



# Simplex<sup>®</sup> 4100U-S1 Addressable c.i.e.

*Big-System Power & Flexibility  
in a small system package*

*The Simplex<sup>®</sup> 4100U-S1 is a cost competitive, out-of-the-box addressable system that is based on the established power and flexibility of the Simplex 4100 series of products.*

## Features

- In-built IDNet addressable loop driver
- 9 Amp power supply/battery charger
- 250 addressable devices per IDNet loop
- Wide range of addressable devices
- Expansion to 2 x IDNet addressable loops
- On-site programmable
- Networkable into large systems
- Supplied with 16 x AZF zone controls & LED indicators. Expandable to 64 x AZF controls or a combination with AS 1668 controls and LED indicators

## General

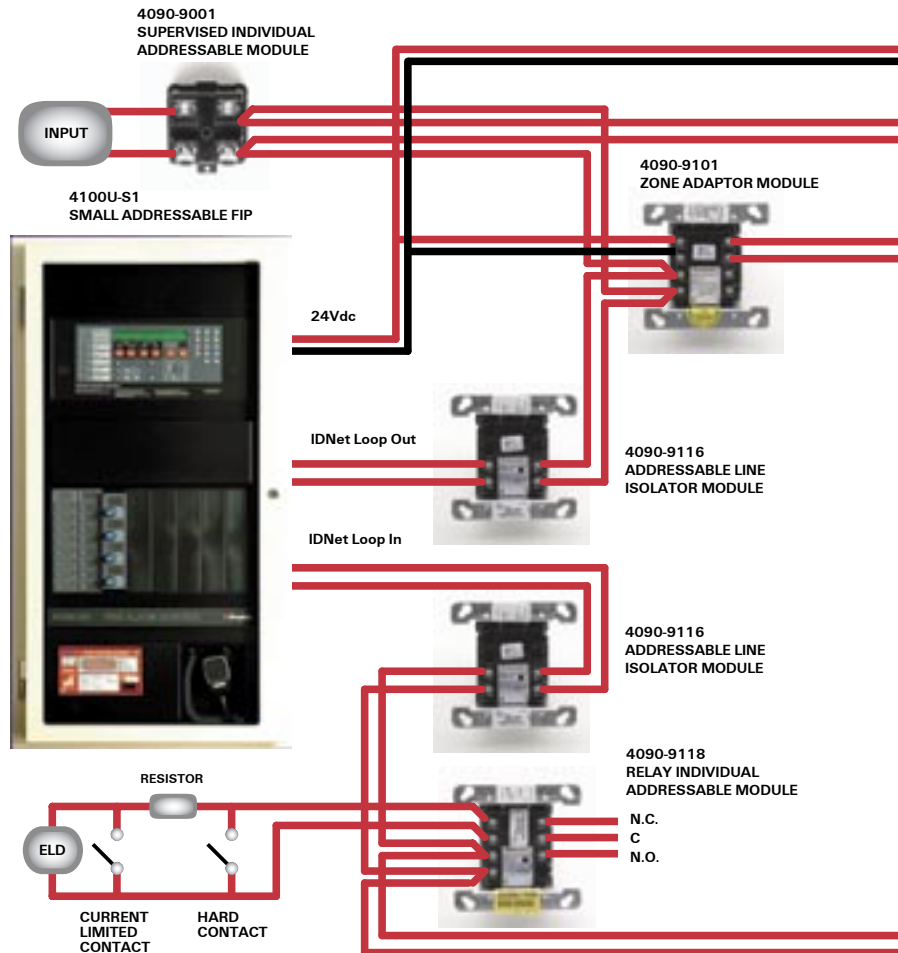
The entry level Simplex 4100U-S1 is supplied configured as a single loop analogue addressable fire alarm system providing a low cost solution for smaller sites requiring addressable fire alarm technology.

