![ZITON logo]

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 analogue addressable loop. The zone of conventional detectors appears as a single addressable device on the addressable loop.

The A70E-2 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

The A70E-2 contains no user-serviceable parts and should not be disassembled.

To install the device:

1. Verify that all field wiring is free of open circuit, short circuit, and ground faults.

2. Make wiring connections as shown in Figure 2 below and Figure 3 below.

3. A P15 or 35 mm DIN rail can be used. See Figure 1 below for mounting hole dimensions and locations. The mounting hole diameters are 4 mm and centres are at 40.5 and 67.0 mm.
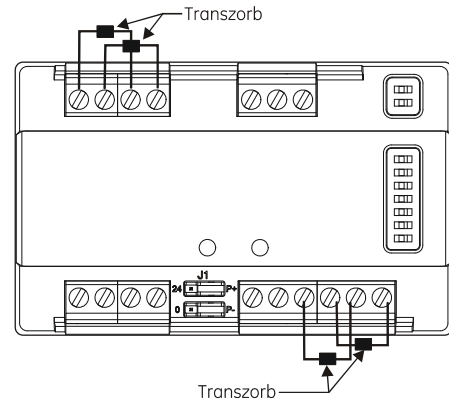
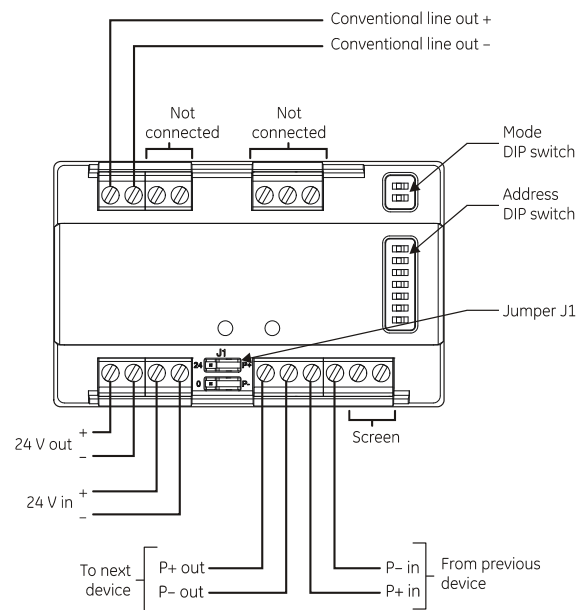Figure 1: A70E-2 dimensions
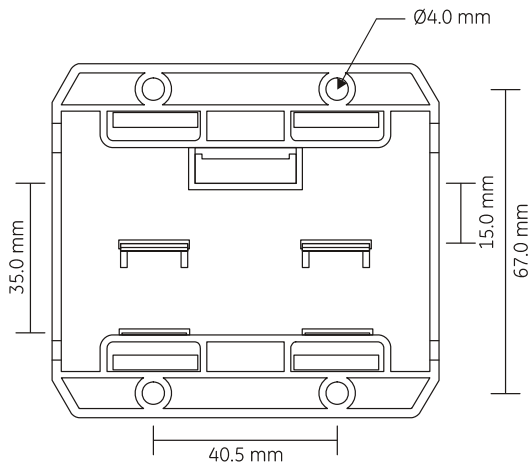
Wiring

Connect the supplied transient suppression devices (transzorbs) as shown in Figure 2 below.

Figure 2: Transzorb wiring

Operational settings

Figure 3: A70E-2 Conventional Zone Interface wiring

Setting the address

The A70E-2 Conventional Zone Interface contains a 7-way DIP switch, which is used to set the device address in binary code. The switch may be set to represent all addresses from 1 to 127, see Figure 3 above.

The address is the sum of the switch values, as shown in the following table. Note that the switch values determine the address, not the switch numbers.

Switch no.	1	2	3	4	5	6	7
Code value	1	2	4	8	16	32	64

Power supply selection – J1

Jumper J1 is used to select between an externally powered or loop powered conventional zone. For the location of J1, see Figure 3 on page 1.
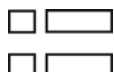
Note: Remove both jumpers before inserting either of them.

External 24 VDC power

Note: The A70E-2 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

A 2-way mode DIP switch is used to select the conventional zone operating mode. See Figure 3 on page 1 for the location of the mode DIP switch.

SW 1 & 2 OFF	Normal mode, see Figure 4 below.
SW 1 ON & 2 OFF	Intrinsically safe mode, see Figure 7 below.
SW 1 & 2 ON	Intrinsically safe mode, see Figure 7 below.
SW 1 OFF & 2 ON	Head-out mode, see Figure 5 and Figure 6 below.

Note: It is not possible to be in both IS and Head-out mode.

LED indicators

Red alarm LED: Flashing = conventional zone fire and/or switched output operated

Yellow fault LED: Flashing = conventional zone fault. Double flashing = power fault

Once registered by the panel the alarm LED and switched output are maintained by the panel until reset.

