MODEL FHC50-03
FUME HOOD CONTROLLER

Description

The Model FHC50-03 fume hood controller combines sash position-based control with a sidewall sensor. The sidewall sensor can be used to monitor actual face velocity or to correct face velocity disturbances, providing the ultimate in safety and response.

The Model FHC50-03 easily integrates to the building management system, using digital communications, such as BACnet®, LonWorks® or Modbus®, and alarm relays.

Features

- VAV fume hood control reduces operating expenses
- Stand alone face velocity control provides system reliability.
- Field-configurable sequence of operations to best meet needs of specific installations.
- Audible and visual alarms warn staff of unsafe conditions.
- Network communications allow for building-wide control efficiencies.
- Convenient keypad and display support local programming.
- Password prevents unauthorized access to controller functions.

Selection Chart

	FHC50-01	FHC50-02	FHC50-03	FHC50-04
Constant face velocity control with sidewall sensor	•		•	
Constant face velocity control with sash position		•	•	
Constant flow control				•
BACnet® MS/TP communications	O	O	O	O
LonWorks® communications	O	O	O	O
Modbus® / N2 communications	O	O	O	O
Setback input	•	•	•	•
Emergency input	•	•	•	•
Low (velocity / flow) alarm contact	•	•	•	•
High (sash position / velocity / flow) alarm contact	•	•	•	•
Analog output	•	•	•	•
Venturi valve input and control	•	•	•	•
Flow station input with damper control	•			•

Items Included

Controller
Sidewall sensor
Vertical sash sensor
Controller output cable, 25 ft (7.6 m)

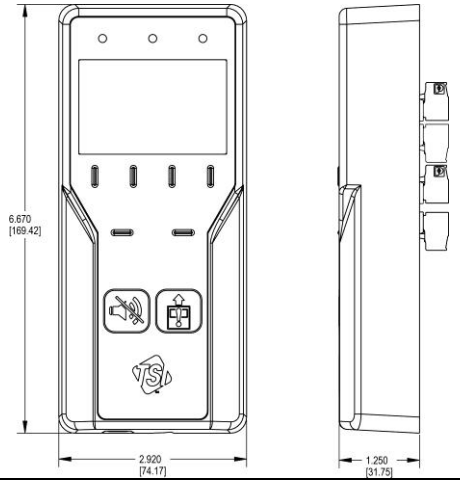
Hardware Options

Electric actuator/venturi valve assembly
Vent kit
Dual vent kit for 8-ft (2.4 m) and larger hoods
120:24V transformer, 50 VA
Flush-mount bracket
Slimline interface

Modbus is a registered trademark of Modicon Incorporated.
LonWorks is a registered trademark of Echelon Corporation.
BACnet is a registered trademark of ASHRAE

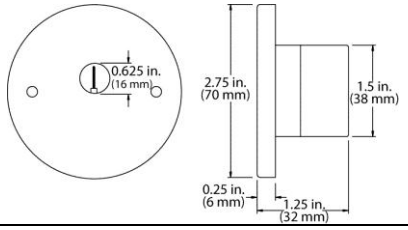
Digital Interface Module Specifications

Display Range	0 to 1000 fpm (0 to 5.08 m/s) 0 to 10,000 cfm (0 to 4720 l/s, 0 to 16,990 m^3/hr)
Low Alarm Range	5 to 960 fpm (0.03 to 4.88 m/s) 0 to 10,000 cfm (0 to 4720 l/s, 0 to 16,990 m^3/hr)
High Alarm Range	80 to 1000 fpm (0.41 to 5.08 m/s) 0 to 10,000 cfm (0 to 4720 l/s, 0 to 16,990 m^3/hr)
Control Output	0 to 10 VDC
Analog Output	0 to 10 VDC or 4 to 20 mA Represents Face Velocity, Flow Rate or % Sash Open
Inputs	Sash Position, Night Setback, Emergency, Flow
Communications	Modbus®, N2, BACnet® MS/TP, LonWorks®
Alarm Contacts	SPST*, 60-W max 2A @ 30 VDC Nominal
Input Power	24 VAC, 50/60 Hz or 15-40 VDC 5 Watt Maximum (50 VA for system with TSI actuator)
Operating Temp.	32 to 120°F (0 to 48.9°C)
Size (HxWxD)	6.67 x 2.92 x 1.25 in (169 x 74 x 32 mm)
Weight	0.5 lb (0.2 kg)



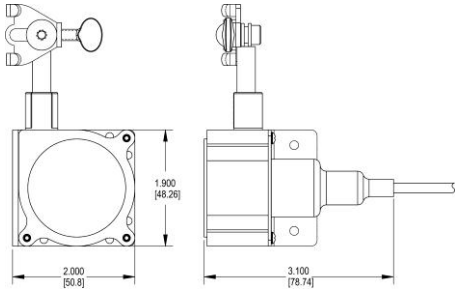
Sidewall Sensor Specifications

Range	0 to 1000 fpm (0 to 5.08 m/s)
Resolution	1 ft/min
Temp. Comp Range	55 to 95°F (12 to 35°C)
Power Dissipation	0.09 W at 0 fpm (0 m/s) 0.14 W at 100 fpm (0.50 m/s)
Size (DxH)	2.75 x 1.25 in (70 x 32 mm)
Weight	0.2 lb (0.5 kg)



Vertical Sash Sensor Specifications

Cable Type:	Nylon-coated stainless steel
Maximum Retraction	50 in (1,270 mm)
Resistance	0-10,000 Ω
Electrical Cable	2-conductor, 24 AWG 12-ft (3.6 m)
Dimensions	2.0 x 3.5 x 3.1 in (51 x 88 x 79 mm)



*Relays close to indicate alarm or loss of power.
Specifications subject to change without notice.

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