

Multi-gas Safety Monitors for Manifold Rooms (Ax60+)

SPECIFICATION

Ax60+ Multi-gas Safety Monitor

The Ax60+ is a wall-mountable gas safety device for monitoring Oxygen and Carbon Dioxide in ambient air. Constructed of at least three parts, the sensor unit is mounted inside the gas-containing room, the alarm is mounted outside the gas-containing room, and the central display is mounted in a central location outside of the gas-containing room. The alarm units provide warnings prior to entering the gas-containing room. Available with a Carbon Dioxide sensor or Oxygen sensor or both, the sensors are interchangeable and can be fully integrated as part of a multi-point, multi-gas detection and alarm system.

The CO₂ sensor offers protection for people working in the proximity of high-concentration sources of carbon dioxide, with the sensor set by default to trigger a low-level alarm at 1.5% CO₂, an evacuation alarm at 3.0% CO₂, and a time-weighted average alarm of 0.5% CO₂ measured over eight hours.

The O₂ sensor offers protection in areas where the level of atmospheric oxygen may be depleted due to a high concentration of an inert gas such as Nitrogen, or for use in an area where high concentrations of oxygen are stored. The sensor is set by default to trigger low-going alarms at both 19.5% and 18% and a high-going alarm at 23%. Setpoints are field adjustable.

Warnings for both CO₂ and O₂ are announced by high-visibility strobe lights and high-volume sounders.

With a single central display unit, install up to four sensors to monitor. For each sensor, install at least one alarm unit with a maximum number of four alarms per sensor or eight alarms per system. The central display unit is fitted with two internal SPDT relays

Typical Applications

- Manifold rooms containing gases other than Oxygen and/or Air, including CO₂ or mixtures with CO₂
- Cryogenic and cylinder storage of gases including CO₂ or mixtures with CO₂
- Anaerobic cabinet rooms

Data Output Module

To connect the Ax60+ output to a business management system, an optional Data Output Module is available as an accessory. The module uses either 4-20mA current loop signals or MODBUS RTU communications to transmit real time updates of sensor activity and status to a Building Management System (BMS) or central control panel.

Calibration

The Ax60+ CO₂ sensors are factory calibrated and do not require periodic calibration adjustment. An annual calibration of the O₂ sensor is recommended.



Ax60+ Central Unit, Sensor and Alarm

Technical Specification

System Specification	
Variable	System
Warm-up time	40 seconds
Operating temperature range	-5°C to +50°C, +23°F to +122°F
Approvals	CE, EN50270, IEC 61010 (UL), DIN 6653 (TUV)

Variable	Central Display
Display	LCD dot matrix (backlit)
Relays	2 x high powered configurable relays, rated for 250V AC/ 30V DC, 3A max
IP rating	IP54
Max. power consumption	<24 W
Power supply inputs	100 - 200V ~ 1A
Dimensions	2.6"/67mm x 4"/106mm x 6.9"/175mm (w x h x d)

Variable	Alarm
Strobe	white LED strobe > 100 cd (optional blue filter)
Sounder	min 80 dBA @ 3m (9.8 feet)
IP rating	IP55
Dimensions	1.7"/45mm x 5.1"/132mm x 3"/72mm (w x h x d)

Variable	CO ₂ Sensor	O ₂ Sensor
Gas detected	Carbon Dioxide	Oxygen
Measurement technique	Infrared	Electrochemical cell
Range	0.1% to 5%	0.1% to 25%
Default alarm set points	0.5% (8 hr TWA), 1.5%, 3%	18% (low), 19.5% (low), 23% (high)
IP rating	IP55	IP55
Response time	(T90) <30 seconds	(T90) <30 seconds
Dimensions	2"/52mm x 5.1"/132mm x 3"/72mm (w x h x d)	

Ax60+ Multi-Gas Monitor (Package)	
Part Number	Type
2205 6046 07	Ax60+ Package 1 (1xCentral Display, 1xCO ₂ Sensor, 1xAlarm Unit blue, Quick Connections)
2205 6046 08	Ax60+ Package 2 (1xCentral Display, 2xCO ₂ Sensor, 2xAlarm Unit blue, Quick Connections)

Note: Expand packages by adding individual components below.

Ax60+ Multi-Gas Monitor (Components)	
Part Number	Type
2205 6043 54	Ax60+ Central Display Unit, Quick Connections including Cable
2205 6043 55	Ax60+ CO ₂ Sensor Unit, Quick Connections including Cable
2205 6043 56	Ax60+ O ₂ Sensor Unit, Quick Connections including Cable
2205 6043 57	Ax60+ Alarm Unit CO ₂ , Blue Strobe, Quick Connections including Cable
2205 6046 04	Ax60+ Alarm Unit O ₂ , White Strobe, Quick Connections including Cable
2205 6045 61	Ax60+ Data Output Module, Quick Connections including Cable

Ax60+ Calibration & Testing Components	
Part Number	Type
2205 6035 15	Flow Adaptor for Ax60+ sensors
2205 6035 19	Regulator (0.5LPM) with tubing for 17L
1316 0041 54	Calibration Gas for Ax60+ Oxygen sensors, 20.9% oxygen (17 liter)
2205 6046 09	Calibration Gas for Ax60+ Carbon Dioxide sensors, 3% CO ₂ (17 liter)

Notes:

1. Calibration for O₂ sensors is recommended for every 12 months. CO₂ sensors are factory calibrated and do not require periodic calibration adjustment.
2. Flow Adaptor - required to connect calibration gas to Ax60+ sensors.
3. Regulator for 17L gas bottle controls gas flow from calibration gas.
4. Flow adaptor and regulator are reusable for future calibrations/tests, not required for purchase at each calibration or test.

Ax60+ Multi-Gas Monitor (Replacement Sensors)	
Part Number	Type
2205 6046 10	Ax60+ Spare Oxygen sensor (include gasket)

Ax60+ Multi-Gas Monitor (Additional Install Components)	
Part Number	Type
2205 6046 11	Ax60+ Modular T-Adaptor (f)
2205 6046 12	Ax60+ RJ45 Inline Coupler
2205 6046 13	15m Quick Connect Cable

