KMC CONTROLS®

Installation and Configuration Guide

Contents

NOTICE

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

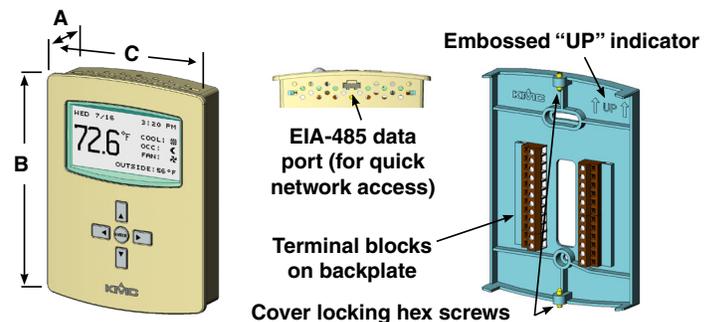## Mounting

1. Complete rough-in wiring at each location prior to the FlexStat's installation. Cable insulation must meet local building codes.

⚠ **CAUTION**

To prevent mounting screw heads from touching the circuit board in the thermostat, use only the mounting screws supplied by KMC Controls. Using other screws may damage the FlexStat. Do not turn screws in farther than necessary to remove the cover.

2. If the cover is locked on the backplate, turn the hex screws in the bottom and top of the FlexStat **CLOCKWISE** until they (just) clear the cover. (See Illustration 1.) Pull the cover away from the backplate (mounting base).

3. Route the wiring through the backplate.

4. **With the embossed "UP" and arrows toward the ceiling,** fasten the backplate to a wall electrical box. This FlexStat mounts directly on **vertical** 2 x 4 inch boxes but requires an HMO-10000W wall mounting plate for horizontal or 4 x 4 boxes.

5. Make connections to the terminal blocks. (See *Connections and Wiring on page 5*.)

6. Push the FlexStat cover over the backplate **while being careful not to pinch or dislodge any wiring**. Back the hex screws (**counterclockwise**) out of the brackets until they engage the FlexStat cover and hold it in place.

Embossed "UP" indicator

EIA-485 data port (for quick network access)

Terminal blocks on backplate

Cover locking hex screws

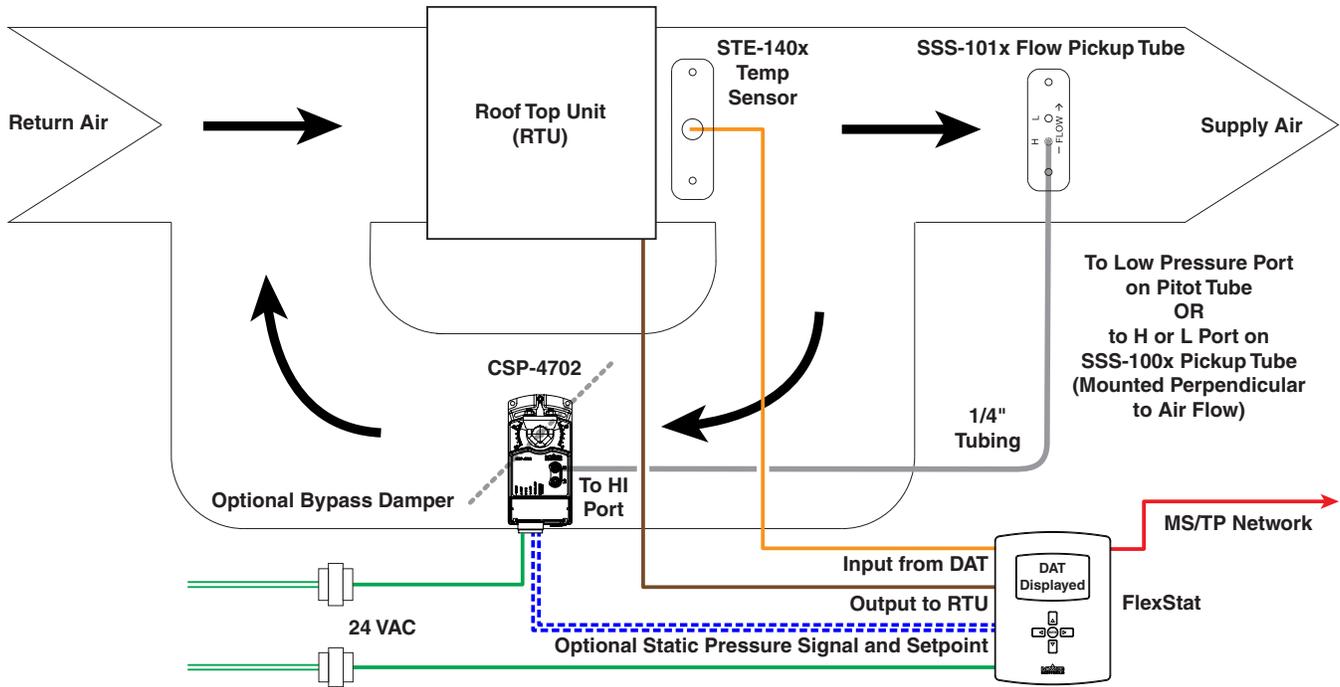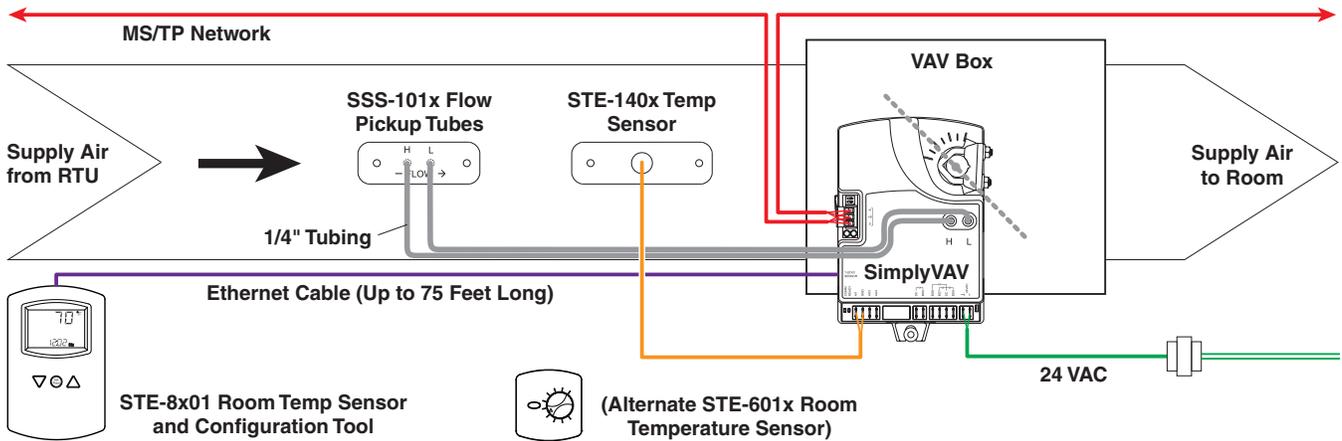| Dimensions in Inches (mm)		
A	B	C
1.125 (29)	5.551 (141)	4.192 (106)

