FUNCTION
The XP95 Input/Output Unit with Isolator provides two voltage-free, single pole, change-over relay outputs, a single monitored switch input and an unmonitored, non-polarised opto-coupled input.

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

The Input/Output Unit is fitted with a bi-directional short-circuit isolator and will be unaffected by loop short-circuits on either loop input or output.

ELECTRICAL CONSIDERATIONS
The XP95 Input/Output Unit is loop powered and operates at 17-28V DC with protocol voltage pulses of 5-9V.

PROTOCOL COMPATIBILITY
The unit will operate only with control equipment using the Apollo XP95 or Discovery protocol.

MECHANICAL CONSTRUCTION
The Input/Output Unit is normally supplied with a backbox for surface mounting. It is also available without the backbox for flush mounting. Both versions are designed for indoor use only.

Four LEDs, two red and two 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.

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

The other LED is illuminated whenever the built-in isolator has sensed a short-circuit loop fault.

The enclosure is moulded from the same polycarbonate as Apollo detectors.

Dimensions and weight of Input/Output Unit (surface mount):
150 x 90 x 48mm  240g
**Technical Data**

Minimum loop operating voltage in normal conditions 17V DC

Maximum loop operating voltage 28V DC

Maximum current consumption at 24V DC no protocol
- Switch-on surge, max 150ms 3.5mA
- Quiescent, 20kΩ EOL fitted 1.25mA
- Switch input closed ’switch closed’ LED on 2.5mA
- Switch input closed (LED disabled) 1.5mA
- Any other condition (max 2 LEDs on) 3.5mA
- Relay operated 2mA

Switch input monitoring voltage (open-circuit condition) 9–11V DC

Maximum cable resistance 50Ω

Opto-coupled input
- maximum voltage 35V DC
- impedance 10kΩ

 Relay output contact rating 1A at 30V AC or DC (inductive or resistive)

 Relay output wetting current 10µA at 10mV DC

On resistance 0.2Ω

Maximum continuous current 1A

Maximum switching current 3A

Maximum load 20 XP95/Discovery detectors

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**Operating temperature** –20°C to +70°C

**Humidity (no condensation)** 0–95%

**Shock**

**Vibration** to GEI 1-052

**Impact**

**IP rating** 54

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LOW VOLTAGE DIRECTIVE 73/23/EEC

No electrical supply greater than 50V AC rms or 75V DC should be connected to any terminal of this Input/Output Unit.

EMC DIRECTIVE 89/336/EEC

The XP95 Input/Output Unit complies with the essential requirements of the EMC directive 89/336/EEC, provided that it is used as described in this PIN sheet and that the contact is not operated more than five times a minute or twice in any two seconds.