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.

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

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EXAMPLE: SADK