4100ESi 15U Compact Fire Panel

The Simplex 15U Compact 4100ESi fire panel provides a comprehensive fire alarm detection and annunciator system in a convenient, attractive, 15U cabinet with matching expansion options and remote Fire Brigade Panel (FBP). This panel is well suited to be mounted alongside a T-Gen2 Grade 3 BOWS (FP1144 or FP1134 – refer PBG0215) or a T-Gen2 Grade 2 EWS (FP1129 – refer PBG0214).

It supports up to 2000 MX analogue addressable multi-sensor detectors, modules, sounders and sounder-beacons on up to 30 MX addressable loops.

InfoAlarm+ Touch Screen

The innovative 10” colour touch screen provides a unique user experience with integrated AS 4428.3:2010 Fire Brigade Panel, tabbed windows for Priority 2, Monitor, Faults, Disables and Forced Alarms (zone tests), together with a service window for experienced users. Context-sensitive on-line help provides user guidance for each tab selected.



15U Compact Panel

Power Supply

The 4100ESi is powered by a high capacity 10A mains power supply, including 3 supervised NAC outputs (2A capacity polarity switched outputs suitable for sounders, beacons, etc.), 3 switched 24V 2A outputs for powering ancillary equipment, 4 relay outputs for brigade signalling and auxiliary control (e.g., Smoke Control) and 2 monitored inputs. Battery charging and supervision capacity for up to 80Ah batteries is available, with a low voltage cut-out to prevent over-discharge of the batteries.

Display Door

The integrated 7U front panel display door provides 8 slots for the fitting of optional LED/Switch modules, AS 1668 fan control modules, Brigade Signalling Equipment (ASE) and a PA microphone for the optional T-Gen2 Grade 3 or T-GEN 50 voice evacuation unit.

Expansion Options

Expansion options abound with the 15U Compact Cabinet – internally with plug-in cards and externally with expansion cabinets.

The 15U 4100ESi shares the Power Distribution Interface (PDI) 4" x 5" standard card format with the larger 28U and 40U cabinets. It has space for two standard cards or one double-height card, however, with the use of the ME0516 Dual PDI Card Bracket, up to 4 double-height PDI cards (including the in-built MX Loop Card) can be accommodated.

The PDI range includes cards providing: Dual RS232 Ports, 4 relays/4 inputs, 8 relays, VESDA HLI, Building Network Interface (BNIC), SafeLINC Internet Interface, and single-mode fibre-optic cable modems.

Additionally, the 15U gear plate can house a T-Gen2 (60W only) and one 100V Switching or Splitter Module to provide PA voice and evacuation facilities. For larger evacuation systems the 4100ESi can interface to a separate T-Gen2 BOWS or EWS mounted alongside - hardwired or using 4100Comms HLI to convey alarm and fault information.

Space for 34Ah of batteries is available in the 15U cabinet. For expansion, the BOWS, EWS or BTO will provide a solution.

Expansion cabinet options include an 8U battery box, an 8U expansion cabinet, a 15U windowed expansion cabinet, and a 15U blank door cabinet with a built-in 10A PSU.

Remote Unit Interface

Remote equipment options can be used to reduce installation cabling costs by distributing 4100ESi interface cards such as MX loops, relays and 24-I/O cards. The compact panel contains an in-built remote unit interface (RUI) communication loop hosted by the CPU card. The RUI loop is short/open circuit protected and allows up to 30 remote equipment cabinets (RTUs) to be connected – each housing a local PSU and any of the range of PDI and older legacy-style interface cards.

Additionally, the 4100ESi panel can support up to 9 Remote Fire Brigade Panels (RFBP) connected to the RUI loop cabling. The RFBP is built into an 8U cabinet and contains an InfoAlarm+, 5A PSU, space for 12Ahr batteries and can accommodate up to 3 x PDI expansion cards.

Networking

Networking options for the 15U compact panel are compatible with the larger cabinet 4100ESi and also earlier generation Simplex 4100, 4100U, and 4100ES panels. A Network Interface Card (NIC) can be added to the base panel – along with 2 media modules supporting either wired (RS485) or multi-mode fibre-optic cables. For single-mode fibre-optic systems a dual-height PDI modem is also required – this provides communication up to 30 km on a single fibre-optic cable.

Features & Benefits

- Compact 15U cabinet with matching battery box, 8U and 15U expansion cabinets and surrounds.

  One MX Loop Card built-in, expandable to four with 4100-6077AU.

