Detector range for BiWire systems

EFBW5IN1DET & EFBWOPDET

Overview
The BiWire detector range offers a 5 in 1 detector approved to EN54 parts 5 & 7 and an optical detector approved to EN54 part 7. Both cover many building needs. Quick and simple to install with a stylish low profile design, the detector is mounted on our standard conventional base (EFXN520). Each detector is fitted with a 360° viewable LED for indication.

This 5 in 1 detector can be configured to operate as either an optical detector, photo-thermal detector or 1 of 3 heat detector modes (rate of rise and 2 fixed heat models) using the four position switches located at the back of the detector. The EFBW5IN1DET is certified for use in all 5 modes.

Features:
- Five modes in one detector
- Offers a range of sensor types
- 360° indicator LED using lightpipe technology
- Quick and simple to install
- Easy to maintain/service

Benefits:
- Suitable for a broad range of applications
- Wide viewing angle for increased LED visibility
- Positive “lock” indication
- Discreet design for incorporation into any decor
Technical specification

**Code**

- **EFBW5IN1DET**
  - Description: Detector 5 in 1
  - Standards: EN54 Part 5 & 7 2001

**Supply ratings**

- Operating voltage: 15V DC to 30V DC
- Standby current: 30µA (max)
- Startup current: 340µA (max)
- Alarm current: 25mA (max)

**Fixing information**

- Mounting position: Ceiling in open areas
- Mounting options: Surface mount with FXN520 base
- Area coverage: 100m² (subject to local standards)
- System wiring: 2 Core

**Environmental**

- Operating temperature: -20ºC to 75ºC (dependent on setting)
- Humidity (non condensing): 0 to 93%

**Physical**

- Construction: PC/ABS
- Colour: White
- Dimensions excl base (dia x depth): 104mm x 42mm
- Dimensions incl base (dia x depth): 104mm x 55mm
- Ingress protection: IP40
- EMC: CE Marked

**Compatibility**

- Suitable for use with: Eaton’s BiWire fire system

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**EFBWOPTDET**

- Operating voltage: 15 to 35 V DC
- Standby current (max): 80µA
- Alarm current (typ): 20mA
- Ambient temperature: 60ºC to -10ºC
- Relative humidity: 0 to 95%
- Height (without base): 34mm
- Height (with base): 47mm
- Diameter: 104mm
- Weight (without base): 78g
- Material: PC/ABS
- Colour: White
- Compatible base: EFXN520

**EFXN520 Base**

- Supply voltage: 15 to 35 V DC
- Cable size: 0.5 to 25mm
- Mounting hole centres: 50 to 80mm
- Recommended cable types: FIRETUF or FP200
- Declaration of performance: DoP0437

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**Dimensions**

<table>
<thead>
<tr>
<th>Dia (mm)</th>
<th>D1 (mm)</th>
<th>D2 (mm)</th>
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</thead>
<tbody>
<tr>
<td>104</td>
<td>55</td>
<td>42</td>
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</table>
Detector range for BiWire systems

Performance

<table>
<thead>
<tr>
<th>Feature</th>
<th>Optical smoke mode</th>
<th>Photo-thermal mode</th>
<th>Rate of rise mode</th>
<th>Fixed heat 77 °C mode</th>
<th>Fixed heat 92 °C mode</th>
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</thead>
<tbody>
<tr>
<td>Area coverage (subject to local standards)</td>
<td>100m²</td>
<td>100m²</td>
<td>50m²</td>
<td>50m²</td>
<td>50m²</td>
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<tr>
<td>Heat class</td>
<td>N/A</td>
<td>A2S</td>
<td>A1R</td>
<td>BS</td>
<td>CS</td>
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<tr>
<td>Alarm temperature</td>
<td>N/A</td>
<td>60 °C</td>
<td>60 °C</td>
<td>77 °C</td>
<td>92 °C</td>
</tr>
</tbody>
</table>

Installation

• Detectors are fixed and wired via common mounting base.
• Cable entry into base can be rear or side.
• A locking facility is provided which can be activated if required to prevent unauthorised detector removal without the use of a special tool.
• Positive click mechanism incorporated to provide clear indication when detector is correctly located in base.

User interface

• Red LED to indicate alarm condition.
• Amber LED to indicate chamber fault/drift compensation limit.
• All wiring connections are via a common mounting base (supplied separately).

Catalogue numbers

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>Detector 5 in 1</td>
<td>EFBWSIN1DET</td>
</tr>
<tr>
<td>Optical detector</td>
<td>EFBWOPTDET</td>
</tr>
<tr>
<td>Standard base</td>
<td>EFXN520</td>
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</tbody>
</table>