# degree controls, inc.

Your Partner for Airflow Sensing & Controls

# Rooster<sup>™</sup> Airflow Alarm

#### Applications

- Critical Containment
- Biosafety Cabinets
- Fume Hoods
- Glovebox Isolators
- Flow Benches
- Autoclaves
- Ventilation Workstations
- Compounding Aseptic Isolators
- Restricted Access Barriers
- Vivarium Interiors
- Animal Workstations
- Pharmaceutical Manufacturing
- Clean Rooms
- Airlocks
- Containerized Laboratories

#### Degree Controls, Inc.

is an ISO-9001 certified, world-class designer and manufacturer of airflow sensing, monitoring, and control solutions. With over 20 years of proven experience, we pride ourselves on delivering solutions which provide the value, differentiation, and service required by our customers, to meet the rapidly changing competitive landscape that they face.

Degree Controls, Inc. 18 Meadowbrook Dr. Milford, NH 03055

603.672.8900 or 1.877.334.7332 sales@degreeC.com www.degreeC.com

#### Overview

Designed to provide the safety and compliance you need for BSC's and Fume Hoods that do not meet current NSF & OSHA regulations - or to add that layer of security needed for your laboratory technicians. The Rooster™ Alarm provides full time tracking of air velocities within your cabinet or exhaust system to ensure air movement never falls below the user-defined thresholds. In the alert mode, a highly visible red LED light will flash and the volume-adjustable audio alert will announce. The Rooster<sup>™</sup> is easily reset with the illuminated button. This reset can be defined by EH&S Facility management to be either latching or repeatable based on your laboratory's policy. The Rooster<sup>™</sup> represents next generation airflow alarm technology, combining a rich set of customizable features withunprecedented ease of installation and configuration.

Simple 10 minute installation with flexible mounting options and airflow turbulence indicator assures perfect placement of the remote sensor. Whether you need an exhaust duct-mounted probe sensor for your Class II biosafety cabinet, a fume hood sidewall sash-flow sensor, or an in-line retro-fit replacement sensor for noncompliant monitors, each option easily plugs into the Rooster™ Alarm Module via the RJ-11 plug. The Rooster™ Alarm also has a Night Setback input connection for this low-flow/nonalarming energy saving mode.

## Options

Most of the user features can be set with the DIP switches found on the back of the Rooster module. Refer to the Quick Start Guide for more information. In-field feature programming and the ability to use the Rooster as a real-time airflow meter can be achieved by using a Windows® PC computer with a USB connection to the Rooster Module. The optional cable and Rooster software is available through DegreeC Customer Support.



#### Features

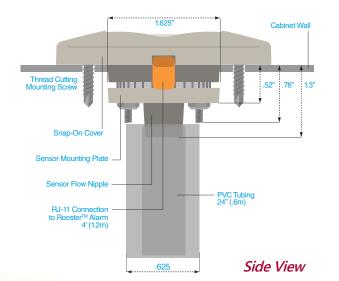
- Single push button for airflow calibration
- User configurable Alarm Threshold (preset NSF/ANSI-49 required -20%)
- Audible and visual alarm functions
- Customizable audible alarm tones
- Customizable warning lights
- Latching or resettable alarm
- Accurate! ±2% Repeatability of measured value
- Auxiliary Night Setback input
- Embedded or temporary installation
- Private labelling options available for certifiers

