

302 & 5600 Series Heat Detectors



Features

- Easy installation.
- Rate anticipation, rate of rise & fixed temperature models.
- Self restoring (select models).
- Visual alarm indication – 5600 Series.
- Explosion & weatherproof models.

Description

The Protectowire Company offers a complete range of spot type heat detectors designed to accommodate a wide variety of applications and installation environments.

Rate Anticipation Type

The Thermotech 302 Series Heat Detectors operate on the rate anticipation principle, and are designed to actuate whenever the ambient temperature reaches the pre-set alarm temperature setting, regardless of the speed or rate of temperature rise. 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 alarm level thus minimizing potential false alarms. When the temperature drops back down below the alarm level, the detector automatically resets itself.

All 302 Series Detectors are normally open devices and are available in either 135°F (57°C) or 194°F (90°C) ratings. Each unit is constructed with a high expansion .040 anodized aluminum sensing shell and fine silver contacts which are hermetically sealed to ensure reliable operation and are suitable for use in ambient temperatures down to -40°F (-40°C).

Rate-of-Rise and Fixed Temperature Type

The System Sensor 5600 Series Heat Detectors are durable, low profile units that protrude only 1.7 inch (4.3cm) from the mounting surface when mounted on a recessed junction box. They are available in combination rate-of-rise and fixed temperature models with temperature ratings of 135°F (57°C) or 194°F (90°C). (Product photograph starting clockwise from top left – 5600 Series, 302, 302-ET, 302-EPM, & 302-AW.)

The 5600 Series Detectors use a reliable pneumatic rate-of-rise element which responds to a rapid rise in temperature of approximately 15°F (8°C) per minute. When the air within the sealed chamber expands faster than it can escape through a calibrated vent, the resultant increase in pressure depresses the diaphragm, causing the electrical contact to close the circuit thus initiating the alarm signal.

The fixed temperature element uses a fusible alloy and an efficient heat collector. When activated, the external heat collector drops away to provide quick visual confirmation that the detector has operated.

Electrical Rating

6-28 VDC, 1 amp. (all models)

Ordering Information

Model Number	Description	Approvals/Listings & Max. Spacing*	Max. Ambient Temp.
302-135	135°F – Interior, terminals, vertical mount.	UL – 50x50 ft. FM – 20x20 ft.	100°F (38°C)
302-194	194°F – Interior, terminals, vertical mount.	UL – 50x50 ft. FM – 30x30 ft.	150°F (66°C)
302-AW-135	135°F – All-weather, vertical mount. ¹	UL – 50x50 ft. FM – 20x20 ft.	100°F (38°C)
302-AW-194	194°F – All-weather, vertical mount. ¹	UL – 50x50 ft. FM – 30x30 ft.	150°F (66°C)
302-ET-135	135°F – All-weather, 1/2" thread, vert. mount. ²	UL – 50x50 ft. FM – 20x20 ft.	100°F (38°C)
302-ET-194	194°F – All-weather, 1/2" thread, vert. mount. ²	UL – 50x50 ft. FM – 30x30 ft.	150°F (66°C)
302-EPM-135	135°F – Explosionproof, 1/2" thread, vert. mtd. ³	UL – 40x40 ft. N/A	100°F (38°C)
302-EPM-194	194°F – Explosionproof, 1/2" thread, vert. mtd. ³	UL – 40x40 ft. N/A	150°F (66°C)
AP-P	Adaptor plate required for mounting 302, 302ET and 302AW Models to 4 inch outlet box.		
5601P	Rate-of-rise and fixed temperature 135°F (57°C) with mounting plate and terminals. ⁴	UL – 50x50 ft. FM – 50x50 ft. ¹	100°F (38°C)
5602	Rate-of-rise and fixed temperature 194°F (90°C) with mounting plate and terminals. ⁴	UL – 50x50 ft. FM – 50x50 ft. ¹	150°F (66°C)
5603	Fixed temperature only, 135°F (57°C) with mounting plate and terminals. ⁴	UL – 25x25 ft. FM – 10x10 ft.	100°F (38°C)
5604	Fixed temperature only, 194°F (90°C) with mounting plate and terminals. ⁴	UL – 25x25 ft. FM – 10x10 ft.	150°F (66°C)

*Refer to NFPA Standard 72 for specific application requirements for installation and spacing. Detectors must not be painted.

¹FM rating shown is for rate of rise only. Fixed temperature (only) rating is 10x10 ft.

Important Notes:

1. Moisture and dustproof. Requires no special back box when the all-weather leads are properly spliced to "THW" or equivalent type wire.
2. Moisture and dustproof. Requires no special back box. Has plastic bushing with 1/2 inch conduit threads for attachment to threaded hub cover, or any outlet box. Must be hand tightened only.
3. Model 302-EPM - Explosion proof detector intended for use in fire alarm systems where wiring is enclosed in threaded rigid conduit, and related fittings are listed for use in hazardous locations, Class I, Groups C and D, and Class II, Groups E, F, and G. Bushing has hexagonal grip and 1/2 inch size conduit threads for attachment to threaded hub cover of fixture fittings that are listed for use in hazardous locations. Explosion proof mounting requires a Killark Electric JL Series splice box and hub cover, or equivalent. Must be hand tightened only. For interior use.
4. Each 5600 Series Detector includes a reversible mounting plate. It easily attaches to 3 1/2 inch and 4 inch octagonal boxes, single gang, and 4 inch square back boxes with a square to round plaster ring. All mounting screws are concealed.