



# TrueAlarm® Analogue Addressable Detectors

*Smoke. Fire. Water damage. Each can quickly translate into danger. Danger to life. Damage to the building and its contents. Lost productivity. Lost revenue. Protection from these dangers requires a total commitment to building design and operation. The Simplex patented TrueAlarm® fire detection systems have proven themselves as the early warning system of choice.*

## Features

- Louvred Design for patented smoke capture
- Reduced maintenance costs
- Analogue smoke sensing - photoelectric and ionisation
- Analogue heat sensing
- High system integrity
- High integrity digital transmission of analogue data
- Integral base LED indicates alarm or fault
- Addressing dipswitch in permanently mounted base
- Interchangeable, tamper proof detectors
- Automatic environmental compensation
- Automatic self test feature

## General

Engineered for superior performance in the most demanding of environments, the Simplex TrueAlarm Detection System from Simplex Fire Products is light years ahead of any other fire sensing solution available today. TrueAlarm's intelligent sensing technology, manageability and flexibility are based on decades of experience and supported by seven individual U.S. patents. But TrueAlarm's real value is proven where it counts – at customer sites. Since 1990, more than seven million TrueAlarm sensors have been installed worldwide, protecting people, property and peace of mind in hospitals, office buildings, universities, government institutions, industrial complexes, sports stadiums and a wide range of other world-class commercial facilities.

## 4098-9714EA TrueAlarm Analogue Addressable Photoelectric Smoke Detector



TrueAlarm photoelectric smoke detectors use a stable pulsed LED light source and a silicon photodiode receiver to provide consistent and accurate low power smoke sensing. Seven c.i.e. selected sensitivity levels are available for each detector. Used in conjunction with the Simplex 4100/4100U series of c.i.e., the 9714EA has a high degree of false alarm immunity thanks to advanced algorithms. The TrueAlarm detectors are mounted on to the 4098-9789EA addressable base or 4098-9794EA sounder base.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Quiescent Current	100µA (max.)
Alarm Current <sup>2</sup>	400µA (max.)
Ambient Temperature	0°C to +50°C
Relative Humidity	10% to 95% (n/c)
Sensitivity	4% to 6% Obs/m
Dimensions (incl base)	124 dia x 54mm
CSIRO ActivFire Listed <sup>3</sup>	afp-1225
<b>Part Number</b>	<b>4098-9714E</b>

1. MAPNET II or IDNet auto select w/data
2. LED off. Add 1.5mA for LED on
3. Complies with AS 1603.2-1997

## 4098 9717EA TrueAlarm Analogue Addressable Ionisation Smoke Detector



The 4098-9717EA detectors use dual ionisation chambers to provide accurate and stable operation under changing environmental conditions. Combustion particles freely enter an outer sampling chamber. With the air in both chambers ionised by a small radioactive source, a very small current flows in the circuit. The presence of combustion particles causes a change in the voltage ratio between chambers, which is measured by the electronics in the base and digitally transmitted to the c.i.e. for processing.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Quiescent Current	100µA (max.)
Alarm Current <sup>2</sup>	400µA (max.)
Ambient Temperature	0°C to +50°C
Relative Humidity	10% to 95% (n/c)
Sensitivity	0.4 MIC X nom.
Source	Am241 33kBq
Dimensions (incl base)	124 dia x 54mm
CSIRO ActivFire Listed <sup>3</sup>	afp-1246
<b>Part Number</b>	<b>4098-9717E</b>

1. MAPNET II or IDNet auto select w/data
2. LED off. Add 1.5mA for LED on
3. Complies with AS 1603.2-1997

## 4098-9733EA TrueAlarm Analogue Addressable Heat Detector



TrueAlarm heat detectors provide rate compensated, fixed temperature sensing, selectable with or without rate-of-rise temperature sensing. Due to its small thermal mass, the detector accurately and quickly measures the local temperature for analysis at the c.i.e. Rate-of-rise temperature detection is selectable at the c.i.e. Fixed temperature sensing is independent of rate-of-rise sensing. Configurable for either Type A or Type B as per AS 1603.1.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Quiescent Current	400µA (max.)
Ambient Temperature	0°C to +50°C
Relative Humidity	10% to 95% (n/c)
Dimensions (inc base)	124 dia x 60mm
CSIRO ActivFire Listed <sup>2</sup>	afp-1202
<b>Part Number</b>	<b>4098-9733E</b>

