

Mains Switching Input/Output Unit



Product Overview

Product Type	Mains Switching Input/Output Unit
Part No.	55000-875
Digital Communication Protocol	XP95®, Discovery® & CoreProtocol® compatible

Product Information

The Mains Switching Input/Output Unit provides a voltage-free, single pole change-over relay output and a monitored switch input.

The Mains Switching Input/Output Unit supervises one or more normally-open switches connected to a single pair of cables.

Electrical Consideration

The Mains Switching Input/Output Unit is loop powered and operates at 17–28V DC with protocol voltage pulses of 5–9V. The loop connections are polarity sensitive.

Table 1 Digital communications protocol compatibility

Protocol	Device behaviour
XP95/Discovery	XP95
CoreProtocol (fire control panel dependant)	XP95

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)	17-28V DC
Digital communications protocol	XP95, Discovery & CoreProtocol compatible 5-9V Peak to Peak
Current consumption (max) at 28V DC with LED enabled	
Power up surge (200ms max)	4mA
Quiescent (20kΩ End-of-Line fitted)	1.5mA
Switch input closed	5mA
LED on, switch input closed	5mA
Any other condition, max 2 LEDs on	5mA
Current consumption (max) at 28V DC with LED disabled	
Power up surge (200ms max)	4mA
Quiescent (20kΩ End-of-Line fitted)	1.5mA
Switch input closed	2mA
Any other condition	2mA
Rated load (Resistive) at 250V AC	5A
Rated load (Resistive) at 48V DC	2A
Maximum switching capacity	1.25kVA
Switch input monitoring voltage	9–11V DC
Maximum cable resistance	50Ω
Operating temperature	-20°C to 70°C
Humidity	0% to 95%RH (no condensation or icing)
Vibration, impact and shock	EN 54-18
IP Rating	Designed to IP54
Approvals & standards	EN 54-18, CPD, LPCB, CCMG & VNIPO
Dimensions	48mm height x 150mm width x 90mm depth
Weight	240g

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Table 2 Analogue Values Related to Circuit Status and Zone Load (Input Resistance)

Status	Analogue Value	Mains Switching Input/Output Unit (55000-875)	Input Bit		
			2	1	0
Short Circuit Fault	4	< 0.1kΩ	0	0	0
Indeterminate	4 or 16	0.1kΩ – 0.2kΩ	0	0	0 or 1
Switch closed	16	0.2kΩ – 11kΩ (0.47kΩ)*	0	0	1
Indeterminate	16	11kΩ – 15kΩ	0	0	0 or 1
Normal (switch open)	16	15kΩ – 25kΩ (20kΩ)*	0	0	0
Indeterminate	4 or 16	25kΩ – 30kΩ	0	0	0
Open Circuit Fault	4	> 30kΩ	0	0	0

* Note: The values shown in brackets are recommended values, recommended value resistors supplied with the unit

Mechanical Construction

The Mains Switching Input/Output Unit (see Figure 2) is supplied with a backbox for surface mounting and is intended for indoor use only. The backbox is moulded from the same white self-extinguishing polycarbonate as Apollo detectors.

Three LEDs, two red and one yellow, are visible through the front cover of the enclosure.

One red LED is illuminated to indicate that the relay is set. The second red LED is illuminated to indicate that the switch input is closed.

The yellow LED is illuminated whenever a fault condition (open or short circuit) has been detected.

All LED indicators can be disabled using segment 8 of the DIL switch.

The enclosure is moulded from polycarbonate.

EMC Directive 2004/108/EC

The Mains Switching Input/Output Unit complies with the essential requirements of the EMC Directive 2004/108/EC, provided that it is used as described in this data sheet.

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

Construction Products Directive 89/106/EEC

The Mains Switching Input/Output Unit complies with the essential requirements of the Construction Products Directive 89/106/EEC.

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

Figure 1 Mains Switching Input/Output Unit wiring diagram

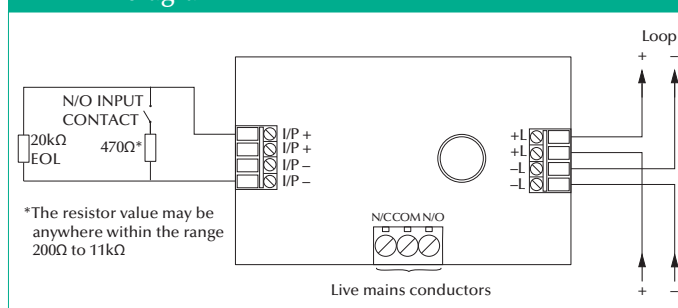


Figure 2 Mains Switching Input/Output Unit

