

# EF-FT4 EF-FT6

ASPIRATED SMOKE DETECTION



## Description

The EF-FT4 and EF-FT6 detectors are multi-channel large bore air-sampling systems with an alarm sensitivity range from 0.001% to 20% obscuration/m. These detectors are classified as a Very Early Warning Smoke Detector and can reliably detect fire at an early stage at low to high concentrations of smoke. As a multi-channel system, the FT4/6 detector is able to divide a protected space into sampling sectors, enabling the localisation of a fire for faster incident response.

The detectors are configurable for a variety of environments, providing an ideal fire detection solution for power stations, telecommunications and IT facilities, clean rooms, warehouses, cold storage, harsh and hazardous areas, historic buildings and museums, prison cells and technical cabinets.

## How it Works

The FT4/6 detector draws a combined air sample from a network of large bore pipes from all sectors in the protected area, then filters and analyses the sample in a laser detector 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

The four alarm levels are available for each channel and the sensitivity thresholds and delays for each of these can be individually programmed per sector. The detector provides a simple and comprehensive display that includes an LED array to show the measured smoke level for the currently selected pipe, and an on-board programmer for local configuration.

RS485 interfaces allow connections to programming devices and remote displays, and the TCP/IP Ethernet interface can provide access to an email messaging service.

### Inputs and Outputs

There are 5 relays as standard and the system is expandable, supporting several optional modules, which provide the detector with additional programmable output relays or 4 to 20mA analogue outputs.

### Aspiration and Flow Sensing

The aspirator is a 2000 Pa, high pressure and high volume fan, which provides superior detection times over long pipe lengths and reliable detection in high air-flow environments. Airflow in each pipe is monitored by a dual element thermal sensing system, with airflow faults indicated on the display and to remote monitoring equipment.

## Features

- EN54-20 approved
- 4 or 6, addressable pipe air-sampling
- Area coverage up to 2000m<sup>2</sup>
- 0.001% to 20% obscuration/m
- 4 alarms – Alert, Action, Fire 1, Fire 2
- 4 or 6 x 100m (max) sampling pipes
- 5 relay outputs as standard with optional expansion

## Listings/Approvals

EN54-20

EF-FT4

- Class A (20 holes / 0.05% obs/m)
- Class B (48 holes / 0.06% obs/m)
- Class C (72 holes / 0.10% obs/m)

EF-FT6

- Class A (30 holes / 0.05% obs/m)
- Class B (72 holes / 0.06% obs/m)
- Class C (72 holes / 0.10% obs/m)

CE – EMC, LVD, CPD

VdS

FM

UL

CFE

<b>Mechanical</b>	
Sampling Pipe Inlets	4 or 6 (max)
Detectors	Integrated mass particle detection nephelometer
Sampling Pipe	1 to 4 or 1 to 6, 25mm or 3/4" nominal bore
Sampling Pipe Length	100m (max) per pipe. Verify using Aspire 2
Exhaust Air Pipe	(25mm or 3/4")
<b>Electrical</b>	
Supply Voltage	Nominal 24Vdc (18 to 30Vdc)
Operating Current	500mA to 1.4A max (fan speed dependant)
Display	LCD, calibrated LED bargraph, multiple condition/status indicators
Control	Local and/or remote
Configuration	Panel front, remote membrane and/or RS232 PC connection
Relay Outputs	5 common as standard. Expansion possible
Flow Monitoring	Differential pressure sensor. Twin thermal element.
Cable Terminals	Removable, rising clamp, 2.0mm <sup>2</sup> wire maximum
<b>Environmental</b>	
Operating Temperature	-10 to +60° C
Recommended Det. Amb.	0 to 39° C
Operating Humidity	10 to 95% (non condensing)
IP Rating	IP30
<b>General</b>	
Sensitivity	0.001 to 20% obscuration per metre
Aspirator	2000 Pa centrifugal air pump
Alarm Levels	4 – Programmable per pipe/channel (Alert, Action, Fire 1, Fire 2)
Alarm Delay	1 – 60 seconds
Communications	RS484, RS232, MODbus, Ethernet TCP/IP
Filtration	Field exchangeable dual stage
Housing Material	Galvanised steel back chassis with ABS outer cover
Mounting	Upright with batteries fitted. Horizontal possible without batteries
Weight	12kg
Dimensions (W x H x D)	490 x 355 x 200mm
<b>Ordering Information</b>	
EF-FT4-DT	4 addressable pipe, 24Vdc, display/programmer, TCP/IP
EF-FT6-DT	6 addressable pipe, 24Vdc, display/programmer, TCP/IP
01-EP02-02	Internal mains psu/charger, 230Vac (optional)
02-FL53	Replaceable internal filter - coarse
02-FL56	Replaceable internal filter – fine

