BHATIA COMP. 2,
L.B. SHASTRI MARG,
THANE (W) 400602.

Tel: 022-25364738.
022-65058581.
Fax: 022-25397999.

e-mail: diligent@mtnl.net.in
diligent.mc@gmail.com

visit us at :
www.diligentmicrocontrols.com
or
www.diligent.in

Diligent
MICRO CONTROLS

DESIGN CONSULTANT & MANUFACTURER

* ELECTRONIC CONTROL SYSTEMS
* IMPORT SUBSTITUION

Diligent Autocon Controllers

Diligent Micro Controls offers wide range of controllers for automatic control of all types of burners. Classifications of these controllers are based on type of fuel burnt, design of burner, mode of operation, technique of flame sensing, starting pre-requisite interlocks, security interlocks, etc. Diligent Autocon controllers are completely solid state types and use standard and time-proven components. This ensures their continuous & reliable operation over long period even under adverse conditions of electric power and environment. Each Autocon has its *unique & user friendly "Status & Fault"* display that displays status of various equipments and that of faults that leads to burner failure. This feature is very useful during commissioning and fault finding of burner. A diligent Autocon controller work on 230 V +/- 10%, 50 Hz, 1 phase ac supply and provides live operating commands to switch on or off various equipment related to the burner operation. Alternately, it can be made suitable for operation on 110 V or any other power supply specified by the customer. It has been our experience over past two and half decades that the time delays in the controllers should be preset in the factory rather than in the field. However, we can offer some delays as "field settable" to our new OEMs for their initial trials on their system and later on these can be factory set at the value specified by the OEM.
Diligent Autocons are housed in strong m.s. or plastic enclosures. It is provided with either *screwable* or *pluggable* connectors for connecting with rest of the burner. These are made in either *base mounting type* or *door mounting type.* Salient categories of Diligent Autocon are given below –

1. Diligent Autocon for **various fuels.**

   a. Gas fired burner
   b. Oil fired burner.
   c. Coal fired burner.
   d Bagass fired burner.
   e. Multiple fuel fired burner.
   f. Customised burners such as for Flame Treatment for plastic printing, for Flame welding of plastic coated paper articles, etc.

2. Diligent Autocon for **various modes of operation**.

   a. No process-parameter control. Only operation with safety monitoring.
   b. Process parameter control by single stage ON/OFF of burner.
   c. Process parameter control by multi-stage ON/OFF of burner but without damper control.
   d. Process parameter control by multi-stage ON/OFF of burner but with damper position control.

e. Process parameter control by continuous modulation of single stage burner which continuously adjusts gas & air proportion commensurate with the heat demand.
f. Process parameter control by continuous modulation of multi-stage burner which continuously adjusts gas & air quantity commensurate with the heat demand.

3. Diligent Autocon with various **techniques of flame detection** and flame sensor.

   a. Photo-Resistor type flame sensor; most cost effective solution for oil fired burner.
   b. Photo-Voltaic type flame sensor; alternate for oil fired burner.
   c. Infra-Red type flame sensor; preferred for coal-fired or low calorific fuel burner.
   d. Ultra-Violet type flame sensor; most reliable but expensive technique of flame detection especially for invisible / blue flames.
   e. Dual flame sensing technique especially when multiple fuels tend to generate flames with different predominant characteristics.

4. Diligent Autocon for **multiple burners** in same combustion chamber.

****