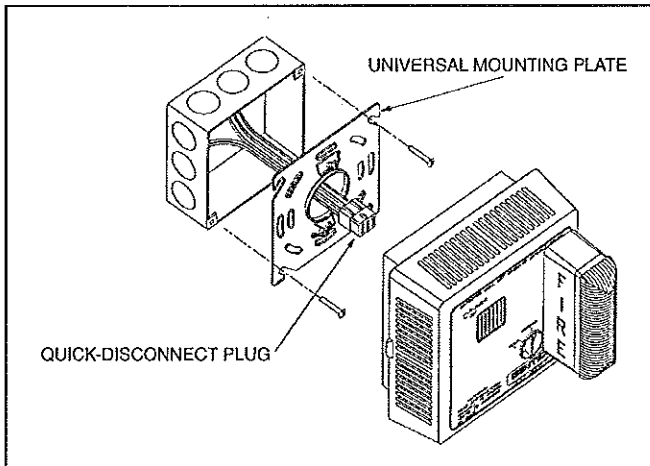
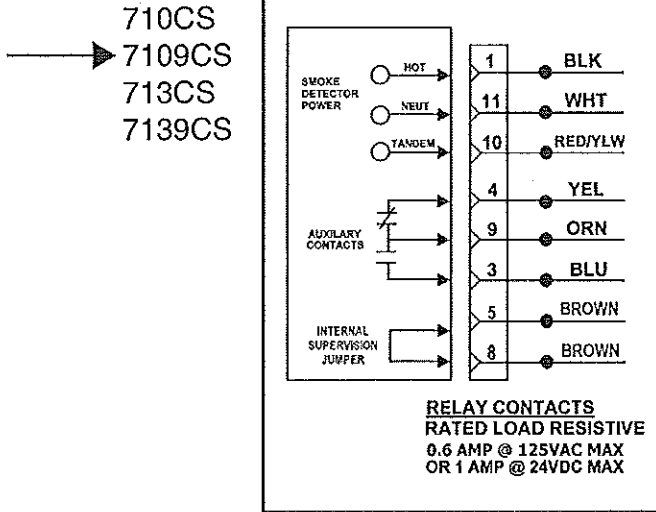


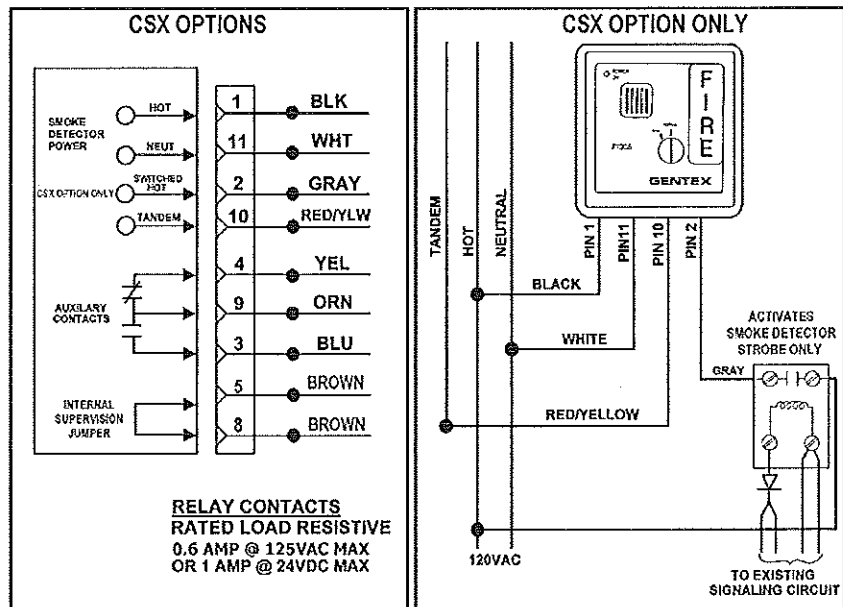
Wiring Diagram



Electrical Specifications

Operating Voltage.....120 VAC, 60Hz
 Operating Current.....0.400 amps (Peak)
 Operating Ambient Temp Range.....40°F to 100°F
 Alarm Horn Rating.....90 Decibels at 10 Ft.
 Nominal Sensitivity.....2.5% Obscuration
 Auxiliary Relay (Standard).....1 Form C (0.6 amp)
 (710/713CS and 7109/7139CS)
 Size.....5.5" Square x 4.75" Overall Depth
 Secondary Power Source.....Alkaline 9VDC battery (supplied)
 (7109CS/LS and 7139CS/LS)

The CSX models are used for remote annunciation of the strobe.



