Site Supervisor Controller

Quick Setup Guide

The Site Supervisor is a system that combines energy management with the ability to monitor various facility systems and provide alerts when there are issues that need attention. This system provides HVAC control, Refrigeration System Monitoring and Control, as well as Lighting Control. In addition, the Site Supervisor can monitor and report energy consumption and take action to reduce the energy demand during peak periods. This can have a direct impact on utility bills by reducing total energy costs. The Site Supervisor ensures that the HVAC and lighting systems are on and off at the appropriate times. This ability to monitor store conditions can potentially minimize energy consumption.

For a copy of the latest Supervisory Control user manual *(P/N 026-1803)*, visit the Site Supervisor page on the Emerson website: *https://climate.emerson.com/en-us/products/controls-monitoring-systems/facility-controls-electronics/facility-and-system-controls/lumity-supervisory-controls-platform* to download or contact Emerson Electronics and Solutions Technical Support at *833-409-7505*.

Figure 1 - Site Supervisor

Ethernet Connection

1. **ETH1** is designed to be used for directly connecting to laptop, PC, or optional touchscreen with a CAT5 network cable.
2. The default IP for **ETH1** is 192.168.1.250.
3. The optional Site Supervisor Display touchscreen default IP is 192.168.1.200 and will connect automatically to the Site Supervisor when plugged into **ETH1**. *It is recommended that you do not change these defaults*.

Figure 2 - Site Supervisor ETH 1 Ports

4. **ETH0** should be reserved for the secure network connections: store or corporate networks. Ask your network administrator for the correct network IP address for **ETH0**.
5. **ETH0** and **ETH1** are physically separated for added security. Directly connecting to **ETH1** will not access the secure network connection on **ETH0**.
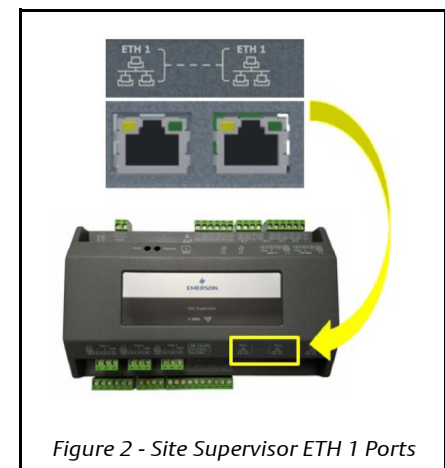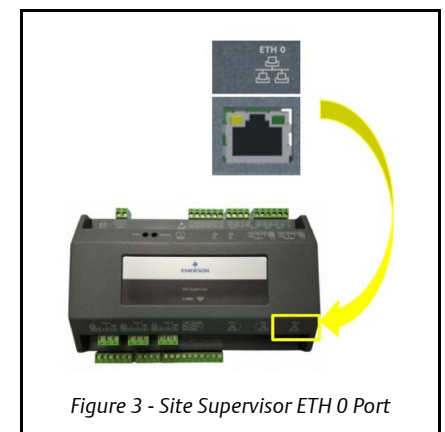

Figure 3 - Site Supervisor ETH 0 Port

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Direct Connect Instructions - Connect your laptop to Site Supervisor's Ethernet port ETH1:

1. Under the **Control Panel - Network and Sharing Center,** select **Change adapter settings**.
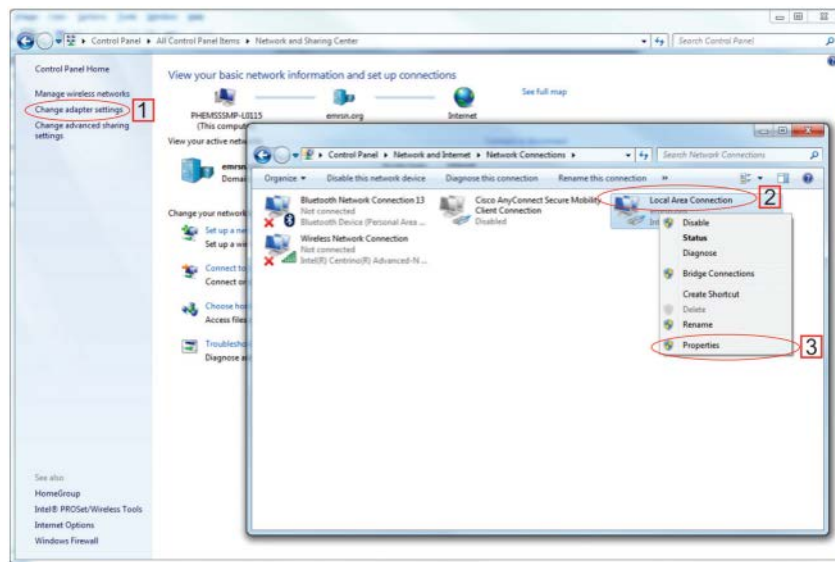2. Select the **Local Area Connection** port being used.
3. Select **Properties**.

