

# Intelligent Mains Switching Input/Output Unit



## Product overview

<b>Product</b>	Mains Switching Input/Output Unit
<b>Part No.</b>	SA4700-103APO
<b>Digital Communication</b>	XP95®, Discovery® and CoreProtocol® compatible

## Compliance



## Product information

The Intelligent Mains Switching Input/Output Unit provides a single line tolerant circuit (CoreProtocol only) containing one or more normally open contacts connected to a single pair of cables. It also provides a voltage free change over relay output capable of switching mains.

Refer to Table 1 for digital communications protocol compatibility and Table 2 for the Intelligent Mains Switching 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 \*
- Two input channels
- 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 (<math>V_{min}-V_{max}</math>)</b>	17–35 V dc
<b>Protocol</b>	5–13 V peak to peak
<b>Power-up surge current</b>	1.1 mA
<b>Quiescent current</b>	700 $\mu$ A
<b>Max current LEDs On</b>	5.2 mA
<b>Max current LEDs disabled</b>	700 $\mu$ A
<b>Relay output contact rating</b>	5 A at 30 V dc or 250 V ac
<b>Isolator data</b>	Refer to the 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 and EN 54-18
<b>IP rating</b>	IP54
<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>	301g

**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 Mains Switching 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 Mains Switching Input/Output Unit will activate the on-board relay 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 Mains Switching 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 Mains Switching 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 Mains Switching 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

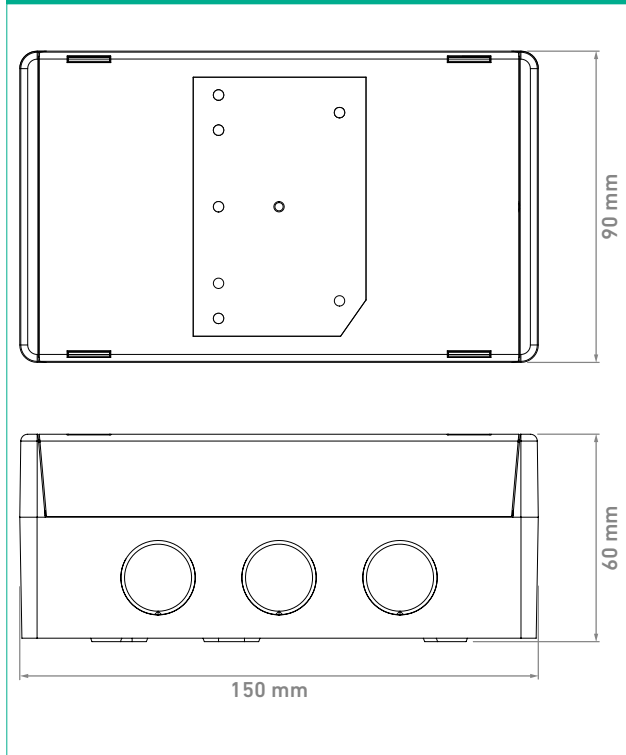
The Intelligent Mains Switching Input/Output Unit complies with the essential requirements of the Construction Products Regulation 305/2011/EU.

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

### Connectivity

Refer to Figures 2, and 3 for unit connection information. Refer to Installation Guide 39215-161 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 Mains Switching Input/Output Unit dimensional drawing**



**Table 3: Status Indications**

Legend	LED Status	Description
RLY	Continuous Red	Relay Active
RLY	Continuous Yellow	Relay Fault
Poll/ISOL	Flashing Green	Polling LED
Poll/ISOL	Continuous Yellow	Isolator LED
I/P 1, IP 2	Continuous Yellow	Input Fault
I/P 1, IP 2	Continuous Red	Input Active

