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XP95 THREE CHANNEL INPUT/OUTPUT UNIT



Part no *55000-588*

SUPPLY OPTIONS

The XP95 Three Channel Input/Output Unit is available in the following options:

- in a plastic enclosure
- in a plastic enclosure and with built in bi-directional short-circuit isolator
- as a printed circuit board (PCB)
- as a PCB and with built-in bi-directional short-circuit isolator

Part numbers for each option are shown in the table on page 3.

FUNCTION

The XP95 Three Channel Input/Output Unit provides three voltage-free, single pole, change-over relay outputs and three monitored switch inputs.

FEATURES

The XP95 Three Channel Input/Output Unit supervises one or more normally-open switches on each of the three inputs. 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 three input bits.

The change-over contacts of each relay are operated by three command bits.

If the model is ordered with a short-circuit isolator the Input/Output Unit will be unaffected by loop short-circuits on either loop input or output.

ELECTRICAL CONSIDERATIONS

The XP95 Three Channel 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 Apollo XP95 or Discovery protocol. It may also be used to replace earlier Series 90 Three Channel Input/Output Units.

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MECHANICAL CONSTRUCTION

The Input/Output Unit is supplied in an enclosure for surface mounting or as a PCB.

The enclosure is moulded from self-extinguishing, glass-filled ABS. Ten 16mm/21mm and six 22mm/38mm dual diameter cable entry knockouts are provided.

Ten LEDs, six red and four yellow, are fitted to the PCB. All LEDs except the isolator LED can be disabled to conserve loop current.

For each channel, one red LED is illuminated to indicate that the relay is set; a second red LED is illuminated to indicate that the switch input is closed and a yellow LED is illuminated to indicate an open or short-circuit fault.

A separate yellow LED is illuminated whenever the built-in isolator has sensed a short-circuit loop fault.

Dimensions and weight of Input/Output Unit:

250 x 175 x 75mm	621g (in enclosure)
140 x 160 x 18mm	111g (PCB only)

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	
LED enabled	
Switch-on surge, max 150ms	6.5mA
Quiescent, 20kΩ EOL fitted	3mA
Switch inputs closed	6mA
Relays operated	5.5mA
'Worst case' ie 3 switch inputs closed, 3 relays operated, 6 LEDs on	7.5mA
LED disabled	
Switch-on surge, max 150ms	6.5mA
Quiescent, 20kΩ EOL fitted	3mA
Switch inputs closed	4mA
Relays operated	3.5mA
Switch input monitoring voltage (open-circuit condition)	9–11V DC
Maximum cable resistance	50Ω
Relay output contact rating at 30V AC or DC (inductive or resistive)	1A
Relay output wetting current at 10mV DC	10µA
Isolator rating	
On resistance	0.2Ω
Maximum continuous current	1A
Maximum switching current	3A
Maximum load	20 XP95 or Discovery detectors

ENVIRONMENTAL DATA

Operating temperature	–20° to +70°C
Humidity (no condensation)	0–95%
Shock, Vibration, Impact	to GEI 1-052
IP rating	54
CE marked	

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 3-Channel Input/Output Unit.

EMC DIRECTIVE 89/336/EEC

The 3-Channel Input/Output Unit complies with the essential requirements of this directive, 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.

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

Conformity of the XP95 Three Channel Input/Output Unit with the EMC directive does not confer compliance withe the directive on any apparatus or systems connected to it.