Figure 4 - Change Adapter Settings

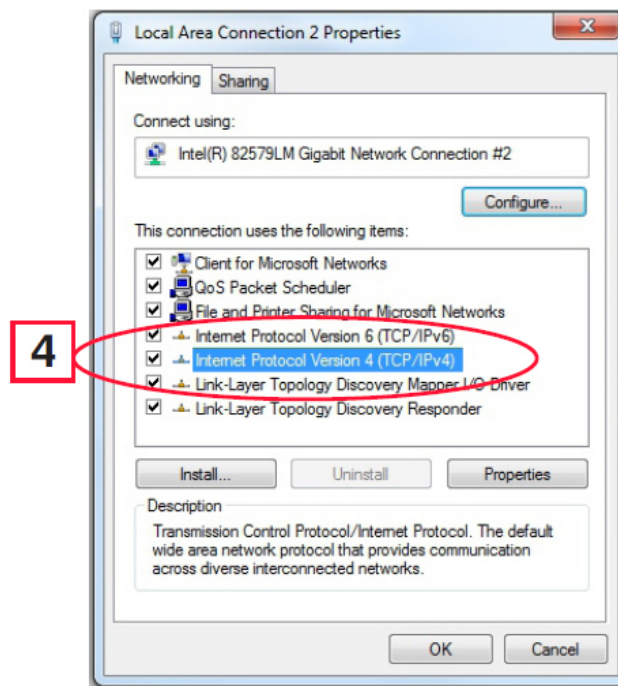4. Highlight the section **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**:

Figure 5 - Highlight Internet Protocol Version 4 (TCP/IPv4)

5. Click **Use the following IP address:** and enter the **IP address** 192.168.1.251 and the **Subnet mask** 255.255.255.0 of the PC being used on the Local Area Network or direct connection and click **OK**:
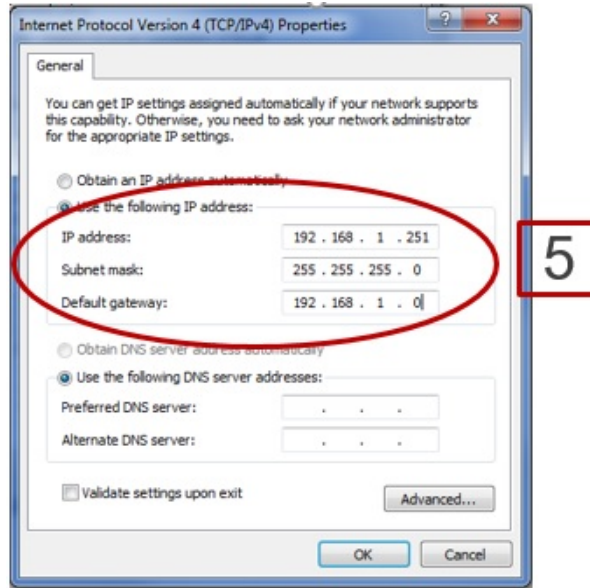

Figure 6 - IP Address and Subnet Mask

Logging Into the Site Supervisor

1. Launch a preferred Web browser: Google Chrome 105.0.5195 and later, Firefox 105.0 and later, MAC Safari 14.1.2 and later, iOS Safari 14.7 and later, Microsoft Edge 84.0.522 and later, and Chrome/WebView 105.0.5195 and later are the supported browsers.
2. Enter the IP Address of the device.
3. Enter your Username/Password (default **user/pass**) and click **Login**. Then update your password to the minimum complexity requirements and click **Save**.

Note that when directly connecting your laptop or PC to ETH1, enter the default IP into the browser address bar: ETH1 Default IP Address is 192.168.1.250.
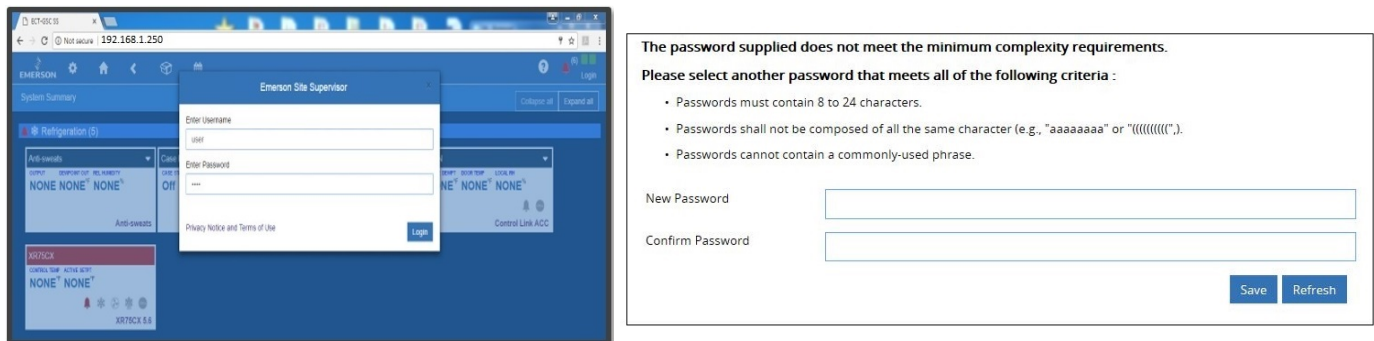

