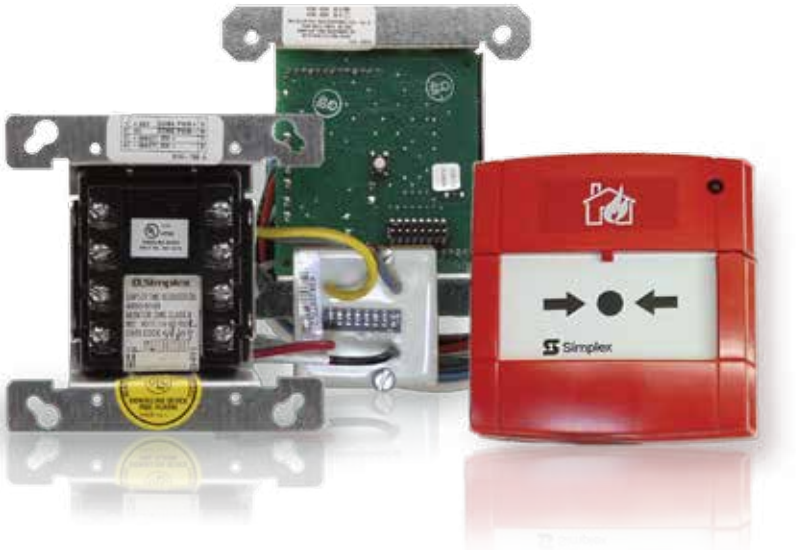
Simplex

Building safety.



IDNet® Analogue Addressable Devices

Features

- Supported by SIMPLEX 4100U/ES Series CIE
- CIE displays device location and status
- Individually addressable communications over a single cable pair
- Zone adaptor modules provide addressable interface to conventional circuits
- IDNet digital protocol communications
- Convenient DIP switch address selection
- Supports up to 250 addressable devices per loop
- Range of enclosures to suit, with a covers incorporating an LED viewing window

General

IDNet communication is provided by the SIMPLEX 4100U/ES Control and Indicating Equipment (CIE) and is the next generation of addressable device communications, improving upon the original MAPNET II communications protocol. The IDNet protocol and hardware enhancements support up to 250 addressable devices on a single cable pair and can support additional device types and different operations.

IDNet communicating devices individually annunciate identity and accurate status to the 4100U/ES CIE Applications include monitoring of sprinkler pressure switches, flow switches and valve monitor devices, interfacing of conventional detectors and addressable monitoring and control (voltage free) for AS 1668 applications.
The majority of IDNet devices are loop powered requiring a single cable pair for operation by the CIE.

4090-9002 Relay IAM (Individual Addressable Module)

The 4090-9002 Relay IAM allows the CIE to control a remotely located Form "C" Relay contact using IDNet addressable communications for both data and module power. Typical applications are for switching local power for control functions such as magnetic door holders, or control of HVAC components, pressurisation fans, dampers, etc. Relay contact status is also communicated to the CIE. The address is set by DIP switch under the resealable label.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Relay Contact Ratings	SPDT
	0.5A @120VAC[2]
	2A@24Vdc[2]
	1A@24Vdc[3]
Current Limited Operation	1k8/4k7 0.5W
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 93% (n/c)
Part Number	4090-9002

1. IDNet communications 2. Transient suppressed load
3. Inductive load

Note: Loop powered 2 wire device

4090-9007 Signal Relay IAM (Individual Addressable Module)

The 4090-9007 Signal Relay IAM provides a supervised, addressable interface to conventional warning devices such as sounders or strobes. It requires a supervised power supply or compatible signal input for powering the externally connected loads.

- Provides a single switched branch with supervision
- Contact is fused at 0.5A for 30V DC or 70V AC using standard 20 x 5mm cartridge fuse
- DC loads must be diode isolated
- Supervision cannot be disabled
- The supply side and the internal fuse are not supervised by the Signal IAM
- Signal IAM is not suitable for switching 100V audio signals

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Operating Current	170mA
Relay Contact Ratings	SPDT
	0.5A @120VAC[2]
	2A@24Vdc[2]
	1A@24Vdc[3]
Current Limited Operation	1k8/4k7 0.5W
EOLR	10k Ohm
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 93% (n/c)
Part Number	4090-9007

1. IDNet communications 2. Transient suppressed load
3. Inductive load

Note: Loop powered 2 wire device

4190-9050 Analogue Monitor Zone (AMZ) Adaptor Module

SIMPLEX AMZs provide an accurate, multi-featured 4-20mA interface for connecting analog sensors to Simplex addressable fire detection panels.
The panel monitors the sensor and annunciates whenever a selected threshold level or fault condition is observed. Typical applications include: gas, air, liquid temperature, humidity, and air velocity sensing. The maximum distance from AMZ to a sensor is 1km. Each AMZ requires an address and up to 100 AMZs can be connected per panel.

Technical Specification

Operating Voltage[1]	18 to 32Vdc
Sensor Output	Switched input voltage
Sensor Current	400mA (max.)
Basic AMZ Current	30mA
Sensor Loop Current	20mA (max.)
Fault Current	5mA
2098-9808 LED Annun.	3mA
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +38°C
Relative Humidity	10% to 90% (n/c)
Part Number	4190-9050

1. MAPNET II communications

Note: Loop powered 2 wire device

4090-9051 Supervised IAM (Individual Addressable Module)

The 4090-9051 Supervised IAM has both power and communications supplied by a two-wire IDNet circuit. It provides a single address for an initiating device (such as detector alarm contacts) or multiple devices at the same location by monitoring N/O dry contacts and the wiring to an end of line resistor. It is housed in an encapsulated housing with flying leads.
This allows dual functions such as tamper switch and water-flow switch monitoring to be done by a single addressable point.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Operating Current	170mA
Supervision Resistor	6k8 Ohm 0.5W
Current Limited Oper.[2]	1k8/4k7 0.5W
Dimensions (HWD)	40x40x14mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 93% (n/c)
Part Number	4090-9051

1. IDNet communications
2. Available only with IDNet

Note: Loop powered 2 wire device

4090-9101 ZAM (Zone Adaptor Module)

The 4090-9101 Monitor ZAM allows a 2-wire circuit of conventional smoke or heat detectors to be interfaced on to the IDNet loop.

