

CONVENTIONAL FIRE PANELS

FIREDEX 2200BW PG 50



MF9300 PG 61



MF200 & MF400 PG 55



FIREDEX 2200 PG 68



FIREDEX 4200 PG 58



FIREDEX 2200BW

- Detectors and sounders share same pair of wires
- Massive saving of installation cost and time
- Flexible, high specification system
- Choice of 1, 2, 4 or 8 zones
- Simple "one-shot" auto-reset user test facility
- Maintenance free poly switch circuit protection, with auto reset
- Custom configured versions available to meet specific project requirements

The Firedex 2200BW range of panels are designed to satisfy a wide range of conventional system requirements. The advanced features include a simple "one-shot" user test facility, class change contacts, battery voltage alarms and charger temperature compensation, all included as standard to ensure ease of use and high reliability. Attention to detail is emphasised by the neat log book holder feature, allowing essential records to be stored close to hand, ready for quick reference. For larger installations, custom configuration of the panels offers even greater flexibility, allowing project specific requirements to be easily met, in a competitive and cost effective package.



SYSTEM OVERVIEW

- Choice of 1, 2, 4 or 8 zone panels
- Sounder wiring for each zone shares the same wiring as the detector wiring resulting in a massive saving in installation time, complexity and cost
- Supplied complete with battery for 24 hour standby. Battery charger has temperature compensation as standard.

USER INTERFACE

- Stylish and robust compact panel with simple 5 button keypad control of all functions
- Simple "one-shot" weekly user test with auto-reset facility
- Comprehensive power, fire and fault LED indicators and integral piezo buzzer for on-board fire or fault indication
- Battery high/low voltage alarm facility
- Neat log book storage facility behind hinged door

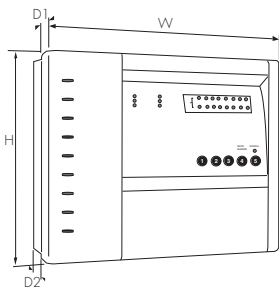
DETECTION CAPACITY

- Up to 20 detectors per zone. End of line monitoring devices must be fitted and are supplied as standard
- Detector circuits are monitored for open circuit, short circuit and detector removal

ALARM CAPACITY

- 150mA per zone - sufficient for in excess of 50 high output stand alone sounders per zone

DIMENSIONS



Surface	H (mm)	W (mm)	D (mm)
1 zone	212	260	72
2/4/8 zone	270	332	92

Recessed	H (mm)	W (mm)	D1 (mm)	D2 (mm)	Cut-out (mm)
2/4/8 zone	270	332	45	47	265 x 327

SYSTEM FUNCTIONALITY

- Normal and supervisor mode facility. Supervisor mode protected by 4 digit security code to prevent unauthorised use
- Supervisor mode provides access to test mode, where a "one-shot" test facility can be initiated by the user. When in operation, the user has a short period of time in which to put a call point into fire condition, after which the system automatically resets and returns to normal mode
- Commissioning walk test feature permits the system to be easily tested after installation and prior to handover. The panel automatically resets and returns to normal operation after a detection device has been tested. Each device can then be tested in turn via the same procedure
- Supervisor mode also provides facility to disable the following for maintenance or other purposes
 - each detection zone independently
 - the alarm circuits
 - the fire/fault output

INTERFACE OPTIONS

- Class change input facility. Terminals provided to activate alarm circuits without triggering a fire condition, typically used to indicate school/college class change.
- Programmable 1A 24V DC relay for remote signalling of fire or fault conditions. Selectable by jumper link.



Optional recessing back box

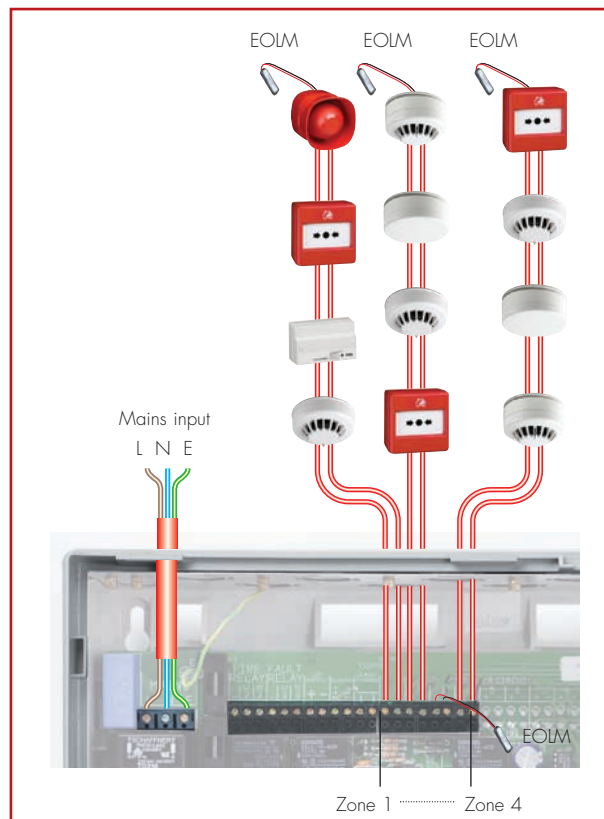
FIREDEX 2200BW

INSTALLATION NOTES

- A full set of Installation and User instructions is supplied with each panel to assist the installer to carry out the work efficiently and safely, and the user to perform routine tests
- Panels are wall mounted. Surface mounted via 4 x screw fixing holes on back of housing. Use drill template supplied. Recessed mounting requires appropriate cut-out for steel semi-recessing box, which is screw fixed to wall. Panel is then screwed to back box via 4 x screw fixing holes (Note: Single zone panel cannot be recessed)
- Mains power supply cable must be routed via the designated 20mm conduit entry on the top or aperture on rear of the housing. The mains terminal block is provided with maintenance free poly switch protection
- 12 x conduit entries are provided on the top of the housing for zone, alarm and output cables. Blanking plugs are supplied for un-used entry holes
- Standby batteries connected via push-on terminal connectors
- End of line (EOL) devices are supplied with the panel and must be fitted at the end of each zone
- Front cover is screw fixed. System logbook is stored behind hinged door
- Walk test feature permits single person commissioning (installer) for fast and efficient commissioning prior to handover
- See page 136 for full details of system design
- Cooper Lighting and Security offer a commissioning, service and maintenance facility. Please contact the Service Department - Tel: 01302 303352, E-mail: service@cooper-ls.com

OPTIONS

- **Semi-recessing back box**
Steel back box to semi-recess main and repeater panels (except single zone)