Figure 7 - Login Screen at Controller Startup and Update Password

How to Change the IP Address

Method 1: Direct Connect

1. Select the Main Menu icon ⚙ **> Configure System > General System Properties > Network Settings**:
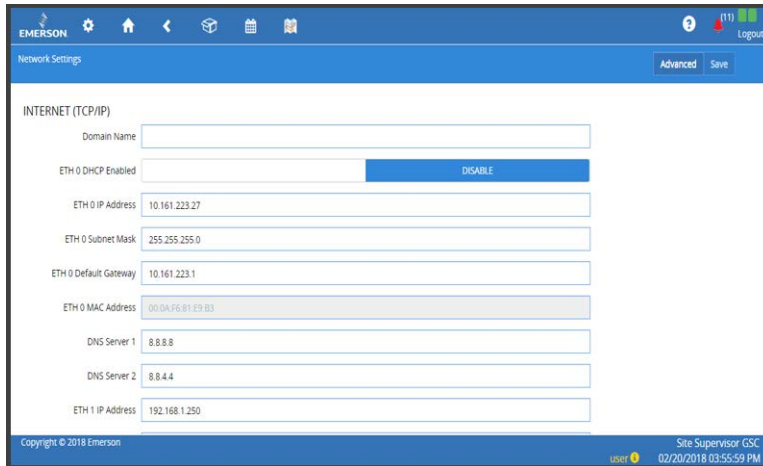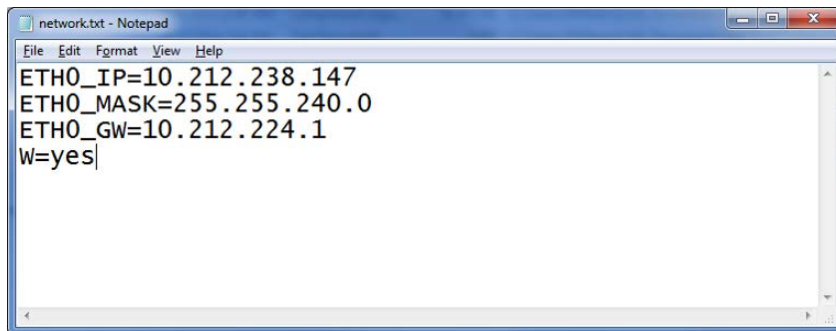

Figure 8 - Enter IP Address in the ETH 0 IP Address Field

2. On the *INTERNET (TCP/IP)* section on the screen, enter the IP Address in the **ETH 0 IP Address** field.

Method 2: USB Port

1. Create a "network.txt" with your desired settings (***Figure 7***):

Figure 9 - Network.txt Notepad

2. Save to the root folder of a thumb drive. Insert the thumb drive into the USB port of the Site Supervisor.
3. Power cycle the Site Supervisor and the new IP Address will be saved.

Setup Wizard

Note that if setpoints have been pre-loaded in the unit, the Setup Wizard will not auto-start after logging in.

If your unit has been received directly from the Emerson factory, the Setup Wizard will open and take you through the following setup screens:

Localization Screen

Figure 10 - Localization Screen

Set the Site Supervisor's localization data such as language, date and time formats, and engineering units from the Localization screen.

Language: The default for the language selection is American English (United States). The system stores a setting for the preferred system language (internal language code). The default language is used when no user is currently logged into the Site Supervisor or when the currently active preferred language does not have a translation for a given label, prompt, or display text.

Date: The Date format can be set to either Day, Month, and full Year (D-M-YR) or Month-Day and full Year (M-D-YR) format. The day, month, and year values are separated by either a forward slash or a dash line depending on user selection.

The Date Format can be changed based on user preference and saved to user profiles. On initial Site Supervisor startup, the Date format defaults to the format of the language selected. For example, en-US will default to D-M-YR and all others will default to M-D-YR.

