

# ULCSUM355 - UL shop monitor unit



An extensive range of interfaces are available to support the Eaton range of UL intelligent addressable control panels, providing solutions for most design requirements.

The UL shop monitor unit (ULCSUM355) is designed to enable small units with conventional fire detection to be fully integrated with a main intelligent addressable fire system.

This unit is ideal for applications such as connecting individual shop units into a main shopping centre system.

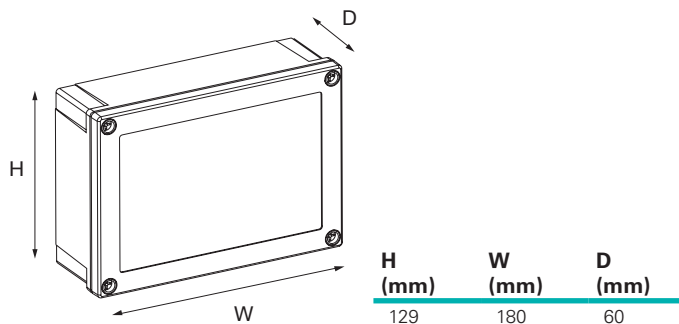
The UL shop monitor unit provides a zone of detection with up to 20 Eaton UL conventional detector/bases supported. It also supports a zone of pull stations as well as 2 conventional sounder circuits.

An external power supply is required to drive the 2 conventional sounder circuits. This power supply must be UL1481 listed, regulated for fire and current limited.

## Features and benefits

- Soft addressed
- Integral short circuit isolator
- Single address
- Accepts a zone of UL approved conventional detectors and pull stations
- Provides 2 conventional sounder circuits
- Includes a set of output changeover contacts (fire relay)
- Inputs monitored for open, short circuits and ground trouble
- Quick and simple to install
- No hard addressing required (Plug and play)
- Easy to expand a system using existing wiring
- Reduced installation cost by using the 2 sounder circuits

## Dimensions



## Installation

1. Separate the two halves of the unit and remove the PCB.
2. Drill out (or knock out) the required cable entries in the surface mounting back-box.
3. Fit the back-box in position and pass the wires into it. Refit the PCB.
4. Connect the unit according to the standard connection diagram supplied with the unit.

## Operation

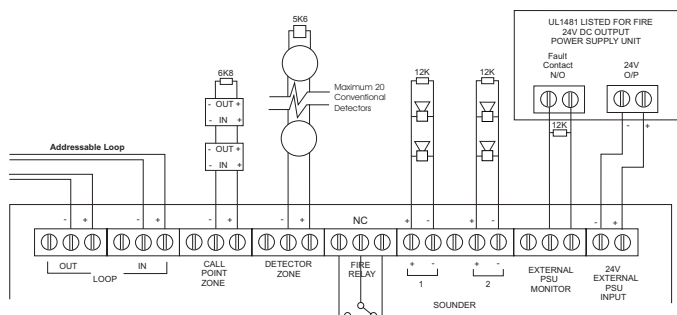
### Pull station zone:

Normal standby / alarm / nac silenced / alarm reset / fault / supervisory / drill

### Detector zone:

Normal standby / alarm / fault.

## Standard connections



### Note:

1. The end of line resistor must always be fitted, even if the inputs are unused.
2. Recommended cable type FPLP (plenum cable), type FPLR (riser cable), or type FPL.

| Description               | SLC field wiring (Input) | Pull station zone | De-tector zone  | Sounder 1 Sounder 2        | 24 V dc external supply  | PSU external monitor |
|---------------------------|--------------------------|-------------------|-----------------|----------------------------|--------------------------|----------------------|
| Wiring                    | 12                       | 12                | 12              | 12                         | 12                       | 12                   |
| Gauge                     | Max AWG                  | Max AWG           | Max AWG         | Max AWG                    | Max AWG                  | Max AWG              |
| Wiring                    | Class A Style 7          | Class B Style 7   | Class B Style C | Class B Style C            | N/A Style Y              | N/A                  |
| Ground fault impedance    | 0.1 ohm                  | 0.1 ohm           | 0.1 ohm         | 0.1 ohm                    | TBD Power Supply         | TBD Power Supply     |
| Supervised, Power limited | Yes                      | Yes               | Yes             | Regulated supervised Power | Supervised power limited | Supplementary        |

## Technical specification

| Code   | ULCSUM355  |
|--|--|
| Description  | Shop monitor unit  |
| Standards  | UL864 9th edition  |
| <b>Signalling line circuit (Style 7, Class A, Supervised, Power Limited)</b> |  |
| Voltage  | 24V dc   |
| Current  | 4.9mA to 5.0mA   |
| Line impedance   | 50Ω (max)  |
| <b>Detector zone (Style C, Class B, Supervised, Power Limited )</b>          |  |
| Voltage  | 21V dc to 26V dc, 22.9V dc (nom)                               |
| Current (alarm)  | 17mA to 40mA   |
| Line impedance   | 2.5Ω (max)   |
| End of line resistor   | 5.6kΩ  |
| Fire input trigger   | 680Ω<br>UPCD-2W, UCPT-2W, UCHRI-2W, UCHT-2W, UCHR-2W, UCHTI-2W |
| Compatibility identifier   | ULCV1  |
| <b>Sounder 1, sounder 2 (Style Y, Class B, Supervised, Power Limited)</b>    |  |
| Voltage  | 24V dc   |
| Current  | 1A (max)   |
| Line impedance   | 8Ω   |
| End of line resistance   | 12kΩ   |
| <b>Pull station zone (Style C, Class B, Supervised, Power Limited)</b>       |  |
| Voltage (8.4 Vpp pulsed every 1 sec)   | 8.4V   |
| Current  | 1.2mA  |
| Line impedance   | 16Ω  |
| End of line resistor   | 6.8kΩ  |
| Trigger resistor   | 680Ω   |
| <b>24 V external PSU (Supervised, Power Limited)</b>                         |  |
| Voltage  | 24V dc   |
| Current  | 2A (max)   |
| End of line resistor   | 12kΩ   |
| Line impedance   | 4Ω   |
| Gauge wire   | 12 AWG<br>UL 1481 listed regulated for fire, current limited   |
| <b>Environmental</b>   |  |
| Operating temperature  | 0°C to 49°C  |
| Humidity (non condensing)  | 0 to 93 %RH  |
| <b>Physical</b>  |  |
| Dimensions (H x W x D)   | 129mm x 180mm x 60mm   |
| Weight   | 0.28kg   |
| Ingress protection   | IP65   |
| <b>Compatibility</b>   |  |
| Suitable for use with  | Eaton UL fire systems  |

## Catalogue numbers

| Description       | Code      |
|-------------------|-----------|
| Shop monitor unit | ULCSUM355 |