MACURCO

GAS DETECTION

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AERIONICS

Sales Contacts

Aaron Sherman
Sales Support Supervisor
Central and Southeastern US

Direct: 605-370-5099
Mobile: 720-318-1305
asherman@aerionicsinc.com

Branden Dewing
Sales Support Supervisor
Northeastern US

Direct: 605-370-5612
Mobile: 605-951-3994
bdewing@aerionicsinc.com

Jace Krumwiede
Sales Support Supervisor
Southern and Western US, Canada

Direct: 605-370-5623
Mobile: 605-951-4104
jkrumwiede@aerionicsinc.com

Jeffrey Christiansen
General Manager
International

Direct: 605-370-5087
Mobile: 303-807-3702
jchristiansen@aerionicsinc.com

For general inquiries, call us at (877) 367-7891 or send an email to info@aerionicsinc.com.

Aerionics, Inc.
3601 North St Paul Avenue
Sioux Falls, SD 57104

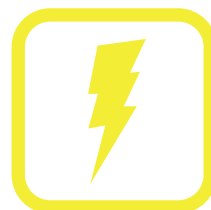## Residential, Commercial and Industrial Applications

Loading Docks - Grocery Stores - Storage Facilities - Waste Disposal - Ambulance Bays - Food Processing
Hotels - Offices - Homes - Forklifts - Schools - Landfills - Kitchens - Hospitals - Vehicle Repair Facilities
Firehouses - Bus Depots - Restaurants - Warehouses - Laundromats - Hockey Rinks - Parking Garages
Breweries - Conference Rooms - Battery Charging Stations - Wastewater Treatment Plants - Laboratories
Mines - Boiler Rooms - Furnaces - Generators - Vehicle Exhaust - Oil & Gas Drilling - Chemical Plants
Sewer/Swamp Gas - Pulp and Paper Mills - Maintenance Facilities - Industrial Refrigeration - Refineries
Airport Hangers - Factories - Pharmaceuticals - Data Centers - Cable Vaults

Security   HVAC   Electrical   Safety

Introducing the new Macurco™ CD-6 Carbon Dioxide (CO$_2$) Detector, Controller and Transducer

The Macurco CD-6 is a low voltage, dual relay Carbon Dioxide detector. The CD-6 has 4-20 mA output, buzzer and digital display options.

This detector utilizes a long life, low maintenance non-dispersive infrared (NDIR) sensor rated for 10 years.

Line Voltage Powered Option Available (Macurco CD-12)

The CD-6 is a low level meter capable of detecting from 0 to 2,000 ppm of Carbon Dioxide (CO$_2$) in commercial environments.

Macurco Carbon Dioxide Detection

The Macurco CD-6 provides CO2 detection and automatic ventilation control for conference rooms, classrooms, meeting halls or similar applications. Carbon dioxide is a colorless, odorless gas that is produced both by people exhaling CO2 as well the burning of gasoline, coal, oil and wood. The outdoor concentration of carbon dioxide can vary from 350-400 parts per million (ppm) or higher in areas with vehicle high traffic or industrial activity. The indoor CO2 level depends upon the number of people present, how long an area has been occupied, the amount of outdoor fresh air entering the area and other factors. Carbon dioxide concentrations indoors can vary from several hundred parts per million to over 1000 ppm in areas with many people present for an extended period and where fresh air ventilation is limited.

Outdoor "fresh" air ventilation is important as it can dilute CO2 the indoor environment. The amount of fresh air that should be supplied to a room depends on the type of facility and room. Ventilation should keep carbon dioxide concentrations below 1000 ppm and create indoor air quality conditions that are acceptable to most individuals. The CD-6 uses an automated background calibration program to set the clean air level on a regular basis. The CD-6 will maintain accuracy if it is exposed to the "clean air reference value" (this reference value is the lowest concentration to which the sensor is exposed) at least once per week. Note: This applies when used in typical indoor ambient air. CD-6 can be used standalone, with the Macurco DVP-120 Detection and Ventilation Control Panel, other 12 VAC or 24 VDC fire/security panels or building automation systems.

Macurco 6-Series Detectors

The Macurco 6-Series are low voltage, dual relay gas detector, controller and transducers. The 6-Series have selectable 4-20mA output, buzzer and digital display options. It is an electronic detection system used to measure the concentration of various gases and provide feedback and automatic control to help reduce gas concentrations in parking garages, warehouses, boiler rooms, vehicle maintenance facilities, battery rooms, kitchens or other commercial applications.

Features

- 12-24 VAC and 12-32 VDC input
- 5 A SPDT relay controls valves, louvers or exhaust fans
- 0.5 A N.O. or N.C alarm relay connects to warning devices or control panels
- 4-20 mA current loop - compatible with the Macurco DVP-120 Control Panel
- Compatible with the Macurco MRS-485 Modbus Adapter
- ETL Listed to UL 61010-1, CAN/CSA C22.2 No 61010-1

Gas Options

CM-6 Carbon Monoxide (CO)	Range: 0-200 ppm, Default Relay Settings: Fan - 35 ppm, Alarm - 200 ppm
GD-6 Combustibles (EX)	Range: 0-50% LEL, Default Relay Settings: Fan - 10% LEL, Alarm - 20% LEL
TX-6-ND Nitrogen Dioxide (NO$_2$)	Range: 0-20 ppm, Default Relay Settings: Fan - 2.5 ppm, Alarm - 5.0 ppm
TX-6-AM Ammonia (NH$_3$)	Range: 0-100 ppm, Default Relay Settings: Fan - 25 ppm, Alarm - 75 ppm
TX-6-HS Hydrogen Sulfide (H$_2$S)	Range: 0-50 ppm, Default Relay Settings: Fan - 8 ppm, Alarm - 20 ppm
RD-6 Refrigerants (REF)	Range: 0-1,000 ppm, Default Relay Settings: Fan - 100 ppm, Alarm - 300 ppm
CD-6 Carbon Dioxide (CO$_2$)	Range: 0-2,000 ppm, Default Relay Settings: Fan - 1,000 ppm, Alarm - 2,000 ppm
OX-6 Oxygen (O$_2$)	Range: 0-25% by volume, Default Relay Settings: Fan - 20.2%, Alarm -19.5%

