



**GROVELEY DETECTION**

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## Stand Alone Imaging Based Flame Detector **FDS301-GD**

The FDS301-GD is an imaging based flame detector. Each detector operates stand alone and incorporates an integrated CCTV system; digital signal processing and software algorithms to process a video image and interpret flame characteristics.

These unique software algorithms are capable of discriminating between genuine fire conditions and other radiant sources that may cause other detectors to become desensitised or produce unwanted alarms

The detector operates in a similar mode to a traditional radiation based flame detector, 3 core cable with a 4-20mA output. However, it has the big advantage associated with visual flame detectors.

In the event of an alarm the images, 8 seconds before the alarm was generated are burned on to the SD card, the recording stops 8 seconds after the alarm was generated. After the event the SD card can be removed from the detector for analysis.

The detector can be operated as a 3 wire 4-20mA detector, but has the additional incident analysis capability, making it ideal for refit applications, especially where false alarm are being generated by traditional detectors.

### **Features**

- Performs two functions - flame detection and alarm event recording
- Stand alone and provides continuous event recording on SD card
- Fixed sensitivity setting that is undiminished by other radiant heat sources
- Immune to common sources of unwanted alarms

### **Benefits**

- Detects fires and provides detailed analysis of alarm events
- No need for complicated equipment within the control room
- Advanced optical verification ensure system is functioning as specified
- Idea for new and refit applications
- Superior false alarm immunity



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buying quality...*

# Stand Alone Imaging Based Flame Detector FDS301-GD

## TECHNICAL DETAILS

### **Operating Voltage**

- 24VDC Nominal
- 18V to 32V Maximum
- 10W Typical Power Consumption

### **Flame Sensitivity**

- 1 square foot n-heptane fire @ 44m
- Coverage: 90 degree cone of view

### **Response Time**

- Less than 5 seconds

### **Output(s)**

- Relay contacts alarm and fault
- Current 4-20 mA
- RS485 bidirectional serial communications link
- Live Colour Video PAL or NTSC
- Hart optional

### **Certification**

- ATEX: II 2 G Ex d IIC T4 (FM07ATEX0033)
- Factory mutual: 3260 (3029978)
- IEC 61508 : SIL 2 (MP 080203 C001)
- IECEx FME 07.0002
- Class 1 DIV 1 GROUPS B,C,D,T4
- Class 1 Zone 1 AEx/Ex d IIC T4

### **Ingress Protection**

- IP66

### **Temperature**

- Operating: -60C to +85C
- Storage: -60C to +85C
- Humidity: 0 to 100% RH

### **EMC Directive**

- CE Certified

### **Enclosure**

- 100 Dia x 200L Overall (mm)

### **Shipping Weight**

- 2.2KG / 6KG\*

### **Material**

- LM25 (red epoxy coating) / 316 stainless steel option\*

### **Cable Entries**

There is an option of x1 or x2 of the following:

- Conduit Entry: 25mm or 20mm or ¾ NPT or ½ NPT
- Terminals: 2.5 mm<sup>2</sup>

### **Power On Delay**

- Less than 2 seconds

### **Accessories**

- Mounting & alignment bracket
- Flame simulator

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