

580 SERIES SAMPLE DRAW O₂ DEFICIENCY MONITOR



The 580 Series Sample Draw Oxygen Deficiency Monitor provides continuous, remote monitoring in locations where it is not possible to place the monitor, such as MRI rooms, and low oxygen levels pose a threat to occupants. The built-in pump is designed to continuously measure oxygen levels from three to 100 feet away via a flexible sampling tube. An onboard flow sensor monitors the sample flow rate and triggers a fault mechanism should a blockage cause the flow rate to deviate from the set standard of 0.25 LPM. For confined laboratory environments that use inert gases, such as nitrogen, helium, and argon, the CONCOA 580 Series Sample Draw Oxygen Deficiency Monitor may be used as a stand-alone gas detector, linked to optional CONCOA single or multi-point controllers, or connected to an existing centralized monitoring system.



580 3024 shown

Typical Applications

- Magnetic Resonance Imaging (MRI) and Nuclear Magnetic Resonance (NMR) Rooms
- Cell Culture Incubator Systems
- Freezer and Tank Farms
- Environmental Chambers
- Vaccine Development Facilities
- Cryogenic Research Laboratories

Features

Internal Sample Pump draws oxygen levels from up to 100 feet away

Onboard Flow Sensor dynamically responds to potential blockages in the sample line

Inlet Dust Filter protects the sample pump from dust and airborne particles

Flow Control Microprocessor continually monitors and controls sample flow to the monitor

Non-depleting Long Life Sensor Cell provides 10+ years of operation under normal conditions

Smart Electronics monitor sensor operation continuously and alerts user to sensor faults

Built-in Non-latching Alarm resets automatically when oxygen levels return to above the alarm threshold

Two User-adjustable Alarm Setpoints permit flexible system integration

No Calibration Sensor requires no scheduled maintenance (periodic span adjustment as needed)

Optional Remote Digital Alarm Indicator mirrors the monitor's display to provide remote system status and alarm information

Materials and Specifications

Sampling Method: Sample draw

Gas Detected: Oxygen

Range: 0 - 25%

Accuracy: ±1% of full range

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

Sampling Tube: Polypropylene, 1/4 in OD x 3/16 in ID, length 3 - 100 ft. (not included)

Max Sample Draw Distance: 100 ft (30.5 m)

Particulate Filter Replacement: Every 12 months

Display: 3/4 in LCD digital display, back lit

Sensor Type: Zirconium oxide sensor cell

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Materials and Specifications

Response Time: Within two seconds per foot of sampling tube

Sensor Life: Eight to ten plus years under normal conditions

Power Requirement: 24 VDC (250mA)

Analog Output: 4-20mA

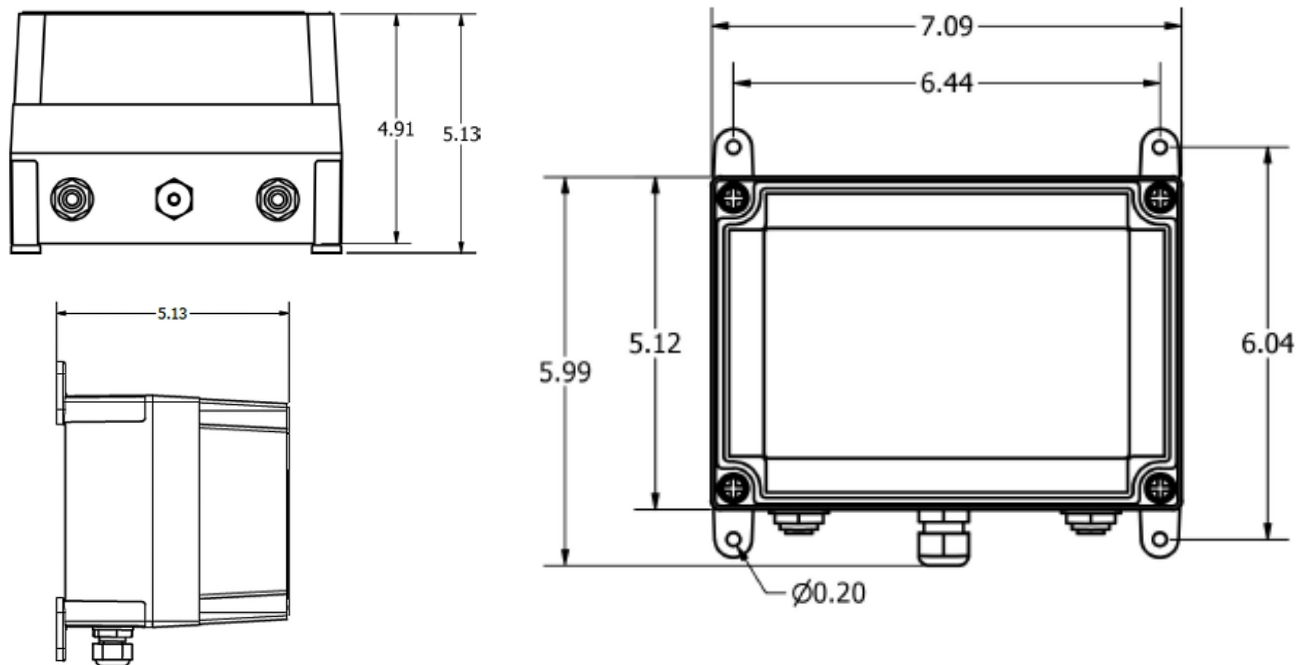
Relay Outputs: Two user-settable alarm relays and one fault relay rated 2A @ ≤ 24 VAC or 24 VDC

Alarm: Built-in 90 dB horn and LED indicators

Enclosure: Polycarbonate resin (flame retardant and UV stabilized), NEMA 2 general purpose

Weight: 4.0 lbs (1.8 kg)

Installation Dimensions



Ordering Information

Part No.	Description	Housing	Weight
580 3024	Sample Draw Oxygen Deficiency Monitor with 110 VAC / 24 VDC Power Supply (CONCOA recommends using 1/4 in OD by 3/16 in ID polypropylene sampling tube no longer than 100 ft. (30.5 m) for optimal results) Sampling Tube Not Included	Polycarbonate NEMA 2	4.0 lbs (1.8 kg)

Related Options

Part No.	Description	Housing	Weight
580 3005	Remote Display Alarm Indicator for Sample Draw Oxygen Deficiency Monitor 5803024	PC/ASA Plastic	0.5 lbs (0.2kg)
580 3006	Horn and Strobe, Red, 82-100 dB @ 10 ft (92-110 dB @ 1 m)	ABS Plastic	0.8 lbs (0.5 kg)
580 3006-A	Horn and Strobe, Amber, 82-100 dB @ 10 ft (92-110 dB @ 1 m)	ABS Plastic	0.8 lbs (0.5 kg)
580 3006-B	Horn and Strobe, Blue, 82-100 dB @ 10 ft (92-110 dB @ 1 m)	ABS Plastic	0.8 lbs (0.5 kg)