



# apollo FXPIO Intelligent Input Output Unit Instruction Manual

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**apollo FXPIO Intelligent Input Output Unit**



## Product Information

The Intelligent Input/Output Unit is a product designed for use in XP95 or Discovery Protocols. It is an EN54-13 type 2 device that allows for connectivity with other devices in a fire alarm system. The unit is equipped with an LED status indicator and a relay output contact rating. It has a maximum loop current of  $I_{cmax}$  and operates within a specific temperature range. The product comes with a technical information document (PP2553) that can be requested for additional technical information.

## Product Technical Information

- **Part No:** SA4700-102APO
- **Product Name:** Intelligent Input/Output Unit
- Supply Voltage
- Quiescent Current
- Power-up Surge Current
- Relay Output Contact Rating
- LED Current
- Maximum Loop Current ( $I_{cmax}$ ; L1 in/out)
- Operating Temperature
- Humidity
- Approvals

## Product Usage Instructions

1. Drill holes where required.
2. Remove knockouts and glands where required.
3. Note the alignment marks.
4. The 8th segment must be set to '0' for Discovery / XP95 operation.
5. Address the unit by setting the address using Table 1 Addressing. For XP95 / Discovery Systems, sets the address by selecting the corresponding segment number. For CoreProtocol Systems, sets the address by selecting the corresponding segment number and enabling/disabling LED, failsafe mode, and relay output.

6. Refer to Fig. 1 for standard resistive monitoring mode or Figs 2 & 3 for normal open/closed monitoring modes (compatible with CoreProtocol only).
7. Carry out all CI tests before connecting the interface. Refer to Figs 1, 2 & 3 for connectivity instructions.
8. Install EN54-13 type 1 device next to the module with no transmission path according to EN 54-13.
9. Do not over-tighten screws.

## LED Status Indicator

- **Continuous Red:** Relay Active
- **Continuous Yellow:** Fault
- **POLL/Flashing Green:** Device Polled
- **Continuous Yellow:** Isolator Active
- **Continuous Red:** Input Active
- **Continuous Yellow:** Input Fault

RLY	Continuous Red	Relay Active
	Continuous Yellow	Fault
POLL/ ISO	Flashing Green	Device Polled
	Continuous Yellow	Isolator Active
IP	Continuous Red	Input Active
	Continuous Yellow	Input Fault

### Note:

Not all LEDs can be on simultaneously.

## Commissioning

The installation must conform to BS5839–1 (or applicable local codes).

## Maintenance

Removal of the external cover must be carried out using a flat screwdriver or similar tool. No electrical supply greater than 50V AC rms or 75V DC should be connected to any terminal of this Input/Output Unit. For compliance with Electrical Safety Standards, the sources switched by the output relays must be limited to a 71V transient over-voltage condition. Contact Apollo for more information.

Unit damage. No electrical supply greater than 50V ac rms or 75V dc should be connected to any terminal of this Input/Output Unit.

### Note:

For compliance with Electrical Safety Standards, the sources switched by the output relays must be limited to a 71V transient over-volt-age condition. Contact Apollo for more information.

## Technical Information

All data is supplied subject to change without notice. Specifications are typical at 24V, 25°C and 50% RH unless