Typical wiring configuration

TECHNICAL SPECIFICATION

Panel catalogue number	FX2201BW	FX2202BW	FX2204BW	FX2208BW
Standards	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994
Number of zones	1	2	4	8
Detectors per zone	20	20	20	20
Alarm circuit load	150mA per zone	150mA per zone	150mA per zone	150mA per zone
End of line devices	Active end of line monitoring unit	Active end of line monitoring unit	Active end of line monitoring unit	Active end of line monitoring unit
Auxiliary fire signal/fault output	1A 24V DC single pole changeover contacts	1A 24V DC single pole changeover contacts	1A 24V DC single pole changeover contacts	1A 24V DC single pole changeover contacts
Mains input voltage	230V AC -10% +15%	230V AC -10% +15%	230V AC -10% +15%	230V AC -10% +15%
Nominal system operating voltage	24V DC	24V DC	24V DC	24V DC
Standby duration	24 hours	24 hours	24 hours	24 hours
Battery (sealed lead acid)	1 x 3.2AH 12V	1 x 3.2AH 12V	1 x 3.2AH 12V	2 x 3.2AH 12V
Recharge period	24 hours	24 hours	24 hours	24 hours
Panel construction	Polycarbonate housing & back box	Polycarbonate housing & back box	Polycarbonate housing & back box	Polycarbonate housing & back box
Cable entries	Top: 6x20mm entries with blanking plugs Rear entry cable aperture	Top: 12x20mm entries with blanking plugs Rear entry cable aperture	Top: 12x20mm entries with blanking plugs Rear entry cable aperture	Top: 12x20mm entries with blanking plugs Rear entry cable aperture
Environmental rating	IP30. -5°C to +40°C Humidity 75% max (non-condensing)	IP30. -5°C to +40°C Humidity 75% max (non-condensing)	IP30. -5°C to +40°C Humidity 75% max (non-condensing)	IP30. -5°C to +40°C Humidity 75% max (non-condensing)



Neat log book storage facility

SYSTEM ANCILLARIES

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Bi wire sounders
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Bi wire beacon
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Detectors
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Bi wire output module
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CATALOGUE NUMBERS

Cat. No.	Number of zones	Standby duration (hrs)	Weight (kg)
Panels			
FX2201BW	1	24	5.1
FX2202BW	2	24	5.2
FX2204BW	4	24	5.8
FX2208BW	8	24	6.0

CATALOGUE NUMBER

Cat. No.	Description
Accessories	
FX22003300 MB	Steel back box for semi-recessing of FX2202/4/8



MF200 & MF400

- **Competitively priced**
- **Choice of 2 or 4 zone panels**
- **Designed to comply with EN54**
- **Easy to operate**
- **One man walk test facility**
- **Supplied complete with battery and end of line devices**

The MF200 and MF400 range of conventional fire panels offer a competitive solution for smaller installations. Easy to install and operate, the panels are designed to provide fire detection and alarm facilities in buildings where the basic elements of protection to meet BS5839 are required. Available as either 2 zone or 4 zone panels, up to 20 detectors per zone can be connected. MF range panels are conveniently supplied complete with end of line devices and batteries offering 24 hours standby as standard, with the option of 72 hours on the 4 zone version. One man walk test and class change facilities, along with 24V remote signalling fire and fault outputs augment a value for money range.



MF200 & MF400

SYSTEM OVERVIEW

- Basic fire detection and alarm system, suitable for smaller installations
- Choice of 2 zone or 4 zone panels
- Supplied complete with battery for 24 hour standby as standard. Option of 72 hour standby available on 4 zone panel

USER INTERFACE

- Attractive compact panel with easy to use 5 button keyboard to control all functions
- Comprehensive power, fire and fault LED indicators and integral piezo buzzer for on-board fire or fault indication

DETECTION CAPACITY

- Up to 20 detectors per zone. End of line monitoring devices must be fitted and are supplied as standard
- No more than 5 photo thermal detectors should be connected to any one zone of any MF200 or MF400 panel
- Detector circuits are monitored for open circuit, short circuit and detector removal

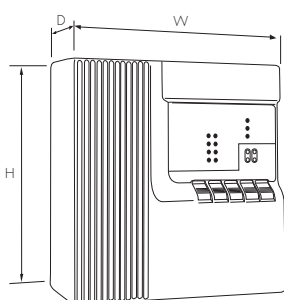
ALARM CAPACITY

- Two separate alarm lines, each with a maximum rated load of 375mA
- Alarm lines are monitored for open circuit and short circuit faults

SYSTEM FUNCTIONALITY

- Normal and supervisor mode facility. Supervisor mode protected by 4 digit security code to prevent unauthorised use
- Supervisor mode provides access to test mode, where zones can be tested individually or in any combination
- One man walk test feature permits each manual call point and detector on the zone(s) in test mode to be put into fire condition and activates the alarms for 2 seconds. Panel automatically resets the zone(s) 10 seconds after each device has been tested. A fire condition received from a zone not in test mode results in an immediate alarm, overriding the test mode
- Supervisor mode also provides facility to disable/isolate the following for maintenance or other purposes
 - each detection zone independently
 - the alarm circuits
 - the remote signal outputs

DIMENSIONS



H (mm)	W (mm)	D (mm)
300	300	74

INTERFACE OPTIONS

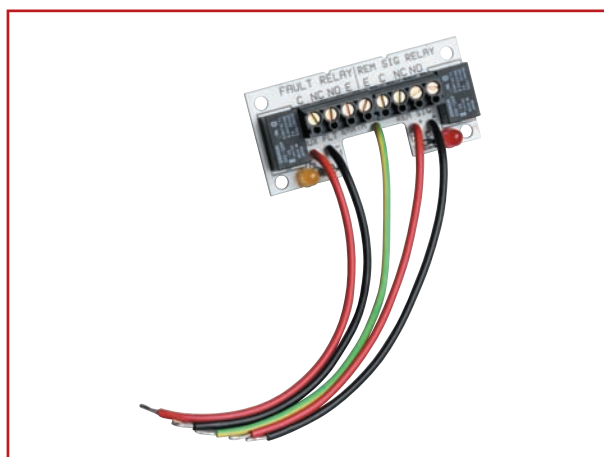
- Class change input facility. Terminals provided for switching of alarm circuits to indicate school/college class change
- 24V outputs provided for remote signalling of fire and fault conditions
- Optional relay board available (MAR424) to convert fire and fault signals to 1A relay outputs
- Auxiliary 24V DC output power supply provided as standard

INSTALLATION NOTES

- A full set of Installation and User Instructions is supplied with each panel to assist the installer to carry out the work efficiently and safely, and the user to perform routine tests
- Panels are wall mounted via keyhole slot mounting holes on back of housing
- Mains power supply cable must be routed via the designated 20mm conduit entry on the top or bottom of the housing, or via the rear cable entry slot. The mains terminal block is provided with fuse protection
- A total of 10 x 20mm conduit entries are provided on the top of the housing for zone, alarm and output cables. Blanking plugs are supplied for un-used entries
- Standby battery connected via push-on terminal connectors
- End of line (EOL) devices are supplied with the panel and must be fitted at the end of each detector and alarm circuit wiring
- Front cover retained by anti-tamper screws
- See page 136 for full details of system design
- Cooper Lighting and Security offer a commissioning, service and maintenance facility. Please contact the Service Department - Tel: 01302 303352, E-mail: service@cooper-ls.com

OPTIONS

- **MAR424**
Remote fire and fault relay pcb. Fitted internal to panel housing. Converts 24V remote signalling outputs to 1A relay outputs



