



## IDNet<sup>®</sup> Addressable Modules

*IDNet communication is provided by the Simplex 4100U Control and Indicating Equipment (c.i.e.) and is the next generation of the addressable device communications, improving upon the basic MAPNET II communications protocol. The IDNet protocol and hardware enhancements support up to 250 addressable devices on a single wire pair and can support additional device types and different operations.*

### Features

- Individually addressable communications over a single pair of wires
- c.i.e. displays device location and status
- For use with Simplex 4100U Series c.i.e.
- Zone Adaptor Modules provide addressable interface to collective circuits
- IDNet digital protocol communications
- Convenient DIP switch address selection
- Supports up to 250 addressable devices

### General

IDNet communicating devices individually annunciate identity and accurate status to the 4100U c.i.e. Applications include sprinkler pressure switches, flow switches, valve monitor devices, typical fire detecting device and addressable control (voltage free) for AS1668 applications.

## 4090-9001 Supervised Individual Addressable Module (IAM)



The 4090-9001 IAM has both power and communications supplied by a two-wire IDNet circuit. It provides location specific addressability to single initiating devices such as

- ◊ Flow switches
- ◊ Valve monitor devices
- ◊ AS 1668 Airflow status,

by monitoring normally open dry contacts and the wiring to an end-of-line resistor. Closure of the monitored contacts initiates an alarm or other response as programmed at the 4100U c.i.e. An open in the monitored circuit wiring will cause a fault to be reported. Selections can be made at the c.i.e. to maintain the alarm condition if the initiating device contacts are momentary, or to track the device contact status.

### Technical Specification

Operating Voltage	24 to 40VDC*
Relay Contact Ratings	
non power limited	2A@30VDC <sup>1</sup> 1A@30VDC <sup>2</sup>
power limited	0.5A@120VAC <sup>1</sup> 0.25A@120VAC <sup>2</sup>

1 Address per IAM, auto selected	
Supervision Resistor	6k80hm 0.5W
Current Limited Operation	1k8/4k7 0.5W
Dimensions (HWD)	40x40x32mm
Relative Humidity	10 to 93% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications  
1. Resistive load  
2. Inductive load

*Note: Loop powered 2 wire device*

## 4090-9002 Relay IAM



Simplex IDNet Relay IAMs allow the c.i.e. to control a remotely located Form "C" Relay contact using IDNet addressable communications for both data and module power. Typical applications would be for switching local power for control functions such as magnetic door holders, or control of HVAC components, pressurization fans, dampers, etc. Relay status is also communicated requiring only one device address.

### Technical Specification

Operating Voltage	24 to 40VDC*
Relay Contact Ratings SPDT	
non power limited	0.5A @120VAC <sup>1</sup>
power limited	2A@24VDC <sup>1</sup> 1A@24VDC <sup>2</sup>

1 Address per IAM, auto selected	
Supervision Resistor	6k80hm 0.5W
Current Limited Operation	1k8/4k7 0.5W
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 93% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications  
1. Transient suppressed load  
2. Inductive load

*Note: Loop powered 2 wire device*

## 4090-9101 Zone Adaptor Module (ZAM)



The 4090-9101 Monitor ZAMs allow a single addressable point to monitor a collective initiating device circuit (IDC) zone populated with 2-wire or 4-wire initiating devices. One IDNet address is required per device. Up to 20 collective heat and smoke detectors can be monitored by a 4090-9101 Monitor ZAM.

### Technical Specification

Operating Voltage	24 to 40VDC*
ZAM Input Voltage	18.9 to 32VDC
ZAM Current @ 24VDC <sup>3</sup>	
Quiescent	16mA max.
Alarm	72mA max.

1 Address per ZAM, auto selected	
Supervision Resistor	3k3 Ohm 1W
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 93% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications  
3. Actual current value is determined by total device requirements

*Note: 4 wire device; requires separate 24VDC and IDNet communication loop*

## 4090-9116U Addressable Line Powered Isolator



4090-9116U Isolators provide IDNet communications isolation, improving installation convenience and increasing system integrity. Isolation is automatically activated when an output short circuit is detected with the condition reported to the c.i.e. Circuit isolation can also be selected manually from the 4100U c.i.e. Isolators power-up in isolation mode and are directed to connect by the c.i.e. If the output wiring is acceptable, the isolator will connect to the rest of the circuit. If the output wiring is shorted, the isolator remains isolated.

### Technical Specification

Operating Voltage	24 to 40VDC*
	1 Address per unit
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 90% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications

## 4090-9117AU Addressable Power Isolator



Under normal conditions, the 4090-9117AU provides continuity between ports. In the event of a short circuit, the 9117 opens a two-pole electronic switch, isolating both power circuit conductors. This function can also be selected from the c.i.e. Isolators power-up in isolation mode and are directed to connect by the control panel. If the output wiring is acceptable, the isolator will connect to the rest of the circuit. If the output wiring is shorted, it will remain isolated. The isolator reports to the c.i.e. when

it is in isolation mode and the extent of shorted wiring is available at the c.i.e. by identifying non-communicating device addresses.