710/713CS/LS 7109/7139CS/ S E R I E S

Architect & Engineering Specifications

The photoelectric smoke alarm shall be a Gentex Model 710LS, 713LS, 7109LS, 7139LS or approved equal which shall provide at least the following features and functions.

1. Nominal sensitivity shall be 2.5%.
2. The smoke alarm shall utilize an infrared LED sensing circuit which pulses in 4 to 5 second intervals; when subjected to smoke the pulse rate shall increase 8 times. After 2 consecutive pulses in smoke, the detector will alarm.
3. The smoke alarm shall provide minimum 5-to-1 signal-to-noise ratio in the optics frame to assure stability of operation in environments of high RF and transient conditions.
4. The sensing chamber shall be fully screened to prevent entrance of small insects, thus reducing the probability of false alarms.
5. A continuous piezo horn rated at 90dBA at 10 ft. (710CS/LS & 7109CS/LS units) and a temporal 3 piezo horn rated at 90dBA at 10 ft. (713CS/LS & 7139CS/LS units).
6. A visual LED monitor (condition indicator) will pulse in normal operation and steady on in alarm.
7. The visual signal shall have a minimal light output of 177 Candela.
8. An easily accessible test knob shall be provided. The test knob in the TEST position will simulate an actual smoke condition of approximately 3.5% causing the smoke alarm to alarm within 20-36 seconds. Also the alarm shall test for the most sensitive setting. An alarm during this test will be a maintenance indicator. Return to Gentex Corporation for maintenance.
9. The smoke alarm shall be provided with a 9 foot line cord with a strain relief connection, if a portable unit.
10. Unit must be capable of providing a monitored battery back-up.
11. Unit must be UL 217 and UL 1971 listed for wall mount.
12. Unit shall also meet all requirements of the State of California Fire Marshal, Bureau of Standards and Appeals and the Americans with Disabilities Act (ADA).

Architect & Engineering Specifications

The photoelectric smoke alarm shall be a Gentex Model 710CS, 713CS, 7109CS, 7139CS or approved equal which shall provide at least the following features and functions.

1. Nominal sensitivity shall be 2.5%.
2. The smoke alarm shall utilize an infrared LED sensing circuit which pulses in 4 to 5 second intervals; when subjected to smoke the pulse rate shall increase 8 times. After 2 consecutive pulses in smoke, the smoke alarm will alarm.
3. The smoke alarm shall provide minimum 5-to-1 signal-to-noise ratio in the optics frame to assure stability of operation in environments of high RF and transient conditions.
4. The sensing chamber shall be fully screened to prevent entrance of small insects, thus reducing the probability of false alarms.
5. A continuous piezo horn rated at 90dBA at 10 ft. (710CS/LS & 7109CS/LS units) and a temporal 3 piezo horn rated at 90dBA at 10ft. (713CS/LS & 7139CS/LS units).
6. A visual LED monitor (condition indicator) will pulse in normal operation and will remain solid in alarm.
7. The visual signal shall have a minimal light output of 177 Candela and will flash one time per second.
8. An easily accessible test knob shall be provided. The test knob in the TEST position will simulate an actual smoke condition of approximately 3.5% causing the smoke alarm to alarm within 20-36 seconds. Also the detector shall test for the most sensitive setting. An alarm during this test will be a maintenance indicator. Return to Gentex Corporation for maintenance.
9. The smoke alarm shall be provided with a Form C contact for remote annunciation purposes.
10. The manufacturer shall provide other compatible detector models with the following optional features: a) auxiliary Form C relay contact for initiating remote functions and annunciation; b) relay option that is capable of activation by tandem interconnect wire.
11. Unit must be capable of providing a monitored battery back-up.
12. Unit must be UL 217 and UL 1971 listed for wall mount or ceiling mount.
13. Unit shall also meet all requirements of the State of California Fire Marshal, Bureau of Standards and Appeals and the Americans with Disabilities Act (ADA).

All equipment shall be completely factory assembled, wired and tested, and the contractor shall be prepared to submit a certified letter testifying to this condition. Detectors which do not meet all of the requirements of this specification will not be considered.

12 units per carton
21 pounds per carton

GENTEX
CORPORATION

Fire Protection Products Group • www.gentex.com
10985 Chicago Drive • Zeeland, Michigan 49464
616.392.7195 • 1.800.436.8391 • 616.392.4219 Fax

Gentex Corporation reserves the right to make changes to the product data sheet at their discretion.