Specifications

- Power: 3 W (max) from 12 to 24 VAC or 12 to 32 VDC
- Current @ 24 VDC: 75 mA in alarm, 50 mA fan relay on and 23 mA stand by
- Shipping Weight: 1 pound (0.45 kg)
- Size: 4 1/2 x 4 x 2 1/8 in. (11.4 X 10.2 X 5.4 cm)
- Color: Dark Gray (Standard) or White Housing
- Connections: plugs/terminals
- Mounting box: (not included) 4x4 electric
- Fan relay: 5 A, 240 VAC, pilot duty, SPDT, latching or non-latching
- Fan relay actuation: Selectable within sensor range
- Fan Delay Settings of 0, 1, 3 (default), 5 and 10 minutes
- Fan Minimum Runtime settings are OFF (default), 3, 5, 10 or 15 minutes
- Alarm relay: 0.5 A 120 V, 60 VA
- Alarm relay actuation: selectable N.O. default or N.C.
- Alarm relay settings: Selectable within sensor range
- Current Loop, 4-20 mA
- Operating Environment: 0°F to 125° F (-18°C to 52°C), 10 to 90% RH non-condensing

White Housing Cover

- Available for all 6-Series units
- Completely hides mud ring
- Comes standard on CD-6

6-Series Rear View

Macurco 12-Series Detectors

The Macurco 12-Series are line voltage powered (100-240VAC), dual relay gas detector, controller and transducers. The 12-Series utilizes an internal switching power supply that is capable of using line voltage between 100 and 240VAC and 50-60Hz. The 12-Series have selectable 4-20mA output, buzzer and digital display options. It is an electronic detection system used to measure the concentration of various gases and provide feedback and automatic control to help reduce gas concentrations in parking garages, warehouses or other commercial applications.

Features

- Mounts on a standard 4" x 4" electrical box
- 5 A SPDT relay controls valves, louvers or exhaust fans
- 0.5 A N.O. or N.C alarm relay connects to warning devices or control panels
- 4-20mA current loop - compatible with the Macurco DVP-120 Control Panel
- ETL Listed to UL 61010-1, CAN/CSA C22.2 No 61010-1

Gas Options

CM-12 Carbon Monoxide (CO)	Range: 0-200 ppm, Default Relay Settings: Fan - 35 ppm, Alarm - 200 ppm
GD-12 Combustibles (EX)	Range: 0-50% LEL, Default Relay Settings: Fan - 10% LEL, Alarm - 20% LEL
TX-12-ND Nitrogen Dioxide (NO_2)	Range: 0-20 ppm, Default Relay Settings: Fan - 2.5 ppm, Alarm - 5.0 ppm
TX-12-AM Ammonia (NH_3)	Range: 0-100 ppm, Default Relay Settings: Fan - 25 ppm, Alarm - 75 ppm
TX-12-HS Hydrogen Sulfide (H_2S)	Range: 0-50 ppm, Default Relay Settings: Fan - 8 ppm, Alarm - 20 ppm
RD-12 Refrigerants (REF)	Range: 0-1,000 ppm, Default Relay Settings: Fan - 100 ppm, Alarm - 300 ppm
CD-12 Carbon Dioxide (CO_2)	Range: 0-2,000 ppm, Default Relay Settings: Fan - 1,000 ppm, Alarm - 2,000 ppm
OX-12 Oxygen (O_2)	Range: 0-25% by volume, Default Relay Settings: Fan - 20.2%, Alarm -19.5%

Specifications

- Power: 100-240 VAC (50 TO 60 HZ)
- Current: 1 A MAX
- Shipping Weight: 1 pound (0.45 kg)
- Size: 4 1/2 x 4 x 2 1/8 in. (11.4 X 10.2 X 5.4 cm)
- Color: Dark gray
- Connections: plugs/terminals
- Mounting box: (not included) 4x4 electric
- Fan relay: 5 A, 240 VAC, pilot duty, SPDT, latching or non-latching
- Fan relay actuation: Selectable within sensor range
- Fan Delay Settings of 0, 1, 3 (default), 5 and 10 minutes
- Fan Minimum Runtime settings are OFF (default), 3, 5, 10 or 15 minutes
- Alarm relay: 0.5 A 120 V, 60 VA
- Alarm relay actuation: selectable N.O. default or N.C.
- Alarm relay settings: Selectable within sensor range
- Current Loop, 4-20 mA
- Operating Environment: 0°F to 125° F (-18°C to 52°C), 10 to 90% RH non-condensing

White Housing Cover

- Available for all 12-Series units
- Completely hides mud ring
- Comes standard on CD-12

12-Series Rear View

DVP-120 Detection and Ventilation Panel

The DVP-120 exhaust fan controller, in conjunction with Macurco gas transducers, provides automatic controls to help maintain an acceptable environment in parking garages or other facilities. The DVP-120 system is designed to meet specifications for safety in enclosed parking garages, including the Uniform Building Code and OSHA 50 ppm CO requirements. The DVP-120 can control up to twelve gas sensors in any combination.

