Intelligent Input/Output Unit

Product overview

Product Type	**Input/Output Unit**
Part No.	**SA4700-102APO**
Digital Communication Protocol	**XP95®/Discovery®and CoreProtocol® compatible**

Product information

The Intelligent Input/Output Unit provides supervision of one or more normally open 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 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 24 V, +25°C and 50% RH unless otherwise stated.

Supply voltage (Vmin–Vmax)	*17–35 V dc*
Protocol	*5–13 V peak to peak*
Power-up surge current	*900 µA*
Quiescent current	*500 µA*
Max current LEDs On	*3.5 mA*
Max current LEDs disabled	*500 µA*
Relay output contact rating	*1 A at 30 V 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, LPCB, VdS and BOSEC*
Dimensions	*60 mm height x 150 mm width x 90 mm depth*
Weight	*244 g*

Table 1: Digital communications protocol compatibility

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

† Fire control panel dependant

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Assessed to ISO 9001:2008 Cert/LPCB ref. 010
Assessed to ISO 14001:2004 Cert/LPCB ref. 010 EMS
Cert/LPCB ref. 010

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Table 2: Intelligent 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*

Failsafe

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 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 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 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 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

Figures 2, 3 & 4 for unit connection information. Refer to the Installation Guide 39215-159 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 Input/Output Unit dimensional drawing

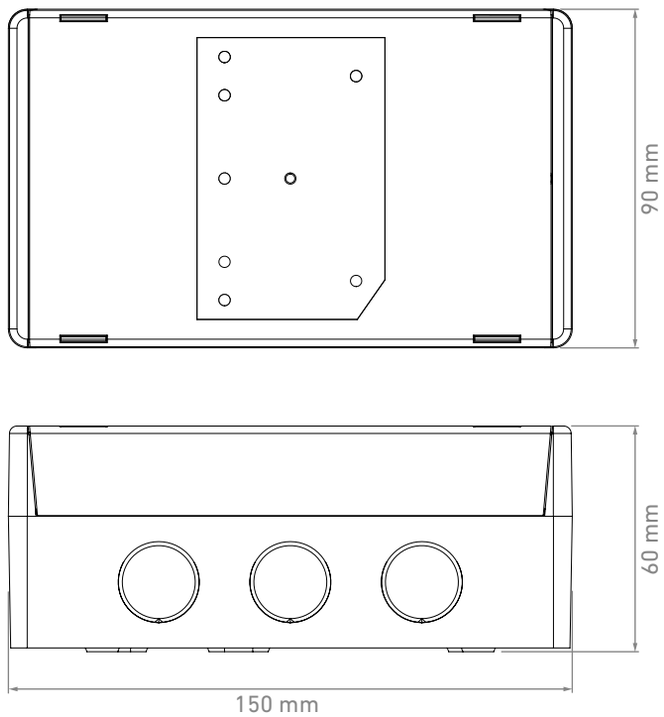

Table 3: Status Indications		
Legend	**LED Status**	**Description**
RLY	Continuous Red	Relay Active
RLY	Continuous Yellow	Relay Fault
Poll/ISO	Flashing Green	Polling LED
Poll/ISO	Continuous Yellow	Isolator LED
I/P	Continuous Yellow	Input Fault
I/P	Continuous Red	Input Active

