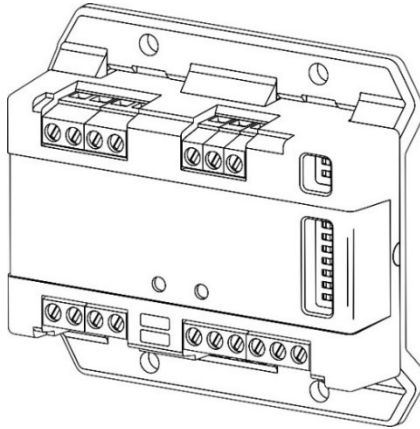


A70E-2 Conventional Zone Interface Module Installation Sheet



Description

The A70E-2 Conventional Zone Interface Module provides the interface between a conventional zone of detectors and an addressable loop in Ziton addressable systems. The zone of conventional detectors appears as a single addressable device on the addressable loop.

The module includes the following features:

- Red LED to indicate alarm condition
- Yellow LED to indicate fault condition
- DIN rail or surface mounting
- 24 V or loop powered
- Built-in head-out operation
- Drives intrinsically safe equipment

Installation

Mounting

The module must be mounted inside a compatible electrical box (such as the Ziton SMB-DIN1 or SMB-DIN2).

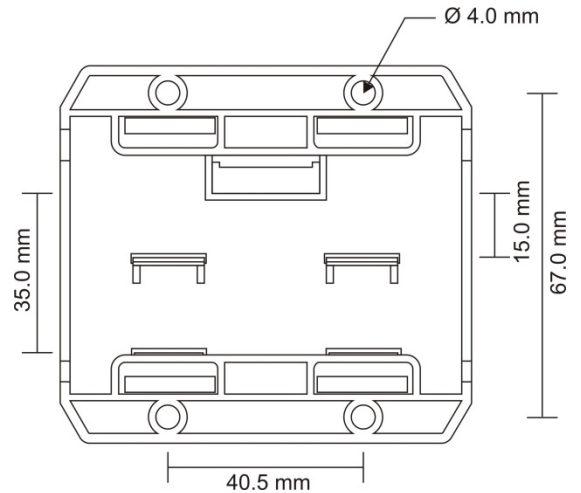
Mount the protective housing onto the wall using a suitable mounting system for the wall characteristics.

See Figure 1 for mounting hole dimensions and locations.

To install the device:

1. Verify that all field wiring is free of open circuits, short circuits, and ground faults.
2. Make wiring connections as shown in Figure 2.

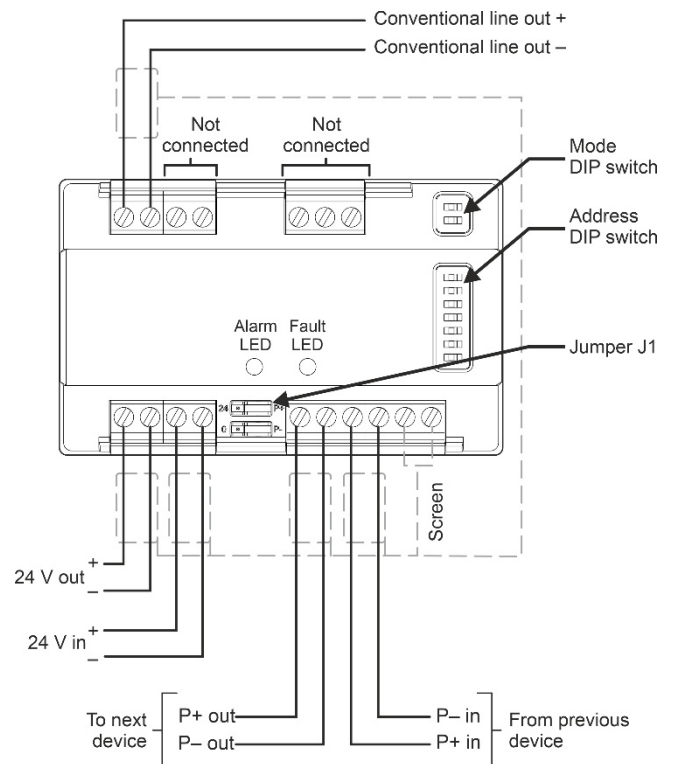
Figure 1: Dimensions



Wiring

Wire the module as shown in Figure 2, below.

