CLIMATEMASTER®

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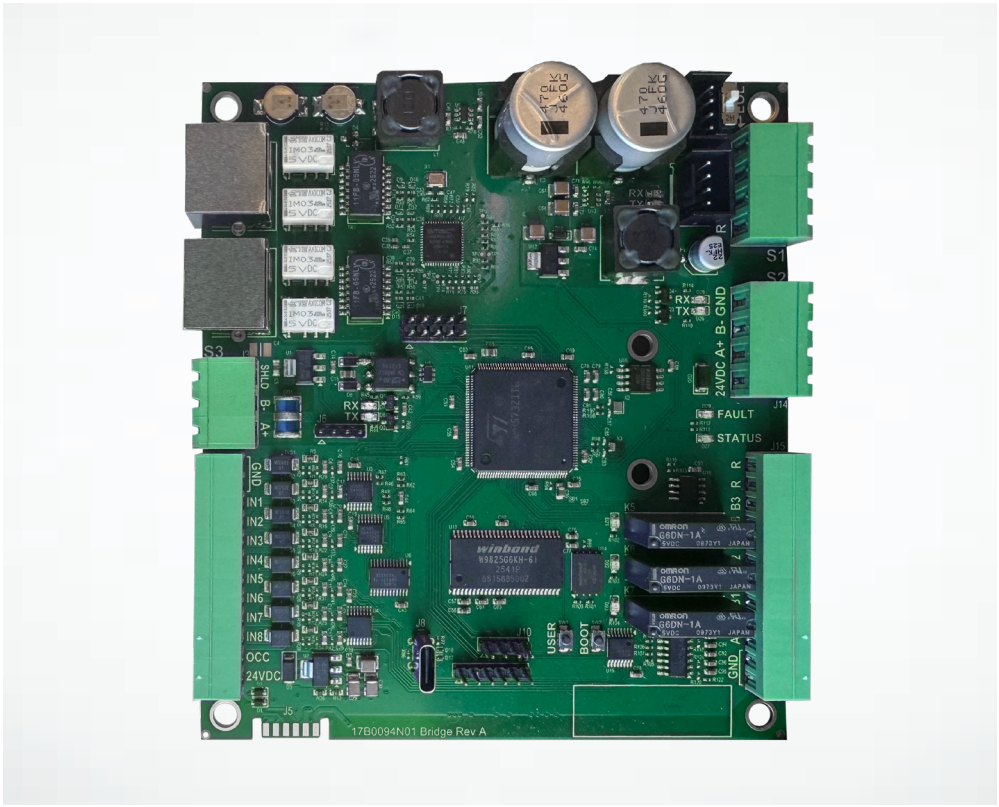
CLIMALINK EDGE INTEGRATION CONTROLS

APPLICATION, OPERATION & MAINTENANCE MANUAL

Part#: 97B0186N01 | Revised: April 23, 2026



Model:
Edge

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Overview

Model: Edge

The ClimaLink Edge integration control is designed to allow the integration of water-source heat pump equipment into DDC systems. The ClimaLink Edge has the ability to communicate through a choice of these widely used protocols:

- BACnet (Ethernet/IP or MS/TP)
- Modbus (RTU or TCP)

You can configure the protocol of choice using the Wireless Service Tool. This flexibility enables one controller, the Edge, to be used in a multitude of buildings which use any of these common protocols.

The Edge serves as a node of information processing between the heat pump and the DDC network. The Edge monitors the operation of the heat pump and communicates the operating parameters to the DDC network. The Edge always works in conjunction with a CXM2 or DXM2.6 controller, which also resides in the heat pump control box. The Edge can run in standalone operation as well as with the DDC network. The heat pump arrives at the job site with the factory-installed Edge control and is ready to run standalone and can be connected to the DDC network at any time.

FEATURES

System Controls

In conjunction with the a wall sensor, the Edge offers features such as:

- Room temperature sensing
- Local setpoint adjustment
- Local override into Occupied Mode
- LED for alarm status
- LED for fault status type
- Digital room temperature display
- Information from the wall sensors can be reported to the DDC network system
- Various combination sensors support temperature control, humidity control, CO_2 control, occupancy control, and VOC control
- Supports water-to-air application or water-to-water applications
- You can program the Edge with a 7-day schedule (BACnet only)
- Ability to operate in heating or cooling-only mode
- Ability to operate in full time electric or external heat mode
- Input for pressure switch for dirty filter notice applications
- Selectively support zone averaging using up to five communicating wall sensors.

Communications

- Multi-protocol communications provides DDC system flexibility
- Supports native BACnet Ethernet/IP or MS/TP communications (the ASHRAE standard protocol for interoperability)
- Supports Modbus RTU or TCP communications for integration into Modbus DDC networks
- Selectable baud rate levels offer flexible communications speeds of 9.6k, 19.2k, 38.4k, 76.8k, or 115.2k baud
- Supports remote updates when connected to a ClimaLink server
- Supports five communicating Modbus sensors or one analog sensor
- Supports the Wireless Service Tool for maintenance and configuration

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Edge

Overview

Figure 1: Typical System - Water-to-Air Heat Pump

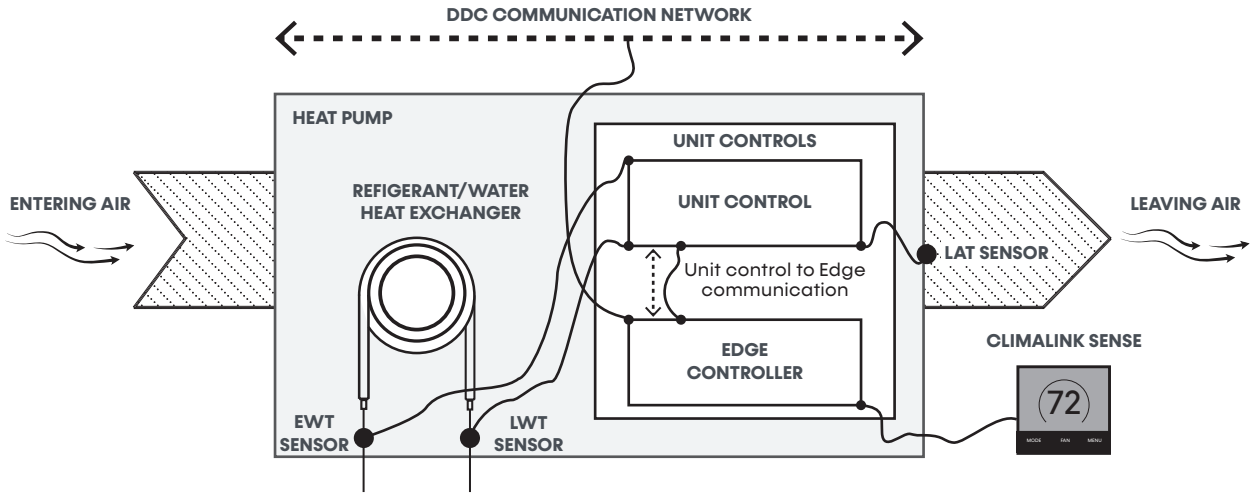
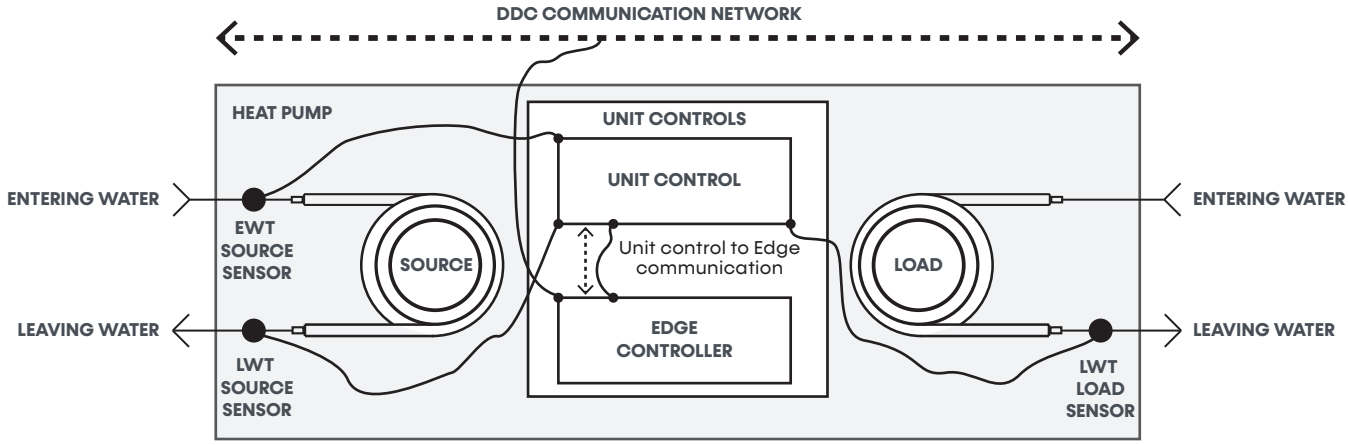


