NO2 ROOM
Nitrogen Dioxide Room Sensor

Room

Room LCD

NEMA 4X

The NO2 Room Series monitors nitrogen dioxide (NO2) levels and is designed for the continuous monitoring of vehicle exhaust in non-hazardous areas. This series uses a wide spectrum, electrochemical sensor to measure the amount of nitrogen dioxide in the environment. It is offered with an operating range of 0 to 6 ppm. ACI's NO2 Room transmitter is offered in a standard NEMA 1 rated ABS Polycarbonate plastic enclosure. An optional NEMA 4X watertight and dust proof enclosure is also available. Other options include an LCD display with (2) SPDT Form 1C relays and a buzzer. Calibration gases and a 0.2 to 1 liter/minute flow limiting gas regulator are not available through ACI. These should be purchased through your local gas supply company or on-line companies such as Portagas® (Praxair®, Inc.) or Mesa Specialty Gases®. Refer to all applicable Federal, State, Provincial and Local Health and Safety laws and regulations before using these products.

Applications: Parking Garages, Arenas, Kitchens, Laundry Rooms, Warehouses, Loading Docks, Service Garages, School Bus Parking Areas

The NO2 Room Series is covered by ACI's Two (2) 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.
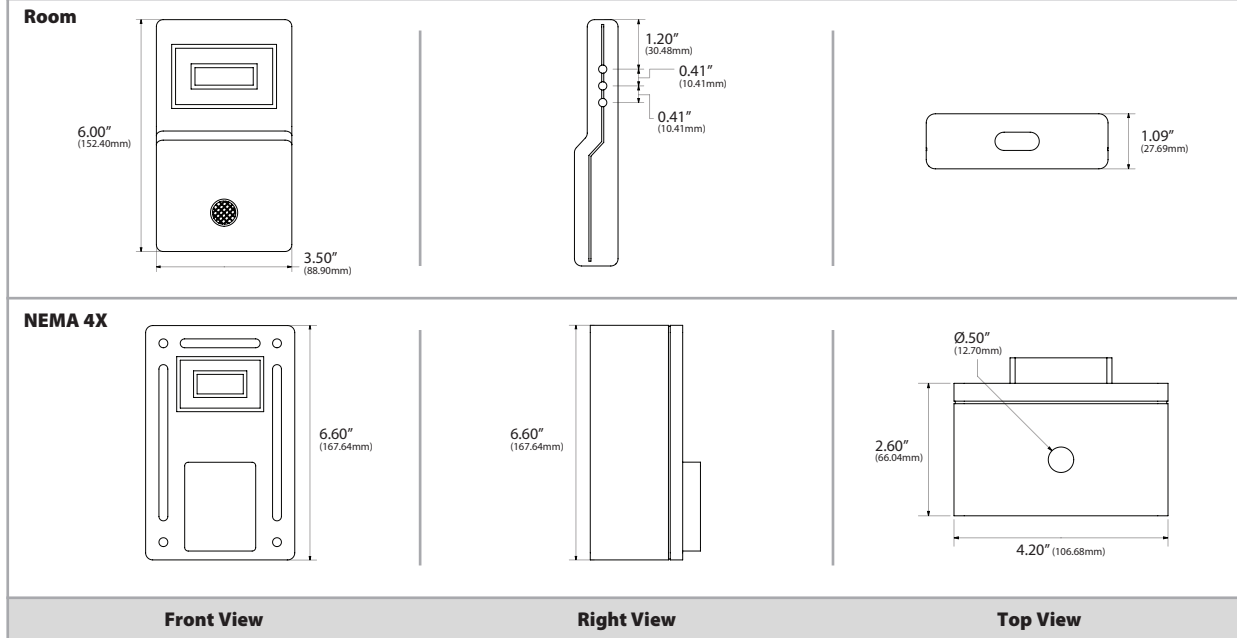
PRODUCT SPECIFICATIONS

