

# Intelligent Twin Input/Output Unit



## Product overview

<b>Product</b>	Twin Input/Output Unit
<b>Part No.</b>	SA4700-104APO
<b>Digital communication</b>	XP95, Discovery and CoreProtocol compatible

## Compliance



## Product information

The Intelligent Twin Input/Output Unit provides the function of two Input/Output Units within one enclosure. The two units are electrically independent of each other. There is a DIL switch on each unit to set the address.

Both input/output units in the enclosure provide supervision of one or more normally open volt free contacts connected to a single pair of cables and a set of changeover relay output contacts.

Refer to Table 1 for digital communications protocol compatibility and Table 2 for the Intelligent Twin Input/Output Unit operating modes.

- Improved design for ease of wiring meaning faster installation
- Contains controllable isolator \*
- Address range 1 - 254 \*
- Nine pre-configured modes, including compatibility mode from XP95/Discovery to CoreProtocol systems \*
- Failsafe mode (meets BS 7273-4 requirements)
- Configurable input styles \*
- Earth fault monitoring \*

\* Note: CoreProtocol enabled systems feature only, please check with your system partner for availability.

## Technical Data

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

<b>Supply voltage (Vmin-Vmax)</b>	17-35 V dc
<b>Protocol</b>	5-13 V peak to peak
<b>Power-up surge current</b>	900 µA per Input/Output Unit
<b>Quiescent current</b>	500 µA per Input/Output Unit
<b>Max current LEDs On</b>	3.5 mA per Input/Output Unit
<b>Max current LEDs disabled</b>	500 µA per Input/Output Unit
<b>Relay output contact rating</b>	1 A at 30 V dc or ac
<b>Isolator data</b>	Refer to Short-Circuit Isolation datasheet PP2090
<b>Operating temperature</b>	-40°C to +70°C
<b>Humidity (no condensation or icing)</b>	0% to 95% RH
<b>Vibration, impact and shock</b>	EN 54-17, EN 54-18
<b>IP rating</b>	IP52
<b>Standards and approvals</b>	EN 54-17, EN 54-18, CPR, LPCB, VdS, BOSEC, SBSC, FG
<b>Dimensions</b>	60 mm height x 150 mm width x 90 mm depth
<b>Weight</b>	281g

Table 1: Digital communications protocol compatibility

Protocol	Device Behaviour
XP95 <sup>†</sup> /Discovery <sup>†</sup>	XP95
CoreProtocol <sup>†</sup>	Soteria

<sup>†</sup> Fire control panel dependant

**Table 2: Intelligent Twin Input/Output Unit operating modes\***

Mode	Description
1	DIL Switch XP Mode
2	Alarm delays
3	Output and NO input (can be equivalent for Output only)
4	Output and NC input
5	Output with Feedback (NC)
6	FailSafe Output with Feedback (NC)
7	FailSafe Output without Feedback
8	Momentary Input Activation Sets Output Relay
9	Input Activation Sets Output

\* CoreProtocol enabled systems only

### Failsafe Mode

In Failsafe mode the Intelligent Input/Output unit will activate the on-board relay output without being commanded by the control panel on loss of loop or protocol loss. Failsafe mode is selected via a DIL switch and indicated with an analogue value of 17.

### Mechanical Construction

The Intelligent Twin Input/Output Unit (see Figure 1) is available in the new faceplate style enclosure. This can be mounted with the supplied back-box for surface mounting or flush mounted using a UK double gang, flush mounting back-box of minimum depth 30mm.

### EMC Directive 2014/30/EU

The Intelligent Twin Input/Output Unit complies with the essential requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this datasheet.

A copy of the Declaration of Conformity is available from Apollo on request.

Conformity of the Intelligent Twin Input/Output Unit with the EMC Directive, does not confer compliance with the directive on any apparatus or systems connected to them.

