ULCAP320, ULCAPT340, ULCAH330
Intelligent addressable sensor

Left to right: Photoelectric smoke sensor, opto-heat 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 (UCAB300).

Details of the three sensors are included over the page.

Features and benefits

- Built-in short circuit isolators
- Stylish low profile design
- 360° 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 Eaton manual cleaning procedure
- The programmable heat sensor reduces the number of parts required in the system

Optical smoke sensor (ULCAP320)

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

Opto-heat sensor (ULCAPT340)

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.

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

Heat sensor (ULCAH330)

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.
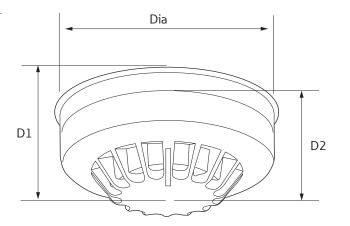
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Technical specification

Code	ULCAP320	ULCAPT340	ULCAH330
Description	Addressable sensor, photoelectric	Addressable sensor, opto-heat	Addressable sensor, multi-mode heat
Standards	UL268	UL268, UL521	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	135ºF	135ºF ROR + Fixed, + Fixed 135ºF Fixed, 194ºF 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	32ºF to 100ºF	32ºF to 100ºF	32ºF to 100ºF / 32ºF to 150ºF (194ºF setting)

Compatibility

Compatibility identifier	W002	W002	W002
Compatible bases	UCAB300	UCAB300	UCAB300
Suitable for use with	Eaton UL fire systems	Eaton UL fire systems	Eaton UL fire systems

Dimensions

Diameter (mm) (incl base)	104	104	104
Depth - D1 (mm) (incl base)	45	55	55
Depth - D2 (mm) (excl base)	33	43	43

Performance

Heat class	ULCAP320	ULCAPT340	ULCAH330
Heat element rating	N/A	135ºF	ROR + Fixed 135°F, Fixed 135°, Fixed 194°F
Heat detector spacing	N/A	50ft (heat alone operation)	50ft
Heat class	N/A	A2S	A2R

LEDs

LED state	LED state behaviour	System event
Off	LED is not illuminated.	Global flash is disabled**.
Slow flash	Momentary flash approximately once every 30 seconds*.	Global flash enabled. Detector is in quiescent state.
Fast flash	Momentary flash approximately 25 times per minute*.	>24 detectors are in fire state.
On	LED is constantly illuminated.	Detector is in fire state.

*Timing can vary depending on loop address quantities.

**Detector flash in quiescent state can be disabled via control panel menu (ULCF3000).

Catalogue numbers

Description	Code
ULCAP320 Optical smoke sensor	400005FIRE-0011X
ULCAPT340 Opto-heat sensor	400006FIRE-0012X
ULCAH330 Heat sensor	400007FIRE-0013X
Addressable sensor base	UCAB300

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4AC8
S24205
S35885
S35887