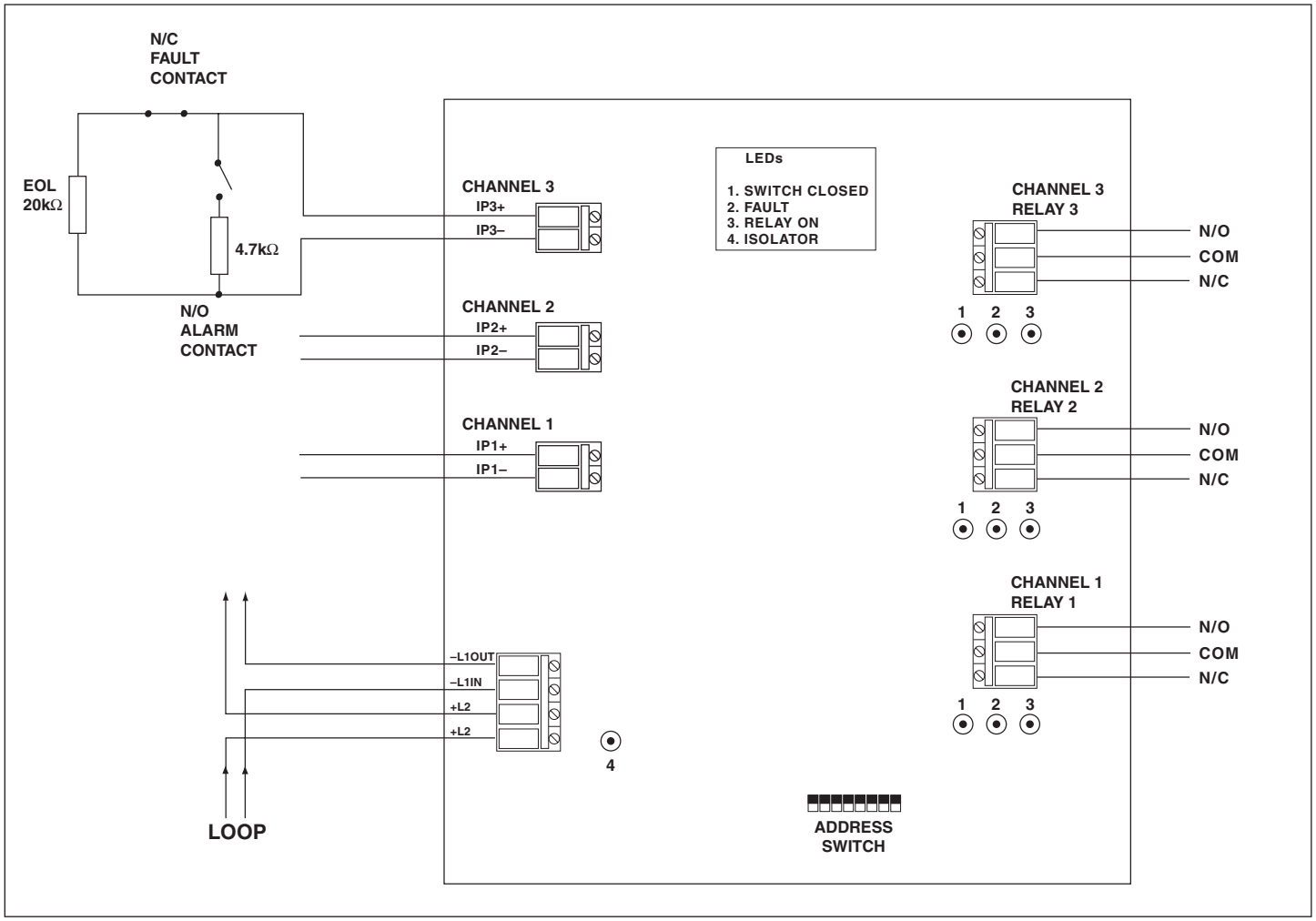
The PCB only versions are sold as components to be used in a professionally designed system or apparatus. It is, therefore, outside the scope of the directive and hence is not CE marked.

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Product	Part No
Three Channel Input/Output Unit	55000-589
Three Channel Input/Output Unit with Isolator	55000-588
Three Channel Input/Output Unit PCB only	43781-589
Three Channel Input/Output Unit with Isolator PCB only	43781-588

Schematic Diagram and Wiring Connections



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