Astechnic
诺 一

AIC09
Flame Controller

Foshan NUOE Combustion Control Technology Co., Ltd.
Tel: 4000-8397-18 Web: http: //www. astechnic.net E-mail: Astechnic @ 163.com

Foshan NUOE Combustion Control Technology Co., Ltd.

AIC09 Flame Controller

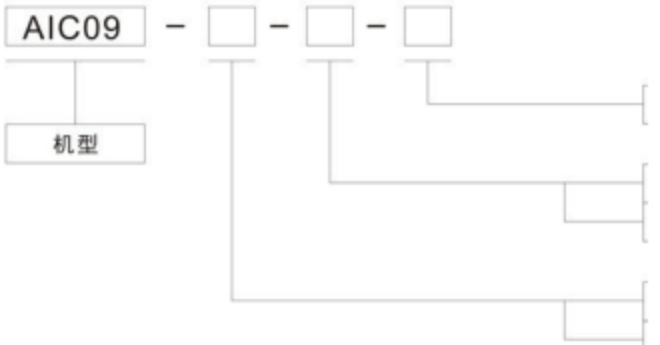
Overview

- It has many functions, such as remote ignition, flame detection, flameout protection, fault alarm, fault locking, large and small fire combustion control and so on.
- Built-in ignition high-pressure package, the longest ignition spark can reach 8mm.
- It adopts switching power supply technology, which has the advantages of wide working voltage range, high efficiency and strong anti-interference ability.
- Digital tube display. It visually displays the working status and fault code of the controller, which is convenient for troubleshooting.
- The utility model adopts a plug-and-pull base, which is easy to install and disassemble, and has a compact structure. It is suitable for installation in the field or cabinet.
- It conforms to the EN298 standard.

Technical Parameters

- Power supply voltage: 110~250VAC 50/60Hz
- Maximum power consumption: 10W
- Terminal load: 2A@250Vac
- Ignition power: voltage 10KV, current 8mA
- Spark length: 5~8mm
- Operating temperature: -20~+60° C
- Operating life: 500,000 times
- Degree of protection: IP54

Type selection table



Special custom identifiers

0: Power-on reset (ignition is not immediately when powered)

1: Power-on start (immediate ignition when powered on)

A: Two-electrode type (one electrode ignition, one electrode detection)

B: 3-wire, 4-wire UV probe (e.g. AVS1, AVS2, AVS8, etc.)

D: Single electrode type

Note: power-on reset means that the controller will not ignite immediately after the power is turned on, and the panel switch must be manually switched once before starting automatic ignition.

Power-on ignition is that when the power is turned on, the controller will not ignite automatically. You must press the panel "ON/OFF" switch to ignite.

AIC09 Installation dimension drawing

Front View Ignition Interface Side View Base View Rail Installation Diagram

Program status and display

Program status	Digital display	Description
Standby	--	Indicates that the controller is in a soft-off state
Work enable	00	Indicates that the controller is in the working enable shutdown state
Self-test	A1	Indicates self-test before initiating ignition
Ignition	A2	Indicates starting ignition
Run	A3	Indicates entering a normal operating state
Self-test failed	E1	Indicates a false flame signal before ignition
Ignition failed	E2	Indicates that the ignition was unsuccessful
The flame is extinguished	E3	Indicates that the flame is extinguished during operation
Reset fault	E4	Indicates a remote frequent reset, this fault is locked and requires a local reset.

Precautions for Installation

- The AIC09 controller cannot be installed in the following environments

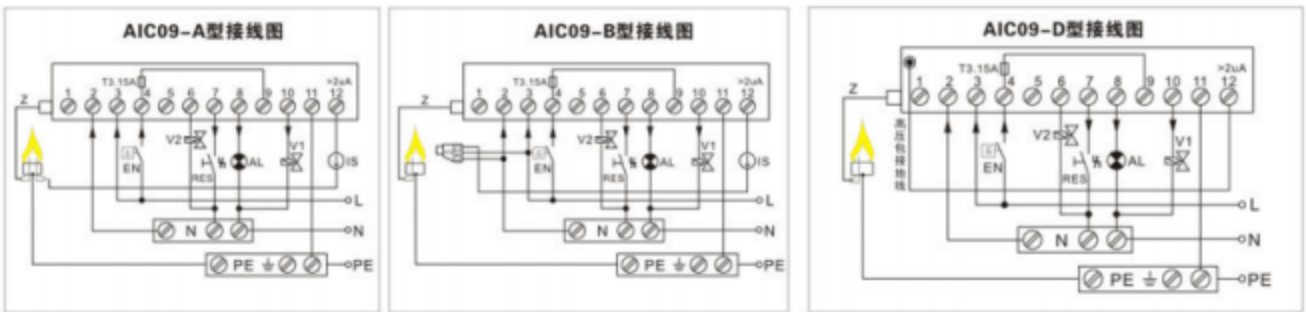
  a. Where there are special chemicals and corrosive gases (ammonia, sulfur, chlorine, ethylene, acid gas, etc.).

