

## DF6000 Range Control Panels



DF6000 control panel with printer



DF6000 graphite control panel with protective cover and printer



rack mounted panels

### Overview

The Menvier DF6000 is a high specification intelligent addressable control panel available in various loop configurations. It combines sophisticated functionality with simple operation and a very aesthetically pleasing design.

The large capacity, ability to support complex cause and effect programming and wide range of user controllable functions make the system suitable for a diverse range of projects from sheltered housing to large office developments and industrial applications.

DF6000 uses soft addressing to minimise installation time and remove the potential for error associated with manual addressing.

The DF6000 can operate as a stand alone panel or as part of a networked system. They have powerful programming options that allow configurable control over whether messages from specific panels are transmitted around the network or remain local.

The DF6000 panel has integral power supply and batteries the batteries are supplied with the panel as standard.

An extensive range of compatible intelligent addressable systems ancillaries are available to work with the DF6000 all of which incorporate an integral short circuit isolator to provide maximum protection against short circuits on the external loop.

### Features

- 1, 2 and 4 loop versions
- Spur tolerant soft addressing
- Full network capability
- Optional integral printer
- Integral battery and power supply
- 200 addresses per loop
- Charger with temperature compensation built in
- Checks battery capacity

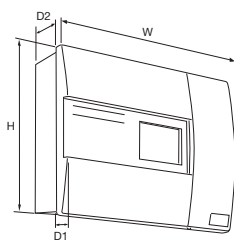
### Benefits

- Simple end user interface
- Range of compatible ancillaries
- Easy to design system
- System Integrity
- Battery life can be extended

## Technical Specification

Code	DF60001	DF60002	DF60004
Description	1 loop control panel	2 loop control panel	4 loop control panel
Standards	EN54 Pt2 & Pt4 1998, EN50130 Pt4 1996, EN50130-4	EN54 Pt2 & Pt4 1998, EN50130 Pt4 1996, EN50130-4	EN54 Pt2 & Pt4 1998, EN50130 Pt4 1996, EN50130-4
<b>Specification</b>			
Number of Loops	1	2	4
Addresses per Loop	200	200	200
Number of Conventional Sounder Circuits	4 monitored for open and short circuit	4 monitored for open and short circuit	4 monitored for open and short circuit
Auxiliary Fire Routing Equipment Output (Monitored)	24V 30mA (max)	24V 30mA (max)	24V 30mA (max)
Auxiliary Fire Protection Equipment Output (Monitored)	24V 30mA (max)	24V 30mA (max)	24V 30mA (max)
Auxiliary Fault Routing Equipment Output (Monitored)	12V 30mA (max)	12V 30mA (max)	12V 30mA (max)
System Operating Voltage	24V dc (nom)	24V dc (nom)	24V dc (nom)
Mains Input Supply	230V ac +10% / -15%	230V ac +10% / -15%	230V ac +10% / -15%
Class Change Facility	Terminals for connection of external contacts, can also be instigated via input interface	Terminals for connection of external contacts, can also be instigated via input interface	Terminals for connection of external contacts, can also be instigated via input interface
Auxiliary Relay	1 set of changeover contacts operate in event of fire condition	1 set of changeover contacts operate in event of fire condition	1 set of changeover contacts operate in event of fire condition
Output Ports	RS485, RS232 for connection of repeaters etc	RS485, RS232 for connection of repeaters etc	RS485, RS232 for connection of repeaters etc
Standby Duration	Dependant on loop loading and battery configuration	Dependant on loop loading and battery configuration	Dependant on loop loading and battery configuration
Battery	2 x 12Ah (standard versions)	2 x 12Ah (standard versions) 4 x 12Ah (EB versions)	2 x 12Ah (standard versions) 4 x 12Ah (EB versions)
<b>Environmental</b>			
Operating Temperature	-5°C to +40°C	-5°C to +40°C	-5°C to +40°C
Humidity (Non Condensing)	0 to 75% RH	0 to 75% RH	0 to 75% RH
<b>Physical</b>			
Construction	Back box - mild steel, front door - PC/ABS	Back box - mild steel, front door - PC/ABS	Back box - mild steel, front door - PC/ABS
Dimensions (H x W x D)	Standard versions: 395mm x 495mm x 180mm	Standard versions: 395mm x 495mm x 180mm EB versions: 395mm x 495mm x 280mm	Standard versions: 395mm x 495mm x 180mm EB versions: 395mm x 495mm x 280mm
Weight	18kg	18kg	18kg
Ingress Protection	IP30	IP30	IP30
Cable entries	Top: 31 cable knockouts (20mm) Back: 12 cable knockouts (20mm)	Top: 31 cable knockouts (20mm) Back: 12 cable knockouts (20mm)	Top: 31 cable knockouts (20mm) Back: 12 cable knockouts (20mm)
System Networking	Fully networkable up to 126 panels (requires additional network card - 1 per panel)	Fully networkable up to 126 panels (requires additional network card - 1 per panel)	Fully networkable up to 126 panels (requires additional network card - 1 per panel)

## Dimensions



Description	H (mm)	W (mm)	D1 (mm)	D2 (mm)
Standard	395	495	55	125
EB	395	495	55	225

**Note:** If surface mounting add D1 and D2 to obtain depth dimension.

## Product Codes

Code	Description
DF60001	1 loop control panel
DF60002	2 loop control panel
DF60004	4 loop control panel
DF60001P	1 loop control panel, integral printer
DF60002P	2 loop control panel, integral printer
DF60004P	4 loop control panel, integral printer
DF60001G	1 loop control panel, graphite finish
DF60002G	2 loop control panel, graphite finish
DF60004G	4 loop control panel, graphite finish
DF60001PG	1 loop control panel, integral printer, graphite finish
DF60002PG	2 loop control panel, integral printer, graphite finish
DF60004PG	4 loop control panel, integral printer, graphite finish
DF60002EB	2 loop control panel, extended battery
DF60004EB	4 loop control panel, extended battery
DF60002PEB	2 loop control panel, integral printer, extended battery
DF60004PEB	4 loop control panel, integral printer, extended battery
DF60002GEB	2 loop control panel, graphite finish, extended battery
DF60004GEB	4 loop control panel, graphite finish, extended battery
DF60002PGEB	2 loop control panel, graphite finish, integral printer, extended battery
DF60004PGEB	4 loop control panel, graphite finish, integral printer, extended battery
NC	Add to end of product code if network card required
DF6000NETKIT	Network kit (for retor fit)
DF6000COV	Hinged protective cover kit
DF6000PR	Passive repeater panel
DTPR6000	Touch screen repeater panel
39UECRACK	19" rack, 39 units high*
MFALOG	Fire alarm system log book

\* For further information on the 39UERACK 19" rack and associated panels contact Cooper Fire technical support: 01302 303350

## Installation

1. Standard panel is designed for surface or recessed mounting (without the need for an additional bezel).
2. Cable entry is by means of top entry knockouts in the metal back box, along with a substantial rear entry cutout.
3. Panels are wall mounted via keyhole/slot mounting holes on back of housing.
4. Front cover retained by screws, accessed after opening the printer bay door.
5. Flush mounting requires suitable aperture and fixings.
6. Mains input protection is provided by a polyswitch.
7. All external wiring should be in accordance with relevant section of latest edition of BS5839-Pt1.
8. Comprehensive installation and operation manual provided with each system.
9. Maximum length of network cable loop is 1500 metres, beyond this distance or where cables pass between buildings, boosters will be required.