TECHNICAL SPECIFICATION

Standards	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994
Number of zones	2 - MF200 4 - MF400
Detectors per zone	20
Number of alarm lines	2
Alarm circuit load	375mA per circuit, 750mA total
End of line devices	Detection circuits: 22K Ω resistor Alarm lines: 22K Ω resistor
Auxiliary fire signal output	24V DC pull to OV. Max 10mA
Auxiliary fault output	24V DC pull to OV. Max 10mA
Auxiliary DC output	24V DC fused. 32mA (up to 100mA at the expense of alarm load)
Mains input voltage	240V AC +10%-15%
System operating voltage	24V DC
Standby duration	24 hours (72 hours on MF400-72)
Battery	1 x 4AH sealed lead acid battery (1 x 7AH on MF400-72)
Recharge period	48 hours (80% in 24 hours)
Panel construction	ABS/Polycarbonate housing. Steel back box.
Cable entries	Top: 10 x 20mm conduit entries Bottom: 1 x 20mm conduit entry (mains cable) Back: 1 x mains cable entry slot
Environmental rating	IP30. -5°C to +40°C. Humidity 75% max (non-condensing)

CATALOGUE NUMBERS

Cat. No.	Number of zones	Standby duration (hrs)	Weight (kg)
Panels			
MF200	2	24	4.8
MF400	4	24	4.8
MF400-72	4	72	6.0

Cat. No.	Description
Optional accessories	
MAR424	Fire and fault relay PCB

SYSTEM ANCILLARIES

Callpoints
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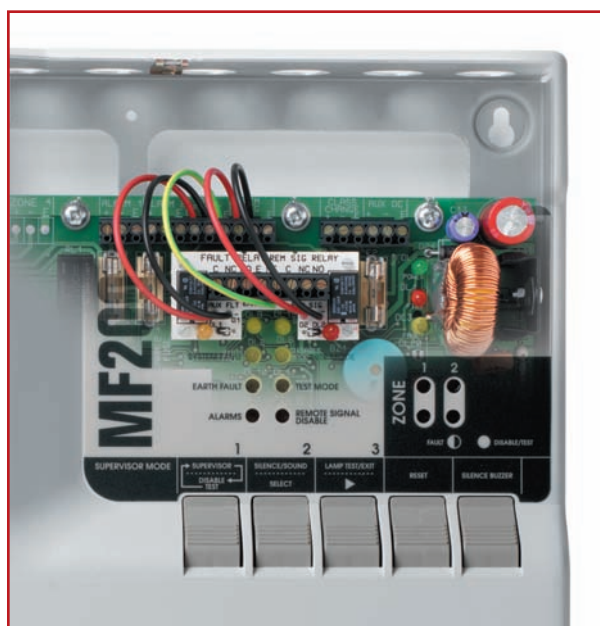
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Detectors
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Beam detector
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MAR424 fits inside MF200 and MF400 panels

FIREDEX 4200

- **Competitive system**
- **Choice of 2 or 4 zone panels**
- **Simple "one-shot" auto-reset user test facility**
- **Complies with EN54**
- **Programmable fire/fault output relay**
- **Zone/sounder circuit disabling for easy maintenance**
- **Supplied complete with battery and end of line devices**

Easy to install and use, the Firedex 4200 series of conventional fire panels delivers basic fire detection and alarm facilities at exceptional value for money. Designed with smaller installations in mind, a choice of 2 or 4 zone compact panels are available, each capable of having up to 20 detectors connected per zone. End of line devices for both detector and alarm circuits are conveniently supplied as standard. Firedex 4200 systems are also easy to use, with a simple "one-shot" test facility to ensure regular mandatory testing can be quickly and regularly accomplished. Other standard features, such as class change, zone or sounder circuit disabling and programmable relay output facilities complete a highly competitive solution.



SYSTEM OVERVIEW

- Basic fire detection and alarm system, suitable for smaller installations
- Choice of 2 zone or 4 zone panels
- Supplied complete with battery for 24 hour standby. Battery charger has temperature compensation as standard

USER INTERFACE

- Attractive compact panel with simple 5 button keyboard control of all functions
- Simple "one-shot" weekly user test with auto-reset facility
- Comprehensive power, fire and fault LED indicators and integral piezo buzzer for on-board fire or fault indication
- Battery high/low voltage alarm facility

DETECTION CAPACITY

- Up to 20 detectors per zone. End of line monitoring devices must be fitted and are supplied as standard
- Detector circuits are monitored for open circuit, short circuit and detector removal

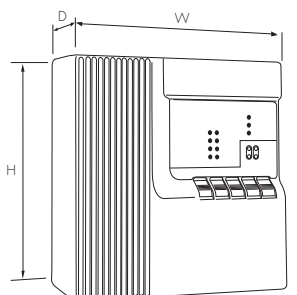
ALARM CAPACITY

- Two separate alarm lines, with a maximum rated load of 150mA (2 zone) or 400mA (4 zone) per circuit
- Alarm lines are monitored for open circuit and short circuit faults

SYSTEM FUNCTIONALITY

- Normal and supervisor mode facility. Supervisor mode protected by 4 digit security code to prevent unauthorised use
- Supervisor mode provides access to test mode, where a "one-shot" test facility can be initiated by the user. When in operation, the user has a short period of time in which to put a call point into fire condition, after which the system automatically resets and returns to normal mode
- Commissioning walk test feature permits the system to be easily tested after installation. The panel automatically resets and returns to normal operation after a detection device has been tested. Each device can then be tested in turn via the same procedure
- Supervisor mode also provides facility to disable the following for maintenance or other purposes
 - each detection zone independently
 - the alarm circuits
 - the fire/fault output

DIMENSIONS



H (mm)	W (mm)	D (mm)
300	300	74

INTERFACE OPTIONS

- Class change input facility. Terminals provided for switching of alarm circuits to indicate school/college class change
- Programmable 5A 24V DC relay for remote signalling of fire or fault conditions, selectable by jumper link
- Auxiliary 24V DC output power supply provided as standard

INSTALLATION NOTES

- A full set of installation instructions is supplied with each panel to assist the installer to carry out maintenance work efficiently and safely and for the user to perform routine tests
- Panels are wall mounted via keyhole slot mounting holes on back of housing
- Mains power supply cable must be routed via the designated 20mm conduit entry on the top or bottom of the housing, or via the rear cable entry slot. The mains terminal block is provided with fuse protection
- A total of 10 x 20mm conduit entries are provided on the top of the housing for zone, alarm and output cables. Blanking plugs are supplied for un-used entries
- Standby battery connected via push-on terminal connectors
- End of line (EOL) devices are supplied with the panel and must be fitted at the end of each detector and alarm circuit
- Front cover retained by anti-tamper screws
- See page 136 for full details of system design
- Cooper Lighting and Security offer a commissioning, service and maintenance facility. Please contact the Service Department - Tel: 01302 303352, E-mail: service@cooperls.com



