KE-DP3121W-SN

Excellence series intelligent addressable isolated dual optical/heat detector w/ sounder

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 DP3121W-SN is a Kidde Excellence series, traffic white addressable dual optical and heat detector with integrated short circuit isolation and sounder. It combines a low profile design with dual tri-colour status indication with 360° visibility. A remote indicator output is available to support 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.

Integrated notification

Every detector supports a freely programmable, audible alarm device that can be fully controlled from the CIE. The sounder supports 32 alarm tones, each configurable at 4 alarm levels that allows complete customisation for the application and the alarm situation.

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

All Excellence series detectors are compatible with a standard base which makes installation planning seamless and detectors easily interchangeable. Self-testing and drift compensation ensure safe operation with contamination warnings provided when maintenance is needed.

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.



Details

- Integrated loop short circuit isolation ensures operation during a loop overload
- Short circuit isolation on remote indicator 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
- Easy mechanical rotary addressing
- Event logging in the device for advanced diagnostics purposes
- Supports 32 multi-stage tones at 4 alarm levels up to 86 dB(A)

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Technical specifications

General

Status indication	Tri-colour LED
Compatibility	Kidde Commercial Excellence Systems
Alarm levels	5
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	< 10.5 mA (alarm at 24 VDC - notification level dependant) 500 µA (quiescent 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 (maximum)	+70°C
Alarm temperature (minimum)	+54°C
Rate-of-rise	Supported
Installation height	< 7.5 m (std) / < 9 m (reduced spacing & risk assessment)
Heat class (per EN54)	A2S / A2R
Test fires (to ISO 7240)	TF1, TF2, TF3, TF4, TF5, TF8, TF9

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 51 mm (Ø x H)
Net weight	205 g
Colour	Traffic white (RAL9016)
Mounting type	Base mount
Material (body)	PC / ABS
Material (contacts)	Brass
Functional marking	Device type, Isolation

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	IP21C

Regulatory

Compliancy	CE, REACH, RoHS 3, WEEE
Certification	CPR
Voluntary marks	BOSEC
Standards	EN54-3, EN54-5, EN54-7, EN54-17, EN54-23

Sounder

Output level	51 to 86 dB(A) - Tone dependent
Output level adjustment	4 levels
Frequency	User selectable
Selectable tones	32
Synchronization	Supported
No. of stages	3

Compatible products

Category	Reference	Description
Detection device	KE-DB3010W	Excellence series intelligent device accessory - standard base
Notification device	PA25/3L	Conventional remote indicator

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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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