Features

- External keypad for selection of the transducer/alarm display and configuration
- Externally visible LCD display showing the status of each transducer and relay
- Externally visible system, alarm and relay status indicators
- Compatible with all Macurco 6-Series and 12-Series gas sensors
- Twelve analog (current loop) input channels
- Three 10 A, 240 VAC SPDT fan/alarm relays
- Drivers for external Horn and Strobe
- Fail-safe operation can be implemented
- Lockable NEMA 1 type enclosure
- Modular input and output connectors
- ETL Listed to UL 508A, CAN/CSA-C22.2 No. 14-13, LADBS Approved
- Up to three ventilation control zones can be defined
- Each zone can be controlled based on transducer signals and/or time of day
- Each relay is configurable for delay before activation and minimum on time

Specifications

- Power Input: 90-250 VAC, 1 A, 47-63 Hz, single phase
- Size: 10.5 x 12.5 x 2 in. (26.7 x 31.8 x 5.1 cm)
- Weight: 6 ½ lbs. (2.9 kg)
- Enclosure: NEMA 1 Type
- Operating Temperature: 32° to 104°F (0° to 40°C)
- Operating Humidity: 0% to 95% RH non-condensing
- Relay Rating (3): SPDT, 120/240 VAC, 10 A resistive
- LCD Display: 2 rows of 16 characters with backlight
- Audible indicator: Internal buzzer, 90 dBA at 1ft
- External Drivers (2): 24 VDC, maximum 250 mA
- Relay On Delay: 0-15 minutes in 1 second increments
- Relay Off Delay: 0-15 minutes in 1 second increments
- Status Indicators (LED): Power, ALARM/warning, Hush, Relay 1, Relay 2 & Relay 3

DVP-120M Addressable Detection and Ventilation Panel

The DVP-120M is a Modbus-Enabled Detection and Ventilation Panel with up to 87 Modbus addressable sensors on three channels of 29 sensors per channel, plus the original 12 analog 4-20 mA sensor channels. The DVP-120M increases the capacity of the DVP-120 from 12 detectors to 99. System wiring includes 4-20 mA current loop and RS-485 serial interface.

Features

- Same features as the DVP-120
- Coverage Area: Up to 495,000 sq. ft.
- 12 analog (4-20 mA) input channels.
- 87 addressable sensors on three channels of 29 sensors per channel
- External power supply is required for addressable sensors

Installation & Connection

System wiring includes main power connection for the DVP-120M, 4-20 mA current loop, RS-485 serial interface and 24 VDC power connections between the remote detectors and the DVP-120M and the fan control and alarm connections from the DVP-120M to the building ventilation and automation systems. The DVP-120M control panel has three relays which can be used for ventilation fan control or alarm signaling. The ventilation control function operates independently from the alarm function. It provides the ability to configure the DVP-120M for control of one to three zones. Each zone can respond to gas levels at one or more of the sensors, with configurable rising and falling concentrations for each gas type. Each zone can also be controlled based on the time of day.
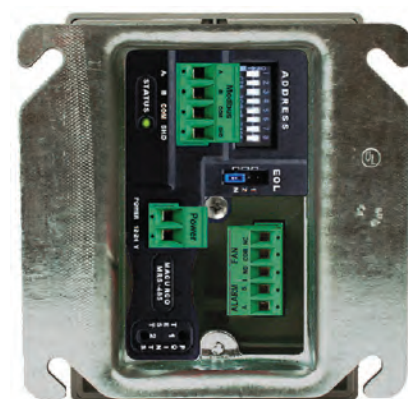
MRS-485 Modbus RS-485 Adapter

The Macurco MRS-485 adapter is an accessory used to convert the 4-20 mA analog signal from Macurco 6-Series type detectors to a digital signal for use with multipoint addressable systems. The Macurco MRS-485 simply plugs into the back of the detector and a single screw fastens it in place. The MRS-485 accepts the 4-20 mA output and is powered from the same connection as the detector. The MRS-485 has the ability to interface with the Macurco DVP-120M Modbus Enabled Detection and Ventilation Control Panel as well as Building Automation Systems or other control devices that accept Modbus communications.

The Macurco MRS-485 simply plugs into the back of the detector and a single screw fastens it in place.

Detectors for use with Fire and Security Systems

The Macurco CM-E1, GD-2B, GD-2A and HD-11 are low voltage detectors designed for use with Fire and Security Systems. The CM-E1 and GD-2A are UL 2075 Listed for use in residential and commercial applications and are also approved by the California State Fire Marshal.

CM-E1 Carbon Monoxide Detector

Provides carbon monoxide detection in residential, multi-family and commercial office environments - UL Listed, CSFM Approved

- 9-32 VDC input
- Flush or Surface Mount Enclosure
- Coverage Area: 900 sq. ft.
- Sensor Life: 10 Years with End of Life Indication
- N.O. or N.C. Alarm Relay, N.C. Trouble/Supervisory relay
- Optional CME1-IAK allows easy replacement of earlier Macurco Models

GD-2B Combustible Gas Detector

Provides combustible/heating gas detection (propane and natural gas) in residential, multi-family and commercial office environments

- 9-32 VDC or 12-24 VAC input
- Flush or Surface Mount Enclosure
- Coverage Area: 900 sq. ft.
- Sensor Life: 10 Years with End of Life Indication
- Alarm Setting: 25% of LEL per UL 2075
- N.O. or N.C. Alarm Relay, N.C. Trouble/Supervisory relay

GD-2A Combustible Gas Detector

Provides combustible/heating gas detection (propane and natural gas) in residential, multi-family and commercial office environments - UL Listed, CSFM Approved

- 12-24 VAC or VDC input
- Flush or Surface Mount Enclosure
- Coverage Area: 900 sq. ft.
- Sensor Life: 7-10 Years
- Alarm Setting: 25% of LEL per UL 2075
- SPDT Alarm Relay, N.C. Trouble/Supervisory relay

HD-11 Hydrogen Gas Detector

Provides hydrogen gas detection in battery charging rooms including: golf courses, warehouses, auto maintenance facilities and renewable energy applications