Figure 2: Typical System - Water-to-Water Heat Pump



Overview
General Specifications

Model: Edge

GENERAL SPECIFICATIONS

- **Power:** 24VAC ± 15%, 50 or 60 Hz, 55VA max. power consumption
- **Size:** 5 1/16 inch (129 mm) width x 5 11/16 inch (144 mm) height x 1½ inch (38 mm) minimum panel depth
- **Environmental:** -40-176°F (-40-80°C), up to 95% non-condensing
- **Protection:** Surge and Transient protection circuitry for the power and I/O. Isolation for communications port.
- **Processor/Memory:** High speed Cortex-M33 CPU running at 250MHz with 620 KB of SRAM and 2MB of built-in flash memory
- **LED Indicators:** Individual LEDs for each RS-485 port (digital outputs, power, run, error, transmit, and receive), Status LED, and Fault LED
- **I/O Point Count:**
  - Three on-board relays and two analog outputs (relays rated for 5A resistive at 24VAC, analog outputs rated 0-10V)
  - Eight universal inputs 0-10VDC, thermistor, dry contact, 0-20mA
  - One analog wall sensor port for a non-communicating wall sensor (via J4 Universal Input terminal block)
  - One digital wall sensor port for communicating wall sensors
- **Communications:** EIA-485 communications port using twisted pair. Available protocols are BACnet Ethernet IP or MS/TP, and Modbus RTU or TCP. The available baud rates are 9,600, 19.2k, 38.4k, 76.8k, and 115.2k.
- **ClimaLink Sense Communicating Wall Sensor (ASW030HOC):** The wall sensors provide room temperature, humidity, and CO_2 sensing with digital touchscreen display, local setpoint adjust, local override, LED for alarm status and fault type indication, and heat pump reset. The wall sensors require four wires.
- **Mounting:** Factory mounted.
- **Dimensions:** 5.125 inches in length by 4.650 inches in height.

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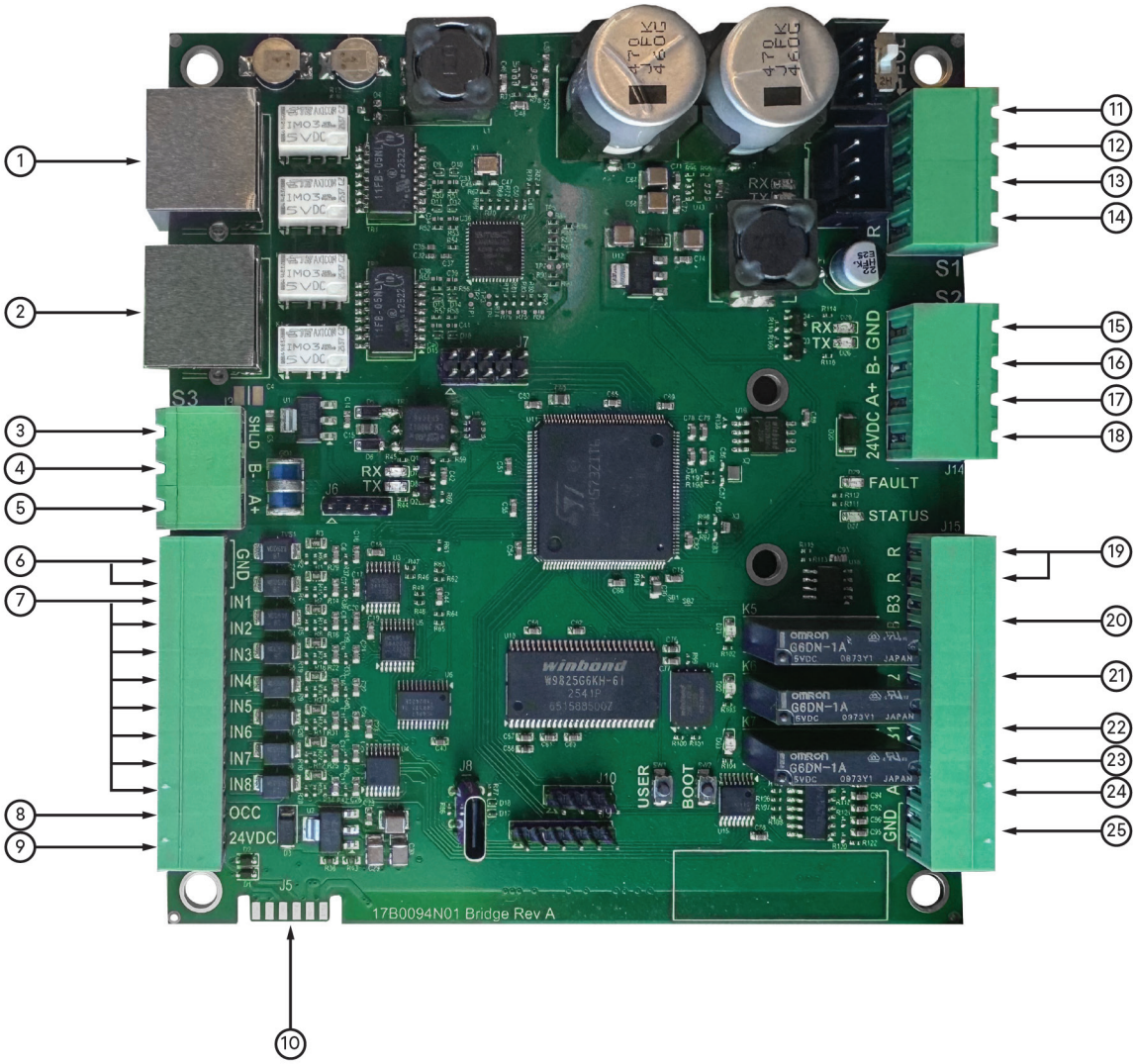
Edge