Time: The Time format can be set to either a 12-hour (12-hr) format or 24-hour (24-hr) format. The hour, minute, and second values are separated by either a colon or a period depending on user selection.

The Time format can be changed based on user preference and saved to user profiles. On initial Site Supervisor startup, the Time format defaults to the format of the language selected.

Date and Time delimiters default to forward slashes and colons.

Engineering Units: The default engineering units are based on the assigned units for the chosen preferred language. Users can choose or change their preferred set of engineering units and save them to their user profiles.

The default engineering units are based on the International System of Units (SI System) format.

Set the system language type in the **Language** drop-down menu. Click the right arrow **>** to save and proceed to the System Values screen.

System Values Screen

From the System Values screen, name the unit by entering it in the **Site Name** field. The Confirmation window will slide open. Click **OK**. Then click the right arrow **>** to proceed to the Network Settings Screen.

Figure 11 - System Values Screen

Network Settings Screen

Configure the settings on the Internet TCP/IP screen such as host name, text, and email settings. If you have Internet access, enter the **IP Subnet Mask** and **Default Gateway** settings (see your IT Administrator). If connecting directly to a laptop, use the Default IP and leave the **DHCP** set to **Disable**. For text messaging, enable the SMS setting and use the SMTP address (see your IT Administrator).Click the arrow > to save and finish the Setup Wizard.