For typical applications such as nursing homes, offices, factories and small shopping centres, the 250 device capacity is ideally sized. Where additional capacity is required, the Simplex 4100U-S1 can be expanded to cater for medium sized installations, such as a university campus or an industrial site.

## System Overview

The Simplex 4100U-S1 is a new configuration of the well-established 4100U system. It is aimed at applications requiring only one or two loops of Simplex addressable devices. The Simplex 4100U-S1 is a fully functional 4100U system, packaged and configured to meet the requirements of most small addressable installations. The options for expansion have been limited so that installers do not need to grapple with all the configuration possibilities of a larger system.

The Simplex 4100U-S1 retains features such as CPU with dual configuration programs, module level earth fault search and power limiting. Installation and service is made easy with convenient service port access. It is fully compatible with existing 4100 networks and modules. Being a 'standardised' 4100U, the Simplex 4100U-S1 can take full advantage of all the normal 4100U software upgrades and module enhancements. The Simplex 4100U-S1 will generally be available ex-stock.



### Configurable

The Simplex 4100U-S1 standard configuration includes a 250 device capacity addressable loop, 3 supervised outputs, plus 16 zones of AS 4428 compliant indication and control. This can be easily upgraded as the project's needs change by adding modules such as an optional brigade signalling kit. Need to increase the panel's capacity to 500 addressable devices and 32 zones? It only requires an IDNet card and 2 additional 8 Zone LED/Switch modules that can all be fitted on site in less than 10 minutes. Programming software allows you to panel upload and download, import and export panel data with Microsoft Excel and generate panel label inserts. Addressable modules include 4 input/2 output, with current limited sensing, line isolator, power isolator and multi-sensor with selectable (patented) detection algorithms. Each module only occupies one IDNet address.

### Scalable

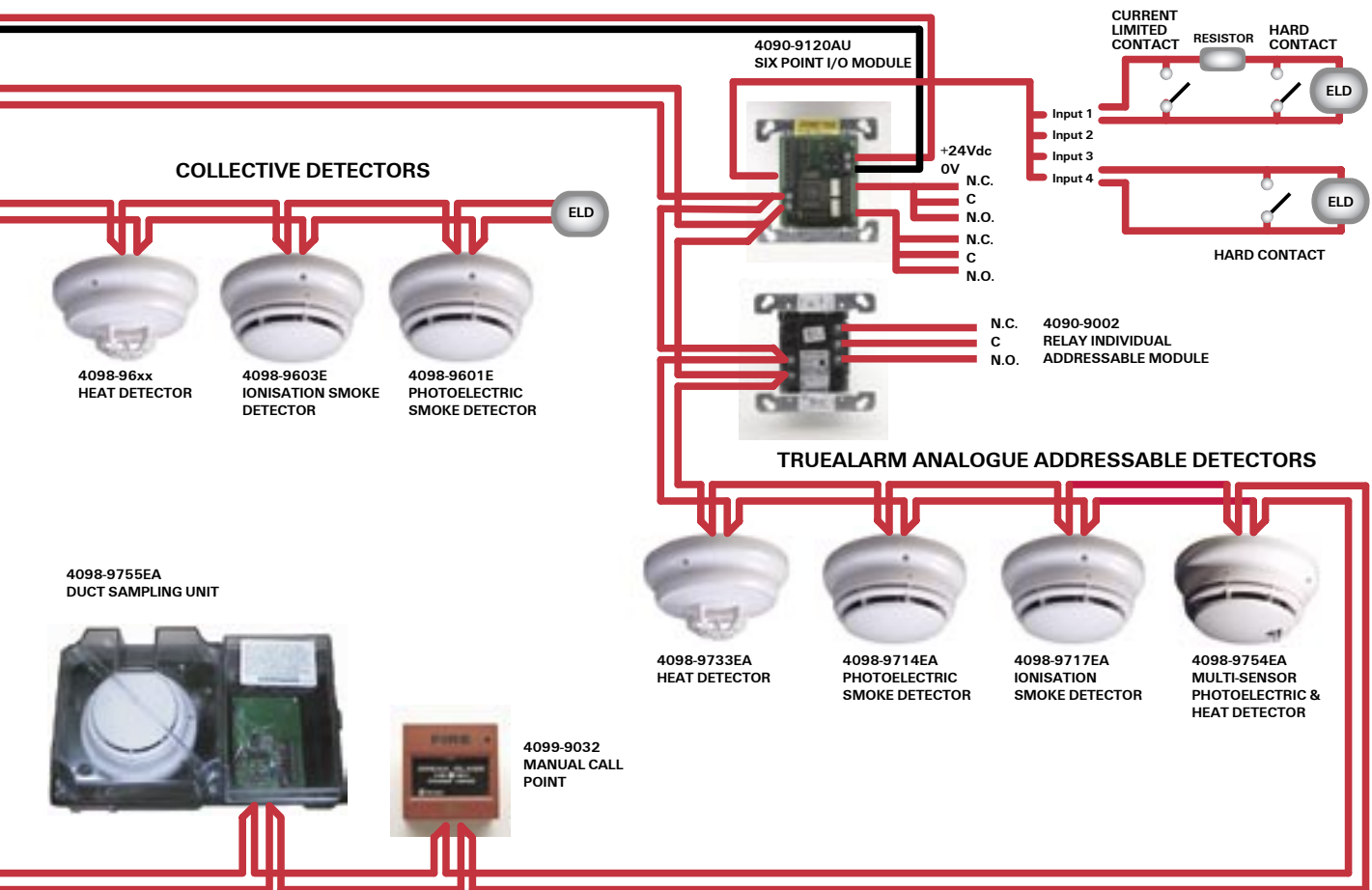
The Simplex 4100U-S1 can be configured to be a zone based collective panel or a 500 device analogue addressable panel, with up to 2 addressable loops (or a combination of conventional zones and addressable loops). Mimic panels, fire fan controls, VESDA and graphics are only a few of the many additions the Simplex 4100U-S1 can support. For larger or multi-building projects, the Simplex 4100U-S1 can be networked with up to 99 panels on a network, connected to a large 4100U network command centre with a capacity of 12,000 points.