Overview
Layout and Connections



ID	Description	Terminal Block
1	ETH1 10/100 Ethernet RX/TX (J1)	J1
2	ETH2 10/100 Ethernet RX/TX (J2)	J2
3	Cable Shield (J3)	J3
4	RS-485 Signal B (J3)	
5	RS-485 Signal A (J3)	
6	Power/Signal Common (J4)	J4
7	Input 1-8 (J4)	
8	Occupancy Status Output (J4)	
9	24VDC Output (J4)	
10	I/O Expansion (J5)	J5
11	24VAC Power Common	J13
12	RS-485 Signal B	
13	RS-485 Signal A	

ID	Description	Terminal Block
14	24VAC Power Input	J13
15	Power Common	J14
16	RS-485 Signal B	
17	RS-485 Signal A	
18	24VDC Power Output (for communicating sensors)	
19	24VAC Outputs	J15
20	Binary Output 3 COM & NO	
21	Binary Output 2 COM & NO	
22	Binary Output 1 COM & NO	
23	0-10V Out 2	
24	0-10V Out 1	
25	Power/Signal Common	

Overview Communications

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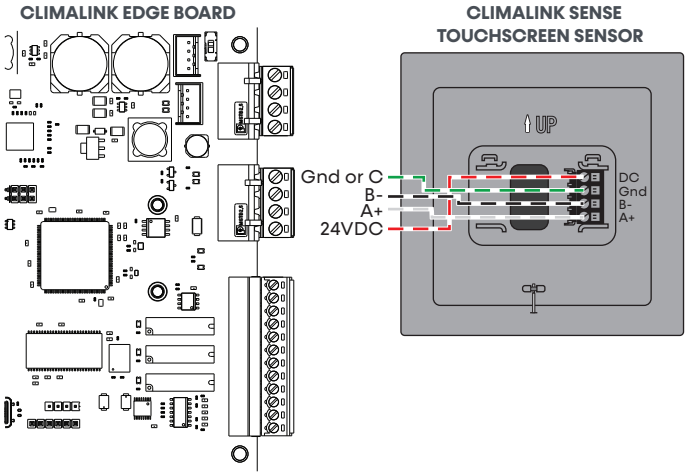
COMMUNICATIONS SELECTION

When the communications port is configured for RS-485 communications, use standard dedicated 18AWG - 22AWG twisted-pair wire.

COMMUNICATIONS WIRING

1. Ensure the module's power is off before wiring to the communications bus.
2. Check the network communication wiring for shorts and grounds.
3. Connect the communication wires and shield to the module's screw terminals. For an example, see the **Communication Wiring** figure. Be sure to follow the same polarity as the rest of the communications network.
4. Power up the module.
5. You can verify proper communication for all protocols and baud rates by ensuring the transmit (Tx) and receive (Rx) LEDs are active.

ClimaLink Edge to ClimaLink Sense Example Wiring



CONFIGURE PROTOCOL

The communications port on the Edge includes multi-protocol capability, which means you can configure the Edge to communicate via BACnet or Modbus communication protocols. The protocol configuration and baud rate are set through the Wireless Service Tool.

NOTE: ARC156 wiring is compatible only with BACnet protocol. RS-485 wiring is compatible with BACnet and Modbus protocols.

Figure 3: Communication Wiring

BACnet Setup

You can configure the Edge to communicate via BACnet IP or BACnet MS/TP.

Modbus Setup

You can select a baud rate from 115.2 kbps, 76.8 kbps, 57.6 kbps, 38.4 kbps, 19.2 kbps, or 9.6 kbps.

ADDRESSING AND POWER UP

You can set the device ID using the Wireless Service Tool.

NOTE: Set the address for heat pump #1 (HP-1) at 02 per typical BMS naming conventions. All other heat pump addresses should be assigned as HP# + 1.

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Overview
Additional Information

ADDITIONAL INFORMATION

Space Sensors

The Edge is designed to work with specific sensors. You may use the following sensors types:

- Analog (reference the **Analogue Sensors** table for input specifications)
- Communicating (reference the **Communicating Sensors** table for approved sensors)

The communicating sensor connection is on the right side (port S2) of the Edge and the analog sensor is on the lower left side (terminal block J4). Using communicating sensors allows for extra inputs into the Edge.

You can use the following diagnostic sensors:

- Temperature only
- Temperature and humidity
- Temperature, humidity, and CO_2

NOTE: You must configure each analog input using the Wireless Service Tool (WST) to define the corresponding minimum and maximum scale values. For example, you can scale a 0-10V temperature input to represent 50-95°F.

Retrofit Edge to Existing Units

You can add the Edge to any unit equipped with the CXM2 or DXM2.6 unit control running firmware version 2.06 and newer. A retrofit kit is available with the control, necessary wiring, and additional sensors.

- DXM2.6 Retrofit Kit (Part Number S17S0002N26U1)
- CXM2 Retrofit Kit (Part Number S17S0001N05U1)

iGate® 2 Communication

The iGate 2 functions are not available when the Edge is installed. You can connect the Wireless Service Tool directly to the DXM2.6 to access the control board functions.

Additional Inputs

All eight universal inputs are available for additional diagnostic sensor inputs when the communicating sensors are used. You can use any of the unused universal inputs for diagnostic sensor inputs for analog sensor applications.

The eight universal input terminals accept 0-10VDC, thermistor, dry contact signals, or 0-20mA inputs.

You can configure the Edge with a 7-day program schedule.

Table 1: Sensors

Type	Manufacturer	Model/Series	Measured Variables	Output Types
Communicating	ClimateMaster	ASW008STP, AST008	Temp	Thermistor
	BAPI	Quantum (BAPI-Stat)	Temp, RH, VOC, CO_2	Thermistor, 0-10V, 4-20mA
	BAPI	BAPI-Stat 4/Room Transmitters	Temp, RH	4-20mA, 0-10V
	ACI	A/TT Room Series	Temp, RH, setpoint	4-20mA, 1-5V, 2-10V
	ACI	A/RH1-R	Temp, RH	0-5V, 0-10V, 4-20mA
	Veris	TWS Series	Temp + setpoint	4-20mA, 0-5V, 0-10V
	Veris	HW2 Series (Temp/RH combo)	Temp, RH, setpoint	0-10V, 4-20mA
	Dwyer	RHP/RHPLC/WHT Series	Temp, RH	4-20mA, 0-10V
	Dwyer	BTT/Temp Transmitters	Temp	4-20mA
	Generic (multiple vendors)	Passive Thermistor Sensors	Temp	Thermistor
Analogue	ClimateMaster	ClimaLink Sense (ASW030HOC)	Temp, RH, IAQ (CO_2/VOC variants)	
	Belimo	22RTM-5U00D or 22RTH-5U00D|Temp, RH, CO_2 with Interface	Temp, RH, CO_2 setpoint	
	Belimo	22RTM-5U00A or 22RTH-5U00A|Temp, RH, CO_2 Sensor	Temp, RH, CO_2	

LED Codes

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LEDS

- **Receive (Rx)**: lights when the communication port receives data
- **Transmit (Tx)**: lights when the communication port transmits data

DIGITAL OUTPUT LEDS

There are three digital outputs on the Edge. You can custom configure all outputs to control external devices (5A resistive, 2A inductive at 24VAC).

