

TR-MCS-COF3

Advanced Multi-Criteria Fire/Carbon Monoxide Detector

TR-MCS-COF3 is plug-in addressable devices that provide both fire and carbon monoxide (CO) detection.

The detectors combine four separate sensing elements to sense multiple components of a fire: smoke, CO, light/flame, and heat. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulates. For CO, the detector's electrochemical sensing cell creates a separate signal for life safety CO detection.

Multiple sensors and communication can greatly reduce nuisance alarms compared to single sensing methods. Sophisticated algorithms maximize the advantages of all four sensor types creating our best detection strategy offering heightened immunity to nuisance particulate and enhanced sensitivity to real fire.

- Photoelectric sensors detect airborne particles associated with smoke.
- Thermal sensors detect heat and rate-of-rise (135°F fixed temperature threshold).
- Infrared sensors discern light patterns in the environment as an additional data point for alarm determination.

This ability to reject certain nuisance alarm triggers, such as theater smoke, supports the use of the fire/CO detector in applications where moderate to heavy nuisance conditions exist that might cause single sensing detectors to false alarm.

UL models meet UL 268 7th edition and UL 521 listing requirements for fire detection and UL 2075 standard for system-connected life safety carbon monoxide detection.

Intertek performed an independent evaluation to witness that in addition to alarm transmission of the multi-criteria detector TR-MCS-COF3, the detector can be used to continuously monitor temperature between +80°F and +135°F with compatible panels to meet Fire Service Access Elevator (FSAE) monitoring requirements per NFPA 72 Section 21.5 and Section A21.5.

Released through the incomplete burning of various fuels, CO is a colorless, odorless and deadly gas that is virtually impossible to detect with the human senses. Because the potential exists for dangerous levels of CO to accumulate in almost any building, legislation mandating the use of CO detection in commercial spaces continues to grow.

TR-B200S series intelligent sounder bases are recommended for use with the TR-MCS-COF3. These bases can generate either a Temp 3 pattern for fire or a Temp 4 pattern for CO alarm indication. The TR-B200S series bases recognize the System Sensor synchronization protocol for use as a component of the general evacuation signal - along with other System Sensor Audible/Visible devices - when connected to a power supply or Fire Alarm Control Panel (FACP) output capable of generating the System Sensor synchronization pulses.



**TR-MCS-COF3
with TR-B200S-WH Sounder Base**

FEATURES & BENEFITS

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| <ul style="list-style-type: none"> • Detects all four major elements of a fire • Separate CO detection signal • Operates in GEN2 SLC protocol • Separate audible signal for fire or CO alarm when used with a TR-B200S series base | <ul style="list-style-type: none"> • Highest nuisance alarm immunity • Automatic drift compensation for smoke and CO sensors • RealTest® CO testing capability • New modern profile with expanded color options | <ul style="list-style-type: none"> • Uses only one address on the SLC loop • UL 268 7th edition, UL 521, and UL 2075 listed • 10-year CO cell with end-of-life warning |
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Note: Specifications are subject to change without notice.



Technical Specifications

PHYSICAL

Dimensions:

Height: 2.7" (69 mm) installed in TR-B200S series sounder base

Diameter: 6.875" (175 mm) installed in TR-B200S series sounder base

Weight: 3.4 oz. (95 g)

ENVIRONMENTAL

Operating Humidity Range: 15% to 90% Relative Humidity,
Non-condensing

Operating Temperature Range: 32°F to 100°F (0°C to 38°C)

Tenability Temperature Range: 60°F to 135°F (18°C to 57°C)

Air Velocity: 0 to 4000 ft./min. (0 to 1219.2m/min.)

ELECTRICAL

Operating Voltage Range: 15 to 32 VDC

Operating Current @ 24 VDC: 200 μ A (one communication every 5
seconds with green LED blink on communication)

Maximum Alarm Current: 2 mA @ 24 VDC (one communication every 5
seconds with red LED solid on)

Maximum Current: 4.5 mA @ 24 VDC (one communication every 5
seconds with amber LED solid on)

Isolator Load Rating: 0.0063

CO MONITORING

UL STANDARD REFERENCE

Alarm thresholds (in parts per million) are as
follows for:

- 70 $\pm$ 5ppm:
Detector response time 60 – 240 min.
- 150 $\pm$ 5ppm:
Detector response time 10 – 50 min.
- 400 $\pm$ 10ppm:
Detector response time 4 – 15 min.

ORDERING INFORMATION

TR-MCS-COF3: Advanced multi-criteria fire/CO detector

BASES

TR-B501-WHITE: 4" Mounting base, white

TR-B300-6: 6" Flanged mounting base, white

TR-B200S-WH: Intelligent addressable sounder base, white

TR-B200S-LF-WH: Intelligent addressable sounder base,
low-frequency, white

TR-B224BI-WH: Intelligent Isolator base, white

TR-B224RB-WH: Intelligent Relay base, white

ACCESSORIES

TR-RA100Z: Remote LED annunciator

AGENCY LISTINGS AND APPROVALS

For exact certification listings for each model,
please reference the respective agency website.

UL Listed

TRIGA INVESTMENTS, LLC
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