

FEATURES:

- Easily Installed
- Multiple Temperature options
- Normally Open type contacts
- Hermetically sealed in Stainless Steel
- Explosion Proof
- Class II, Groups E, F, & G
- Self Restoring Element

DESCRIPTION

DETECT-A-FIRE® thermal detectors are UL Listed, UL of Canada available upon request, and FM Approved detection and release devices used with fire detection systems to activate alarms and actuate extinguishing systems. This Rate Compensated device combines the best features of both fixed temperature and rate-of-rise detectors.

LOCATION

DETECT-A-FIRE detectors are precision temperature sensors. They must be mounted in an area (normally a ceiling) so that:

1. The detector spacing complies with both system requirements and requirements of the agency having local jurisdiction.

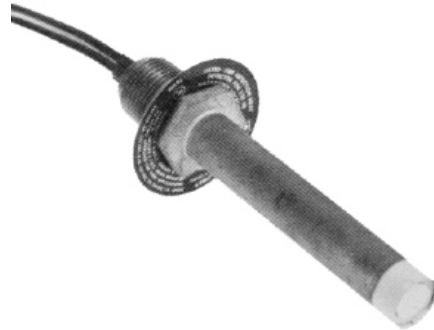
2. The thermal air path to the shell is not obstructed. Spacing per UL, FM, and UL of Canada is shown in

Distances given are for between units on smooth ceilings. Distances from partitions or walls are half that shown. To assure that all spacing requirements are met, consult the authority having local jurisdiction.

MOUNTING

Detect-A-Fire units are not position sensitive. Horizontal and vertical detectors refer to the most common mounting configuration for that unit. However, each type can be mounted either horizontally or vertically depending on the application and installation requirements.

EF-Exp-27121
Explosion Proof
Heat Detectors



Explosion proof Heat Detectors

°F Setting	°F Tolerance	SPACINGS (in feet)			Color Coding
		UL	ULC	FM	
140	+7/-8	50	50	25	Black
160	+7/-8	25	25	25	Black
190	+7/-8	50	50	25	White
210	+7/-8	25	50	25	White
225	+7/-8	25	50	25	White
275	±10	25	50	25	Blue
325	±10	50	50	25	Red
360	±10	25	50	25	Red
450	±15	25	50	25	Green
500	±15	50	50	25	Orange
600	±20	N/A	50	25	Orange
725	±25	N/A	50	25	Orange

Note: For clean agents and CO₂ suppression systems, ceiling spacing 20 ft. (6.1 meters) apart unless otherwise specified.

Not all units are suitable for all hazard location applications. Refer to Table 2 and markings on the detector for hazardous location suitability.

Table 2

Hazardous Location	Model Number	Fitting Required For UL, ULC Listings and FM Approval
Class I*, Groups A, B, C, and D; Class II*, Groups E, F and G	27120-22 27121-20 28020-3 28021-5	Mount detector to a suitably listed fitting in accordance with National Electric Code and/or local authority having jurisdiction.
Class I*, Groups B, C, and D; Class II*, Groups E, F and G	27120-0 27121-0 28021-0	

*Division 1 and 2

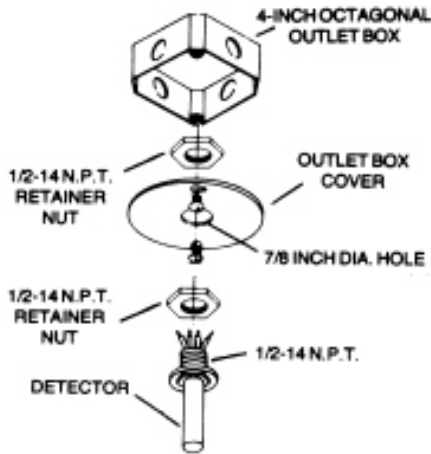


Figure 1

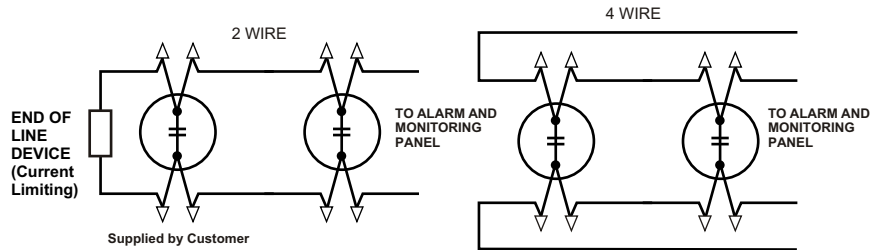


Figure 2

FUNCTIONAL TEST

When used with automatic fire extinguishing systems first disconnect the initiator/solenoid leads from the panel and connect a 24 VDC bulb to initiator terminals in the control unit. Heat the units with a heat lamp or other convenient source. When the bulb in the control unit changes state, remove heat source and allow unit to cool. Reset control unit. Test lamp must change state and stay changed after system is reset. Do not reconnect initiator/ solenoid leads until all units have cooled below set point as indicated by test lamp. When units are used in other types of systems, disconnect them from the system, connect a 24 VDC lamp and power source in series with the units and test with heat source as above. Make sure that contacts have reset to normal condition before reconnecting to system circuit.

HOW TO ORDER:

Explosion Proof Heat Detectors

EF-TH-27121-140	140°F Normally Open Heat
EF-TH-27121-160	160°F Normally Open Heat
EF-TH-27121-190	190°F Normally Open Heat
EF-TH-27121-210	210°F Normally Open Heat
EF-TH-27121-225	225°F Normally Open Heat
EF-TH-27121-275	275°F Normally Open Heat
EF-TH-27121-325	325°F Normally Open Heat
EF-TH-27121-360	360°F Normally Open Heat
EF-TH-27121-450	450°F Normally Open Heat
EF-TH-27121-500	500°F Normally Open Heat
EF-TH-27121-600	600°F Normally Open Heat
EF-TH-27121-725	725°F Normally Open Heat

Engineer and Architect Specifications

The explosion proof thermal fire detector shall be a Evax explosion proof model, manufactured by Fenwal 27121 Series, also for purchasing purposes referred to as Evax 27121 Series, and shall be of the rate compensated type. The explosion proof detector shall have a self-restoring element and shall be factory set and hermetically sealed in stainless steel. These detectors shall be mounted in an approved explosion proof junction box.

The explosion proof detectors must be UL listed and FM approved.

Specifications are subject to change without notice. Specifications are provided for information only and no responsibility is assumed by Evax Systems, Inc for their use.