

KIDDE KE-IO3101 Excellence Series Intelligent Addressable



# KIDDE KE-IO3101 Excellence Series Intelligent Addressable Instruction Manual

[Home](#) » [Kidde](#) » KIDDE KE-IO3101 Excellence Series Intelligent Addressable Instruction Manual 

## Contents

- [1 KIDDE KE-IO3101 Excellence Series Intelligent Addressable](#)
- [2 Product Usage Instructions](#)
- [3 Installation Sheet](#)
- [4 Installation](#)
- [5 Status indications](#)
- [6 Maintenance and testing](#)
- [7 Specifications](#)
- [8 Documents / Resources](#)
  - [8.1 References](#)

# KIDDE

KIDDE KE-IO3101 Excellence Series Intelligent Addressable



### Specifications:

- Product Name: KE-IO3101 Intelligent Addressable Single Output Module
- Power Source: Loop powered
- Output Type: Single unsupervised output with NO, NC, and C contacts
- Integrated Short Circuit Isolator: Yes
- Suitability: Indoor installation
- Compatibility: Kidde Excellence protocol, 2X-A Series fire alarm control panels with firmware version 5.0 or later

### Product Usage Instructions

#### Installing the Module

- Use NeXT System Builder application to calculate maximum number of modules.
- Install inside a compatible protective housing (eg, N-IO-MBX-1 DIN Rail Module Box).
- Earth the protective housing.
- Mount housing on wall using suitable mounting system.

#### Wiring the Module

- Connect loop wires as per Table 1.
- Use recommended cable specifications from Table 2.

#### Addressing the Module

- Set device address using DIP switch within the range of 001-128.
- Address is sum of switches in ON position.

#### Status Indications

- Device status indicated by Device status LED (Table 3).
- Output status indicated by Output status LED (Table 4).

## FAQ:

**Q:** What should I do if the Device Fault indication is flashing?

**A:** If the Device Fault indication is flashing yellow, check for any issues with the module's connections or power source. If the issue persists, consult the user manual or contact customer support.

**Q:** Can I disable the Test Mode indication?

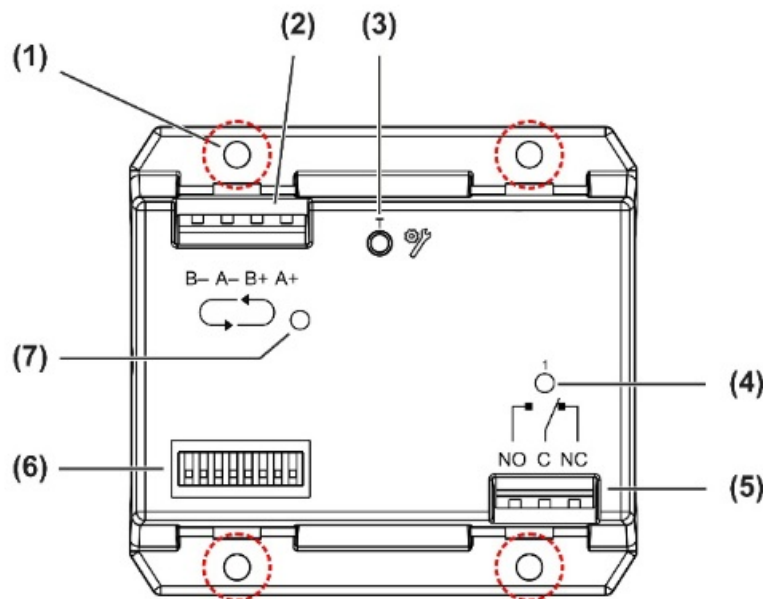
**A:** Yes, the Test Mode indication can be disabled either from the control panel or using the Configuration Utility application.

## Excellence Series Intelligent Addressable Single Output Module Installation Sheet

### Installation Sheet

#### Figures

**Figure 1:** Device overview



1. Mounting holes (×4)
2. Loop terminal block
3. Test (T) button
4. Output status LED
5. Output terminal block
6. DIP switch
7. Device status LED

### Description

This installation sheet includes information on the KE-IO3101 Intelligent Addressable Single Output Module (device type 1Oni).

