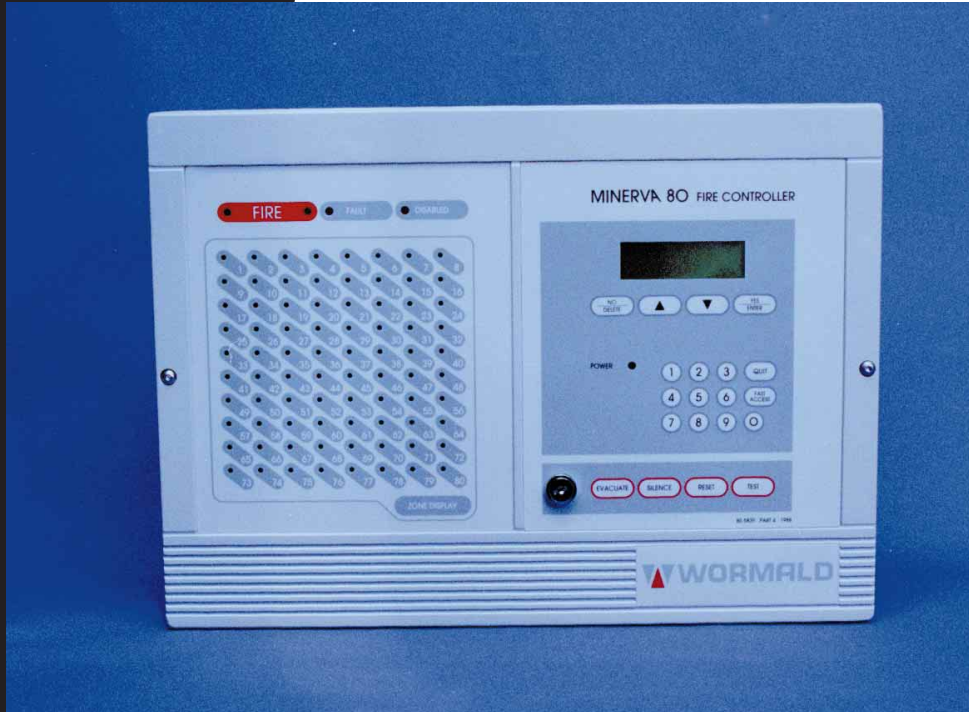


MINERVA

8 / 16E / 80



MINERVA

WHAT SHOULD YOU EXPECT OF YOUR FIRE DETECTION SYSTEM?

In broad terms: cost effective reliability and flexibility. In today's buildings, under today's conditions, you should also be looking for ease of operation, flexible programming, precise fire source pin-pointing and the kind of circuitry and sensitivity which ensures rapid activation in the event of a fire.

MINERVA MEETS ALL THESE EXPECTATIONS AS A MATTER OF COURSE.

Minerva is a comprehensive range of fire controllers designed and built to BSEN ISO9001/2 by the UK's leading fire and security company. There are 3 models in the range - Minerva 8, 16E and 80. All comply with BS5839 Part 4, may be installed to BS5839 Part 1 and have been approved by LPCB (Loss Prevention Certification Board).

