

# SYSTEM SENSOR CARBON MONOXIDE DETECTORS

## CO1224T/CO1224TR



#### **Features**

- RealTest<sup>®</sup> enables a functional test using canned CO
- 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 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

# **Description**

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

With RealTest® technology, the CO gas sensing cell used in the CO1224T and CO1224TR CO detectors can be tested using a CO gas agent, fully meeting the requirements of NFPA 720: 2009. 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.)

When dangerous amounts of CO are detected, the CO1224T and CO1224TR 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 CO1224T and CO1224TR are designed for system operation. These detectors are fully listed to UL 2075 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 CO1224T and CO1224TR 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 CO1224T and CO1224TR will operate on most industry security and fire alarm control panels.

### **Architectural/Engineering Specifications**

Carbon monoxide detector shall be a System Sensor model number CO1224T or CO1224TR listed to Underwriters Laboratories 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 that blinks to indicate normal standby, alarm, or endof-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-oflife 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.



CATALOG NUMBER

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	Length: 5.1", Width: 3.3", Height: 1.3"		
	CO1224TR	Diameter: 6", Height: 1.3"		
Approximate Weight	CO1224T: 7 oz; CO1224TR: 11 oz			
Operating Temperature Range	32° – 104° F (0° – 40° C)			
Operating Humidity Range	22 – 90% RH			
Input Terminals	14 – 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 CO1224T and CO1224TR Carbon Monoxide Detectors with RealTest enable evaluation of the functionality of the CO sensing cell using a canned CO test agent.







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.

Spray canned CO agent into the detector.

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

NOTE: Check with local codes and the AHJ to determine whether or not a functional gas test is desired for an installation.

**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. This will indicate that it is time to replace

the detector. An electrochemical carbon monoxide detector lifespan is approximately six years, and 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**

Model	Description
CO1224T	12/24 volt, 4-wire system-monitored carbon monoxide detector with RealTest® Technology
CO1224TR	12/24 volt, 4-wire system-monitored round carbon monoxide detector with RealTest® Technology
CO-PLATE	CO detector replacement plate to cover the footprint of previously installed competitive detectors as necessary

NOT TO BE USED FOR INSTALLATION PURPOSES.



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