**Eaton Product Datasheet**
UL Intelligent Addressable Fire Products

UL Addressable Sensors
Optical smoke sensor
Photo thermal sensor
Heat sensor

# UL Addressable Sensors



Left to right: Optical smoke sensor, photo-thermal sensor, heat sensor

Our UL range has multiple options for intelligent addressable sensors. All sensors are designed for optimum functionality in mid-large sized builds. They are all soft addressed and have integral short circuit isolators.

All UL addressable sensors are specifically designed for compatibility with the UL addressable sensor base (ULCAB300).

Details of the three sensors are included over the page.

**Benefits**

- Built-in short circuit isolators
- Stylish low profile design
- 360º viewable LED design
- Removable detector chamber
- Drift compensation
- Plug and play, no hard addressing required
- 'Clean me' feature means sensor can be cleaned on site using the Menvier manual cleaning procedure
- The programmable heat sensor reduces the number of parts required in the system

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### Optical smoke sensor

Suitable for most applications. Fastest response to slow burning or smouldering fires which give rise to large visible smoke particles.

### Photo-thermal sensor

Responds quickly to fast clean burning fires. Maintains the advantage of optical sensors when detecting smouldering fires. The thermal enhancement of this sensor allows a higher alarm threshold, providing greater rejection of false alarms. The sensor will also give an alarm at temperatures above 135°F.

### Heat Sensor

Rate of rise with fixed heat sensor settings will detect a rapid increase in temperature or temperatures above 135°F, and should be used in environments where the ambient conditions might cause false alarms if smoke detection were to be used, for example where there is a high level of dust, fumes, steam or smoke under normal conditions.
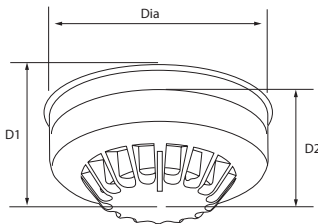
Fixed heat sensor settings will detect temperatures above 135°F or 194°F and should be used in environments where the ambient conditions might cause false alarms if smoke detection were to be used, for example where there is a high level of dust, fumes, steam or smoke under normal conditions.

For photoelectric and opto-heat operation the sensor automatically compensates for gradual increase in the scatter signal due to contamination e.g. dust build up.

## Technical Specification

| Code | ULCAP320 | ULCAPT340 | ULCAH330 |
|---|---|---|---|
| Description | Addressable Sensor, Optical | Addressable Sensor, Opto-Heat | Addressable Sensor, Multi-Mode Heat |
| Standards | UL268 | UL268 | UL521 |
| **Supply Ratings** | | | |
| Working Voltage | 18 V dc to 30 V dc | 18 V dc to 30 V dc | 18 V dc to 30 V dc |
| Voltage Waveform | Filtered dc +/- 1 V (max), ripple @120Hz | Filtered dc +/- 1 V (max), ripple @120Hz | Filtered dc +/- 1 V (max), ripple @120Hz |
| Standby Current | 220 μμA (average) | 220 μμA (average) | 220 μμA (average) |
| Alarm Current | 5 mA (max) | 5 mA (max) | 5 mA (max) |
| **Timings** | | | |
| Start-up Time | 2 seconds | 2 seconds | 2 seconds |
| Reset Time | 2 seconds (max) | 2 seconds (max) | 2 seconds (max) |
| **Sensitivity** | | | |
| Sensitivity | 2.55+/- 0.33%/ft | 2.55+/- 0.33%/ft | N/A |
| Sensitivity Checker | Use No-Climb, TRUTEST, UL Listing 77TL | Use No-Climb, TRUTEST, UL Listing 77TL | Use No-Climb, TRUTEST, UL Listing 77TL |
| **Heat Class** | | | |
| Heat Element Rating | N/A | 135°F | 135°F ROR + Fixed, + Fixed 135°F Fixed, 194°F Fixed |
| Heat Detector Spacing | N/A | 50ft (heat alone operation) | 50ft |
| **Physical** | | | |
| Mounting Position | Ceiling in open areas | Ceiling in open areas | Ceiling in open areas |
| IP Rating | IP40 | IP40 | IP40 |
| **Environmental** | | | |
| Operating Temperature | 32°F to 100°F | 32°F to 100°F | 32°F to 100°F / 32°F to 150°F (194°F setting) |
| **Compatibility** | | | |
| Compatibility Indentifier | W002 | W002 | W002 |
| Compatible Bases | WBA or UCAB300 | WBA or UCAB300 | WBA or UCAB300 |
| Suitable for use with | Eaton UL fire systems | Eaton UL fire systems | Eaton UL fire systems |

## Dimensions



| Description | Diameter (mm) (incl base) | Depth (mm) (excl base) | Depth (mm) (incl base) |
|---|---|---|---|
| Optical | 104 | 33 | 45 |
| Photo-thermal | 104 | 43 | 55 |
| Heat | 104 | 43 | 55 |

## Catalogue numbers

| Description | Code |
|---|---|
| Optical smoke sensor | ULCAP320 |
| Photo-thermal sensor | ULCAPT340 |
| Heat sensor | ULCAH330 |
| Addressable sensor base | ULCAB300 |