- 12-24 VAC or VDC input
- Flush or Surface Mount Enclosure
- Coverage Area: 900 sq. ft.
- Sensor Life: 7-10 Years
- Alarm Setting: 10% of LEL H_2
- SPDT Alarm Relay, N.C. Trouble/Supervisory relay

Hazardous Locations Gas Detection

Equipment used in areas where explosive concentrations of vapors may exist must be equipped with special enclosures, wiring and other electrical apparatus for safety purposes. Hazardous (classified) locations such as these might exist in petroleum refineries, gasoline storage and dispensing areas, spray finishing areas, aircraft hangars or fuel servicing areas, utility gas plants and operations involving storage and handling of liquified petroleum gas or natural gas. In order to make sure the correct equipment is used, these environments are broken down into classes, divisions and groups to more specifically identify the hazards; for example Class 1 for Gases, Vapors and Liquids - Division 1 for Normally explosive and hazardous - Groups A, B, C and D (A - acetylene, B - hydrogen..., C - ether..., D - hydrocarbons, fuels...).

5100-02-IT Combustible Gas Sensor

The 5100-02-IT Combustible Gas Sensor Module utilizes catalytic bead sensor technology to monitor for combustible gases (methane and others). Output range is 0-100% of Lower Explosive Limit (LEL). Explosion proof, Class 1, Div. 1, Groups B, C, D

- Modbus RTU RS-485 interface
- 4-20 mA output
- ETL Listed to UL 2075
- Integral Alarm, Warning and Trouble relays
- Used stand alone or with the Macurco DVP-120 Control Panel

5100-XX-IT Series Toxic Gas Sensors

The 5100-XX-IT Toxic Gas Sensor Modules utilize electrochemical sensors to monitor for a variety of gases. Oxygen, Chlorine, Chlorine Dioxide, Sulfur Dioxide, Hydrogen Chloride, Hydrogen Fluoride, Hydrogen Sulfide, Carbon Monoxide, Ammonia, Nitrogen Dioxide and Carbon Dioxide. Explosion proof, Class 1, Div. 1, Groups B, C, D

- Modbus RTU RS-485 interface
- 4-20 mA output
- ATEX Certified
- Integral Alarm, Warning and Trouble relays
- Used stand alone or with the Macurco DVP-120 Control Panel

5100-28-IT Combustible Gas Sensor

The 5100-28-IT Combustible Gas Sensor Module utilizes Infrared (IR) Combustible Gas Sensor to monitor for combustible gases (methane and others). Output - Lower Explosive Limit (LEL) or % volume. Explosion proof, Class 1, Div. 1, Groups C, D

- Modbus RTU RS-485 interface
- 4-20 mA output
- ETL Listed to UL 2075
- Integral Alarm, Warning and Trouble relays
- Used stand alone or with the Macurco DVP-120 Control Panel

Portable Single-Gas Monitors

The Macurco Single-Gas Monitor Series is designed to continuously monitor the ambient environment and notify the user if the level of the target gas reaches the alarm set point for the monitor. The device is designed to operate for two years and then be disposed of according to local regulations. The Macurco Single-Gas Monitor is available in three versions CM-1, HS-1 and OX-1 to monitor either Carbon Monoxide (CO), Hydrogen Sulfide (H_2S) or Oxygen (O_2). When activated, it continuously monitors the ambient air that enters the sensor through the sensor inlet opening by the process of passive diffusion for two years. Macurco Single-Gas Monitors are uniquely suitable for monitoring specific gases in potentially hazardous atmospheric conditions and are suitable for most industrial applications. They are light, intuitive in design, utilize large glove friendly buttons and are easy to use in the field.

CM-1 Carbon Monoxide Portable Single-Gas Monitor

Carbon Monoxide (CO) is a colorless, odorless, and tasteless gas that is produced by incomplete combustion of carbon-based fuels such as natural gas, propane (LP) gas, kerosene, oil, gasoline, wood, or coal. Sources of carbon monoxide include automobile, truck or forklift exhaust and worn or poorly adjusted boilers or furnaces.

- Size: 3.2 x 2.0 x 1.2 in. (8.1 x 5.1 x 3.1 cm), Weight: 4.1 oz. (115 g)
- Intrinsic Safety: UL (US) - Class I, Div. I, Group A, B, C, D, T4A
- Range: 0-995 ppm (CO)
- Alarm Settings: CO 35 ppm (low), 200 ppm (high)
- Reading Resolution: 5 ppm – Carbon Monoxide (Readings start at 20 ppm or greater)

OX-1 Oxygen Portable Single-Gas Monitor

Oxygen (O_2) has a normal concentration in the atmosphere of 20.9% volume. Oxygen can be reduced quickly by breathing and combustion. Oxygen may also be depleted due to dilution by other gases and by chemical absorption. Increased levels of oxygen (i.e. from storage tanks leaks) increases the flammability of any combustible matter.

- Size: 3.2 x 2.0 x 1.2 in. (8.1 x 5.1 x 3.1 cm), Weight: 4.1 oz. (115 g)
- Intrinsic Safety: UL (US) - Class I, Div. I, Group A, B, C, D, T4A
- Range: 0-25% v/v (O_2)
- Alarm Settings: O_2 19.5% (low), 23% (high)
- Reading Resolution: 0.5% v/v – Oxygen (Increments from 21.0%)

HS-1 Hydrogen Sulfide Portable Single-Gas Monitor

Hydrogen Sulfide (H_2S) is a colorless, flammable, extremely hazardous gas. It occurs naturally in crude petroleum, and natural gas, and is produced by breakdown of organic materials and sewage. Industrial activities that produce the gas include natural gas/petroleum drilling and refining, wastewater treatment, tanneries and paper mills.