The module is loop powered and provides a single unsupervised output with normally open (NO), normally closed

(NC), and common (C) contacts. The module includes an integrated short circuit isolator and is suitable for indoor installation.

All 3000 Series modules support the Kidde Excellence protocol and are compatible for use with 2X-A Series fire alarm control panels with firmware version 5.0 or later.

## Installation

**WARNING:** Electrocution hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow stored energy to discharge before installing or removing equipment.

Caution: For general guidelines on system planning, design, installation, commissioning, use and maintenance, refer to the EN 54-14 standard and local regulations.

### Installing the module

Always use the NeXT System Builder application to calculate the maximum number of modules that can be installed.

The module must be installed inside a compatible protective housing (not supplied) – we recommend the N-IO-MBX-1 DIN Rail Module Box. Remember to earth the protective housing.

**Note:** An alternative protective housing may be used providing it meets the specifications indicated in “Protective housing” on page 3.

Mount the protective housing onto the wall using a suitable mounting system for the wall characteristics.

### Wiring the module

Connect the loop wires to the module as shown below. See Table 2 for recommended cable specifications.

**Table 1:** Loop connection

Terminal	Description
B–	Negative line (–)
A–	Negative line (–)
B+	Positive line (+)
A+	Positive line (+)

**Table 2:** Recommended cable specifications

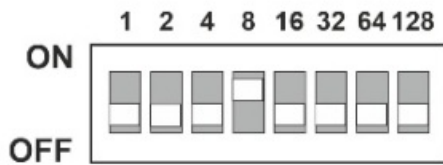
Cable	Specification
Loop	0.13 to 3.31 mm <sup>2</sup> (26 to 12 AWG) shielded or unshielded twisted-pair (52 Ω and 500 nF max.)
Output	0.13 to 3.31 mm <sup>2</sup> (26 to 12 AWG) shielded or unshielded twisted-pair

### Addressing the module

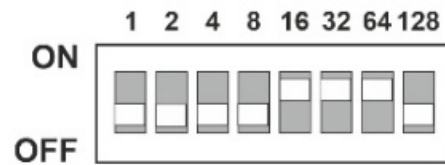
Set the device address using the DIP switch. The address range is 001-128.

The device address is the sum of the switches in the ON position, as shown below.

## Device address 008



## Device address 112



## Status indications

The device status is indicated by the Device status LED (Figure 1, item 7), as shown in the table below.

**Table 3:** Device status LED indications

State	Indication
Isolation active	Steady yellow LED
Device fault	Flashing yellow LED
Test mode	Fast flashing red LED
Located device [1]	Steady green LED
Communicating [2]	Flashing green LED

1. Indicates an active Locate Device command from the control panel.
2. This indication can be disabled from the control panel or the Configuration Utility application.

The output status is indicated by the Output status LED (Figure 1, item 4), as shown in the table below.

**Table 4:** Output status LED indications

State	Indication
Active	Flashing red LED (flashing only when polled, every 15 seconds)
Fault	Flashing yellow LED (flashing only when polled, every 15 seconds)
Test mode [1] Active Fault Normal	Steady red LED Steady yellow LED Steady green LED
Selected for test [2] Test activation	Slow flashing green LED Slow flashing red LED

1. These indications are only visible when the module is in Test mode.
2. Not activated

## Maintenance and testing

### Maintenance and cleaning

Basic maintenance consists of a yearly inspection. Do not modify internal wiring or circuitry. Clean the outside of the module using a damp cloth.

## Testing

Test the module as described below.

See Figure 1 for the location of the Test (T) button, Device Status LED, and Output status LED. See Table 3 and Table 4 for status LED indications.

