

# Halton Safe Management (HSM) – Control centre



## Overview

**Terminated as of 1st January 2021**

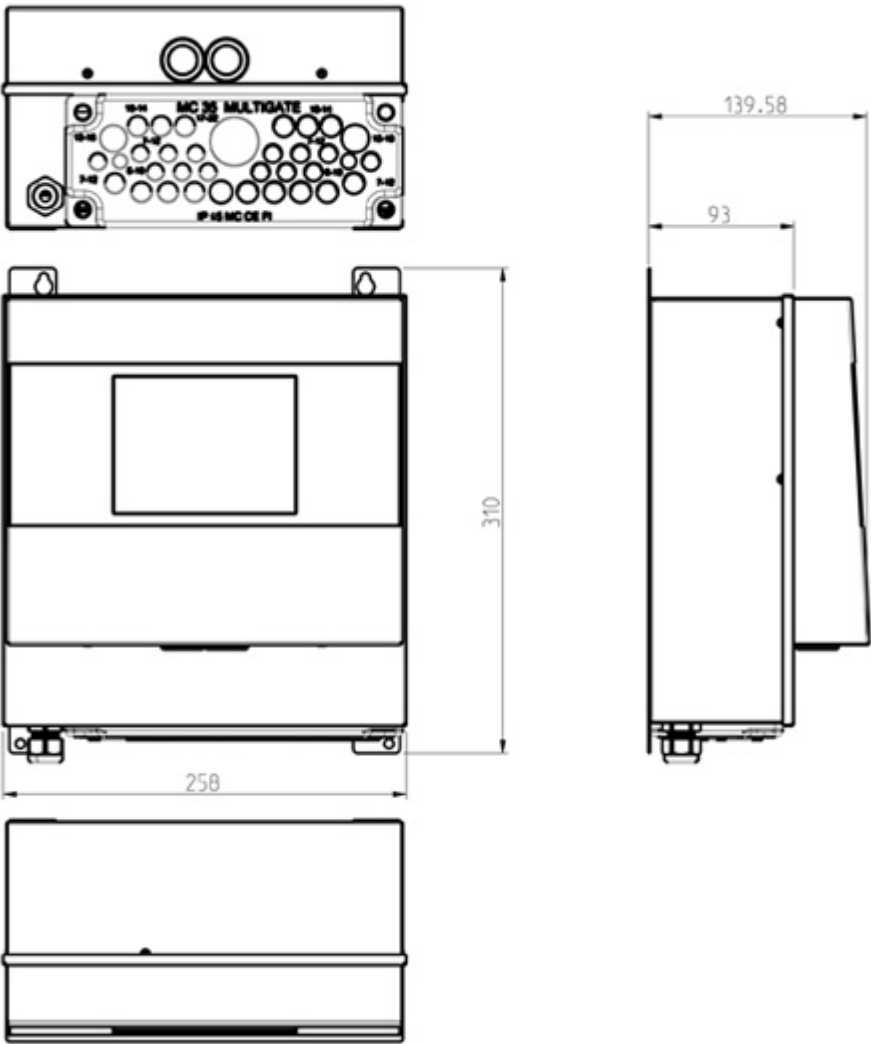
**-> replaced with Halton Safe Management 2.0 (SM2)**

- The Halton Safe HSM control centre is used in combination with Halton fire dampers equipped with an actuator (operating voltage: 24 V).
- It controls the shutoff operation of fire dampers when a fire breaks out (by means of a thermal fuse, smoke detection, or an external alarm input).
- Enables time-controlled, external or manual testing of fire damper operation.
- It produces reports on the operation test.
- The Halton Safe HSM shuts off the fans during test operation and in a fire situation (optional).
- It has outputs for remote fire and service alarm indication.
- It also has local alarm indication for fire and service alarm conditions.
- Easy implementation
- The system is used with a 5.7" graphical touchscreen.
- An Halton Safe HSM management unit can have up to 200 fire dampers and 200 smoke detectors connected to it.

