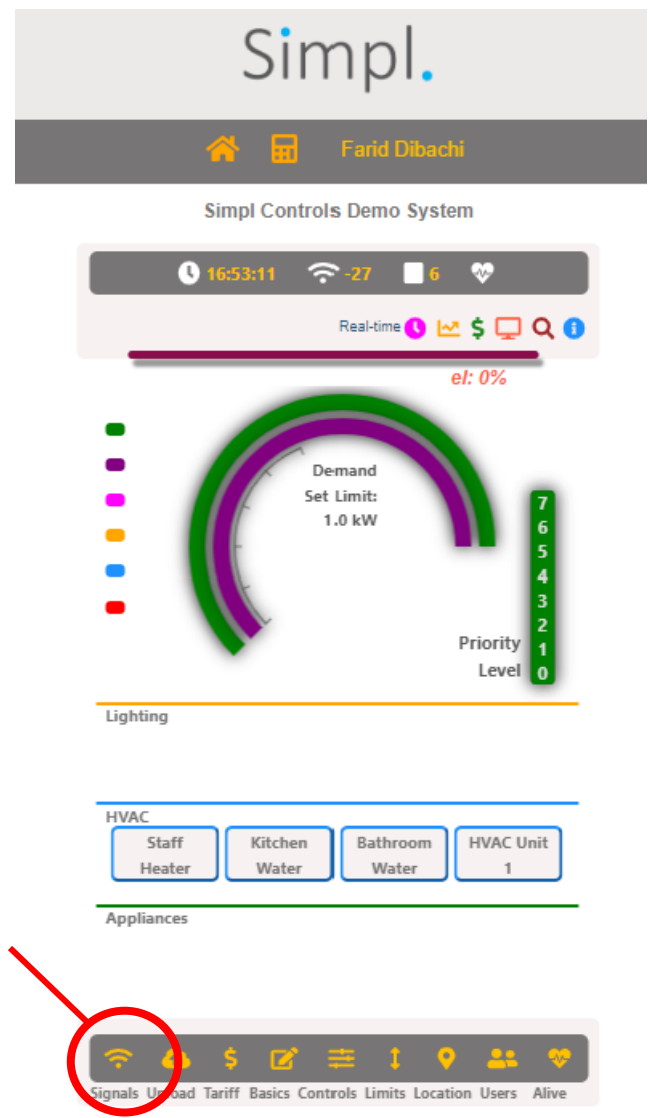


## SimplRelays 30A-Single Channel



# Signal Strength

- Go to [www.simplglobal.com](http://www.simplglobal.com)
- Click on “Login” on the upper right-hand corner of the website.
- Log into the user interface system with your credentials.
- Select the system that is being installed.
- Press on the “Signals” icon on the lower left-hand side of UI as shown here.
- This will take you to the Signal Strength page showing the signal strength for each of the installed nodes.
  - ❖ Green: Excellent
  - ❖ Yellow: Good
  - ❖ Red: Poor
  - ❖ If a node does not show up, either it is not powered or that it is far removed from the rest of the system.