Table 2: LED Status and Fault Codes

Fault and Status LED Operation	Fault LED	Status LED
Control is non-operational	Off	Off
Normal operation - No active WSHP unit communications	On	On
Normal operation - With active WSHP unit communications	Very Slow Flash	On
Control is locked out	Fast Flash	--
Control has an active alert	Slow Flash	--
Board Initialization Active	--	Fast Flash
Bootloader Mode Active	--	Slow Flash
Missing communicating sensors (all)	Fast Flash	--
Missing communicating sensor (discovered less than expected)	Slow Flash	--
High temperature reading (user configured trip point)	Slow Flash	--
Low temperature reading (user configured trip point)	Slow Flash	--
High humidity reading (user configured trip point)	Slow Flash	--
Low humidity (user configured trip point)	Slow Flash	--
High CO_2 (user configured trip point)	Slow Flash	--
OOR temperature reading (single sensor)	Fast Flash	--
OOR temperature reading (multiple sensors)	Slow Flash	--

- Fast Flash = 2 flashes every 1 second
- Slow Flash = 1 flash every 2 seconds
- Very Slow Flash = 1 flash every 5 seconds

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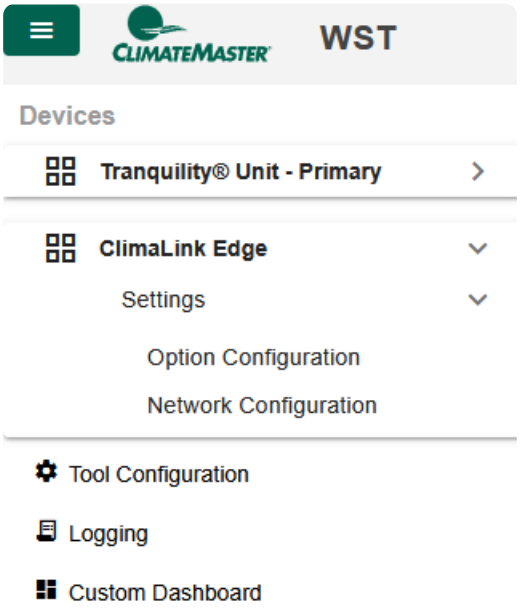
Manage ClimaLink Edge with the Wireless Service Tool

Manage the Edge using the Wireless Service Tool (WST) Web App. After accessing the WST's Web App, select **ClimaLink Edge**. The following screen displays:

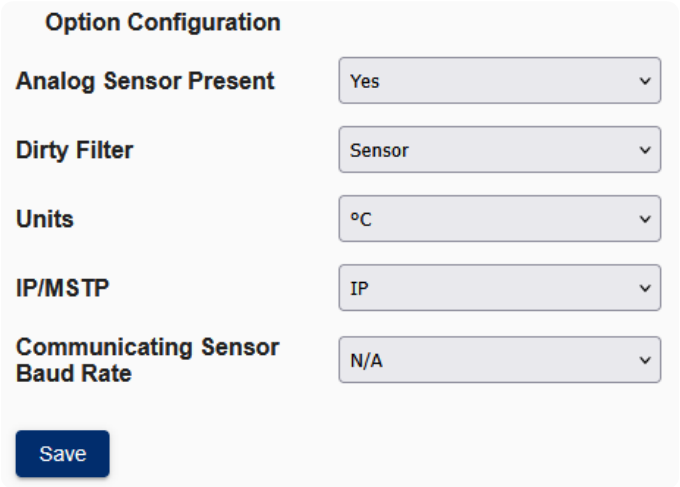
Figure 4: WST Web App Menu



From the ClimaLink Edge menu, you can access the following:

- **Option Configuration**
- **Network Configuration**

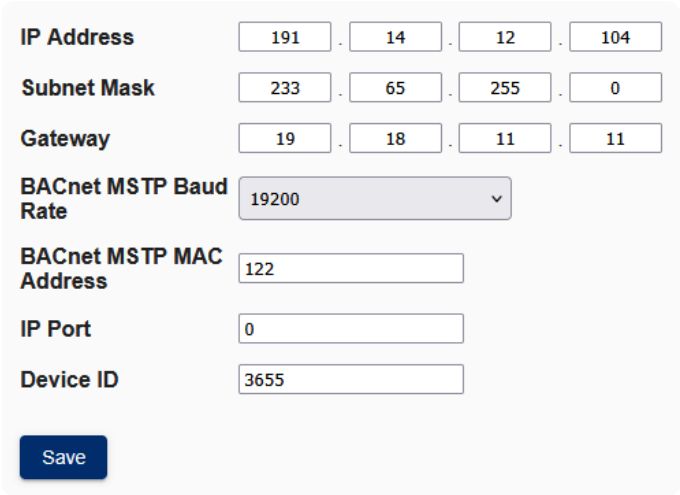
Figure 5: Option Configuration



In **Option Configuration**, you can configure the following:

- **Analog Sensor Present:** Set the status for an analog sensor
- **Dirty Filter:** Set either a physical dirty filter switch connected to the board or use a calculated dirty filter condition
- **Units:** Set the unit of measurement for temperature (Celsius or Fahrenheit)
- **IP/MS TP:** Set the BACnet protocol to either BACnet/IP or BACnet/MSTP
- **Communicating Sensor Baud Rate:** Set the sensor baud rate

Figure 6: Network Configuration



In **Network Configuration**, you can configure the following:

- **IP Address:** Set the IP address for BACnet/IP
- **Subnet Mask:** Set the subnet mask for BACnet/IP
- **Gateway:** Set the gateway for BACnet/IP
- **BACnet MSTP Baud Rate:** Set the baud rate for BACnet MSTP
- **BACnet MSTP MAC Address:** Set the MSTP MAC address
- **IP Port:** Set the BACnet/IP network port
- **Device ID:** Set the BACnet Device ID for the Edge

Sequence of Operation

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OCCUPANCY

Occupancy is set through the communications network or a universal input configured for occupancy. The ClimaLink Sense sensors (ASW030HOC) indicate the occupancy status for each space.

TROUBLESHOOTING TIPS

If the BMS is having trouble communicating with the Edge, check the following items before contacting technical support.

- Ensure the Edge wiring is correct. Ensure all color codes match and that no wire strands are shorting over to other terminals.
- Ensure the Edge and other network controllers have power and are turned on. Ensure all equipment has power and LEDs lit.
- Ensure that all jumpers are set to default and that there is nothing jumped on the format pin.
- Validate the network configuration using the Wireless Service Tool.

  A. Log in to the Wireless Service Tool Web App

  B. Go to **ClimaLink Edge > Network Configuration**

- If the unit's configuration is incorrect, troubleshoot the issue by connecting the WST to the unit control then correct the unit's configuration in the Wireless Service Tool Web App.

STARTUP CHECK

1. Ensure the unit is powered up and running.
2. Check LED status using the **LED Status and Fault Codes** table for reference.
3. Power down the Edge and connect the WST and ASW communicating sensors. After installing the sensors, power the Edge back up.
4. Log in to the Wireless Service Tool Web Application
5. Go to **ClimaLink Edge > Option Configuration** and verify that the following options are set as desired:
   - Analog Sensor Present
   - Dirty Filter
   - Units
   - IP/MSTP
   - Communicating Sensor Baud Rate

