



DEGREE CONTROLS, INC.

Your Partner for Airflow Sensing & Controls

# Rooster™ Pressure100

## Applications

- Pharmaceutical Manufacturing
- Laboratories
- Vivariums
- Hospital Rooms
- Clean Room Monitoring
- Environmental Monitoring & Alarms
- Building Management Systems
- Semiconductor Manufacturing

## Overview

The Rooster™ Pressure100 is a next-generation air pressure sensor and alarm with built-in touchscreen display for configuring alarm set points and output behavior. With a glove-friendly, color touch-screen and on-screen messaging, the Pressure100 is fast and intuitive to set-up into your building or system. The Pressure100 is ideal for organizations looking to comply with USP <797>, USP <800> and FDA 503a/b guidelines.

Users will find that they do not need to refer to the manual to operate the Pressure100. The GUI guides you through procedures with on-screen instructions, and the USB port allows data logging as well as firmware updates to future-proof your investment.

The Pressure100 conveys status by updating the color of the background screen, and critical safety alarms are augmented with a blinking LED. In addition to air pressure and pressure mode, the Pressure100 monitors and displays temperature and relative humidity. Password protection allows users to personalize their operational experience, but not override safety features set by facility managers. The Info button allows instant access to calibration date, alarm thresholds and other critical system information, and users can also add laboratory specifics such as room name and asset ID. All Pressure100s are calibrated before leaving the factory, and the "zero pressure" recalibration process is easily accomplished after final installation and during laboratory recertifications.

Additional configuration controls include occupied/unoccupied room modes of operation, door status, alarm latching and ring-back control, pressure resolution and variation, and unit of measure updates.

Powered by 24VAC/VDC, the Pressure100 uses an external pressure sensor, and is equipped with enough cabling and tubing for most installation scenarios.



## General Specifications

Differential Pressure Sensing Range	-125 to +125 Pa -0.5 to +0.5 in H <sub>2</sub> O
Rooster™ Display Module Size	3.2" x 5.3" x 1.3" (82mm x 135mm x 32mm)
Pressure Sensor Size	3.0" (Diameter) x 1.8" 77mm (Diameter) x 46mm
Face Plate Size	3.0" (Diameter) x 1.2" 77mm (Diameter) x 31mm
Supply Voltage	24 VAC/VDC
Red LED Indicator	160° viewing angle
Alarm Volume	0 - 85dB (adjustable)
Operating Temperature	40°F - 140°F (5°C - 60°C)
Storage Temperature	-40°F - 185°F (-40°C - 85°C)
Compliance Standards	RoHS

## 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.

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## Features Overview

- Glove-friendly, color touch panel display, with complete user messaging and intuitive interface.
- Fast and intuitive set-up, with no need to have manual on hand.
- USB port allows data logging as well as firmware upgrades to future-proof your investment.
- Whole-screen background colorization to convey current pressure and temperature state, augmented by flashing red LED while in alarm state.
- On screen messaging, to alert multiple simultaneous alarms and real-time latching/mute conditions.
- Room differential pressure, available in inches of water, cm of water or Pascals, displayed on-screen with alarming capabilities.
- Full temperature compensation built-in for accuracy across wide operating temperature range.
- Air temperature and relative humidity sensing and display.
- Password protection provides user personalization without affecting safety configuration.
- Info button for instant access to calibration date, alarm thresholds and other system settings.
- Laboratory specific information such as room name or unique asset ID can be added.
- Easy "zero pressure" calibration process.
- Remote monitoring of pressure alarms.
- Input signaling for occupied or unoccupied room modes of operation.
- Configurable door status alarm during real-time pressure drops.
- Advanced mute, alarm delay, and ring-back implementations.
- Power fail protection to retain settings in case of power mains failure.
- USB keyboard compatible, for user based information, and alphanumeric asset tagging.

## Part Number Format

### TC62314-P-D

#### P = Power Selection

- 1 = Customer Supplied Power with Semi-Flush Mount Back Plate
- 2 = US Power Supply with Wall Mount Back Plate
- 3 = EU Power Supply with Wall Mount Back Plate

#### D = Door Switch Kit Option

Specify -D to have the Door Switch Kit included

## Input/Output Available

**Inputs** - Door Sensor and Occupied/Unoccupied Room

**Outputs** - Pressure Alarm

## Sensor Performance

### Differential Pressure

Measurement Range	-125 to +125 Pa (-0.5 to 0.5 in H <sub>2</sub> O)
Accuracy	3% of reading + 0.08 Pa (0.00032 in H <sub>2</sub> O)
Repeatability	0.5% of reading + 0.04 Pa (0.00016 in H <sub>2</sub> O)

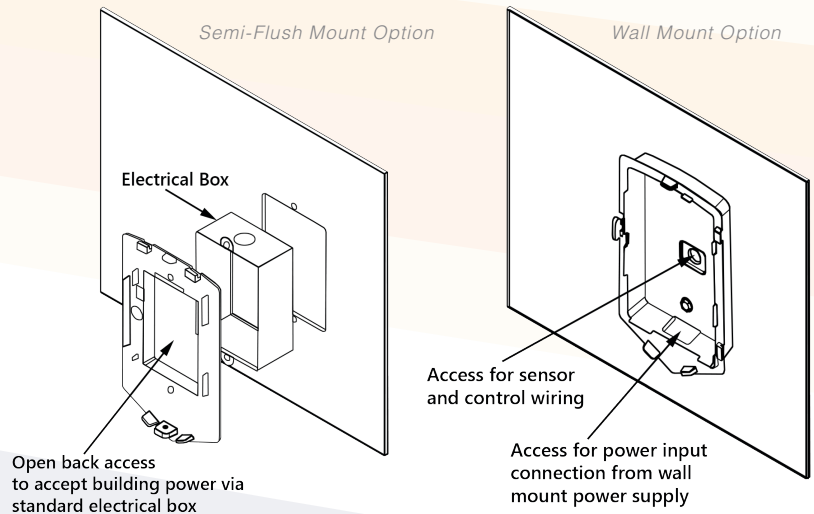
### Temperature

Measurement Range	-40°F - 185°F (-40°C - 85°C)
Accuracy	2 °C (-10 °C to +60 °C); 3 °C (-40 °C to +85 °C)
Repeatability	0.1 °C

## Display Module Mounting Options

Typically, the Rooster™ Pressure100 display module is mounted near an access door, at eye level, and in the controlled room, with the pressure sensor mounted above it. Other mounting scenarios are possible.

The display module is designed to mount semi-flush, where the back plate sits partially inside a standard electrical box. A wall mount back plate option is available for installations with a wall mount power supply.



## Pressure Sensor Mounting Options

The pressure sensor should be used with the supplied tubing to create an airflow path from the front face to the outside room wall. Air screens are removable and washable.



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