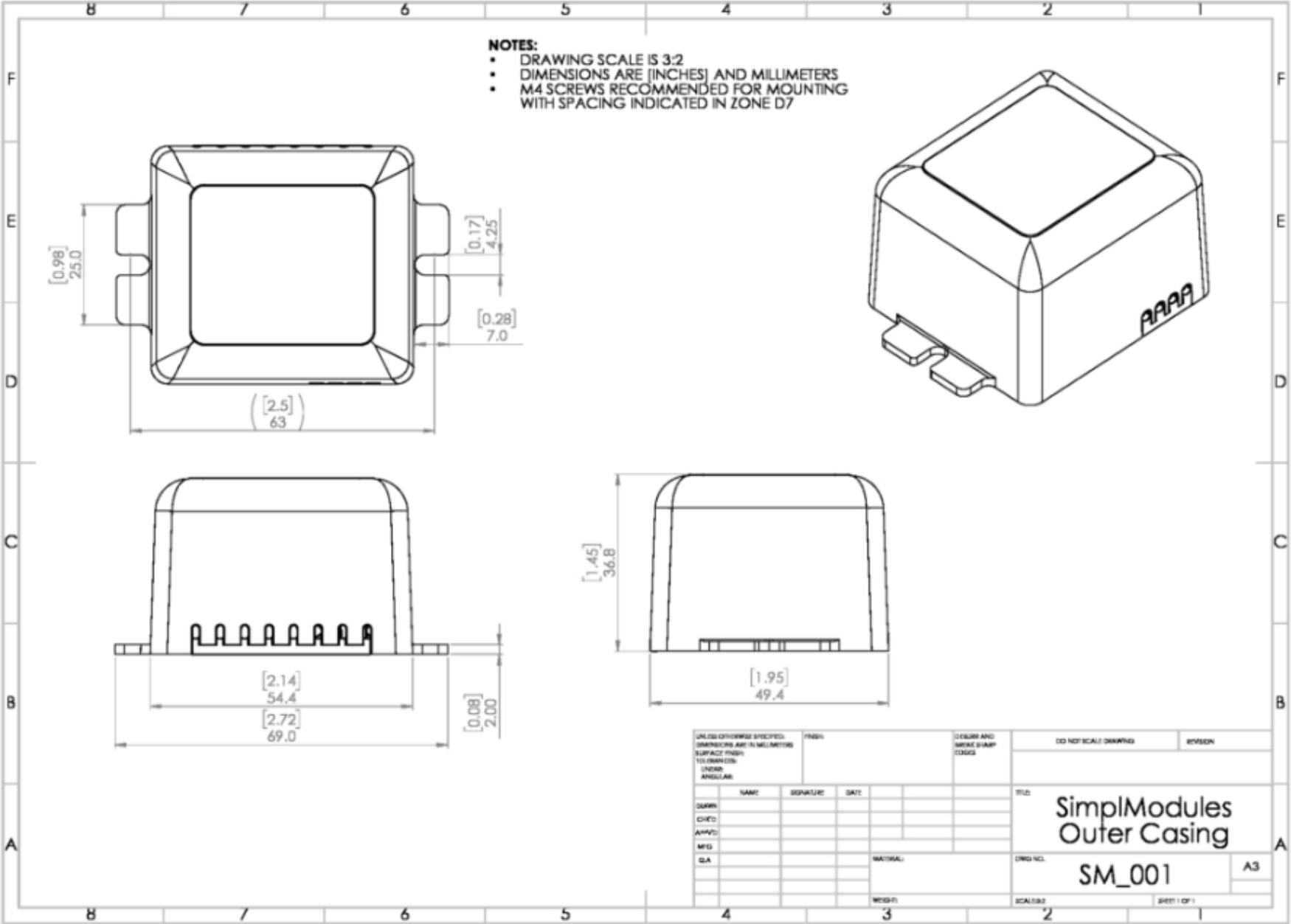
The screenshot shows the Signal Strength page. It displays 'Simpl Controls Demo System Signal Strengths' and 'Internet connectivity is provided by: WiFi Signal strength is: -74 dBm'. Below this are two tables: 'WiFi Mesh Devices' and 'LoRa Sensors and Devices'.

SN	Type	Mesh Layer	WiFi Signal Strength
simpl-000469	SimplThermostat	2	-30
simpl-000303	SimplExtender	4	-73
simpl-000215	SimplExtender	5	-76
simpl-000168	SimplMeter II Slave	6	-60
simpl-000234	SimplRelay	3	-84
simpl-000232	SimplRelay	4	-22

SN	Type	Data Age	LoRa Signal Strength
simpl-000291	Temp.	56	-65
simpl-000278	Temp.	34	-58
simpl-000469	Temp.	0	0
simpl-000271	Temp.	52	-60
simpl-000267	Temp.	42	-68

Mechanical  
Drawing for  
SimplMeter,  
SimplThermostat  
and SimplRelays



# Mechanical Drawing for SimplThermostat Sensors