### Construction Products Regulation 305/2011/EU

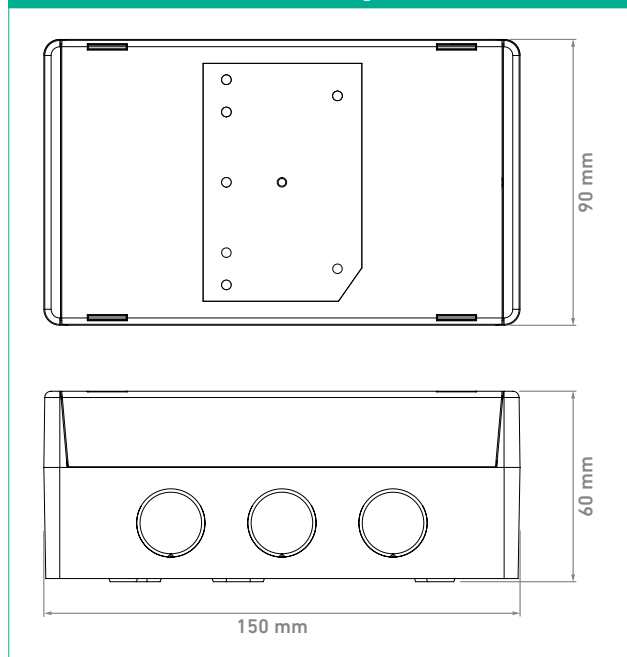
The Intelligent Twin Input/Output Unit complies with the essential requirements of the Construction Products Regulation 305/2011/EU.

A copy of the Declaration of Performance is available from Apollo on request.

### Connectivity

Refer to Figures 2, 3 and 4 for unit connection information. Refer to the Installation Guide 39215-169 for the installation instructions on this product. Table 3 details the status indications of this unit, from normal operation through to fault conditions.

**Figure 1: Intelligent Twin Input/Output Unit dimensional drawing**



**Table 3: Status Indications**

Legend	LED Status	Description
RLY	Continuous Red	Relay Active
RLY	Continuous Yellow	Relay Fault
Poll/ISO	Flashing Green	Polling LED
Poll/ISO	Continuous Yellow	Isolator LED
I/P	Continuous Yellow	Input Fault
I/P	Continuous Red	Input Active

Figure 2: Intelligent Twin Input/Output Unit standard resistive monitoring mode connectivity diagram

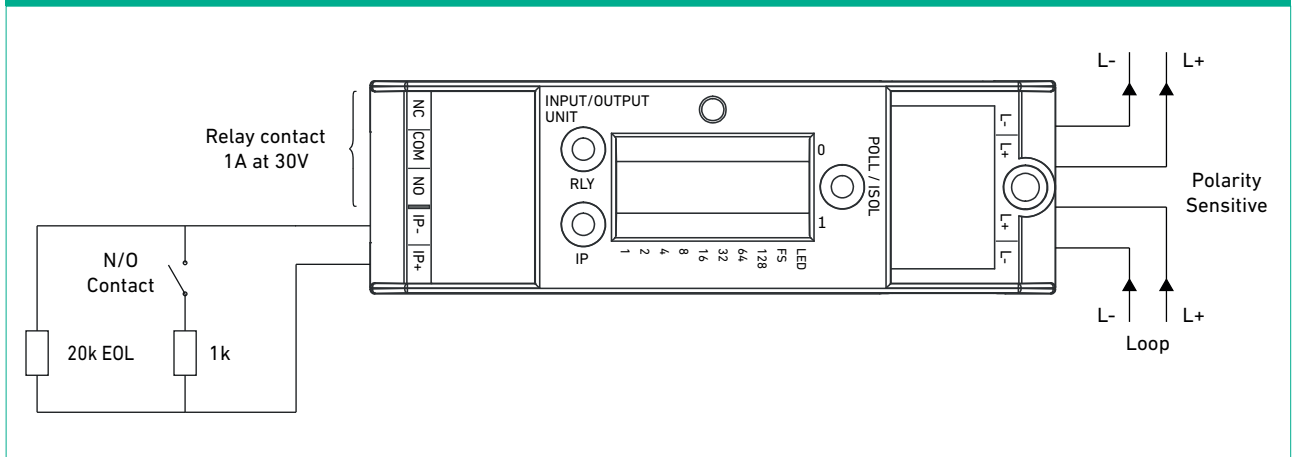


Figure 3: Intelligent Twin Input/Output Unit normally open monitoring mode connectivity diagram (compatible with CoreProtocol only)