- Fully expandable to 30 MX loops with expansion equipment.
- MX Loop supports 850 series detectors, manual call points, modules and addressable sounder bases, sounders and sounder-beacons.
- MX Loop Current 500mA, up to 250 devices.
- 850 Series detectors include short circuit isolators with 4B-C base.
- 10A PSU with integral 3 x 2A NAC outputs, 3 x 2A switched power outputs, 4 change-over relays and 2 monitored inputs.
- 10” colour touch screen user interface with integrated AS 4428.3:2010 Fire Brigade Panel.
- Six Output Group Disable buttons for easy disablement of output circuits.
- Multiple tabs for Alarms, Priority 2 events, Monitored Statuses, Faults, Disables, Forced Alarms and Service Mode.
- Multiple Access Levels control user access to functions.
- Add-On Network Card with choice of wired (RS485) or multi-mode fibre-optics.
- Optional Single-Mode fibre-optic interfaces for extended operation.
- 99 nodes per network, compatible with legacy 4100 systems and TSW Colour Graphics workstation.
- Range of add-on front-panel display/control modules for zone LED display, AS 1668 fan controls, remote flow switch testing, etc.

- Brigade Interface kits for Centaur II, Cube/Code Red ASEs and NTFAST.
- Front panel mounted Manual Call Point.
- Battery capacity 34Ah.
- Earth fault monitoring for panel wiring and electrically isolated MX Loops.
- Walk Test groups for selecting portion of site for detector testing.
  Front panel re-addressing of detectors.
- IR Mode for MX Loops allows wireless interrogation/programming of detectors with 850EMT hand-held service tool.

  Up to 30 Remote Terminal Units (RTUs) housing add-on cards and power supplies supported over fault tolerant built-in RUI communications loop.
- Self-contained Remote Fire Brigade Panels available on the RUI communications loop.

Compatible MX Devices

Detectors:	850PH, 850P, 850H, 850PC
Modules:	CIM800, DIM800, DDM800, MIM800, MIO800, RIM800, SNM800, VIO800
Call Points:	CP820, CP830
Bases:	4B-C
Sounder Bases:	802SB, 901SB, LPSB3000, LPAV3000
Sounders:	LPSY800R, LPSY800W, LPSY865R
Sounder-Beacons:	LPAV800R, LPAV800W, LPAV865R
S/C Isolators:	LIM800, 4B-I base

Expansion Cabinets

A range of matching 8U and 15U expansion cabinets are available for the 15U Compact 4100ESi.

Generally, the 8U cabinets are mounted under the 15U compact panel, and 15U expansion cabinets alongside.

FP1029 BATTERY BOX 8U X 180mm

An 8U battery box that can house up to 80Ah of batteries.

4100-FP1046 FP 4100ESi EXPANSION CABT 8U WINDOWED

An 8U windowed-door expansion cabinet that contains a 7U 8-slot LED/Switch Display door and two short PDI backplanes supporting eight 4" x 5" (or 4 double-height) PDI cards or the ME0516 Double PDI card bracket.

Cables for extending power and communications from the 15U compact cabinet are included.

Generally, legacy cards cannot be fitted, except those modules that completely mount to the backplane (i.e., no retaining bar is required) and are fitted where there are no LED/Switch modules fitted immediately in front on the display door.

4100-FP1086 FP 4100ESi EXPANSION CABT 8U BLANK DOOR

An 8U expansion cabinet with a blank door (no LED/Switch modules or brigade kits can be fitted). Internally the two short PDI backplanes support up to eight 4" x 5" (or 4 double-height) PDI cards, or alternatively up to 8 slots of legacy-style cards or one ME0504K 10A PSU. One T-Gen 60 or T-Gen 120 can be supported on an FP1119 bracket, and two 100V Switching or Splitter Modules or HLI board can be supported on an FP1120 bracket.

An included retaining bar contains any daughter legacy cards in the motherboard. Cables for extending power and communications from the 15U compact cabinet are included.

4100-FP1088 FP 4100ESi EXPN CABT NO PSU 15U FULL WINDOW

A 15U windowed-door expansion cabinet complete with two 7U 8-slot display doors for mounting LED/Switch modules, AS 1668 fan control modules, brigade kits, or other 19" rack mounting equipment.

Internally the gear plate from the 15U compact panel is mounted – providing fitting space for four 4" x 5" PDI cards, or two double-height PDI cards, or up to 4 with the addition of the ME0516 Double PDI Card bracket.

One double slot legacy card can be fitted – as long as it does not require restraint of a plug-in daughter card. A T-Gen 60 can be mounted on the side fold, and one 100V Switching or Splitter Module or HLI board can be mounted on the gear plate to the right of the LPS.

There is also space for an additional ME0508K 10A PSU and 34Ah of batteries, should these be needed.

Cables for extending power and communications from the 15U compact cabinet are included.

4100-FP1087 FP 4100ESi EXPANSION CABT C/W PSU 15U BLANK DR

This blank door 15U expansion cabinet contains the same gear plate as the 15U compact panel, along with one ME0508K 10A PSU. It has space for four 4" x 5" PDI cards, or two double-height PDI cards, or 4 with the addition of the ME0516 Double PDI Card bracket. One double-slot legacy card and a T-Gen 60 or T-GEN 50 can also be fitted. One 100V Switching or Splitter Module can be mounted on the gear plate to the right of the LPS.

Cables for extending power and communications from the 15U compact cabinet are included.

