Intelligent Twin Input/Output Unit



Product Overview

Product	**Twin Input/Output Unit**
Part No.	**SA4700-104APO**
Native Protocol	**XP95 and CoreProtocol**
Compatible Protocols	**Discovery (as XP95)**

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 *

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

Manufacturer's Specification

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 V – 35 V dc*
Protocol	*5 V - 13 V peak to peak*
Power-up surge current	*900 µA per Input/Output Unit*
Quiescent current	*500 µA per Input/Output Unit*
Max current LEDs On	*3.5 mA per Input/Output Unit*
Max current LEDs disabled	*500 µA per Input/Output Unit*
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 (no condensation or icing)	*0% to 95% RH*
Vibration, impact and shock	*EN 54-17:2005, EN 54-18:2005*
IP rating	*IP52*
Standards and approvals	*EN 54-17:2005, EN 54-18:2005*
Dimensions	*60 mm height x 150 mm width x 90 mm depth*
Weight	*275.6g*

Table 1: Digital communications protocol compatibility

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

† Fire control panel dependant

All information in this document is given in good faith but Apollo Fire Detectors Ltd cannot be held responsible for any omissions

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*

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

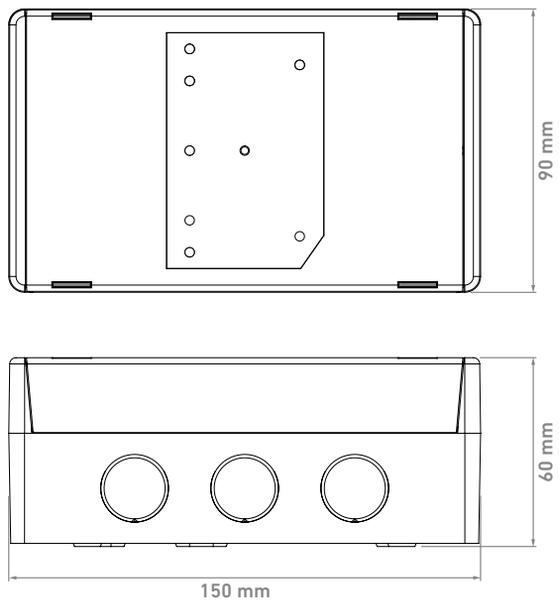


Table 3: Status Indications

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

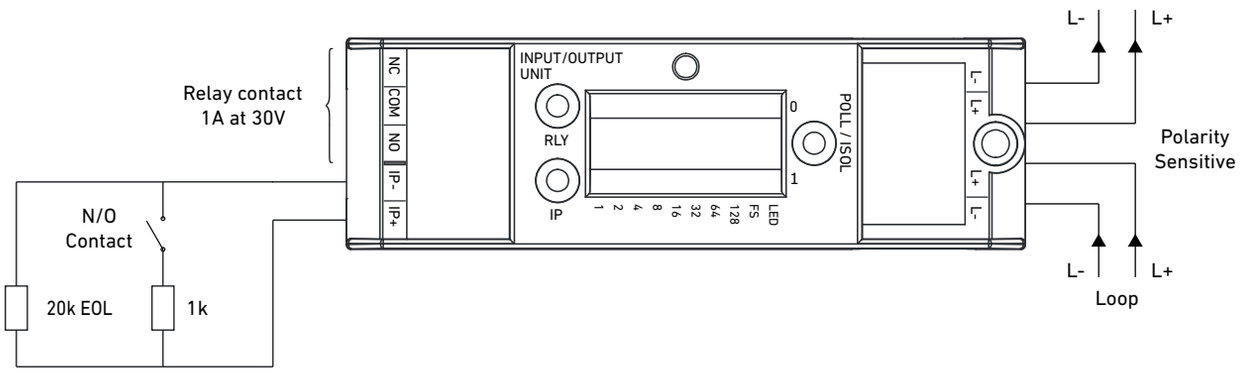


Figure 3: Intelligent Twin Input/Output Unit normally open monitoring mode connectivity diagram (compatible with CoreProtocol only)

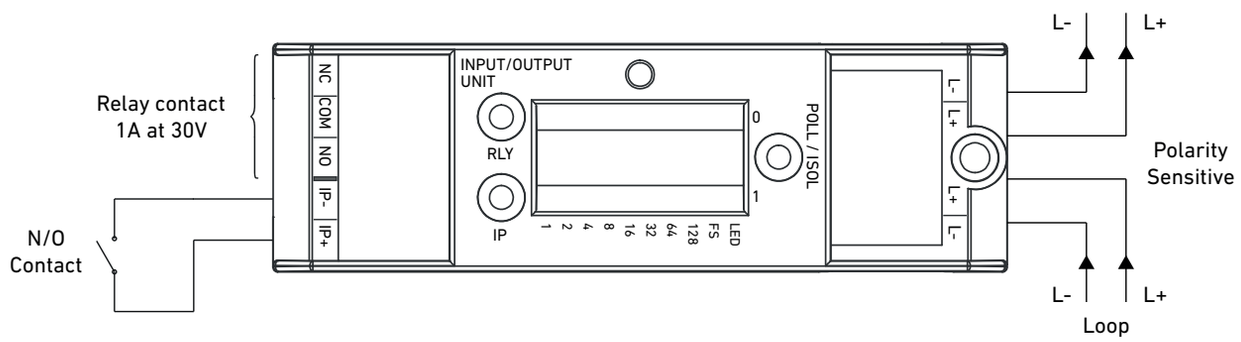


Figure 4: Intelligent Twin Input/Output Unit normally closed monitoring mode connectivity diagram (compatible with CoreProtocol only)

