VESDA VFT-15 detectors are multi-channel microbore air-sampling systems with an alarm sensitivity range from 0.001% to 20% obscuration/m (0.0003% to 6.10% obscuration/ft). These detectors are classified as Very Early Warning Smoke Detectors and can reliably detect fire at an early stage, and low to high concentrations of smoke. As a multi-channel system, the VFT detector is able to divide a protected space into sampling sectors, enabling the localization of a fire for faster incident response.

The detectors are configurable for a variety of environments, providing ideal fire detection solutions for cabinets, Electronic Data Processing (EDP) rooms, prisons, historic houses, custody suites, museums and art galleries.

How it works

The VFT detector draws a combined air sample from a network of microbore flexible tubing from all sectors in the protected area, then filters and analyzes the sample in a laser detection chamber. When smoke particles are detected and the smoke level reaches a TRACE alarm threshold, the system will sequentially scan the sectors via the rotary valve to identify the sector, or sectors, with the smoke condition. Alarm states (Alert, Action, Fire 1 and Fire 2) are shown on the display and communicated to a host fire alarm control panel.

Product Features

Programming and Configuration

Four independant alarm levels are available for each channel. The smoke thresholds for each of these alarms can be individually programmed per sector. VFT detectors provide a comprehensive display that includes an LED array to show the measured smoke level for the currently selected microbore tube, and an on-board programmer for local configuration.

RS232, RS485 and TCP/IP communication interfaces are provided as standard to connect to Xtralis Configuration and Fire System Management software packages: Xtralis VSC and Xtralis VSM4. RS485 interfaces also allow connections to remote displays.

Inputs and Outputs

VFT detectors support a number of additional modules. These provide the detector with programmable output relay interfaces and 4 to 20 mA analog outputs. A Remote Display panel can also be connected at a distance of up to 1 km away from the main VFT detector.
Specifications

Supply Voltage:
Nominal 24 VDC

Supply Current at 24 VDC:
Power: 31.2 W Quiescent, 32.0 W Scanning
Current: 1.30 A Quiescent, 1.33 A Scanning

Capacitive Loading:
Nominal 10,000 uF

Aspirator:
Linear vacuum pump

Dimensions (WHD):
490 mm x 355 mm x 200 mm
(19.3 in. x 14.0 in. x 7.9 in.)

Operating Conditions:
Recommended Detector Ambient:
0 to 39 °C (32 to 103 °F)

Tested to:
-10 to 55 °C (14 to 131 °F)

Sampled Air:
-20 to 60 °C (4 to 140 °F)

Humidity:
10 to 95% RH (non-condensing)

Please consult your Xtralis office for operation outside these parameters or where sampled air is continually above 0.05% obs/m (0.015% obs/ft) under normal operating conditions.

Microbore Tube Size:
Outer Diameter: 6 mm (0.24 in.)
Inner Diameter: 4 mm (0.16 in.)

Microbore Tube Length:
15 x 50m (15 x 164 ft)
Pipe Length: 50 m (164 ft)

Alarm Sensitivity Range:
0.001 to 20 % obs/m
(0.0003 to 6.10 % obs/ft)

Alarm Settings:
Alarm levels: Alert, Action, Fire 1 and Fire 2

Individually programmable for each level

IP Rating:
IP30

Cable Access:
7 x 25mm (1”) cable entries

Cable Termination:
Screw Terminal blocks 0.2–2.5 mm² (30–12 AWG)

Filtration:
Field exchangeable dual stage filter

Flow Monitoring:
Differential pressure sensor

Relay Outputs:
4 alarm relays, 1 fault relay

Rated 2 A @ 30 VDC NO/NC Contacts

Communication:
Modbus over RS232, RS485 and TCP/IP

Event Log:
Up to 20,000 events stored

Notes:
1. The VFT-15-C is not available in all regions. Please consult your nearest Xtralis office before placing an order.
2. Please contact your nearest Xtralis office for approvals status.

Aspiration and Flow Sensing
The aspirator is a linear vacuum pump, which provides superior detection times over long tube lengths and reliable detection in high air flow environments. Airflow in each tube is monitored by a differential pressure sensor, with airflow faults indicated on the display and to monitoring equipment.

Dimensions

Ordering Information

24 VDC, Display/Programmer, TCP/IP, 15 inlets, Class A/B/C, 0.001 to 20% obs/m (0.0003 to 6.1 % obs/ft)
VFT-15

24 VDC, Display/Programmer, TCP/IP, 15 inlets, Class C, 0.001 to 20% obs/m (0.3 to 6.1 % obs/ft)
VFT-15-C

4-Channel Relay Module
01-E606-01

8-Channel 4-20 mA Re-Transmission Module
01-E624-00

VFT-15 Remote Display
01-V921-15

Notes:
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2. Please contact your nearest Xtralis office for approvals status.

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