### Compatible

Backwards compatibility has always been a feature of all Simplex panels. Even a 20 year old Simplex 2120 can be interfaced with the Simplex 4100U-S1, using well tested and documented procedures. The Simplex 4100U-S1 is also compatible with existing 4120 networks.

### Connectable

The trend towards computer based building services has exploded and the Simplex 4100U-S1 can communicate via a high level interface card with most systems, including VESDAnet, BACnet, Intranet/Internet (with panel generated emailing of alarms, faults & isolations), QE90 EWIS, most makes of BMS and PC Annunciator (with LAN support).



**Indicative System Diagram**

### Features

- Easy expansion with up to 2 IDNet addressable loops, programmable on-site with 250 devices per loop
- Wide range of addressable devices - detectors, sounder bases, input/output modules and 4-20mA analogue input module
- Supports on-site upload & download of panel program
- Optional AS 1668 Fan Control module (4 fans) with rotary switches and fan status LEDs
- 9A System Power Supply (SPS) module includes built-in IDNet addressable loop driver
- Supports remote serial LCD annunciators
- Networkable into large systems using optional RS485 or fibre optic network media cards
- Optional RS232 interfaces for High Level Interface for BMS, VESDA, QE90, BACnet and PC annunciators and remote printers
- Four operator access levels
- 1200 event historical log (separate alarm/fault logs)
- Walk test and individual point disconnect/disable
- Programmable alarm verification, output logic control, alarm thresholds, network operation and annunciation
- SafeLinc Internet Interface Card available for remote access via client LAN
- 19" rack cabinet



