

# ENGINEERING DATA



## Model HHSC+

### HHSC+ Ventilation Control

Part No. 46634200



#### ITEMS INCLUDED IN KIT

- 1-HHSC+ Ventilation and Fan Cycling Control
- 1-Four-wire connector harness for FAD Fresh Air Damper (FAD not included)
- 1-Installation Hardware
- 1-Instruction Booklet

#### OPTIONAL ACCESSORIES

- **E-Sensor:** plug 'n play duct-mounted module senses outdoor temperature and dewpoint, used to inhibit ventilation during extreme outdoor weather conditions. Adjustable setpoints for minimum allowable outdoor temp, max allowable outdoor temp, and max allowable outdoor dew point (not simply RH). No external transformer normally required. Interfaces with system and powered by modular connection in series with damper cable, includes interface cable.
- **T-Sensor:** same features and platform as E-Sensor, but with min and max allowable outdoor temperature setpoints only.
- **C-Sensor:** Current sensor compatible with HHSC+ Auxiliary/makeup air input, used to provide makeup air by sensing operation of exhausting devices such as dryers, bath fans and range hoods. Passive device with no external power requirement.
- **P-Sensor:** Duct-mounted differential pressure switch compatible with HHSC+ inputs, similar use as C-Sensor, adjustable setpoint, may be installed on positive or negative pressure ducts. May be used as stand-alone makeup air system sensor.

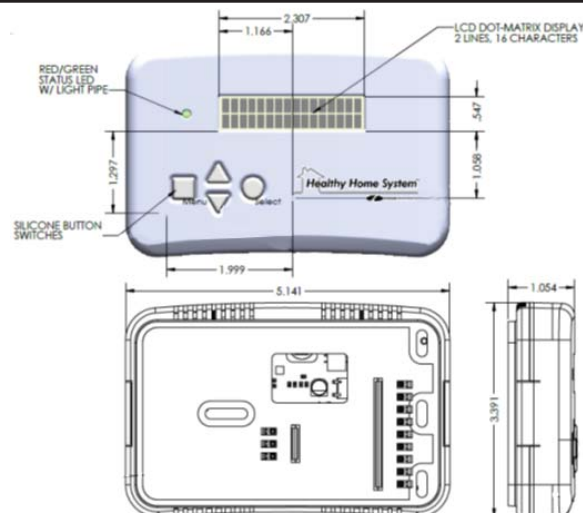
#### DESCRIPTION

The Field Controls Healthy Home System™ interactively with the HVAC system thermostat, in conjunction with the forced air HVAC system, to periodically introduce controlled amounts of fresh air into the home. The Controller is typically used to control an FAD Fresh Air Damper installed in a fresh air duct connected to the HVAC return plenum, to ensure reliable year-round indoor air filtration by programmed circulation, and enable the HVAC system to meet ASHRAE 62.2 and other fresh air ventilation codes and standards. The HHSC+ is designed to operate continuously year round without user intervention. The factory-default ventilation and circulation parameters may be changed by the installer to meet ventilation standards for the building. Other additional features are readily accessible by the occupants for customization of the system, to meet their individual preferences, without altering the level of ventilation.

#### FEATURES

- Bi-color system status LED
- User-Programmable Inhibit Mode
- UV lamp replacement reminder
- Air Filter replacement reminder
- Time/Date display
- Automatic Daylight Savings Time correction when enabled.
- Damper Monitor Feature monitors FAD damper for proper operation when enabled.
- Remote Activation Terminals: timer, on/off switch, Carbon Monoxide (CO) detector with alarm contacts, makeup air sensor, multiples having dry contacts.
- Auxiliary Output terminals (24 VAC): exhaust fan, etc.
- Powered by system transformer, works in conjunction with 24V thermostat or EIM, no additional transformer required.
- Compatible with any system having accessible 24V R W Y G terminals

#### DIMENSIONS DATA



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Field Controls LLC reserves the right to modify a product, without prior notice, whether in design, color or specifications, in order to offer at all times a quality product that is highly competitive. Please consult your national and local building codes to find out whether the installation of electrical products requires the services of a certified technician or electrician. Field Controls and Healthy Home System™ are registered Trademarks used under license by Field Controls LLC. All rights reserved.

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## PRODUCT SPECIFICATIONS

### ELECTRICAL

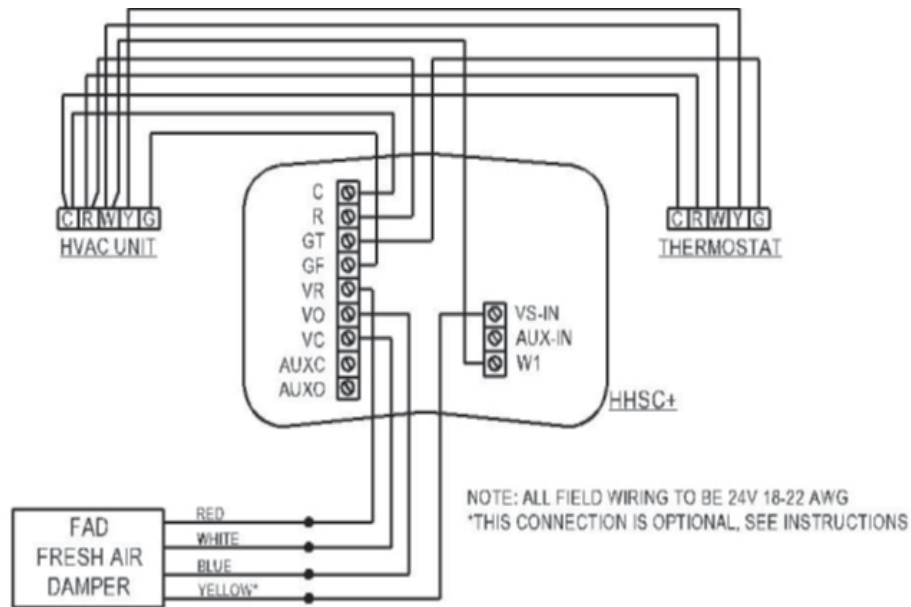
Wiring Requirements	18-22 AWG, 24 VAC min.
Operating Voltage	20-30 VAC
Maximum Operating Current	1A per input/output circuit, 3A max. Combined

