Expanding Automated Responses and Saving Wiring Efforts

The XE-1ZBS is a ZigBee DI/DO module that integrates wired devices into ZigBee wireless networks to create automated responses and enhance security and convenience. Providing a digital input (DI) and a digital output (DO) that connect to wired devices, the XE-1ZBS serves as a bridge of reliable and fast communication between a control system and wired devices over ZigBee networks. It is particularly useful for a control panel to obtain data from and activate remote field devices that are difficult or cost-prohibitive to reach.

The XE-1ZBS turns the device connected to its DI into the trigger of events and the device connected to its DO into the responder of events. Its DI is a dry contact consisting of two metallic contacts. When the contacts are open, the device connected to the DI is in a normal condition. When the contacts are closed, the device connected to the DI reports either its status or an alarm. Devices commonly connected to the DI are smoke detectors, PIR motion sensors, door/window contacts, glass break detectors, panic/emergency buttons, etc.

The main benefits of the XE-1ZBS include improving process efficiency and saving wiring efforts between the trigger and the control panel. Interoperable with any ZigBee devices adopting the ZigBee Pro HA 1.2 standard, the XE-1ZBS can be flexibly incorporated into new or existing home automation systems. The two models of the XE-1ZBS, the XE-1SZBS and XE-1PZBS, are designed for two different types of DI/DO architecture, where responses are triggered either by the control panel or by the device connected to the DI.

Examples of DI/DO Architecture

1. The gas detector detects a gas leak and reports an alarm to the control panel.
2. The control panel sends a command to turn off the gas valve.

1. The control panel sends a command to turn off the gas valve.
2. The gas valve sends a message to the control panel to confirm that it has been turned off.
XE-1ZBS ZigBee DI/DO Module
Smart Anytime, Safe Anywhere

**Features**

- One digital input (DI) and one digital output (DO)
- Dry contact input indicates two conditions: “Open” means “normal” and “closed” signifies “alarm/status”
- Turns the device connected to the DI into the trigger of events
- Turns the device connected to the DO into the responder of events
- Saves cabling efforts between the trigger and the control panel
- Obtains data from and activates remote field devices that are difficult or cost-prohibitive to reach
- Establishes reliable and fast communication between a control system and remote field devices over ZigBee networks
- LED serves as the network connectivity status indicator
- Compatible with other manufacturers’ ZigBee products
- CE compliance

**DI/DO Terminals**

- DI (Dry Contact)
  - NO = Normally Open
  - C = Common

- DO
  - NO = Normally Open
  - C = Common

**Specifications**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Digital Input (DI)</strong></td>
<td>Input point: 1 point (dry contact)</td>
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<tr>
<td><strong>Digital Output (DO)</strong></td>
<td>Output point: 1 point</td>
</tr>
<tr>
<td><strong>Rated load voltage/current</strong></td>
<td>30VDC/1A, 125VAC/0.3A</td>
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<tr>
<td><strong>Networks supported</strong></td>
<td>ZigBee (IEEE 802.15.4) mesh networking</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>2.4 GHz</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>CR123A 3V lithium battery x 1</td>
</tr>
<tr>
<td><strong>Battery life</strong></td>
<td>3.9 years*</td>
</tr>
<tr>
<td><strong>Operating temperature</strong></td>
<td>-10°C to +45°C</td>
</tr>
<tr>
<td><strong>Operating humidity</strong></td>
<td>Up to 85% non-condensing</td>
</tr>
<tr>
<td><strong>External connection method</strong></td>
<td>Terminal block connector</td>
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<tr>
<td><strong>Dimensions</strong></td>
<td>78mm x 39mm x 26.5mm</td>
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</table>

*Battery life varies by use and configuration.

**Ordering Information**

- XE-1ZBS  Response triggered by the device connected to the DI
- XE-1PZBS  Response triggered by the control panel