

## THERMAL DETECTORS

### DESCRIPTION

The Fike 60 series Thermal Detectors operate on the rate compensation principles. These principles offer the fastest possible response with the least probability of a false alarm, for a thermal type detector. Thermal detectors are normally open switches which automatically reset when the temperature returns to normal.

The thermal detectors are available in 135°F (57.2°C) or 194°F (90°C) temperature settings. All units are hermetically sealed, shock and corrosion resistant and tamper proof. Units are available for interior, weather-proof and explosion proof applications. The Interior Mount Detector has a 2" (51 mm) diameter plastic base with terminal screw type connections for field wiring. The Explosion Proof Detector has a hexagonal wrench grip bushing with a 1/2" (15 mm) conduit threads and is approximately 4 1/8" (105 mm) long.

The Fike 60 series Thermal Detectors operate within a controlled range of several degrees of their set point. This eliminates the problem of thermal lag. The rate compensation feature allows for a quicker response when the temperature rises rapidly. The high expansion sensing shell rapidly expands with the increasing temperature, providing for actuation one to three degrees in advance of the detector's set point. At the same time, however, it does not respond to momentary temperature fluctuations below the selected protection level. This eliminates false alarms.

### INSTALLATION

The thermal detectors that contain the 2" base can be mounted directly to the ceiling structure or the optional adapter plate can be used for attaching to any 3" box or 4" octagon box. Wiring can be accomplished using two screw terminals located in the back of the 2" base. The thermal detectors that contain the hex base have a 1/2" conduit thread. This thread can then be connected through an outlet box cover with center knock-out removed and secured in place with a 1/2" conduit nut. Even though the detector has a hex base, DO NOT USE A WRENCH TO TIGHTEN. Hand tighten the detector only. Wiring can be accomplished using the four 6" (152mm) wire leads.

Detectors can be spaced on a 8-10' (2.44-3.05 m) smooth ceiling at 50' (15.24 m) x 50' (15.24 m) - UL. Reference NFPA 72 for other ceiling structures and heights.

### ENGINEERING SPECIFICATIONS

The thermal detectors used shall be the Fike 60 series Thermal Detectors. These detectors shall operate on the rate compensation temperature concept. These devices shall operate without noticeable thermal lag and be designed to anticipate and compensate for temperature rate-of-rise conditions. These detectors shall not rely on any barometric principle to prevent: 1) premature actuation of a fast heat rise; 2) lagging more than 5% above rating with any type of heat rise.

Thermal detectors shall be hermetically sealed, shock and corrosion resistant and tamper proof. They shall automatically reset when the temperature returns to normal. Thermal detectors shall have a setting of 135°F (57.2°C) or other appropriate temperature and be designed for interior, weatherproof or explosion applications.

### ELECTRICAL RATING

Voltage	Current
6-125 VAC	5 A
6-125 VDC	1 A
125 VDC	0.5 A

### ORDERING INFORMATION

Fike P/N	Thermotech P/N	Temperature	Type
60-004	302-135	135°F	Interior
60-007	302-194	194°F	Interior
60-008	302EPM-135	135°F	Ex-Proof
60-009	302EPM-194	194°F	Ex-Proof
60-026	302-AW	194°F	All Weather, 2" base
60-031	302-ET-194	194°F	All Weather, Hexbase
60-1017	AP-P	-	Adapter Plate



**Interior  
Vertical Mount**



**Explosion Proof  
Vertical Mount**



**Adapter Plate**

#### APPROVALS:

- U.L. Listed
- FM (all but Ex-Proof)
- CSFM 7270-0021:001
- MEA 193-03-E



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