## System Functionality

1. Panel has 3 modes of operation, normal mode, user maintenance mode and engineer mode.
2. User maintenance and engineer modes can only be accessed by entering relevant pass codes
3. Maintenance mode allows access to system test functions, enable and disable menus, view analogue level menus and functions such as evacuate, silence alarms and reset.
4. Engineer mode allows alteration of system configuration and programming of site specific data such as device text and sounder programming.
5. Engineer mode also allows adding and removal of devices and alteration of existing text.
6. DF6000 is designed to ensure simplicity of future expansion. If an additional device is added after the system has been programmed, the DF6000 will allocate the next available address, it will not alter any of the existing address number allocation thus enabling simple updating of 'as fitted' drawings etc. Similarly if a device is removed, the relevant address is saved as a spare address for future use, the addresses of the remaining devices are not affected.
7. All devices are soft addressed during commissioning however once allocated, addresses are locked until manually altered thus enabling simple system additions and deletions without affecting other addresses.
8. In event of an external short circuit occurring, short circuit isolators on output of devices nearest to each side of the short circuit open thus isolating the short circuit. The panel then drives communication from both ends of the loop thus maintaining full communication with all devices.

## User Interface

1. The main element of the user interface with DF6000 is a large (120mm x 90mm visible area) touch screen display, which provides comprehensive user information and also acts as a multifunctional keypad. With other more basic systems, the user is limited to a small number of dedicated pushbuttons and consequently system interaction is restricted and complicated.
2. Comprehensive context sensitive help information is provided throughout the menus to assist unfamiliar users with system operation.
3. The DF6000 touch screen display automatically reconfigures to suit the selected function, for example, if the change device text menu option is selected, the touch screen is automatically formatted as a full QWERTY keyboard to enable fast and simple text entry.
4. As well as a large format LCD display providing full system status information, the panel incorporates 96 traditional zone indication LED's to provide clear information about the status and spread of a fire even to a user who is completely unfamiliar with the operation of the system. In addition there are a number of system status LED's designed to give clear status information to non technical users
5. Access to printer (when fitted) is via separate locked access door. Paper can be changed by non skilled personnel without exposure to any live components.
6. The printer can either be set to print on demand or to automatically print all system events as they occur.
7. The hinged front door provides simple access to all internal components and wiring.
8. The panel door cannot be opened without the use of a special key (supplied with panel).
9. For applications requiring a high level of resilience, a clear hinged lockable front cover is available that still allows full system visibility but prevents unauthorized access to the touch screen.

## Detection Capacity

1. Up to 200 addresses per loop which can be a mixture of callpoints, detectors, interfaces loop sounders or repeaters.
2. To comply with EN54 requirements no more than 512 addresses should be connected to a single panel.
3. Panels are available with up to 4 detection loops, up to 126 panels can be networked together giving a total system capacity of over 32,000 devices.

## Alarm Capacity

1. Up to 80 loop powered outputs per loop (60 sounders/beacons and 20 I/O units).
2. 3 stages of cause and effect programming per output device.
3. Depending on loop load up to 3A of panel connected conventional sounders.
4. Additional conventional sounders can be connected via loop connected MPU424 units.

## Interface Options

- Monitored output to fire routing equipment.
- Monitored output to fire protection equipment.
- Monitored output to fault monitoring equipment.
- Multiple Programmable remote inputs can be set:
  - Override of day night mode setting
    - Photo-thermal detectors go to thermal only.
    - Rate of rise detectors go to fixed high temperature mode.
    - High temperature heat detectors go to rate of rise mode.
- Disabling of pre assigned group of addresses.
- Class change.
- Non latching zone input.
- Evacuate.
- 4 Conventional sounder circuits provided.
- Zone monitor units can be used to connect zones of suitable conventional detectors and callpoints.
- Sounder circuit controllers can be used to provide additional conventional sounder circuits without wiring back to main panel.
- Mains rated input/output unit available.
- 3 way 24V rated input/output unit available.
- Spur isolator available to allow spurs of intelligent addressable devices.
- Compact input and output modules available
- Shop unit interface allows the connection of a conventional detection zone along with a power supply and 2 conventional sounder circuits, ideal for linking small self contained units onto a main addressable panel.

## System Networking

DF6000 and DF6100 systems can both be networked together. Up to 126 DF6000 panels, DF6100 panels and low cost repeaters can be networked together to operate as a single networked system.

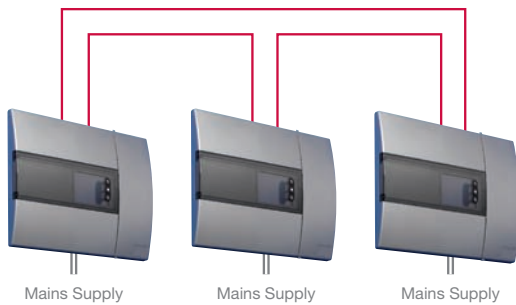
To achieve this each panel must be fitted with a network card (optional extra). When operating as a networked system all fire and fault event information can be displayed at every panel.

Panels can be configured by service engineers to control whether fire and fault information from each panel is transmitted around the network or not.

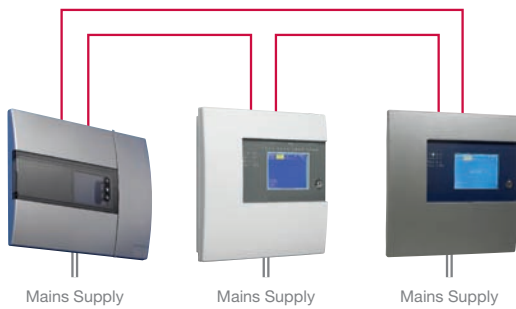
Silencing and resetting of alarms can also be carried out from any panel on a networked system.

Networked panels are connected using a loop topology as illustrated.

