# KE-IO3144

## Excellence series intelligent addressable 4 input / 4 output unit with isolator

### General

The innovative Excellence series 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 Excellence series input/output devices are designed to provide much needed flexibility to input monitoring and output switching. These modules, combined with the powerful features of a Kidde Excellence series addressable CIE, give customers versatility for diverse applications.

The KE-IO3144 an Excellence series addressable 4 input/4 output unit with integrated short circuit loop isolation. Powered directly from the Excellence loop, it offers 4 inputs with selectable line supervision and 4 magnetically latched relay outputs.

### Applications

The KE-IO3144 is designed to monitor any potential free contacts, and independently switch outputs for control of equipment. Any normally open or normally closed contact may be selected to be supervised or unsupervised. Normal, open, passive, active or short circuit states on the input are reported back to the CIE where, depending on the programming, separate actions may be taken for any of these states. Every output is a magnetically latched relay providing a potential free change-over contact. The output relays do not require power in either the active or passive states, saving on overall loop loading.

The KE-IO3144 may be located anywhere on the Kidde Excellence loop where it occupies only 1 of 128 available addresses. Housed in a low profile molding, the interface is designed to clip directly onto a standard DIN rail fixing or be installed in a suitable wall mount housing.

### Installation & Maintenance Features

The KE-IO3144 is connected to the CIE via a 2-wire communication loop that carries both power and control data. Tri-Colour LED indicators positioned on the front face of the unit provide the engineer with clear identification of the operational state of the unit, as well as the status of any input and/or output control. Additional manual test facilities on the unit allows local testing without the need for control panel intervention, saving time during installation and commissioning.

Excellence series devices use an advanced digital data communications protocol with extensive error correction algorithms to ensure system reliability.

### Details

- Loop powered, saving external supply and installation cost
- Provides 4 individually programmable, addressable inputs and outputs on a single address, saving address locations on the loop
- Fully supervised, bi-level inputs for pre-alarm and alarm supervision using a single input
- Normally Open / Normally Closed programmable for full installation flexibility
- Magnetic latched output relays to reduce loop loading
- Freely programmable to operate from any combination of input triggers
- Local test features for ease of validation
- Local, clear operation status indication for ease of maintenance

# KE-IO3144

## Excellence series intelligent addressable 4 input / 4 output unit with isolator

## Technical specifications

### General

| | |
|---|---|
| Status indication | Tri-coloured LEDs |
| Compatibility | Kidde Commercial Excellence Systems |
| Addressing method | DIP Switches |
| Address range | 1 to 128 |

### Electrical

| | |
|---|---|
| Power supply type | Loop powered |
| Operating voltage | 17 to 29 VDC |
| Current consumption | 2.5 mA @ 24 VDC (active)<br>350 µA @ 24 VDC (standby) |
| Communication voltage | 4 to 11 V (pulsed) |

### Input

| | |
|---|---|
| Input quantity | 4 |
| Input type and rating | Bi-level, Supervised |
| Input states | Active, Fault, Normal, Open, Short |
| Pre-alarm resistor | 3 kΩ to 7 kΩ |
| Alarm resistor | 0.3 kΩ to 3 kΩ |
| Termination resistor | 15 kΩ, ¼ W, 1% |
| Cable specification | 0.5 to 4.9 mm² (10 to 20 AWG)<br>shielded/unshielded twisted-pair |

### Output

| | |
|---|---|
| Output quantity | 4 |
| Output type and rating | Relay, 2A @ 30 VDC (resistive load) |
| Cable specification | 0.13 to 3.31 mm² (12 to 26 AWG)<br>shielded/unshielded twisted-pair |

### Isolation

| | |
|---|---|
| Type | Negative line break |
| Loop current | 2.5 mA (active) |
| Series resistance | <0.08 Ω |
| Switch current | 1.05 A (continuous) / 1.4 A (short) |
| Leakage current | <1 mA |
| Isolation voltage | 14 to 15.5 VDC |
| Reconnect voltage | 14 to 15.5 VDC |
| Impedance requirements | ≤32 devices between isolators |
| Quantity per loop | 128 |

### Physical

| | |
|---|---|
| Physical dimensions | 148 x 102 x 27 mm (W x H x D) |
| Net weight | 145 g |
| Colour | Signal white (RAL 9003) |
| Mounting type | DIN-rail, Surface mount, Wall mount |
| Material | PC / ABS |
| Cable specification | Loop: 0.13 to 3.31 mm² (12 to 26 AWG)<br>shielded/unshielded twisted-pair < 52 Ω , < 500 nF |

### Environmental

| | |
|---|---|
| Vandal proof | No |
| Operating temperature | -22 to +55°C |
| Storage temperature | -30 to +65°C |
| Relative humidity | 10 to 93% noncondensing |
| Environment | Indoor |
| IP rating | IP30 |

### Regulatory

| | |
|---|---|
| Compliancy | CE, REACH, RoHS 3, WEEE |
| Certification | CPR |
| Standards | EN54-17, EN54-18 |

### Compatible products

| Category | Reference | Description |
|---|---|---|
| Enclosures | N-IO-MBX-1 | DIN Rail Module Box |
| Enclosures | N-IO-MBX-2 | DIN Rail Module Box |

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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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