CO1224 Series Carbon Monoxide Detectors with RealTest® Technology

The System Sensor CO1224T, CO1224TR, and CO1224A (Canada) Carbon Monoxide (CO) Detectors use a highly accurate and reliable electrochemical sensing cell to provide early warning of dangerous CO levels.

Features

- A 10-year end-of-life timer
- RealTest® enables a functional test using canned CO
- A code-required trouble relay
- Wiring supervision with SEMS terminals
- 12/24 VDC
- A low current draw of 20 mA in standby and 40 mA in alarm
- Versatile mounting for wall and ceiling
- Accurate and reliable electrochemical sensing technology
- Optional CO-PLATE CO Detector Replacement Plate to upgrade previously installed competitor detectors to the CO1224T or CO1224A.
- CO1224T tested up to 12,000 feet above sea level

When dangerous amounts of CO are detected, the CO1224 Series CO detectors alert residents by sounding and flashing a temp 4 signal alarm. With 24/7 central station monitoring, residents are guaranteed protection whether they are away from home, sleeping, or already suffering from the effects of CO.

The CO1224 Series detectors are designed for system operation. These detectors are fully listed to UL 2075 (US models only) and CSA 6.19-01 (Canada model only) and offer a code-required trouble relay to send a sensor failure or end-of-life signal to the control panel and the central station. The CO1224 Series detectors also use SEMS-type terminal Philips head screws for quicker and more positive wiring connections and code-required wiring supervision. With a low current draw, these detectors enable more devices to be connected to the panel, limiting the need to purchase extra power supplies or more expensive panels. As 12/24 VDC detectors, the CO1224 Series detectors will operate on most industry security and fire alarm control panels.

With RealTest® technology, the CO gas sensing cell used in the CO1224 Series CO detectors can be tested using a CO gas agent, fully meeting the requirements of NFPA 720: 2009 (US models only). Simply put the detector into RealTest mode, spray a small amount of CO into the detector per the installation instructions, and within seconds the detector will alarm, indicating successful gas entry. (See the reverse page or the user manual for complete instructions.)

Agency Listings

LISTED
E307195

E304075

Note: CO1224T & CO1224TR are in full compliance with UL 2075 and CO1224A is in full compliance with ULC CSA 6.19-01.

CO1224 Series Detectors Carbon Monoxide Detector Specifications

Architectural/Engineering Specifications

Carbon monoxide (CO) detector shall be a system-connected System Sensor model number CO1224T or CO1224TR listed to Underwriters Laboratories UL 2075 for Gas and Vapor Detectors and Sensors. The Canadian model CO1224A, is ULC listed to CSA 6.19-01, for residential carbon monoxide alarm devices. 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 that 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. The detector shall provide a means to test CO gas entry into the CO sensing cell. The detector shall provide this with a test mode that accepts CO gas from a test agent and alarms immediately upon sensing CO entry. For the CO1224T only, the detector shall perform in the detection of CO up to 12,000 feet above sea level and alarm within the time specified by ANSI/UL 2034 for CO concentrations of 70, 150 and 400 parts per million (ppm), as verified by a Nationally Recognized Test Laboratory.

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: CO1224T & CO1224A	Length: 5.1 in (130 mm), Width: 3.3 in (84 mm), Height: 1.3 in (33 mm)
Size: CO1224TR	Diameter: 6.0 in (152 mm), Height: 1.3 in (33 mm)
Approximate Weight	CO1224T & CO1224A: 7 oz (198 g); CO1224TR: 11 oz (312 g)
Operating Temperature Range	32°F to 104° F (0°C to 40° C)
Operating Humidity Range	22 to 90% RH
Input Terminals	14 to 22 AWG
Mounting	Single-gang back box; 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® Feature: The System Sensor CO1224 Series CO Detectors enable evaluation of the functionality of the CO sensing cell using a canned CO test agent.
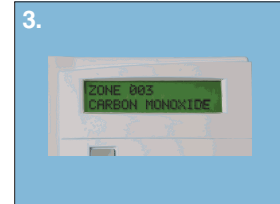
NOTE: Check with local codes and the AHJ to determine if a functional gas test is desired for an installation.

1. Push and hold the Test/Hush button for two seconds to enter RealTest mode. The green LED will flash once every second to indicate RealTest mode has started.

2. Spray canned CO agent into the detector.

3. Verify CO sensing at the control panel. The detector will automatically exit RealTest alarm mode after about 20-60 seconds.

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.
End-of-Life Timer: After the detector's internal sensor has reached the end of its life, a trouble signal will be sent to the panel to indicate it is time to replace the detector. An electrochemical CO detector lifespan is about ten years. The detector must be replaced by the date marked on the inside of the product.
CO-PLATE: System Sensor also offers the CO-PLATE CO Detector Replacement Plate to cover the footprint (when necessary) of previously installed competitive carbon monoxide detectors that require replacement.

CO-PLATE

Ordering Information

Part No.	Description
CO1224T	12/24 volt, 6-wire system-monitored carbon monoxide detector with RealTest® Technology **(US only)**
CO1224TR	12/24 volt, 6-wire system-monitored round carbon monoxide detector with RealTest® Technology **(US only)**
CO1224A	12/24 volt, 6-wire system-monitored carbon monoxide detector with RealTest® Technology **(Canada only)**
CO-PLATE	CO detector replacement plate to cover the footprint of previously installed competitive detectors **(US & Canada)**