Figure 12 - Network Settings
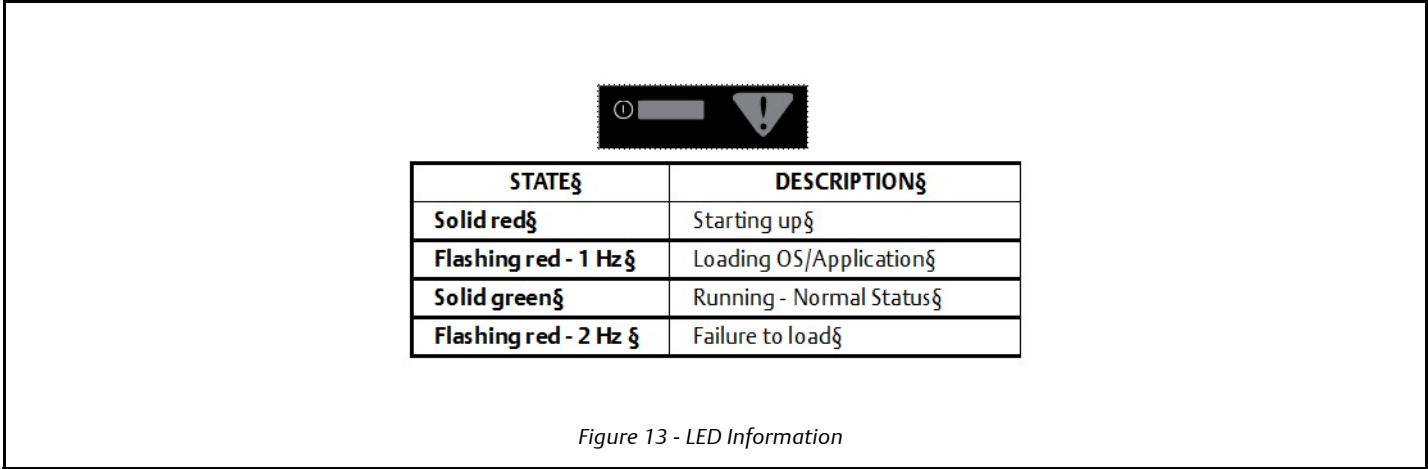

Basic Navigation

For every Site Supervisor screen, the Main Menu, Home, Back Arrow, Control Inventory, and Schedules/Events icons appear at the first row of top of the screen. A screen title also appears at the top left of the screen.
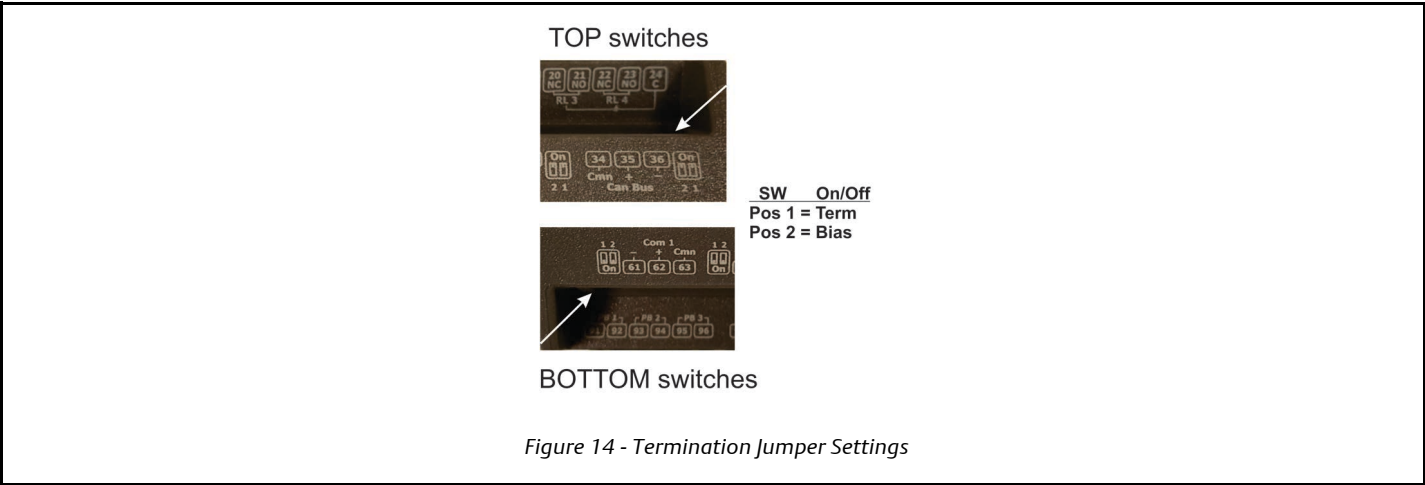
Basic Screen Parts and Elements:

- **Main Display** - this is the main section of the screen, which contains and displays the content of the chosen selection such as reports, device information, configuration settings, and more.
- **Menus and Submenus** - these can be viewed on the Main Menu Panel. The Menus and Sub-menus are grouped into different categories. Each menu selection can have several sub-menus. When you click on a lowest sub-menu level, the screen of the chosen selection is displayed.

Note: When some screen information and contents are clicked, more or related information can be displayed or additional screens accessed. For more information about icon descriptions and buttons, refer to the latest Site Supervisor full manual P/N 026-1803.

LEDs

STATE§	DESCRIPTION§
Solid red§	Starting up§
Flashing red - 1 Hz§	Loading OS/Application§
Solid green§	Running - Normal Status§
Flashing red - 2 Hz §	Failure to load§

Figure 13 - LED Information

Termination Jumper Settings

Figure 14 - Termination Jumper Settings

UL Ratings

Type	Ratings	Terminal
Relay 1 (N.O. & N.C.)	5A, 125/240 VAC, General Purpose, 100K cycles; 4FLA/4LRA, 250VAC, Motor Load, 100K cycles;	J5-2, J5-3, J5-4 (Base Board)
Relay 2 (N.O. & N.C.)	5A, 125/240 VAC, General Purpose, 100K cycles; 4FLA/4LRA, 250VAC, Motor Load, 100K cycles;	J5-1, J5-2, J6-6 (Base Board)
Relay 3 (N.O. & N.C.)	5A, 125/240 VAC, General Purpose, 100K cycles; 4FLA/4LRA, 250VAC, Motor Load, 100K cycles;	J6-1, J6-4, J6-5 (Base Board)
Relay 4 (N.O. & N.C.)	5A, 125/240 VAC, General Purpose, 100K cycles; 4FLA/4LRA, 250VAC, Motor Load, 100K cycles;	J6-1, J6-2, J6-3 (Base Board)