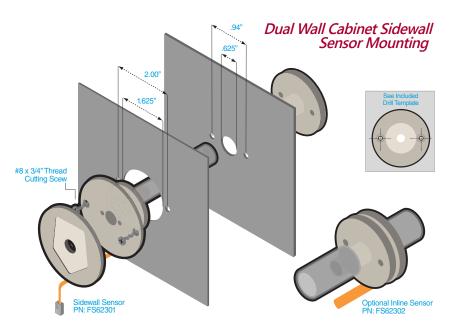


Optional Programming Cable & Rooster™ Software



#### Single Wall Cabinet Sidewall Sensor Mounting





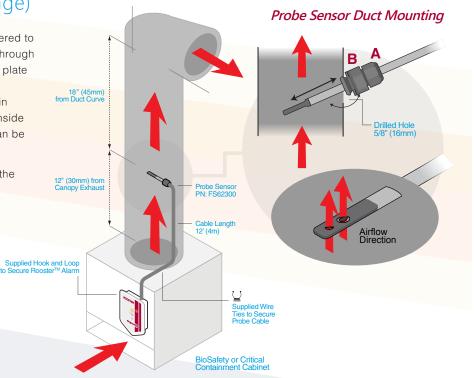
#### Sidewall/In-Line Sensors (Top of Page)

Sidewall: Use for Fume Hoods and Pressurized Rooms. Engineered to make installation and cleaning as simple as possible, the flow-through sensor head features a small form factor, and a removable face plate for easy maintenance.

<u>In-Line</u>: Use for installation in place of other sensor systems or in places where flow tubes have been used in the past. Fits 0.5" inside dimension (ID) tubes, and comes with 24" of PVC tubing that can be easily cut to size.

Each Rooster<sup>™</sup> sensor comes with a Quick Start Guide and all the hardware you need for this simple installation, including:

- Sensor bracket with face plate (Sidewall)
- Replaceable protective screen (Sidewall)
- Universal mounting hole patternGaskets and Self-tapping screws (Sidewall)
- 24" (600mm) PVC hose to reach interior pressure area (Sidewall)
- In-line sensor module (In-Line)
- 24" (600mm) 1/2" ID Tubing (In-Line)
- 4' (1.2M) cable and RJ-11 connection plug (Sidewall or In-Line)



#### Specifications

Operating Temperature	60°F to 140°F (15°C to 60°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Relative Humidity (non-condensing)	5-95%
Air Velocity Range	0.20-10.0m/s (40-2,000fpm)
Response Time	<1 Second
Supply Voltage	12-24 VDC
Input Current	0.5A Max

Power Adapter Included

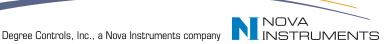
#### Duct Mounted Probe Sensor

Used in exhaust flow for Class II A or B duct systems.

Each Rooster<sup>™</sup> sensor comes with a Quick Start Guide and all the hardware you need for this simple installation, including:

- Sensor Probe, adjustable length for 6"-12" (15.2mm 30mm) ducts
- Mounting bracket, gaskets, and hole template
- Self-tapping screws and wire ties
- 12' (3.5M) cable with RJ-11 connection plug





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Your Partner for Airflow Sensing & Controls

# Rooster™ Monitor100

#### Applications

- Chemical Fume Hoods
- Laminar Flow Hoods
- Biosafety Cabinetry
- HVAC Duct Monitoring
- Clean Room Monitoring
- Building Management
- Critical Containment

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#### Overview

The Rooster<sup>™</sup> Monitor100 is the next-generation airflow monitor for chemical fume hoods. With a glove-friendly, color touch-screen and onscreen messaging, the Monitor100 is intuitive and requires virtually no training. Using temperature compensated, Degree Controls' instrumentationclass air velocity sensing, calibration is faster, more accurate, and more reliable.

Built according to industry feedback, users will find they do not need to continually refer to a manual to operate. The GUI guides the operator through procedures with on-screen instructions. Users can also add laboratory specific information, such as Safety Officer phone numbers and unique asset tags via the built-in USB port. To future proof your investment, firmware updates are achieved by simply plugging in a USB memory stick and power cycling the unit.

Single and multiple event alarms are clearly displayed to the user, and the INFO button allows instant access to calibration date, alarm thresholds, and other critical system information. The Monitor100 conveys status by updating the background color of the screen and critical safety alarms are augmented with a blinking LED. Dual password protection allows users to personalize operational experience, but not override safety features set by facility managers.

Powered by supplied wall adapter or 24VDC/VAC cabinet supply, the Monitor100 uses two flow-through sensor types, which may include a removable, and washable air screen. Sophisticated controls include, sash alarm, night setback, remote signaling, latching and ring-back control, display resolution, and unit of measure updates.



