F5 Conventional Fire Alarm Control Panel NZS 4512:2021

Overview

The Pertronic F5 is a fire alarm control panel iwith five conventional detection zone circuits. The F5 supports Pertronic indicating manual call points (MCP), Pertronic indicating heat detectors and System Sensor smoke detectors. The F5 accepts one or two optional internal EA20 (20 Watt) evacuation amplifiers and an optional transmitter for the fire brigade. The panel complies with the requirements of NZS 4512:2021 and the NZ

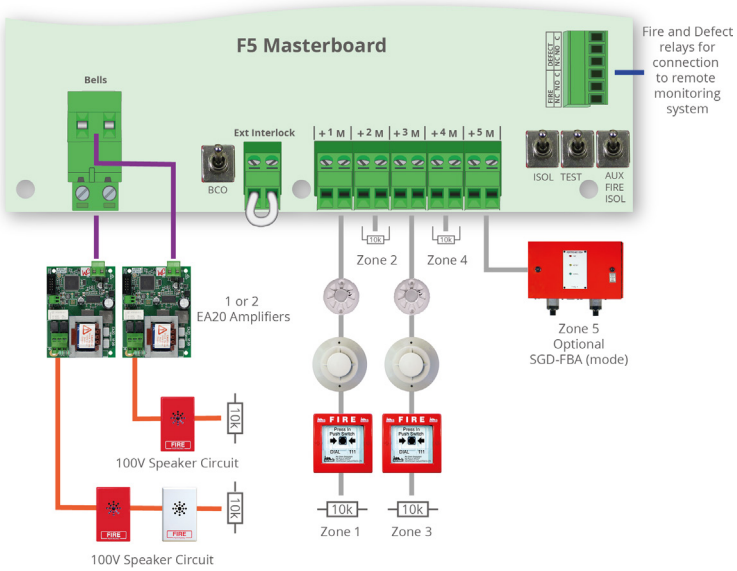
Features

- Optional Front Service or Rear Service formats
- Front panel:
  - Indicators: Fire (per circuit); Normal; Defect
  - Key-switches: Trial Evacuation, Silence Alarms
- One Supervised Bell circuit
  - 2 x 3A BELL OUT connectors: 5A maximum
  - 4 x Spurs maximum (4 x 47K) allowed
- Alarm and Defect buzzer
- Up to two optional EA20 (20 Watt) 100 Vrms line amplifiers with voice EVAC and TYPE 5 messages
- Fire & Defect changeover relays
- Electrically-isolated alarm transmitter (SGD) interface
- Internal switches: Bell Cut-Off (BCO); Fire Relay Isolate; Brigade Isolate; Test; Reset
- On-board system defect LED indicates source of fault
- Optional F4AUXRLYV2 boards or F4-RMAX provide
  - additional Fire and Defect relays
  - connection for a remote LED mimic (F4-RMAX
- Optional brigade connection using internally mounted Pertronic SGD7 or SGD8 transmitter or AFAM CTU with 15V Aux DC output
- Silence Alarms (BCO) key-switch provides reset and isolate functions (see Technical Manual for details)
- Automatic Alarm Verification Facility (AVF) protects against transient unwanted alarm activation
- Door Interlock
- Earth leakage supervision
- Automatic daily battery and detection circuit test
- Automatic Battery Absent detection
- AUX DC Out for AFAM CTU connection
- ALERT Tone Control output

Specification

Electrical	
Power Supply	230 Vac 50 Hz, 85W 15Vdc 5670 mA
Quiescent Current	45 mA @ 15 Vdc : excludes RMAX
Defect Current	30 mA @ 15 Vdc : excludes RMAX
Alarm Current	203 mA @ 15 Vdc : excludes RMAX and amplifier loads
Bell Output	15 Vdc, 5A - 2 x 3A fused connectors - 4 spurs maximum across both connectors
Battery (internal)	
Capacity	12 Vdc, 7 Ah
Type	Sealed lead acid (gel cell)
Integral Float Charger	13.6 Vdc, 375 mA
Environmental	
Operating Temperature	0 to +45° C
Humidity	10 to 95% RH (non-condensing)
Mechanical	
Overall Dimensions	390 x 270 x 80 (H x W x D mm)
Weight	4.0 kg excluding battery - weight includes 2 x EA20 amplifiers
Cabinet Material	1.2 mm mild steel powder coated
Colour	Cream