Table 1 - UL Ratings

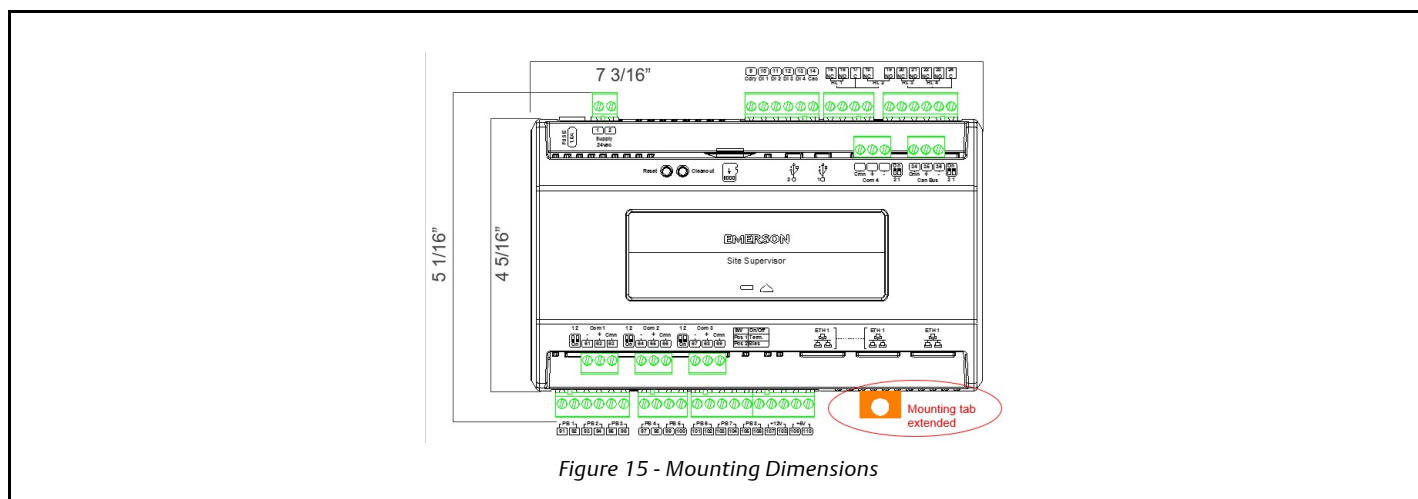## Housing Dimensions and Mounting

Figure 15 - Mounting Dimensions

The Site Supervisor can be mounted to standard 35mm DIN Rail. Snap the orange tabs on the back of the unit to the down position to fasten. If not using the DIN Rail mounting option, fasten to the mounting surface using the openings in the mounting tabs. Pull the four orange mounting tabs out until they lock, which will expose the mounting holes.

Technical Specifications

Operating Temperature	-40°F to 149°F (-40°C to 65°C)
Relative Humidity	20-85% RH non-condensing
Enclosure Rating	UL 94 V-0
Dimensions	L $7^{3/16}$ x W $2^{3/8}$" x H $4^{5/16}$" (183 mm x 60 mm x 100mm)
24 VAC	20VA required 24VAC/20VA
1 Can Bus	Expansion Module Connections
4 RS485 ports	MODBUS Com Ports 1, 2, 3, and 4
3 Ethernet ports	Ports 1, 1, 0
2 USB ports	1, 2
MicroSD	1
Analog Inputs	8
Digital Inputs	4
Relay Outputs	4

Table 2 - Technical Specifications
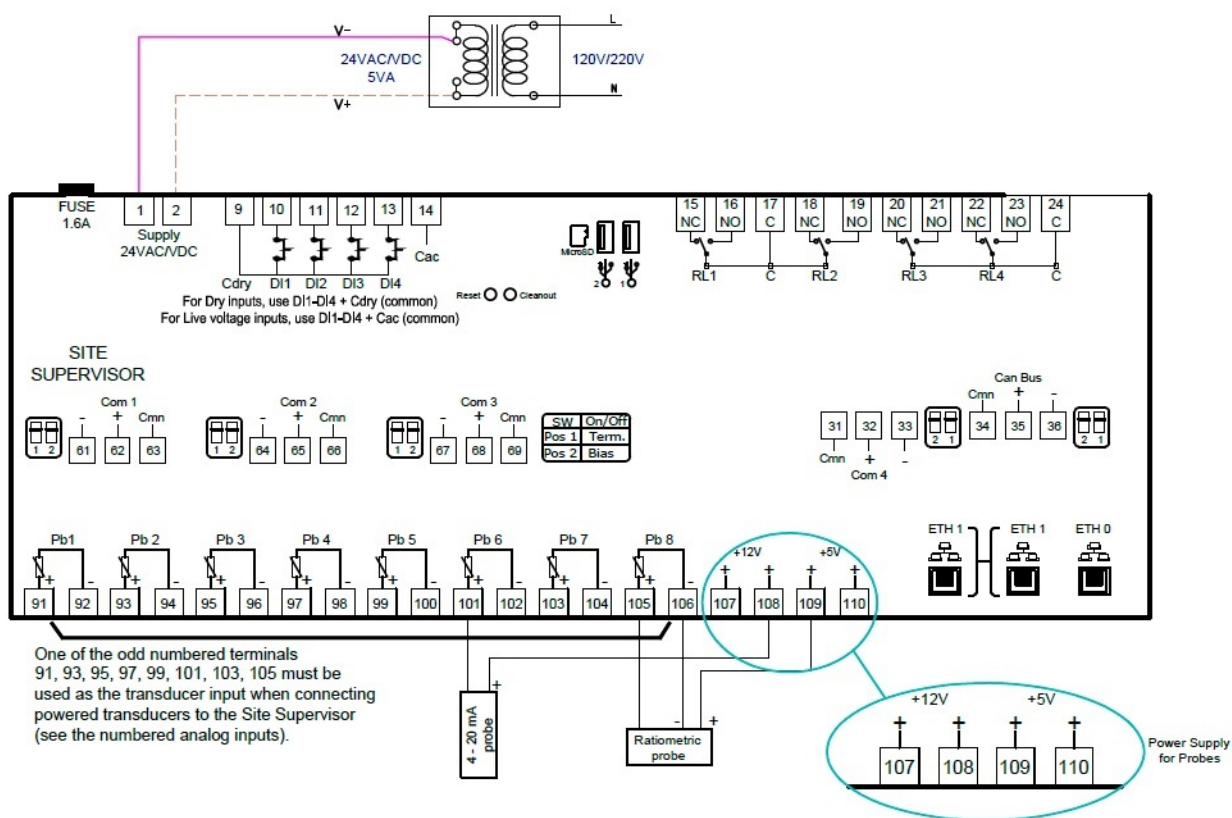
Wiring Diagram

