# ADEVA®

## Intelligent Photoelectric Smoke Detector
## FCO331

### Overview

- Advanced intelligent detection functionality
- Fully digital adressing technology
- Advanced maintenance and addressing features via remote hand-held test unit by IR or RF
- Three-colour LED detector status indicator
- Wide operating voltage 8 to 30VDC
- Automatic drift compensation
- Low profile design
- Low current draw
- Backward compatible
- Wide range of detector bases available
- Tested and approved to EN54-7:2000+A1:2002+A2:2006

CE 0843-CPR-0286    UL EU

### Description

The FCO331 intelligent adressable photoelectric smoke detector forms several uniquie intelligent detection, programing and maintanance technologies. This range of detectors has been produced using the latest in manufacturing and design techniques, pushing out the boundaries of existing intelligent detector tecnology with its multitude of innovative features.

The FCO331 photoelectric detector incorporates an Application Specific Integrated Circuit (ASIC). Combined with the latest state of the art optical chaber the detector provides efficient and accurate detection of fires with a high level of resilience to non-fire environmental influences.

The FCO331 detector incorporates a three colour LED indicator. The integral LED changes colour according to the detector's status - Green blink = Normal, Red = Alarm and Yellow = fault. This benefits the user by providing clear, instant visual indication of the detector's condition.

'Drift compensation' algorithms are one of the key features of the FCO331 detector. These algorithms are ensure a consistent alarm sensitivity threshold for periods between service intervals. This provides the user with both a reduction in the frequency of nuisance alarms and maintenance savings by extending the period before cleaning of the detector chamber is reuired.

The sensitivity of a smoke detector is critical to its overall performance, this is reflected in both its ability to detect real fire conditions and its resilience to non-fire stimuli. The FCO331's performance can be optimised for it's application by selecting from one of three preset alarm thresholds - Low, Medium and High, offering greater stability and optimum performance within the environment in which it has been installed. This is helping increasing effectiveness of intelligent detection functionalties by reliable algoritm evaluations.The selection is easily achieved also through the use of a remote hand-held tool.

The remote hand-held programming unit can also be used in conjunction with the Intelligent Series range of detectors to gain access to other advanced features.The features available include: read/write last maintenance date, read chamber contamination level, read value of thermal element and perform an alarm test by IR or RF communication.

All the features via the hand-held programming unit are achieved effectively and effortlessly without the need to remove the detector or having to gain direct physical access other than by the use of  servicing tool, saving valuable commissioning/ maintenance time.

They provide the end user with the confidence to know that his system is being regularly serviced and that it is operating at its optimum level, with minimum disruption to his own business activities.

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## Architect/Engineer Specifications

Each unit can be given a unique address that will be displayed on the panel whenever the detector is in any kind of alarm or fault indication. All the features via panel or the hand-held programming unit are achieved effectively and effortlessly without the need to remove the detector or having to gain  direct physical access .

They provide the end user with the confidence to know that his system is being regularly serviced and that it is operating at it's optimum level, with minimum disruption to his own business activites.

A variety of detector bases and compatibale accrsories can be used with the FCO331 detector, providing application flexibility and compatibility with a wide range application and diffrent envoriments. All bases are fitted with a shorting spring to permit circuit testing prior to fitting the detector and have a tamper resistant feature, which when activated prevents removal of the detector without the use of a tool.

All ADEVA products are covered by our extended 5 years monufacturer warranty.

## Electrical Specifications

| | |
|---|---|
| Operating Voltage Range | 8 to 30VDC (Nominal 12/24VDC) |
| Typical Standby Current@ 25þC | 50μA @ 24VDC (LED no blink) |
| Maximum Alarm Current (LED On) | 80mA @ 24VDC (Limited by panel) |

## Enviromental Specifications

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|---|---|
| Application Temperature Range | $-30^0$C to $+70^0$C |
| Humidity | 5 to 95% Relative Humidity (non condensing) |

## Mechanical Information

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|---|---|
| Height | 38mm (plus 9mm for FCB301 base) |
| Diameter | 102mm |
| Weight | 105g (plus 60g for FCB301 base) |
| Max Wire Gauge for Terminals | $0.75mm^2$ to $2.5mm^2$ |
| Colour | Pantone Warm Grey 1C |
| Meterial | Bayblend FR110 |

## Product Range

| | |
|---|---|
| Compatible Bases (see notes) | FCB301 Standard Base |
| | FCB301 DG Deep Base |
| Accessories | FCWPU RF Remote Programming  Test Tool |
| | FCPTU Remote Programming  Test Tool |