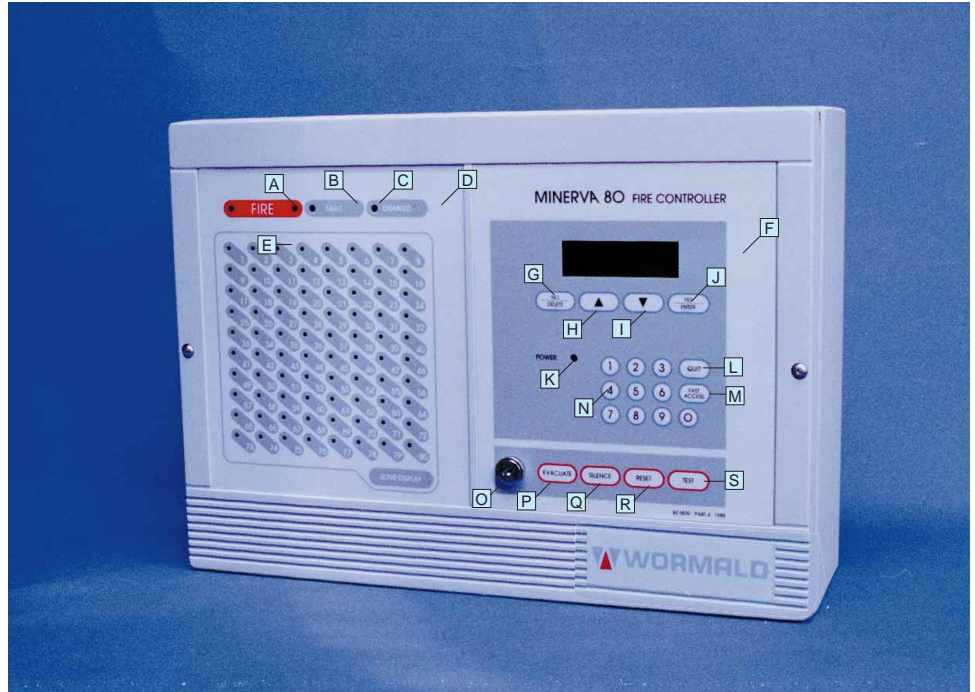
An advanced, proven micro-processor based system, Minerva provides conventional as well as addressable and analogue addressable detection at the price of today's conventional systems. The decision to sound the alarm is made at the controller allowing adjustments and compensations to be made for changes in environmental conditions. In short, maximum security whilst minimising the risk of false alarms.

Modular in design, Minerva provides economical fire detection for small buildings but is also flexible enough to implement the complex event procedures required in larger ones. Detectors are controlled in groups of up to 80 zones, all software configurable, so avoiding the expensive need to hardwire each zone back to the control panel. Further savings are made possible by harnessing the power of the latest micro-processing technology to enable a single loop of two-core cabling to carry both detection and command signals.

Backwards compatibility is also achieved by using an ancillary module which allows existing fire systems to be updated and extended cost effectively, utilising existing wiring where possible and with minimal disruption. Other ancillary modules offer even greater system flexibility: short circuit sensing isolation ensures Minerva continues in operation, even if a wiring fault occurs. Local sounder activation further reduces wiring costs and switch monitoring allows easy interface to a building's plant and control systems.

Further flexibility and installation savings can be made using the loop power Minerva options. Loop powered Minerva panels allow sounders and beam detectors to be powered from the same loop wires that carry communications and power to the detectors and other ancillaries.





- | | | | |
|--------------------------------|---------------------------------|---------------------------------|------------------------------|
| A 'FIRE' LED - RED | F ALPHANUMERIC DISPLAY | K 'POWER' LED - GREEN | P EVACUATE KEY |
| B 'FIRE' LED - RED | G NO/DELETE KEY | L QUIT KEY | Q SILENCE KEY |
| C 'FAULT' LED - YELLOW | H SCROLL UP KEY | M FAST ACCESS KEY | R RESET KEY |
| D 'DISABLED' LED YELLOW | I SCROLL DOWN KEY | N NUMERIC KEYPAD | S TEST KEY |
| E 'FIRE ZONE' LEDs-RED | J YES/ENTER KEY | O KEY SWITCH | |

A clear liquid crystal display, combined with simple controls and text messages, puts ease of use high on the list of Minerva's benefits. Capacity increases from 8 to 80 zones across the range, but each controller is housed in the same compact, attractive case which can be surface or flush mounted, ensuring that Minerva complements any decor from hotel reception to prestigious office.

MINERVA KEY FUNCTIONS

Thanks to powerful software, each zone can be given a tailor-made response text message to help locate the source of a fire. Software configuration and reconfiguration can be carried out on site, with minimum disruption and the avoidance of system down time. Correct execution of the software is ensured by twin micro-processors that perform watchdog functions on each other.

Minerva's sounders can be set for either continuous, pulse, or a combination of two tones via the system software. The pattern of signals is programmable, allowing phased, controlled evacuation of buildings.

To aid the rapid location of fire, remote repeater panels or geographical mimics can be connected to the controllers for greater monitoring convenience, as can visual display units.