Figure 16 - Site Supervisor Wiring Diagram

Site Supervisor RS485 Wiring Guide Examples

For more wiring information, refer to the latest Supervisor Control user manual (P/N 026-1803).

- The Site Supervisor IONet connections must be wired reverse polarity.
- For the Site Supervisor Serial IONet connections, connect the white wire to the negative terminal and the black wire to the positive terminal.
- For 8RO and MultiFlex RS485 IONet connections, connect the white wire to the positive terminal and the black wire to the negative terminal.
- Connect the shield wire to earth/chassis at the Site Supervisor end of the IONet network segment. DO NOT connect the shield wire to any connector on the Site Supervisor.
- For daisy-chain configurations, terminate devices at the beginning and the end of the network segment. All other devices in the network segment are not terminated (termination jumpers in the not-terminated position).
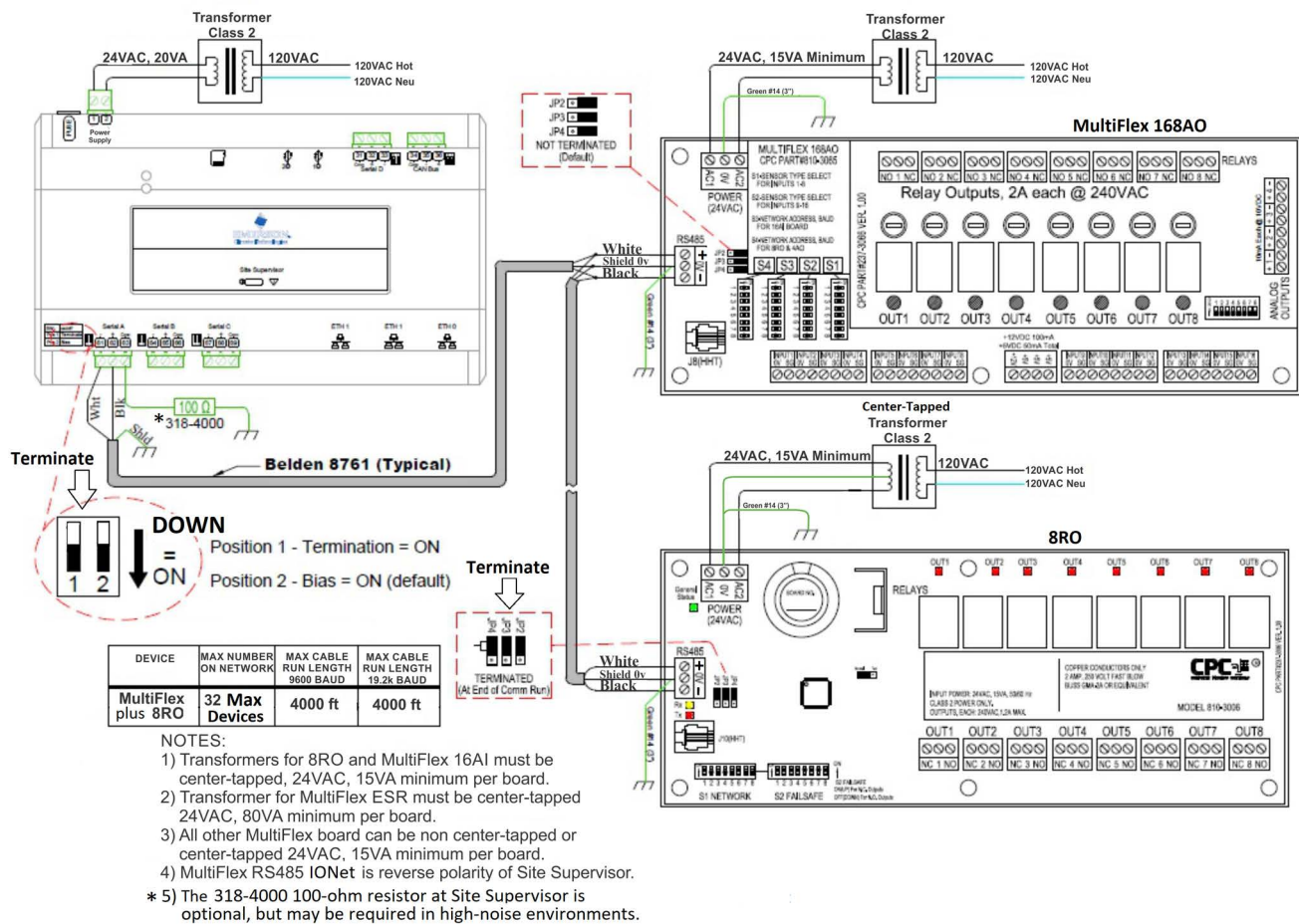
Figure 17 - Site Supervisor, MultiFlex, and 8RO Wiring Layout