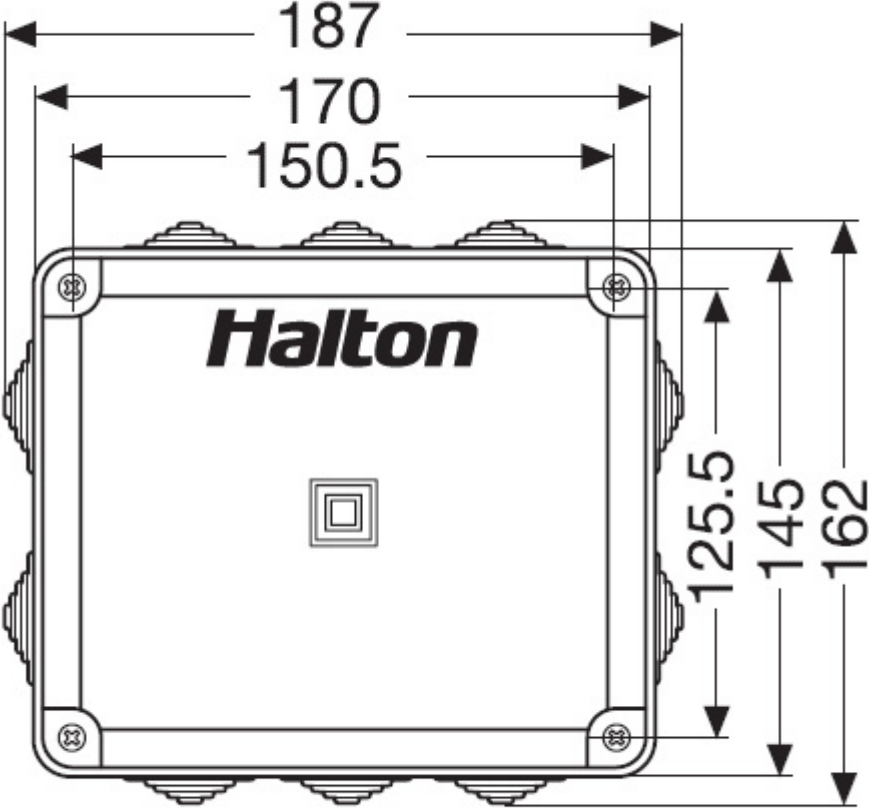
## Product models and accessories

- The central unit of Halton Safe HSM control centre can be modularly extended with Halton Safe Link control units (HSL), to which the fire dampers and smoke detectors are connected. You can connect 1–4 fire dampers and 1–4 smoke detectors to one Safe Link control unit. Optionally You can order a special version of Safe Link that can connect 1-12 smoke detectors but zero fire dampers. The unit's internal control logic is used in their management. Fire dampers and smoke detectors can be clustered into as many as 15 groups, enabling the system to respond to a fire alarm by closing only those fire dampers that are in the affected fire compartment.
- You can connect up to six Halton Safe Link (HSL) control units to a Halton Safe Power (HSP) 24 V unit.
- You can add a battery pack for the power failure operational in the main control unit.
- The system can be equipped with an optional 3G remote connection that makes all of the touchscreen's functions available via a Web browser.
- Smoke detectors for duct or room installation

# Dimensions



# Halton Safe Power (HSP) and Link (HSL)



## Material

Part	Material	Finishing	Note
Halton Safe HSM	Plastic	White	IP40, Power supply 230VAC 5,7" touchscreen
Halton Safe Link (HSL)	Plastic	White	IP55, polystyrene casing (UL94V-0, IEC 695-2-1)
Halton Safe Power (HSP)	Plastic	White	IP55, polystyrene casing (UL94V-0, IEC 695-2-1)