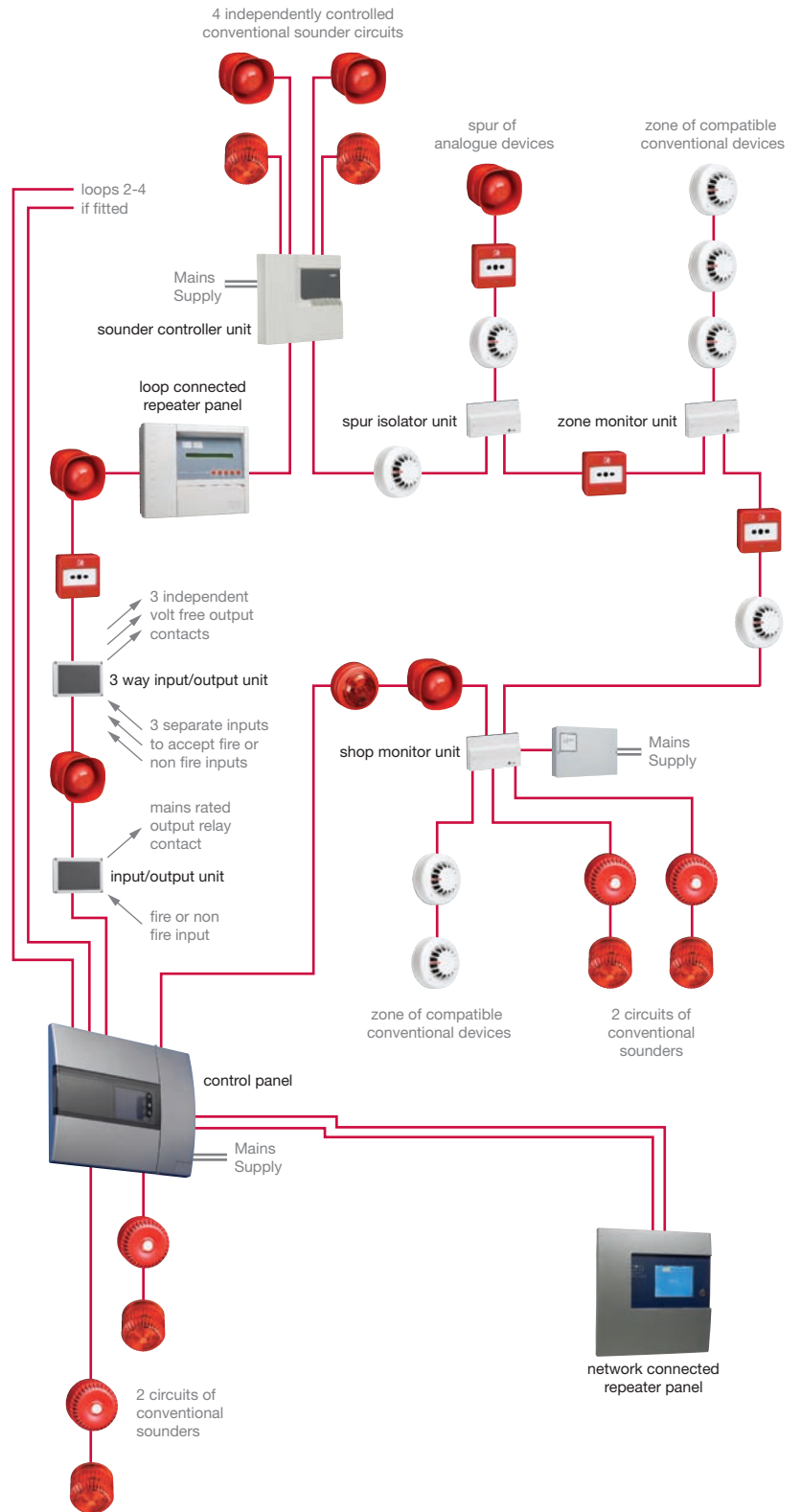
## Networking DF6000



## DF6000, DF6100 and DTPR6000



## Typical System Architecture



## DF6100 Control Panels



DF6100 control panel, interior



DF6100 control panel

### Overview

The Menvier DF6100 range is available as a high specification 1 or 2 loop intelligent addressable control panel, offering sophisticated functionality with simple end user operation.

The simplicity of operation, powerful cause and effect programming capability, and competitive pricing make the system suitable for a wide range of small to medium sized projects.

DF6100 uses soft addressing to minimise installation time and remove the potential for error associated with manual addressing.

These panels can operate as a stand alone panel or as part of a network with the Menvier range of DF6000 panels or other DF6100 panels, (additional network card required).

The DF6100 panel has an integral power supply and is supplied with batteries as standard.

An extensive range of compatible intelligent addressable system ancillaries are available to work with the DF6100 all of which incorporate an integral short circuit isolator to provide maximum protection against short circuits on the loop.

### Features

- Large versatile touch screen display
- Competitive single or two loop system
- Spur tolerant soft addressing
- Large selection of compatible ancillaries
- Full network capability
- Integral battery and power supply
- 200 address capacity per loop
- Approved to EN54 Pt13 and EN54 Pt2 and Pt4

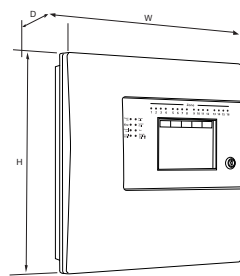
### Benefits

- Simple end user interface
- Range of compatible ancillaries
- System protocol allows fast and accurate configuration

## Technical Specification

Code	DF6100	DF61002
Description	1 loop control panel	2 loop control panel
Standards	EN54 Pt2 1997 & 2006: A1, EN54 Pt4 1997 & 2002: A1 EN54 Pt13, EN50130-4	EN54 Pt2 1997 & 2006: A1, EN54 Pt4 1997 & 2002: A1 EN54 Pt13, EN50130-4
<b>Specification</b>		
Number of Loops	1	2
Addresses per Loop	200	200
Number of Conventional Sounder Circuits	2 monitored for open and short circuit (max 1.5A combined)	2 monitored for open and short circuit (max 1.5A combined)
Auxiliary Fire Routing Equipment Output (Monitored)	24V dc 30mA (max)	24V dc 30mA (max)
Auxiliary Fire Protection Equipment Output (Monitored)	24V dc 30mA (max)	24V dc 30mA (max)
Auxiliary Fault Routing Equipment Output (Monitored)	12V dc 30mA (max)	12V dc 30mA (max)
System Operating Voltage	24V dc (nom)	24V dc (nom)
Mains Input Supply	230V ac +10% / -15%	230V ac +10% / -15%
Class Change Facility	Terminals for connection of external contacts, can also be instigated via input interface	Terminals for connection of external contacts, can also be instigated via input interface
Auxiliary Relay	1 set of changeover contacts operate in event of fire condition	1 set of changeover contacts operate in event of fire condition
Output Ports	RS485, RS232 for connection of repeaters etc	RS485, RS232 for connection of repeaters etc
Standby Duration	Dependant on loop loading and battery configuration	Dependant on loop loading and battery configuration
Battery	2 x 7Ah	2 x 7Ah
<b>Environmental</b>		
Operating Temperature	-5°C to +40°C	-5°C to +40°C
Humidity (Non Condensing)	0 to 75% RH	0 to 75% RH
<b>Physical</b>		
Construction	Steel back box	Steel back box
Dimensions (H x W x D)	375mm x 375mm x 95mm	375mm x 375mm x 95mm
Weight	8kg	8kg
Ingress Protection	IP30	IP30
Cable entries	Top: cable knockouts (20mm) Back: cable aperture	Top: cable knockouts (20mm) Back: cable aperture
System Networking	Fully Networkable up to 127 panels (requires additional network card, per panel)	Fully Networkable up to 127 panels (requires additional network card, per panel)

## Dimensions



H (mm)	W (mm)	D (mm)
375	375	95

## Product Codes

Code	Description
DF6100	Intelligent addressable 1 loop control panel
DF61002	Intelligent addressable 2 loop control panel
DF6100VDS	Intelligent addressable 1 loop control panel (VDS Approved)
DF61002VDS	Intelligent addressable 2 loop control panel (VDS Approved)
NC	Add to end of product code if network card required
DF61NETKIT	Network kit (retro fit)
DF6000PR	Passive repeater panel
DTPR6000	Touch screen repeater panel
MFALOG	Fire alarm system log book

## Installation

1. Panel is designed for surface or recessed mounting (without the need for an additional bezel).
2. Cable entry is by means of top entry knockouts in the metal back box, along with a substantial rear entry cutout.
3. Panels are wall mounted via keyhole/slot mounting holes on back of housing.
4. Key operated hinged lockable door provides access to all internal wiring.
5. Cable entry can either be top or rear.
6. Mains input protection is provided by integral fuse
7. All external wiring should be in accordance with relevant section of latest edition of BS5839-Pt1.
8. Comprehensive installation and operation manual provided with each system.

