

ENGINEERING DATA



Model FAS

FAS Fresh Air System 4" – 12" Models

Part No. 46699404, 46699405, 46634300, 46699407, 46699408, 46699410 and 46699412



ITEMS INCLUDED IN KIT

- FAD damper, 4" through 12" size
- HHSC+ Ventilation and Fan Cycling Control
- Four-wire connector harness for FAD Fresh Air Damper with modular damper connector
- Installation Hardware
- 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.

FAD FEATURES

- Power-Open, Power Close
- Very low power requirement
- Very low air flow resistance
- Stainless steel body and gate
- Tear-resistant closed-cell foam rubber seal tested 500K+ cycles
- Seal flammability meets FMVSS-302
- Gas Vent Damper motor and circuit board certified 100K+ cycles
- Patented Damper Monitor feature detects and diagnoses failure (with HHSC+ ventilation control)

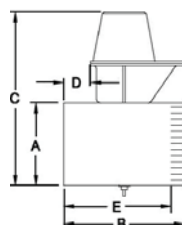
HHSC+ FEATURES

- 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

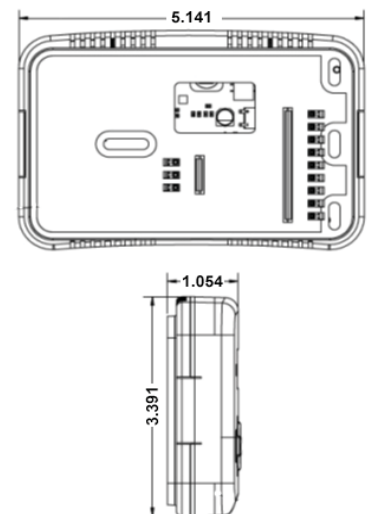
DIMENSIONAL DATA

FAD

A Tube Size (Inches)	B Length (Inches)	C Total Height (Inches)	D (Inches)	E (Inches)	Weight (lbs.)
4	6	9 ⁵ / ₈	5 ⁵ / ₁₆	5	2.5
5	6	10 ⁵ / ₈	5 ⁵ / ₁₆	5	2.70
6	6 ½	11 ⁵ / ₈	1 ¹ / ₈	5 ½	3.10
7	7 ¹ / ₁₆	12 ⁵ / ₈	1 ³ / ₈	6 ¹ / ₁₆	3.55
8	8 ¹ / ₁₆	13 ⁵ / ₈	1 ⁷ / ₈	7 ¹ / ₁₆	4.40
10	12 ¹ / ₈	15 ⁵ / ₈	3 ⁷ / ₈	11 ¹ / ₈	6.95
12	12 ¹ / ₈	17 ⁵ / ₈	3 ⁷ / ₈	11 ¹ / ₈	9



HHSC+



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ENGINEERING DATA FAS

FAD PRODUCT SPECIFICATIONS

Housing Material:	22 gage stainless steel
Seal Material:	1/16" cross-linked polyethylene
Voltage	18-30 VAC, 24VAC nominal
Maximum Operating Current	0.1 Amps
Power Draw Requirement	3W at 24 VAC when opening or closing
Timing:	15 seconds Power open, 15 seconds Power close
Operating Ambient Temperature Range	-20°F to 150°F (0°C to 60°C)
Operating Humidity Range	5 to 90% RH (non-condensing)
Shipping Temperature Range	-20°F to 160°F (-29°C to 71°C)
Recommended Max Velocity:	1000 ft/min
Recommended Max Pressure Differential:	1.0" wc
Leakage:	under 0.5% at 0.5" wc
Mounting Restrictions:	None, recommended motor at 12:00 if horizontal

HHSC+ PRODUCT SPECIFICATIONS

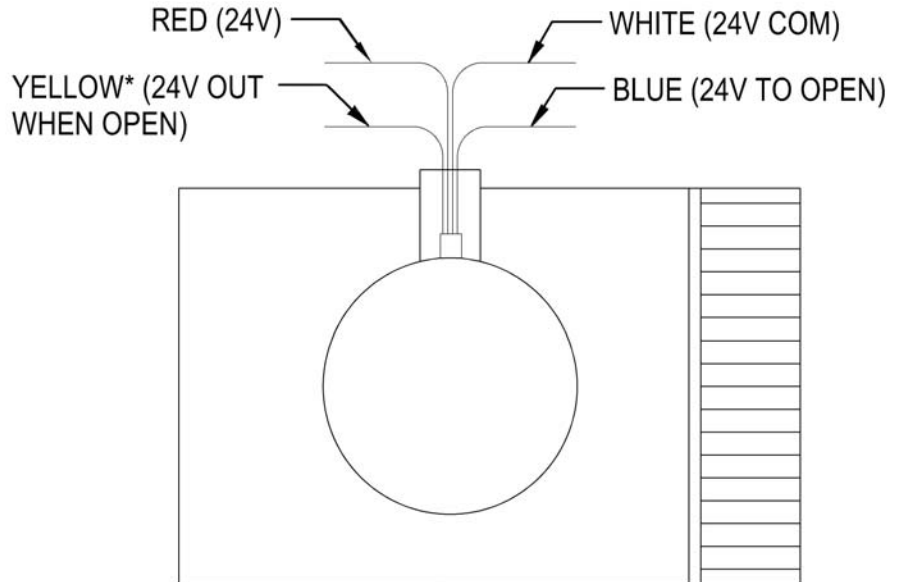
ELECTRICAL

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

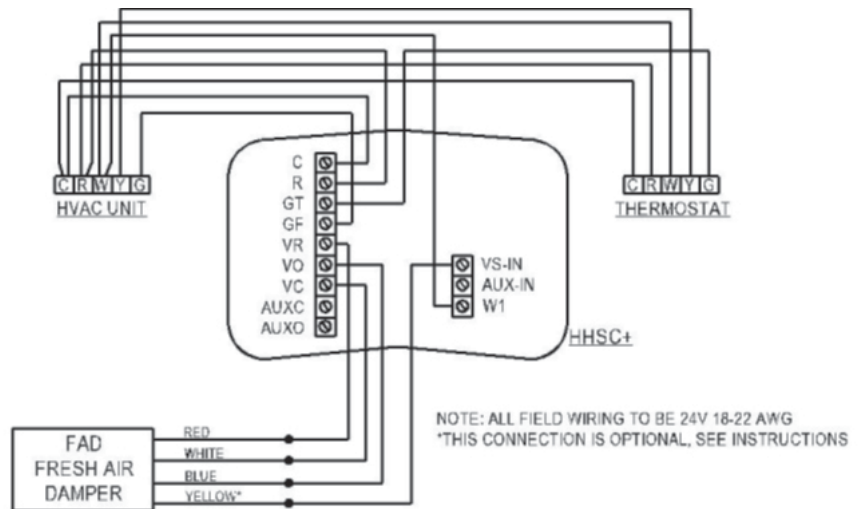
Operating Ambient Temperature Range	32°F to 120°F (0°C to 49°C)
Operating Humidity Range	5 to 90% RH (non-condensing)
Shipping Temperature	14°F to 140°F (-10°C to 60°C)

FAD DAMPER CONTROL WIRING



*4-WIRE HARNESS ONLY, INCLUDED WITH HHSC+ CONTROL

WIRING DIAGRAM OF TYPICAL INSTALLATION



PROJECT INFORMATION

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



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