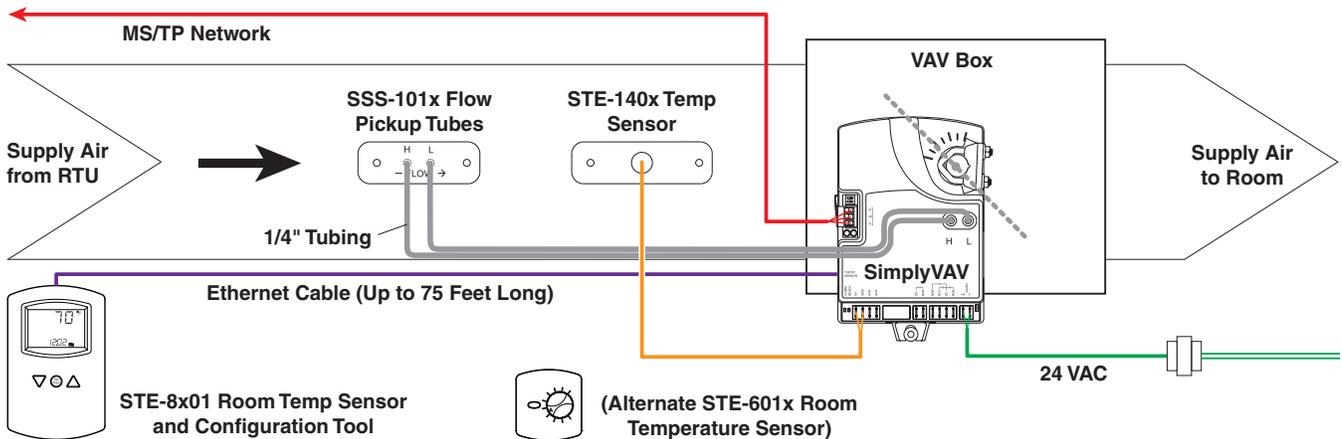Illustration 1—Dimensions and Installation

Application Overview

RTU Controller—MAC 20, Device Instance 1000000

Zone 1—MAC 3, Device Instance 1000001

Zone 16—MAC 19, Device Instance 1000016

Illustration 2—Sample Networked RTU Installation

Roof Top Unit (RTU)
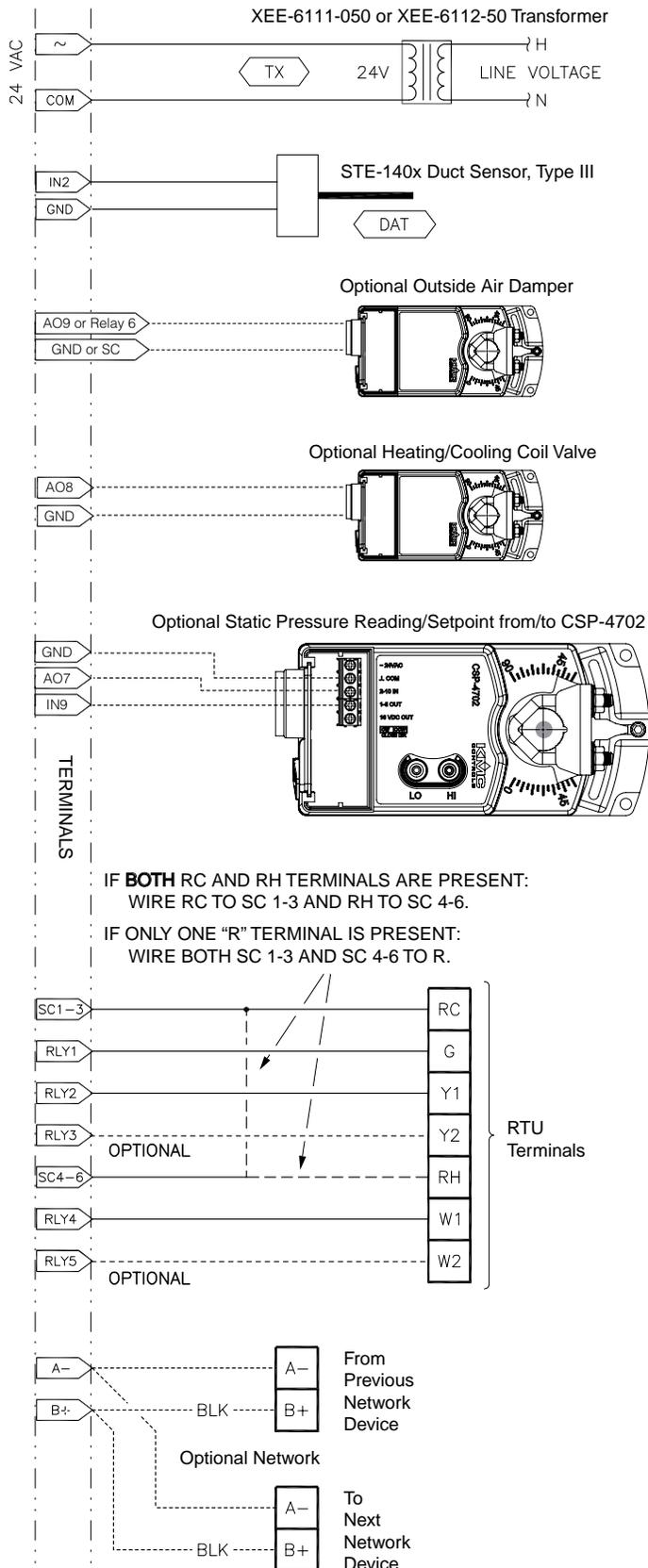
(1 or 2 Heat and 1 or 2 Cool)