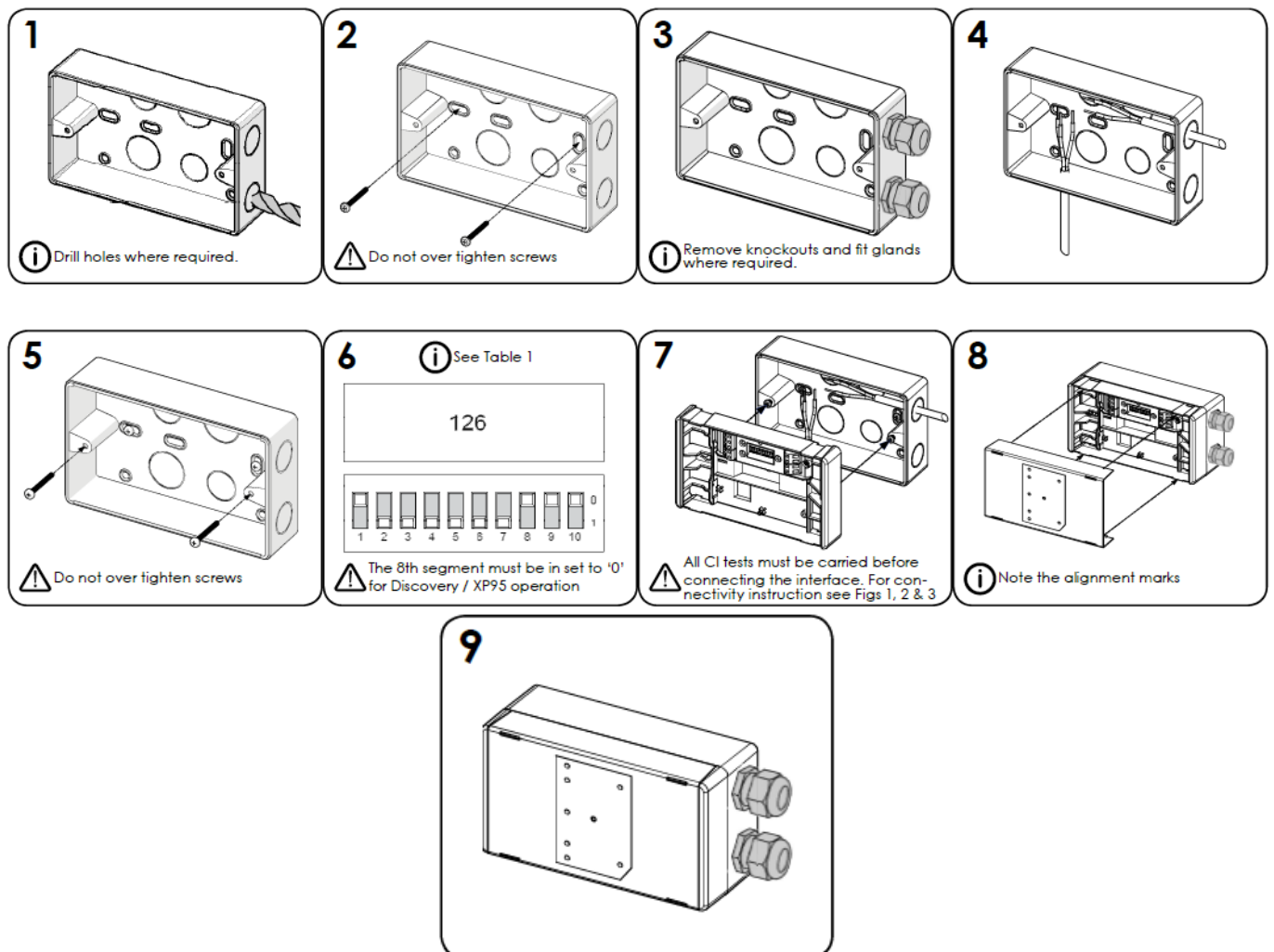
otherwise stated.

- Supply Voltage 17-35V dc
- Quiescent Current 500µA
- Power-up Surge Current 900µA
- Relay Output Contact Rating 1A at 30V dc or ac
- LED Current 1.6mA per LED
- Maximum Loop Current (I<sub>cmax</sub>; L1 in/out) 1A
- Operating Temperature –40°C to 70°C
- Humidity 0% to 95% RH (no condensation or icing)
- Approvals EN 54-17 & EN 54-18

For additional technical information please refer to the following documents which are available on request.