Multiple top entry cable gland facilities

TECHNICAL SPECIFICATION

Standards	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN50008-1-1:1992 & EN61000-2-2:1994
Number of zones	2 - FX4202 4 - FX4204
Detectors per zone	20
Number of alarm lines	2
Alarm circuit load	2 zone - 150mA per circuit, 300mA total 4 zone - 400mA per circuit, 800mA total
End of line devices	Detection circuits: EOLM-1 monitoring unit Alarm lines: 6.8K Ω resistor
Auxiliary fire signal/fault output	5A 24V DC single pole changeover contacts
Auxiliary DC output	24V DC fused, 30mA
Mains input voltage	230V AC \pm 10% 15%
System operating voltage	24V DC
Standby duration	24 hours
Battery	1 x 3.2AH sealed lead acid battery
Recharge period	24 hours
Panel construction	ABS/Polycarbonate housing. Steel back box.
Cable entries	Top: 10 x 20mm conduit entries Bottom: 1 x 20mm conduit entry (mains cable) Back: 1 x mains cable entry slot
Environmental rating	IP30. -5°C to +40°C. Humidity 75% max (non-condensing)

CATALOGUE NUMBERS

Cat. No.	Number of zones	Standby duration (hrs)	Weight (kg)
FX4202	2	24	4.8
FX4204	4	24	4.8

SYSTEM ANCILLARIES

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Detectors
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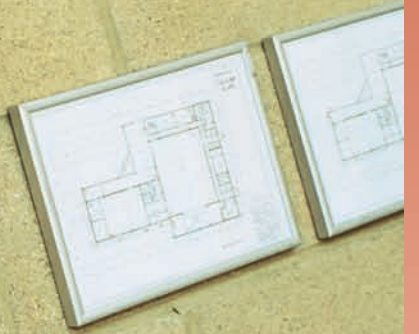


Beam detector
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Recep



MF9300

- Choice of 2, 4, 8 or 16 zone panels
- Matching repeater panels available
- Coincidence detection and non-latching zone features
- Surface or recessed mounting option as standard
- Up to 32 detectors per zone
- One man walk test facility
- 72 hour standby as standard

Designed for a wide range of building types and sizes, the Menvier MF9300 series of panels incorporates many standard features which are usually only available at extra cost. Available in a choice of 2, 4, 8 or 16 zone versions, MF9300 is designed for ease of installation and simple operation. All panels can be either surface fixed or flush mounted, without the need of additional bezels or back boxes. System flexibility is emphasised by the availability of matching repeater panels plus features such as non-latching zone, coincidence detection, alarm delay and one man walk test facilities, all included as standard. If high specification is essential, combined with a competitive price, the MF9300 series delivers an ideal solution.



SYSTEM OVERVIEW

- High specification conventional panel, suitable for use in a wide range of building types and sizes
- Choice of 2, 4, 8 & 16 zone panels
- Matching repeater panels, available in 8 and 16 zone versions, for use with main panels of 4 zone or higher capacity
- Supplied complete with batteries for 72 hour standby as standard. Option of 24 hour standby available on 8 & 16 zone panels

USER INTERFACE

- Stylish and attractive panel with easy to use 8 button keypad to control all functions
- Comprehensive power, fire and fault LED indicators and integral piezo buzzer for on-board fire or fault indication
- Panel can be surface mounted or recessed, without the need of an additional fixing bezel or back box
- Special tool used to release hinged upper door to access connections and configuration settings or bottom door to access battery

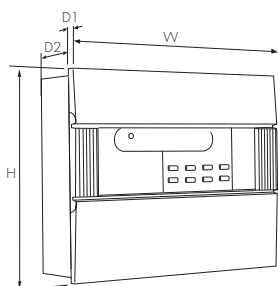
DETECTION CAPACITY

- Up to 32 detectors per zone. End of line monitoring devices must be fitted and are supplied as standard
- Detector circuits are monitored for open circuit, short circuit and detector removal

ALARM CAPACITY

- Two separate alarm lines on 2 and 4 zone panels. 500mA maximum load per line
- Four separate alarm lines on 8 and 16 zone panels. 500mA maximum load per line
- Alarm lines are monitored for open circuit and short circuit faults

DIMENSIONS



	H (mm)	W (mm)	D1 (mm)	D2 (mm)	Cut-out (mm)
2/4 zone	344	395	25	70	324 x 385
8/16 zone	386	395	25	119	376 x 385

Note: If surface mounting, add D1 & D2 to obtain depth dimension

SYSTEM FUNCTIONALITY

- Normal and supervisor mode facility. Supervisor mode protected by 4 digit security code to prevent unauthorised use. Service engineer and configuration modes accessed by further security codes
- Supervisor mode provides access to test mode, where zones can be tested individually or in any combination
- One man walk test feature permits each manual call point and detector on the zone(s) in test mode to be put into fire condition and activates the alarms for 2 seconds. Panel automatically resets the zone(s) 10 seconds after each device has been tested. A fire condition received from a zone not in test mode results in an immediate alarm, overriding the test mode
- Supervisor mode also provides facility to disable/isolate the following for maintenance or other purposes
 - each detection zone independently
 - the alarm circuits
 - the remote signal output (except 2 zone panel)
- Non-latching zone facility can be selected on one zone. Enables the direct interconnection of panels in a simple network
- Coincidence detection facility can be selected on one zone (except 2 zone panel). An alarm condition is dependant upon a fire signal from 2 detectors and within a defined period, when facility is selected. A single detector fire signal is indicated by sounding the integral buzzer and flashing LED on the panel. Any fire signal from a manual call point on the zone immediately operates the alarm
- An alarm line delay feature can be selected (except 2 zone panel). Preset delays of 1 to 7 minutes can be programmed during commissioning, permanently illuminating a panel indicator when set. Indicator and zone LED flash when fire signal is received and delay is in operation. Any fire signal from a manual call point immediately operates the alarm

INTERFACE OPTIONS

- Class change input facility. Terminals provided for switching of alarm circuits to indicate school/college class change
- Auxiliary 1A 24V DC fault relay (except 2 zone panel)
- Remote signal 1A 24V DC relay for remote location signalling, or operation of a remote dialler (can be isolated during tests/servicing)
- 24V common output provided (does not operate with non-latching zone)
- Auxiliary 24V DC output power supply provided as standard

MF9300

REPEATER PANELS

- Repeaters match the style and appearance of main control panels
- Facility for signalling to repeater panels provided on all main panels (except 2 zone)
- Displays essential information at other key locations in a large building/site
 - Zone fire or fault conditions
 - Zones or alarm lines in test mode
 - Zones or alarm lines in disabled mode
 - Alarm delays
 - Faults, isolations and test mode for control outputs
- Repeater panel requires only a single pair of wires to receive signals from main control panel, plus local mains power supply, reducing cost of installation



MF9300 matching repeater

INSTALLATION NOTES

- A full set of Installation and User Instructions is supplied with each panel to assist the installer to carry out the work efficiently and safely, and the user to perform routine tests
- Panels are wall mounted. Surface mounted via keyhole slot mounting holes on back of housing. Recessed mounting requires appropriate cut-out for panel and fixed via 6 x screw fixing holes around housing flange
- Mains power supply cable must be routed via the designated 20mm conduit entry knockouts on the top or rear of the housing. The mains terminal block is provided with fuse protection
- Conduit entry knockouts are provided on the top of the housing for zone, alarm and output cables. A total of 13 (2/4 zone) or 27 (8/16 zone) knockouts are provided
- Standby batteries connected via push-on terminal connectors
- End of line (EOL) devices are supplied with the panel and must be fitted at the end of each detector and alarm circuit wiring
- Front cover is screw fixed with hinged battery compartment door and hinged upper door for access to zone/alarm connections and configuration settings, which requires use of a special tool for access
- See page 136 for full details of system design
- Cooper Lighting and Security offer a commissioning, service and maintenance facility. Please contact the Service Department - Tel: 01302 303352, E-mail: service@cooper-ls.com