Supply Voltage:	24 VAC +/- 10% Floating; 24 VAC +/- 10%, One side Grounded; 24 VDC
Supply Current:	100 mA nominal │ 250 mA maximum
Power Usage:	6.6 Watts maximum
Operating Temperature:	-4ºF to 104ºF (-20ºC to 40ºC)
Operating Humidity:	15 to 90% RH Continuous, non-condensing; 0 to 99% RH Intermittent, non-condensing
Accuracy:	+/- 2.5% of Reading
Repeatability:	+/- 1% of Reading
Operating Pressure:	Atmospheric +/- 10%
Response Time:	Less than 60 Seconds for 90% of step change
Sensor Type:	Electrochemical
Sensor Life:	2-3 years under Normal Conditions
Factory Set Range:	0 to 6 ppm │ 0 to 10 ppm Field Adjustable
Coverage Area:	7500 sq. ft; 49' Radius
Indicators:	Alphanumeric, 2 line x 8 digit LCD / (2) Red LED's for Relay Status
Mounting Height:	6 to 18" above the floor
Outputs:	Analog 4-20 mA or 2-10V Jumper Selectable; Digital RS-485
Relay & Buzzer (Optional):	Two SPDT Form C, Dry Contact, 1A @ 30 VDC/0.5A @ 125 VAC (Resistive Load), Buzzer Rating 85 dB @ one foot
Relay Life Expectancy:	200,000 cycles minimum with 1A @ 30 VDC
Time Delays:	**Actuation / De-Actuation:** 0 to 60 Minutes in 5 minute Increments
Storage:	32ºF to 68ºF
Unit Shelf Life:	6 months from date of purchase
Enclosures:	**Room:** Polycarbonate/ABS Blend │ **NEMA 4X:** ABS(UL94V-0)
Terminal Blocks:	Power wiring: 16 to 26 AWG (0.2 to 1.00 nm²) Shielded Twisted Pair
Terminal Block Torque Rating:	0.37 ft-lbs (0.5n-3m) Nominal
Communication Wiring:	Beldon 9841 or equal
Calibration Equipment:	0.5 lpm Regulator, zero & span gas (supplied by local vendor) Calibration adapter (Part # 83830-020-000)
Product Dimensions:	**Room:** (H) 6.00" (152.4 mm) x (W) 3.50" (88.9 mm) x (D) 1.09" (27.87 mm)
	NEMA 4X: (H) 6.00" (152.4 mm) x (W) 4.20" (106.68 mm) x (D) 2.60" (66.04 mm)
Product Weights:	**Room:** 0.62 lbs (281.2 g) │ **NEMA 4X:** 1.34 lbs (607.8 g)

Note: Sensors and system should be scheduled to be tested for accuracy and functionality every 6 months for toxic, and every 3 months for combustible │ Recalibrate or replace sensor boards if necessary │ When installed @ > 3000' above sea level, the gas transmitters must be verified for accuracy & re-calibrated as needed after installation

DIMENSIONAL DRAWING

Room

6.00"
(152.40mm)

3.50"
(88.90mm)

1.20"
(30.48mm)

0.41"
(10.41mm)

0.41"
(10.41mm)

1.09"
(27.69mm)

NEMA 4X

6.60"
(167.64mm)

6.60"
(167.64mm)

Ø.50"
(12.70mm)

2.60"
(66.04mm)

4.20" (106.68mm)

Front View	Right View	Top View

STANDARD ORDERING

Model # Example: NO2-R-4X -OR- 111575

Model #	Item #	Description
NO2-R	102593	NO2 Room Mount, Standard Room Enclosure
NO2-R-RB-D	108397	NO2 Room Mount with Display, Relays (2 x SPDT), Buzzer, Standard Room Enclosure
NO2-R-4X	111575	NO2 Room Mount, NEMA 4X Enclosure
NO2-R-4X-RB-D	116697	NO2 Room Mount with Display, Relays (2 x SPDT), Buzzer, NEMA 4X Enclosure

ACCESSORIES ORDERING

Model # Example: 83830-020-000 -OR- 127649

Model #	Item #	Description
83830-020-000	127649	Calibration Adapter
6300-0035	128873	Replacement Sensors