

SWITCH MONITOR WITH ISOLATOR



Part Number 55000-843IMC

The Context Plus XP95 Switch Monitor with Isolator is designed to monitor the state of one or more single pole, volt-free contacts connected on a single pair of cables and to report the status to Context Plus compatible control equipment.

FEATURES

The Switch Monitor provides four input states to the control equipment: 'Normal', 'Fault', 'Pre-alarm' and 'Alarm'. The Switch Monitor has a red LED to indicate an alarm and two yellow LEDs to indicate a switch input wiring fault or a loop short-circuit wiring fault.

The Switch Monitor is fitted with a bi-directional short-circuit isolator and will be unaffected by a single short-circuit on either loop input or output.

ELECTRICAL CONSIDERATIONS

The Switch Monitor is loop powered and operates at 17–28V DC with protocol voltage pulses of 5–9V. It is designed to accept a maximum line resistance of 50Ω. The end-of-line resistor required is 20kΩ.

MECHANICAL CONSTRUCTION

The Switch Monitor is supplied with a back box for surface mounting and is intended for indoor use only.

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

The red LED can be illuminated under CIE control in the event of an alarm being detected.

One yellow LED is illuminated in the event of a fault condition being detected in the monitoring circuit and cannot be controlled by the CIE.

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

Technical Data

Minimum loop operating voltage in normal conditions: 17V DC

Maximum loop operating voltage: 28V DC

Maximum current consumption at 24V:

Switch-on surge, max 150ms: 3.5mA

Quiescent, 20kΩ EOL fitted: 1.25mA

LED off, switch input closed: 1.5mA

LED on, switch input closed: 3.5mA

LED on, switch input s/c: 3.6mA

Maximum continuous current: 1A

Maximum switching current: 3A

On resistance: 0.2Ω

Switch input monitoring voltage: 9–11V DC

Maximum cable resistance: 50Ω

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 EN50081-1 & 2

Radiated and conducted RF immunity to: BS EN50130-4

Dimensions of switch Monitor (surface mount): 150 x 90 x 48mm

Weight: 240g