OPTIONS

- **Repeater panel**
Choice of 8 or 16 zone repeater panels with 72 hour standby, providing local indication of essential status information

SYSTEM ANCILLARIES

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Beam detector
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TECHNICAL SPECIFICATION

Panel catalogue number	MF9302	MF9304	MF9308	MF9316
Standards	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994
Number of zones	2	4	6/8	12/16
Detectors per zone	32	32	32	32
Number of alarm circuits	2	2	4	4
Alarm circuit load	500mA per circuit, 1A total	500mA per circuit, 1A total	500mA per circuit, 2A total	500mA per circuit, 2A total
End of line devices	Detection circuits: 12K Ω resistor Alarm lines: 12K Ω resistor	Detection circuits: 12K Ω resistor Alarm lines: 12K Ω resistor	Detection circuits: 12K Ω resistor Alarm lines: 12K Ω resistor	Detection circuits: 12K Ω resistor Alarm lines: 12K Ω resistor
Auxiliary fire signal output	1A 24V DC (resistive) single pole changeover contacts. Isolate facility available	1A 24V DC (resistive) single pole changeover contacts. Isolate facility available	1A 24V DC (resistive) single pole changeover contacts. Isolate facility available	1A 24V DC (resistive) single pole changeover contacts. Isolate facility available
Auxiliary fault output	-	1A 24V DC (resistive) single pole changeover contacts	1A 24V DC (resistive) single pole changeover contacts	1A 24V DC (resistive) single pole changeover contacts
Auxiliary common output	24V DC pull to 0V. Max 10mA	24V DC pull to 0V. Max 10mA	24V DC pull to 0V. Max 10mA	24V DC pull to 0V. Max 10mA
Auxiliary DC output	24V DC fused, 100mA	24V DC fused, 100mA	24V DC fused, 350mA	24V DC fused, 350mA
Repeater output	-	2 wire serial link (Repeater also requires separate 230V AC supply)	2 wire serial link (Repeater also requires separate 230V AC supply)	2 wire serial link (Repeater also requires separate 230V AC supply)
Mains input voltage	230V AC \pm 10%. 50/60 Hz	230V AC \pm 10%. 50/60 Hz	230V AC \pm 10%. 50/60 Hz	230V AC \pm 10%. 50/60 Hz
System operating voltage	24V DC	24V DC	24V DC	24V DC
Standby duration	72 hours (24 hours option on 8 & 16 zone)	72 hours (24 hours option on 8 & 16 zone)	72 hours (24 hours option on 8 & 16 zone)	72 hours (24 hours option on 8 & 16 zone)
Battery	1 x 7AH sealed lead acid battery	1 x 7AH sealed lead acid battery	1 x 12AH sealed lead acid battery	1 x 12AH sealed lead acid battery
Recharge period	24 hours	24 hours	24 hours	24 hours
Panel construction	ABS/Polycarbonate housing & back box	ABS/Polycarbonate housing & back box	ABS/Polycarbonate housing & steel back box	ABS/Polycarbonate housing & steel back box
Cable entries	Top: 13 x 20mm knockouts Back: 1 x 20mm knockout	Top: 13 x 20mm knockouts Back: 1 x 20mm knockout	Top: 27 x 20mm knockouts Back: 1 x 20mm knockout	Top: 27 x 20mm knockouts Back: 1 x 20mm knockout
Environmental rating	IP20. -5°C to +40°C Humidity 75% max (non-condensing)	IP20. -5°C to +40°C Humidity 75% max (non-condensing)	IP20. -5°C to +40°C Humidity 75% max (non-condensing)	IP20. -5°C to +40°C Humidity 75% max (non-condensing)