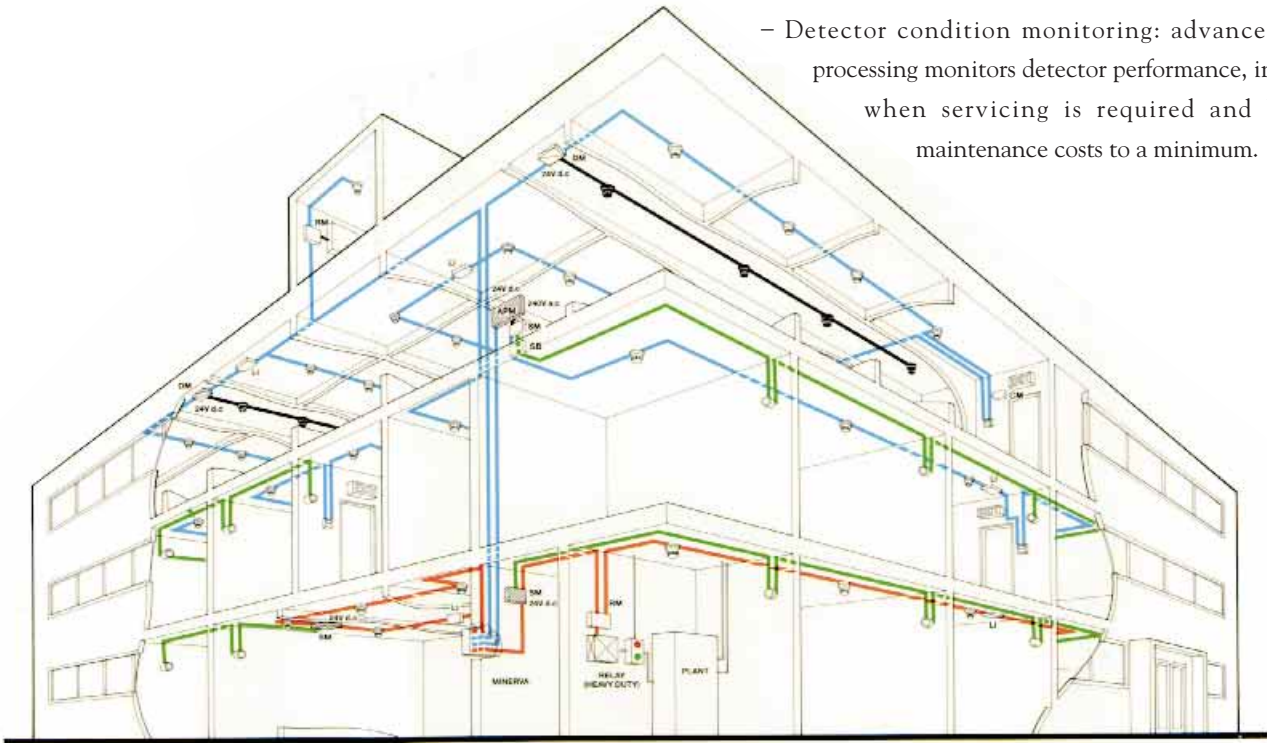
For management information, a printer can also be connected to Minerva providing a hard copy of events. Minerva has the capacity to store up to 500 events in its memory.





Finally, a weekly test reminder facility can be built in, while a walk-test facility allows truly cost-effective systems checking by a single operative.

MINERVA SPECIAL OPTIONS

- Pre-alarm: analogue smoke sensors can be programmed to provide the earliest possible warning of a fire condition.
- Threshold compensation: Minerva can be configured to adjust to smoke detector alarm thresholds as the units become dirty over time, thus ensuring continuous optimum performance.

- Detector condition monitoring: advanced signal processing monitors detector performance, indicating when servicing is required and keeping maintenance costs to a minimum.



- MINERVA** MINERVA FIRE CONTROLLER
-  ADDRESSABLE OR ANALOGUE ADDRESSABLE FIRE DETECTOR
-  CONVENTIONAL FIRE DETECTOR
-  ALARM SOUNDER
-  BREAK GLASS CALLPOINT

RM RM500 addressable relay module provides clean changeover relay contact used for remote plant shutdown, fire door release etc.