Figure 2: Wiring



Note: Connect all cable screens to a single point, as shown.

Setting the address

Use the seven-segment DIP switch (see Figure 2) to set the device address from 1 to 127.

Each switch has a decimal value, as shown below. The device address is the sum of the switch values.

For example, to set device address 007, set switches 1, 2, and 3 to ON and all other switches to OFF.

Note: The switch *values* determine the address, not the switch numbers.

Switch	1	2	3	4	5	6	7
Value	1	2	4	8	16	32	64

Power supply selection – J1

Use jumper J1 (see Figure 2) to select between an externally powered or loop powered conventional zone.

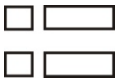
Note: Remove both jumpers before inserting either of them.

External 24 VDC power



Note: The device will go into fault if the jumpers are left out or if external power is removed when J1 is in the External 24 VDC Power position.

Loop power



Operating mode selection

Use the two-way Mode DIP switch (see Figure 2) to select the conventional zone operating mode.

Table 1: Operating mode selection

Switch selection	Mode
SW 1 and 2 OFF	Normal mode, see Figure 3
SW 1 ON and 2 OFF	Intrinsically Safe mode, Figure 6
SW 1 and 2 ON	Intrinsically Safe mode, Figure 6
SW 1 OFF and 2 ON	Head-out mode, see Figure 4 and Figure 5

Note: It is not possible to be in both intrinsically safe and head-out mode.

Table 2: LED indicator

LED [1]	Colour	Status	Description
Alarm LED [2]	Red	Flashing	Conventional zone fire
Fault LED [3]	Yellow	Flashing	Conventional zone fault
		Double flashing	Power fault

[1] See Figure 2 for the location of each LED.

[2] Once registered by the panel, the alarm LED output is maintained by the panel until reset.

[3] The fault LED is nonlatching.

Maintenance

The device contains no user-serviceable parts and should not be disassembled.

Application modes

Figure 3: Normal mode operation

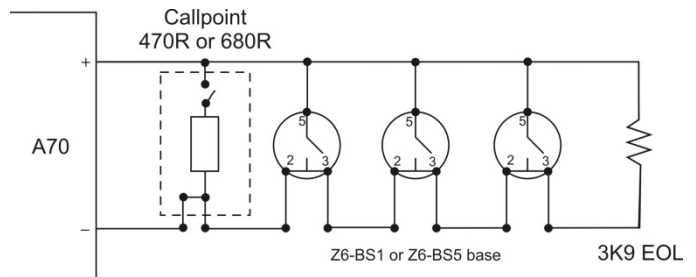


Figure 4: Head-out detection mode for Z6x0-3 detectors

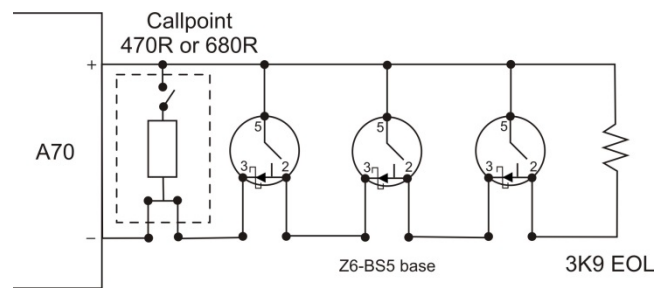


Figure 5: Head-out detection mode for detectors without an in series diode, e.g. Z620-1 &-2 (consult manufacturer)

