

302 Series

Rate-Anticipation Heat Detectors



General

The **Thermotech 302 Series** rate-anticipation heat detectors operate within a controlled range of two to three degrees of their set points, regardless of the speed or rate of temperature rise. These detectors are available in either 135°F (57.2°C) or 194°F (90°C) ratings.

The 302 Series are normally-open devices designed especially for fire detection and alarm systems.

Features

- **Immediate response.** The 302 Series activate whenever ambient air temperature reaches a detector's setting, eliminating the thermal time lag inherent in conventional heat detectors.
- **Eliminates false alarms.** The 302 Series do not respond to momentary temperature fluctuations below the selected temperature.
- **Universal application.** The 302 Series can be used in all areas for any type of occupancy.
- **Self-restoring.**
- **Hermetically sealed,** shock resistant, corrosion resistant, and tamper-proof.

Principles Of Operation

The 302 Series rate-anticipation heat detectors respond and activate the fire alarm immediately whenever the ambient temperature reaches the preset temperature setting. Under rapid heat rise conditions, the rate-anticipation feature enables the detector to respond one to three degrees ahead of the setting. At the same time, however, it does not respond to momentary temperature fluctuations below the selected protection level, thus eliminating false alarms. When temperature drops back down below the protection level, the detector automatically resets itself.

Dimensions (Model 302)

Total overall length: 4-1/8" (10.48 cm).

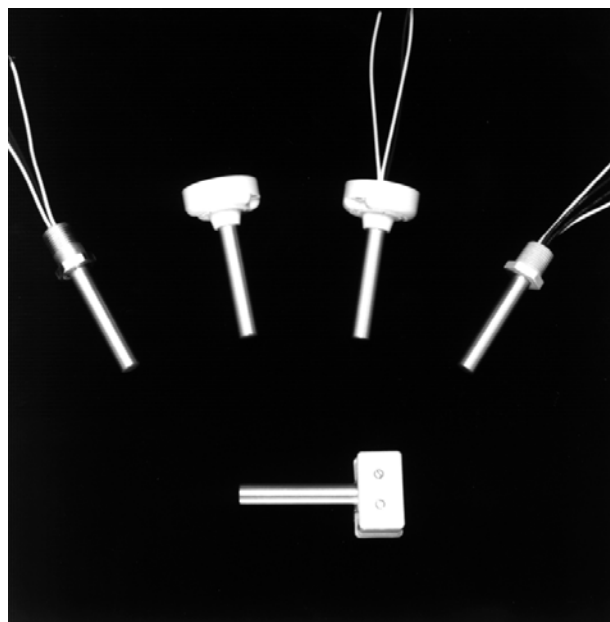
Base diameter: 2" (5.08 cm).

Electrical Ratings

<u>Voltage</u>	<u>Current</u>
6 - 125 VDC	5 amps
6 - 25 VDC	1 amp
125 VDC	0.5 amp

Application Information

302 Series detector have a smooth ceiling UL rating of 50' x 50' (15.24 x 15.24 meters) and are the only type of heat detectors having such a rating on both fixed temperature and rate anticipation. The 302-H is designed for horizontal mounting and is UL rated for 40' x 40' (12.19 x 12.19 meters).

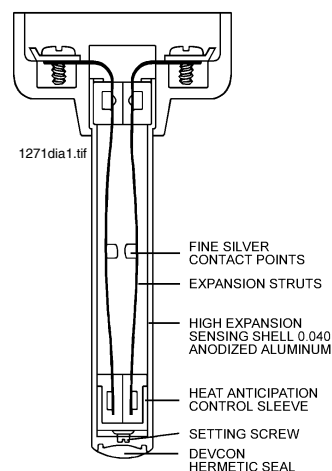


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Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S539 (302-AW-135/-194; 302-ET-135/-194; 302-135-194)
- **FM Approved:** (302-AW-135/-194; 302-ET-135/-194; 302-135/-194)
- **CSFM:** 7270-0021:001



Cut-Away View

Thermotech Model 302 Series Rate-Anticipation Heat Detectors		
Model Number	Description	Refer To
302-135	135°F Interior Vertical Mounting	Note 1 below
302-194	194°F Interior Vertical Mounting	
302-AW-135	135°F All-Weather Vertical Mounting	Note 2 below
302-AW-194	194°F All-Weather Vertical Mounting	
302-ET-135	135°F All-Weather Vertical Mounting	Note 3 below
302-ET-194	194°F All-Weather Vertical Mounting	
302-EPM-135	135°F Explosion Proof Mounting	Note 5 below
302-EPM-194	194°F Explosion Proof Mounting	
AP-P	Decorative white plastic adaptor plate for mounting 302 and 302-AW to 4" outlet box.	

NOTE 1: For interior mounting in any atmosphere that is compatible with terminal-screw-type connections. UL rating 50' x 50' (15.24 x 15.24 meters).

NOTE 2: Hermetically sealed for moisture-proof or dust-proof installations. Requires no special backbox when the all-weather leads are properly spliced to "THW" or equivalent type wire.

NOTE 3: Hermetically sealed for moisture-proof or dust-proof installations. Requires no special backbox. Has plastic hexagonal wrench grip bushing with 1/2" (1.27 cm) conduit threads for attachment to threaded hub cover, or any outlet box.

NOTE 4: Same as model 302 except designed for horizontal mounting. UL rating 40' x 40' (12.19 x 12.19 meters).

NOTE 5: Explosion-proof for installation in hazardous locations. Has hexagonal wrench-grip bushing with 1/2" (1.27 cm) conduit threads for attachment to threaded hub cover of Series JL fixture fitting as manufactured by Killark Electric Co., or equal.

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This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
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