Illustration 3—RTU Application Connections

⚠ CAUTION

Relays are for Class-2 voltages (24 VAC) only. Do not connect line voltage to the relays!

Do not mistakenly connect 24 VAC to an analog output ground.

NOTE: Although typical terminal code letters are shown, check the schematics of your unit for wiring details!

```
APPLICATION
DEGREES SCALE: °F
APP: ROOF TOP
OPT: 1H/1C
ADDITIONAL SETUP
ZONE
```

Input Terminals	RTU Input Connections	BACnet Objects
IN9	Static Pressure Feedback (Optional)	AI9
IN8	*(Unused in this application)*	*AI8*
IN7	*(Unused in this application)*	*AI7*
IN4	*(Unused in this application)*	*AI4*
IN3	*(Unused in this application)*	*AI3*
GND	Ground	
IN2	DAT*	AI2

*NOTE: The DAT sensor is configured for IN2 in the ADVANCED > APPLICATION > ADDITIONAL SETUP > SENSORS menu.

Output Terminals	Typical Terminal Codes	RTU Output Connections (1 or 2 H and 1 or 2 C)	BACnet Objects
Analog 9		O. A. Damper (Optional)	AO9
GND		Ground (for Analog Output terminals 7–9)	
Analog 8		Heat or Cool Valve (Optional)	AO8
Analog 7		Static Pressure Setpoint (Optional)	AO7
Relay 6		O. A. Damper (Optional)	BO6
SC 4–6	RH/R	24 VAC (for Relay terminals 4–6)	
Relay 5	W2	Heat 2 (Optional)	BO5
Relay 4	W1	Heat 1	BO4
Relay 3	Y2	Cool 2 (Optional)	BO3
SC 1–3	RC/R	24 VAC (for Relay terminals 1–3)	
Relay 2	Y1	Cool 1	BO2
Relay 1	G	Fan	BO1

NOTE: Connections above are for firmware R2.0.0.4 and later. Earlier firmware had the optional static pressure setpoint on Analog Output **9** instead of Analog Output **7**, and it did not have the heating/cooling coil valve option (Analog Output 8) or outside air damper (economizer) option (Analog Output 9 or Relay 6).

Heat Pump Unit (HPU)

1 or 2 Compressors with Auxiliary and Emergency Heat

Illustration 4—HPU Application Connections

⚠ CAUTION

Relays are for Class-2 voltages (24 VAC) only. Do not connect line voltage to the relays!

Do not mistakenly connect 24 VAC to an analog output ground.

NOTE: Although typical terminal code letters are shown, check the schematics of your unit for wiring details!

```
        APPLICATION
DEGREES SCALE: °F
APP: HEAT PUMP
OPT: 1 STAGE
ADDITIONAL SETUP
ZONE
```

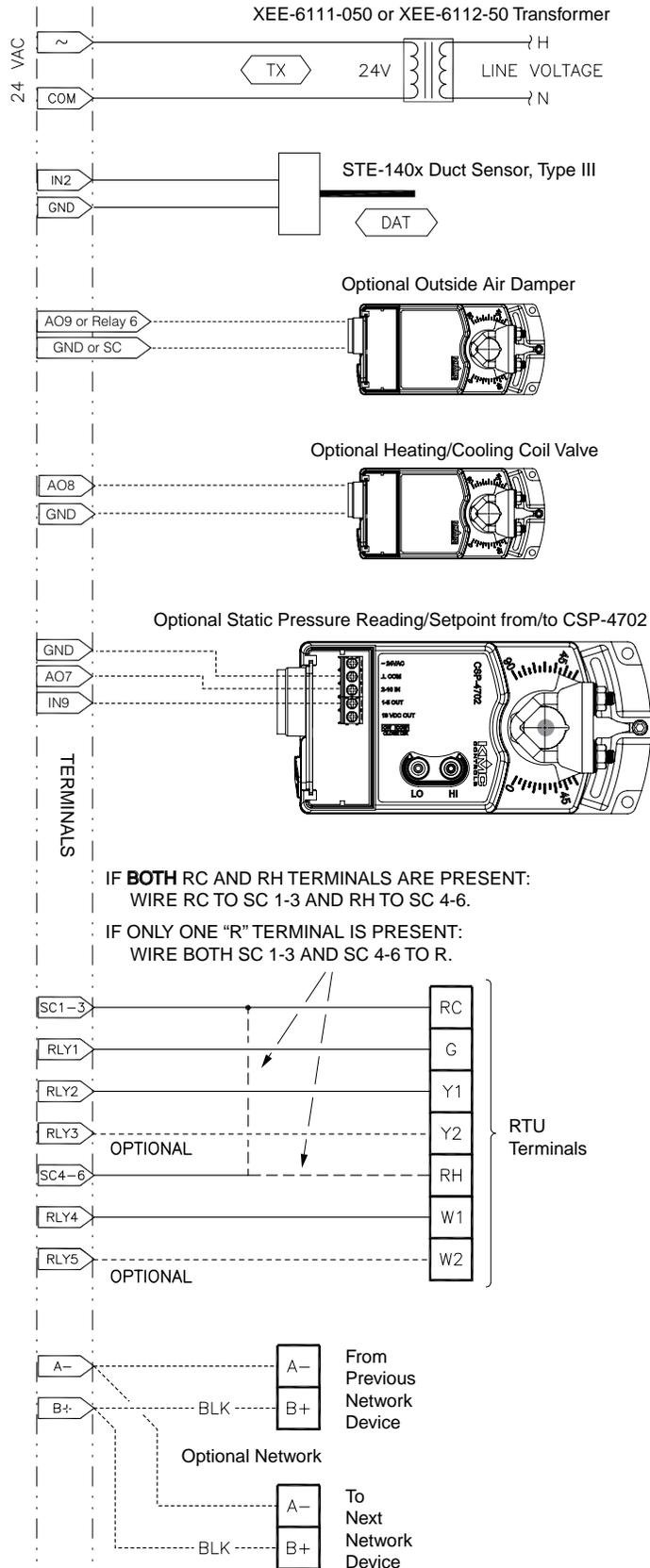| Input Terminals	HPU Input Connections	BACnet Objects
IN9	Static Pressure Feedback (Optional)	AI9
IN8	*(Unused in this application)*	AI8
IN7	*(Unused in this application)*	AI7
IN4	*(Unused in this application)*	AI4
IN3	*(Unused in this application)*	AI3
GND	Ground	
IN2	DAT*	AI2