### To perform the test:

1. Press and hold the Test (T) button for at least 3 seconds (long press) until the Device status LED flashes red (fast flashing), and then release the button.  
The module enters Test mode.  
The Device status LED flashes red for the duration of the test.  
The Output status LED indicates the output state on entering Test mode: normal (steady green), active (steady red), or fault (steady yellow). The output can be tested in any of these states.
2. Press the Test (T) button again (short press).  
If the output state is not activated, the Output status LED flashes green.  
If the output state is activated, the Output status LED flashes red.
3. Press the Test (T) button again (short press) to start the test.  
If the output state in step 2 (above) was not activated, the Output status LED flashes red.  
If the output state in step 2 (above) was activated, the Output status LED flashes green.  
Check that any connected devices or equipment operate correctly.  
Press the Test (T) button again to switch the relay state again, if required.
4. To stop the test and exit Test mode, press and hold the Test (T) button again for at least 3 seconds (long press).  
The module exits the test automatically after 5 minutes if the Test (T) button is not pressed.

After the test the output returns to its original state.

**Note:** The module exits Test mode automatically if the control panel sends a command to switch the relay (for example an alarm command) or if the control panel is reset.

## Specifications

### Electrical

Operating voltage	17 to 29 VDC (4 to 11 V pulsed)
Current consumption Standby Active	250 $\mu$ A A at 24 VDC 2.5 mA at 24 VDC
Polarity sensitive	Yes
Number of outputs	1
Relay contact rating	2A at 30 VDC (resistive load)

### Isolation

Current consumption (isolation active)	2.5 mA
Isolation voltage Minimum Maximum	14 VDC 15.5 VDC
Reconnect voltage Minimum Maximum	14 VDC 15.5 VDC
Rated current	
Continuous (switch closed)	1.05 A
Switching (short circuit)	1.4 A
Leakage current	1 mA max.
Series impedance	0.08 $\Omega$ max.
Maximum impedance [1]	
Between the first isolator and the control panel	13 $\Omega$
Between each isolator	13 $\Omega$
Number of isolators per loop	128 max.
Number of devices between isolators	32 max.
[1] Equivalent to 500 m of 1.5 mm <sup>2</sup> (16 AWG) cable.	

## Mechanical and environmental

IP rating	IP30
Operating environment Operating temperature Storage temperature Relative humidity	–22 to +55°C –30 to +65°C 10 to 93% (noncondensing)
Colour	White (similar to RAL 9003)
Material	ABS+PC
Weight	60 g
Dimensions (W × H × D)	87 × 80 × 26 mm

## Protective housing



Install the module inside a protective housing that meets the following specifications.

IP rating	Min. IP30 (indoor installation)
Material	Metal
Weight [1]	Min. 4.75 kg
[1] Excluding the module.	

### Regulatory information

This section provides a summary on the declared performance according to the Construction Products Regulation (EU) 305/2011 and Delegated Regulations (EU) 157/2014 and (EU) 574/2014.

For detailed information, see the product Declaration of Performance (available at [firesecurityproducts.com](https://firesecurityproducts.com)).

Conformity	
Notified/Approved body	0370
Manufacturer	Carrier Safety System (Hebei) Co. Ltd., 80 Changjiang East Road, Q ETDZ, Qinhuangdao 066004, Hebei, China.  Authorized EU manufacturing representative:  Carrier Fire & Security B.V., Kelvinstraat 7, 6003 DH Weert, Netherlands.
Year of first CE marking	2023
Declaration of Performance number	12-0201-360-0002 [1]
EN 54	EN 54-17, EN 54-18
Product identification	KE-IO3101
Intended use	See the product Declaration of Performance
Declared performance	See the product Declaration of Performance
	2012/19/EU (WEEE Directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: <a href="https://recyclethis.info">recyclethis.info</a> .
[1] Certified installed inside the N-IO-MBX-1 DIN Rail Module Box	

1. Certified installed inside the N-IO-MBX-1 DIN Rail Module Box

Contact information and product documentation

For contact information or to download the latest product documentation, visit [firesecurityproducts.com](https://firesecurityproducts.com).



### Product warnings and disclaimers

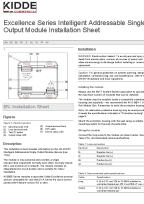
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## Documents / Resources

	<p><a href="#">KIDDE KE-IO3101 Excellence Series Intelligent Addressable</a> [pdf] Instruction Manual KE-IO3101 Excellence Series Intelligent Addressable, KE-IO3101, Excellence Series Intelligent Addressable, Intelligent Addressable, Addressable</p>
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## References

- [Home - Fire Security Products](#)
- [products.com](#)
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