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551-0037-02

Printed on Recycled Paper

120VAC/9VDC Single/Multiple Station Carbon Monoxide Alarm

CO1209
SERIES

Applications

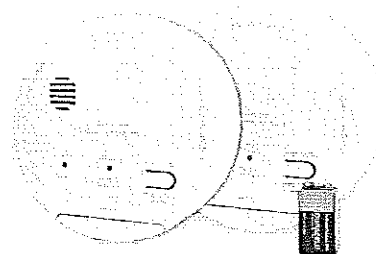
The CO1209 (120VAC/9VDC) Series of electrochemical sensor carbon monoxide alarms is for use as an evacuation device in all dwelling units, including but not limited to homes, apartments, hospitals, hotels and motels. The CO1209 Series is in compliance with ANSI/UL 2034 and NFPA 720.

The CO1209 Series is engineered to virtually eliminate nuisance alarms and deliver outstanding performance wherever reliable CO protection is required.

The CO1209 Series is provided with a 9VDC alkaline battery for electrical back-up in the event building power is lost. The battery impedance is verified and the alarm provides a low or missing battery warning. The battery drawer provides easy replacement without removing the unit from the wall or ceiling.

The Gentex CO1209 Series is provided with a push button test that simulates an actual CO condition in full compliance with NFPA 720 and UL Standards.

Features of the CO alarm series include, a temporal 4 tone for CO alarm annunciation, DUALINK® - differentiating tones indicating a smoke alarm (temporal 3) or a CO alarm (temporal 4), tandem capabilities with all Gentex tandem interconnect capable alarms, signal indicating CO sensor has reached end of life and solid state red LED to indicate CO presence. Options include Form A/Form C dry contacts for remote annunciation.



Product Listings

SIGNALING



LISTED



- ANSI/UL 2034 Listed
- CSFM: 5276-0659:143

Product Compliance

- NFPA 720
- IBC/IFC/IRC
- City & State Ordinances & Laws
- Quality Management System is certified to: ISO 9001:2008



Standard Features

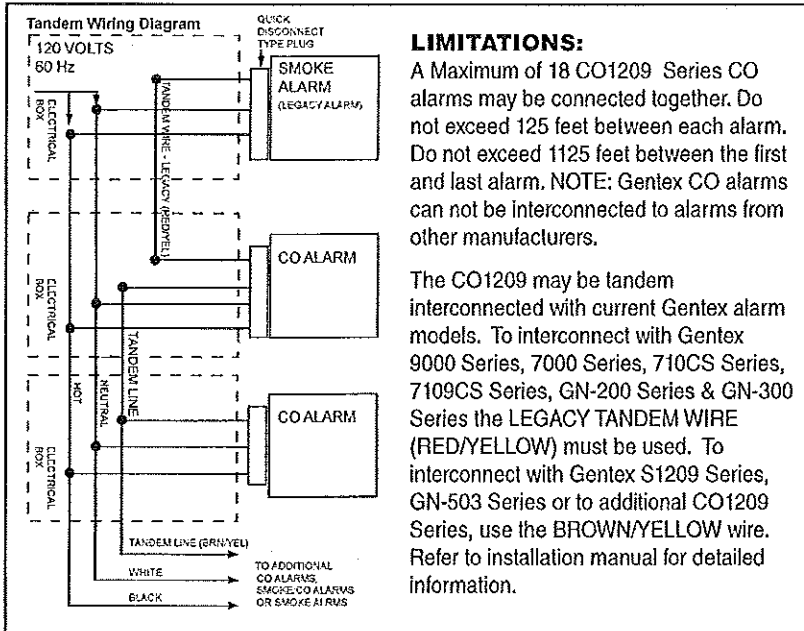
- CO1209 available in 120VAC with 9VDC battery back-up
- Electrochemical sensor
- Horn frequency 3100 Hz (nominal)
- Meets sensitivity requirements of ANSI/UL 2034
- DUALINK® - differentiating tones indicating a smoke alarm (temporal 3) or a CO alarm (temporal 4)
- Temporal 4 sounding pattern for CO annunciation
- Optional auxiliary Form A/Form C relay contacts
- Relay contacts operate on battery back-up
- Tandem interconnect with current Gentex alarm models
- Push button self test and functional test feature
- Quick-disconnect wiring harness
- Non-latching (self restoring) alarm
- Red LED pulses every 15-30 seconds, green LED for AC power on
- Solid State red LED to indicate CO presence
- Mounting hardware adapts to standard junction boxes
- Dust cover to prevent contamination during installation
- Low or missing battery indicator
- End of life signal indicates CO sensor has reached depletion state and time to replace
- 1 year warranty from date of purchase
- 5 year limited warranty on CO sensor