- PP2553 – Intelligent Input/Output Unit

## Installation



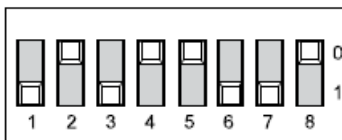
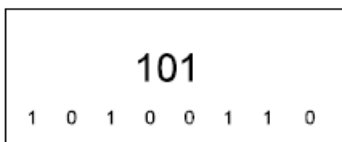
## Addressing

		XP95 / Discovery Systems	CoreProtocol Systems
	1	Sets the address	Sets the address
	2		
	3		
	4		
	5		
	6		
	7		
	8	Set to '0' (Fault value is returned if set to '1')	Enables failsafe mode (compliant with BS7273-4 for door holders)
	FS	Enables failsafe mode (compliant with BS727 3-4 for door holders)	
	LED	Enables/Disables LED (except Isolator LED)	Enables/Disables LED (except Isolator LED)

#### Note:

On mixed systems addresses 127 and 128 are reserved. Refer to the system's panel manufacturer for further information.

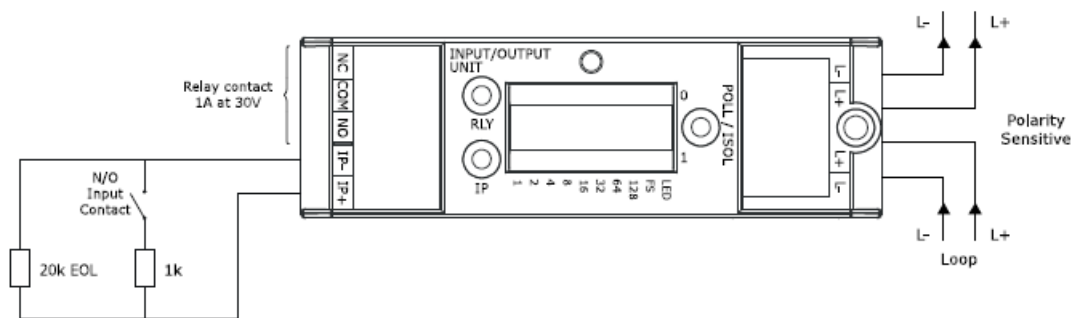
#### Address Setting Examples



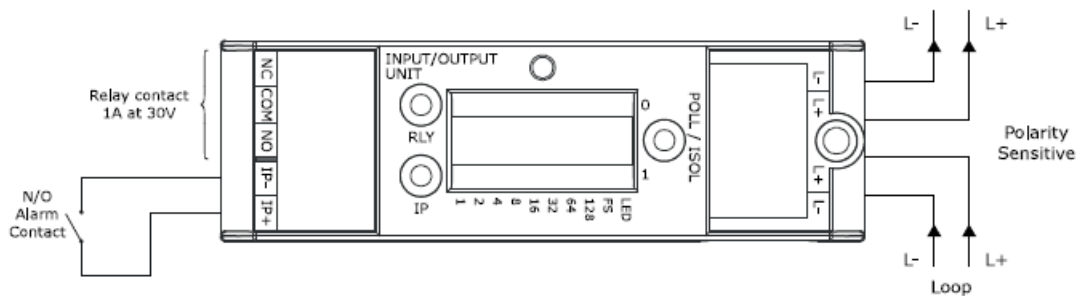


## Connectivity Examples

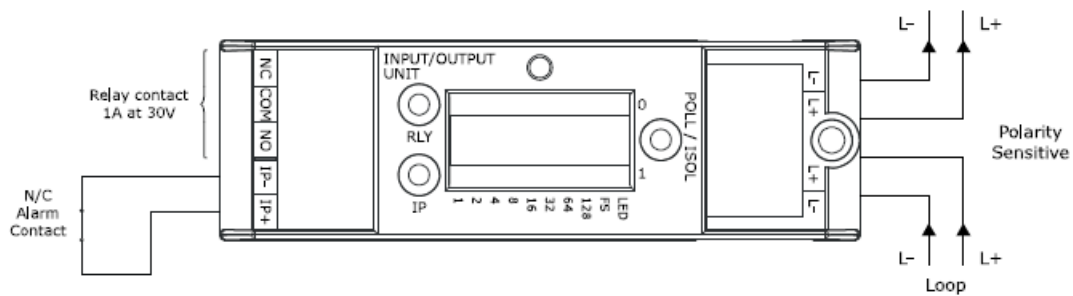
**Fig. 1 Standard resistive monitoring mode**