There is space for up to 40Ah of batteries at the bottom of the cabinet.

Ordering Codes

New Installations – Standard Parts

4100-FP1045	FP 4100ESi 15U Compact Panel Base 15U 4100ESi panel Complete with: 1 x MX Loop Card, Operator Guide (LT0617), Installation Manual (LT0618), Wiring Diagrams (LT0432), Battery Leads, EOLs.
FP1048	FP 4100ESi Remote FBP 8U An 8U cabinet containing the 4100ESi 7U InfoAlarm+ User Interface door, RUI communication card (TIC) and 5A Power Supply. It has space for three 4" x 5" PDI cards, although 2 of these may encroach into the battery space. Operator and Installation Manuals are included.

15U Compact Panel Expansion Cards

4100-6077LIM	MX Digital Loop Card (DBL PDI) Double-height PDI MX Loop Card c/w LIM800 isolators
4100-6078	Modular Network Card (requires 2 media)
4100-6056	Wired (RS485) Network Media Card
4100-6057	Multi-Mode Fibre Network Media Card
4100-3204	4 x 2A DPDT Relay Card (PDI)
4100-3206	8 x 2A SPDT Relay Card (PDI)
4100-6046	Dual RS232 Card (PDI)
4100-6046V	VESDA HLI (PDI)
4100-6047	Building Network Interface Card (DBL PDI)

4100-6072/3	Left/Right Single Mode – Fibre Modem (DBL-PDI)
4100-6079K	SafeLINC Internet Interface (DBL PDI)
ME0516	Double PDI Card Bracket

Display Modules

4100-1288	64 LED/Switch Controller Module Incl Mounting Plate
4100-1289	64 LED/Switch Controller Module Excl Mounting Plate
4100-1277	8 Red / 8 Yellow LED Module
4100-1280	8 Switch/ 8 LED RED Module
4100-1284	8 Switch/16 LED Red/Green Module
4100-1282	8 Switch/ 16 LED Red/ Yellow Module
4100-1281	8 Button/ 8 Yellow LED Module
4100-ME0456	4100U 4 Fan Control Module

Brigade Kits

4100-ME0512K	4100ESi WA/Cube ASE & Mic Mounting Brkt & Loom
4100-ME0513K	4100ESi Centaur II ASE & Mic Mounting Bracket
FP1093	4100ESi 6U NT Brigade Door

Ancillary Parts

FP1115	T-Gen 60 60W 100V EWS
FP1116	T-Gen 120 120W 100V EWS
FP1117	T-Gen2 100V Switching Module
FP1118	100V Splitter Module
FP1119	4100ESi PDI T-Gen2 Mounting Bracket
FP1120	4100ESi PDI 100V Switch/Splitter Mounting Bracket
PA0766	T-GEN 50 24V Tone Generator

ME0490	T-GEN 50/4100U on 4U Door C/W Microphone
FP1143	T-Gen2 HLI board

Expansion Cabinets

FP1029	BATTERY BOX 8U x 180mm
4100-FP1046	4100ESi Expansion Cabinet 8U Windowed
4100-FP1086	4100ESi Expansion Cabinet 8U Blank Door
4100-FP1087	4100ESi Expansion Cabinet C/W PSU 15U Blank Door
4100-FP1088	4100ESi Expansion Cabinet No PSU 15U Full Window

Legacy Cards

4100-0302K	24 Point I/O Module
4100-3024K	24 Point Relay Motherboard
4100-4321K	6 Supervised Relay Card
4100-5004K	8 AZF Monitor Zone Card
4100-9863	TCP/IP Physical Bridge, Class B
557.202.508	CCU3 Modbus Interface RS485
557.202.509	CCU3 Modbus Interface RS485 & Ethernet
4100-0766K	T-GEN 50 Tone Generator 24V on Amp Bracket
4100-1043K	ISO8201 Strobe Driver on Amp Bracket

Emergency Warning System

FP1129	Grade 2 4 Zone T-Gen2 EWS in 15U Cabinet
FP1134	Grade 3 T-Gen 120 EWS in 15U Cabinet
FP1144	Grade 3 T-Gen 60 EWS in 8U Cabinet

References

Presentation Drawings

- 1976-276 15U Compact Panel

- 1976-299 Remote Fire Brigade Panel 8U
- 1976-303 8U Windowed Expansion Cabinet
- 1976-305 8U Blank Door Expansion Cabinet
- 1976-308 15U Windowed Expansion Cabinet
- 1976-310 15U Blank Door Expansion Cabinet

Collateral

- S4100-0031-22AU 4100ESi Compact panel data sheet
- 4100ESi Brochure
- 4100ESi System presentation
- 4100ESi sales presentation

Available on the ***Fireplace*** website at http://vigilant-fire.com.au

Further Product Information

For ordering, please contact Johnson Controls' Customer Service in Melbourne on 1300 725 688 or tfppcustservice.au@tycofp.com.

For technical support, contact Johnson Control's Australian Technical Support Centre on 1300 552 559.

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