# Accessories

Model / Accessory	Code	Description	Note
Halton Safe, control centre	HSM	A control centre to which you can connect up to 50 Halton Safe Link control units.	The operating voltage is 230 VAC
Halton Safe, Link	HSL	Extension of the Halton Safe control centre modularly with Halton Safe Link control units, to which the fire dampers and smoke detectors are connected.	You can connect 1–4 fire dampers and 1–4 smoke detectors to one Halton Safe Link control unit.
Halton Safe, Power	HSP	System allowing you to connect up to six Halton Safe Link (HSL) control units to a transformer	24 VAC
Optical smoke detector	HSM/D	Model with connection to ductwork	Calectro UG-3-O IP54
Optical smoke detector	HSM/R	A model for room installation	Calectro ST-P-DA IP54
Aerosol	HSM/S	Container for smoke test	Calectro RDP-300

Smoke detectors for duct installation are delivered complete with installation base for round and insulated ductwork and with 600-mm Venturi tube.

# Smoke bottle



# Assembly stand for a duct smoke detector



**Smoke detector, duct installation**



**Smoke detector, ceiling installation**



# Function

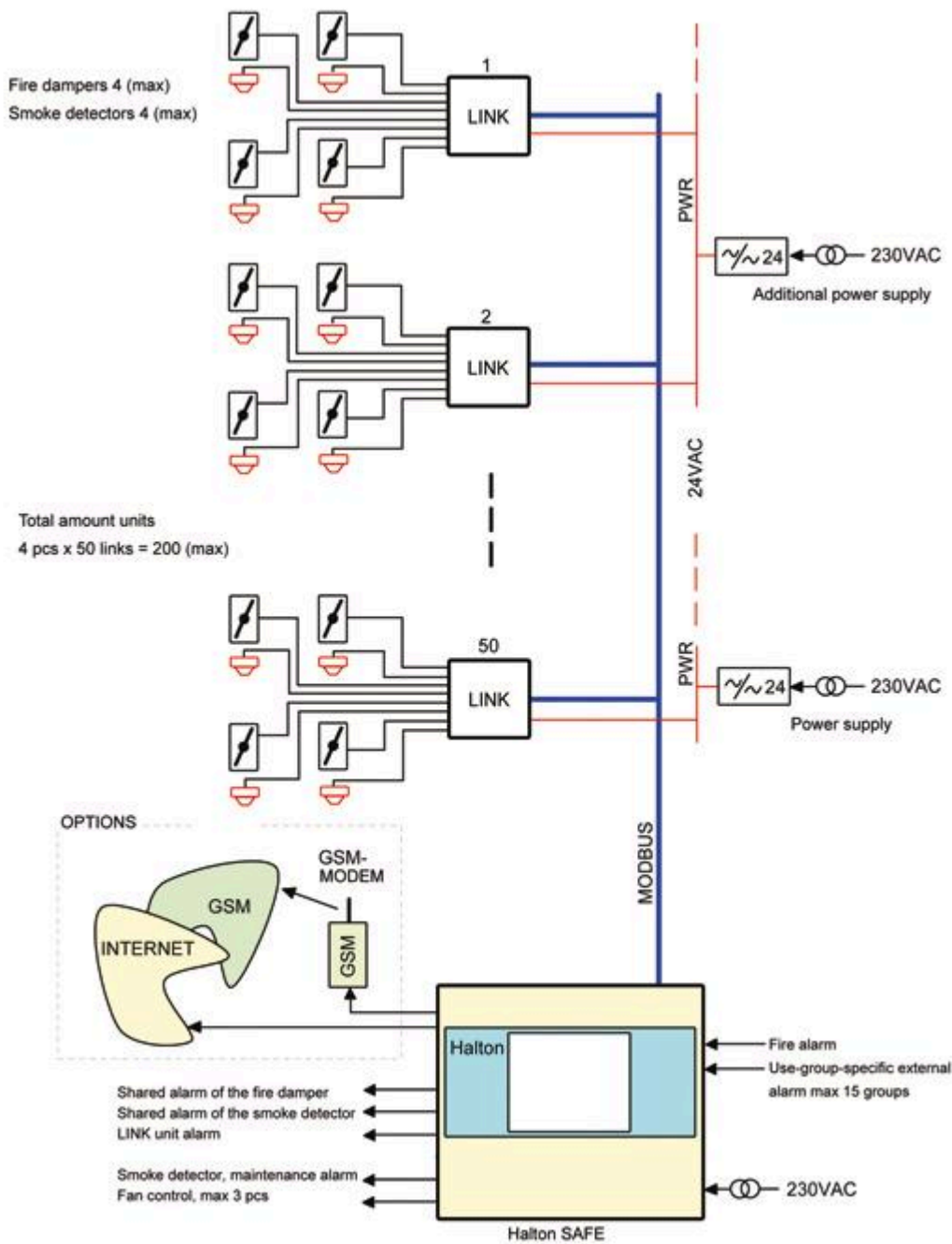
The central unit can be modularly extended with Halton Safe Linki control units, to which the fire dampers and smoke detectors are connected. You can connect 1–4 fire dampers and 1–4 smoke detectors to one SAFE LINK control unit. The unit's internal control logic is used in their management.