## System Functionality

1. Panel has 3 modes of operation, normal mode, user maintenance mode and engineer mode.
2. User maintenance and engineer modes can only be accessed by entering relevant pass codes
3. Maintenance mode allows access to system test functions, enable and disable menus, view analogue level menus and functions such as evacuate, silence alarms and reset.
4. Engineer mode allows alteration of system configuration and programming of site specific data such as device text and sounder programming.
5. Engineer mode also allows adding and removal of devices and alteration of existing text.
6. DF6100 is designed to ensure simplicity of future expansion. If an additional device is added after the system has been programmed, the DF6100 will allocate the next available address, it will not alter any of the existing address number allocation thus enabling simple updating of 'as fitted' drawings etc. Similarly if a device is removed, the relevant address is saved as a spare address for future use, the addresses of the remaining devices are not affected.
7. All devices are soft addressed during commissioning however once allocated, addresses are locked until manually altered thus enabling simple system additions and deletions without affecting other addresses.
8. In event of an external short circuit occurring, short circuit isolators on output of the devices nearest to each side of the short circuit open thus isolating the short circuit. The panel then drives communication from both ends of the loop thus maintaining full communication with all devices.

## User Interface

1. The main element of the user interface with DF6100 is a large (120mm x 90mm visible area) touch screen display, which provides comprehensive user information and also acts as a multifunctional keypad. With other more basic systems, the user is limited to a small number of dedicated pushbuttons and consequently system interaction is restricted and complicated.
2. Comprehensive context sensitive help information is provided throughout the menus to assist unfamiliar users with system operation.
3. The DF6100 touch screen display automatically reconfigures to suit the selected function, for example, if the change device text menu option is selected, the touch screen is automatically formatted as a full QWERTY keyboard to enable fast and simple text entry.
4. As well as a large format LCD display providing full system status information, the panel incorporates 16 traditional zone indication LED's to provide clear information about the status and spread of a fire even to a user who is completely unfamiliar with the operation of the system. In addition there are a number of system status LED's designed to give clear status information to non technical users
5. Audible buzzer with mute facility.
6. Hinged lockable door provides access to all internal wiring and components.

## Detection Capacity

1. Up to 200 addresses per loop which can be a mixture of callpoints, detectors, interfaces or loop sounders.
2. DF6100 panels can be networked with all Cooper intelligent addressable and wireless panels.

## Alarm Capacity

1. Up to 80 loop powered outputs per loop (60 sounders/beacons and 20 I/O units).
2. 3 stages of cause and effect programming per output device.
3. 0.8A of panel connected conventional sounders.
4. Additional conventional sounders can be connected via loop mounted MPU424 units.

## Interface Options

- Day night mode override via external switched signal. (Can be a timer).
- Multiple Programmable remote inputs can be set:
  - Override of day night mode setting
    - Photo-thermal detectors go to thermal only.
    - Rate of rise detectors go to fixed high temperature mode.
    - High temperature heat detectors go to rate of rise mode.
- T1 and T2 timer.
- HMO facility.
- Comprehensive cause and effect programming.
- Test per zone or address.
- Alarm verification per zone.
- Coincidence detection.
- Disablement of pre assigned group of addresses.
- Class change.
- Non latching zone input.
- Evacuate.
- 2 Conventional sounder circuits provided.
- Zone monitor units can be used to connect zones of suitable conventional detectors or loop powered beam detectors.
- Sounder circuit controllers can be used to provide additional conventional sounder circuits without wiring back to main panel.
- Mains rated input/output unit available.
- 3 way 24V rated input/output unit available.
- Spur isolator available to allow spurs of intelligent addressable devices.
- Compact input and output modules available
- Shop unit interface allows the connection of a conventional detection zone along with a power supply and 2 conventional sounder circuits, ideal for linking small self contained units onto a main addressable panel.

## System Networking

DF6000 and DF6100 systems can both be networked together. Up to 126 DF6000 panels, DF6100 panels and low cost repeaters can be networked together to operate as a single networked system.

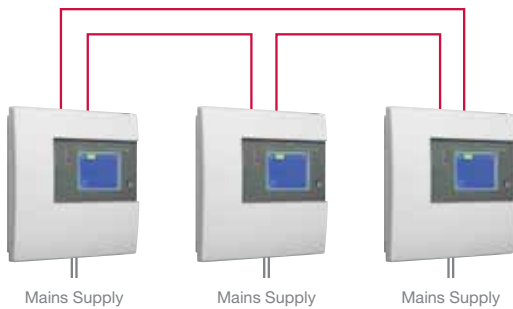
To achieve this each panel must be fitted with a network card (optional extra). When operating as a networked system all fire and fault event information can be displayed at every panel.

Panels can be configured by service engineers to control whether fire and fault information from each panel is transmitted around the network or not.

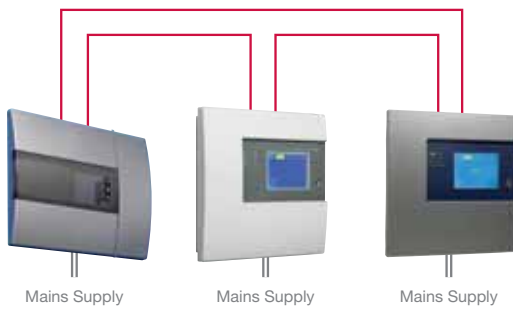
Silencing and resetting of alarms can also be carried out from any panel on a networked system.

Networked panels are connected using a loop topology as illustrated.

