CO1224 Series
Carbon Monoxide Detectors with RealTest® Technology

Description

The Gamewell-FCI, CO1224 Series comprise the following Carbon Monoxide (CO) Detectors.

- CO1224T
- CO1224TR
- CO1224A (Canada) Carbon Monoxide

These detectors use a highly accurate and reliable electrochemical sensing cell to provide an early warning of dangerous carbon monoxide (CO) levels.

The CO1224 Series detectors are designed for system operation. These detectors are listed to the following standards:

- UL Standard 2075 (US models only)
- CSA 6.19-01 (Canada model only).

In addition, they offer a code-required trouble relay to send a sensor failure or end-of-life signal to the fire alarm control panel and the Central Station.

The CO1224 Series detectors use SEMS-type terminal Phillips head screws for quicker and more positive wiring connections and code-required wiring supervision. With a low current draw, these detectors allow 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 operate on most industry, security and fire alarm control panels.

When the detector identifies dangerous amounts of CO in the area, the CO1224 Series CO detectors alert the residents with signals that sound and flash a temp 4 signal alarm. The 24/7 Central Station Monitoring feature guarantees protective security to the property and the resident's life safety whether the residents' are sleeping or already suffering from the effects of carbon monoxide poisoning CO.

Using the RealTest® Technology, the CO gas sensing cell used in the CO1224 Series CO detectors can be tested using a CO gas agent, that complies with the requirements of NFPA 720: 2009 (US models only). (See the reverse page or the user manual for complete instructions.)

RealTest Mode Activation

To activate the RealTest mode, do the following:

1. Place the detector into the RealTest mode.
2. Spray a small amount of CO into the detector per the Installation Instructions.
3. Within seconds, the detector goes into alarm indicating a successful gas enter.

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Carbon Monoxide Detectors with RealTest® Technology



CO1224 Series

Features

- The CO1224T and CO1224TR detectors comply with UL Standard 2075.
- The CO1224A detector complies with ULC Standard CSA 6.19-01.
- Includes a 10-year end-of-life timer.
- Provides a RealTest® that enables a functional test using canned CO.
- Offers a code-required Trouble Relay.
- Uses SEMS terminals for wiring supervision.
- Wired for 12/24 VDC.
- Supports a low current draw of 20 mA in standby and 40 mA in alarm.
- Designed with a versatile mounting used for wall and ceiling installations.
- Employs a highly accurate and reliable electrochemical sensing technology.
- Contains an optional CO-PLATE CO Detector Replacement Plate to upgrade previously installed competitor detectors to the CO1224T or CO1224A.
- Tested CO1224T up to 12,000 feet above sea level.

SIGNALING
UL LISTED E307195
E304075
ULC

ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

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CO1224 Series Detectors Carbon Monoxide Detector Specifications (Continued)

Architectural/Engineering Specifications (Continued)

The Carbon monoxide (CO) detector shall be a system-connected Gamewell-FCI model part number CO1224T or CO1224TR listed to Underwriters Laboratories UL Standard 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 can be mounted to a single-gang electrical box or direct (surface) mount used for wall or ceiling installations. Wiring connections shall be made by means of SEMS screws.

The detector shall provide dual-color LED indication that blinks to indicate the following conditions:

- normal standby
- alarm
- 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 way 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 Standard 2034 for CO concentrations of 70, 150 and 400 parts per million (ppm), as verified by a Nationally Recognized Test Laboratory.

The Carbon monoxide (CO) detector shall be a system-connected Gamewell-FCI model part 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 can 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.

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

Dimensions:

CO1224T & CO1224A	3.3"W x 1.3"H x 5.1"L (84 W x 33 H x 130Lmm)
CO1224TRL	1.3" H x 6.0" D (33 H x 152 D 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 Gamewell-FCI, 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.



Figure 1

1. To enter the RealTest mode, push and hold the Test/Hush button for two seconds.
2. The green LED flashes once every second to indicate the RealTest mode started.



Figure 2

1. Spray canned CO agent into the detector



Figure 3

1. Verify CO sensing at the control panel.
2. After 20-60 seconds, the detector automatically exits the RealTest alarm mode.

Hush Feature: To silence the sounder for five minutes (except in RealTest mode), push the Test/Hush button.

Trouble Feature: When the detector is in a trouble condition, the detector sends a Trouble Signal to the fire alarm control panel.

End-of-Life Timer: After the detector's internal sensor reaches the end-of-life, the system sends a Trouble Signal to the fire alarm control panel to indicate it is time to replace the detector.
Note: An electrochemical CO detector lifespan is approx. ten years. The detector must be replaced by the date marked on the inside of the product.

CO-PLATE: Gamewell-FCI 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.

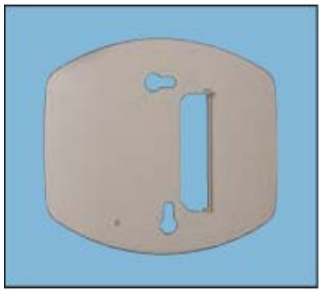


Figure 4

Ordering Information

Part Number	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)