Model: Edge

Feature Configuration

- **Occupancy Settings**: These control points are used to set occupancy.
  - **Occupancy (BV:719):** This point controls whether the unit is in Occupied or Unoccupied Mode. It defaults to Occupied.
  - **Occupancy Override (BI:204):** Is a digital input that receives a signal from an external motion sensor to override occupancy status. For this to function, you must configure a universal input for occupancy.
  - **Occupancy Override Time (AV:730):** This point controls the duration of the override.
- **Communicating Sensor Setup**: The Edge is capable of connecting up to five communicating sensors. You can configure how the Edge uses the sensor readings with configuration options to use the average, minimum, or maximum.
  - **Communicating Sensor # Enable**: Enables the corresponding sensor for sensing and control.
  - **Communicating Sensor 1 (BV:707)**
  - **Communicating Sensor 2 (BV:708)**
  - **Communicating Sensor 3 (BV:709)**
  - **Communicating Sensor 4 (BV:710)**
  - **Communicating Sensor 5 (BV:711)**
  - **Multiple Sensor Configuration**: When multiple sensors of the same type (i.e. temperature, humidity, or CO_2) are installed, you can configure each sensor uniquely for the application. The Edge can use the average, maximum, or minimum of the sensor readings for control.
  - **Temperature Configuration (AV:911)**
  - **Humidity Configuration (BV:912)**
  - **CO_2 Configuration (BV:913)**
  - **Occupancy Configuration (BV:914)**
- **System Mode Setup**: For applications that require cooling only or heating only, use the following control points:
  - **Heating Mode Enabled (BV:703)**: When Heating Mode is selected, Heating Mode is enabled. The default is checked. This allows Heating Mode to be disabled when cooling only is desired.
  - **Cooling Mode Enable (BV:704):** When Cooling Mode is selected, Cooling Mode is enabled. The default is checked. This allows Cooling Mode to be disabled when heating only is desired.
  - **Auto Mode Enable (BV:705):** When Auto Mode is selected, Auto Mode is enabled. Auto Mode is selected by default. This allows Auto Mode to be selected and the system to operate automatically between heating and cooling modes.
  - **Off Mode Enable (BV:712):** When Off Mode is selected, Off Mode is enabled. Off Mode is enabled by default. This allows the System mode to be set to Off at the sensor interface.
  - **Fan Mode Setup:** For applications that need continuous fan operation, use the following control point:
    - **Fan On Enable (BV:713):** When Fan On is selected, Continuous Fan mode is enabled. Continuous Fan mode is enabled by default. This allows the Fan mode to be set to ON at the sensor interface.
- **Manual Setpoint Adjust (AV:753):** Sets the maximum number of degrees the user can adjust the space setpoint at the wall sensor. Example: If Manual Setpoint Adjust = 2 and the System Mode Setpoint Temperature = 72°F, the user can adjust the temperature at the wall sensor between 70°F and 74°F.
- **Dirty Filter Detection Setup Options (AV:775):** The Edge control indicates a filter change is necessary based on run time, calendar time, or an air pressure sensor. You can change the default dirty filter indicator from the default of 1,500 hours.
  - **Dirty Filter Sensor (MSV:704):** Setting this point to 3 (Pressure Sensor) allows any of the Universal Inputs to function as pressure input. This requires a pressure switch on the output side of the return air filter (field supplied).

    NOTE: If multiple inputs are configured for dirty filter sensor input, the Edge combines (OR) overrides all sensors' inputs.
- **Input Configuration**: You can use spare inputs for added features such as temperature monitoring or current switch sensing. See the *Layout and Connections* section for detailed information.

Feature Configuration

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- **Leader/Follower Setup**: You can network up to three units so that they're controlled from a single Edge control. Reference the *Configuration and Advanced Troubleshooting* section in the unit control AOM for details on configuration.

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Edge

Points Matrix
ClimaLink Edge (Diagnostic Readable Data)

⚠ ATTENTION

If custom points are required for your BMS application, please contact the factory.

Description	R/W	Units	BACnet IDs		Modbus Registers		
			Type	Edge (0-999)	Type	Multiplier	Edge (0-999)
Temperature Sensor High Alarm	R		BI	2	DI	N/A	10002
Temperature Sensor Low Alarm	R		BI	3	DI	N/A	10003
CO2 High Alarm	R		BI	4	DI	N/A	10004
Humidity Sensor High Alarm	R		BI	5	DI	N/A	10005
Humidity Sensor Low Alarm	R		BI	6	DI	N/A	10006
Dirty Filter Alert	R		BI	7	DI	N/A	10007
Local/Phys. Occ override	R		BI	203	DI	N/A	10203
Occupancy Status	R		BI	204	DI	N/A	10204
Aux Heating Active	R		BI	205	DI	N/A	10205
Fan Active	R		BI	206	DI	N/A	10206
EDGE Fault Code	R		MSI	1	AI	1.0	30001
Active Operating Mode	R		MSI	201	AI	1.0	30201
Active Humidity Control Mode	R		MSI	202	AI	1.0	30202
Active Water Heating Mode	R		MSI	203	AI	1.0	30203
Input UI 1 Status Format	R		MSI	204	AI	1.0	30204
Input UI 2 Status Format	R		MSI	205	AI	1.0	30205
Input UI 3 Status Format	R		MSI	206	AI	1.0	30206
Input UI 4 Status Format	R		MSI	207	AI	1.0	30207
Input UI 5 Status Format	R		MSI	208	AI	1.0	30208
Input UI 6 Status Format	R		MSI	209	AI	1.0	30209
Input UI 7 Status Format	R		MSI	210	AI	1.0	30210
Input UI 8 Status Format	R		MSI	211	AI	1.0	30211
Effective Space Temperature	R	°F	AI	220	AI	10.0	30220
Effective Space Humidity	R	%	AI	221	AI	1.0	30221
Effective Space CO2	R	ppm	AI	222	AI	1.0	30222
Heat Setpoint (Actual)	R	°F	AI	223	AI	10.0	30223
Cool Setpoint (Actual)	R	°F	AI	224	AI	10.0	30224
Input UI 1 Status	R	Depends on cfg	AI	225	AI	Depends on cfg	30225
Input UI 2 Status	R	Depends on cfg	AI	226	AI	Depends on cfg	30226
Input UI 3 Status	R	Depends on cfg	AI	227	AI	Depends on cfg	30227
Input UI 4 Status	R	Depends on cfg	AI	228	AI	Depends on cfg	30228
Input UI 5 Status	R	Depends on cfg	AI	229	AI	Depends on cfg	30229
Input UI 6 Status	R	Depends on cfg	AI	230	AI	Depends on cfg	30230
Input UI 7 Status	R	Depends on cfg	AI	231	AI	Depends on cfg	30231

Table continued on next page.

Points Matrix
ClimaLink Edge (Diagnostic Readable Data)

Model: Edge

Table continued from previous page.

Description	R/W	Units	BACnet IDs		Modbus Registers		
			Type	Edge (0-999)	Type	Multiplier	Edge (0-999)
Input UI 8 Status	R	Depends on cfg	AI	232	AI	Depends on cfg	30232
Comm Sensor 1 Temperature	R	°F	AI	601	AI	10.0	30601
Comm Sensor 1 Humidity	R	%	AI	602	AI	1.0	30602
Comm Sensor 1 CO2	R	ppm	AI	603	AI	1.0	30603
Comm Sensor 2 Temperature	R	°F	AI	604	AI	10.0	30604
Comm Sensor 2 Humidity	R	%	AI	605	AI	1.0	30605
Comm Sensor 2 CO2	R	ppm	AI	606	AI	1.0	30606
Comm Sensor 3 Temperature	R	°F	AI	607	AI	10.0	30607
Comm Sensor 3 Humidity	R	%	AI	608	AI	1.0	30608
Comm Sensor 3 CO2	R	ppm	AI	609	AI	1.0	30609
Comm Sensor 4 Temperature	R	°F	AI	610	AI	10.0	30610
Comm Sensor 4 Humidity	R	%	AI	611	AI	1.0	30611
Comm Sensor 4 CO2	R	ppm	AI	612	AI	1.0	30612
Comm Sensor 5 Temperature	R	°F	AI	613	AI	10.0	30613
Comm Sensor 5 Humidity	R	%	AI	614	AI	1.0	30614
Comm Sensor 5 CO2	R	ppm	AI	615	AI	1.0	30615
Comm Sensor 3 Humidity	R		AI	608	AI	1.0	30608
Comm Sensor 3 CO2	R		AI	609	AI	1.0	30609
Comm Sensor 4 Temperature	R		AI	610	AI	10.0	30610
Comm Sensor 4 Humidity	R		AI	611	AI	1.0	30611
Comm Sensor 4 CO2	R		AI	612	AI	1.0	30612
Comm Sensor 5 Temperature	R		AI	613	AI	10.0	30613
Comm Sensor 5 Humidity	R		AI	614	AI	1.0	30614
Comm Sensor 5 CO2	R		AI	615	AI	1.0	30615