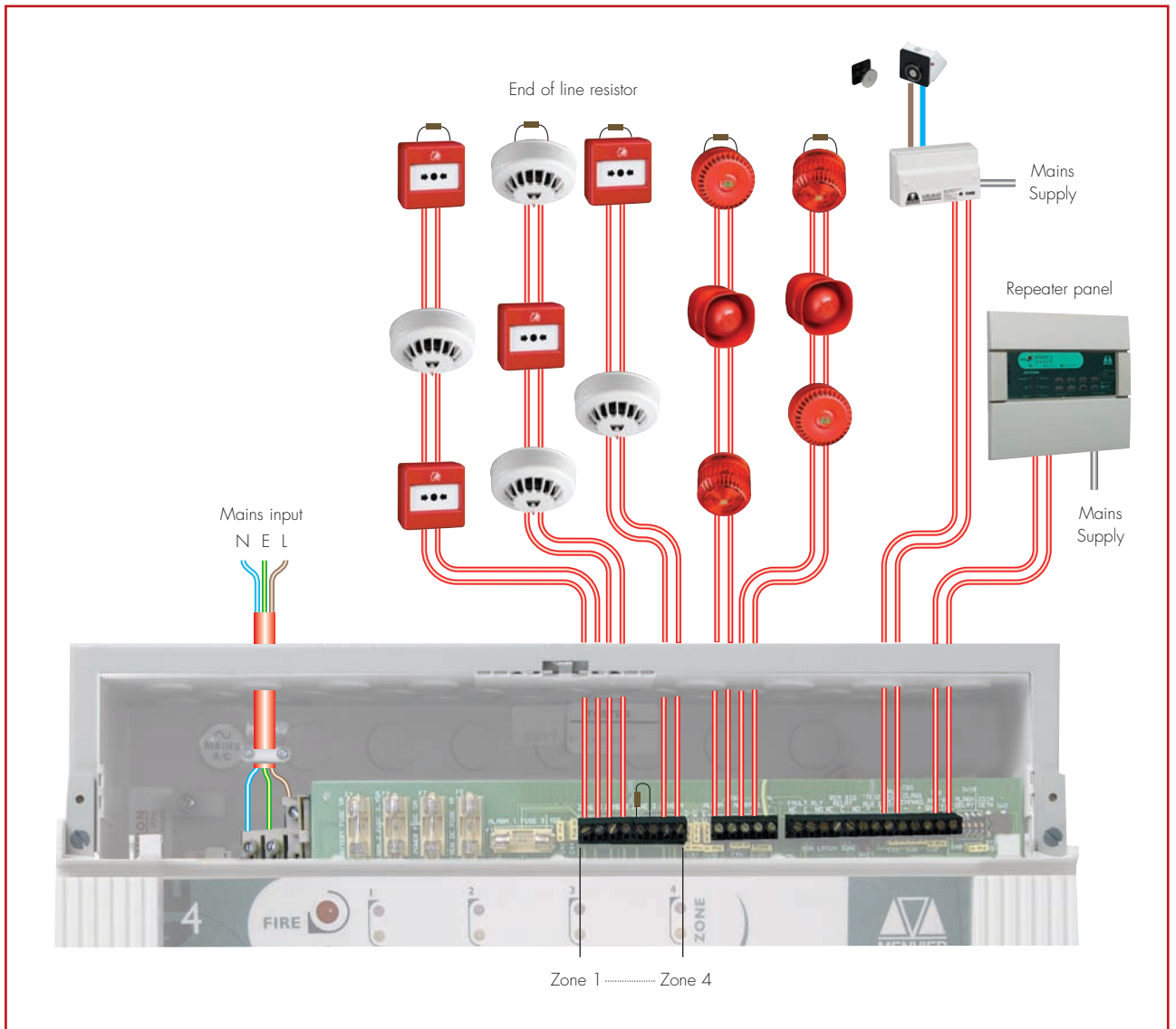
CATALOGUE NUMBERS

Cat. No.	Number of zones	Standby duration (hrs)	Weight (kg)
Panels			
MF9302	2	72	10.6
MF9304	4	72	10.6
MF9308	8	72	16.8
MF9316	16	72	16.9
MF9308-L	8	24	16.0
MF9316-L	16	24	16.0
Repeater panels			
MFR9308	8	72	16.8
MFR9316	16	72	17.2



Simple access to battery and terminals

MF9300



Typical wiring configuration



FIREDEX 2200

- Flexible, high specification system
- Choice of 1, 2, 4 or 8 zones
- Simple "one-shot" auto-reset user test facility
- Approved to EN54
- Maintenance free poly switch circuit protection, with auto reset
- Class change and programmable fire/fault relay as standard
- Custom configured versions available to meet specific project requirements

The Firedex 2200 range of panels provide a solution to any conventional system requirement. The advanced features include a simple "one-shot" user test facility, class change contacts, battery voltage alarms and charger temperature compensation, all included as standard to ensure ease of use and high reliability. Attention to detail is emphasised by the neat log book holder feature, allowing essential records to be stored close to hand, ready for quick reference. For larger installations, custom configuration of the panels offers even greater flexibility, allowing project specific requirements to be easily met, in a competitive and cost effective package.



SYSTEM OVERVIEW

- Flexible, high specification conventional panel, suitable for a wide range of building types and sizes
- Choice of 1, 2, 4 or 8 zone panels
- Supplied complete with battery for 24 hour standby. Battery charger has temperature compensation as standard
- Matching 8 zone repeater panel, for use with 8 zone and 2/4 zone configured panels

USER INTERFACE

- Stylish and robust compact panel with simple 5 button keypad control of all functions
- Simple "one-shot" weekly user test with auto-reset facility
- Comprehensive power, fire and fault LED indicators and integral piezo buzzer for on-board fire or fault indication
- Battery high/low voltage alarm facility
- Neat log book storage facility behind hinged door

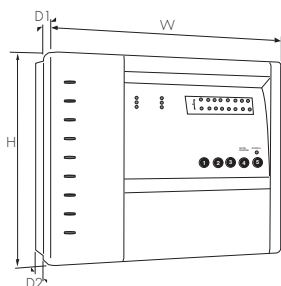
DETECTION CAPACITY

- Up to 20 detectors per zone. End of line monitoring devices must be fitted and are supplied as standard
- Detector circuits are monitored for open circuit, short circuit and detector removal

ALARM CAPACITY

- Two separate alarm lines on 1, 2 and 4 zone panels. Maximum rated load of 150mA (1/2 zone) or 400mA (4 zone) per line
- Four separate alarm lines on 8 zone panel. 500mA maximum load per line
- Alarm lines are monitored for open circuit and short circuit faults
- Additional alarm line facilities on custom 2 and 4 zone configured panels

DIMENSIONS



Surface	H (mm)	W (mm)	D (mm)
1 zone	212	260	72
2/4/8 zone	270	332	90

Recessed	H (mm)	W (mm)	D1 (mm)	D2 (mm)	Cut-out (mm)
2/4/8 zone	270	332	45	77	265 x 327

SYSTEM FUNCTIONALITY

- Normal and supervisor mode facility. Supervisor mode protected by 4 digit security code to prevent unauthorised use
- Supervisor mode provides access to test mode, where a "one-shot" test facility can be initiated by the user. When in operation, the user has a period of time in which to put a call point into fire condition, after which the system automatically resets and returns to normal mode
- Commissioning walk test feature permits the system to be easily tested after installation and prior to handover. The panel automatically resets and returns to normal operation after a detection device has been tested. Each device can then be tested in turn via the same procedure
- Supervisor mode also provides facility to disable the following for maintenance or other purposes
 - each detection zone independently
 - the alarm circuits
 - the fire/fault output
- Non-latching zone facility can be specified on custom configured versions (except 1 zone panel). Enables the direct interconnection of panels in a simple network
- An alarm line delay feature can be specified on custom configured versions (except single zone panel). Preset delays of 30 seconds to 2 minutes can be programmed at the factory. Zone LED flashes when fire signal is received and delay is in operation. Any fire signal from a manual call point immediately operates the alarm.

INTERFACE OPTIONS

- Class change input facility. Terminals provided for switching of alarm circuits to indicate school/college class change
- Programmable 5A 24V DC relay for remote signalling of fire or fault conditions. Selectable by jumper link
- Auxiliary 24V DC output power supply provided as standard for 8 zone panel and 2 and 4 zone configured panels

CUSTOMISED PANEL OPTIONS

- Custom configured versions available of 2, 4 and 8 zone panels
- Project specific configuration includes additional sounder circuits for 2 and 4 zone panels with pulsing tone options, alarm delays, programmable zone non-latching/non-driving feature and additional relay outputs. See Options section for full list of custom configuration facilities or contact Fire Technical Support for full details and to discuss project specific requirements. Tel: 01302 303350

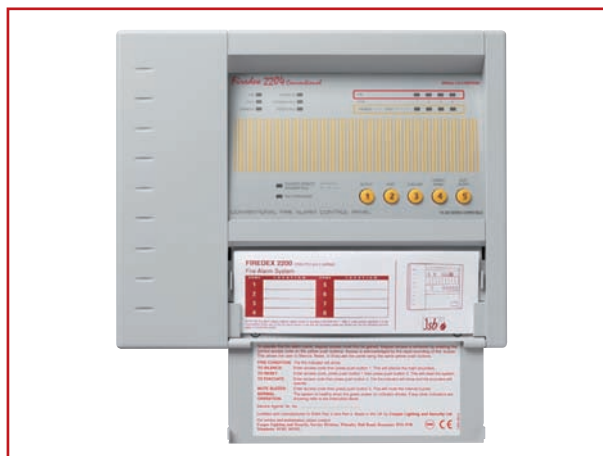
FIREDEX 2200

REPEATER PANEL

- Repeater matches the style and appearance of main control panels
- Facility for signalling to repeater panel provided as standard on 8 zone panel
- Specially configured versions of 2 and 4 zone panels available for use with a repeater panel
- Displays essential information at other key locations in a large building/site
 - Zone fire and fault conditions
 - Test mode in operation
 - Zones or alarm lines in disabled mode
- Repeater panel requires only a single pair of wires to receive signals from main control panel, plus local mains power supply, reducing cost of installation