*NOTE: The DAT sensor is configured for IN2 in the ADVANCED > APPLICATION > ADDITIONAL SETUP > SENSORS menu.

Output Terminals	Typical Terminal Codes	HPU Output Connections	BACnet Objects
Analog 9		O. A. Damper (Optional)	AO9
GND		Ground (for Analog Output terminals 7–9)	
Analog 8		Heat or Cool Valve (Optional)	AO8
Analog 7		Static Pressure Setpoint (Optional)	AO7
Relay 6	W2/E	Emergency Heat (Optional)	BO6
SC 4–6	R	24 VAC (for Relay terminals 4–6)	
Relay 5	W	Auxiliary Heat (Optional)	BO5
Relay 4	Y2	Compressor 2 (Optional)	BO4
Relay 3	Y1	Compressor 1	BO3
SC 1–3	R	24 VAC (for relay terminals 1–3)	
Relay 2	O/B	Reversing Valve **(see O/B Note in schematic)**	BO2
Relay 1	G	Fan	BO1

NOTE: Connections above are for firmware R2.0.0.4 and later. Earlier firmware had the optional static pressure setpoint on Analog Output **9** instead of Analog Output **7**, and it did not have the heating/cooling coil valve option (Analog Output 8) or outside air damper (economizer) option (Analog Output 9).

Connections and Wiring

Wiring Considerations

- Because of the many connections (power, network, inputs, outputs, and their respective grounds or switched commons), be sure wiring is well planned before installation of conduit!

- Make sure that conduit for all wiring has adequate diameter for all necessary wiring. Using 1-inch conduit and junction boxes is recommended! Use external junction boxes above the ceiling or in another convenient location as needed to make connections that run to the FlexStat's junction box.

- To prevent excessive voltage drop, **use a conductor size that is adequate for the wiring length! Allow plenty of "cushion" to allow for transient peaks during startup.**

- Using multiple conductor wires for all relevant inputs and outputs is recommended. Grounds for all the inputs can be combined on one wire.

⚠ CAUTION

Do not mistakenly connect 24 VAC to an analog output ground. This is not the same as a relay's switched common. See the backplate's terminal label for the correct terminal.

⚠ CAUTION

Relays are for Class-2 voltages (24 VAC) only. Do not connect line voltage to the relays!

⚠ CAUTION

To avoid damage from ground loops and other communication issues in networked FlexStats, correct phasing on MS/TP network and power connections on ALL the networked controllers is critically important.

NOTE: IN1 and IN5–6 are reserved for internal sensors

NOTE: SC = Switched (relay) Common

Inputs		Outputs
IN9		Analog 9
IN8		GND 7–9
GND (Wiring is dependent on application)		Analog 8
IN7		Analog 7
+B (MS/TP Network)	(Wiring Cutout in Backplate)	**Relay 6**
–A		**SC 4–6**
IN4 (Inputs)		**Relay 5**
IN3		**Relay 4**
GND		**Relay 3**
IN2		**SC 1–3**
Common/–/C (24 VAC)		**Relay 2**
Phase/~/R		**Relay 1**

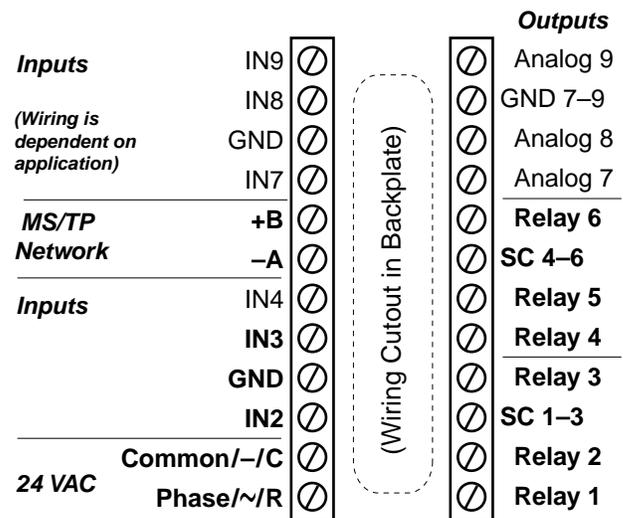Illustration 5—Terminals and Connections

Output Connections

Connect the device under control between the desired output terminal and the related **SC (Switched Common for relays) or GND (Ground for analog outputs)** terminal. (See Illustration 5).

