DIGITAL DEVICES

BURNER CONTROLLER
Model DD 810 PR1

General:

The controller is state of art microprocessor based design. The controller's basic functionality is to manage a safe start up of the Burner and continuos monitoring of the flame there after.

The controller is housed in elegant ABS plastic enclosure with over all size of 100 X 70 X 110 mm. (LXBXH) . The controller can be mounted on standard 35 mm DIN rail or on back panel with two screws.

Description:

The Burner Controller is designed for automatic start up of small capacity Burners with instant start up and flame monitoring of oil fired Burners using Photo resistive type flame sensor.

Terminal Connections:

Phase	1	6	Blower
Neutral	2	7	Start Interlock
Ext. Reset	3	8	Lockout Alarm
Fuel valve	4	9	Flame sensor
Ignition	5	10	Flame sensor

Note:

1. Supply voltage – 230 V AC, 50 Hz.
2. Do not connect Phase or Neutral wires to Flame sensor terminals.

Operation:

All the connections are made as per the electrical schematic diagram. When supply is provided to the terminal No. **1**, The Controller will go through the following sequence of operation.

Blower at terminal No. **6** is switched On. The controller will now wait for the closure of Start interlock (S) across terminals No. **6** & No.**7**. When the control interlock is established, A **5 seconds** of pre purge is initiated. Now,the controller will switch On Fuel Valve at terminal No. **4** and Ignition at terminal No. **5**.
If flame is sensed by the flame sensor (F) , connected across terminals No. **9** & No. **10**, Ignition will be switched Off and the controller will monitor the flame there on.

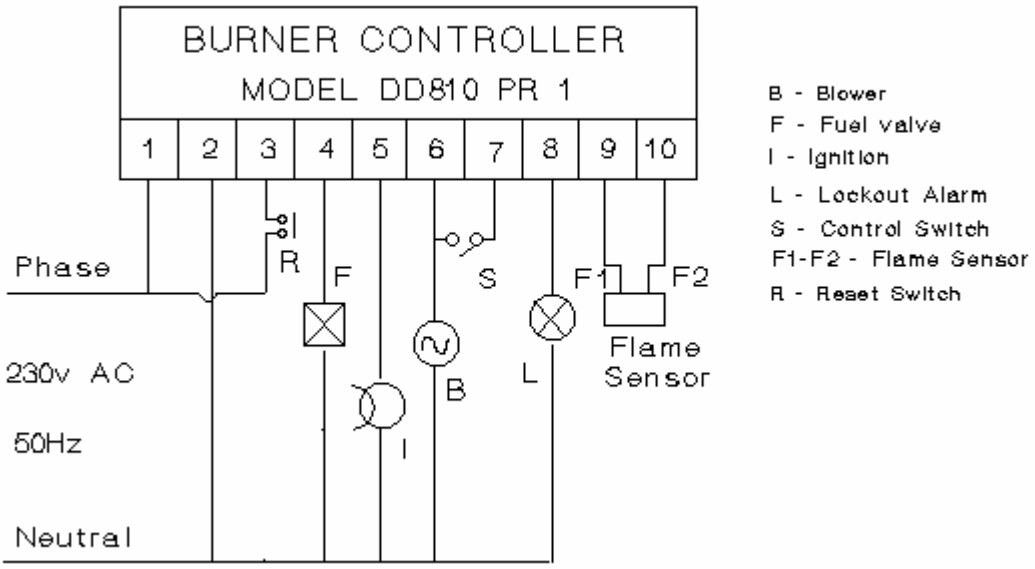
If flame is not sensed with in **5 seconds** since the start of Ignition, the controller will go to Lockout condition. When in lockout , the Alarm is switched at terminal No. **8** and all other outputs will be switched Off.

Re trial : When flame is sensed and normal running is established, the controller will monitor flame continuously. If Flame failure occurs, the controller will try to re establish flame by switching On Ignition again. If flame is not established with in **5 seconds** , the Controller will go to Lockout.

False flame check: Check for false flame will be carried out the beginning of the sequence start. If flame is sensed before the start of Fuel and Ignition, which is may be due to false light ingress or faulty flame sensor. The controller will go to Lockout with out starting the firing sequence. Thus making the start up sequence safe.

Lockout: When in lockout , the controller can be reset by momentarily pressing the Reset P.B. (R) provided locally on the controller or through the external remote reset switch wired across Phase and terminal No. 3. Momentary interruption in power supply the controller will also have the same reset effect on the controller.

Controlled shut down : When under normal firing condition, if the control interlock initiating the firing sequence is opened, the firing is switched Off and Fuel valve and Fuel pump will be switched Off. Blower will continue to run. Now the control will wait for the closure of the control switch for a fresh start up.



Please contact Digital Devices for any clarification.