FCC-380 CO detector (Macurco CM-E1)

www.boschsecurity.com

BOSCH
Invented for life

- Solid state sensor provides maintenance-free operation
- Microcomputer control provides virtual automatic operation
- 9 VDC to 32 VDC operation is compatible with 12 V and 24 V systems
- Can quickly test CO sensor on site
- Three-color LED status display

The detector detects carbon monoxide (CO) concentrations in the air at or below the UL 2034 sensitivity limits for CO exposure and before symptoms of CO exposure appear. It alerts personnel to possible exposure through audible and visual alarms.
Install the detector in rooms **adjacent** to areas where CO concentrations are expected (garages or furnace rooms). Prime application locations include work areas or bedrooms.

Notice
Do not install the detector in areas where CO concentrations are expected (garages or furnace rooms).

Notice
The detector is **not** designed to detect smoke, fire, heat, or other gases (combustible or non-combustible).

Functions

LED Display
The CO detector's three-color visual LED display indicates status and contamination level. A green display indicates the detector is operating normally. An amber display indicates a system trouble. A red display indicates dangerous CO levels.

Alarm system operation
Use the detector with a UL Listed fire alarm control panel or listed fire/burglary control panel. Connect the detector to an alarm control panel through either a normally-open or normally-closed initiating circuit. The control panel must provide an alarm for CO that is distinct from alarms for fire or intrusion.

Stand-alone alarm operation
The CO detector can function as a stand-alone device. The detector uses an internal alarm (repeated loud Temporal 4 tone bursts during alarm and chirps if sensor trouble is found). Stand-alone operation was not evaluated by Underwriters Laboratories.

Certifications and approvals

Aeronics (Macurco) holds the Listings and Approvals.

Region	Regulatory compliance/quality marks	
USA	UL	UL 2075, Gas and Vapor Detectors and Sensors
	CSFM	see www.boschsecurity.com (the Bosch website)

Installation/configuration notes

Compatibility Information

The carbon monoxide detector is compatible with all UL Listed control panels that have 12 VDC to 24 VDC power and alarm initiating circuits. The detector can also be used with a UL Listed Class 2 power supply.

Mounting Considerations

There are two usual sources of CO - defective heat sources (furnaces or wood burning stoves) and automobiles running in adjoining garages. The detector can detect CO from these sources, as well as any other sources of CO. For best operation, mount a detector in the hallway near each bedroom or office area. In addition, another detector can be mounted inside near the door from the adjoining garage. Consider placing another detector in a bedroom or office that is adjacent to a furnace room. The detector may be installed on either a ceiling or a wall. If installed on a peaked, gabled, or sloped ceiling, it should be located about 3 ft. (1 m) from the highest point. The unit can be placed vertically or horizontally on a wall, so the information on the front of the detector can be read in a normal manner (not upside down). Do **not** mount the detector in a corner. Use the same spacing as for smoke detectors - 30 ft. (9 m) centers, 900 ft² (84 m²) per detector.

Wiring Considerations

Use the indicated wire size for the detector loop:

Length of Wire Run	Recommended Wire Size
200 ft. (61 m) or less	22 AWG (0.8 mm)
Up to 575 ft. (175 m)	20 AWG (1.0 mm)
Up to 686 ft. (209 m)	18 AWG (1.2 mm)
Up to 1300 ft. (396 m)	16 AWG (1.5 mm)
Up to 2100 ft. (640 m)	14 AWG (1.8 mm)
Up to 3200 ft. (975 m)	12 AWG (2.3 mm)

Terminate each loop with an end-of-line resistor as specified by the control panel's installation instructions.

Parts included

Quantity	Component
1	Carbon monoxide detector
1	Connector (5-wire)
1	Hardware pack - 2 mounting screws
1	Literature pack - Installation manual

Technical specifications

Electrical

Current	
Alarm	35 mA at 9 VDC to 32 VDC
Normal	15 mA at 9 VDC to 32 VDC
Voltage	
VDC input	9 VDC to 32 VDC

Environmental

Temperature (operating)	+40°F to +100°F (+4.4°C to +37.8°C)

Mechanical

Color	White
Dimensions (H x W x D)	5.125 in. x 3.125 in. x 1. 5 in. (13 cm x 8 cm x 3.8 cm)
Weight (shipping)	1 lb. (0.45 kg)

Outputs

Alarm	
Relay Configuration	one NO or NC SPST (non-polarized)
Relay Rating	100 mA, 40 VDC
Sound Level	85 dBA at 10 ft. (3 m)
Trouble	
Relay Configuration	one NC SPST (no polarity)
Relay Rating	100 mA, 40 VDC

Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Ordering information

FCC-380 CO detector (Macurco CM-E1)
Carbon monoxide detector
Order number **FCC-380**

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