Knowledge Beyond Measure.

# 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.

### 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

### Applications

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

### 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

**Specifications**

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### 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 $m^3$/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 $m^3$/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 $m^3$/hr)

### Control Output

0-10 VDC

### Analog Outputs

0-10 VDC or 4-20 mA
Represents Face Velocity, Flow Rate, or % Sash Open

### Alarm Contact Outputs

SPST, 2A @ 30 VDC Nominal

### Contact Inputs

Sash Position, Night Setback, Emergency, Flow

### Communcation Options

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 (H x W x D)

6.67" x 2.92" x 1.25" (16.9 cm x 7.4 cm x 3.2cm)

### Weight

0.5 lb (225 g)

### Optional Accessories

| | |
|---|---|
| 800920 | Slimline Monitor |
| 800926 | Flush Mounting Bracket |

| | FHC50-01 | FHC50-02 | FHC50-03 | FHC50-04 |
|---|---|---|---|---|
| TSI's Sidewall Velocity Sensor | ■ | | ■ | |
| Sash Position Sensor | | ■ | ■ | |
| Flow Control | | | | ■ |
| Damper Control | ■ | | O | O |
| Venturi Valve Control | ■ | ■ | ■ | O |
| Visual and Audible Alarms | ■ | ■ | ■ | ■ |
| Flow Input | O | ■ | ■ | ■ |
| 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 | O | O | O | O |

■ = Feature of Instrument
O = Optional versions available
C = Configurable - see manual for options

Specifications are subject to change without notice.



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**TSI Incorporated** - Visit our website **www.tsi.com** for more information.

| | | | |
|---|---|---|---|
| **USA** | Tel: +1 800 874 2811 | **India** | Tel: +91 80 67877200 |
| **UK** | Tel: +44 149 4 459200 | **China** | Tel: +86 10 8219 7688 |
| **France** | Tel: +33 1 41 19 21 99 | **Singapore** | Tel: +65 6595 6388 |
| **Germany** | Tel: +49 241 523030 | | |

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