Fire dampers and smoke detectors can be clustered into as many as 15 groups, enabling the system to respond to a fire alarm by closing only those fire dampers that are in the affected fire compartment. Each fire damper or SAFE LINK control unit can also be set to function as an independent group.

The fire dampers can be automatically tested weekly, at a time specified by the user. The system creates a report on the tests carried out, indicating the functionality of each fire damper. The system is used with a 5.7" graphical touchscreen, through which all necessary user operations can be performed. The system can be equipped with an optional 3G remote connection that makes all of the touchscreen's functions available via a Web browser.

In the event of a power cut or a fault in the Halton Safe central unit, the Halton Safe Link control units operate independently. If a Halton Safe Link control unit loses its 24 VAC operating voltage because of a fire or a power cut, the fire dampers are closed by a spring. It is also possible to connect a backup battery to the central unit, so that the system can relay alarms even in the event of a power cut. The operating voltage of the Halton Safe control centre is 230 VAC.





## Installation

The Halton Safe central unit is delivered with a main cable that is connected to an earthed socket. The mains cable also serves as the Halton Safe disconnect device. The Halton Safe control centre is usually composed of an I/O and central unit installed in the control centre cabinet.

The central unit features a 5.7" touchscreen, attached to the front panel of the control centre cabinet. The control centre can also be installed on top of the I/O unit or next to it. If necessary, it may be even further from the I/O unit – for example, in another room. The I/O unit is connected by driving screws through the flanges at its corners. After making the connections, install a white spacer plate on top of the unit by tightening screws into the four holes on its surface.

If the central unit is attached on top of the I/O unit, also the metallic spacer plate must be attached with these screws. When you are attaching the central unit directly to the wall, the space plate is attached to the wall by drilling. The central unit is secured at the bottom with two screws.

For more information about electrical connections, see the separate user and installation guide.

## Servicing and alarms

The Halton Safe control centre (HSM) and Halton Safe Link (HSL) control unit do not need any special servicing.

The Calectro smoke detectors for duct or ceiling installation issue the following alarms:

- **Service** = This situation occurs when the detector's contamination passes a certain threshold. The alarm does not close the fire dampers.
- **Alarm** = This closes those fire dampers in the smoke detector's use group.
- **Short Cut** = This means that there is a short circuit in the smoke detector's cable. This causes the fire dampers in the smoke detector's use group to close.
- **Broken line** = This means that the cable to the smoke detector is broken. The fire dampers in the relevant smoke detector's use group are closed.

The smoke detectors are cleaned according to instructions provided by Calectro.

