degreeC™

DEGREE CONTROLS,INC.

*Your Partner for Airflow Sensing & Controls*

# Rooster™ Sensor100


## Applications

- HVAC Ducting
- Process Control
- VAV Control
- Environmental Monitoring & Alarms
- Clean Toom Monitoring
- Building Management Systems
- Datacenter Monitoring & Alarms
- Particle Separation Equipment Monitoring
- Downflow & Laminar Flow Equipment

## Overview

The Rooster™ Sensor100 is a next-generation air velocity and temperature sensor with built-in touchscreen display for configuring alarm set points and output behavior. Using an instrumentation grade sensing element, the Sensor100 comes calibrated and ready to deploy. With a glove-friendly, color touch-screen and on-screen messaging, the Sensor100 is intuitive to use and set-up into your building or system. Using temperature compensated, Degree Controls' instrumentation-class air velocity sensing, the Sensor100 will provide years of service, and can also be recalibrated if desired.

With an intuitive interface, users will find they do not need to refer to the 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 Sensor100 conveys status by updating the color of the background screen, and critical safety alarms are augmented with a blinking LED. Password protection allows users to personalize operational experience, but not override safety features set by facility managers.

Powered by wall adapter or 24VAC/VDC, the Sensor100 uses a 287mm (11.3") probe sensor to access larger ducts and includes volumetric flow capability. Sophisticated controls include, night setback, remote signaling, latching and ring-back control, velocity resolution, screen brightness, and unit of measure updates.

## Specifications

| | |
|---|---|
| Alarm Module Size | 82mm x 135mm x 19mm (3.2" x 5.3" x 0.7") |
| Probe Length | 287mm (11.3") length with 3.7m (12') cable |
| LCD Display Area | 57mm x 70mm (2.3" x 2.7") |
| Air Velocity Range | 0.15 - 20.0 m/s (30-4,000 fpm) |
| Velocity Repeatability | 1% (NSF/ANSI-49 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 | 5°C - 60°C (40°F - 140°F) |
| Storage Temperature | -40°C - 85°C (-40°F - 185°F) |
| Compliance Standards | CE, RoHS |
| Rooster™ Package Size | 14" x 12" x 4" (36cm x 30cm x 10cm) |

## Degree Controls, Inc.

is an ISO-9001 certified, world-class designer and manufacturer of airflow sensing, monitoring, and control solutions. With over 25 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.


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NOVA INSTRUMENTS

## 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.
- Up to 1% velocity accuracy, 1% repeatability of reading.
- 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.
- Password protection to provide user preference selection, without affecting safety configuration.
- On screen messaging, to alert multiple simultaneous alarms, and real-time latching/mute conditions.
- Advanced mute, alarm delay, and ring-back implementations to configure user preferences without affecting facility manager's implementation requirements.
- INFO button for instant access to calibration date and current system configuration.
- Power fail protection to retain settings in case of power mains failure.
- Remote monitoring of airflow alarms, and remote night setback initiation for energy savings.
- 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
**Outputs** - Airflow Alarm and Sash Alarm

Please refer to the manual for further information.

## Part Number Format

### TC62320-P-B

P = **Power Supply Option**
1 = US Power Supply
2 = EU Power Supply

B = **Mounting Plate Option**
1 = Wall Mount Option
2 = Semi-Flush Mount Option

Optional Sash Switch available:
**Part # 62310AS004**

## Accuracy

Repeatability ±1% of reading (under identical conditions)

**Air Velocity Range**
0.15 to 20 m/s (30 to 4,000 fpm)
*within compensation range

**Air Velocity Accuracy***
±5% of reading or ± 0.05 m/s [10 fpm]

## Compensation

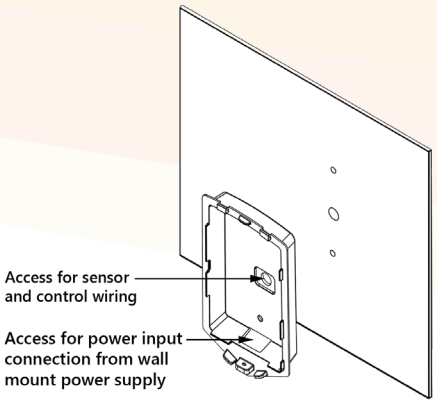
**Air Temperature Measurement Accuracy:** ±2°C (3.6°F)
**Resolution:** 0.1°C

***Temperature Compensation Range:** The Rooster™ Sensor100 is a thermal airflow sensor; it is sensitive to changes in air density and indicates velocity with reference to a set of standard conditions (21°C (70°F), 760mmHg (101.325kPa), and 0%RH).

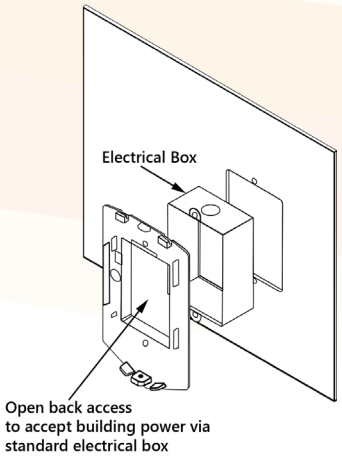
The Rooster™ Sensor100 has been designed so that when used over the stated temperature compensation range, the sensor indicates very close to actual air velocity and minimal compensation is only required to account for changes in barometric pressure or altitude.

## Mounting Options

The Sensor100 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 then plugged into the Sensor100, and the front bezel assembly snaps onto the backplate and is secured with bottom captive screw.




*Wall Mount Option*




*Semi-Flush Mount Option*

The Rooster™ Sensor100 ships standard with probe sensor and °C Clamp fitting. A gland fitting is also available.

Call Degree Controls today to discuss private labeling, custom screens, and other available customizations.