- Size: 3.2 x 2.0 x 1.2 in. (8.1 x 5.1 x 3.1 cm), Weight: 4.1 oz. (115 g)
- Intrinsic Safety: UL (US) - Class I, Div. I, Group A, B, C, D, T4A
- Range: 0-200 ppm (H_2S)
- Alarm Settings: H_2S 10 ppm (low), 15 ppm (high)
- Reading Resolution: 5 ppm – Hydrogen Sulfide (Readings start at 10 ppm or greater)

XL Single-Gas Monitors

The Macurco Single-Gas XL monitor offers all the simplicity, reliability and ease-of-use of our standard portable Single-Gas monitor with lower resolution and more flexibility and lifespan features. The Macurco Single-Gas XL monitor features a factory replaceable battery and sensor to help reduce total cost of ownership: instead of replacing your Macurco Single-Gas XL monitor in a few years, you can replace batteries or sensors – and that helps better predict future capital costs. The Macurco Single-Gas XL monitor also allows you to measure at a lower resolution. The Macurco Single-Gas XL monitor allows the choice of two additional alarm set points: Short Term Exposure Limit (STEL) and Time Weighted Average (TWA) exposure (H2S and CO). With its 2-year warranty on electronics, battery and H2S and CO sensors, the Macurco Single-Gas XL monitor is designed to deliver for the long term.

XLS Single-Gas Monitors

The Macurco Single-Gas XLS monitor takes all the advances packed into the Macurco Single-Gas XL monitor and adds another: four different user selectable alarm settings. The Macurco Single-Gas XLS monitor gives you the flexibility to adjust the alarm to suit your specific needs in a variety of working environments. Its combination of the STEL alarm, TWA alarm and adjustable CO sensor alarm settings you can change in the field, allowing you to focus on the job at hand.

Macurco Model	Single Gas	Single Gas XL/XLS Series
Type of Detector	Single Gas	Single Gas
Available Sensors	3	2 (XL), 1 (XLS)
Compatible Sensors	CO, H_2S, O_2	CO & H_2S (XL), CO (XLS)
Sensors Replaceable	No	Yes (factory replaceable only)
Alarms	Vibrating, Audible & Visual Alarm	Vibrating, Audible & Visual Alarm
Audio Alarm Level	85 dBA @ 1 ft (30.5 cm)	85 dBA @ 1 ft (30.5 cm)
Battery	Lithium	Lithium
Replaceable Battery	No	Factory Replaceable Only
Rechargeable	No	No
Operate on Charger	NA	NA
Approximate Battery Life	24 Months	24 Months
Readings	Real Time, [5 ppm increments, readings start at 20 ppm (CO) and 10 ppm (H_2S)] [0.5% increments from 21% (O_2)] Peaks	Real Time, (1 ppm increments, readings start at 5 ppm) Peaks, STEL, TWA
Calibration	No (CO & H_2S), Yes (O_2)	Yes
Pump	No	No
Data Logging	No	No
Intrinsic Safety	UL (US) – Class 1, Groups A, B, C, D; T4A	UL (US) – Class 1, Groups A, B, C, D; T4A
RF/EMF Shielded	RF/EMF	RF/EMF
Ingress Protection	IP54	IP54
Operating Temperature	-4°F-122°F (-20°C-50°C)	-4°F-122°F (-20°C-50°C)
Operating Humidity	15 - 90% (non-condensing)	15-90% (non-condensing)
Weight	4.1 oz (115 g)	4.1 oz (115 g)
Dimensions	3.2 x 2.0 x 1.2 in (8.1 x 5.1 x 3.1 cm)	3.2 x 2.0 x 1.2 in (8.1 x 5.1 x 3.1 cm)
Warranty	2 year Sensor & Hardware	2 year Sensor & Hardware

Macurco Parts and Accessories

Macurco offers calibration and test kits, calibration gas, service, parts and accessories for the Macurco Security Series, 6-Series, 12-Series, Portable Single-Gas Series and IT Series products. For a full list of accessories, specifications and instructions please visit our website at www.macurco.com.

DMK-1 Duct Mount Kit

The Macurco DMK-1 is an air tight enclosure that provides a means to mount any Macurco 6-Series or 12-Series gas detectors to an air duct. By duct mounting a Macurco gas detector it is able to monitor the air inside of the duct and provide early detection of various gases moving through the HVAC system. The DMK-1 used with Macurco gas detectors can provide automatic control to prevent recirculation of these gases into additional areas by the air handling systems in commercial and residential applications - UL outdoor exposure listed, flame retardant, UV stabilized polycarbonate housing, clear cover.

WHK-1 Weatherproof Housing Kit

The Macurco WHK-1 is a weatherproof enclosure that provides a means to protection-mount any Macurco 6-Series or 12-Series gas detectors in locations exposed to problematic environments. By weatherproofing a gas detector, the unit is able to monitor ambient gas concentrations while being protected from falling debris and indirect water spray. The Macurco WHK-1 is designed with sufficient airflow through multiple vent plugs for effective gas detection. The polycarbonate housing is flame retardant, UV stabilized and UL outdoor exposure listed. A clear cover allows users to view the detector, display and status lights.

Calibration and Test Kits

All Macurco gas detectors are factory calibrated. Each detector's performance should be tested regularly by using gas as detailed in the field testing and field calibration sections of the user instructions. Macurco offers gas calibration and test kits with certified gas of a concentration and content listed for the detector when conducting a calibration or calibration verification test (bump test). Calibration kits include gas cylinders, gas regulator, plastic tubing, humidifier, calibration hood and a deluxe Macurco carrying case.