Model:
Edge

Points Matrix
Writable Data (BACnet)

Description	R/W	Units	Default	Min	Max	BACnet IDs		Modbus Registers		
						Type	System/Edge (200)	Type	Multiplier	System/Edge (0-999)
Units (C/F)	R/W		0	0	1	BV	701	DO	N/A	701
Security Lockout	R/W		0	0	1	BV	702	DO	N/A	702
Heat Mode allowed	R/W		0	0	1	BV	703	DO	N/A	703
Cool Mode allowed	R/W		0	0	1	BV	704	DO	N/A	704
Auto Mode allowed	R/W		0	0	1	BV	705	DO	N/A	705
Off Mode allowed	R/W		0	0	1	BV	722	DO	N/A	722
Fan On allowed	R/W		0	0	1	BV	723	DO	N/A	723
Sensor (Analog/Comm)	R/W		0	0	1	BV	706	DO	N/A	706
Communicating Sensor 1 Enable	R/W		0	0	1	BV	707	DO	N/A	707
Communicating Sensor 2 Enable	R/W		0	0	1	BV	708	DO	N/A	708
Communicating Sensor 3 Enable	R/W		0	0	1	BV	709	DO	N/A	709
Communicating Sensor 4 Enable	R/W		0	0	1	BV	710	DO	N/A	710
Communicating Sensor 5 Enable	R/W		0	0	1	BV	711	DO	N/A	711
Fan Mode	R/W		0	0	1	BV	712	DO	N/A	712
Fan Speed Enable	R/W		0	0	1	BV	713	DO	N/A	713
Dehumidification Control Enable	R/W		0	0	1	BV	714	DO	N/A	714
Humidification Control Enable	R/W		0	0	1	BV	715	DO	N/A	715
BO 1 Output	R/W		0	0	1	BV	716	DO	N/A	716
BO 2 Output	R/W		0	0	1	BV	717	DO	N/A	717
BO 3 Output	R/W		0	0	1	BV	718	DO	N/A	718
Network Override	R/W		0	0	1	BV	720	DO	N/A	720
Dirty Filter Reset	R/W		0	0	1	BV	721	DO	N/A	721
Emergency Shutdown (Network)	R/W		0	0	1	BV	802	DO	N/A	802
System Fault Reset	R/W		0	0	1	BV	801	DO	N/A	801
Temperature Sensor Alarm Reset	R/W		0	0	1	BV	920	DO	N/A	920
Humidity Sensor Alarm Reset	R/W		0	0	1	BV	921	DO	N/A	921
CO_2 Sensor Alarm Reset	R/W		0	0	1	BV	922	DO	N/A	922
Space Sensor Type	R/W		0	4	4	MSV	701	AO	1.0	40701
System Mode	R/W		1	1	16	MSV	702	AO	1.0	40702
Fan Speed	R/W		0	0	2	MSV	703	AO	1.0	40703
Dirty Filter Mode	R/W		0	0	3	MSV	704	AO	1.0	40704
Security PIN	R/W		0	0	9999	AV	750	AO	1.0	40750
Sensor Quantity	R/W		0	0	5	AV	751	AO	1.0	40751
Sensor Backlight Timeout	R/W	seconds	45	0	180	AV	752	AO	1.0	40752
Max User Temp Adjustment	R/W	°F	5	0	10	AV	753	AO	1.0	40753
Heat Setpoint (Occ)	R/W	°F	70	60	99	AV	754	AO	10.0	40754
Cool Setpoint (Occ)	R/W	°F	73	48	90	AV	755	AO	10.0	40755
Heat Setpoint (Unocc)	R/W	°F	75	60	99	AV	756	AO	10.0	40756
Cool Setpoint (Unocc)	R/W	°F	78	48	90	AV	757	AO	10.0	40757
Cool Min Setpoint	R/W	°F	55	48	90	AV	758	AO	10.0	40758
Heat Max Setpoint	R/W	°F	88	60	99	AV	759	AO	10.0	40759

Table continued on next page.

Points Matrix
Writable Data (BACnet)

Model: Edge

Table continued from previous page.

Description	R/W	Units	Default	Min	Max	BACnet IDs		Modbus Registers		
						Type	System/Edge (200)	Type	Multiplier	System/Edge (0-999)
Humidification Setpoint (Occ)	R/W	%	35	15	depends on max	AV	762	AO	1.0	40762
Dehumidification Setpoint (Occ)	R/W	%	50	depends on min	65	AV	763	AO	1.0	40763
Humidification Setpoint (Unocc)	R/W	%	35	15	depends on max	AV	764	AO	1.0	40764
Dehumidification Setpoint (Unocc)	R/W	%	50	depends on min	65	AV	765	AO	1.0	40765
Dehumidification Min Setpoint	R/W	%	35	35	45	AV	766	AO	1.0	40766
Humidification Max Setpoint	R/W	%	40	40	50	AV	767	AO	1.0	40767
Cycles per Hour	R/W		4	0	6	AV	768	AO	1.0	40768
Optimal Dehumidification Limit	R/W	°F	2	0	2	AV	769	AO	1.0	40769
Temperature Control Anticipator	R/W		3	0	9	AV	770	AO	1	40770
AO 1 Output	R/W	VDC	0	0	100	AV	771	AO	10.0	40771
AO 2 Output	R/W	VDC	0	0	100	AV	772	AO	10.0	40772
Dirty Filter Interval time	R/W	100 hours	15	0	36	AV	775	AO	1.0	40775
Dirty Filter Calendar time	R/W	100 hours	0	0	48	AV	776	AO	1.0	40776
Occ Override Time	R/W	hours	2	0.5	4	AV	780	AO	1.0	40780
Effective Space Temperature	R/W	°F	0	-40	140	AV	781	AO	10.0	40781
Effective Space Humidity	R/W	%	0	0	100	AV	782	AO	1.0	40782
Effective Space CO_2	R/W	ppm	0	0	10000	AV	783	AO	1.0	40783
Sensor 1 Temp Offset	R/W	°F	0	-5	5	AV	901	AO	10.0	40901
Sensor 1 Hum Offset	R/W	%	0	-10	10	AV	902	AO	1.0	40902
Sensor 2 Temp Offset	R/W	°F	0	-5	5	AV	903	AO	10.0	40903
Sensor 2 Hum Offset	R/W	%	0	-10	10	AV	904	AO	1.0	40904
Sensor 3 Temp Offset	R/W	°F	0	-5	5	AV	905	AO	10.0	40905
Sensor 3 Hum Offset	R/W	%	0	-10	10	AV	906	AO	1.0	40906
Sensor 4 Temp Offset	R/W	°F	0	-5	5	AV	907	AO	10.0	40907
Sensor 4 Hum Offset	R/W	%	0	-10	10	AV	908	AO	1.0	40908
Sensor 5 Temp Offset	R/W	°F	0	-5	5	AV	909	AO	10.0	40909
Sensor 5 Hum Offset	R/W	%	0	-10	10	AV	910	AO	1.0	40910
Multiple Temp. Sensor Configuration	R/W		0	0	3	AV	911	AO	1.0	40911
Multiple Hum. Sensor Configuration	R/W		0	0	3	AV	912	AO	10.0	40912
Multiple CO_2 Sensor Configuration	R/W		0	0	3	AV	913	AO	1.0	40913
Multiple Occ Input Configuration	R/W		0	0	1	AV	914	AO	1.0	40914
High Temperature Sensor Trip Point	R/W	°F	100	80	125	AV	915	AO	1.0	40915
Low Temperature Sensor Trip Point	R/W	°F	40	20	60	AV	916	AO	1.0	40916
High Humidity Sensor Trip Point	R/W	%	90	70	95	AV	917	AO	1.0	40917
Low Humidity Sensor Trip Point	R/W	%	10	5	30	AV	918	AO	1.0	40918
High CO_2 Sensor Trip Point	R/W	ppm	1000	800	1500	AV	919	AO	1.0	40919