#### Specifications

Rooster™ Module Size	3.2" x 5.3" x 0.7" (81mm x 135mm x 19mm)
LCD Display Area	2.3"x 2.7" (57mm x 70mm)
Air Velocity Range	30-2,000 fpm (0.15 - 10.0 m/s)
Velocity Repeatability	1% (NSF49:2014 Requirement)
Response Time	< 1 second
Supply Voltage	24 VAC/VDC & Wall Adapter
Red LED Indicator	160° viewing angle
Alarm Volume	0 - 85dB (adjustable)
Relative Humidity	5 - 95% (non-condensing)
Operating Temperature	40°F - 140°F (5°C - 60°C)
Storage Temperature	-40°F - 185°F (-40°C - 85°C)
Compliance Standards	CE, RoHS



#### Features

- Glove-friendly, color touch panel display, with complete user messaging and intuitive interface.
- Whole-screen background colorization to convey current state, augmented by flashing red LED while in alarm state.
- Instrumentation-class sensor, compatible with latest 2014 NSF requirements for repeatability and high accuracy calibration.
- Accepts side-flow sensor for negatively pressurized cabinets, insertion probe for exhaust ducts and inline retrofit design to replace legacy airflow alarm monitors.
- Full temperature compensation built-in for accuracy across wide operating temperature range.
- Air temperature sensing included and displayed on-screen.
- Wide velocity range capability, for use in face-velocity or duct-velocity applications.
- Fast and intuitive set-up, with no need to have manual on hand.
- Dual password protection allows users to personalize operational experience, but not override safety features set by facility managers.
- On screen messaging, to alert multiple simultaneous alarms, and real-time latching/mute conditions.
- INFO button for instant access to calibration date and current system configuration.
- Power fail protection to retain settings in case of power mains failure.
- Output relays for remote monitoring of airflow alarms, sash alarms, and remote night setback initiation.
- Night setback airflow settings to manage laboratory air exchange using your chemical fume hood your most energy efficient option.
- USB keyboard compatible, for user based information, and alphanumeric asset tagging.
- USB port for firmware upgrades to future-proof your investment.

## Input/Output Available

Inputs - Night Setback and Optional Sash Switch Outputs - Airflow Alarm and Sash Alarm

Please refer to the manual for further information.

#### Customizations Available

- Analog output scaled to air velocity readings
- Private labeling
- Custom boot-up screen with logos or special information Call DegreeC to discuss available customizations!

## Part Number Format

#### TC62310-S-B

- S = Sensor Selection
- 1 = Side-flow Sensor
- 2 = In-line Sensor
- 3 = Duct Mounted Probe Sensor

#### B = Mounting Plate Option

- 1 = Wall Mount Option
- 2 = Semi-Flush Mount Option

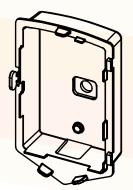
Optional Sash Switch available: Part # 62310AS004

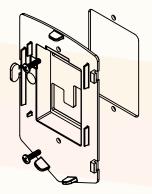
### Monitor Mounting Options

The Monitor100 is mounted in two steps. First, the backplate is mounted to the cabinet or electrical box, and the wires are pulled through and connectorized. The connectors are plugged into the Monitor100 and the front bezel assembly snaps onto the backplate with no tools.

#### Sensor Mounting Options

- Side-flow sensor is designed to be mounted to the exterior surface of the cabinet, and can be used with the supplied ducting to create an airflow path from the front face, to the inside face of the cabinet. Includes removable and washable air screen.
- In-line sensor is designed for retrofit of failed legacy products, or those which are no longer accurate enough for new standards. The inline sensor is mounted inside the cabinet plenum area to increase the tamper-resistance of the sensor element. It can be used with the washable filter from the Sidewall sensor.
- Duct Mounted Probe Sensor Use in exhaust flow for Class II A or B duct systems. Each Rooster sensor comes with a Quick Start Guide and all the hardware you need.





Wall Mount Option

Semi-Flush Mount Option

INSTRUMENTS

