# KE-DP3121B

## Excellence series intelligent addressable dual optical/heat detector with isolator

### General

The innovative Excellence range of intelligent addressable devices offers advanced features for reliability and peace of mind. Coupled with features for ease of installation and maintenance on new fire detection systems, it's a perfect match for exceptional overall performance.

The DP3121B is a Kidde Excellence series, graphite black addressable dual optical and heat detector with integrated short circuit isolation. It combines a low profile design with tri-colour status indication with 360° visibility. A remote indicator output is available as standard that supports a remote indicator up to 30 m away.

Detection reliability is ensured by combining dual optical wavelengths with multiple detection angles. This allows for state-of-the-art particle size detection that differentiates between real sources of alarm, or nuisance sources such as dust and steam. As a temperature detector Class A static and rate-of-rise modes are supported to further widen the application footprint.

### User friendly

All detectors are individually identified by easily setting an address through 2, modern design rotary switches. The address is a directly identified number and does not require binary or hexadecimal conversions that significantly reduces the risk of incorrect addressing.

### Installation & maintenance friendly

Self-testing and drift compensation ensure safe operation with a contamination warnings provided when maintenance is needed.

All Excellence series detectors are compatible with a standard base which makes installation planning seamless and detectors easily interchangeable.

### Communication protocol

An enhanced protocol ensures the overall integrity and error-free operation of the system. The Excellence series protocol provides features like CRC error checking and multiple bus cycle codes to ensure reliability between panel and device communication. The Kidde Excellence protocol still support legacy 2000 series devices in combination with the Kidde Excellence series devices.

### Extended applications

A comprehensive range of additional devices and accessories complement every Excellence series device. Appart from a feature rich detector line, a comprehensive range of in- and outdoor manual call points as well as a variety of I/0 modules and accessories enrich the overall Excellence system capability.




### Details

- Integrated loop short circuit isolation ensures operation during a single short circuit on the loop
- Short circuit isolation on remote output for additional device protection
- Nuisance alarm, steam & dust discrimination for superior false alarm immunity
- Regular automatic self testing for operational piece of mind
- Static and rate-of-rise temperature support
- Tri-colour indicators for alarm, pre alarm, isolation, fault. ItsMe, and communications takes the guesswork out of operational status
- 360° indicator visibility means no device alignment to ensure visibility
- New mechanical rotary addressing for easy addressing
- Event logging in the device for diagnostics purposes when needed
- All levels sensitivity EN54 certified

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## Technical specifications

### General

| | |
|---|---|
| Status indication | Tri-colour LED |
| Compatibility | Kidde Commercial Excellence Systems |
| Alarm levels | 11 |
| Event log | Available |
| Connectivity | Excellence series, standard base |
| Addressing method | Rotary switch |

### Electrical

| | |
|---|---|
| Power supply type | Alimentado por loop |
| Operating voltage | 17 to 29 VDC |
| Communication voltage | 4 to 11 V pulsed |
| Current consumption | 200 µA (quiescent at 24 VDC)<br>4.75 mA (alarm at 24 VDC) |
| Terminals | 6 |

### Detection

| | |
|---|---|
| Detection principle | Optical light scatter, forward and backward / Heat |
| Monitoring | Alarm threshold, Contamination level, Fault |
| Sensitivity | Selectable |
| Coverage area | < 57 m² |
| Particle sensitivity range | 0.1 to 0.25 dB/m ±20% |
| Alarm temperature (minimum) | +54°C |
| Rate-of-rise | Supported |
| Installation height | < 7.5 m (std) / < 9 m (reduced spacing & risk assessment) |
| Alarm temperature (maximum) | 70°C |

### Output

| | |
|---|---|
| Output quantity | 1 |
| Output type and rating | Remote indicator |
| Programmable | No |
| Remote alarm output | < 8 mA |

### Isolation

| | |
|---|---|
| Type | Interrupção linha negativa |
| Quantity per loop | ≤ 128 |
| Isolation voltage | 14 to 15.5 VDC |
| Reconnect voltage | 14 to 15.5 VDC |
| Loop current | 5 mA (isolated) |
| Switch current | 1.05 A (continuous) / 1.4 A (pulsed) |
| Leakage current | < 1 mA |
| Series resistance | < 0.08 Ω |
| Impedance requirements | ≤ 32 devices between isolators |

### Physical

| | |
|---|---|
| Physical dimensions | 100 x 54 mm (Ø x H) |
| Net weight | 124 g |
| Colour | Graphite black (RAL 9011) |
| Mounting type | Montagem na base |
| Material (body) | PC / ABS |
| Functional marking | Device type, Isolation |
| Material (contacts) | Brass |
| Colour | Graphite black (RAL 9011) |

### Environmental

| | |
|---|---|
| Vandal proof | No |
| Operating temperature | -10 to +55°C |
| Storage temperature | -30 to +75°C |
| Application temperature (maximum) | +50°C |
| Application temperature (typical) | +25°C |
| Relative humidity | 10 to 93% noncondensing |
| Environment | Indendør |
| IP rating | IP20 |

### Regulatory

| | |
|---|---|
| Compliancy | CE, REACH, RoHS 3, WEEE |
| Certification | CPR |
| Standards | EN54-5, EN54-7, EN54-17, EN54-29 |

### Compatible products

| Category | Reference | Description |
|---|---|---|
| Detection device | KE-DB3010B | Excellence series intelligent detector accessory - standard base |

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As a company of innovation, Kidde Global Solutions reserves the right to change product specifications without notice. For the latest product specifications, visit firesecurityproducts.com online or contact your sales representative.

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