ACTIVE FIRE PROTECTION - EQUIPMENT LISTING SCHEME
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LISTING NUMBER **afp - 1582**

Issue dates: 1st issued: 12-Mar-2003
Version: ..1.0. ..12-Mar-2003
Valid until†: 12-Mar-2007

PRODUCT LISTING DATA SHEET
(Active Fire Protection Equipment)

Product Designation

SimplexGrinnell, Model VLC-600, VESDA™ LaserCOMPACT™, addressable aspirating smoke detector

(Refer to the Technical Specification section of this document for further specific detail)

Designated Supplier

Vision Fire & Security Pty Ltd
495 Blackburn Road, MOUNT WAVERLEY, VIC, AUSTRALIA, 3149

Designated Manufacturer

Vision Fire & Security Pty Ltd
495 Blackburn Road, MOUNT WAVERLEY, VIC, AUSTRALIA, 3149

Supplier's Description

The SimplexGrinnell, Model VLC-600, VESDA™ LaserCOMPACT™, addressable aspirating smoke detector is a high sensitivity aspirating smoke detector that provides all the benefits of aspirating smoke detection including early warning in a single environment, small areas and where space is a premium. The VLC-600 has been specifically designed to interface directly with Simplex fire alarm control panels that support the MAPNET and/or IDNet Signalling Line Circuits (SLC's). The VLC-600 interfaces with the Simplex control panel as a Simplex AZM module. All field wiring terminates to the unit on terminal blocks located internally on the termination card. The VLC-600 provides one RS-232 port for communications with the VESDA VConfig programming software. Each detector is allocated a unique address via a dip switch located on the detector termination card.

The VLC-600 draws air through the air sampling pipe network via a single air inlet port using a high efficiency aspirator. A sample of the air is filtered to remove dust and dirt before it is passed through the laser detection chamber. Smoke present in the detection chamber scatters light that is detected by very sensitive receivers using sophisticated electronics. When the smoke density reaches a smoke alarm level the VLC-600 communicates this level to the Simplex control panel via the MAPNET or IDNet protocol. The sampled air is expelled via an exhaust port located on the bottom of the detector. On the front of the detector there is a single Red LED that displays the current status condition of the VLC-600 device.

The SimplexGrinnell, Model VLC-600, VESDA™ LaserCOMPACT™, addressable aspirating smoke detector incorporates software version 1.07.60 as embedded software.

The computer system design tool for the design of suitable sampling pipe networks for the detector is the 'ASPIRE™ System Design Tool'.

This product listing data sheet should be read in conjunction with the general requirements and conditions stated by the "Terms and conditions" of the Register of Fire Protection Equipment.

Manager - ActivFire

† valid until the date indicated unless previously superseded or withdrawn

Testing, Appraisal & Quality Assurance

The SimplexGrinnell, Model VLC-600, VESDA™ LaserCOMPACT™, addressable aspirating smoke detector complies with the relevant requirements of the following criteria.

1. Australian Standard AS 1603.8-1996, 'Automatic fire detection and alarm systems - Multi-point aspirated smoke detectors'

It is subject to a Listing Agreement between ActivFire and Vision Fire & Security Pty Ltd (ABN: 25 008 009 514).

Limitations of Use

Limitations of use, where identified on this Product Listing Data Sheet, are derived from qualifications within the report of the testing agency and/or other related technical documentation. It is recommended that all details with respect to design, assembly and installation restrictions should be checked against the designated supplier's/manufacturer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

The SimplexGrinnell, Model VLC-600, VESDA™ LaserCOMPACT™, addressable aspirating smoke detector meets the requirements of AS 1603.8-1996 when;

i. the components are installed in accordance with the manufacturer's instructions contained in the System Design Manual and subsequent addendum(s), and
ii. the power source meets the requirements of the power supply specifications contained in the product Installation Manual.

The VLC-600 is designed for installation in indoor applications and is not to be installed where there is the possibility of any water or liquid falling onto the device.

The SimplexGrinnell, Model VLC-600, addressable aspirating smoke detector can only be used with compatible Simplex brand control and indicating equipment (CIE) as detailed below.

Control Panel Model	Component	Software Revision
4100	Programmer Unit Master Controller	Rev. 8.01 or later
4100U, 4100, and 4020	Mapnet II Controller Card	Rev. 6.01 or later
4020	Standard Slave	Rev. 2.04 or later
4020	UPS Standard Slave	Rev. 5.01 or later
4100U	Master Controller	All software versions. The 4100U supported the VLC-600 device since initial product release.

Technical Specification

The following details are a representative extract of the technical specification for the SimplexGrinnell, Model VLC-600, VESDA™ LaserCOMPACT™, addressable aspirating smoke detector and may be subject to change. Complete and current details should be determined from the designated supplier's/manufacturer's technical manual/data sheets.

Operating voltage range:	18 Vdc to 30 Vdc
Current consumption:	205 mA @ 18 Vdc 155 mA @ 30 Vdc
Power consumption:	5.0 W
Fuse rating:	1.6 A
Dimensions:	225 mm x 225 mm x 85 mm (WxHxD)
Weight:	1.9 kg
Ambient temperature range:	-10°C to 39°C
Sampled temperature range:	-20°C to 60°C
Relative humidity:	10% to 95%, non-condensing
Sensitivity of detector	0.005% Obs./m to 20.00% Obs./m
Sampling pipe network:	800 square metres maximum (Computer Design Tool - ASPIRE™)

Technical Specification (continued)

Pipe size:	
Internal diameter:	15 to 21 mm
Outside diameter:	25 mm
IP rating:	IP30
Addressing:	Via 8 pin dip switch (128 possible addresses)
Power source:	The detector power source is obtained from the Simplex CIE Auxiliary 24 Vdc output. Optionally, 24 Vdc operating power can be sourced from a battery backed UL listed (UL 1481) power supply or equivalent.
Input terminals:	Communications - MAPNET/IDNet (+/-, in/out)
Simplex threshold setting range - AMZ Mode	
Range (%/FT):	0 - 4.08 (4 - 20 mA)
Resolution:	Bits 8
Resolution:	Counts 0 - 255
Resolution:	0.016 (%/ft / Count)

Supplementary information

Nil supplementary information.