Product Summary Sheet

July 7, 2003 Rev 001

MN220 – Hardwire 2-Wire Smoke Detector

The MN220 photoelectric smoke detector uses a unique patented chamber to detect both 'flash' fires and slow, smoldering fires equally as well. The detector detects light reflected within the chamber from smoke particles. It has a reticulated bottom to gather dust and dirt, and since it does not use a reflective surface, cleaning is not necessary. The detector performs a low sensitivity test every 40 seconds to ensure it can properly detect the presence of smoke.

Several variations are available, including models with a built in heat detector (rated at 57°C or 135°C) and Form 'C' Auxiliary relay options.

Compatibility (Version Identification):

All models include Form 'A' alarm relay contacts.

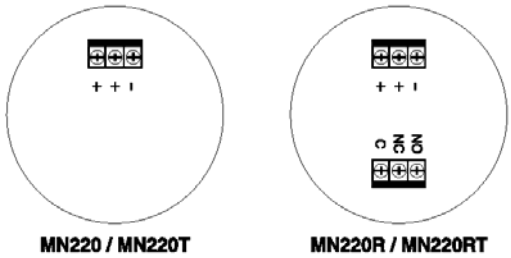
MN220	Standard
MN220T	Fixed-temperature sensor
MN220R	Form 'C' auxiliary relay
MN220RT	Form 'C' auxiliary relay and fixed-temperature sensor

LED and Auxiliary Relay Condition:

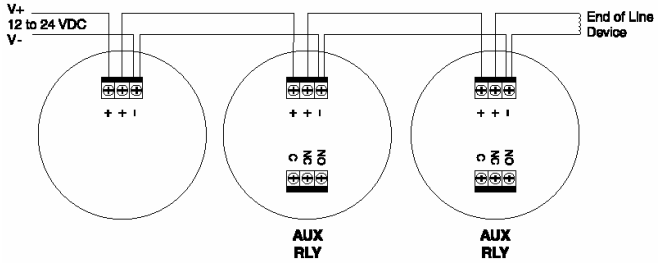
Alarm Indications

Condition	*Alarm LED*	*Aux Relay*
No smoke or heat	Pulse every 40 s	Deactivated
Smoke or heat	ON steady	Activated
Sensitivity test functioning normally	ON Steady	Activated
Sensitivity test insufficient sensitivity	Pulse every 40 s	Deactivated
No smoke or heat but latched in alarm	ON steady	Activated

Wiring:



Wiring (Bottom View)



Testing Smoke Detector:

In addition to the automatic low sensitivity test completed every 40 seconds, the unit can be manually tested. To manually test the detector, perform the following:

1. Place a magnet under the raised line on the base of the unit to activate the built-in test reed-switch

The LED should turn ON and the panel should go into an alarm condition. The detector will remain latched in alarm until power is removed from the detector.

Troubleshooting:

1. During normal operation, the LED will flash every 40 to 50 seconds.
2. If the detector chirps every 40-50 seconds the unit has detected that it has low sensitivity and must be replaced.
3. Ensure that the loop resistance is 2.2K.
4. It can be difficult to find the correct spot to locate the magnet to activate the built-in reed switch. If a dealer is having a problem, have them move the magnet ½ inch left or right and ½ inch up and down to find the correct spot.

PowerSeries Panels

5. If the dealer cannot reset the smoke detector, make sure that it is wired to PGM2 and ensure that it is programmed as a [04], two-wire smoke support.
6. The panel will display a *Fire Trouble* condition if jumper J1 or CON1 is not removed from the main panel.