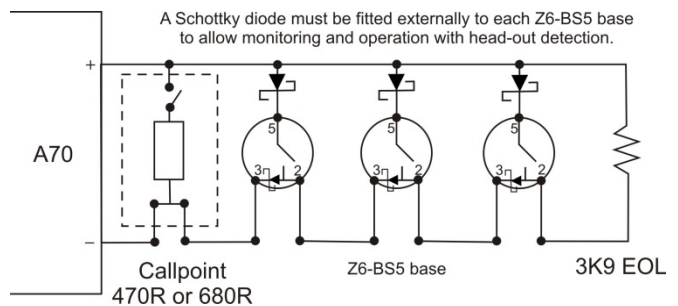
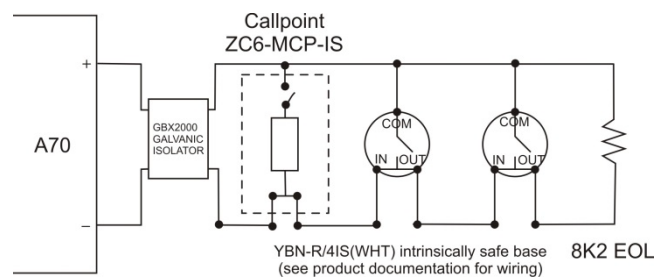


Figure 6: Intrinsically Safe mode (using intrinsically safe detectors)



Specifications

Operating voltage	
External power supply	19 to 30 VDC
Loop power	18 to 20.5 V pulsed
Current consumption	See "Current consumption" below
Conventional zone monitoring	Open and short circuit fault with a 3.9 kΩ EOL resistor (normal conventional devices) or 8.2 kΩ EOL resistor (intrinsically safe devices) Head-out operation with 3K9 resistor available with Z6x0-3 detectors or other detectors with series supply diode. Requires base with Schottky diode (for example, Z6-BS5. Add a series diode to the base – see Figure 5 to use other detectors).
Device compatibility	See "Device compatibility" below
Manual call point resistor required	470R or 680R
Wiring	Shielded twisted-pair
IP rating	IP20
Material	Moulded ABS
Colour	White
Environmental	
Operating temperature	-10 to +55°C
Storage temperature	-10 to +55°C
Relative humidity	20 to 95%, noncondensing
Weight	80 g
Dimensions (L x W x H)	85 x 78 x 27 mm

Current consumption

Current consumption values are shown in the table below. These values assume no devices in the conventional zone (EOL resistor only). All values are RMS.

Source	From external supply		From loop	
	Quiescent	Worst case (S/C fault)	Quiescent	Worst case (S/C fault)
Externally powered	9 mA [1]	24 mA	1.5 mA	1.5 mA
Loop powered			8.3 mA [1]	24.6 mA

[1] For a fully loaded conventional zone add 1.5 mA in Normal/Head-out modes or 3 mA in Intrinsically safe mode.

Device compatibility

Compatible devices are shown in the table below.

Conventional [1]	Ziton 610, 620, 630 Series GST DC-91 Series
Intrinsically safe [2]	Hochiki IS devices (GBX2000 galvanic isolator required)

[1] Maximum 32 Ziton or GST devices in Normal or Head-out modes.

[2] Maximum 15 Hochiki devices in Intrinsically Safe mode.

Other devices may be used providing they meet the following specifications.

Operating voltage	
Normal, Head-out modes	12.5 to 20 VDC
Intrinsically Safe mode	14 to 20 VDC
Alarm clamp voltage	3 to 9 V
Reset supplied by A70E-2	2.4 s power disconnect

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).

Conformity	CE
Notified/Approved body	0370
Manufacturer	KGS Safety System (Hebei) Co. Ltd., 80 Changjiang East Road, QETDZ, Qinhuangdao 066004, Hebei, China. Authorized EU manufacturing representative: KGS Fire & Security B.V., Kelvinstraat 7, 6003 DH Weert, Netherlands.
Year of first CE marking	10
Declaration of Performance number	360-5211-0399
EN 54	EN 54-18
Product Identification	A70E-2
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: recyclethis.info.

Contact information and product documentation

For contact information or to download the latest product documentation, visit firesecurityproducts.com.

Product warnings and disclaimers

These products are intended for sale to and installation by qualified professionals. KGS Fire & Security cannot provide any assurance that any person or entity buying its products, including any "authorized dealer" or "authorized reseller", is properly trained or experienced to correctly install fire and security related products.

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