CME1-FTG Field Test Gas

The CME1-FTG is an 11 liter 500ppm aerosol carbon monoxide field test gas that can be used with the Macurco carbon monoxide detectors. This field test gas allows users to do a quick functionality test of the CO sensor. The flow rate of the CME1-FTG is 10 liters per minute so there is about a minute of gas or enough to test 20-30 units. With the cover in place, the gas is injected directly into the housing by placing the nozzle of the aerosol can onto the sensor grate area and pressing the trigger for 2 to 3 seconds.

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2016 Expositions & Conferences

AHR - International Air-Conditioning, Heating & Refrigerating Expo
Orlando, FL – January 25-27, 2016

ISC West - International Security Conference
Las Vegas, NV – April 6-8, 2016

NFPA - National Fire Protection Association
Las Vegas, NV – June 13-15, 2016

NSC - National Safety Council Congress & Expo
Anaheim, CA – October 17-19, 2016

ISC East - International Security Conference
New York City, NY – November 16-17, 2016

PIE - Parking Industry Exhibition
Las Vegas, NV – February 29 - March 1, 2016

AIHce - American Industrial Hygiene Conference & Expo
Baltimore, MD – May 23-26, 2016

Buildings NY - The Show for Building Owners & Managers
New York City, NY – May 24-25, 2016

ASSE - Safety Conference & Expo
Atlanta, GA – June 26-28, 2016

CANASA Security Canada Central Conference & Expo
Toronto, ON – October 19-20, 2016

NDSC - North Dakota Annual Safety & Health Conference
Bismark, ND – February 2-3, 2016

SDSC - South Dakota Safety & Health Conference
Sioux Falls, SD – October 5, 2016

Industry Affiliations

ESA ELECTRONIC SECURITY ASSOCIATION®

NFPA® MEMBER 2015-2016

		Fixed Gas Detection		
Item ID	Model	Description	QTY	UOM
70-0715-1778-6	CM-E1	Carbon Monoxide CO Detector for use with fire alarm/burglary control panels	1	EA
70-0715-4473-1	CM-E1/10	Carbon Monoxide CO Detector for use with fire alarm/burglary control panels - 10 Pack	10	EA
70-0715-6468-9	GD-2A	Combustible Gas Detector for use with fire alarm/burglary control panels	1	EA
70-2900-0005-3	GD-2B	Combustible Gas Detector for use with fire alarm/burglary control panels	1	EA
70-2900-0006-4	GD-2B/10	Combustible Gas Detector for use with fire alarm/burglary control panels - 10 Pack	10	EA
70-0714-0334-2	HD-11	Hydrogen H_2 Detector for use with fire alarm/burglary control panels	1	EA
70-0715-6500-9	CM-6	Carbon Monoxide CO (Low Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0014-3	CM-6 LADBS	Carbon Monoxide CO (Low Voltage) Fixed Gas Detector Controller Transducer (LADBS)	1	EA
70-2900-0035-6	CM-6 WHITE	Carbon Monoxide CO (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0020-0	CM-12	Carbon Monoxide CO (Line Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0036-7	CM-12 WHITE	Carbon Monoxide CO (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-0716-0802-3	GD-6	Combustible (Low Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0037-8	GD-6 WHITE	Combustible (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0021-1	GD-12	Combustible (Line Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0038-9	GD-12 WHITE	Combustible (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0004-2	TX-6-ND	Nitrogen Dioxide NO_2 (Low Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0039-0	TX-6-ND WHITE	Nitrogen Dioxide NO_2 (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0022-2	TX-12-ND	Nitrogen Dioxide NO_2 (Line Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0040-1	TX-12-ND WHITE	Nitrogen Dioxide NO_2 (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0008-6	TX-6-HS	Hydrogen Sulfide H_2S (Low Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0042-3	TX-6-HS WHITE	Hydrogen Sulfide H_2S (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0024-4	TX-12-HS	Hydrogen Sulfide H_2S (Line Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0045-6	TX-12-HS WHITE	Hydrogen Sulfide H_2S (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0007-5	TX-6-AM	Ammonia NH_3 (Low Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0044-5	TX-6-AM WHITE	Ammonia NH_3 (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0023-3	TX-12-AM	Ammonia NH_3 (Line Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0041-3	TX-12-AM WHITE	Ammonia NH_3 (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0009-7	OX-6	Oxygen O_2 (Low Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0048-9	OX-6 WHITE	Oxygen O_2 (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0033-4	OX-12	Oxygen O_2 (Line Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0049-0	OX-12 WHITE	Oxygen O_2 (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0011-1	RD-6	Refrigerant REF (Low Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0046-7	RD-6 WHITE	Refrigerant REF (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0034-5	RD-12	Refrigerant REF (Line Voltage) Fixed Gas Detector Controller Transducer	1	EA
70-2900-0047-8	RD-12 WHITE	Refrigerant REF (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0011-9	CD-6	Carbon Dioxide CO_2 (Low Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
70-2900-0032-3	CD-12	Carbon Dioxide CO_2 (Line Voltage) Fixed Gas Detector Controller Transducer w/ White Housing	1	EA
		Control Panel Products		
70-0714-0315-1	DVP-120	Control Panel, 120V, 12 Analog Sensor Inputs, 3 Relays	1	EA
70-2900-0015-4	DVP-120 LADBS	Control Panel, 120V, 12 Analog Sensor Inputs, 3 Relays (LADBS)	1	EA
70-2900-0032-1	DVP-120M	Control Panel, 120V, 12 Analog Sensor Inputs, 87 Addressable Modbus Sensor Inputs, 3 Relays	1	EA
70-2900-0012-1	MRS-485	Modbus RS-485 Adapter for use with Macurco 6-Series	1	EA
		Explosion Proof Detectors and Accessories *Denotes Remote Sensor Option Available*		
5100-02-IT-A1***	Ex Prf - EX,Cat Bead,0-100% LEL	Sensor Module, Combustibles, 0-100% LEL, LED Display, Catalytic Bead, AL, 3/4" NPT entry	1	EA
5100-03-IT-A1***	Ex Prf - OX,EletroChem,5-25% Vol	Sensor Module, Oxygen, 5-25% Vol, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-04-IT-A1***	Ex Prf - CO,EletroChem,0-500 ppm	Sensor Module, Carbon Monoxide, 0-500 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-05-IT-A1***	Ex Prf - H2S,EletroChem,0-100 ppm	Sensor Module, Hydrogen Sulfide, 0-100 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-06-IT-A1	Ex Prf - Cl,EletroChem,0-10 ppm	Sensor Module, Chlorine, 0-10 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-08-IT-A1	Ex Prf - ClO2,EletroChem,0-3 ppm	Sensor Module, Chlorine Dioxide, 0-3 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-10-IT-A1	Ex Prf - SO2,EletroChem,0-100 ppm	Sensor Module, Sulfur Dioxide, 0-100 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-12-IT-A1	Ex Prf - NO2,EletroChem,0-20 ppm	Sensor Module, Nitrogen Dioxide, 0-20 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-21-IT-A1	Ex Prf - HCl,EletroChem,0-20 ppm	Sensor Module, Hydrogen Chloride, 0-20 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-25-IT-A1	Ex Prf - NH3,EletroChem,0-100 ppm	Sensor Module, Ammonia, 0-100 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-26-IT-A1	Ex Prf - HF,EletroChem,0-10 ppm	Sensor Module, Hydrogen Fluoride, 0-10 ppm, LED Display, Electrochemical, AL, 3/4" NPT entry	1	EA
5100-28-IT-A1***	Ex Prf - EX,IR,0-100% LEL	Sensor Module, Methane, 0-100% LEL, LED Display, IR, AL, 3/4" NPT entry	1	EA
5311-00	Rainshield/Dustguard	Rainshield/Dustguard (Optional with Calibration Port)	1	EA
Add On	S1 or S2	Stainless Steel Enclosure	1	EA
Add On	Relays or HART	Relay Options	1	EA
Add On	Remote Sensor*	Remote Sensor Kit (limited to certain units***)	1	EA