INSTALLATION NOTES

- A full set of Installation and User Instructions is supplied with each panel to assist the installer to carry out the work efficiently and safely and the user to perform routine tests
- Panels are wall mounted. Surface mounted via 4 x screw fixing holes on back of housing. Use drill template supplied. Recessed mounting requires appropriate cut-out for steel semi-recessing box, which is screw fixed to wall. Panel is then screwed to back box via 4 x screw fixing holes (Note: Single zone panel cannot be recessed)
- Mains power supply cable must be routed via the designated 20mm conduit entry on the top or rear of the housing. The mains terminal block is provided with maintenance free poly switch protection
- Conduit entries are provided on the top of the housing for zone, alarm and output cables. Blanking plugs are supplied for un-used entry holes
- Rear entry apertures are also provided for back entry
- Standby batteries connected via push-on terminal connectors
- End of line (EOL) devices are supplied with the panel and must be fitted at the end of each detector and alarm circuit wiring
- Front cover is screw fixed. System logbook is stored behind hinged door
- Walk test feature permits single person commissioning (installer) for fast and efficient commissioning prior to handover
- See page 136 for full details of system design
- Cooper Lighting and Security offer a commissioning, service and maintenance facility. Please contact the Service Department - Tel: 01302 303352, E-mail: service@cooper-ls.com



Log book conveniently stored within panel



Ample internal space for cable entry and termination

TECHNICAL SPECIFICATION

Panel catalogue number	FX2201	FX2202	FX2204	FX2208
Standards	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994	EN54-2:1998 & EN54-4:1998 EN50130-4:1996 EN500081-1:1992 & EN61000-2-2:1994
Number of zones	1	2	4	8
Detectors per zone	20	20	20	20
Number of alarm circuits	2	2	2	4
Alarm circuit load	150mA per circuit 0.3A total	150mA per circuit 0.3A total	400mA per circuit 0.8A total	500mA per circuit 2A total
End of line devices	Detection circuits: EOUM-1 monitoring unit Alarm lines: 6.8K Ω resistor	Detection circuits: EOUM-1 monitoring unit Alarm lines: 6.8K Ω resistor	Detection circuits: EOUM-1 monitoring unit Alarm lines: 6.8K Ω resistor	Detection circuits: EOUM-1 monitoring unit Alarm lines: 6.8K Ω resistor
Auxiliary fire signal/fault output	5A 24V DC single pole changeover contacts	5A 24V DC single pole changeover contacts	5A 24V DC single pole changeover contacts	5A 24V DC single pole changeover contacts
Auxiliary DC output	24V DC fused. 30mA \bar{c}	24V DC fused. 30mA \bar{c}	24V DC fused. 30mA \bar{c}	24V DC fused. 30mA
Repeater port	No	No*	No*	Yes
Mains input voltage	230V AC -10% +15%	230V AC -10% +15%	230V AC -10% +15%	230V AC -10% +15%
System operating voltage	24V DC	24V DC	24V DC	24V DC
Standby duration	24 hours	24 hours	24 hours	24 hours
Battery (sealed lead acid)	1 x 3.2AH	1 x 3.2AH	1 x 3.2AH	2 x 3.2AH
Recharge period	24 hours	24 hours	24 hours	24 hours
Panel construction	Polycarbonate housing & back box	Polycarbonate housing & back box	Polycarbonate housing & back box	Polycarbonate housing & back box
Cable entries	Top: 6x20mm entries with blanking plugs Rear cable entry aperture	Top: 12x20mm entries with blanking plugs Rear cable entry aperture	Top: 12x20mm entries with blanking plugs Rear cable entry aperture	Top: 12x20mm entries with blanking plugs Rear cable entry aperture
Environmental rating	IP30. -5°C to +40°C Humidity 75% max (non-condensing)	IP30. -5°C to +40°C Humidity 75% max (non-condensing)	IP30. -5°C to +40°C Humidity 75% max (non-condensing)	IP30. -5°C to +40°C Humidity 75% max (non-condensing)

Note: * To use 2 or 4 zone panels in conjunction with a repeater panel, order repeater configured version (eg FX2204CR)
- Configured versions only

OPTIONS

- Repeater panel**
 8 zone repeater panel with 24 hour standby, providing local indication of essential status information. Suitable for use with standard 8 zone main panel and configured versions of 2/4 zone main panels.
- Repeater configured panels**
 Specially configured versions of 2 and 4 zone main panels, required for use in conjunction with repeater panel
- Custom configured panels**
 Project specific custom configuration is available on request, for 2, 4 and 8 zone panels. Custom options available include:
 - Additional sounder circuits
 - Programmable sounder pulsing
 - Programmable alarm delay
 - Programmable zone latching feature
 - Non-latching/non-driving outputs
 - Additional fault and configurable volt free contacts
 To discuss specific custom requirements, contact our Fire Technical Support and Application department
 Tel: 01302 303350, E-mail: technical@cooper-ls.com
- Semi-recessing back box**
 Steel back box to semi-recess main and repeater panels (except single zone)



