Intelligent Twin Input/Output Unit

Product overview

Product Type	Twin Input/Output Unit
Part No.	SA4700-104APO
Digital Communication Protocol	XP95®/Discovery® & CoreProtocol® compatible

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.

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

Table 1 Digital communications protocol compatibility

Protocol	Device Behaviour
XP95† /Discovery†	XP95
CoreProtocol†	Soteria

† *Fire control panel dependant*

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Table 2 Intelligent Twin Input/Output Unit operating 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*

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.

Construction Products Regulation 305/2011

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

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

Connectivity

Refer to Figures 2, 3 & 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

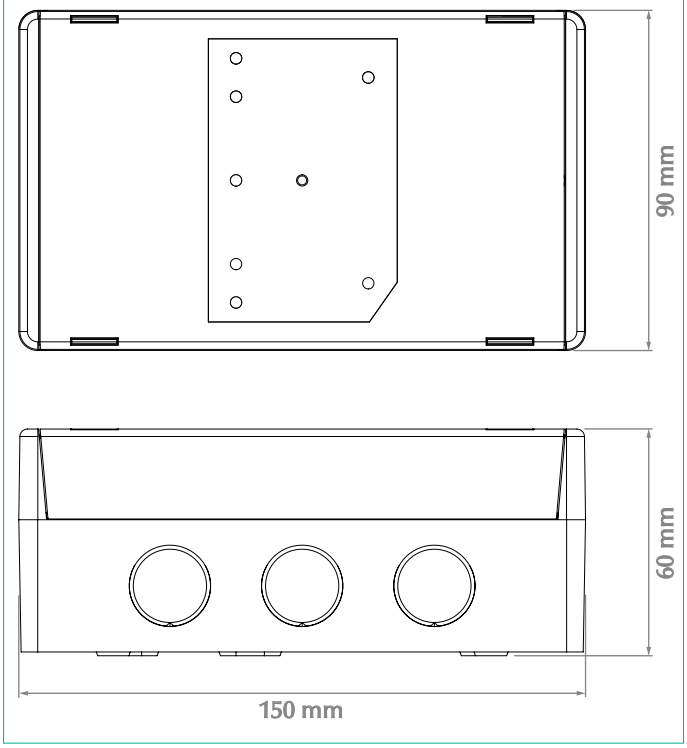

Table 3 Status Indications		
Legend	LED Status	Description
RLY	Continuous Red	Relay Active
RLY	Continuous Yellow	Relay Fault
Poll/ISO	Flashing Green	Polling LED
Poll/ISO	Continuous Yellow	Isolator LED
I/P	Continuous Yellow	Input Fault
I/P	Continuous Red	Input Active

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

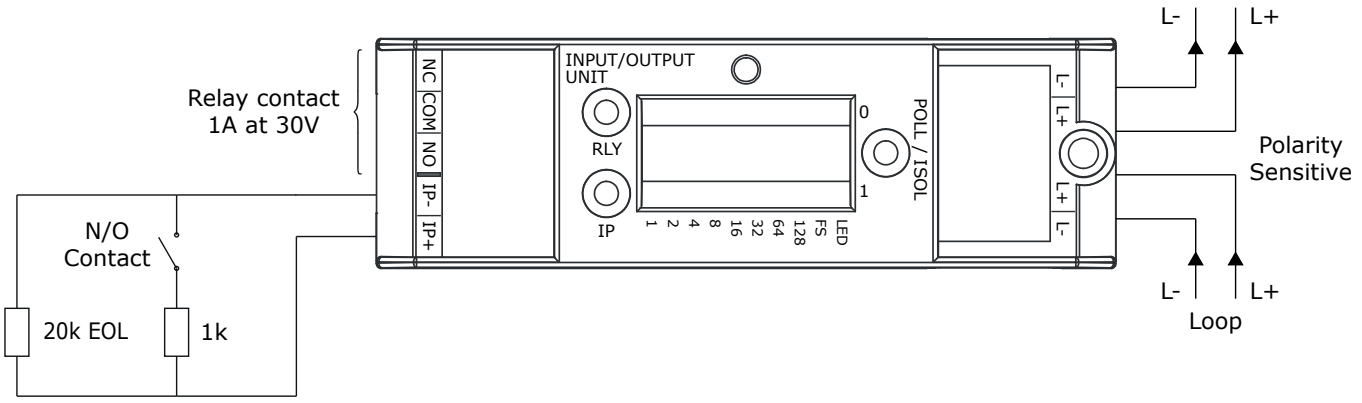

Figure 3 Intelligent Twin Input/Output Unit normally open monitoring mode connectivity diagram (compatible with CoreProtocol only)

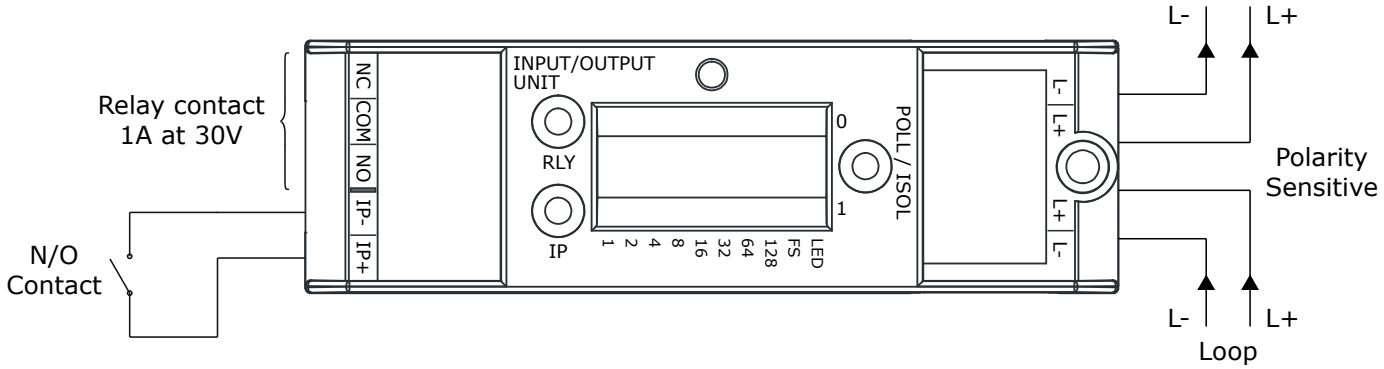

Figure 4 Intelligent Twin Input/Output Unit normally closed monitoring mode connectivity diagram (compatible with CoreProtocol only)