

CO1224T/CO1224A

Conventional Carbon Monoxide Detector



Conventional Initiating Devices

General

Carbon monoxide (CO) is an odorless, colorless, tasteless and highly toxic gas that is produced when fuels, such as wood, gasoline, charcoal and oil, are burned with insufficient air. The majority of residential and commercial fatalities caused from these fuels come from heating systems, power tools and charcoal grills.

If carbon monoxide is detected, the **CO1224T/CO1224A** will alert by sounding and flashing a temp-4 signal alarm. Protection is guaranteed 24/7 by a central station if connected to a panel with a digital alarm communicator.

The CO1224T/CO1224A is specifically designed for system operation. This means the detector is fully listed to UL Standard 2075, offering a code required trouble relay, which sends a sensor failure or end-of-life signal to the control panel and the central station, as well as SEMS-type terminal Phillips-head screws, which provide a quicker and more positive wiring connection and code required wiring supervision. Also, the CO1224T/CO1224A offers low current draw, allowing more detectors to be connected to the panel without having to purchase a more expensive panel or an extra power supply.

Add addressability to the CO1224T/CO1224A by supervising the circuit with a compatible monitor module such as the **FMM-101(A)**.

Special to the CO1224T is RealTest™ technology that allows testing of its internal CO detector with a carbon monoxide gas agent. There are few steps: Hold the test button for two seconds, and after the green LED begins to flash about once per second, spray a small amount of CO into the detector. The detector will alarm to indicate presence of gas.

NOTE: RealTest™ is only available on the UL-listed CO1224T. Refer to the installation documents for details and cautions.

Features

- In the CO1224T, RealTest™ technology allows installer to test detector with CO gas
- Full compliance with UL 2075.
- A code required trouble relay.
- Wiring supervision with SEMS terminals.
- A six-year end-of-life timer.
- 12/24 VDC.
- A current draw of 20mA in standby and 40mA in alarm.
- Versatile mounting for wall and ceiling.
- Electrochemical sensing technology.

Specifications

ARCHITECTS'/ENGINEERS' SPECIFICATIONS

Carbon monoxide detector shall be a System Sensor model number CO1224T/CO1224A, listed to UL 2075 for Gas and Vapor Detectors and Sensors. The detector shall be equipped with a sounder and a trouble relay. The detector's base shall be able to mount to a single-gang electrical box or direct (surface) mount to the wall or ceiling. Wiring connections shall be made by means of SEMS screws. The detector shall provide dual color LED indication, which blinks to indicate normal standby, alarm, or end-of-life. When the sensor supervision is



in a trouble condition, the detector shall send a trouble signal to the panel. When the detector gives a trouble or end-of-life signal, the detector shall be replaced.

ELECTRICAL SPECIFICATIONS

- Operating Voltage: 12/24 VDC
- Audible Signal: 85 dB in alarm
- Standby Current: 20 mA
- Alarm Current: 40 mA (75 mA test)
- Alarm Contact Ratings: 0.5 A @ 30 VDC
- Trouble Contact Ratings: 0.5 A @ 30 VDC

PHYSICAL SPECIFICATIONS

- Size: 5.1"L x 3.3"W x 1.3"H
- Approximate Weight: 7 oz
- Operating Temperature Range: 0°C to 40°C (32°F to 104°F)
- Operating Humidity Range: 22% to 90% RH
- Input Terminals: 14 to 22 AWG
- Mounting: Single-gang backbox; surface mount to wall or ceiling.

Operation Modes

Operation Mode	Green LED	Red LED	Sounder
Normal (standby)	Blink 1 per minute	-	-
Alarm	-	Blink in temp 4 pattern	Sound in temp 4 pattern
RealTest™ (CO1224T only)	Blink 1 per second	-	-

Hush Feature: Pushing the Test/Hush button will silence the sounder for 5 minutes (except in RealTest mode).

Trouble Feature: When the detector is in a trouble condition, it will send a trouble signal to the panel via the trouble contact.

End-of-Life Timer: After the sensor inside the detector has reached the end of its useful life, a trouble signal will be sent to the panel. This will indicate that it is time to replace the detector. An electrochemical carbon monoxide detector life span is approximately six years, and the detector must be replaced by the date marked on the inside of the product.

MONITOR MODULE APPLICATIONS

When used in conjunction with the CO1224T or CO1224A, the monitor module should be programmed as a supervisory device type and is not suitable for evacuation purposes. Wire the module as an NFPA Style B (Class B) Initiating Device Circuit and terminate the with a 47K ohm End-of-line resistor (provided).

Listings and Approvals

The listings and approvals below apply to the CO1224T and CO1224A. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** E307195 (CO1224T)
- **ULC Listed:** E304075 (CO1224A)

Product Line Information

CO1224T: 12/24 volt, 4-wire system-monitored carbon monoxide detector with RealTest™ Technology. Replaces CO1224.

CO1224A: 12/24 volt, 4-wire system-monitored carbon monoxide detector, ULC-listed for use in Canadian applications.

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