1. MAPNET II or IDNet auto select
2. Complies with AS 1603.1-1997 as Type A & Type B

## 4098-9754EA TrueAlarm Analogue Addressable Photoelectric & Heat Multi-Sensor Detector



This multi-sensor detector combines the TrueAlarm photoelectric smoke sensor with a fast-acting, accurate TrueAlarm thermal sensor in a single detector/base assembly. Each multi-sensor's smoke and heat sensing element provides data for evaluation at the c.i.e. where four independent detection modes are evaluated. They are:

- Fixed temperature heat detection
- Rate-of-rise heat detection
- TrueAlarm photoelectric smoke detection
- TrueSense correlation detection

The thermal sensor can selectively generate an alarm at a fixed temperature or a rate-of-rise of temperature. Complies with AS 1603.1-1997 and AS 1603.2-1997

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Quiescent Current	400µA (max.)
Ambient Temperature	0°C to +50°C
Relative Humidity	10% to 95% (n/c)
Sensitivity (at c.i.e.)	4% to 5%Obs/m
Dimensions (inc base)	124 dia x 57mm
CSIRO ActivFire Listed <sup>2</sup>	afp-1361

### Part Numbers

4100U IDNet	
Multi-Sensor Detector	4098-9754E
Detector Base	4098-9789E
Sounder Base	4098-9794E
4100U MAPNET II	
Multi-Sensor Detector	4098-9754E
Multi-Sensor Sounder Base	4098-9795E
Multi-Sensor Base	4098-9796E

1. MAPNET II or IDNet auto select
2. Complies with AS 1603.1-1997 as Type A & Type B and AS 1603.2-1997

## 4098-9755EA TrueAlarm Analogue Addressable Duct Sampling Unit



TrueAlarm duct sampling units detect the presence of smoke in air conditioning or ventilation ducts. Sampling tubes are installed into the duct and air is directed to a 4098-9714EA TrueAlarm photoelectric smoke detector mounted in the housing. These duct sampling units provide the high reliability performance of TrueAlarm analogue sensing featuring programmable sensitivity, consistent accuracy, environmental compensation, status testing and monitoring of sensor dirt accumulation. Sampling tubes are available to suit duct widths of up to 1800mm.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Alarm Current <sup>2</sup>	400µA (max.)
Duct Air Velocity	1 to 8 m/s
Sensitivity	0.5% to 4% Obs/m
Differential Pressure	0.69 Pa (min.)
Min. Duct Size (mm)	200 sq /300 dia
Ambient Temperature	0°C to +50°C
Relative Humidity	10% to 95% (n/c)
Dimensions (HWD)	86x289x171mm
CSIRO ActivFire Listing <sup>3</sup>	afp-1354

### Part Numbers

Duct Sampling Unit	4098-9755E
Sampling Tube 1.2m	2098-9797
Sampling Tube 1.8m	2098-9798

1. MAPNET II or IDNet auto select

2. LED off. Add 1.5mA for LED on

3. Complies with AS 1603.13-1998

## 4098-9789EA TrueAlarm Analogue Addressable Detector Base



The TrueAlarm detector base contains integral addressable electronics that constantly monitors the status of the detachable detector. Detector types can be easily interchanged to meet specific location requirements, for example during building construction or maintenance. The base mounted address selection allows the address to remain with its programmed location when the detector is removed for service. An integral red LED indicates power-on by pulsing, or alarm or fault when steady on.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Quiescent Current	400µA (max.)
Alarm Current <sup>2</sup>	1mA (typ.)
Ambient Temperature	0°C to +55°C
Relative Humidity	10% to 95% (n/c)
Dimensions	105 dia x 35mm
CSIRO ActivFire Listed	afp-1225/1246

### Part Number

4098-9789E

1. MAPNET II or IDNet auto select

2. Remote LED indicator current

## 4098-9793EA TrueAlarm Analogue Addressable IDNet Isolator Base



The 4098-9793EA IDNet Communications Isolator Base provides Simplex TrueAlarm analogue sensor operation and also provides IDNet communications isolation to improve installation convenience and increase system integrity. Isolation is automatically activated at the base when an output short circuit is detected and isolation can also be selected per base manually from the control panel to assist with troubleshooting wiring problems.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Ambient Temperature	0°C to +50°C
Relative Humidity	10% to 95% (n/c)
Dimensions	105 dia x35mm
CSIRO ActivFire Listed	afp-1246