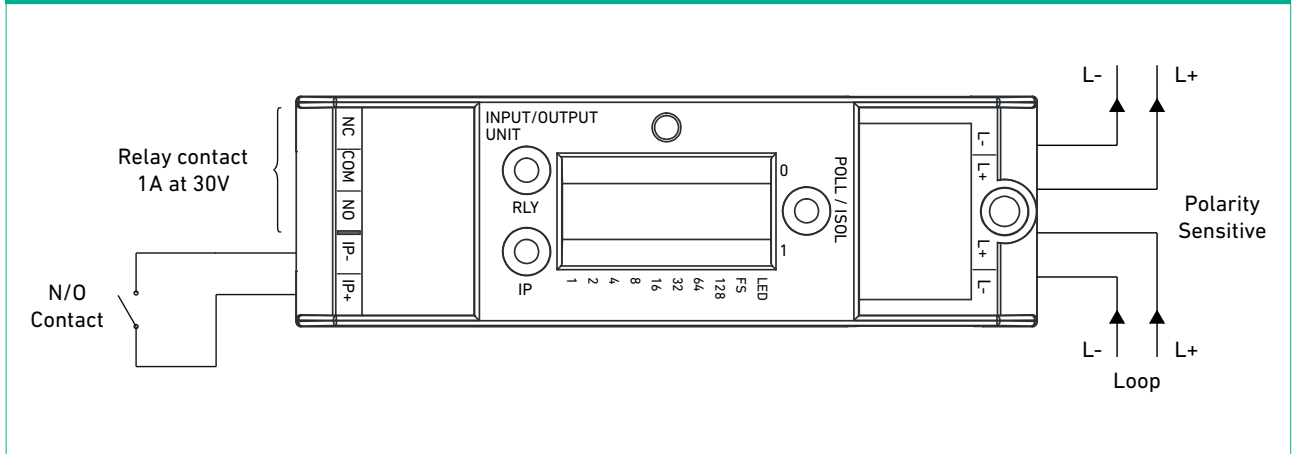
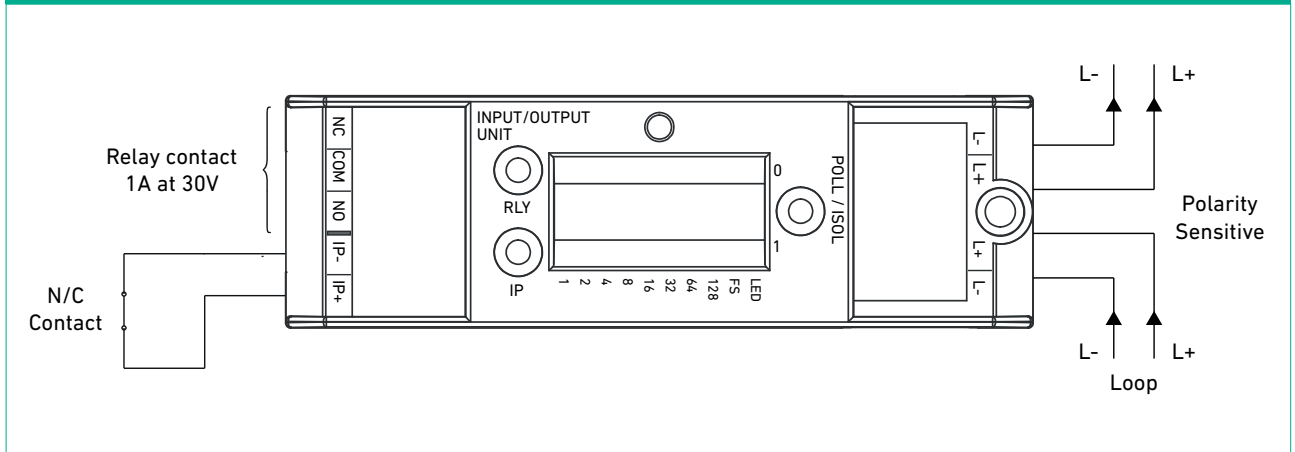


Figure 4: Intelligent Twin Input/Output Unit normally closed monitoring mode connectivity diagram (compatible with CoreProtocol only)



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