RESPA Advisor
Cab Monitoring Systems

SY-KLONE INTERNATIONAL

SEE THE UNSEEN
threats on industrial jobsites

CO_2 Levels • Cab Pressurization • Filter Life

RESPA Advisor®
Pressure Monitor

RESPA Advisor®+
Pressure + CO_2 Monitor

Meets ISO 23875 requirements

RESPA Advisor+

ISO 23875 Compliant

- Meets ISO 23875 performance requirement for real-time operator cab monitoring, including stringent CO_2 sensor specifications

High-Quality CO_2 Monitor

- Includes a nondispersive infrared sensor (NDIR) providing real-time CO_2 readings to alert operators when air quality conditions are unsafe

Real-Time Pressure Monitoring

- Reports cab pressurization levels in real-time to support a controlled-air-quality cab environment

Tracks Filter Life

- Ensures filters are replaced timely to help maintain optimal air quality

NEW Pressure and CO_2 Monitor

Sy-Klone RESPA Advisor+
CO2 and Pressure Monitor App

RESPA Advisor+ Cab Monitoring System

RESPA Advisor+ cab monitoring system provides visibility into the operator cab environment. With the RESPA Advisor+ cab monitoring system, see the unseen threats on an industrial job site, including unsafe levels of CO_2, loss of cab pressurization which could lead to harmful respirable particulates entering the cab, and loss of filter life caused by changing filters prematurely.

Cab Pressurization
Monitor reports cab pressurization levels in near real-time to provide machine operators indicator of cab environment

High Quality CO_2 Monitor
Not all CO_2 sensors are created equally. Sy-Klone sourced a high-quality sensor with precision accuracy to provide near real-time CO_2 data to alert operators when unsafe air quality conditions exist

Filter Life Tracking
Take the guess work out of filter life, with manual filter tracking to ensure optimal filter life and performance *Coming soon*

Ready for Jobsites Around the World
- Metric and Imperial units of measurement
- Symbol-based interface for ease of use for all users regardless of native language

Designed for Cab Environment
- Small size and dark color scheme blends into operator cab environment
- Matte surface texture eliminates glare and visual safety concern

Audible and Visual Alarms
Built-in alarm alerts the operator when pressurization or CO_2 levels go outside of the allowable threshold

Interactive, LCD Display
Full color, interactive LCD screen is easy to use and quick to learn, making it easy to integrate into the jobsite

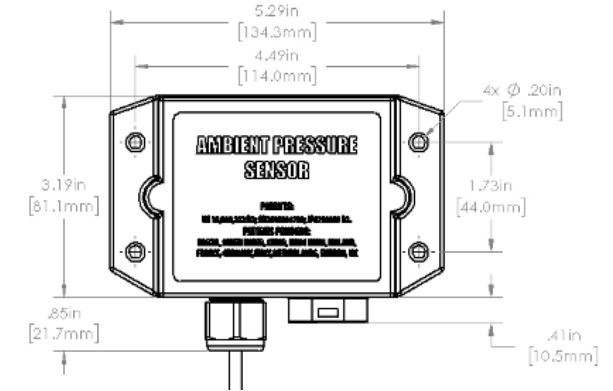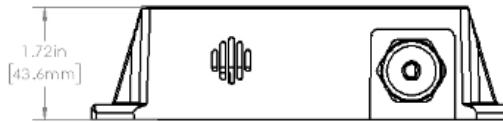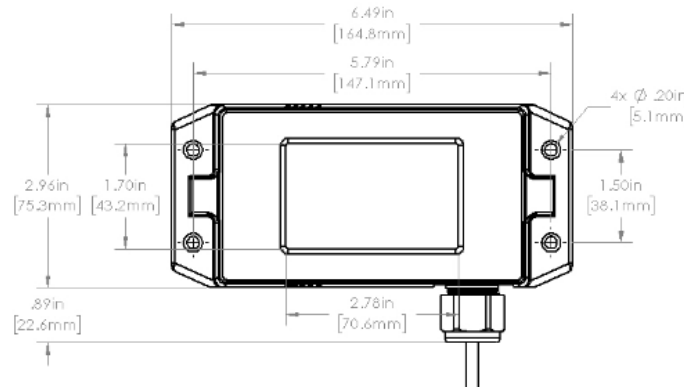**Access Data for Better Insights into the Operator Cab Environment**
- Data logging with download capability via Bluetooth
- Admin access for
- Smartphone App to access data

