Intelligent Input/Output Unit Installation Guide

Part No	Product Name
SA4700-102APO	Intelligent Input/Output Unit

Technical Information

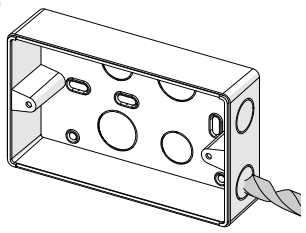
All data is supplied subject to change without notice. Specifications are typical at 24V, 25°C and 50% RH unless otherwise stated.

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 ($I_c$max; 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.

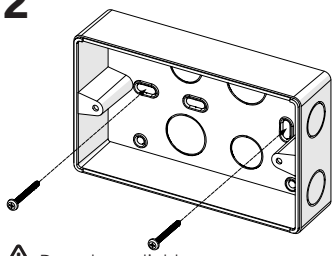
PP2553 - Intelligent Input/Output Unit

1



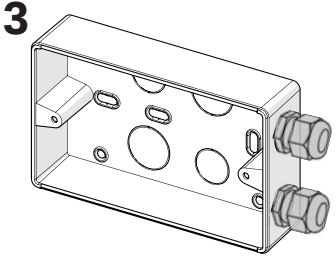
Drill holes where required.

2



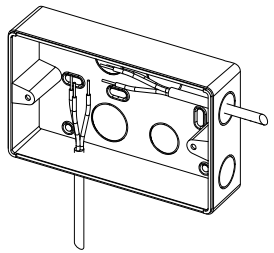
Do not over tighten screws

3



Remove knockouts and fit glands where required.

4



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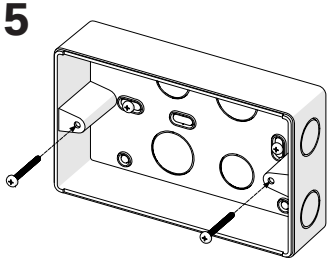
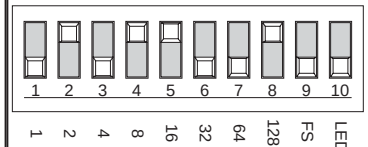


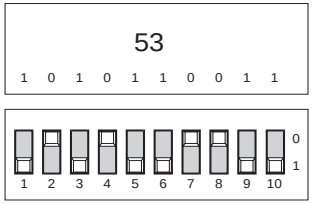
Do not over tighten screws

6



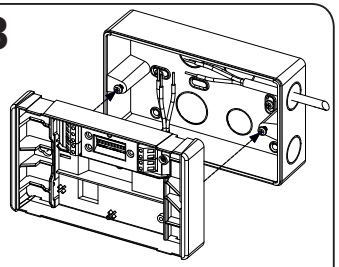
See Table 1

7



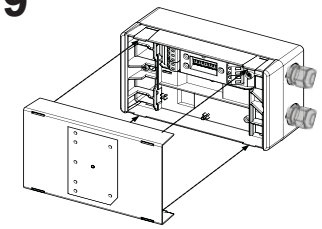
The 8th segment must be in set to '0' for Discovery / XP95 operation

8



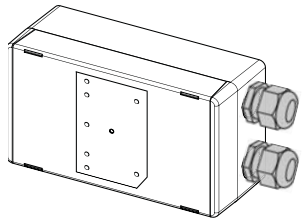
All CI tests must be carried before connecting the interface. For connectivity instruction see Figs 1, 2 & 3

9



Note the alignment marks

10



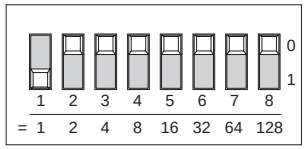
Addressing

Table 1

		XP95 / Discovery Systems	CoreProtocol Systems
Segment	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')	
	FS	Enables failsafe mode (compliant with BS7273-4 for door holders)	Enables failsafe mode (compliant with BS7273-4 for door holders)
	LED	Enables/Disables LED (except Isolator LED)	Enables/Disables LED (except Isolator LED)

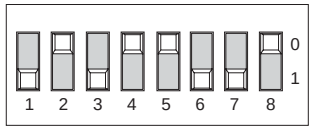
Note: On mixed systems addresses 127 and 128 are reserved. Refer to system's panel manufacturer for further information.

Address Setting Examples



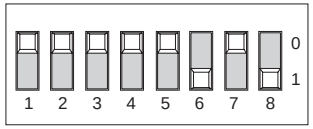
101

1 0 1 0 0 1 1 0



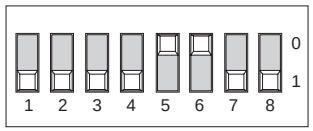
160

0 0 0 0 0 1 0 1



207

1 1 1 1 0 0 1 1



Connectivity Examples

Fig. 1 Standard resistive monitoring mode

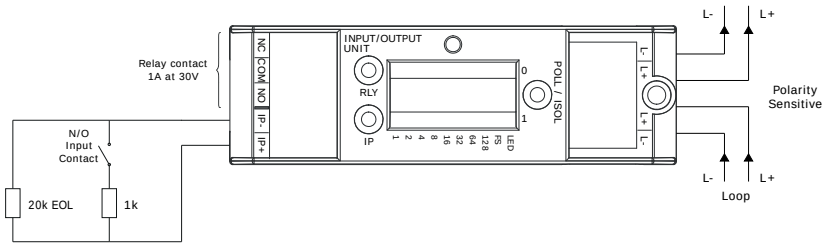


Fig. 2 Normally open monitoring mode (compatible with CoreProtocol only)

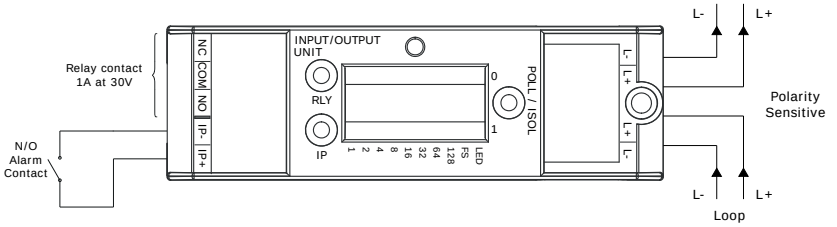
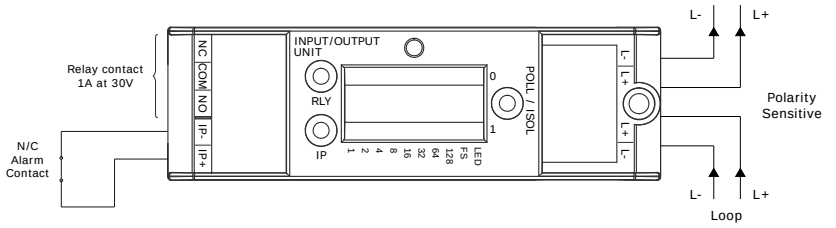


Fig. 3 Normally closed monitoring mode (Compatible with CoreProtocol only)



LED Status Indicator

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).

Maintainence
Removal of the external cover must be carried out using a flat screwdriver or similar tool.

Caution
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-voltage condition. Contact Apollo for more information.

Troubleshooting
Before investigating individual units for faults, it is important to 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	Possible Cause
No response or missing	Incorrect address setting Incorrect loop wiring
Fault condition reported	Incorrect input wiring
Relay fails to operate	Incorrect wiring Control panel has incorrect cause and effect programming
Relay energised 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

Mode Table*

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**

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 Website: www.apollo-fire.co.uk