

Overview

C2M-PDC Series self-diagnostic, two-wire smoke detectors are the industry's first conventional direct-wire smoke detectors with self diagnostics, drift compensation, and multi-criteria sampling.

Self diagnostics. All C2M-PD detectors continually monitor their own sensitivity and operational status. The on-board LED provides a visual indication if the detector drifts out of its prescribed sensitivity range or fails internal diagnostics. Additional diagnostic information is retrieved by applying a magnet near the detector's integral reed switch. This initiates a self-diagnostic routine and indicates, by means of coded flashes of its LED, the sensitivity level and operational status of the detector.

Drift compensation. Built-in drift compensation dramatically increases the periods between cleaning. This feature allows the detector to automatically adjust its sensitivity over time as it becomes dirty, which can effectively double the time between detector cleanings.

Field-replaceable optical chamber. Detector cleaning is extremely simple with the C2M-PD's patented field-replaceable optical chamber. To clean the detector simply remove its cover, pop out the dirty chamber, snap in a clean one, and replace the cover.

Multi-criteria sampling. The C2M-PDH combination photoelectric smoke detector/ fixed rate-of-rise heat detector includes fast response algorithms. These allow the heat sensors to work intelligently with the photoelectric smoke sensor. When the heat sensor detects a rise in temperature of more than 15 degrees per minute, the sensitivity of the photoelectric sensor automatically increases, allowing it to detect smaller particles of combustion much more rapidly than it would acting on its own.

Standard Features

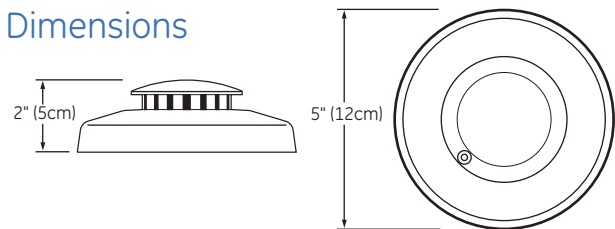
- Self diagnostics eliminates the need for external meters
- Fixed/rate-of-rise heat sensors work with photo chamber to catch fires faster
- Field-replaceable optical chamber makes service fast and simple
- Selectable 6-12 Vdc or 12-24 Vdc voltage range accommodates a broader base of applications
- Small, low profile design blends with any environment

Application

The C2M-PD is ideal for retrofit applications and new installations. It is particularly well-suited for installations where detector reliability is essential, but where intelligent analog devices, such as GE Security's Signature Series, may not be appropriate or feasible. The C2M-PD, with its replaceable optical chamber is equally well-suited to dusty environments where detectors require frequent cleaning.

Two-wire C2M-PD detectors feature a field-selectable voltage range of either 6-12 Vdc or 12-24 Vdc. This voltage range is the widest available and makes the C2M-PDC ideal for dedicated life safety applications, as well as combination burglary/fire installations.

Dimensions



Two-Wire Self-Diagnostic Smoke Detector

C2M-PD Series



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Asia
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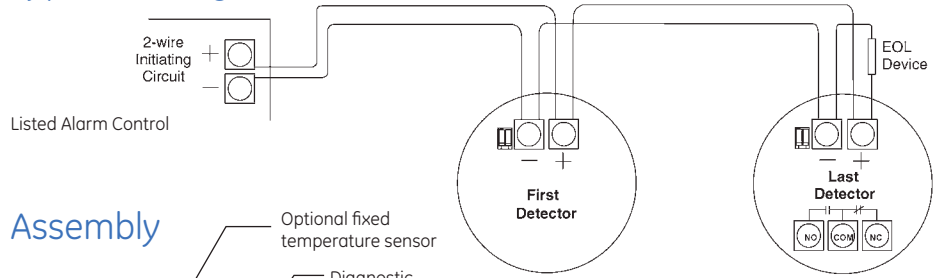
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Latin America
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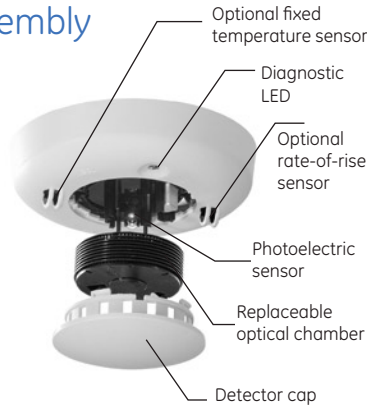
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Typical Wiring



Assembly



Mounting and Installation

C2M detector bases mount directly to standard single-gang electrical boxes, three-inch round, or four-inch octagonal boxes. Detector heads simply twist onto the base. Heads are equipped with a break-away locking tab, which prevents unauthorized removal. Terminals accept 12 to 24 AWC field wiring.

Specifications

Voltage (24 volt operation)	8.5 Vdc to 33 Vdc
Voltage (12 volt operation)	6.5 Vdc to 20 Vdc
Standby current	70 μ A
Alarm current	60 mA
Auxiliary relay contacts	2 A @ 30 Vdc
Alarm contacts	500 mA @ 36 Vdc
Photoelectric sensor sensitivity	3.1% (+0.5%, -1%)
Operating temperature	32° F to 100° F (0° C to 37° C)
Operating humidity	0% to 95% (non-condensing)
RFI immunity	20 V/m; 0-1000 MHz
Field wiring	12 to 24 AWG
Drift compensation	1.0%/ft. max.
Reset time	1 second (minimum)
Listings	UL, ULC

Ordering Information

Model	Description
C2M-PD1	2-wire, photoelectric, 12-24 Vdc
C2M-PD	2-wire, photoelectric, 12-24 Vdc (10 pack)
C2M-PDC	2-wire, photoelectric, CleanMe® 12-24 Vdc
C2M-PDHRC	2-wire, photoelectric, 12-24 Vdc, aux. relay, multi-criteria algorithms, fixed/rate-of-rise heat, CleanMe®
Accessories	
401G	Test magnet in plastic shell for pole mounting
SMK-CAN	Smoke! in a Can® (canned smoke) for functional testing of C2M Series smoke detectors. Case of 12.
211G	Replacement optical chambers



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