Up to 20 conventional heat and smoke detectors can be monitored by a 4090-9101 Monitor ZAM. The address is set by DIP switch under the resealable label.

Note the 4090-9101 requires a separate 24Vdc power supply to power the conventional circuit.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Operating Voltage	18.9 to 32Vdc
ZAM Current @ 24VDC[2]	
Quiescent	16mA max.
Alarm	72mA max.
Supervision Resistor	3k3 Ohm 1W
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 93% (n/c)
Part Number	4090-9101

1. IDNet Communications 2. Actual current value is determined by total device requirements

Note: Loop powered 2 wire device

4090-9116 Addressable Line Isolator

The 4090-9116 Isolator provides IDNet communications isolation, improving installation convenience and system integrity. Circuit isolation can be selected manually, or automatically when an output short circuit is detected and the condition is reported to the CIE. If the output wiring is acceptable, the isolator will connect the rest of the circuit. If the output wiring is shorted, the isolator remains isolated.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 90% (n/c)
Part Number	4090-9116

1. IDNet communications

4090-9117AU Addressable Power Isolator

The 4090-9117AU Power Isolator provides monitoring and short circuit protection for 24Vdc power wiring to IDNet addressable devices. In the event of a short circuit, an electronic switch isolates both power circuit conductors and reports its status to the CIE. This function can also be selected from the CIE.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Current Rating	2A@32Vdc max.
Input Current	10mA@24Vdc
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 90% (n/c)
Part Number	4090-9117AU

1. IDNet communications

4090-9118 Relay IAM with T-Sense Input

The 4090-9118 Relay IAM with T-Sense allows a 4100U/ES IDNet communication channel to monitor two input contact closures with one point and control an output relay with the other point, yet occupy a single loop address. 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. Applications include water flow and tamper switch monitoring and control and damper position monitoring and control

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Relay Contact Ratings SPDT	
	0.5A @120VAC[2]
	0.25A@120VAC[3]
	2A@30Vdc [2]
	1A@30Vdc[3]
Input	N/O, dry contacts
Current Limited Operation	1k8/4k7 0.5W
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 90% (n/c)
Part Number	4090-9118

1. IDNet communications 2. Resistive Load
3. Inductive Load

Note: Loop powered 2 wire device

4090-9119 Relay IAM with Unsupervised Input

The 4090-9119 allows a 4100U/ES IDNet communication channel to monitor an unsupervised input contact with one point and control an output relay with the other point, yet occupy a single address. The input circuit and relay operation are controlled independently and may be disabled separately. Module power is supplied from the IDNet communications channel eliminating the need for separate power wiring. The address is set by DIP switch under the resealable label.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Relay Contact Ratings SPDT	
non power limited	0.5A @120VAC[2]
	0.25A@120VAC[3]
power limited	2A@30Vdc [2]
	1A@30Vdc[3]
Input	N/O, dry contacts
Dimensions (HWD)	105x105x35mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 95% (n/c)
Part Number	4090-9119

1. IDNet communications 2. Resistive Load
3. Inductive Load

Note: Loop powered 2 wire device

4090-9120 Six Point I/O Module with T-Sense Inputs & Relay Outputs Module

The 4090-9120 allows 4100U/ES 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 separate (listed) 24Vdc power supply. The input circuits and output relay operation are controlled independently and may be disabled separately. Point association is determined at the 4100U/ES host panel. Each of the four input circuits are monitored via an end-of-line resistor and can differentiate between a short circuit contact closure and a current limited contact closure. Two input supervision resistors are required per T-sense input.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Operating Voltage	18 to 32Vdc
Operating Current	30mA@24Vdc
Contact Ratings SPDT	
Non-power limited	0.5A @120VAC[2]
	0.25A@120VAC[3]
Power limited	2A@30Vdc[2]
	1A@30Vdc[3]
Supervision Resistor	6k8 Ohm 0.5W
Current Ltd Operation	1k8/4k7 0.5W
Input	N/O, dry contacts
LED Output	24Vdc (ext. PSU)
Dimensions (HWD)	105x105x35 mm
Ambient Temperature	0 to +49°C
Relative Humidity	10% to 90% (n/c)
Part Number	4090-9120

1. IDNet communications with data
2. Resistive Load 3. Inductive Load
Note: 4 wire device; requires separate 24Vdc and IDNet communication loop

4099-9701 Manual Call Point

The 4099-9701 addressable Manual Call Point (MCP) provides a means to manually initiate a fire alarm condition to the 4100U/ES CIE via the IDNet channel. The IDNet channel provides the communication link and power between the MCP and CIE. Activation of the MCP requires the frangible element to be broken, causing microswitch contacts to close. The MCP is reset by fitting of a replacement frangible element.

Technical Specification

Comms Power[1]	24 to 40Vdc w/data
Dimensions (HWD)	86x87x35mm
Ambient Temperature	-9°C to +70°C
Relative Humidity	10% to 95% (n/c)
ActivFire listed	afp-1691
Part Numbers	
MCP & Backbox	4099-9701
Spare Backbox	SR3T-P
Spare Glass (Pk 10)	SU0609

1. IDNet communications

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