## Commissioning

Commissioning instructions are available in tab "Documentation" = 'User guide Halton Saf' – operation and installation instructions' manual, supplied with the product.

Halton supplies its customers with support service for commissioning, in accordance with the following table. Ask for a quote from Halton Sales.

Name of the service	Service contents	Customer's responsibilities
Testing	Halton tests the system's operation, inspects the fire dampers and smoke detectors on-site to verify their correct operation, and supplies a test report.	The Client does wiring of the system and assigns addresses for the fire and smoke dampers. All wirings should be done and the system should be operational before testing.
Commissioning	Commissioning includes programming of the functions and indication of the addresses for the fire dampers. <b>Also includes the Testing package</b>	The Client does wiring of the system and assigns addresses for the fire and smoke detectors. All wirings should be done and the system should be operational before commissioning..
System wiring (24V)	Halton does wiring between the central system and other system components . <b>This is additional service to the Commissioning package (Package 2).</b>	The Client connects the power cable, attaches Halton Link according to the designs and does wiring for the system components
Damper locations	Halton programs fire damper location drawings (By floor/by vertical shafts) to the central system. <b>This is additional service to the Commissioning package (Package 2).</b>	The Client supplies the final design documents
Repairs	Upon request, Halton rectifies the faults and deficiencies found during the inspection.	The Client commits in advance to compensating for the extra work caused by the repairs. Optionally, Halton provides the customer with an error report, with repair work subject to separate negotiations. In practice, this results in a higher price

## Specification

### The Halton Safe management system for 200 fire dampers and 200 smoke detectors.

The central unit for Halton Safe HSM can be modularly extended with Halton Safe Link control units, to which the fire dampers and smoke detectors are connected. Communication protocol

between the central unit and LINK units is based on the Modbus protocol. It is possible to connect 1–4 fire dampers and smoke detectors to one Halton Safe Link control unit (optionally special Link is capable of connecting 1-12 smoke detectors and zero fire dampers).

The unit's internal control logic is used in their management. Fire dampers and smoke detectors can be clustered into as many as 15 groups, enabling the system to respond to a fire alarm by closing only those fire dampers that are in the affected fire compartment.

Each fire damper or Halton Safe Link control unit can also be set to function as an independent group. The fire dampers can be automatically tested weekly, at a time specified by the user. The system creates a report on the tests carried out, indicating the functionality of each fire damper. The system is used with a 5.7" graphical touchscreen, through which all necessary user operations can be performed. The system can be equipped with an optional 3G remote connection that makes all of the touchscreen's functions available via a Web browser.

In the event of a power cut or a fault in the Halton Safe central unit, the Halton Safe Link control units operate independently. If a Halton Safe Link control unit loses its 24 VAC operating voltage because of a fire or a power cut, the fire dampers are closed by a spring. It is also possible to connect a backup battery to the central unit, so that the system can relay alarms even in the event of a power cut.

The damper test function shall be triggered by an automatic function at adjustable intervals, manually, or from an external system. The system shall be able to shut off the fans for the duration of the test cycle.

In the case of fire, the management system shall be able to close all of the fire dampers and shut off the ventilation fans in a common service area. The fire alarm shall be activated by a thermal fuse or a fire damper, a smoke sensor alarm, or an external alarm indication.

The unit shall be constructed in a cabinet, which shall be easy to install on site. The cabinet shall meet the requirements for protection class IP40.

Smoke detectors shall be for ductwork or room installation.

## Order Code

### Halton Safe system (components)

HSM	Halton Control centre
HSL	Halton Safe Link
HSP	Halton Safe Power

### Product characteristics for Halton Safe HSM

**S = Model**

C Control centre

D Smoke detector, duct (Calectro UG-3-0)

- R Smoke detector, room (Calectro ST-P-DA)
- S Test smoke aerosol (Calectro RDP-300)

**ZT = Tailored product (ETO)**

- N No
- Y Yes

## Code example

HSM/D, ZT=N