

.:::XP95

SWITCH MONITOR WITH ISOLATOR

FUNCTION

The 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 Apollo compatible control equipment.

FEATURES

The Switch Monitor provides four input states to the control equipment: 'Normal', 'Fault', 'Pre-alarm' and 'Alarm'. These are derived from the switched resistive values shown in the table overleaf. 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 XP95 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 $20k\Omega$.

PROTOCOL COMPATIBILITY

The Switch Monitor operates only with control equipment using the Apollo XP95 or Discovery protocol.

MECHANICAL CONSTRUCTION

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



Part no 55000-843 (surface mount)

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.

Dimensions and weight of Switch Monitor (surface mount):

150 x 90 x 48mm 240g







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Technical Data

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Loop operating voltage	17V DC
Maximum loop operating voltage	28V DC
Maximum current consumption at 24V switch-on surge, max 150ms quiescent, $20k\Omega$ EOL fitted LED off, switch input closed LED on, switch input closed LED on, switch input s/c	3.5mA 1.25mA 1.5mA 3.5mA 3.6mA
LEB on, switch input s/c	3.0117
Maximum continuous current	1A
Maximum switching current	3A
On resistance	0.2Ω
Switch input monitoring voltage Maximum cable resistance Operating temperature Humidity (no condensation) Shock	9–11V DC 50Ω –20°C to +70°C 0–95%RH
Vibration	to GEI 1-052
IP rating	54
C E marked	

EMC DIRECTIVE 89/336/EEC

The XP95 Switch Monitor with isolator complies with the essential requirements of the EMC directive 89/336/EEC, provided that it is used as described in this PIN sheet.

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

Conformity of the XP95 Switch Monitor with isolator with the EMC directive does not confer compliance with the directive on any apparatus or systems connected to it.

Schematic Diagram & Wiring Connections

