



## Description

The EF-FT1 detector is an air-sampling system with an alarm sensitivity range from 0.001% to 20% obscuration/m. This detector is classified as a Very Early Warning Smoke Detector and can reliably detect fire at an early stage at low to high concentrations of smoke over an area of up to 2,000m<sup>2</sup>.

The detector is 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.

## How it Works

The FT1 detector draws a combined air sample into its 4-way inlet manifold from a pipe network, then filters and analyses the sample in a laser detector chamber. Alarm states (Alert, Action, Fire 1 and Fire 2) are shown on the display and communicated to a host fire alarm control panel after a pre-programmed time delay.

## Product Features

### Programming and Configuration

The four alarm sensitivity thresholds and delays can be individually programmed. The FT1 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 can be expanded with an optional module to provide additional 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 monitoring equipment.

## Features

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

## Listings/Approvals

- EN54-20
- Class A (16 holes / 0.04% obs/m)
  - Class B (72 holes / 0.04% obs/m)
  - Class C (72 holes / 0.1% obs/m)
- CE – EMC, LVD, CPD  
VdS  
FM  
UL  
CFE

<b>Mechanical</b>	
Sampling Pipe Inlets	4
Detectors	Integrated mass particle detection nephelometer
Sampling Pipe	1 to 4, 25mm or ¾" nominal bore
Sampling Pipe Length	100m (max) per pipe. Verify using Aspire 2
Exhaust Air Pipe	1 (25mm or ¾")
<b>Electrical</b>	
Supply Voltage	Nominal 24Vdc (18 to 30Vdc)
Operating Current	500mA to 1.2A 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
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 (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-FT1-DT	4 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

