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	Loop powered
Operating voltage	17 to 29 VDC
Communication voltage	4 to 11 V pulsed
Current consumption	200 µA (quiescent at 24 VDC) 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	Negative line break
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	Base mount
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	Indoor
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	

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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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