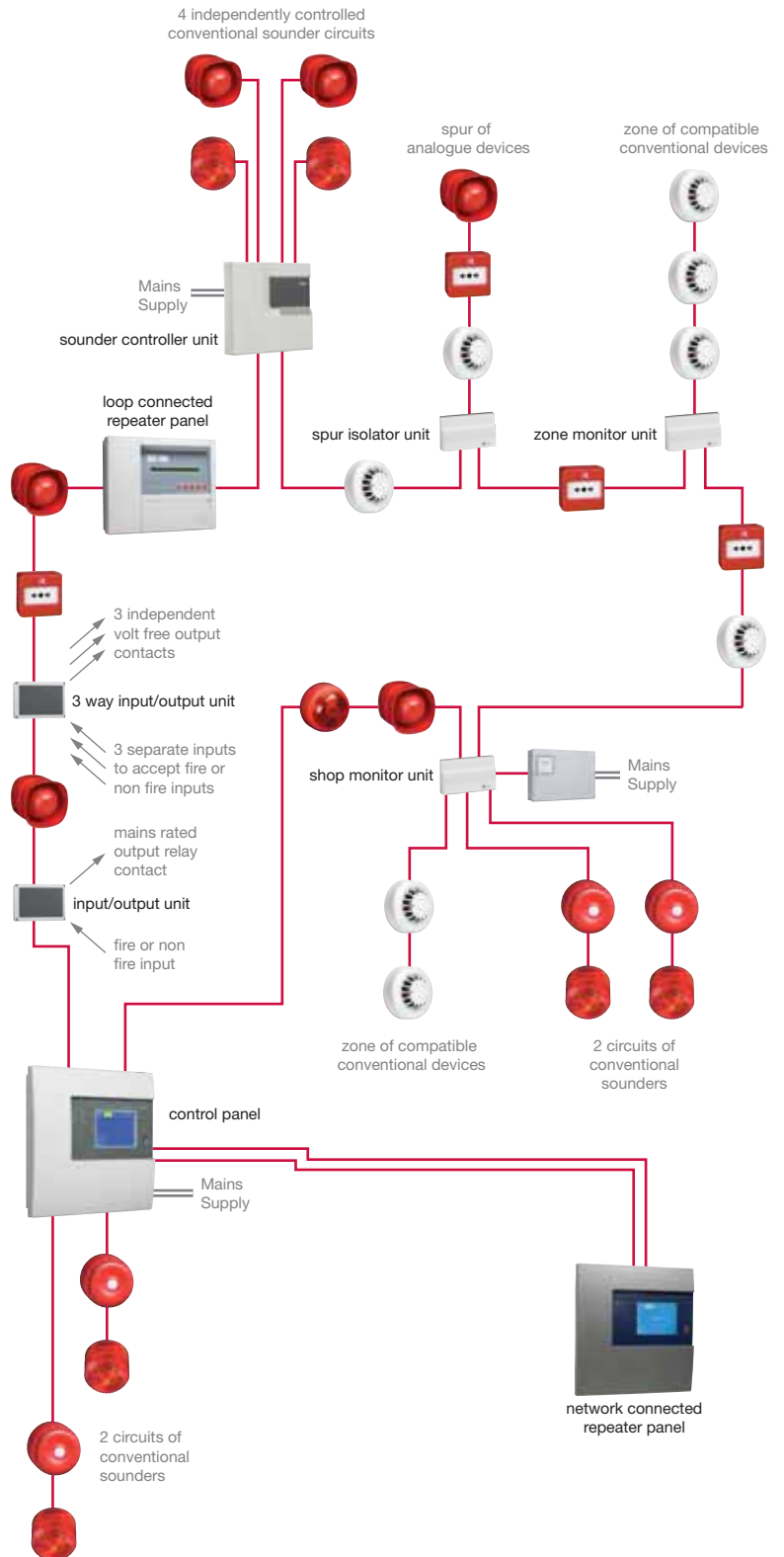
## DF6100



## DF6000, DF6100 and DTPR6000

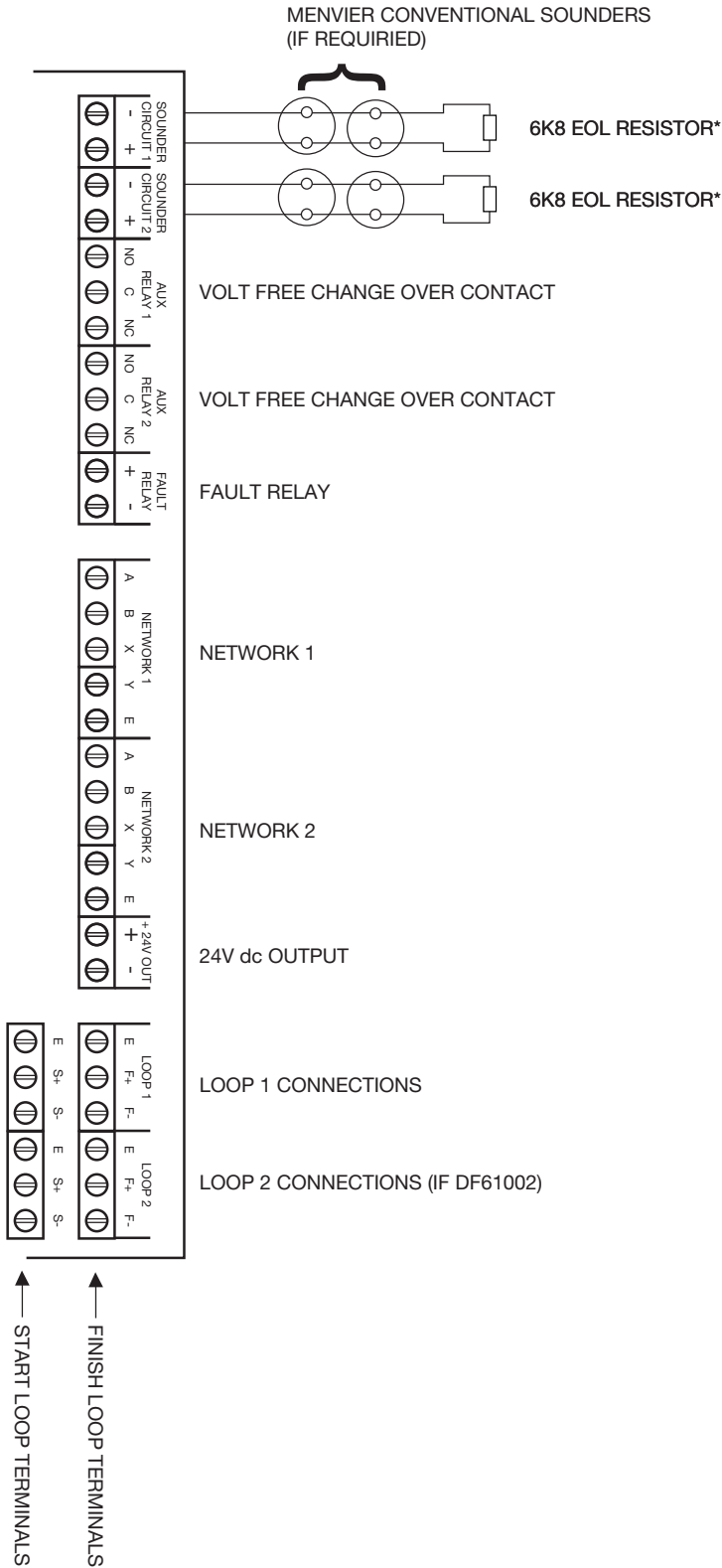


## Typical System Architecture





Standard Panel Connections



\* required to be fitted to terminal if circuits not used

# Fire



DATA  
SHEET

## Analogue Sensors

**CAP320 / CAH330 / CAPT340**

**MAP820 / MAOH850 / MAH830**

**FXN723 / FXN722 / FXN725**

**COOPER**

Cooper offers a comprehensive range of analogue sensors that are compatible with: Cooper, Menvier and JSB addressable control panels.

The sensors in this range are suitable for most applications giving a fastest response to slow burning or smouldering fires which give rise to large visible smoke particles. The new improved designs have dual PCB connectivity, are LPCB approved and CE marked.