Optional recessing back box

FIREDEX 2200

SYSTEM ANCILLARIES

Callpoints
Page 78



Conventional sounders
Page 75



Detectors
Page 82



Beam detector
Page 94

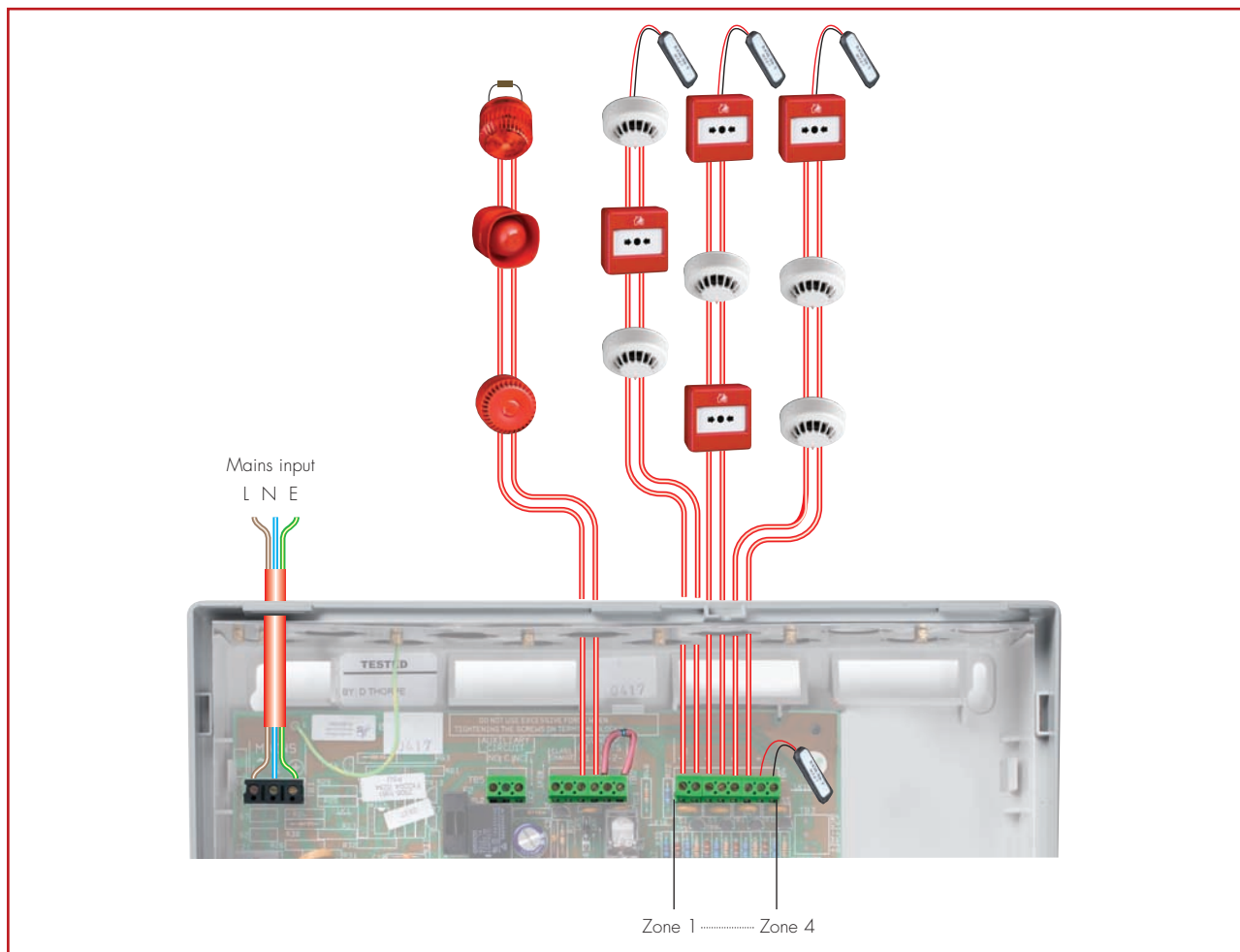


CATALOGUE NUMBERS

Cat. No.	Number of zones	Standby duration (hrs)	Weight (kg)
Panels			
FX2201	1	24	5.1
FX2202	2	24	5.2
FX2204	4	24	5.8
FX2208	8	24	6.0
Panels configured for use with a repeater			
FX2202CR	2	24	5.8
FX2204CR	4	24	6.0
Repeater panel			
FXRP2200	8	24	6.0

CATALOGUE NUMBER

Cat. No.	Description
Accessories	
FX22003300 MB	Steel back box for semi-recessing of FX2202/4/8



Typical wiring configurations



COMPATIBILITIES






DETECTOR AND CALLPOINT COMPATIBILITY

The following tables have been produced to enable simple selection of compatible detectors, callpoints sounders and ancillary items to operate with the range of Menvier and JSB conventional panels.

To select a suitable detector, detector mounting base or callpoint for a particular panel, read down the first column to select the required item and then read across to the appropriate column for the panel that the device is required to operate with.

For full details of particular product refer to the relevant detailed page/section as indicated.

X indicates that a particular device/panel combination is not available.
























	 FX4200 series	 MF200/ MF400	 FX2200 series	 FX2200BW series	 MF9300 series	See page number
Enhanced optical detector	FXN533	MPD821	FXN533	FXN623	MPD821	83-85
Rate of rise heat detector	FXN525	MFR830	FXN525	FXN625	MFR830	83-85
Medium temp fixed heat detector	FXN524	MMT860	FXN524	FXN624	MMT860	83-85
High Temp fixed heat detector	FXN526	MHT890	FXN526	FXN626	MHT890	83-85
Enhanced photo thermal detector	FXN632	MPT951	FXN632	FXN632	MPT951	83-85
Self check optical detector	X	X	FXN523ISC	X	X	86-87
Self check photo thermal detector	X	X	FXN622ISC	X	X	86-87
Self check heat detector (Rate of rise)	X	X	FXN525ISC	X	X	86-87
Self check optical detector (77°C)	X	X	FXN524ISC	X	X	86-87
Self check optical detector (92°C)	X	X	FXN526ISC	X	X	86-87
Common detector mounting base	FXN520	MDB800	FXN520	FXN520	MDB800	88
Box of 10 common bases	X	MDB800*10	X	X	MDB800*10	88
Surface callpoint c/w LED	FX201	MBG914	FX201	FX201	MBG914	78-81
Weatherproof Callpoint c/w LED	FX203	MBG917	FX203	FX203	MBG917	78-81
Bi wire output relay module	X	X	X	FXN011	X	130
Relay detector base	FXN520R	MDB800R	FXN520R	FXN520R	MDB800R	89
50m beam detector	MBD50R	MBD50R	MBD50R	X	MBD50R	94-95
100m beam detector	MBD100R	MBD100R	MBD100R	X	MBD100R	94-95

CONVENTIONAL SOUNDER COMPATIBILITY CHART

In certain cases such as with Bi wire systems the sounders must be of a specific type that is compatible with the fire alarm panel. However, in general conventional sounders can be used on a wide range of panels.

For full details of particular product refer to the relevant detailed page/section as indicated.

The table below lists the range of available Menvier and JSB sounders, their key characteristics and which of the Menvier and JSB panels they are compatible with (✓= compatible, X = not compatible)

	Weatherproof	Low profile	Flush fitting	Detector base mounted	High output	Low current	Accepts surface wiring	Pre recorded voice message	FX4200 series	MF200/MF400	FX2200 series	FX2200BW series	MF9300 series	See page number
 Bi wire base sounder				■		■			X	X	X	✓	X	108
 High output Bi wire sounder					■	■	■		X	X	X	✓	X	109
 100mm Metal bell							■		✓	✓	✓	X	✓	104
 125mm Metal bell							■		✓	✓	✓	X	✓	104
 150mm Metal bell							■		✓	✓	✓	X	✓	104
 200mm Weatherproof metal bell	■						■		✓	✓	✓	X	✓	105
 Low profile surface sounder		■			■				✓	✓	✓	X	✓	114
 Weatherproof surface sounder	■				■		■		✓	✓	✓	X	✓	115
 Flush sounder		■	■						✓	✓	✓	X	✓	110
 High output sounder					■		■		✓	✓	✓	X	✓	116
 Low current sounder						■	■		✓	✓	✓	X	✓	117
 Detector base sounder		■		■					✓	✓	✓	X	✓	112
 Base sounder beacon		■		■		■			✓	✓	✓	X	✓	112
 Speech sounder	■				■		■	■	✓	✓	✓	X	✓	106
 Discreet sounder		■				■			✓	✓	✓	X	✓	111
 Low profile xenon beacon		■			■				✓	✓	✓	X	✓	118
 Weatherproof xenon beacon	■				■		■		✓	✓	✓	X	✓	119
 Low profile combined sounder beacon		■			■				✓	✓	✓	X	✓	120
 Deep base combined sounder beacon	■				■		■		✓	✓	✓	X	✓	121
 Low profile LED beacon		■				■			✓	✓	✓	✓	✓	122
 Weatherproof LED beacon	■					■	■		✓	✓	✓	X	✓	123
 Low profile combined LED sounder beacon		■			■				✓	✓	✓	X	✓	124
 Weatherproof combined LED sounder beacon	■					■	■		✓	✓	✓	X	✓	125