



FW68 Fire Wire Linear Heat Sensing Cable

Installation Instructions

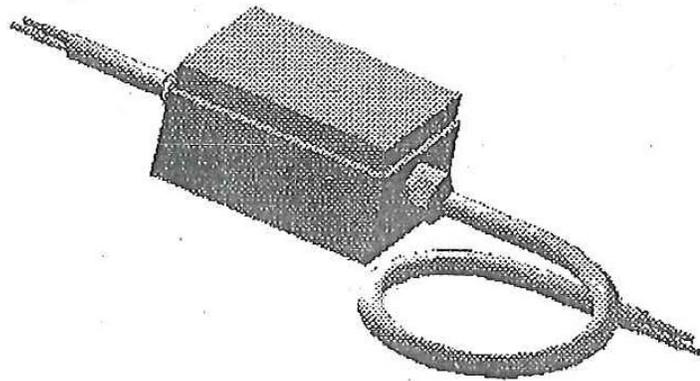
A. SPECIFICATIONS

	Min	Typ	Max		Min	Typ	Max
Operating Voltage	9V		32V				
Alarm State Current (must be externally limited)			100mA				
				Actuating Temperature	63	68	73°C
				Maximum Ambient & Storage Temperature			45°C

B. DESCRIPTION

FW68 Type E fire heat detector is a linear heat sensing cable consisting of a twin conductor cable with temperature sensitive insulation protected by a polythene braid. The cable must be used with the 4300 fire wire termination box. When the cable is exposed to sufficient heat, the heat sensitive insulation melts allowing the two conductors to touch, this produces a short circuit across the Alarm Zone Circuit (AZC) of the Control and Indicating Equipment (CIE) thus creating an alarm.

The alarm current must be limited by the CIE. Once actuated, the cable cannot be reset and thus any section of cable that initiated an alarm must be replaced.



FW68 with 4300 Terminal Box

C. INSTALLATION

1. Mounting

The terminal box is supplied with the Printed Circuit Board (PCB) held in place by rubber plugs. These plugs are intended only to hold the board in place before permanent fixing. To permanently fix the box to the mounting surface, insert the two supplied fixing screws (or screws appropriate for the mounting

surface) through the PCB holes and box, then screw them into the mounting surface. This secures the PCB and 4300 box.

The FW68 cable should never be kinked or squashed by the securing means. The cable is best secured by loose cable ties at appropriate intervals.

2. Connection

All connections are made within the terminal box. Incoming (from the CIE or previous box) and outgoing (to the next box) cables should be passed through the cable glands and inserted into the appropriate terminal (ensuring polarity is correct).

The End of Line Devices (EOLD) should be fitted inside the last terminal box.

Although fire wire cable is not polarity sensitive it is important that a consistent polarity is maintained

throughout a system to ensure a polarity sensitive EOLD can be connected correctly. The terminal box has + and – indications marked on the PCB. It is recommended that the RED fire wire conductor is connected to the + terminal and the BLACK conductor be connected to the – terminal. Likewise, the positive EOLD and CIE connections should be connected to + terminal and negative EOLD and CIE connections should be connected to the – terminal.

3. Fire Wire Termination

To fit FW68 conductors into terminal box:

1. Strip approximately 8-10mm of insulation off the conductors.
2. Open terminal by pushing white lever towards the centre of the board.
3. Push the conductor into the open terminal.

Note 1: As the fire wire cable is very stiff, it is far easier to insert both conductors simultaneously.

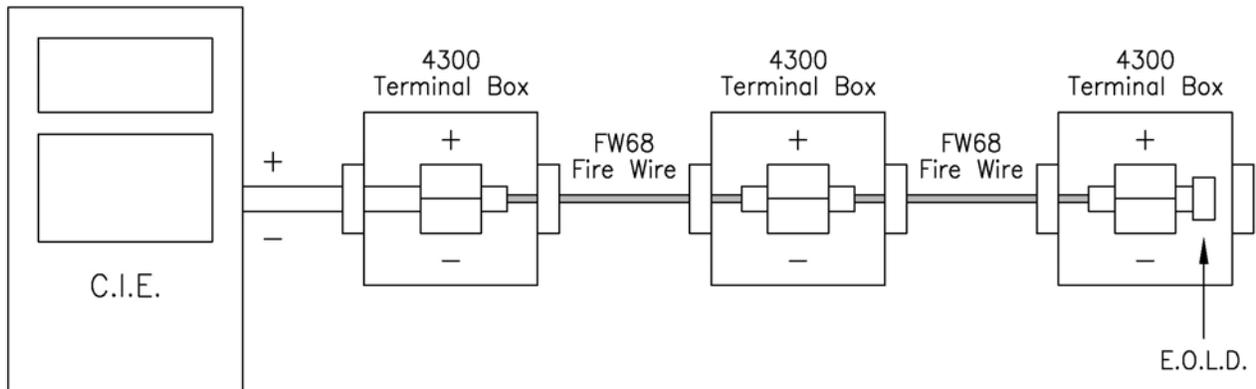
Note 2: When removing the outer braiding to expose the conductors, a clean cut is important to allow the braid to pass through the cable gland.

4. Terminal Box Labelling

Each 100 metre roll of fire wire is supplied with one 4300 terminal box. This terminal box has two labels, one that identifies the terminal box and one that identifies the fire wire. Additional terminal boxes which are supplied as individual items have only the terminal box identification label. Each 100 metre roll of fire wire is supplied with 10 spare fire wire identification labels.

One of these labels must be attached to every additional terminal box used with the roll of fire wire it was supplied with. Thus each terminal box used with a roll of fire wire must have both the terminal box identification label and the fire wire identification label.

D. TYPICAL WIRING



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