### Benefits and Features

- > 360° degrees visual LED
- > CPD and third party approved to latest EN54 Pt 5 & Pt 7 and EN54 pt 17
- > Soft addressing
- > Built in short circuit isolator
- > Chamber monitoring on all the opto & opto heat sensors
- > Drift compensation on all the opto & opto heat sensors
- > Removable sensor chamber for cleaning
- > Suitable for installation in ducts
- > Compatible with all Cooper latest addressable panels
- > Facility to pulse the LED during normal sensor operation

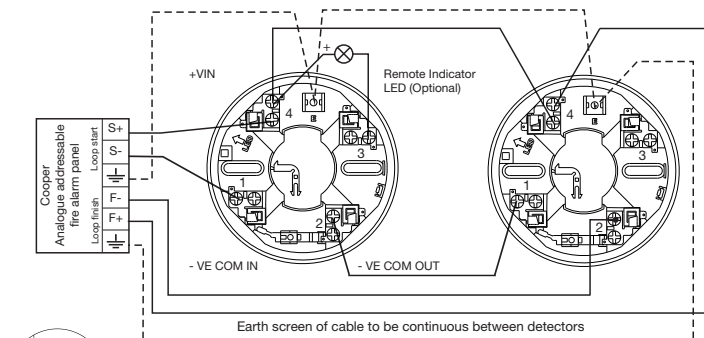
**MENVIER**

**JsB**

## Technical Specifications

Model	CAP320 / MAP820 / FXN723	CAPT340 / MAOH850 / FXN722	CAH330 / MAH830 / FXN725
Description	Analogue sensor -	Analogue sensor - photo-thermal	Analogue sensor - heat
CPD approval	0832CPD0177	0832CPD0175	0832CPD0174
Standards	EN54: Pt7; 2000 + A1:2002	EN54: Pt7; 2000 + A1:2002 EN54: Pt5; 2000 + A1:2002	EN54: Pt5; 2000 + A1:2002
Area coverage	100m <sup>2</sup> (subject to local standard)		50m <sup>2</sup> (subject to local standard)
System wiring		Min. 1.5mm <sup>2</sup> , 2 core loop or spur	
Indication		360° visibility light pipe	
Mounting base		CAB300, MAB800, FXN720	
Addressing mode		auto address	
Operating voltage		18 to 30 V dc	
Max standby current		220µA	
Max alarm current		5mA	
Heat class			
Rate of rise	NA	A2S	A1R
Fixed 60°C	NA	NA	BS
Fixed 90°C	NA	NA	CS
Alarm temperature (static)			
AIR	NA	60°C	60°C
BS	NA	NA	77°C
CS	NA	NA	90°C
Environmental	IP40. -20°C to 60°C 0 to 95% (non condensing)	IP40. -20°C to 50°C 0 to 95% (non condensing)	IP40. -20°C to 60°C 0 to 95% (non condensing)
Physical			
Construction		ABS	
Colour		White	
Dimensions			
Excluding base (Dia x H)	101mm x 33mm	101mm x 43mm	101mm x 43mm
Including base (Dia x H)	104mm x 45mm	104mm x 55mm	104mm x 55mm
Weight - excluding base		76g	
Compatibility		Analogue panels	

## Wiring Diagram - Standard Analogue Base



Attention: If using the outer connection on terminal 2, ensure the operation of the switch is not impeded and that there are no shorts between terminal 2 and the switch contact.

Ensure that the cable does not short onto the contact

## Product Codes

Analogue optical sensor	CAP320 / MAP820 / FXN723
Analogue photo-thermal sensor	CAPT340 / MAOH850 / FXN722
Analogue heat sensor	CAH330 / MAH830 / FXN725
Analogue standard base	CAB300 / MAB800 / FXN720

# Fire



Weatherproof version

DATA  
SHEET

## Analogue Sounder

CAS381 / CAS381WP

MAS850LPS / MAS850LPSWP

FXN538LPS / FXN538LPSWP

**COOPER**

This range of loop-powered addressable wall sounders offers a highly efficient, low current sounder option.

Sounder volume and tone are set at the analogue panel avoiding the need to access each sounder individually to alter settings.

### Benefits and Features

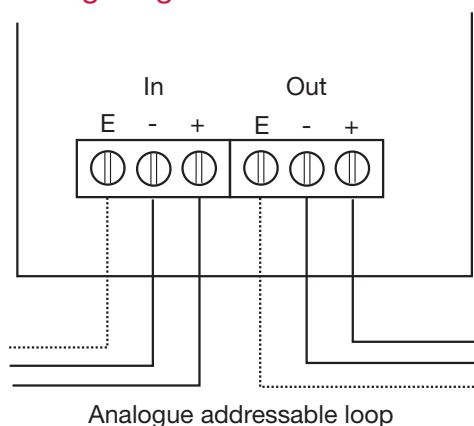
- > Loop powered
- > High efficiency design
- > Selectable tones controlled by the panel
- > Adjustable volume controlled by the panel
- > Simple clip fixing assembly



## Technical Specifications

<b>Model</b>	CAS831 / MAS850LPS / FXN538LPS	CAS831WP / MAS850LPSWP / FXN538LPSWP
<b>Description</b>	Analogue sounder	Analogue sounder - weatherproof
<b>Standards</b>	EN54: Pt 3; 2000 + A1 2002	
<b>CPD approval</b>	0832CPD0155	0832CPD0156
<b>Operating voltage</b>	17 to 32V dc	
<b>Tones (set by panels)</b>	Continuous: 910 Hz Pulsed: 910 / 0 Hz @ 1 Hz Two tone: 644 / 984 Hz @ 1 Hz cycle Slow whoop 500-1200 Hz in 3.5 sec / 0.5 sec gap	
<b>Sound output +/- 3 dB (set by panel)</b>	Low volume: 87 dB Medium volume: 93 dB High volume: 100 dB	
<b>Current consumption</b>	Low volume: <2 mA, Medium volume: <3 mA, High volume: <6 mA	
<b>Standby current</b>	<320µA	
<b>Environmental</b>	IP42, -10°C to +55°C (95% RH)	IP66, -10°C to +55°C (95% RH)
<b>Physical</b>		
<b>Construction</b>	ABS	
<b>Colour</b>	red	
<b>Dimensions (H x W x D)</b>	105mm x 105mm x 95mm	108mm x 108mm x 103mm
<b>Weight</b>	0.25kg	0.57kg
<b>Compatibility</b>	Analogue addressable fire systems	

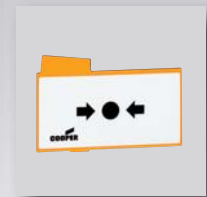
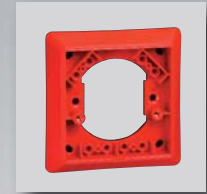
## Wiring Diagram



## Product Codes

Analogue sounder	CAS831 / MAS850LPS / FXN538LPS
Analogue sounder - weatherproof	CAS831WP / MAS850LPSWP / FXN538LPSWP

# Fire



DATA  
SHEET

## Addressable Callpoints

**CBG370S / CBG370WP**

**MBG813 / MBG817**

**FXN501 / FXN503**

**COOPER**

Addressable callpoints are available as both surface / flush and weatherproof versions and are approved to EN54: Pt 13.

All callpoints have integral short circuit isolators and have a status LED fitted as standard. To simplify replacement of glass element callpoints are fitted with fast fit clip on front covers.