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RESPA Advisor+ Technical Specifications

RESPA Advisor+ Specifications

- **Voltage**: 12-24 VDC (Undervoltage protection @ 10 VDC; Overvoltage protection @ 30 VDC)

- **Current Consumption**: Main Module: Less than 30 mA /Ambient Pressure Sensor (APS): Less than 0.6mA

- **Inside/Outside Operating Temperature Rating**: -10°C to 60°C (Main Module Inside CAB)/-40°C to 80°C (APS outside CAB)

- **Storage Temperature Rating**: -55°C to 125°C

- **Operating Pressure Range**: 0 to 400 Pa (0 to 1.61 Inches–H_2O)

- **Operating CO_2 Range**: 0 to 5000 PPM

- **Display Resolution**: 1 Pascal (0.01 Inches-H_2O)

- **Main Module Dimensions:** 164.84 x 75.31 x 43.56 mm (6.489 x 2.965 x 1.715 inches)

- **Mounting Plate Dimensions**: 165 x 76 x 6.35 mm (6.5 x 3.0 x 0.25 inches)

- **Main Module Weight**: 426 g (15 oz.)

- **Ambient Pressure Sensor (APS) Weight**: 72 g (13.1 oz)

- **Mounting Bolt Size**: 4mm Hex Bolt

- **Connector:** Deutsch part number DT04-2P-E005, Qty 1

  - W2P Secondary lock, qty 1; 0460-202-16141 Contact pins, Qty 2

- **Communication frequency:** The main monitor and ambient pressure sensor communicate using a standard Bluetooth frequency of 2.4 GHZ

Main Module and APS Dimensions

RESPA Advisor+

ISO 23875-compliant CO_2 and Pressure Cab Monitor

RESPA Advisor

Real-Time Pressure Monitoring

- Reports cab pressurization levels in real-time to support a controlled-air-quality cab environment
- Cab pressure digital read-out

LED and Audio Alarms

- Visual alarm alerts the operator when cabin pressure drops below the preset level
- Audio alarm can be turned on / off and volume can be adjusted

New Color and Design

- Modernized design includes updated, dark color scheme blends into operator cab environment

Filter Life and Operator Cab Environment Insights

- Real-time visibility into pressurization levels can be good indicators of both cab air quality and filter life

Updated Pressure Monitor

RESPA Advisor Pressure Monitor

The RESPA Advisor Pressure Monitor provides visibility to the air quality in the operator cab.
Loss of cab pressure can allow harmful respirable particulate to enter the cab.

Cab Pressure Numeric Display
The monitor reports cab pressurization levels in real-time to provide the machine operator an indicator of cab environment.

LED Alarm
The lighted indicator illuminates whenever the cab pressure drops below the preset minimum threshold for more than ten seconds. This feature cannot be disabled. The ten second delay allows for normal door opening and closing without setting off the alarm. The light will remain on until pressure is restored.

Low Pressure Signal Alarm 🔊
This feature is internal in all units. It can be activated or deactivated during setup, and the volume level can also be adjusted to suit the environment. If the feature is activated, the alarm will sound whenever the cab pressure drops below the preset minimum pressure level for more than ten seconds. It automatically self-resets when the cab pressure returns to normal or when a off/on power cycle is completed.

Silence Alarm Button
Sometimes it is necessary to open a window or door for more than ten seconds, which will set off the alarm. The alarm signal can be silenced by pushing the button. The alarm mode is self-resetting when the cab pressure normalizes or with an off/on power cycle. The alarm is again armed and will sound after a ten second pressure drop.