**Fig. 2 Normally open monitoring mode (compatible with CoreProtocol only)**



**Fig. 3 Normally closed monitoring mode (Compatible with CoreProtocol only)**



When operated under XP95 or Discovery Protocols, EN54-13 type 2 devices can be connected. In case EN54-13 type 1 devices need to be connected they must be installed directly next to this module, with no transmission path according to EN 54-13.

## Troubleshooting

Before investigating individual units for faults, check that the system wiring is fault-free. Earth faults on data loops or interface zone wiring may cause communication errors. Many fault conditions are the result of simple wiring errors. Check all connections to the unit.

### Problem: No response or missing fault condition reported

#### Possible Causes:

- Incorrect address setting
- Incorrect loop wiring
- Incorrect input wiring
- Incorrect wiring control panel has incorrect cause-and-effect programming

### Problem: Relay fails to operate

#### Possible Causes:

- Incorrect loop wiring
- Incorrect address setting
- Dual address
- Loop data fault, data corruption
- Incompatible control panel software
- Short-circuit on loop wiring
- Wiring reverse polarity
- Too many devices between isolators

### Problem: Analogue value unstable

#### Possible Causes:

- Incorrect wiring
- The control panel has incorrect cause-and-effect programming
- Incorrect end-of-line resistor fitted

- Incompatible control panel software
- Loop data fault, data corruption

### **Problem: Constant Alarm**

#### **Possible Causes:**

- Incorrect wiring
- The control panel has incorrect cause-and-effect programming
- Incompatible control panel software
- Loop data fault, data corruption

### **Problem: Isolator LED on**

#### **Possible Causes:**

- Incorrect wiring
- Short-circuit on loop wiring
- Loop data fault, data corruption

### **Problem/Possible Cause**

- No response or missing
  - Incorrect address setting
  - Incorrect loop wiring
- Fault condition reported
  - Incorrect input wiring
- The relay fails to operate
  - Incorrect wiring
  - The control panel has incorrect cause-and-effect programming
- Relay energized continuously
  - Incorrect loop wiring
  - Incorrect address setting
- Analogue value unstable
  - Dual address
  - Loop data fault, data corruption
- Constant Alarm
  - Incorrect wiring
  - Incorrect end-of-line resistor fitted
  - Incompatible control panel software
- Isolator LED on
  - Short-circuit on loop wiring
  - Wiring reverse polarity
  - Too many devices between isolators



## Modes


Mode	Description
1	DIL Switch XP Mode
2	Alarm Delays
3	Output and N/O input (can be equivalent for Output only)
4	Output and N/C input
5	Output with Feedback (N/C)
6	Failsafe Output with Feedback (N/C)
7	Failsafe Output without Feedback
8	Momentary Input Activation Sets Output Relay
9	Input Activation Sets Output

CoreProtocol-enabled systems only

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- Apollo Fire Detectors Limited, 36 Brookside Road, Havant, Hampshire, PO9 1JR, UK
- **Tel:** +44 (0) 23 9249 2412
- **Fax:** +44 (0) 23 9249 2754
- **Email:** [techsalesemails@apollo-fire.com](mailto:techsalesemails@apollo-fire.com).
- **Website:** [www.apollo-fire.co.uk](http://www.apollo-fire.co.uk).

## Documents / Resources

	<a href="#">apollo FXPIO Intelligent Input Output Unit</a> [pdf] Instruction Manual FXPIO Intelligent Input Output Unit, FXPIO, Intelligent Input Output Unit, Input Output Unit, Output Unit
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## References

-  [Re.co.uk is for sale - PerfectDomain.com](#)