

# KE-DP3120W-SNV

## Excellence series intelligent addressable isolated dual optical smoke detector w/ sounder & VAD

### General

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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 DP3120W-SNV is a Kidde Excellence series, traffic white addressable dual optical detector with integrated short circuit isolation, sounder and VAD (Visual Alarm Device). 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.

### Integrated notification

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Every detector supports a freely programmable, audible and visual alarm device that can be independently 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. The EN54-23 certified VAD offers 3 power ratings adding to full flexibility for management of loop loading on a system level.

### User friendly

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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

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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 a contamination warnings provided when maintenance is needed.

### Communication protocol

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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

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- 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
- All alarm levels EN54 certified
- Supports 32 multi-stage tones at 4 alarm levels up to 86 dB(A)
- Supports visual alarm notification at 3 levels up to C-3-9

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### Technical specifications

#### General

|                   |                                     |
|-------------------|-------------------------------------|
| Status indication | Tri-colour LED                      |
| Compatibility     | Kidde Commercial Excellence Systems |
| Alarm levels      | 3                                   |
| 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   | < 40 mA (alarm at 24 VDC - notification level dependant)<br>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               | < 112 m <sup>2</sup>                               |
| 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         | < 10.5 m (optical) / < 7.5 m (heat)                |
| 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 | 101 x 54 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

|               |  |
|---------------|--|
| Compliance    | CE, REACH, RoHS 3, WEEE                  |
| Certification | CPR                                      |
| 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                               |

#### VAD

|                 |                             |
|-----------------|-----------------------------|
| Colour          | Red                         |
| Rating          | User selectable up to C-3-9 |
| Floor coverage  | < 63 m <sup>2</sup>         |
| Flash frequency | 0.5 Hz (1 flash every 2 s)  |
| Synchronization | Supported                   |

#### Compatible products

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