

FF380X - EFPX Expansion Loom Application and Installation Instructions

General

The EFP-1 Fire panel provides Auxiliary Expansion Input and Outputs to interface with external equipment. A Fire output and a Fault output are provided. These outputs are intended to drive external 24V relays at 30mA therefore relay resistance must be greater than 800 Ω. A "Class change" input is provided that will activate the alarm sounder outputs from an external command.

Connections are wire colour coded as follows:

Auxiliary Fire Output (RED)

- This output is normally open circuit. In any Fire condition this output is driven to 24v, then being able to supply an external load. When the panel is Reset then it returns to the Normal state. (See Application notes right)

Auxiliary Fault Output (Black)

- This output is normally open circuit. In any Fault condition and when Reset is active this output is driven to 24v, then being able to supply an external load. When all Faults are cleared then it returns to the Normal state. (See Application notes right)

External Sounder Activate ("Class Change") (Blue)

- This normally open input when connected to 24v (available from Pin 4 of PL2) will activate the Alarm Sounder circuits. When the signal is removed the sounders are reset. No panel indication is given during the sounder activation. (See Application notes right)

24v Supply (Green)

- Supply for use with class change input.

0v Supply

0v Available from Sounder - Terminals 3 or 5

- Supply for use with Auxiliary Fire and Fault Outputs

Installing the EFPX Loom

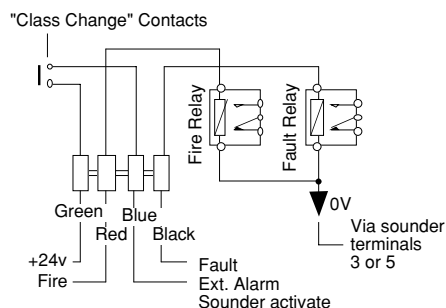
Connections are made from PL2 (adjacent F3) on the main PCB via EFPX Expansion Loom to the Ancillary Connections as listed above.

- 1 Remove power from the system before installation
- 2 Fit the EFPX loom into back of control panel where convenient. Two holes may have to be drilled to mount the loom using the retaining pins provided. (For bases with screw fixed looms, secure the loom with the screws provided).
- 3 Fit the other end of the loom onto plug PL2 on the main circuit board. Note that it is designed to fit one way only. Forcing the connector onto PL2 will cause mechanical and possible electrical damage.
- 4 Make off connections to peripheral equipment, and when made recheck.
- 5 Re - apply power and test the system.

DFU380X000 Revision: 2 Date: 11/3/97 Author: PS

Circuit Example

The circuit below shows an example of a general arrangement where all outputs and inputs are used.



CONNECTIONS TO PL2 ON PCB VIA EXPANSION LOOM FF380X

Applications for Auxiliary Inputs and Outputs

The outputs are typically used to drive indicators or relays external to the panel. **The outputs are not intended to drive heavy loads directly and any load connected must not exceed the Auxiliary output current capability of 30 mA.**

There is no restriction on the choice of relays other than they must have a 24v coil and the coil current must not exceed the Auxiliary Output capability (30mA). If relays are switching mains potentials then the load must be suitably isolated from the Fire Panel drive circuits. Examples of uses are the control of ventilation systems, gas valves, door release systems etc .

The External Sounder Activate may be used to interface to other panels or may be controlled by a time switch to give a momentary warning of a timed event via the alarm sounders through - out a building e.g. "Class Change" facility used in educational establishments - check with the Fire officer that this is permissible.

Auxiliary load current that is derived from the panel will affect the stand-by time of the system. The worst case being that of the Fault relay which will be energised for the whole time the mains supply has failed.