  b. In water, in humid (humidity not exceeding 90%) or in dewy environment.

  c. Places where the temperature is too high (more than 60 ° C) and vibrates frequently.
- Ignition transformer ignition high voltage cable wiring must be isolated from other wiring at a distance of at least 10CM.
- The ground wire of the ignition transformer must be connected to the metal shell of the burner.
- The installation position of the ultraviolet flame detector can not correct the ignition spark, so as not to fail the self-test.
- Ensure that the ignition ground wire is grounded correctly and the grounding resistance is less than 10Ω.
- Ensure that the detection electrode is in contact with the flame and that the electrode lead is in good contact.
- The ignition high voltage wire should not be too long, it is recommended that it be less than 1 meter.

Wiring

AIC09- Type-A wiring diagram AIC09-B wiring diagram AIC09-D wiring diagram



Terminal definition

1# terminal ignition output

This terminal is used to control the ignition transformer discharge and is connected to the built-in ignition high voltage package.

2#, 3# terminal power input

Terminal 2# is the neutral wire of the power supply, 3# is the live wire of the power supply, and the power input is 220±10%VAC 50Hz.

4# terminal work enabled

This terminal is used as the enabling terminal of the controller work, the input signal is 220VAC± 10% continuous signal, the signal is connected to start ignition, and the disconnection is stopped.

It can be used as remote ignition, if remote ignition is not required, it can only be shorted to the 3# terminal.

5# terminal external ignition transformer output

This terminal is used as an external high-power ignition transformer terminal, the output voltage is the same as the power supply voltage of the machine, and the power of the external transformer should be less than 60W.

6# terminal solenoid valve V2 output

This terminal is used as a solenoid valve V2 output, which opens after successful ignition, and can also be used as a combustion indication output, with an output voltage of 220VAC± 10% load current less than 2A.

7# terminal remote reset

This terminal is a remote reset input with a neutral access signal. The controller is in the alarm state, and the alarm can be eliminated by remote reset terminal to ignite again.

8# terminal alarm output

This terminal is a fault alarm output with an output voltage of 220VAC ± 10% load current less than 2A.

9# terminal auxiliary power output

This terminal is an auxiliary power supply output with an output voltage of 220VAC± 10% load current less than 2A.

10# terminal ignition solenoid valve V1 output

This terminal is an ignition solenoid V1 output with an output voltage of 220VAC± 10% load current less than 2A.

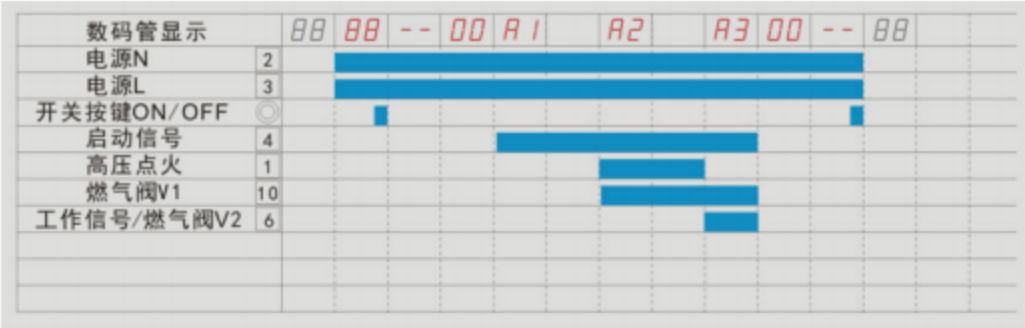
11 # Terminal grounding

This terminal is the ground terminal of the controller, be sure to make sure that the ground is good and the ground resistance is less than 10Ω.

12# terminal flame detection

This terminal is a flame detection input and is connected to the detection electrode.

Working sequence diagram



Digital tube display

Power supply N

Power supply L

Switch button ON/OFF

Start signal

High pressure ignition

Gas valve V1

Working signal/gas valve V2