Optional connections (for firmware R2.0.0.4 and later) are:

- A **static pressure** setpoint signal to a CSP-4702 pressure controller used with the system for pressure bypass control on AO7. (Earlier firmware had it on AO9 instead.) The static pressure feedback signal is on AI9. The setpoint value can be changed in the Setpoints menu.

- **Outside air damper** (economizer) on AO9 with the Additional Setup menu options of None, Modulating, Disable/Enable. Connect to AO9 for modulating or (on RTU only) BO6 for enable/disable.

- A modulating valve on a **hot or cold water coil** on AO8. This can provide primary or supplemental modulating heating or cooling to the staged heating or cooling. The Additional Setup menu options for actuator device type are 0–10, 10–0, 2–10, or 10–2 VDC.

For the bank of three relays, there is one Switched (relay) Common connection (in place of the GND terminal used with analog outputs). (See Illustration 6.) **For the relay circuit, the phase side of the AC should be connected to the SC terminal.**
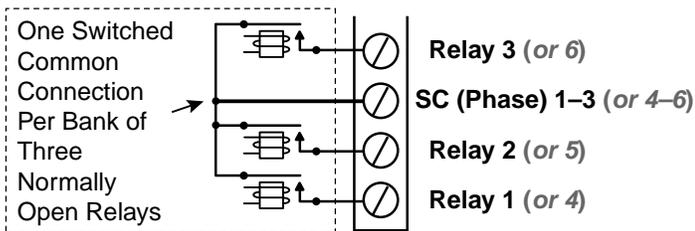
Illustration 6—Switched (Relay) Common and Relays

FlexStat relays are **NO, SPST (Form "A")**.

Do not attach a device that draws current exceeding the FlexStat's output capacity:

- **Maximum output current** for individual **ANALOG outputs (7–9) is 20 mA @ 12 VDC (each).**

- **Max. output current is 1 A for individual RELAYS @ 24 VAC/VDC or a total of 1.5 A per bank of 3 relays** (relays 1–3 and 4–6).

Input Connections

Passive input devices require pull-up resistors in the circuit. For a **passive** input device (a **DAT** 10K ohm thermistor on IN2), set (if not in the default position) the pull-up switches on the back of the circuit board to the **10K ohm** position, with the upper switch to the left and lower switch to the right. (See Illustration 8.)

NOTE: **IN2 must also be configured in the menu for DAT.** See *Configuration and Operation on page 7*.

For an **active** voltage device (optional 1–5 VDC static pressure reading from a **CSP-4702** on IN9), set the switches to the **0–12 VDC** position, with the upper switch to the right and lower switch to the left.

NOTE: Unlike the EOL switch pairs, the **INPUT switch pairs must NOT have both switches set to the same direction**—if one of the pair's switches is set to the left, for example, the other must be set to the right (or vice versa). **ALL the input pull-up resistor switch pairs must be fully latched in either 10K Ohm or 0–12 VDC position even if a switch pair has no input connected!** A single incorrect switch position may cause errors in multiple inputs.

NOTE: Type II or III 10K ohm thermistors can be selected by changing the menu setting in **ADVANCED > INPUTS** (see *Configuration and Operation on page 7*).

NOTE: FlexStat inputs do not support 1K ohm RTDs.

Power Connection

Connect a KMC Controls 24 volt, Class-2 transformer to the power terminals on the FlexStat's backplate:

1. Connect the transformer's **neutral** lead to the 24 VAC **Common/–/C** terminal. (See Illustration 5.)

2. Connect the AC **phase** lead to the 24 VAC **Phase/~/R** terminal.

Power is applied to the FlexStat when the transformer is powered.

KMC Controls recommends powering only one controller/thermostat from each transformer. If installing a FlexStat in a system with other controllers/thermostats powered from a single transformer, however, phasing must be correct and the total power drawn from the transformer must not exceed its rating.

Network Wiring

For an MS/TP network, use a three-conductor cable (Belden cable #82760 or equivalent):

1. Connect the **–A** terminals in parallel with all other **–A** terminals on the network. (See Illustrations 2 through 5.)

2. Connect the **+B** terminals in parallel with all other **+B** terminals.

3. Connect the shields of the cable together at each device. Use a wire nut at the FlexStat or the **S** terminal in KMC BACnet controllers. Connect the cable shield to a good earth ground at **one end only**.

NOTE: The **S** terminal in KMC controllers is provided as a connecting point for the shield. The terminal is not connected to the ground of the controller. When connecting to controllers from other manufacturers, verify the shield connection is not connected to the controller's ground.

NOTE: For more information on principles and good practices when connecting an MS/TP network, see **Planning BACnet Networks (Application Note AN0404A)**.

Network EOL (End-Of-Line) Termination

The controllers/thermostats on the physical ends of an EIA-485 wiring segment must have end-of-line termination installed for proper network operation. (See Illustrations 7 and 8.) If a FlexStat is at the physical **end** of the MS/TP network line, set **both** the EOL termination switches to **On** (to the **right**) on the back of the circuit board. If not on the end, ensure that both switches are Off (to the left).
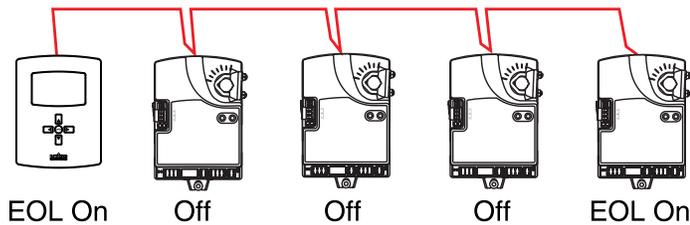
Illustration 7—MS/TP Network End-Of-Line Termination