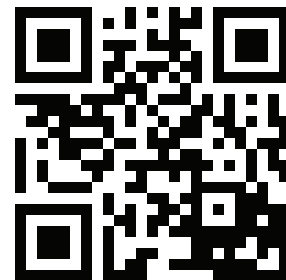| Portable Gas Detection ^*Bulk Pricing available*				
Item ID	Model	Description	QTY	UOM
70-0714-0204-7	CM-1	Carbon Monoxide CO Single-Gas Monitor	1	EA
70-2900-0050-1	CM-1-010	Carbon Monoxide CO Single-Gas Monitor - 10 Pack	10	EA
70-0714-0207-0	CM-1XL	Carbon Monoxide CO Single-Gas Monitor with STEL, TWA, Replaceable Battery & Sensor	1	EA
70-2900-0050-2	CM-1XL-010	Carbon Monoxide CO Single-Gas Monitor - 10 Pack	10	EA
70-0714-0209-6	CM-1XLS	Carbon Monoxide CO Single-Gas Monitor XL Monitor plus 4 user adjustable alarms	1	EA
70-2900-0050-3	CM-1XLS-010	Carbon Monoxide CO Single-Gas Monitor - 10 Pack	10	EA
70-0714-0205-4	HS-1	Hydrogen Sulfide H$_2$S Single-Gas Monitor	1	EA
70-2900-0050-5	HS-1-010	Hydrogen Sulfide H$_2$S Single-Gas Monitor - 10 Pack	10	EA
70-0714-0208-8	HS-1XL	Hydrogen Sulfide H$_2$S Single-Gas Monitor with STEL, TWA, Replaceable Battery & Sensor	1	EA
70-2900-0050-6	HS-1XL-010	Hydrogen Sulfide H$_2$S Single-Gas Monitor - 10 Pack	10	EA
70-0714-0203-9	OX-1	Oxygen O$_2$ Single-Gas Monitor	1	EA
70-2900-0050-7	OX-1-010	Oxygen O$_2$ Single-Gas Monitor - 10 Pack	10	EA
Calibration Kits *(Includes specified gas, regulator and case)*				
70-0714-0457-1	CMP-FCK	CM-1XL / CM-1XLS Carbon Monoxide CO Calibration Kit, 17L 35 ppm, 0.2 LPM Regulator	1	EA
70-0714-0452-2	CMP-FCKL	CM-1XL / CM-1XLS Carbon Monoxide CO Calibration Kit, 103L 35 ppm, 0.2 LPM Regulator	1	EA
70-0714-0453-0	HSP-FCK	HS-1XL Hydrogen Sulfide H$_2$S Calibration Kit, 58L 10 ppm, 0.2 LPM Regulator	1	EA
Calibration Replacement Gas				
70-0714-0441-5	CANN35PPM	Carbon Monoxide CO Calibration Gas Canister, 17L 35 ppm	1	EA
70-0714-0436-5	CANN35PPML	Carbon Monoxide CO Calibration Gas Canister, 103L 35 ppm	1	EA
70-0714-0433-2	CANN10PPM	Hydrogen Sulfide H$_2$S Calibration Gas Canister, 58L 10 ppm	1	EA
Accessories				
Carbon Monoxide (CO)				
70-0714-8630-5	CM6-FCK	CM-6 / CM-12 Carbon Monoxide CO Field Calibration Kit, 17L 50 ppm, 17L 200 ppm, 0.2 LPM Regulator	1	EA
70-0715-6501-7	CM-6-AK	CM-6 / CM-12 Adapter Kit (Can be used for all 6-Series and 12-Series)	1	EA
70-0715-4465-7	CM-E1-FTG	Carbon Monoxide CO Field Test Gas, 11L 500 ppm Aerosol	1	EA
70-0715-3440-1	CM-E1-FTG/12	Carbon Monoxide CO Field Test Gas, 11L 500 ppm Aerosol - 12 Pack	12	EA
70-0715-6411-2	CM-E1-IAK	CM-E1 / GD-2B Installation Adapter Kit	1	EA
70-0715-6410-1	CM-E1-IAK/10	CM-E1 / GD-2B Installation Adapter Kit - 10 Pack	10	EA
70-0714-8640-4	CANN50PPM	Carbon Monoxide CO Calibration Gas Canister, 17L 50 ppm	1	EA
70-0714-0348-2	CANN200PPM	Carbon Monoxide CO Calibration Gas Canister, 17L 200 ppm	1	EA
70-0714-0350-8	CANN300PPM	Carbon Monoxide CO Calibration Gas Canister, 17L 300 ppm	1	EA
70-0715-1773-7	CANN400PPM	Carbon Monoxide CO Calibration Gas Canister, 17L 400 ppm	1	EA
Combustible Gas (H$_2$, CH$_4$, C$_3$H$_8$)				
70-0716-1753-7	GDH-FCK	GD-6 / GD-12 Hydrogen H$_2$ Field Calibration Kit, 34L 10% LEL, 34L 20% LEL, 0.2 LPM Regulator	1	EA