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

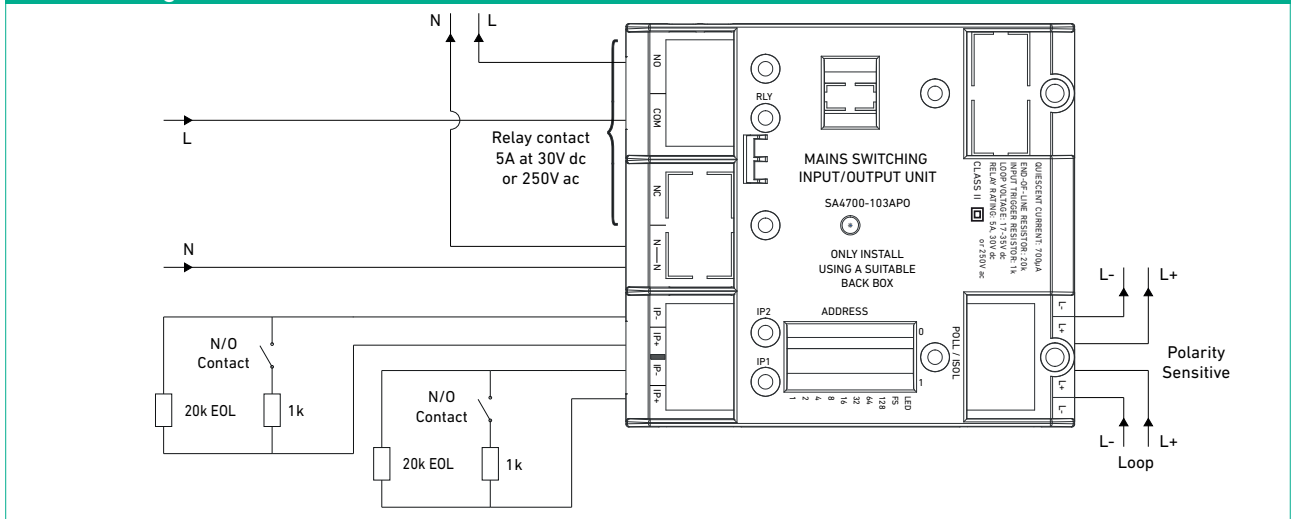
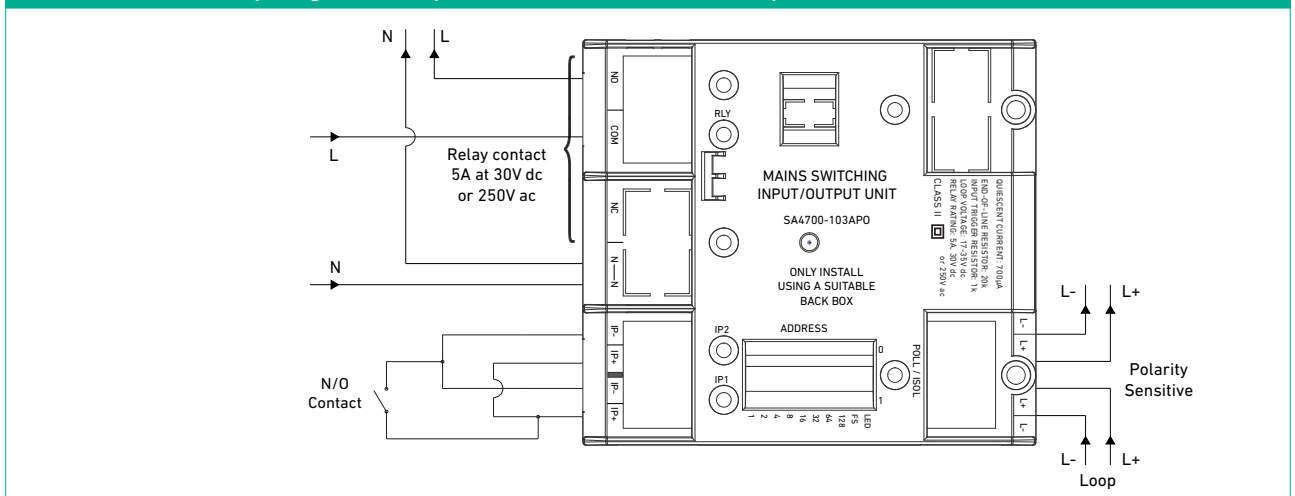


Figure 3: Intelligent Mains Switching Input/Output Unit single fault tolerant zone monitoring mode connectivity diagram (compatible with CoreProtocol only)



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