Model:
Edge

Points Matrix
1st Unit/Circuit

Description	R/W	Units	BACnet IDs		Modbus Registers		
			Type	1st Unit/Circuit (1000s)	Type	Multiplier	1st Unit/Circuit (1000s)
Lockout Flag	R		BI	1001	DI	N/A	11001
Physical ESD Input	R		BI	1301	DI	N/A	11301
Physical Y1 Input	R		BI	1302	DI	N/A	11302
Physical Y2 Input	R		BI	1303	DI	N/A	11303
Physical W Input	R		BI	1304	DI	N/A	11304
Physical O Input	R		BI	1305	DI	N/A	11305
Physical G Input	R		BI	1306	DI	N/A	11306
Physical OVR Input	R		BI	1307	DI	N/A	11307
Physical H Input	R		BI	1308	DI	N/A	11308
Physical NSB Input	R		BI	1309	DI	N/A	11309
Alarm Relay Output	R		BI	1320	DI	N/A	11320
Fan Relay (K1) Output	R		BI	1321	DI	N/A	11321
Fan High (K2) Relay Output	R		BI	1322	DI	N/A	11322
Reversing Valve Output	R		BI	1325	DI	N/A	11325
Electric Heat Stage 1 Output	R		BI	1326	DI	N/A	11326
Electric Heat Stage 2 Output	R		BI	1327	DI	N/A	11327
Compressor Contactor Relay Output	R		BI	1328	DI	N/A	11328
Compressor Contactor High Relay Output	R		BI	1329	DI	N/A	11329
Active Unit Control Fault Code	R		MSI	1001	AI	1.0	31001
FH1 code	R		MSI	1002	AI	1.0	31002
FH2 code	R		MSI	1003	AI	1.0	31003
FH3 code	R		MSI	1004	AI	1.0	31004
FH4 code	R		MSI	1005	AI	1.0	31005
FH5 code	R		MSI	1006	AI	1.0	31006
ECM Target Airflow	R	CFM	AI	1353	AI	1.0	31353
VFD / EC Plug VDC	R	VDC	AI	1355	AI	10.0	31355
Leaving Air Temperature	R	°F	AI	1358	AI	10.0	31358
Source Loop Pump Speed	R	%	AI	1361	AI	1.0	31361
Load Loop Pump Speed	R	%	AI	1363	AI	1.0	31363
Source Modulating Valve Position	R	VDC	AI	1364	AI	10.0	31364
Source Entering Water Temperature	R	°F	AI	1366	AI	10.0	31366
Source Leaving Water Temperature	R	°F	AI	1367	AI	10.0	31367
Load Leaving Water Temperature	R	°F	AI	1368	AI	10.0	31368

Points Matrix
2nd Circuit

Model:
Edge

Description	R/W	Units	BACnet IDs		Modbus Registers		
			Type	2nd Circuit (2000s)	Type	Multiplier	2nd Circuit (2000s)
Lockout Flag	R		BI	2001	DI	N/A	12001
Physical ESD Input	R		BI	2301	DI	N/A	12301
Physical Y1 Input	R		BI	2302	DI	N/A	12302
Physical Y2 Input	R		BI	2303	DI	N/A	12303
Physical W Input	R		BI	2304	DI	N/A	12304
Physical O Input	R		BI	2305	DI	N/A	12305
Physical G Input	R		BI	2306	DI	N/A	12306
Physical OVR Input	R		BI	2307	DI	N/A	12307
Physical H Input	R		BI	2308	DI	N/A	12308
Physical NSB Input	R		BI	2309	DI	N/A	12309
Alarm Relay Output	R		BI	2320	DI	N/A	12320
Fan Relay (K1) Output	R		BI	2321	DI	N/A	12321
Fan High (K2) Relay Output	R		BI	2322	DI	N/A	12322
Reversing Valve Output	R		BI	2325	DI	N/A	12325
Electric Heat Stage 1 Output	R		BI	2326	DI	N/A	12326
Electric Heat Stage 2 Output	R		BI	2327	DI	N/A	12327
Compressor Contactor Relay Output	R		BI	2328	DI	N/A	12328
Compressor Contactor High Relay Output	R		BI	2329	DI	N/A	12329
Active Unit Control Fault Code	R		MSI	2001	AI	1.0	32001
FH1 code	R		MSI	2002	AI	1.0	32002
FH2 code	R		MSI	2003	AI	1.0	32003
FH3 code	R		MSI	2004	AI	1.0	32004
FH4 code	R		MSI	2005	AI	1.0	32005
FH5 code	R		MSI	2006	AI	1.0	32006
ECM Target Airflow	R	CFM	AI	2353	AI	1.0	32353
VFD / EC Plug VDC	R	VDC	AI	2355	AI	10.0	32355
Leaving Air Temperature	R	°F	AI	2358	AI	10.0	32358
Source Loop Pump Speed	R	%	AI	2361	AI	1.0	32361
Load Loop Pump Speed	R	%	AI	2363	AI	1.0	32363
Source Modulating Valve Position	R	VDC	AI	2364	AI	10.0	32364
Source Entering Water Temperature	R	°F	AI	2366	AI	10.0	32366
Source Leaving Water Temperature	R	°F	AI	2367	AI	10.0	32367
Load Leaving Water Temperature	R	°F	AI	2368	AI	10.0	32368