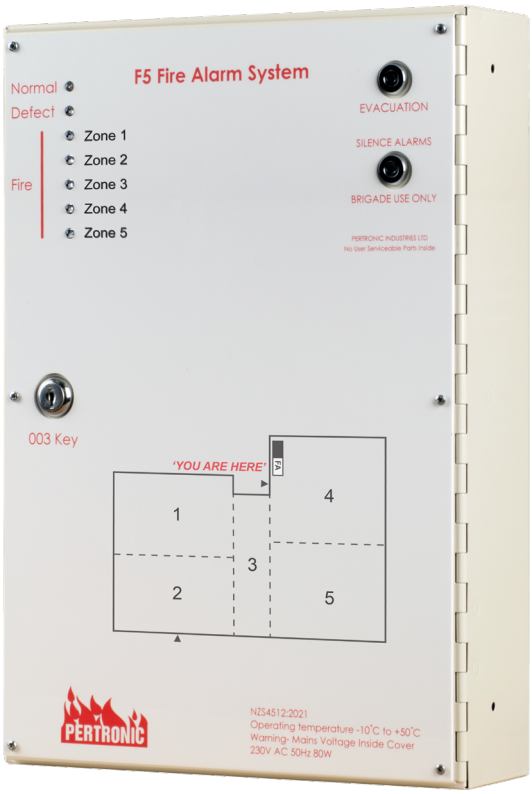
DIP Switches		
	OFF	**ON**
SW5-1	Zone 1 : Normal	Zone 2 : Isolated
SW5-2	Zone 2 : Normal	Zone 2 : Isolated
SW5-3	Zone 3 : Normal	Zone 3 : Isolated
SW5-4	Zone 4 : Normal	Zone 4 : Isolated
SW5-5	Zone 5 : Normal	Zone 5 : Isolated
SW5-6	Zone 1 : Type 5	N/A
SW5-7	Zone 2 : Type 5	N/A
SW5-8	Zone 3 : Type 5	N/A
SW5-9	Zone 4 : Type 5	N/A
SW5-10	Zone 5 : Type 5	DBA
SW5-11	N/A	N/A
SW5-12	Ext Comms Off	Ext Comms On
SW6	Defect Buzzer Off	Defect Buzzer On



F5 System Diagram

Detection Zone Circuits

- Five circuits terminated with 10 kΩ EOL resistors
- Accept a mix of System Sensor detectors, Pertronic indicating heat detectors and indicating MCPs
- Each circuit may have:
  - Up to 40 System Sensor smoke or heat detectors
  - A total of 50 Pertronic indicating heat detectors or indicating MCPs



Pertronic F5

Ordering Information

Product Code	Description	NZFPA Listing
F5FS-1EA20	F5, 5cct, 12 Volt Front Service Panel wiht 1 x EA20 Evac Amplifier	PI/
F5FS-2EA20	F5, 5cct, 12 Volt Front Service Panel with 2 x EA20 Evac Amplifiers	PI/
F5RS-1EA20	F5, 5cct, 12 Volt Rear Service Panel with 1 x EA20 Evac Amplifier	PI/
F5RS-2EA20	F5, 5cct, 12 Volt Rear Service Panel with 2 x EA20 Evac Amplifier	PI/

Important Notes:

- Non-indicating heat detectors and MCPs will produce a Defect signal, NOT produce a Fire Alarm signal when triggered and MUST NOT be used with the NZS 4512:2021 standard F5 panel. A hard short-circuit or open-circuit on a Pertronic NZS 4512:2021 conventional detection circuit will produce a defect signal.