The fault LED is nonlatching.

Application notes
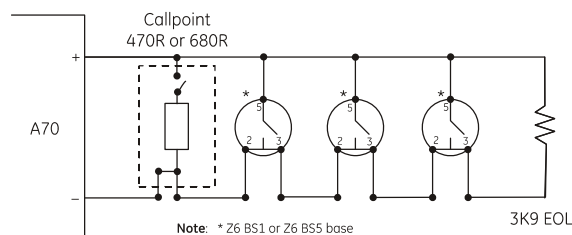
Figure 4: Normal mode operation

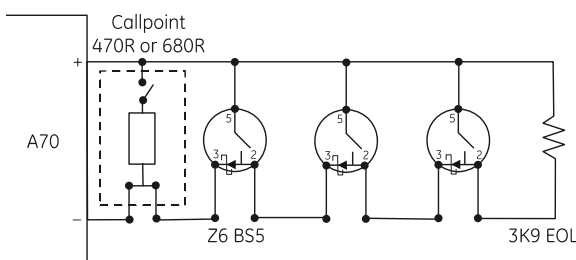### Figure 5: Head-out detection mode - for Z6x0-3 detectors

Figure 6: Head-out detection mode - for detectors without an in-series diode, e.g. Z620-1 &-2 (consult manufacturer)
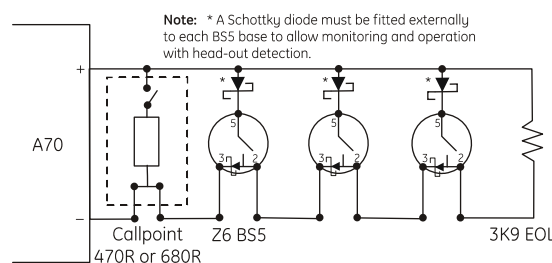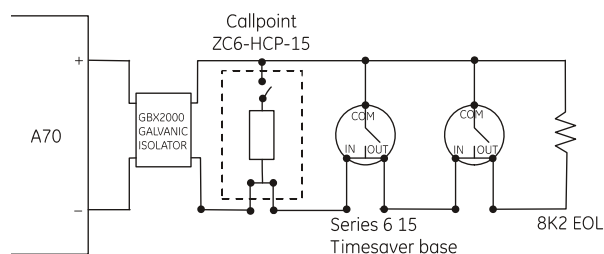

Figure 7: Intrinsically safe mode - using D67x series detectors

Specifications

Application	Indoor use

Power supply requirements

External power supply	19 to 30 VDC
Loop power	20 volt pulsed analogue loop
Max line drop	2V

Current consumption	See Table 1

Mechanical

Material	Moulded ABS
Colour	White
Dimensions (L x W x H)	85 x 78 x 27 mm
Weight	80 g
Mounting method	Surface or DIN rail

Monitoring (conventional zone)	Open and short circuit fault; with 3K9 EOL resistor (normal conventional devices) or 8K2 EOL (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, e.g. Z6 BS5. Add a series diode to the base (see in order to use other detectors).
Compatibility (addressable side)	ZP3 analogue addressable systems
Compatibility (conventional side – maximum 15 devices)	Ziton 610, 620, 630
	Apollo series 65
	Apollo Orbis Intrinsically Safe These devices must be used in conjunction with a galvanic isolator: PEPPERL+FUCHS KFD0-CS-Ex1.51p

Detector compatibility requirements

Operating voltage (normal & head-out mode)	12.5 to 20 VDC
Operating voltage(ISmode)	14 to 20 VDC
Alarm clamp voltage	3 to 9 V
Current consumption (all detectors – excl. EOL resistor)	1.5 mA (normal or head-out mode) 3 mA (IS mode)
Reset supplied by A70	2.4 s power disconnect

Callpoint resistor required	470R or 680R
Wiring	Beldon 9501 or equivalent screened cable to be used

Operating environment

Temperature	−10 to +80°C
Relative humidity	20 to 95% noncondensing

Table 1: Current consumption

Source	From external supply		From loop	
	Quiescent	Worst case (S/C fault)	Quiescent	Worst case (S/C fault)
Externally powered	7.3 mA	36.6 mA	0.8 mA	10 mA
Loop powered			8.3 mA	24.6 mA

Regulatory Information

Manufacturer	UTC Fire & Security South Africa (Pty) Ltd 555 Voortrekkerroad, Maitland, Cape Town 7405, PO Box 181 Maitland, South Africa
	EU authorized manufacturing representative: UTC Fire & Security BV Kelvinstraat 7, 6003 DH Weert, The Netherlands
Year of manufacture	The first two digits of the product serial number (located on the product identification label) are the year of manufacture.
Certification	CE
Certification body	0832
CPD certificate	0832-CPD-0967
EN54	EN54-18:2005
Environmental class	Type A: for indoor use
	2002/96/EC (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: www.recyclethis.info.

Contact information

For contact information see our Web site:
www.utcfireandsecurity.com