KE-IO3101

Excellence series intelligent addressable 1 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-IO3101 is an Excellence series addressable relay output unit with integrated short circuit loop isolation. Powered directly from the Excellence loop, it offers a magnetically latched relay output.

Applications

The KE-IO3101 is designed for controlling building services such as air conditioning and smoke extraction during fire conditions. It is ideal for the control of 3rd party equipment such as emergency shutdown of high risk services such as gas or oil supply valves in boiler rooms. The relay may be programmed to be activated by any single device, groups of devices or all system devices. All types of system input signals can be arranged to operate the KE-IO3101 which can include control panel indicators, zonal outputs, call points or detectors.

The KE-IO3101 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. It is intended for installation inside the equipment to be switched, thereby offering savings in installation costs compared with long, auxiliary circuit wiring runs from the control panel.

Support for fail safe emergency exit doors as stipulated under EN14637 & BS7273 is configurable from the CIE allowing the relay to change state in case of power failures or loop faults. This functionality is available on all modules manufactured after June 2026.

Installation & Maintenance Features

The KE-IO3101 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 an addressable, potential free change over relay output for 3rd party equipment control
- EN14637 / BS7273 support for fail to safe operation for emergency doors (as of June '26)
- Normally Open / Normally Closed programmable for full installation flexibility
- Magnetic latched output relay to reduce loop loading
- Freely programmable to operate from any combination of input triggers
- DIN or wall mounted for installation flexibility
- Local test features for ease of validation
- Local, clear operation status indication for ease of maintenance

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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	250 µA @ 24 VDC (quiescent) 2.5 mA @ 24 VDC (active)
Communication voltage	4 to 11 V (pulsed)

Output

Output quantity	1
Output type and rating	Relay, 2 A @ 30 VDC (resistive load)
Cable specification	0.13 to 3.31 mm² (12 to 26 AWG) 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	87 x 80 x 26 mm (W x H x D)
Net weight	60 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) 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
Interface unit	N-IO-SBX-1G	Single module box with DIN rail (small)
Interface unit	N-IO-SBX-2G	Single module box with DIN rail (large)

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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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