

CONTROLLED ENVIRONMENTS

Critical Environments



Features and Benefits

- Controls fume hood face velocity to provide containment and safety
- Reduces laboratory air flow usage, optimizing energy savings
- Assists in managing risk by communicating fume hood status information to Building Management System (BMS)
- Visual, audible and remote alarms warn users of unsafe conditions
- Seamless integration to BMS via BACnet®, LonWorks®, or Modbus™
- Easy installation and wiring
- Fast-acting actuator provides containment during sash movements
- Easy configuration using keypad or configuration software
- Large display provides detailed fume hood information
- Surface or flush mount options available

Fume Hood Controller Model FHC50

Fume hoods are a primary source of protection in laboratories. Face velocity measurements are often used to gauge the performance of a fume hood's ability to contain and exhaust harmful vapors. By measuring and controlling face velocity, TSI FHC50 Fume Hood Controllers provide a higher level of fume hood safety and energy efficiency.

Options

- Fume Hood Control
 - Using side-wall velocity sensors
 - Utilizing sash sensors
 - Combining side-wall and sash sensors
- Flow Control
 - Using pressure-based or thermal flow stations
 - Utilizing linear venturi valves
- Controls dampers or valves with fast-acting actuator, depending on application

Applications

- Research laboratories
- Life Science and Pharmaceutical
- Universities and Academic
- Vivariums
- Healthcare Facilities



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Specifications

Model FHC50

Fume Hood Controller

Display Range

0 to 1,000 fpm (0 to 5.08 m/s)

0 to 10,000 cfm (0 to 4,720 l/s, 0 to 16,990 m³/hr)

Low Alarm Range

5 to 960 fpm (0.03 to 4.88 m/s)

0 to 10,000 cfm (0 to 4,720 l/s, 0 to 16,990 m³/hr)

High Alarm Range

80 to 1,000 fpm (0.41 to 5.08 m/s)

0 to 10,000 cfm (0 to 4,720 l/s, 0 to 16,990 m³/hr)

Control Output

0-10 VDC

Analog Output

0-10 VDC or 4-20 mA

Represents Face Velocity, Flow Rate or % Sash Open

Alarm Contacts

SPST, 2A @ 30 VDC Nominal

Inputs

Sash Position, Night Setback, Emergency, Flow

Communications

Modbus, N2, BACnet MS/TP, LonWorks

Input Power

24 VAC, 50/60 Hz or 15-40 VDC 5, Watt Maximum

(50 VA for system with TSI actuator)

Operating Temperature

32 to 120° F (0 to 48.9° C)

Size

6.67" H X 2.92" W X 1.25" D (16.9 cm X 7.4 cm X 3.2cm)

Weight

0.5 lb (225 g)

Optional Accessories

800920

800926

Slimline Monitor

Flush Mounting Bracket

	FHC50-01	FHC50-02	FHC50-03	FHC50-04
TSI's Sidewall Velocity Sensor	•		•	
Sash Position Sensor		•	•	
Flow Control				•
Controls Damper	•		0	0
Control Venturi Valve	•	•	•	0
Visual and Audible Alarms	•	•	•	•
Flow Input	0	•	•	•
Contact Inputs	C	C	C	C
Analog Outputs	C	C	C	C
Alarm Contact Outputs	•	•	•	•
RS-485 (Modbus, Johnson N2)	•	•	•	•
BACnet MS/TP or LonWorks Compatible	0	0	0	0
• = Feature of Instrument 0 = Optional versions available C = Configurable - see manual for options				

Specifications are subject to change without notice. Modbus, LonWorks, and BACnet are registered trademarks of Modicon Inc., Echelon Corp., and ASHRAE respectively.

TSI Incorporated - 500 Cardigan Road, Shoreview, MN 55126-3996 USA

USA Tel: +1 800 874 2811

E-mail: info@tsi.com

Website: www.tsi.com

UK Tel: +44 149 4 459200

E-mail: tsuuk@tsi.com

Website: www.tsiinc.co.uk

France Tel: +33 491 11 87 64

E-mail: tsifrance@tsi.com

Website: www.tsiinc.fr

Germany Tel: +49 241 523030

E-mail: tsigmbh@tsi.com

Website: www.tsiinc.de

India Tel: +91 80 41132470

E-mail: tsi-india@tsi.com

China Tel: +86 10 8251 6588

E-mail: tsibeijing@tsi.com

Singapore Tel: +65 6595 6388

E-mail: tsi-singapore@tsi.com

Contact your local TSI Distributor or visit our website www.tsi.com for more detailed specifications.



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