### Benefits and Features

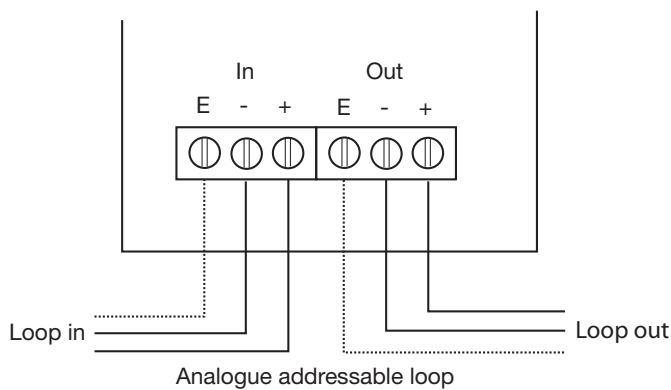
- > Approved to EN54: Pt 11
- > Convenient clip fixed front cover
- > One key for test and cover removal
- > Available as surface / flush and weatherproof (IP67)



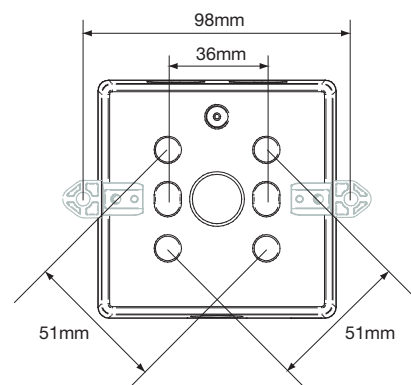
## Technical Specifications

<b>Model</b>	CBG370S / MBG813 / FXN501	CBG370WP / MBG817 / FXN503
<b>Description</b>	Analogue addressable callpoint	Analogue addressable callpoint - weatherproof
<b>CPD Approval</b>	0832CPD0575	0832CPD0746
<b>Configuration</b>		addressable
<b>Rating</b>		24V dc
<b>Connection</b>		4-way terminal block
<b>Operating method</b>	glass element with plastic safety film or resettable plastic element with integral alarm indicator	
<b>Test facility</b>	Unique key	
<b>Environmental</b>	IP42. -10°C to +55°C	IP67. -25°C to +55°C
<b>Physical</b>		
<b>Construction</b>	ABS	
<b>Dimensions (W x H x D)</b>	86mm x 86mm x 20mm(S) 53mm(F)	110mm x 110mm x 65mm
<b>Weight</b>	0.19kg	0.29kg

## Wiring Diagram



## Fixing Centers

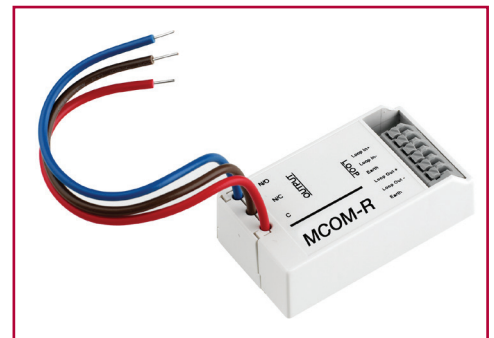
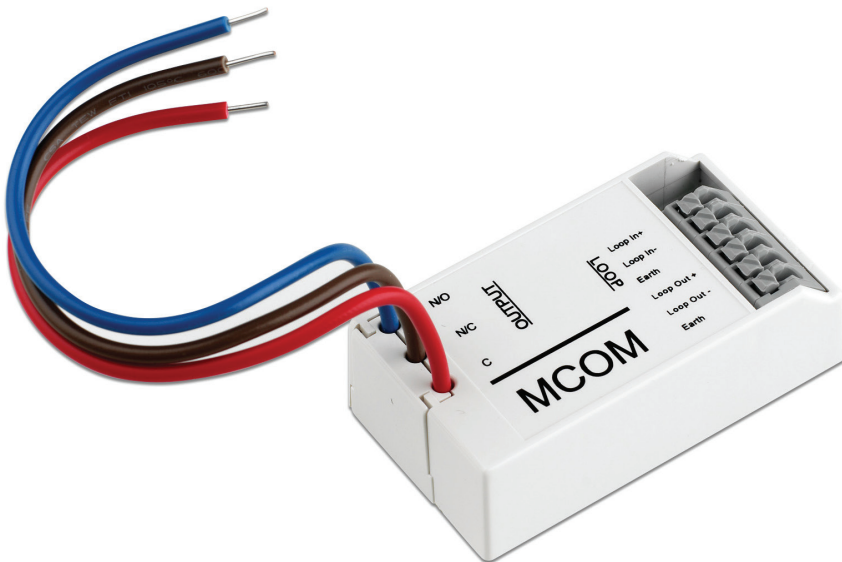


## Product Codes

Conventional callpoint, surface/flush mounting	CBG370S / MBG813 / FXN501
Conventional callpoint, surface mounting, weatherproof	CBG370WP / MBG817 / FXN503
<b>Accessories</b>	
Callpoint test keys - pack of 10	MFBGKEY3
Resettable plastic elements - pack of 10	MBGREKIT
Polycarbonate front cover	CXCP / MBGHCC
Spare glasses - pack of 5	MBG118 / FX5G
Spare earth continuity links - pack of 5	MBG119
Mounting bezels - pack of 10	MBGBEZ
Spacer plates - pack of 10	MBGSP

# MCOM

## Micro Single Channel Output Units



An extensive range of micro interfaces are available to support our range of control panels, providing solutions for most design requirements.

The MCOM is a single output, soft addressed, micro interface, incorporating integral short circuit isolators. It is extremely compact and therefore ideal for incorporation into other equipment.

The MCOM is fully compatible with the current range of Menvier intelligent addressable fire control panels.

It is suitable for switching low voltage (24V dc at 1A maximum), via a set of non latching relay contacts.

It is suitable for switching HVAC control circuits, plant shutdown control circuits, fire door closure etc.

### Optional Variants

The (MCOM-R) gives a 5 second pulse on reset, and is used for connecting/resetting beam detectors.

The (MCOM-S) is identified by the panel as a sounder and does not reset when put into 'silence' mode, only resets once panel has been reset.

### Benefits

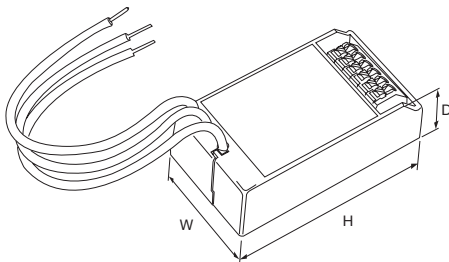
- Quick and simple to install
- Compact size
- Soft Addressed
- Integral short circuit isolator
- Plug and play, no hard addressing required
- No external short circuit isolator required



## Technical Specification

Code	MCOM
Description	Micro single channel output unit
Standards	EN54 Pt17 & Pt18
<b>Specification</b>	
Operating Voltage	18.5V dc to 30V dc
Quiescent Current	310µA
Output Relay	
Switching Voltage	24V dc to 30V dc
Contact Rating	1A
Switching Power	30 Watts
<b>Environmental</b>	
Operating temperature	-10°C to +60°C
Humidity (non condensing)	0 to 95% RH
<b>Physical</b>	
Construction	PC/ABS
Dimensions (H x W x D)	63mm x 35mm x 18.5mm
Weight	0.078kg
<b>Compatibility</b>	
Suitable for use with	Eaton Intelligent addressable fire systems
Recommended loop/cable type	Fire Tuff, FP200, MICC

