

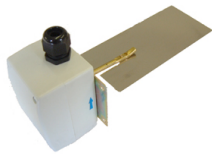
EXTRACT/MAKEUP AIR FAN STARTING/INTERLOCKING

We can fit an extra segment onto the key switch of the Firewatch Mk 2 such that when the key is operated it will send out a signal to the air handling fan contactor to start the fans. An airflow switch fitted to the air duct then makes, signals back to the Firewatch panel and allows the gas start sequence to proceed. If at any time the airflow fails the gas system automatically shuts down requiring a manual restart. (wiring diagram A3/E1482) This contact comes as standard on the Mk 6, Mk 7 and Mk 8.

AIRFLOW MONITORING SWITCH

Four types of airflow monitoring are available:

1) A differential pressure switch with a low pressure range 0.2 to 2mbar. This is connected to the duct work with small plastic connectors and nipples. To achieve a differential pressure reading the pressure switch should be connected across the ventilation fan, with the low pressure connection on the inlet and high pressure connection on the outlet NB this cannot be achieved with a roof mounted fan. In this case the + connection can be used for supply and the – for extract systems. The minimum setting can only be achieved with the switch diaphragm mounted vertically. 2 core wiring to our panel. IP54.



2) A 'sail / paddle' held in the duct airstream which swings with the air flow. This must be in through the top (ceiling) of horizontal ductwork or if fitted in vertical ductwork, must be with an upward airflow. Range 2 to 9 m/s. It is not a recommended method due to the danger of grease sticking the paddle in the proved air position. 2 core wiring to our panel. IP 54.

3) A calorimetric sensor with a setting range of 1 to 10 m/s. There is a delay of 3 to 60 s to suppress short term fluctuations. The duct can be in any orientation and the sensor fits through the wall of the duct. Ambient or medium temperature -10 to +50°C. 3 core wiring to all panels. IP 50



4) A Current transformer which monitors the power being drawn by the ventilation fan motor. Adjustable between 0.25 and 33 Amps but can be reconfigured to monitor up to 135 Amps. May be installed in the vent fan wiring anywhere between the fuses and the motor but **MUST** be on the fuse side of any speed controllers. Fitted in a metal enclosure to IP 54. 182w x 132h x 107d.

2 core wiring to our panel.

Note:- Any flow sensor should be fitted 5 dia downstream and 3 dia upstream of any obstruction.