Vigilant FP4000 Fire Alarm System

The Vigilant FP4000 is an intelligent multizone fire alarm and protection control system capable of providing an advanced solution to the total fire protection requirements of all types of premises. It monitors detector circuits and allows for display of alarm conditions at multiple locations, control of evacuation devices, individual identification of operated or dirty detectors, supervision of sprinkler systems, sophisticated ancillary control functions, and a variety of remote signalling options.

- Approved
- Versatile
- Clear Alarm Annunciation
- Easy to Test and Service
- Reliable
- High Quality
- High Integrity
- Cost Saving Features
Approved
- Complies with the NZ Building Code requirements for fire alarm systems where fire safety precautions type 2, 3, or 4 or type 7 are specified.
- Complies with NZS 4612.
- FPIS listed for use in automatic and self-monitored manual systems.
- Meets New Zealand Fire Service requirements for connection to remote receiving stations.

Versatile
- Suitable for use with a wide range of automatic smoke, thermal, flame detectors, or manual call points.
- Choice of gated or instant smoke detector operation.
- Detectors may be individually addressed or grouped in zones.
- Compatible with self-monitoring smoke detectors which give a fault signal when dirty.
- Choice of cross-zone operation on selected circuits.
- Auxiliary non-alarm and/or non-latching inputs available (eg., for sprinkler flow switches).
- Control outputs available remote from the control unit.
- Control outputs individually programmable to operate on virtually any combination of input conditions.
- Typical uses would be sprinkler testing and monitoring, plant shutdown, air conditioning control, local alarms.
- Audible fault warning with provision for external fault sounder for systems which are not remotely monitored.
- Responder loop design provides a substantial saving in wiring costs compared with conventional installations.
- Connection available for interface to building services, controlled evacuation system, etc.
- Compatible with Fire Service remote receiving stations.

Clear Alarm Annunciation
- High brightness light-emitting diode lamps provide clear indication of zone and control system status.
- Clear, high-contrast front panel area is provided for indexed building layout plan.
- Index is illuminated on occurrence of a fire condition.
- Remote mimic units are easily connected to repeat alarm display in other parts of the premises.
- Zone indicators are fully programmable to signal alarm on virtually any combination of input conditions. This allows custom design of easily-understood alarm displays.
- Optional printer available for logging of all events.
- Optional text and graphic alarm display available.

Easy to test and Service
- Self-checking test function available to routine alarm test personnel.
- Internal diagnostic indicators aid first level servicing.
- Plug-in service and programming terminal gives service access to a wide range of menu-driven diagnostic functions and allows prompt location of the source of faults.
- Non-latching test mode enables call points, detectors, and sounders to be tested quickly.
- Low battery maintenance. Small to medium sized systems are powered by internal sealed lead-acid battery and charger.
- Days and times for automatic self-test may be programmed to minimise the likelihood of after-hours callouts.

Reliable
- Modern electronic circuit design.
- All detector circuits fully supervised. Responder loop fully supervised. Responder loop operation maintained even in the presence of a short circuit or break.
- Remote display communications monitored.
- Evacuation sounder circuits supervised.
- Daily automatic self-test ensures that each detector circuit is working and that battery is in good condition.
- Power supply supervised with fail-safe operation.
- Supervisory “watchdog” guards against system or Responder processor failure.
- Programmable parameters stored in non-volatile memory which is protected even if the power supply is removed.

High Quality
- Designed specifically for New Zealand conditions by a company which has specialised in the design, installation and service of fire alarm systems for over 75 years.
- Built and tested to strict quality assurance standards (ISO 9001 Certified) using modern manufacturing techniques and skilled staff.
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High Integrity
Central to the FP4000 is the innovative “Responder Loop” design. A number of addressable “Responders” are located around the protected premises. Detector circuits and control outputs wire locally to these Responders, which are connected in a four-wire loop to the main control unit. This loop is fully protected: a partial, or complete break, or short, anywhere on the loop is detected and isolated automatically. All communications and system operations are maintained even in the presence of the fault condition.

Cost Saving Features
- Lower installed cost because the loop design requires less wiring.
- Can be configured as a low-cost addressable system using conventional detectors (not special addressable types).
- High-integrity monitored and protected communications.
- Loop fault sensing and isolation at every Responder.
- System’s intelligence pinpoints location of faults rapidly.
- Field programmable.
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### Specifications

#### Control and Remote Display Units
- **Cabinet Size (mm):** 510h x 485w x 110d.
- **Extension Multiple (mm):** 360h x 485w x 110d.
- **Mounting Styles:** Rear Service (window mount), Front Service (wall mount).
- **Cabinet Material:** 1.2mm mild steel.
- **Cabinet Finish:** Oxyplast Baked Epoxy.
- **Shipping Weight:** 10kg (without battery).

#### Responder Units
- **Cabinet Size (mm):** 180h x 240w x 50d.
- **Mounting style:** Surface mount.
- **Cabinet Material:** 1.0mm mild steel.
- **Cabinet Finish:** Galvanised.
- **Shipping Weight:** 1kg.

#### Responder Types
- **Thermal (ATR):** 4 Thermal/Manual circuits.
- **Relay (ARR):** 4 Thermal/Manual circuits; 4 Changeover relay outputs.
- **Smoke (ASR):** 4 Smoke detector circuits.

#### Power Supply
- **Internal Supply:** 2 x 6Ah 12V sealed lead-acid battery and charger.
- **External Supply:** Larger systems require external 24Vdc supply.
- **Remote Display Units:** As above. Smaller remote display may be powered from main battery.
- **Supervision:** Defect 24.4V, Fire 19.2V. Charger automatically inhibited to test true battery voltage.

#### Inputs
- **Thermal/Manual Ccts:** Normally closed contacts end of line supervision.
- **Smoke Detector Ccts:** Normally open contacts end of line supervision.
- **Ancillary Control Inputs:** Optional use of Thermal/Manual circuits.

#### Outputs
- **Evacuation:** Switched 24Vdc, or c/o relay contacts at main control unit. Outputs available at ARRs for local evacuation devices. Selectable monitoring.
- **Remote Connection:** Isolated contacts. Fire, Defect, Brigade Isolate, Brigade Test.

#### Ancillary Outputs: Normal, Defect, Common
- Fire, Individual mimic drive for each zone alarm. 4 Programmable outputs. 4 Programmable c/o Relays at each ARR.
- Charger inhibit. External local defect warning.

#### Communications: Responder loop (2 x 4 wire).
- Remote Displays, Printer/Programmer, Serial Data

#### Indicators
- **External:** Normal, Defect, Fire, Zone Alarm.
- Index illuminated in fire state.
- **Internal:** Normal, Defect, Fire, Zone Alarm, Zone Defect, Loop Defect, Evacuation Defect, RZDU Defect, Battery Low, Charger, Self-Test, Mains, Watchdog, Buzzer.

#### Controls
- **External:** Brigade Silence Alarms, Trial Evacuation.
- **Internal:** Reset, Self-Test, Mains, Silence Alarms, Brigade isolate, Brigade Test, Ancillary Isolate, Lamp Test, Non-Latch Test.

#### Programming Commands
- **System Commands:** Memory, Time/Date, Serial port setup, History log interrogate.
- **Query:** Programmed parameters, Configuration, Diagnostics.
- **System Configuration:** Circuit to Zone mappings, Displays, Remote Displays, Responders.
- **Circuit Functions:** Type, Gating, Detectors.
- **Zone Functions:** Type, Latching, Cross-zone.
- **Control Outputs:** Boolean AND, OR, NOT.

The FP4000 is a product of Vigilant Fire & Evacuation Systems.