- The Site Supervisor and XR75CX shares the same MODBUS network polarity. **_Do not_** reverse polarity.
- Connect the shield wire to earth/chassis at the Site Supervisor end of the MODBUS network segment. **_Do not_** connect the shield wire to any connector on the Site Supervisor or XR75CX.
- For daisy-chain configurations, terminate devices at the beginning and the end of the network segment. Set the dip switch position 1 and 2 to the ON position on the Site Supervisor. For XR75CX end of network, terminate with a 150-ohm resistor or 535-2711 termination block. All other devices in the network segment are not terminated.
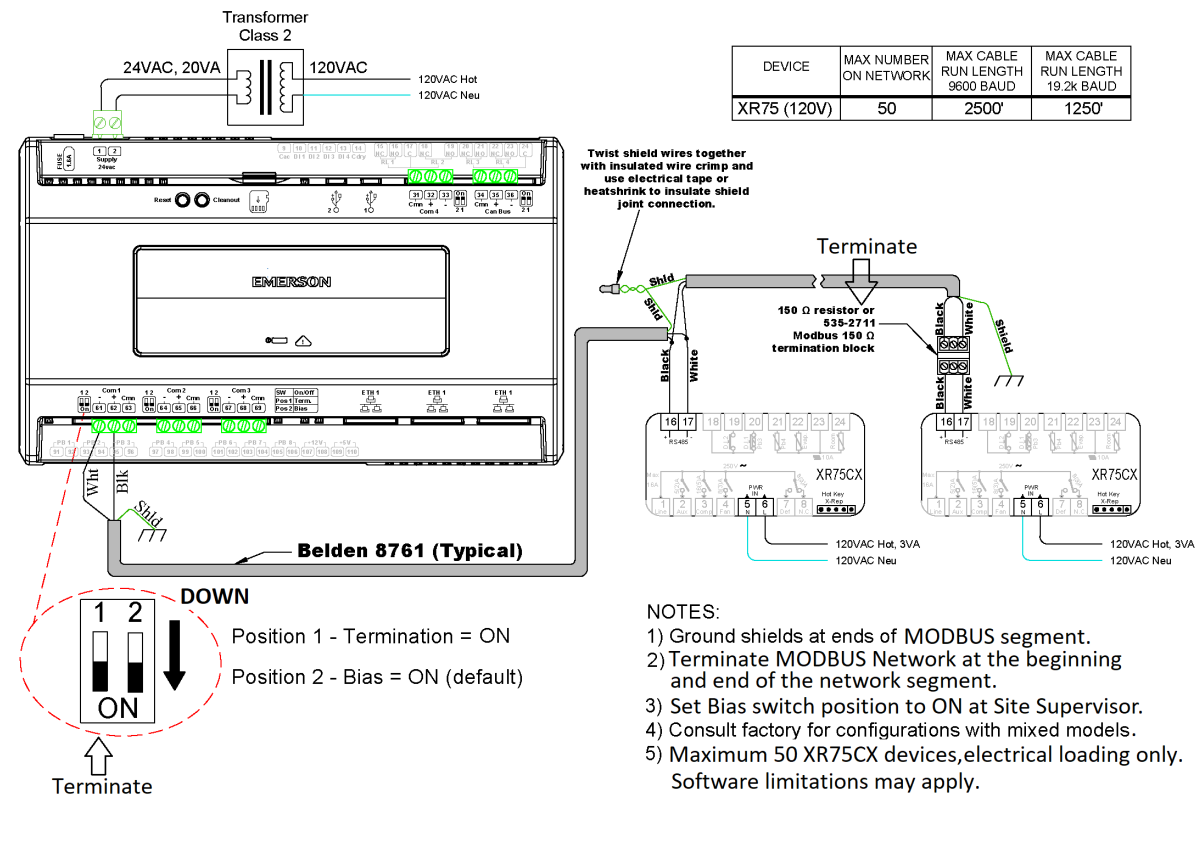
Figure 18 - Site Supervisor and XR75CX Wiring Layout

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