Quick Connect Fitting
The included air line, which provides ambient air pressure from outside the cab, attaches here.

Electrical Wiring
Connects to any convenient DC voltage connection between 9 VDC and 36 VDC, so the same unit can be installed on a 12-volt or 24-volt system.

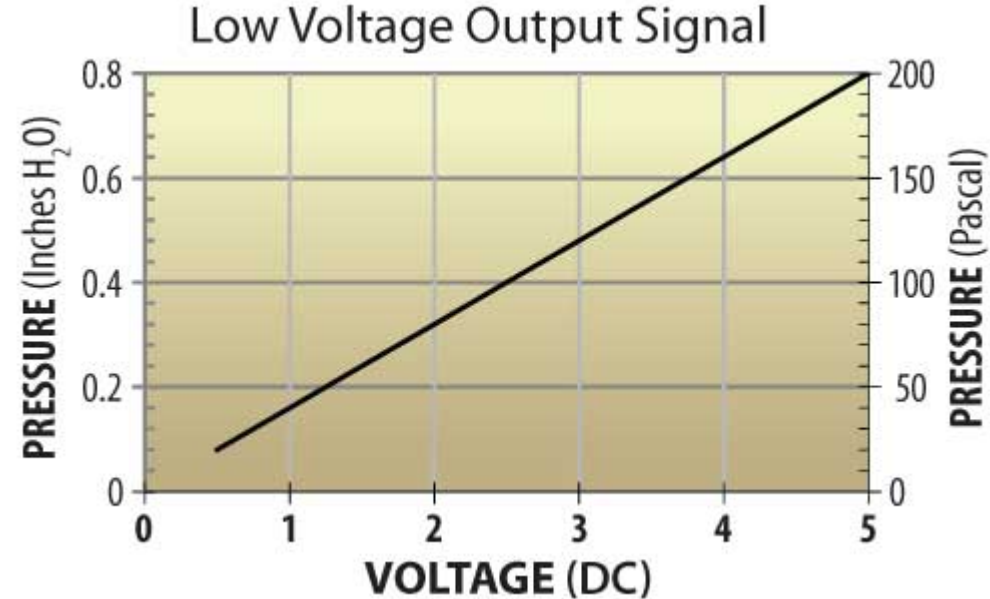## Low Voltage Pressure Signal Port:
The unit includes a 0 to 5 volt output signal that can stream real-time pressure information to an on-board computer. The 1/8-inch mono-plug signal port puts out a low power voltage signal that varies with the pressure reading.

Customizable Settings
Pressure units in Pascal or inches of H_2O, selectable during setup, along with volume level and alarm behavior.

RESPA Advisor Technical Specifications

- **Operating Pressure Range:** 0 to 0.8 Inches H2O (0 to 200 Pa)

- **Display Resolution:** 0.01 Inches H2O (1 Pa)

- **DC Input Voltage (self-resetting fuse):** Minimum: 9V, Maximum: 36V

- **Current Consumption:** Less than 30 mA

- **Operating Temperature Range:** -40 F to 140 F (-40 C to 60 C)

- **Enclosure Dimensions**: 3.50 x 2.52 x 1.39 inches (88.9 x 64 x 35.2 mm)

- **Mounting Plate Dimensions:** 4.52 x 2.52 x 0.11 inches (114.8 x 64 x 2.8 mm)

- **Weight:** 0.2 oz. (175 g)

- **Air Tube:** 3/16 inches OD; 6 foot length (1.8 m)

- **Default Settings (as shipped from Sy-Klone):**

  - **Sound:** On

  - **Volume:** Full volume

  - **Digital display units:** Inches of H_2O

  - **Alarm threshold:** 0.08 inches H_2O (20 Pa)

- **Low Voltage Pressure Output Signal:**

  - 0V @ 0 Inches H2O (0 Pa)

  - 5V @ 0.8 Inches H2O (200 Pa)

  - 20 mA

This low voltage output signal chart can be used to calibrate real-time pressure data when sent to a computer or telemetric system.