Input Pull-Up Switches
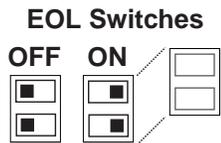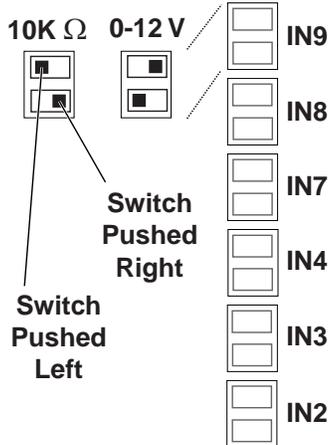
Illustration 8—EOL/Pull-Up Switch Positions

Configuration and Operation
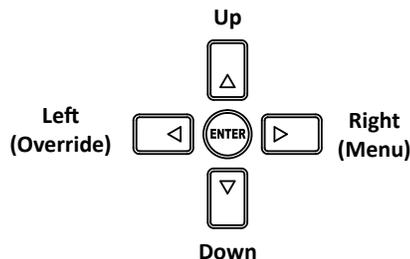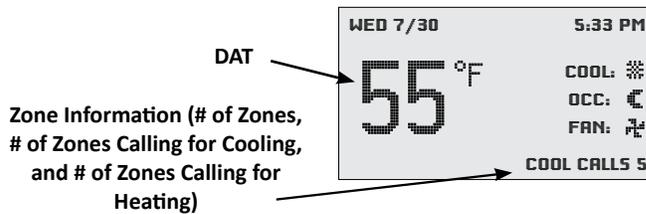
Illustration 9—FlexStat Display and Button Functions

NOTE: Settings and adjustments may require a password.

Configure the Application and Address

To access the menus, press the right button. Navigate the menus and change settings by pressing a combination of buttons. Press the:

- **Enter** button to select and/or exit value editing.
- **Up/Down** button to move among **entries** (up/down lines).
- **Left/Right** button to move among **value fields** (left/right spaces).
- **Left** button to return to the Home screen.

Configure the **application** through the menu system. From the Main Menu, select **ADVANCED** (enter password if needed) and then **APPLICATION**.
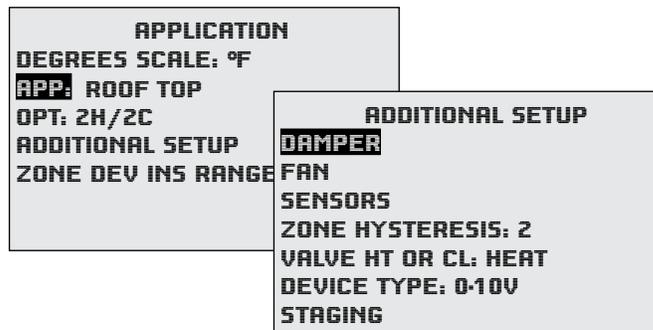
NOTE: The BAC-120063CW-ZEC FlexStat comes preconfigured for a 2H/2C RTU and zone device number range of 1000000 through 1000016.

Select:

1. **APP: ROOF TOP** or **HEAT PUMP**.

2. **OPT:** Match stages of heating and cooling to the RTU or HPU.

3. Under **ADDITIONAL SETUP > SENSORS**, change **IN2** from NONE to **DAT**.

```
            SENSORS
IN2:  DAT
```

NOTE: The default Type **III** (10K ohm) thermistor setting for DAT can be changed to Type **II** (if needed) in **ADVANCED > INPUTS > 2: DISCH AIR TEMP > SENSOR: >**.

```
            INPUT #2
DISCH AIR TEMP
VALUE: 55.0°F
CAL. OFFSET: 0.0
OUT-OF-SERVICE: FALSE
FILTER WEIGHT: 6
SENSOR:
> 10K TYPE III
```

4. Under **ADDITIONAL SETUP**, change other defaults if needed.

5. Under **ZONE DEV INS RANGE**, the default **base zone device numbers** (with up to 16 zones of SimplyVAV controllers) start at 1000001 as a default. To change the default base numbers to 2000001, 3000001, or 4000001, select the desired range.

```
        ZONE DEVICE INSTANCE
RANGE: 1M
1M = 1000001-1000016
2M = 2000001-2000016
3M = 3000001-3000016
4M = 4000001-4000016
```

NOTE: If the Zone Device Instance range is changed from the default, change the FlexStat's Device Instance to correspond with the range (e.g., 3000000 for a range of 3000001—3000016).

If the controllers are going to be networked, configure the system address as needed and make note of the FlexStat MAC and Device Instance. If the system is stand-alone, address the **FlexStat for MAC 20, Device Instance 1000000**. (See Illustration 2.)

To set the FlexStat's BACnet **Device Instance** (and optionally name and location):

1. Select **ADVANCED** (enter password if needed) and then **DEVICE**.

2. Change (or confirm) **INSTANCE** to **1000000**.

```
            DEVICE
INSTANCE: 1000000
NAME: ZEC__FlexStat__1
LOCATION: KMC Controls
```
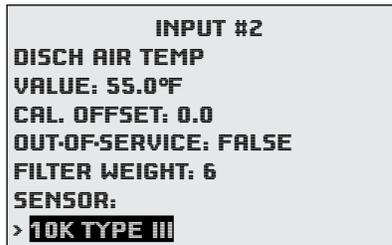
To configure the **MAC address**, from the Main Menu, select **ADVANCED** (enter password if needed) and then **COMMUNICATIONS**.

```
        COMMUNICATIONS
ACTIVE:  CONFIGURE
STATUS: ACTIVE
ETHERNET SETTINGS        COMMUNICATIONS
IP SETTINGS         ACTIVE: MS/TP
FOREIGN DEV SETTINGS  STATUS: ACTIVE
MS/TP SETTINGS      MAC ADDRESS: 20
                    BAUD: 38400
                    AUTO-BAUD: OFF
                    MAX MASTER: 20
```
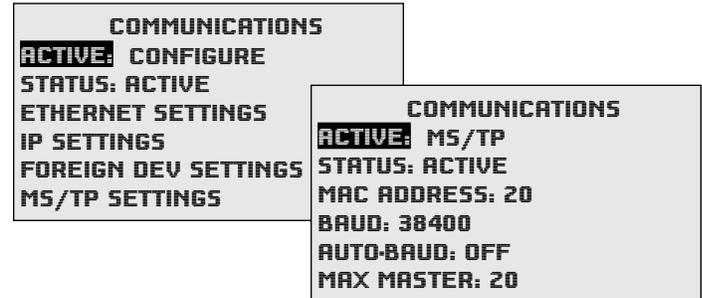
To set protocol and parameters for BACnet communications:

1. Select **ACTIVE: CONFIGURE**.

2. Select **MS/TP SETTINGS**.

3. Change **MAC ADDRESS** to **20** (if needed).

4. Change **MAX MASTER** to **20** (or other relevant number depending on network).*

5. Select **ACTIVE: MS/TP** and restart the FlexStat.

*NOTE: For a network of 16 SimplyVAV controllers, setting the Max Master to 20 will make the network more efficient and perform faster. For network connections to larger networks with other equipment, the MAC address should be the same as the largest MAC address in the network for maximum performance.

NOTE: **ACTIVE: CONFIGURE must FIRST BE SELECTED before any of the values can be changed!** Otherwise values are read only.

Setpoints

The home screen displays the DAT in large numbers (instead of room temperature that FlexStats normally display). To change the heating and cooling DAT setpoints, under the Main Menu, select **SETPOINTS**.

```
            SETPOINTS
COOL DAT SETPOINT: 55° F
HEAT DAT SETPOINT: 130° F
DUCT ST STPT: 0.5 in H2O
```
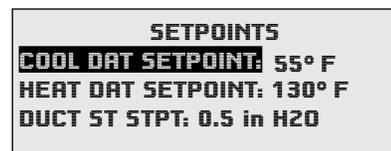
The optional duct static pressure setpoint is also in this menu.

NOTE: The airflow minimum limit in each **SimplyVAV** controller needs to be at least 10 cfm (and 25 cfm is recommended). Otherwise, the controller will not properly sense the local duct DAT during minimum flow. See **BAC-8000 series** for more information about the controller-actuators.

Heat/Cool, Fan, Occupancy, and Override

When the fan is commanded to run, the animated "FAN" icon on the display rotates. When the fan command stops, the fan icon is motionless.

The "OCC" icon shows a sun when in Occupied mode and a quarter moon when in Unoccupied mode.

HEAT or COOL will show (and be animated when there is an active command to move the temperature toward the setpoint via mechanical heating/cooling or an economizer), depending on the current mode. This can also be turned OFF.

To override these modes from the Home (temperature display) screen, press the **Left** arrow button. Press **Up** or **Down** to get to the desired line and then **Enter** (twice) to edit the mode setting. Press **Left** to exit to Home.

Schedules

```
            SCHEDULE
ENTIRE WEEK [MON-SUN]
WEEKDAYS [MON-FRI]
WEEKEND [SAT-SUN]             ENTIRE WEEK
INDIVIDUAL DAYS       1:  7:30:00  AM  ON
HOLIDAYS              2:  5:15:00  PM  OFF
                      3:
                      4:
                      5:
                      6:
                      [→] DELETES ENTRY
```
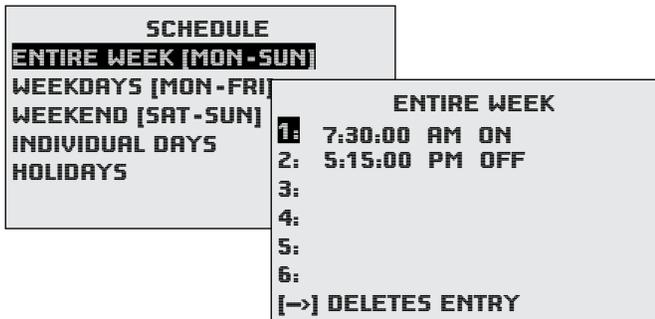
The factory default schedule is always occupied (ON). To modify the schedule for mixed occupied (ON) and unoccupied (OFF) times, select **Schedules** in the Main Menu.

NOTE: If a day of a week (e.g., Friday) has a different schedule than the rest, using the Weekdays menu first and then modifying that one day in the Individual Days menu may be easier (two entries) than entering schedules for each day separately in the Individual Days menu (five entries).

NOTE: The last overlapping entry overrides any other. For example, suppose the WEEKDAYS menu is used to set all weekdays for 7:00 AM ON and 5:00 PM

OFF, and then the INDIVIDUAL DAYS menu is used to add some additional evening meeting ON times for Tuesday and Wednesday. If the WEEKDAYS menu is later used to change the ON time from 7:00 to 7:15, schedules for all the individual week days will be reset to conform to what appears in the WEEKDAYS menu and any special times for individual days will be erased. (Special day schedules will then need to be added again through the INDIVIDUAL DAYS menu).

The Holiday entries will override the normal occupied weekly schedule entries and keep those days' settings at their setback values. (Setback values are entered in the Setpoints section of the Main Menu.)

```
            HOLIDAYS
HOL1: JAN 1 2017
HOL2: APR 14 2017
HOL3: MAY 29 2017
HOL4: JULY 4 2017
HOL5: SEPT 4 2017
HOL6: NOV 23 2017
HOL7: NOV 24 2017
```

Trends

The BAC-120063CW-ZEC Flexstat is preconfigured for the following trend logs:

1. **DAT** (AI2 sampled at **30 second** intervals).
2. DAT (at **1 minute** intervals).
3. DAT (at **5 minute** intervals).
4. **Number of zones** (AV22 at 1 minute intervals) of SimplyVAVs.
5. Number of **calls for cooling** (AV24 at 1 minute intervals) from SimplyVAVs.
6. Number of **calls for heating** (AV25 at 1 minute intervals) from SimplyVAVs.
7. **Duct static pressure** (AV103 at 1 minute intervals) from an optional CSP-4702.
8. **Duct static pressure setpoint** (AV104 at 1 minute intervals) to an optional CSP-4702.