CO1209 Series Carbon Monoxide Alarm			
Model Number	Part Number	Voltage	Form A/ Form C Relay
CO1209	918-0009-002	120VAC/9VDC	
CO1209F	918-0010-002	120VAC/9VDC	•

Electrical Specifications	
Operating Voltage.....	120VAC, 60Hz
Operating Current.....	0.045 amps
Operating Current (Relay Options).....	0.070 amps
Operating Ambient Temp Range.....	40°F to 100°F
Alarm Horn Rating.....	85dBA at 10 feet
Size.....	Diameter: 6.25 in. (15.875 cm) OA (5.75 in. (14.605 cm) at Ceiling) Depth: 1.8 in. (4.572 cm)
Secondary Power Source.....	Alkaline 9VDC battery Duracell® MN 1604
CO Sensing Cell.....	Electrochemical Cell

CO1209 SERIES

CO1209 Series Wiring Diagrams



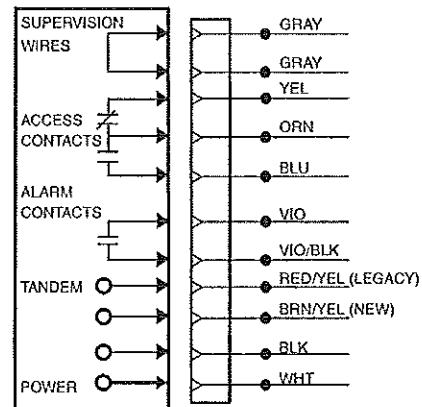
LIMITATIONS:

A Maximum of 18 CO1209 Series CO alarms may be connected together. Do not exceed 125 feet between each alarm. Do not exceed 1125 feet between the first and last alarm. NOTE: Gentex CO alarms can not be interconnected to alarms from other manufacturers.

The CO1209 may be tandem interconnected with current Gentex alarm models. To interconnect with Gentex 9000 Series, 7000 Series, 710CS Series, 7109CS Series, GN-200 Series & GN-300 Series the LEGACY TANDEM WIRE (RED/YELLOW) must be used. To interconnect with Gentex S1209 Series, GN-503 Series or to additional CO1209 Series, use the BROWN/YELLOW wire. Refer to installation manual for detailed information.

Relay Models

Models CO1209F



CAUTION:

RED/YELLOW & BROWN/YELLOW wire to be capped when not in use. This wire is for tandem connection only. Do not connect to any other circuit.

Architect & Engineering Specifications

The carbon monoxide alarm shall be a Gentex Model CO1209/CO1209F or approved equal which shall provide at least the following features and functions:

1. The carbon monoxide alarm shall utilize an electrochemical sensing element with expected 5-year life.
2. The carbon monoxide alarm is calibrated not to detect CO levels below 30PPM and will not alarm when exposed to constant levels of 30PPM for 30 days. The device will alarm at the following levels: 70 PPM CO between 1 to 4 hours. 150 PPM CO between 10 to 50 minutes. 400 PPM 4 to 15 minutes.
3. The CO1209 Series device shall have a Duracell[®] MN 1604 9VDC alkaline battery as a back-up in the event building power is lost.
4. The 9VDC battery impedance shall be verified by the circuit of the smoke/CO alarm.
5. The CO alarm shall provide an indicator when the battery is low in power or high impedance or is missing.
6. The CO alarm will provide an audible indicator at end of life of CO sensor.
7. A solid state piezo alarm rated at 85dBA at 10ft.
8. A visual LED monitor (condition indicator) will slow pulse in normal operation.
9. A red color LED will indicate presence of CO at the unit.
10. An easily accessible test button shall be provided. Push down on button for self test. Push button and hold until CO alarm activates for functional test. If device does not go into alarm, the device is not working properly.
11. The device shall have tandem interconnect capability of up to 12 units or 6 units with relay.
12. The CO1209 Series alarm shall have the capability to tandem interconnect with all Gentex tandem capable CO alarms, smoke alarms or combination smoke/CO alarms, including 7000/70003 Series, 9000/9003 Series, 710CS/713CS Series, 7109CS/7139CS Series, GN-200/ GN-300 Series, S1209 Series and GN-503 Series.
13. The CO alarm shall be non-latching (self-restoring).
14. Unit must be ANSI/UL 2034 listed for both wall and ceiling mount.
15. Unit shall be listed by Underwriters Laboratories and California State Fire Marshal (CSFM).

All equipment shall be completely factory assembled and tested, and the contractor shall be prepared to submit a certified letter testifying to this condition. Alarms which do not meet all of the requirements of this specification will not be considered.

For complete product specifications, refer to product installation manual.

24 units per carton
24 pounds per carton

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551-0075-03