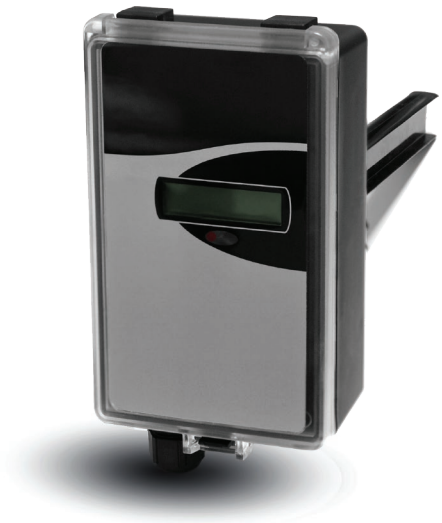

*Featured ASENSE Product*

Duct Mount

Room Mount

Industrial Wall Mount

# ASENSE: CO2

## *ASENSE Carbon Dioxide Sensor with Relay Option*

The ASENSE room and duct transmitters monitor the carbon dioxide (CO2) levels in industrial, school, and office type environments. The concentration of CO2 is a strong indication of the overall indoor air quality. The ASENSE Series is based on a single beam non-dispersive infrared technology, and is a cost-optimized solution for the climate control of buildings and other processes. In addition, ABC software eliminates the need for manual calibration. The ASENSE Series measures the CO2 concentration in the ambient air up to 2,000 ppm and converts the data into an analog output. This data can be used in conjunction with a Building Automation or Demand Control Ventilation System. This decreases energy consumption while creating a healthier indoor climate. Units feature an analog temperature output (-4 to 140°F) and come with combined output options of 0-5 VDC or 0-10 VDC and 0-20 mA. 4-20 mA, 1-5 VDC, and 2-10 VDC are field selectable via an onboard jumper. A relay option is also available for this series.

The SADK Calibration Kit is a configuration and test utility to assist you in your work with the ASENSE Series. The downloadable program UIP5 gives you access to the main features of the connected product. You also have the option to configure, log and test. Contact ACI for further details.

The ASENSE Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's web site, www.workaci.com.

## SPECIFICATIONS

| | |
|---|---|
| **Supply Voltage** | 24 VAC/VDC +/-20%, 50/60 Hz (half-wave rectifier) |
| **Power Consumption** | < 3 Watts average |
| **Measurement Range (CO2/Temp)** | 0 to 2,000 ppm (CO2) / -4 to 140ºF/-20 to 60ºC (temperature) |
| **Output Signals for CO2 (Out 1)** | 0-5 VDC or 0-10 VDC and 0-20 mA (4 to 20 mA is field selectable) see ordering below |
| **Output Signals for Temperature (Out 2)** | 0-5 VDC or 0-10 VDC and 0-20 mA (4 to 20 mA is field selectable) see ordering below |
| **Relay Output (optional)** | N.O. or N.C. rated to 1 mA/5V up to 1A/50 VAC/24 VDC |
| **Relay Trip Point** | 1000 ppm (factory set) |
| **Accuracy** | ±30 ppm ±3% of reading |
| **Annual Zero Drift** | < +/- 0.3% of measurement range |
| **Pressure Dependence** | + 1.58% reading per kPa deviation from normal, 100 kPa |
| **Reponse Time** | 2 minute diffusion time |
| **Warm Up Time** | < 1 minute (@ full specs < 10 minutes) |
| **Operating Temperature/Relative Humidity Range** | 32 to 122ºF (0 to 50ºC)/0 to 95%, non-condensing |
| **Sensor Coverage Area** | 7,500 sq. ft. maximum |
| **Deadband/Hysteresis** | 100 ppm (factory set) |
| **Life Expectancy** | > 15 years (typical) |
| **Sensing Technology** | Single beam infrared sensing technology (NDIR) |
| **Product Dimensions (Room Mount) (US)** | (H) 5.12" (W) 3.35" (D) 1.18" |
| **Product Dimensions (Duct Mount)** | (H) 5.98" (W) 3.33" (D) 1.85" |
| **Product Dimensions (Industrial Wall Mount)** | (H) 5.98" (W) 3.33" (D) 1.85" |

## ORDERING

Select one Sensor Series (A), one Enclosure (B), one Output (C), one Display (D) & one Relay (E). When selecting an Enclosure (B), if a "D" Duct Mount (IP65) is selected, complete (C), (D), (E) & (F). All other Enclosure (B) options are finished after selecting a Relay (E). **NOTE*** The "-GH" Greenhouse sensors have the ABC Logic (Automatic Background Calibration) turned off and do require a recalibration every couple of years with a Zero Gas (Nitrogen).ASENSE-GH is suited for all kinds of greenhouses, incubators and similar environments.

| A Series | B Enclosure | C Output | D Display | E Relay | F Adapter |
|---|---|---|---|---|---|
| ○ **ASENSE** | ○ **R** (Room (US)) (Only Complete C, D & E) | ○ **----** (0-10 VDC, 0-20 mA) | ○ **----** (None) | ○ **----** (None) | ○ **----** (None) |
| ○ **ASENSE-GH*** | ○ **D** (Duct (IP65)) (Complete C, D, E & F) | ○ **5** (0-5 VDC ) | ○ **LCD** (Display) | ○ **REL** (Relay) | ○ **C** (Conduit) |
| | ○ **IP54** (Wall Mt.) (Only Complete C, D & E) | | | | |

### 1 Additional Configuration

○ **SADK** (Calibration Kit)

## BUILD PART NUMBER

After completing (A), (B), (C), (D), (E) & (F) from the above table, fill in the Part Number Table below. (1) is an additional configuration. The "Sensor Series" is a factory default. An "example" part number is offered.

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| | | | | | |

**EXAMPLE:** ASENSE - D - REL

| 1 |
|---|
| |

**EXAMPLE:** SADK