DM DM500 addressable interface module allows conventional fire detectors to be interfaced to the address loop.

SM SM500 addressable sounder module provides a monitored output drive for up to 500mA of sounders.

LI LI500 line isolator - designed to sense short circuit conditions on the loop and isolate the relevant section.

CM Addressable contact monitor module allows normally open or normally closed contacts to be interfaced to the address loop.

SB Sounder Booster module used in conjunction with either the SM500 or RM500 provides 2 x 15 Amp relays typically used to drive a large number of monitored sounders, xenon beacons etc.

APM Addressable power module provides monitored 24 Vdc to remote locations.

 Loop A: Address loop

 Loop B: Address loop

 Monitored sounder spur

 Conventional detector spur

THE MINERVA RANGE: TAILORED TO YOUR REQUIREMENTS

In addition to the shared features of the full range described above, the three Minerva models are each carefully tailored to meet *your* needs.



MINERVA 8

For small commercial premises, warehouses, etc. up to 8 zones and 99 detection points. The smallest of the range, its LCD screen can display up to 80 characters, including user-defined fire zone messages. To minimise false alarms, detector sensitivity can be adjusted from the controller to match environmental conditions and point address.



MINERVA 16E

For schools, nursing homes, etc. up to 16 zones. All the features of Minerva 8 plus larger, backlit, 80 character LCD display, allowing user-defined point text messages to be conveyed about every detector. Programmable bell mapping automatically sets phased evacuation procedures in motion while address points can be allocated to fire doors to monitor their activation.



MINERVA 80

For hospitals, hotels, local authority buildings and other multi-corridor environments. Offers the same features as the Minerva 8 and 16E but expandable up to 80 zones to grow with your business.

MINERVA - THE FUTURE OF FIRE DETECTION

SPECIFICATION DATA

MECHANICAL

Dimensions: Controller 440W x 320H x 140D
Colour: Dawn Grey
Installation: Surface or Semi-flush Mounted

ENVIRONMENTAL

Operating Temperature Range: - 10°C to + 55°C
Storage Temperature Range: - 20°C to + 65°C
Humidity: Up to 95% RH (Non-condensing)
Housing Protection To: IP43

ELECTRICAL

Mains Supply: 110V-120V/220V-240V a.c. \pm 10% at 50/60HZ \pm 5%
Secondary Supply: 24V d.c. Nominal

NOTE: A self contained 3 amp switch mode power supply together with 2 x 6 AH 12V or 2 x 10 AH 12V batteries may be fitted inside the main housing of the Minerva 8 or Minerva 16E. The Minerva 80 requires a separate housing for its power supply. Batteries up to 2 x 15 AH 12V may also be fitted in this housing.

INPUT

	MINERVA 8	MINERVA 16E	MINERVA 80
Number of Loops:	1	2	Up to 10
Addresses per Loop:	99 Max	99 Max	99 Max

OUTPUT

Display:	8 Zone	16 Zone	80 Zone
	80 Character	80 Character	80 Character

Sounder: There are two separate monitored sounder outputs each rated at 0.85A.

Alarm: Fire – Relay output rated at 30V d.c. at 1.5A volt free pole c/o.
Fault – Relay output rated at 30V d.c. at 1.5A volt free pole c/o.

DETECTOR BASE COMMAND MODULES:

MI900	Line Isolator Detector Base	MB600	Sounder Base (Conventional)
MC900	Addressable Relay Detector Base*	MB900	Line Powered Addressable Sounder Base*

* Addressable detector base command modules and detector take the same address.

COMMAND MODULES:

SM520	Sounder Module	LI520	Line Isolator Module
RM520	Relay Module	CM520	Contact Monitor Module
AM521	Aspirating Interface	AM921	LaserPlus Interface
LI520ex	Intrinsically Safe Line Isolator	LPS520	Loop Powered Sounder Module
LPBD521	Loop Powered Beam Detector I/F	MDM521	Multi-DM Module
SB520	Sounder Booster Module	PI521	Plant Interface Module
SD520	Smoke Damper/Door Module	SU521	Shop Interface Module
TM520	Timer Module	DM520	Conventional Detector Module

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