

Battery Type

6x AA, 1.5V Alkaline Duracell Procell (MN1500, LR6)

When replacing batteries, allow the device to power down for a period of two minutes before installing replacements.

Note: When replacement batteries are required, all batteries must be replaced together.

Technical Data

Operating voltage	2.8-5VDC
Operating temperature	-10°C to +50°C
Relay rating	2A at 30V DC
Switch closed resistance	4K7Ω
End-of-line resistor	20KΩ

Functional Testing

The interface and associated devices should be commissioned according to the commissioning guide; PP2286.



XPander Input/Output Unit Installation Guide

General

Do not install any XPander equipment until a full site survey has been completed using the XPander site survey tool. A maximum of 5 interfaces are permitted for each site. For sites that require more than 5 interfaces please contact Apollo. All installation engineers must have had certified XPander training.

The XPander Input/Output (I/O) Unit variants are available under the following part numbers:

Part Number	Description
XPA-IN-14011-APO	Single Input/Output Unit
XPA-IN-14012-APO	Dual Input/Output Unit

The installation must conform to BS5839-1:2008 (or applicable local codes). The XPander I/O Unit is suitable for indoor use only.

Compatibility

The XPander I/O Unit requires interface to be version 4B or higher.

Installation of XPander I/O Unit

Ensure that the XPander I/O Unit is sited in accordance with the survey and design requirements. The recommended minimum distance to any electrical equipment is two metres radius (three dimensionally).

- Calculate the number of cable entries and drill holes for cable glands in the lower portion of the enclosure accordingly (Fig 1). Remove and replace the PCB if necessary using anti-static precautions to avoid damaging the electronics.
- Mount the XPander I/O enclosure using suitable fixings (No. 6/3.5mm screw clearance, see Fig 1 for fixing positions) and connect all wiring.
- Set the address and mode of relay operation; normal or fail safe (see address setting overleaf)
- Fit the power jumper shorting link and commission the unit according to the XPander commissioning guide PP2286.

LED Indication

In order to aid with commissioning, the XPander I/O unit has LED indication of input and output status. By default, LED indication is disabled to preserve battery life. LED indication is enabled by pressing the LED Enable button once. LED indication will remain active for 10-minutes unless the button is pressed again.

☉ Relay on	Illuminated red when relay is energised
☉ Switch Closed	Illuminated red when monitored field contact activated
☉ Fault	Illuminated yellow when input wiring is open or short circuit

Fail-Safe Operation

The XPander I/O Unit can be used in fail-safe* operation where relay outputs are reset to the non-active state on the event of internal battery pack failure or loss of radio communication.

*Note - Requires compatible control panel software

The eighth segment is used to select normal (OFF) or fail-safe (ON) relay operation.