Model:
Edge

Points Matrix
2nd Unit

Description	R/W	Units	BACnet IDs		Modbus Registers		
			Type	2nd Unit (3000s)	Type	Multiplier	2nd Unit (3000s)
Lockout Flag	R		BI	3001	DI	N/A	13001
Physical ESD Input	R		BI	3301	DI	N/A	13301
Physical Y1 Input	R		BI	3302	DI	N/A	13302
Physical Y2 Input	R		BI	3303	DI	N/A	13303
Physical W Input	R		BI	3304	DI	N/A	13304
Physical O Input	R		BI	3305	DI	N/A	13305
Physical G Input	R		BI	3306	DI	N/A	13306
Physical OVR Input	R		BI	3307	DI	N/A	13307
Physical H Input	R		BI	3308	DI	N/A	13308
Physical NSB Input	R		BI	3309	DI	N/A	13309
Alarm Relay Output	R		BI	3320	DI	N/A	13320
Fan Relay (K1) Output	R		BI	3321	DI	N/A	13321
Fan High (K2) Relay Output	R		BI	3322	DI	N/A	13322
Reversing Valve Output	R		BI	3325	DI	N/A	13325
Electric Heat Stage 1 Output	R		BI	3326	DI	N/A	13326
Electric Heat Stage 2 Output	R		BI	3327	DI	N/A	13327
Compressor Contactor Relay Output	R		BI	3328	DI	N/A	13328
Compressor Contactor High Relay Output	R		BI	3329	DI	N/A	13329
Active Unit Control Fault Code	R		MSI	3001	AI	1.0	33001
FH1 code	R		MSI	3002	AI	1.0	33002
FH2 code	R		MSI	3003	AI	1.0	33003
FH3 code	R		MSI	3004	AI	1.0	33004
FH4 code	R		MSI	3005	AI	1.0	33005
FH5 code	R		MSI	3006	AI	1.0	33006
ECM Target Airflow	R	CFM	AI	3353	AI	1.0	33353
VFD / EC Plug VDC	R	VDC	AI	3355	AI	10.0	33355
Leaving Air Temperature	R	°F	AI	3358	AI	10.0	33358
Source Loop Pump Speed	R	%	AI	3361	AI	1.0	33361
Load Loop Pump Speed	R	%	AI	3363	AI	1.0	33363
Source Modulating Valve Position	R	VDC	AI	3364	AI	10.0	33364
Source Entering Water Temperature	R	°F	AI	3366	AI	10.0	33366
Source Leaving Water Temperature	R	°F	AI	3367	AI	10.0	33367
Load Leaving Water Temperature	R	°F	AI	3368	AI	10.0	33368

Points Matrix 3rd Unit

Model: Edge

Description	R/W	Units	BACnet IDs		Modbus Registers		
			Type	2nd Unit (3000s)	Type	Multiplier	2nd Unit (3000s)
Lockout Flag	R		BI	4001	DI	N/A	14001
Physical ESD Input	R		BI	4301	DI	N/A	14301
Physical Y1 Input	R		BI	4302	DI	N/A	14302
Physical Y2 Input	R		BI	4303	DI	N/A	14303
Physical W Input	R		BI	4304	DI	N/A	14304
Physical O Input	R		BI	4305	DI	N/A	14305
Physical G Input	R		BI	4306	DI	N/A	14306
Physical OVR Input	R		BI	4307	DI	N/A	14307
Physical H Input	R		BI	4308	DI	N/A	14308
Physical NSB Input	R		BI	4309	DI	N/A	14309
Alarm Relay Output	R		BI	4320	DI	N/A	14320
Fan Relay (K1) Output	R		BI	4321	DI	N/A	14321
Fan High (K2) Relay Output	R		BI	4322	DI	N/A	14322
Reversing Valve Output	R		BI	4325	DI	N/A	14325
Electric Heat Stage 1 Output	R		BI	4326	DI	N/A	14326
Electric Heat Stage 2 Output	R		BI	4327	DI	N/A	14327
Compressor Contactor Relay Output	R		BI	4328	DI	N/A	14328
Compressor Contactor High Relay Output	R		BI	4329	DI	N/A	14329
Active Unit Control Fault Code	R		MSI	4001	AI	1.0	34001
FH1 code	R		MSI	4002	AI	1.0	34002
FH2 code	R		MSI	4003	AI	1.0	34003
FH3 code	R		MSI	4004	AI	1.0	34004
FH4 code	R		MSI	4005	AI	1.0	34005
FH5 code	R		MSI	4006	AI	1.0	34006
ECM Target Airflow	R	CFM	AI	4353	AI	1.0	34353
VFD / EC Plug VDC	R	VDC	AI	4355	AI	10.0	34355
Leaving Air Temperature	R	°F	AI	4358	AI	10.0	34358
Source Loop Pump Speed	R	%	AI	4361	AI	1.0	34361
Load Loop Pump Speed	R	%	AI	4363	AI	1.0	34363
Source Modulating Valve Position	R	VDC	AI	4364	AI	10.0	34364
Source Entering Water Temperature	R	°F	AI	4366	AI	10.0	34366
Source Leaving Water Temperature	R	°F	AI	4367	AI	10.0	34367
Load Leaving Water Temperature	R	°F	AI	4368	AI	10.0	34368

Model:
Edge

ClimaLink Sense Sensor (ASW030HOC) Features

ClimaLink Sense sensors are wall-mounted temperature, humidity, and CO_2 sensors for use with the Edge controller on water-to-air units. ASW sensors support the following features:

- Room temperature sensing
- Color touchscreen display
- Lockout notification
- Fault information
- Occupancy status

ClimaLink Sense sensors provide a distinguished look for building architects and engineers. ClimaLink Sense sensors are suitable for direct wall or electrical box mounting, resulting in easily made terminations at the screw terminal block located on the wall sensor's backplate using 4-wire connections. Field technicians can easily troubleshoot ClimaLink Sense sensors to determine if they are operating properly.

The ClimaLink Sense displays zone temperature, system mode, heating and cooling setpoints, humidity, and CO_2.

ClimaLink Sense

ClimaLink Sense Sensor (ASW030HOC) Specifications and Part Numbers

Model: Edge

SENSOR SPECIFICATIONS

Temperature: 50-104°F (10-40°C) ±0.5°F (0.3°C)

Humidity: 20-80% ±2% typical

CO_2:

- 400-1,250 PPM ±30 PPM or ±3% (the greater of the two)
- 1,250-2,000 PPM ±5% of reading plus 30 PPM

Power Requirements, Sensor Type, and Power Required:

- 24VDC @ 15mA (idle) to 190mA (CO_2 measurement cycle)

Power Supply: The Edge control supplies the communicating sensor network with 24VDC @ 250mA.

Communication: 9.6 kbps Modbus communication between sensor(s) and controller five sensors max per communication sensor network

Environmental Operating Range: 32°F to 122°F (0°C - 50°C), 10% to 90% relative humidity, non-condensing

Mounting Dimensions: Standard 4" x 2" electrical box using provided 6⁄32" x ½" mounting screws

- **Overall Dimensions:**
  - Width: 3.38" (8.58 cm)
  - Height: 3.38" (8.58 cm)
  - Depth: 0.75" (1.91 cm)

INSTALLATION

Use the QR code below to see the ClimaLink Sense Quick Start Guide for installation instructions.

Model:
Edge

Frequently Asked Questions

Q. Can I use another sensor besides the ASW?

A. You can connect a 10k type 2 temperature thermistor to the input terminals.

Q. Why isn't my unit communicating on the network?

A. Verify that all baud rates, protocol, and communication selections are correct. Then verify that the Tx and/or Rx LEDs are flickering. Ensure that the addressing is correct, unique, and not sharing a same address as another controller.

Q. Can a thermostat be used with Edge?

A. Yes, you can wire a thermostat to the heat pump's unit control. In this scenario, the Edge functions as a gateway. Configure the Space Sensor Type option for NONE.

Q. What type/size of wire do ASW sensors require?

A. A typical 18-22 gauge thermostat cable is suitable. ClimaLink Sense requires a 4-wire connection.

Q. Is temperature averaging available?

A. Yes, using the communicating sensors. Up to five sensors may be daisy chained. Address each ClimaLink Sense with a unique address.

Notes

Model:
Edge

Model:
Edge

Notes

Notes

Model:
Edge

Model:
Edge

Revision History

Date:	Section	Action:
04/23/26	All	Created

97B0186N01