### Technical Specification

Operating Voltage	24 to 40VDC*
Operating Current	2A@32VDC max.
	1 Address per unit
Input Current	10mA@24VDC
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 90% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications

## 4090-9118 Relay Individual Adaptor Module (IAM) with Supervised Input



The 4090-9118 with T-Sense allows a 4100U IDNet communication channel to monitor two input contact closures with one point and control an output relay with the other point. Power is supplied from the IDNet communications channel, eliminating the need for separate power wiring. The input circuit and relay operation are controlled independently and may be disabled separately. Point association is determined at the 4100U with the device address designated as a single hardware location.

### Technical Specification

Operating Voltage	24 to 40VDC*
Relay Contact Ratings SPDT	
non power limited	0.5A @120VAC <sup>1</sup> 0.25A@120VAC <sup>2</sup>
power limited	1A@24VDC <sup>1</sup> 2A@24VDC <sup>2</sup>
	One Address per IAM, auto selected
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 90% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications

1. Resistive Load
2. Inductive Load

*Note: Loop powered 2 wire device*

## 4090-9119 Relay IAM with Unsupervised Input



The 4090-9119 allows a 4100U IDNet communication channel to monitor an unsupervised input contact with one point and control an output relay with the other point. The module requires a single address. The input circuit and relay operation are controlled independently and may be disabled separately. At the 4100U host display, the device address is designated as a single hardware location. The individual points are considered "sub-points".

### Technical Specification

Operating Voltage	24 to 40VDC*
Relay Contact Ratings	
non power limited	2A@30VDC <sup>1</sup> 1A@30VDC <sup>2</sup>
power limited	0.5A @120VAC <sup>1</sup> 0.25A@120VAC <sup>2</sup>
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 95% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications

1. Resistive Load
2. Inductive Load

*Note: Loop powered 2 wire device*

## 4090-9120AU Six Point Input/Output Module



The 4090-9120AU allows a Simplex 4100U IDNet communication channel to monitor four T-sense input circuits and control two output relays from a single module requiring a single address. Power is supplied by a 24 VDC connection to a listed fire alarm power supply. The input circuits & output relay operation are controlled independently and may be disabled separately. Point association is determined at the 4100U host panel. At the 4100U host display, the device address is designated as a single hardware location. Two input supervision resistors are required per T-sense input.

### Technical Specification

Operating Voltage	18 to 32VDC
Operating Current	30mA@24VDC
Relay Contact Ratings SPDT	
non power limited	0.5A @120VAC <sup>1</sup> 0.25A@120VAC <sup>2</sup>
power limited	2A@24VDC <sup>1</sup> 1A@24VDC <sup>2</sup>
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 90% (n/c)
Ambient Temperature	0 to +49°C

1. Resistive Load  
2. Inductive Load

*Note: 4 wire device; requires separate 24VDC and IDNet communication loop*

## 4190-9050 4-20mA Analog Monitor Zone Adaptor Module (AMZ)



Analog Monitor ZAMs provide a multi-featured interface for connecting analog sensors on a 4-20mA loop to a Simplex addressable c.i.e. Each AMZ can have up to three separate threshold levels, each with a custom action message. The AMZ monitors the 4-20 mA loop connection and digitally communicates the sensor measurement to the panel. The panel can then determine whether a status annunciation is required and can display the sensor analog level directly in the appropriate units of measurement. Typical applications include: air quality for demand control ventilation, air and liquid temperature, humidity, air velocity and

toxic gas monitoring. Up to 100 AMZs can be used per c.i.e. with one address per AMZ.

### Technical Specification

Operating Voltage	18 to 32VDC*
Basic AMZ Current	30mA
Sensor Output	Switched Input Voltage
Sensor Loop Current	4mA to 20mA
Fault Output Current	5mA
LED Annunciator Current	3mA (2098-9808)
Dimensions (HWD)	105x105x35mm
Relative Humidity	10 to 90% (n/c)
Ambient Temperature	0 to +49°C

\*IDNet Communications

## 4099-9032 Manual Call Point



The 4099-9032 addressable manual call point provides a means to manually initiate a fire alarm condition to the 4100U c.i.e. via the IDNet channel. The IDNet channel provides the communication link between a call point and 4100U and powers the entire circuitry. Activation of the Simplex 4099-9032 manual call point requires the frangible element to be broken which causes contacts on a microswitch to close, initiating an alarm condition. Call Point reset requires the fitment of a

replacement frangible element. This is achieved by removing the screw in the bottom of the MCP cover, removing the cover, inserting a new element and replacing cover.

### Technical Specification

Operating Voltage	18 to 32VDC*
Dimensions (HWD)	86x87x35mm
Relative Humidity	10 to 95% (n/c)
Ambient Temperature	-10 to +70°C
SSL ActivFire listed	afp-1691

\*IDNet Communications



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