### THERMAL

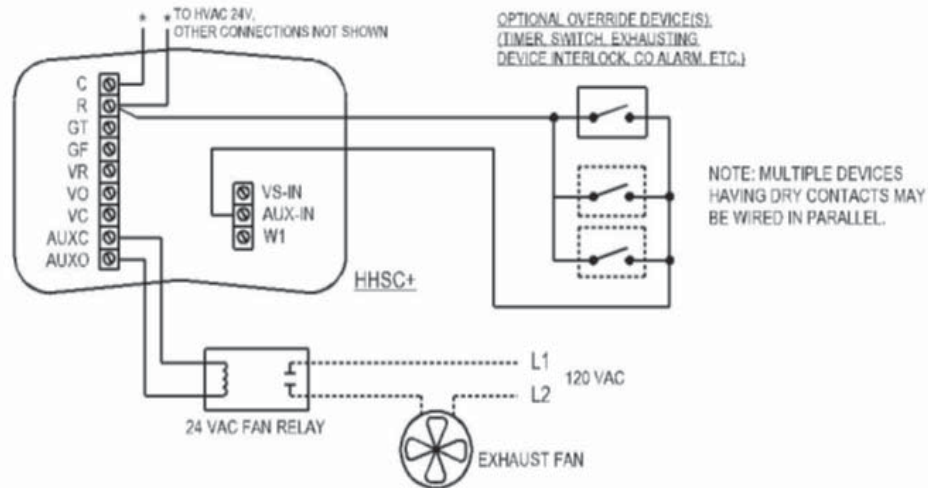
Operating Ambient Temperature Range	32°F to 120°F (0°C to 49°C)
Operating Humidity Range	5 t o 90% RH (non-condensing)
Shipping Temperature	14°F to 140°F (-10°C to 60°C)

Field Controls HHSC+ IAQ Control	
Status Indication	Red/Green Status LED and highly informative two-line textual display with actual text. No error codes to interpret.
Setup procedure for ventilation requirements	Yes, enter the ventilation % value desired. <b>True digital timing accuracy to within one second.</b>
Programmable Inhibit Mode ("Sleep Mode")	<b>Yes. Unit can be programmed to prohibit ventilation for any hourly time period throughout the 24-hour day/night. Automatically compensates for Daylight Saving Time transitions, if desired.</b>
User-Controlled Variable Cycle Period	<b>Yes, choose the desired cycle time: 30, 45, or 60 minutes. Default is 30 minutes which promotes shorter ventilation cycle times and improved comfort levels.</b>
Ventilation Prohibition by Outdoor Conditions	Low Temp Yes, with third-party thermostatic switch or new Enthalpy Control, mounts on fresh air duct with modular cable connections, no additional wiring or external power source required. Dialed-in setpoint.
	Humidity True enthalpy control based on outdoor dew point, with new Enthalpy Control. Cutoff dew point is simply dialed in. Mounts on fresh air duct with modular cable connections, no additional wiring or external power source required.
	High Temp Yes, with third-party thermostatic switch or new Enthalpy Control, mounts on fresh air duct with modular cable connections, no additional wiring or external power source required. Dialed-in setpoint.
<b>Additional 24V transformer required</b>	<b>No. Extremely low power requirements for control and damper power.</b>
Monitors Damper Function	Yes, patented algorithm monitors for proper function, sets red LED alert if malfunction detected, failure mode indicated on display aids in diagnosis. Automatically tests damper function on command and during setup.
Auxiliary Input for Manual Override, Makeup Air	Yes, opens damper and activates fan for manual override or manual/automatic makeup air function.
Auxiliary Output for Exhaust Fan or other device	Yes, dedicated 24V output terminals provided
Independent Recirculation Mode	Yes, enter the desired circulation %.
Filter Replacement Reminder	Yes, choose from 3, 6, or 12 months, or no reminder
UV Bulb Replacement Reminder	Yes, choose from 1 or 2 years, or no reminder
Damper seal	Continuous, see photo below. Eliminates need for additional backdraft damper to limit infiltration of outdoor air.*
Damper construction	Stainless, reliable gas vent damper pedigree
Comments	Status LED indicates all OK (green) or Service Recommended (red) at a glance; on-screen messages also given. May be mounted anywhere indoors, crawl space or attic.

## WIRING DIAGRAM OF TYPICAL INSTALLATION



## WIRING OF OPTIONAL EXHAUST FAN AND/OR OPTIONAL REMOTE OVERRIDE DEVICES



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## PROJECT INFORMATION

Quoted by:	Date:
Project:	Remarks:
Quantity:	
Model:	
Site:	
Architect:	
Engineer:	
Contractor:	