

XP95 OUTPUT UNIT

FUNCTION

The XP95 Output Unit provides a voltage-free, single pole, change-over relay output.

FEATURES

The Output Unit returns an analogue value of 16 under all conditions.

The change-over contact is operated by an output bit.

ELECTRICAL CONSIDERATIONS

The XP95 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 Series 90, XP95 or Discovery digital protocol.

PROTOCOL BIT USAGE

The control equipment transmits a 10-bit message to the Output Unit:

The **output (or forward command) bits** from the control panel have the following function:

Output bits 2 and 1 are not used.

When **output bit 0** is set to logic 1 on two or more consecutive pollings, the relay changes state to the "set" condition. Bit 0 must be set to logic 1 as long as it is desired to keep the relay in its set state. The relay will remain latched in the set state until output bit 0 is set to logic 0



Part no 55000-819

on two or more consecutive polls. Neither the removal of loop power nor the discontinuation of interrogation of its address will affect the state - set or not - of the relay.

The relay will not change state during the first 30 seconds after application of loop power. If a command bit is received during this period, it will be actioned at the end of the 30 second period. If the device is not interrogated during this period, the relay will automatically reset.

After the 30 second period, ie, during normal operation, the relay changes state within 0.1 second of receipt of a command.

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36 Brookside Road, Havant, Hampshire PO9 1JR, England.

Tel: +44 (0)23 9249 2412 Fax: +44 (0)23 9249 2754 Website: www.apollo-fire.co.uk Email: sales@apollo-fire.co.uk



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The **seven bits** which are then transmitted by the control panel correspond to the **address (as set on the DIL switch)** of the device to be polled.

A response message is then sent by the Output Unit to the control equipment:

The **interrupt bit** is always set to logic '0'.

The **analogue value bits** are set to return a pre-set analogue value of 16 under all conditions.

The **input bits** are not used by the Output Unit.

The Output Unit sends **seven bits** of data to confirm its **address** and then **one bit** to indicate that the device can use the XP95 protocol (**XP95 flag**).

The **alarm flag** is not placed by the Output Unit.

The next **five bits** are the second block of analogue value data bits and are not used by the Output Unit.

The **parity bit** is set to '1' or '0' such that the device will always respond with an even number of data bits.

The final **seven bits** are the **alarm/interrupt address** and are not used by the Output Unit.

MECHANICAL CONSTRUCTION

The Output Unit is normally supplied with a back box for surface mounting. It is also available without the back box for flush mounting. Both versions are designed for indoor use only.

One red LED is visible through the front cover of the enclosure. This LED is illuminated to indicate that the relay is set.

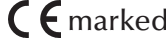
The enclosure is made from white polycarbonate.

Dimensions and weight of Output Unit (surface mount):

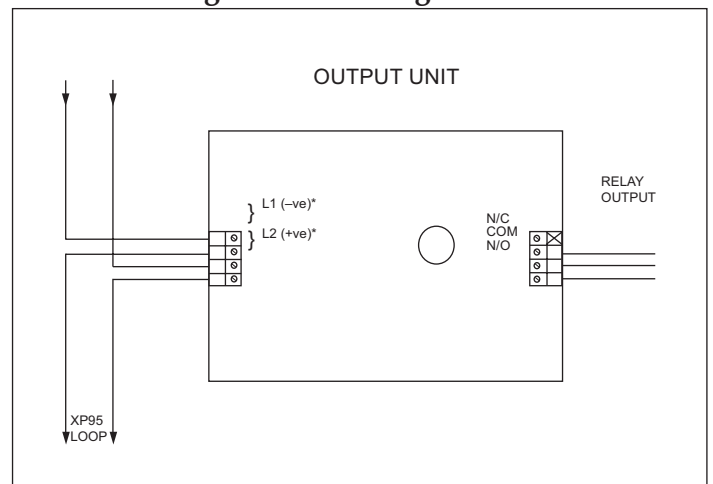
150 x 90 x 48mm

240g

Technical Data

Series 90/XP95 loop voltage	17-28V DC
Maximum current consumption, at 24V	
switch-on surge, max 100ms	3mA
quiescent	720µA
relay operated	3.3mA
Relay output contact rating	
at 30V AC or DC, max	1A
	(inductive or resistive)
Relay output wetting current	
at 10mV DC	10µA
Operating temperature	-20°C to +70°C
Humidity (no condensation)	0-95%
Shock	
Vibration	} to EFGS/F/95/007
Impact	
IP rating	54
Radiated emissions	to BS EN 50081-1 & 2
Radiated immunity	to BS EN 50082-1
 marked	
Low Voltage Directive 73/23/EEC <i>No electrical supply greater than 50V AC rms or 75V DC should be connected to any terminal of this Output Unit</i>	

Schematic Diagram and Wiring Connections



* L1 and L2 are polarity insensitive, but, for the sake of consistency, it is recommended that L1 be kept negative

EMC DIRECTIVE 89/336/EEC

The XP95 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.

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

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