Industrial Wall Mount

In Duct Wall Mount

ESENSE WALL MOUNTS
Industrial (IP54) & In-Duct (IP50) Wall Mounts

The ESENSE-IP54 Industrial Wall Mount transmitters monitor the carbon dioxide (CO_2) levels in industrial, school, and office type environments. The concentration of CO_2 is a good indication of the overall indoor air quality. The ESENSE 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 ESENSE Series measures the CO_2 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 to decrease energy consumption while creating a healthier indoor climate. The enclosure is IP54 rated for Industrial applications.

Applications: Schools, Office Buildings, Auditoriums, Gymnasiums, Shopping Malls, Theaters, Demand Control Ventilation & Economizers

The ESENSE Room IP54 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 website, www.workaci.com.

PRODUCT SPECIFICATIONS

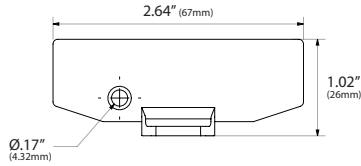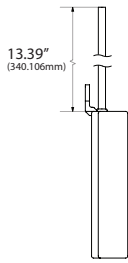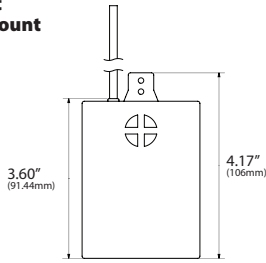|	
Supply Voltage:	24 VAC/VDC ±20%; 50/60Hz (Half-wave rectified)
Power Consumption:	<1W Average
Electrical Connections:	**Industrial:** 0.00232 in^2 (1.5 mm^2) screw terminals
	In-Duct: 13.39" (34 cm) 3-wire pigtail
Operating Temperature:	32ºF to 122ºF (0ºC to 50ºC)
Operating RH:	0 – 95% RH Non-condensing
Warm-Up Time:	1 minute (@ full specs 15 minutes)
Accuracy[1]:	±30 ppm ±3% of reading
Annual Zero Drift:	<±10 ppm
Operating Pressure:	+1.6% per 0.145 psi (1 kPa) deviation from normal pressure (1 Atmosphere = 14.7 psi (1.013 KPa))
Sensing Method:	Single beam Non-Dispersive Infrared (NDIR)
Sensor Life [2]:	>15 years
Diffusion Time (T1/e):	<3 minutes
Operating Environment:	Residential, Commercial and Industrial spaces
Sensing Range:	0 to 2000 ppm
Extended CO2 Ranges (IP54):	Up to 10,000 ppm (factory set or SADK Kit required)
Extended Range Accuracy:	+/- 30 ppm and +/- 5% of reading
Coverage Area:	7500 sq. ft. maximum
Mounting Height:	4-6' off the floor or in duct
Display (Optional):	4 digits, 7 segments LCD with ppm indicator
Calibration[2]:	Senseair ABC algorithm (Automatic Baseline Correction)
Outputs (Industrial):	**Out 1:** 0-10V for 0-2000 ppm | **Out 2:** 2-10V or 4-20 mA for 0-2000 ppm | **Out 1:** 0-10V only (In-Duct Version)
Storage:	-40 to 158ºF (-40 to 70ºC) Non-display, -4 to 122ºF (-20 to 50ºC) Display
Enclosure:	**Industrial:** IP54 rated, Box; PC & ABS blend, Flammability Rating UL94V-0 Cover; Makrolon® 6555 plastic, Flammability Rating UL94V-0
	In-Duct: IP50 Rated, PC & ABS blend, Flammability Rating UL94V-O
Product Dimensions:	**Industrial:** (H) 5.95" (151.9 mm) x (W) 3.33" (84.6 mm) x (D) 1.85" (47 mm)
	In-Duct: (H) 4.17" (106 mm) x (W) 2.64" (67 mm) x (D) 1.02" (26 mm)
Agency Approvals:	EMC Directive 2014/30/EC | RoHS Directive 2011/65/EU | RoHS 3 Directive 2015/863/EU

Note [1]: Accuracy is defined after minimum three (3) ABC periods (1 period = 8 days) of continuous operations | **Note [2]:** In normal Indoor Air Quality (IAQ) applications | Corrosive environments are excluded | Changes can be made using the SADK Calibration Kit and UIP5 software | **Note [3]:** Building CO_2 levels must drop to 400 ppm some time during the week for ABC to work properly. If the building is occupied 24 hrs/day, ABC must be turned off
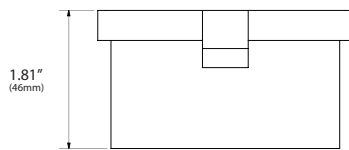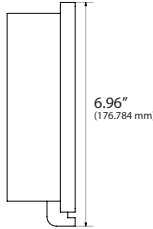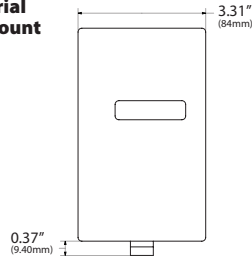
DIMENSIONAL DRAWING

In Duct Wall Mount

3.60"
(91.44mm)

4.17"
(106mm)

13.39"
(340.106mm)

2.64" (67mm)

1.02"
(26mm)

Ø.17"
(4.32mm)

Industrial Wall Mount

3.31"
(84mm)

0.37"
(9.40mm)

6.96"
(176.784 mm)

1.81"
(46mm)

| **Front View** | **Right View** | **Top View** |

STANDARD ORDERING

Model # Example: **ESENSE-IP54** -OR- **130168**

Model #	Item #	Description
ESENSE-IP54-LCD	130169	CO2 Industrial Wall Mount with Display, 0-10 VDC or 4-20 mA Output
ESENSE-IP50	130030	CO2 Industrial In Duct / Wall Mount, 0-10 VDC Output

ACCESSORIES ORDERING

Model # Example: **A/CUSTOM CAL GAS** -OR- **140970**

Model #	Item #	Description
A/CUSTOM CAL GAS*	140970	Custom Calibration (IP54 only)
SADK	130502	SADK Calibration Kit
UIP5	----	Free Software Download (Contact ACI)

Note*: Contact ACI's Technical Support for custom calibration ranges