

INPUT/OUTPUT UNIT WITH ISOLATOR



Part Number 55000-847IMC

Input/output unit with isolator, 55000-847IMC

The Context Plus XP95 input/output unit provides two voltage-free, single pole, change-over relay outputs, a single monitored switch input and an unmonitored, non-polarised opto-coupled input.



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FEATURES

Compliant with EN54-17 & 18 (2005), the Input/Output Unit supervises one or more normally-open switches connected to a single pair of cables.

It is set to return an analogue value of 4 in the event of an open or short-circuit fault and 16 during normal operation. The status of the inputs is reported by means of two input bits. The change-over contacts are operated by an output bit.

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 unit operates at 17-28V DC with protocol voltage pulses of 5-9V. No electrical supply greater than 50V AC rms or 75V DC should be connected to any terminal.

Designed for indoor use only it includes four LEDs, two red and two yellow, which 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 white self-extinguishing polycarbonate.

Technical Data

Minimum loop operating voltage in normal conditions: 17V DC

Maximum loop operating voltage: 28V DC

Max. current consumption at 24V DC no protocol

Switch-on surge, max 150ms: 3.5mA

Quiescent, 20k Ω 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: 50 Ω

Opto-coupled input

Maximum voltage: 35V DC

Impedance: 10k Ω

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

Relay output wetting current at 10mV DC: 10 μ A

On resistance 0.2 Ω

Maximum continuous current: 1A

Maximum switching current: 3A

Maximum load: 20 Context Plus detectors

Operating temperature: -20°C to +70°C

Humidity (no condensation): 0-95% RH

Shock, vibration and impact: to GEI 1-052

IP rating: 54

Radiated and conducted RF emissions to: BS EN 50081-1 & 2

Radiated and conducted RF immunity to: BS EN 50130-4

Dimensions of Input/Output Unit (surface mount): 150 x 90 x 48mm; Weight: 240g

Also available:

Three Channel Input/Output Unit, order code 55000-588

Provides three voltage-free, single pole, change-over relay outputs and three monitored switch inputs.

Supervises one or more normally-open switches on each of the three inputs. Capable of switching up to 30V at 1A on each of the three outputs



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Mains Switching Input/Output Unit, order code 55000-875

Provides a voltage-free, single pole change-over relay output and a monitored switch input. Supervises one or more normally-open switches connected to a single pair of cables. Capable of switching 250V AC at up to 5A



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Output Unit, order code 55000-849

Provides a voltage-free single pole, change-over relay output. It is a simplified version of the Input/Output unit without circuitry for monitoring inputs. Capable of switching up to 30V at 1A



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