### Part Number

4098-9793E

1. IDNet, one address per base

## 4098-9794EA TrueAlarm Analogue Addressable Sounder Base



The TrueAlarm sounder base has a built-in piezoelectric sounder that provides a high 90 dBA output whilst maintaining a low current requirement. Used with the interchangeable TrueAlarm detectors, the sounder can be powered from 24Vdc or from a compatible Notification Appliance Circuit (NAC). It is synchronised coded/temporal coded by the c.i.e. or by the NAC. The sounder can be manually activated from the c.i.e. and sounder operation can operate independently to detector operation. The sounder base has a built-in magnetic test feature.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Sounder Voltage	18 to 32Vdc
Quiescent Current (max)	270µA
Alarm Current (max)	20mA @ 32Vdc
Sound Pressure Level	90 dBA @ 3m
Output Tones	Steady or ISO 8201 T3 evacuation tone
Ambient Temperature	0°C to +50°C
Relative Humidity	10 to 95% (n/c)
Dimensions	164 dia x29mm
CSIRO ActivFire Listed	afp-1203, 1225, 1246

### Part Number

4098-9794E

1. MAPNET II or IDNet auto select

## 4098-9795EA TrueAlarm Multi-Sensor Analogue Addressable Sounder Base



The TrueAlarm Multi-Sensor sounder base features two sequentially addressed points, automatically assigned with one address selection. It has a built-in piezoelectric sounder providing a high 90 dBA output whilst maintaining a low current requirement. The sounder can be powered from 24Vdc or from a compatible Notification Appliance Circuit (NAC). It is synchronised coded/temporal coded by the c.i.e. or by the NAC. The sounder can be manually activated from the c.i.e. The 4098-9795EA is used with the MAPNET II protocol.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Sounder Voltage	18 to 32Vdc
Quiescent Current	400µA (max.)
Alarm Current (max)	20mA @ 32Vdc
Sound Pressure Level	90 dBA @ 3m
Ambient Temperature	0°C to +50°C
Relative Humidity	10% to 95% (n/c)
Dimensions	164 dia x 29mm
CSIRO ActivFire Listed	afp-1361

**Part Number** 4098-9795E

1. MAPNET II or IDNet auto select

## 4098-9796EA TrueAlarm Multi-Sensor Analogue Addressable Detector Base



The TrueAlarm Multi-Sensor detector base features two sequentially addressed points, automatically assigned with one address selection. The base mounted address selection allows the address to remain with its programmed location when the detector is removed for service. An integral red LED indicates power-on by pulsing, or alarm or fault when steady on, reflecting status of either sensor. The exact status of the specific sensing element is annunciated at the c.i.e. The 4098-9796EA is used with the MAPNET II protocol.

### Technical Specification

Comms and Sensor Pwr <sup>1</sup>	24 to 40Vdc w/data
Quiescent Current	400µA (max.)
Alarm Current <sup>2</sup>	1mA (max.)
Ambient Temperature	0°C to +55°C
Relative Humidity	10% to 95% (n/c)
Dimensions	105 dia x 35mm
CSIRO ActivFire Listed	afp-1361

**Part Number** 4098-9796E

1. MAPNET II or IDNet auto select

2. Remote LED indicator current

## VLC-600 TrueAlarm LaserCOMPACT



The VLC-600 TrueAlarm LaserCOMPACT detector has been specifically designed to provide all the benefits of aspirating smoke detection, including very early warning, in single small areas and where space is a premium. The VLC-600 communicates directly with the Simplex 4100/4100U c.i.e. via the IDNet or MAPNET II addressable loop. The VLC-600 TrueAlarm LaserCOMPACT smoke detector uses the latest in VESDA® sampling technology including a highly efficient laser light source and a dual stage dust filter. The VLC-600 utilises a standard VESDA® pipe design in accordance with the Aspire design tool. It requires a separate 24Vdc supply.

### Technical Specification

Operating Voltage	18 to 30Vdc
Quiescent Current	175mA
Alarm Current	190mA
Ambient Temperatures	
Sensor Ambient	-10°C to +39°C
Sampled Air	-20°C to +60°C
Relative Humidity	10% to 95% (n/c)
Alarm Sensitivity	0.05 to 12%obs/m
Coverage Area	743 m <sup>2</sup>
Dimensions (HWD)	225x225x85mm
Weight	1.9 kg
CSIRO ActivFire Listed	afp-1572

**Part Number** VLC-600



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