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

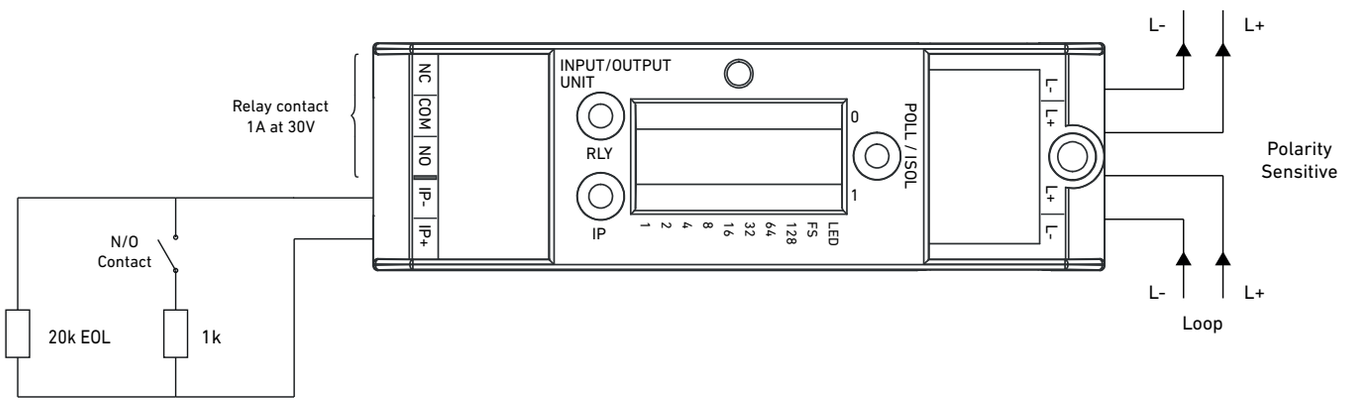

Figure 3: Intelligent Input/Output Unit normally open monitoring mode connectivity diagram (compatible with CoreProtocol only)

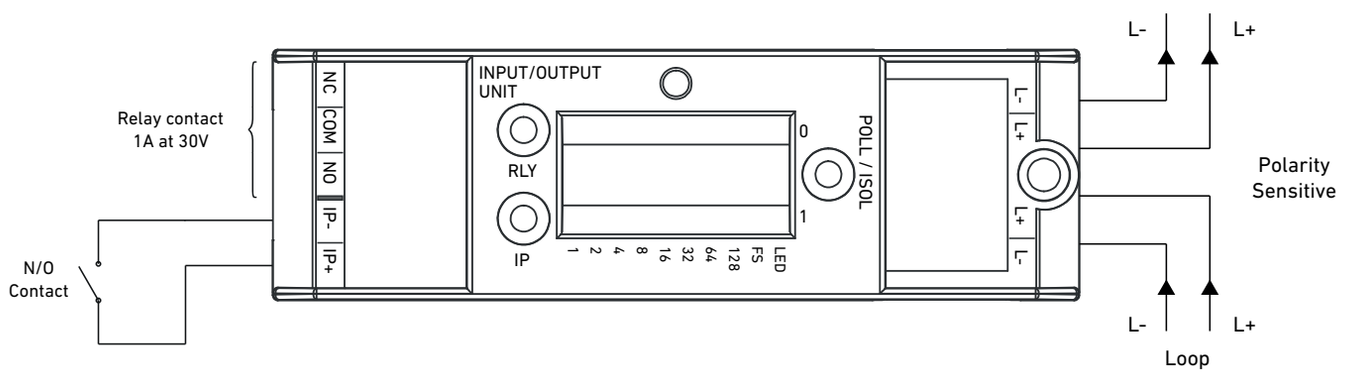
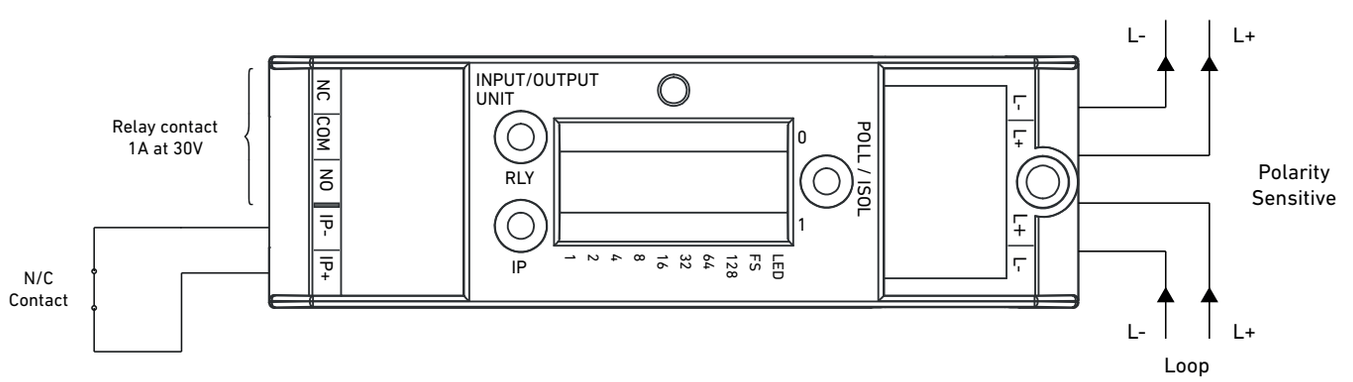
Figure 4: Intelligent Input/Output Unit normally closed monitoring mode connectivity diagram (compatible with CoreProtocol only)