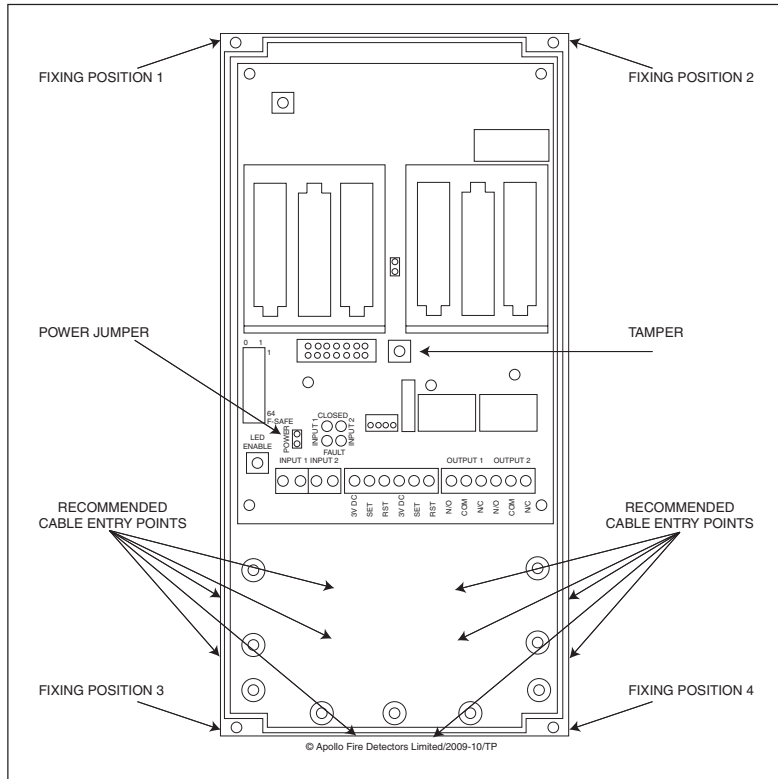


Fig 1 - XPander I/O enclosure

Note: Dual I/O shown, single I/O has input 2 and output 2 terminals and LEDs omitted

Wiring

Connect the input wiring as shown in Fig 2. The relay output may be used to switch up to 2A at 30V DC. The mains voltages must not be connected.

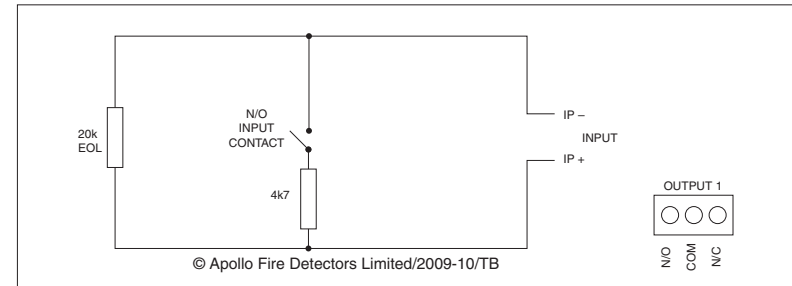


Fig 2 - Wiring details

Address Setting

The address of the XPander I/O Unit is set using the first seven segments of the DIL switch. Each segment of the switch must be set to "0" (ON) or "1" (OFF), using a small screwdriver or similar tool. A complete list of address settings is shown below.

DIL switch		DIL switch		DIL switch		DIL switch	
addr	setting	addr	setting	addr	setting	addr	setting
1	1000000	11	1101000	21	1010100	31	1111100
2	0100000	12	0011000	22	0110100	32	0000010
3	1100000	13	1011000	23	1110100	33	1000010
4	0010000	14	0111000	24	0001100	34	0100010
5	1010000	15	1111000	25	1001100	35	1100010
6	0110000	16	0000100	26	0101100	36	0010010
7	1110000	17	1000100	27	1101100	37	1010010
8	0001000	18	0100100	28	0011100	38	0110010
9	1001000	19	1100100	29	1011100	39	1110010
10	0101000	20	0010100	30	0111100	40	0001010
51	1100110	61	1011110	71	1110001	81	1000101
52	0010110	62	0111110	72	0001001	82	0100101
53	1010110	63	1111110	73	1001001	83	1100101
54	0110110	64	0000001	74	0101001	84	0010101
55	1110110	65	1000001	75	1101001	85	1010101
56	0001110	66	0100001	76	0011001	86	0110101
57	1001110	67	1100001	77	1011001	87	1110101
58	0101110	68	0010001	78	0111001	88	0001101
59	1101110	69	1010001	79	1111001	89	1001101
60	0011110	70	0110001	80	0000101	90	0101101
101	1010011	106	0101011	111	1111011	116	0010111
102	0110011	107	1101011	112	0000111	117	1010111
103	1110011	108	0011011	113	1000111	118	0110111
104	0001011	109	1011011	114	0100111	119	1110111
105	1001011	110	0111011	115	1100111	120	0001111
						121	1001111
						122	0101111
						123	1101111
						124	0011111
						125	1011111
						126	0111111