The Trend Viewer is available in the Main Menu to view the (last 256 samples of) data in tabular format. Software, such as KMC Connect or TotalControl, can view the trend objects as graphs as well as change the interval as desired.

The different sampling rates allow a "longer" or "finer resolution" view of the trends. The default sampling intervals can be changed by the user in **ADVANCED > DEVICE**.

NOTE: The faster the sampling rate, the faster the 256 samples are filled and the values start over.

NOTE: The FlexStat menu allows setting of intervals only in **multiples of 1 minute** (not seconds). If you change a default "seconds" interval in the menu, you will not be able to set it back to the original without a factory reset or BAS software.

Zone Hysteresis (Changeover)

In the Additional Setup menu, the Zone Hysteresis value (AV102) is the number of controllers (above 50% of the total) required for "majority rule" in changing heating/cooling modes for the RTU or HPU. The default is 1. For an explanation of this changeover setting option, see *Sequence of Operation on page 10*.

NOTE: Firmware earlier than R2.0.0.4 did not have this option.

Zone Status

In the lower right of the home screen, smaller letters show, in rotation:

• The detected number of connected zones of SimplyVAVs.

• The number of zones calling for cooling.

• The number of zones calling for heating.

NOTE: After power-up or restarting of the FlexStat and/or SimplyVAVs, the zone numbers require several minutes to show correct values.

For more detailed information, under the Main Menu, select **ZONE STATUS** to view the status of all connected zones. Options for each zone's values are:

• Call for Cooling

• Call for Heating

• No Call for Either

• No Communication with a Zone (either there is a communication problem with a zone or no zone is connected)

The Zone Status screen also shows the Duct Status pressure.

Sequence of Operation

NOTE: The HPU and RTU sections of the **FlexStat Application Guide** have some basic generic information about HPU and RTU operation.

The BAC-120063CW-ZEC FlexStat determines RTU/HPU heating or cooling mode by "majority rule" of the number of heating and cooling calls from the SimplyVAV controllers. If the number of heating and cooling calls is equal, the previous mode is maintained.

The **number of controllers above 50% of the total required for changeover** to the other mode is controlled by **Zone Hysteresis** (in the Additional Setup menu). For the default setting of **1**, a majority by **one** controller will cause the mode to switch. For example, 8 controllers calling for heating versus 7 controllers calling for cooling will change the RTU/HPU mode from cooling to heating.

NOTE: If Zone Hysteresis is changed to **2**, then heating/cooling mode maintains the previous mode until there are **two** more zones needing the opposite mode than those needing the current mode. Increasing the number can be helpful if the system seems to be switching modes back and forth too quickly. The maximum hysteresis value is 16.

NOTE: See *Zone Hysteresis (Changeover) on page 10* and *Configure the Application and Address on page 7*.

In RTU/HPU heating mode, the heating setpoint and the cooling setpoint are both set to 110°. In RTU/HPU cooling mode, the heating setpoint and the cooling setpoint are both set to 55°. If there is no call for heating or cooling (all VAV boxes are satisfied), the cooling setpoint is set to 110° and the heating setpoint is set to 55°.

During a scheduled Off time, the RTU/HPU fan does not run unless there is a call for heating or cooling.

Troubleshooting

- For optimal temperature control, all spaces within a particular zone should be exposed to similar environmental factors (e.g., all border a perimeter wall or all be within insulated interior spaces). Otherwise, for example, depending on the weather, perimeter spaces may consistently need heating when interior spaces consistently need cooling.

- The DAT sensor must be properly connected and configured. See *Input Connections on page 6* and *Configure the Application and Address on page 7*.

- The Device Instance of the FlexStat should correspond with the Device Instance range of the SimplyVAVs. See *Configure the Application and Address on page 7*.

- Check the wiring. See *Wiring Considerations on page 5*, *Output Connections on page 5*, *Input Connections on page 6*, *Power Connection on page 6*, and *Network Wiring on page 6*.

- Check EOL switches. See *Network EOL (End-Of-Line) Termination on page 6*.

- See also *Zone Status on page 10*.

- See also *Setpoints on page 8*.

- See also *Schedules on page 9*.

- See also *Zone Hysteresis (Changeover) on page 10*.

- See also *Sequence of Operation on page 10*.

Maintenance

Remove dust as necessary from the holes in the top and bottom. Clean the display with a soft, damp cloth and mild soap.

Customization

Additional customization can be done using KMC Connect, KMC Converge, or TotalControl. For example, a fan status switch (such as a KMC **CSE-110x** or a **CSE-120x**) could be connected to IN3 (with the appropriate pull-up switch setting) and the following code could be run in Program 9 or 10.

```
REM FAN STATUS
REM A Normally Open dry contact
switch is connected to AI3 (with
pull-up switch set to 10K ohms)
REM BV16 shows Active when switch is
closed (fan running) and Inactive
when switch is open (not running)
IF AI3 < 0.5 THEN BV16 = 1 ELSE BV16
= 0
```

NOTE: Set the program to Run on Cold Start, save it, and restart the FlexStat.

The value of BV16 (active or inactive) could then be displayed on a card in the KMC Commander interface or a TotalControl graphics page.

Remote (BAC-5051E) Interface

The BAC-5051E BACnet router provides a means of remotely monitoring and changing the configuration of the zoning system with a web browser. For more information, see the **BAC-5051E Router Application and Installation Guide**.

Additional Resources

See additional information about this model FlexStat on the **BAC-120063CW-ZEC** web page.

See also the **BAC-8000 series** for information about the VAV controller-actuators.

See also the **CSP-4702** page for information about the differential pressure controller/actuator.

For remotely monitoring and changing the configuration, see the **BAC-5051E Router Application and Installation Guide**.

Important Notices

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. A BAC-12xxxx Class B digital apparatus complies with Canadian ICES-003.

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