70-0716-1751-1	GDM-FCK	GD-6 / GD-12 Methane CH$_4$ Field Calibration Kit, 34L 10% LEL, 34L 20% LEL, 0.2 LPM Regulator	1	EA
70-0716-1752-9	GDP-FCK	GD-6 / GD-12 Propane C$_3$H$_8$ Field Calibration Kit, 34L 10% LEL, 34L 20% LEL, 0.2 LPM Regulator	1	EA
70-0716-0803-1	GD-6-CH	GD-6 / GD-12 Combustible Gas EX Calibration Hood	1	EA
70-0716-1758-6	CANN10H	Hydrogen H$_2$ Calibration Gas Canister, 34L 10% LEL	1	EA
70-0716-1759-4	CANN20H	Hydrogen H$_2$ Calibration Gas Canister, 34L 20% LEL	1	EA
70-0716-1754-5	CANN10M	Methane CH$_4$ Calibration Gas Canister, 34L 10% LEL	1	EA
70-0716-1755-2	CANN20M	Methane CH$_4$ Calibration Gas Canister, 34L 20% LEL	1	EA
70-0716-1756-0	CANN10P	Propane C$_3$H$_8$ Calibration Gas Canister, 34L 10% LEL	1	EA
70-0716-1757-8	CANN20P	Propane C$_3$H$_8$ Calibration Gas Canister, 34L 20% LEL	1	EA
Nitrogen Dioxide (NO$_2$)				
70-0714-0346-6	ND1-FCK	TX-6-ND / TX-12-ND Nitrogen Dioxide NO$_2$ Field Calibration Kit, 34L 5 ppm, 0.2 LPM Regulator	1	EA
26-1017-5342-9	ND Sensor	TX-6-ND / TX-12-ND Nitrogen Dioxide NO$_2$ Replacement Sensor	1	EA
70-0714-0531-3	ND Gas Cylinder	Nitrogen Dioxide NO$_2$ Calibration Gas Canister, 34L 5 ppm	1	EA
Ammonia (NH$_3$)				
70-0714-8437-5	AM1-FCK	TX-6-AM / TX-12-AM Ammonia NH$_3$ Field Calibration Kit, 34L 25 ppm, 0.2 LPM Regulator	1	EA
26-2900-0005-4	AM Sensor	TX-6-AM / TX-12-AM Ammonia NH$_3$ Replacement Sensor	1	EA
26-2900-0013-3	AM Gas Cylinder	Ammonia NH$_3$ Calibration Gas Canister, 34L 25 ppm	1	EA
Hydrogen Sulfide (H$_2$S)				
70-2900-0011-0	HS1-FCK	TX-6-HS / TX-12-HS Hydrogen Sulfide H$_2$S Field Calibration Kit, 34L 25 ppm, 0.2 LPM Regulator	1	EA
26-2900-0006-5	H2S Sensor	TX-6-HS / TX-12-HS Hydrogen Sulfide H$_2$S Replacement Sensor	1	EA
70-2900-0010-9	H2S Gas Cylinder	Hydrogen Sulfide H$_2$S Calibration Gas Canister, 34L 25 ppm	1	EA
MISC				
70-0714-8484-7	PS-12	Plug-In Transformer, 120 VAC To 12 VDC, .6 A	1	EA
70-0714-0339-1	DMK-1	Duct Mount Kit, Standard 4X4 Size Detectors	1	EA
70-2900-0019-8	WHK-1	Weatherproof Housing Kit, Standard 4X4 Size Detectors	1	EA

GAS DETECTION
Macurco

Celebrating over forty years of gas detection, the Macurco product line offers equipment for residential, commercial and industrial applications. Since 1972 Macurco has been providing detection options for a number of different gases including carbon monoxide (CO), nitrogen dioxide (NO_2), hydrogen (H_2), propane (LP), methane (natural gas), hydrogen sulfide (H_2S), ammonia (NH_3), oxygen (O_2), carbon dioxide (CO_2) and refrigerants. Headquartered in Sioux Falls, South Dakota, Aerionics manufactures Macurco Gas Detection products. Aerionics strives to provide the highest quality detection, safety and security solutions to customers worldwide. Whether you are looking for gas detection for a security system, building automation or HVAC system, for personal safety or for monitoring specific gases in potentially hazardous environments, Macurco has a gas detector to meet your needs.

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