## Dimensions



H (mm)	W (mm)	D (mm)
63	35	18.5

## Catalogue numbers

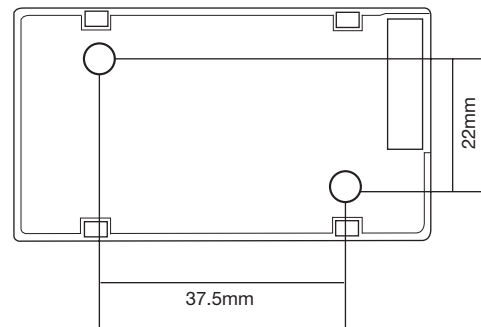
Description	Code
Micro single channel output unit (recognised as output unit)	MCOM
Micro single channel output unit (recognised as sounder)	MCOM-S
Micro single channel output unit (5 second reset pulse)	MCOM-R
Mini module box unit (empty box)	ULBU

## Installation

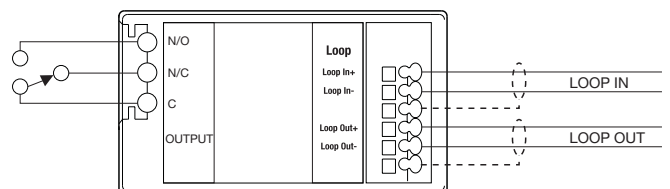
1. Suitable for switching 24V dc control circuits (fire door retainers etc).
2. Connections suitable for single strand fireproof cable up to 2.5mm<sup>2</sup>.
3. Loop and output cable screen must be connected to interface earth terminals.
4. The relay output is a set of change over, non-latching, volt free contacts which are non monitored.

Note: No addressing of the interface is required (see control panel operation for details)

## Mounting Details

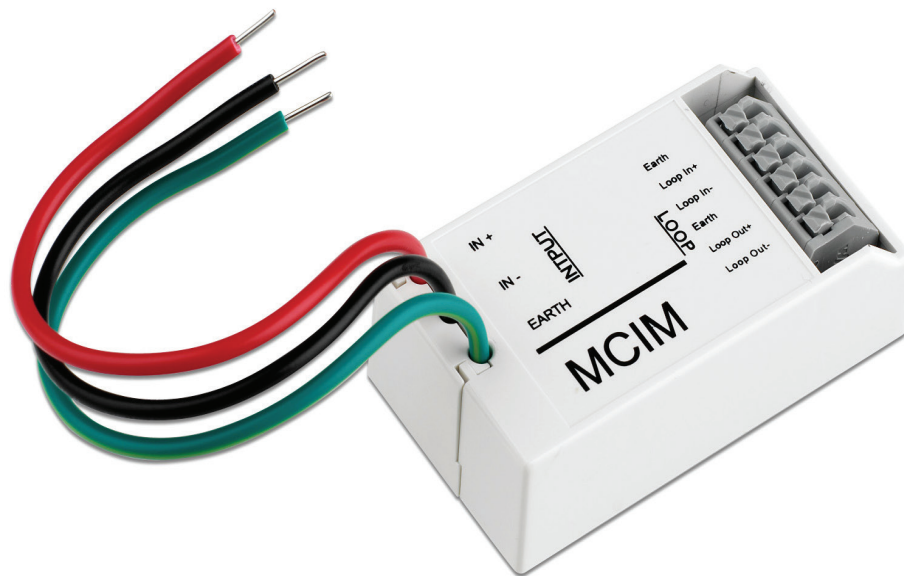


## Standard Connections



# MCIM

## Micro Single Channel Input Units



An extensive range of micro interfaces are available to support the Cooper range of control panels, providing solutions for most design requirements.

The MCIM is a single input, soft addressed micro interface, incorporating integral short circuit isolators. It is extremely compact and therefore ideal for incorporation into other equipment.

The MCIM is fully compatible with the current range of Cooper intelligent addressable fire control panels. It is suitable for monitoring a set of normally open, volt free contacts such as sprinkler system flow switches, auxiliary panel fire/fault signals as well as non fire input signals such as flow valve open contacts, generator start up, fire door closed etc.

### Features

- Soft Addressed
- Integral short circuit isolater
- Single address
- Suitable for monitoring:
  - Flow switches
  - Non fire inputs
  - Auxillary panels
- Up to 200 units per loop

### Benefits

- Quick and simple to install
- No hard addressing required (Plug and play)
- Compact size
- Programable by Cooper site installer software as technical input/non fire input

## Technical Specification

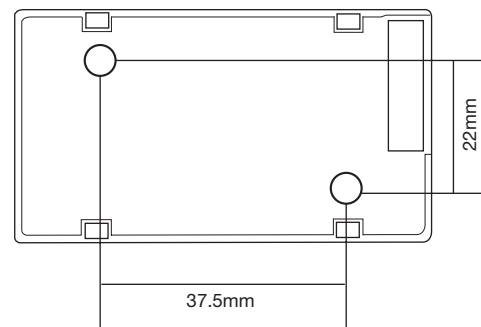
Code	MCIM
Description	Micro Single Channel Input Unit
Standards	EN54 Pt17 & Pt18
Specification	
Operating Voltage	18V dc to 30V dc
Quiescent Current	310µA
Inputs	
Trigger Resistance	5K6Ω
End of Line Resistor	22KΩ
Short Circuit Fault Threshold Resistance	1KΩ
Open Circuit Fault Threshold Resistance	33KΩ
Environmental	
Operating temperature	-10°C to +60°C
Humidity (non condensing)	0 to 95% RH
Physical	
Construction	PC/ABS
Dimensions (H x W x D)	63mm x 35mm x 18.5mm
Weight	0.078kg
Ingress protection	IP40
Compatibility	
Suitable for use with	Cooper Intelligent Addressable Fire Systems
Recommended loop/cable type	Fire Tuff, FP200, MICC type

## Installation

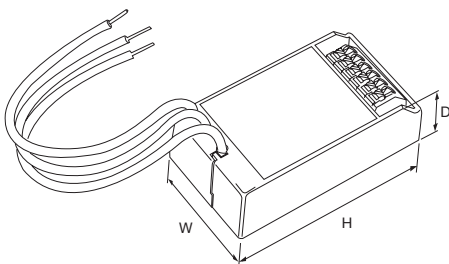
1. Inputs monitored for open and short circuit fault conditions.
2. Suitable for monitoring normally open volt free contacts (flow switches etc).
3. Connections suitable for single strand fireproof cable up to 2.5mm<sup>2</sup>.
4. Loop and input cable screen must be connected to interface earth terminals.
5. The end of line monitoring resistor, must always be fitted at the end of the input wiring, if the input is unused the end of line resistor must be fitted at the interface input terminals.

Note: No addressing of the interface is required (see control panel operation for details)

## Mounting Details

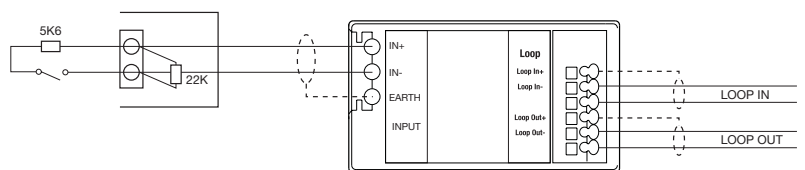


## Dimensions



H (mm)	W (mm)	D (mm)
63	35	18.5

## Standard Connections



## Catalogue numbers

Description	Code
Micro single channel Input unit	MCIM