*Simplex 4100U-S1 Operator Keypad*

## Specifications

### System Capacity

Panel Capacity 500 points of Addressable input / output devices and detectors

### Mechanical

Cabinet Size(mm) 21U Cabinet: 1050 x 575 x 280 (HWD)  
Cabinet Material 1.2 mm mild steel  
Cabinet Finish Powder coated  
Cabinet Colour Cream Wrinkle BFF998CW

### Electrical

Mains Input 240V AC @ 2A +6%,-10%,50/60Hz  
Power Supply Output 28.5Vdc @ 9A  
Standby Battery 24V sealed lead acid up to 40Ah  
Battery Charger 27.5Vdc (nominal)  
PSU Supervision Charger high/low, Battery low/fail

### Environmental

Temperature 0°C to +45 °C  
Humidity 10% to 90% RH (non-condensing)

### Expansion Modules

4100 - 5004	Collective zone module; 8 zone circuits/module; Supports standard 20V detectors plus normally open contact devices
4100 - 3003	8 Point Auxiliary Relay Module; 8 CPU controlled auxiliary relays SPDT contacts rated for 3 amps @ 24Vdc or 30VAC
4100 - 4322	6 Circuit Supervised Signal Module; 6 Style Y (class B) circuits per module
4100 - 0113	RS-232/2120 Communications Module; Provides two RS-232-C outputs for remote printers and/or CRT; can be configured for communication with a host 2120 system; or as a Computer Port for communications to a remote system ie BMS or BAS Systems
4100 - 6014	4120 Modular Network Interface Module; requires two media modules, either RS485 Communications Media Card Option or Fibre Optics Media Card Option
4100 - 6056	RS-485 Wired Media Module mounts on 4100-6014
4100 - 6057	Fibre Optic Media Module mounts on 4100-6014
4100 - 3101	IDNet Addressable Loop Module; supports up to 250 IDNet Addressable devices or TrueAlarm Analogue sensors
4100-1282	8 Switch / 16 Red/Yellow LED module, provides 8 sets of AZF indications and controls
4100 - 1289	64/64 LED / SWITCH Controller Interfaces up to 64 LEDs and 64 switches to the master controller for front panel annunciation. Required for expansion above 32 AZF zone controls
4100 - 0154	High Level Interface (HLI) to VESDA® LaserPLUS and LaserSCANNER

### Operator Controls and Indications

Zone Status and Control Individual Zone Alarm and Isolate LED with individual zone isolate/de-isolate control

Additional Zone Status 2 line by 40 character backlight LCD with adjustable contrast control

### LED Status and Control Indicators

Common Alarm, Fault & Isolate, External Bell Isolated, Warning System Isolated, AZF Isolated, Mains Power ON

### Audible Buzzers

Panel sounder for Alarm, Fault, Isolate Conditions, CPU Piezo for keypad feedback

### Keypad Controls

#### Operator Controls

Ext. Bell & Warning System Isolate, Ack, System Reset, Isolate, Previous, Next, Display Keys, Action Keys, Fault/Isolate Keys and Entry Keys, some with programmable functions and labels for marking the function of each key

#### Software Features

- WALK TEST System Test
- 4 Operator Access Levels
- 1200 Event Historical Logging (separate alarm/fault logs)
- Zone selectable Alarm Verification
- Individual Circuit Disconnect / Disable
- Nonvolatile Flash EPROM for field editable program changes
- Dual database configurations for reduced service programming time
- Upload/Download facility for greater service flexibility
- AS 4428.1 Compliance

The Simplex® 4100U-S1 Fire Detection and Alarm Platform provides superior fire protection for a low end addressable system with lower costs of installation, maintenance and ownership. Designed to meet the needs of engineers, facility managers, building owners and electrical contractors, the Simplex 4100U-S1 builds upon the field-proven performance of the industry-leading Simplex 4100 Series fire alarm systems.

## Approvals

The Simplex 4100U-S1 is certified to Australian Standard AS 4428.1-1998: "Fire detection, warning, control and intercom systems - Control and Indicating Equipment, Part 1: Fire".

CSIRO ActivFire Listing No. afp-1682



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