

Industrial IS-Series

Epoxy Encapsulated Controls for the most stringent environments

Description

Our Industrial Series Epoxy Encapsulated controls were designed to be exposed to the most stringent environments.

Any of our control series: 2X, 5X, 8X and 9X can be inserted into the open enclosure and sealed in epoxy.

Our Industrial Series can survive the harshest locations and offers standard Faston's® terminal connections or 6-11 pin headers to simplify wiring.

The state-of-the-art design features operation of gas burner with many hardware and software options such as:

- Safe start
- Combustion blower control
- Roll out switch input
- Flame stabilization
- Re-ignition
- Independent alarm outputs
- Thousands of timing combinations offered
- Quick start for fast response to load changes
- LED Fault Indication



SPECIFICATIONS

Power Input:	24Vac, 120Vac, 230Vac 50/60Hz, +10, -15%
Power Consumption:	.2A without valve TYP.
Flame Sensing:	0.15uA minimum
Gas Types:	Natural, L.P. or Manufactured
Main Valve & Pilot:	4 Amps
Style:	Epoxy encapsulated in flame resistant enclosure 945VA
Temperature:	-40° to 176°F
Operation Humidity:	5% to 93% Relative Humidity (non-condensing)
Mounting Position:	Multipoise
Sensing Method:	Rectification
Electrical:	Heavy Duty Relays 16A
Spark Gap:	0.20" Maximum
Connections:	1/4" Spade Spark Output 6, 7 or 11 pin Header
Dimensions:	4.68"W x 3.08"D x 1.12"H
Mounting Holes:	5.064" center to center

Agency Certifications



CSA ANSI Z21.20
CSA C22.2 No. 199-M89

Options

Internal (single rod) or external sense (dual rod) flame sense

Alarm Normally Open: 5Vac, 24Vac, 120Vac, 230Vac, 5Vdc or 24Vdc

Quick Start .5 second start up (External Sense Only)

Flame Stabilization

Re-Ignition 5 or 60 minutes Retry

Made in USA

Timing Selections

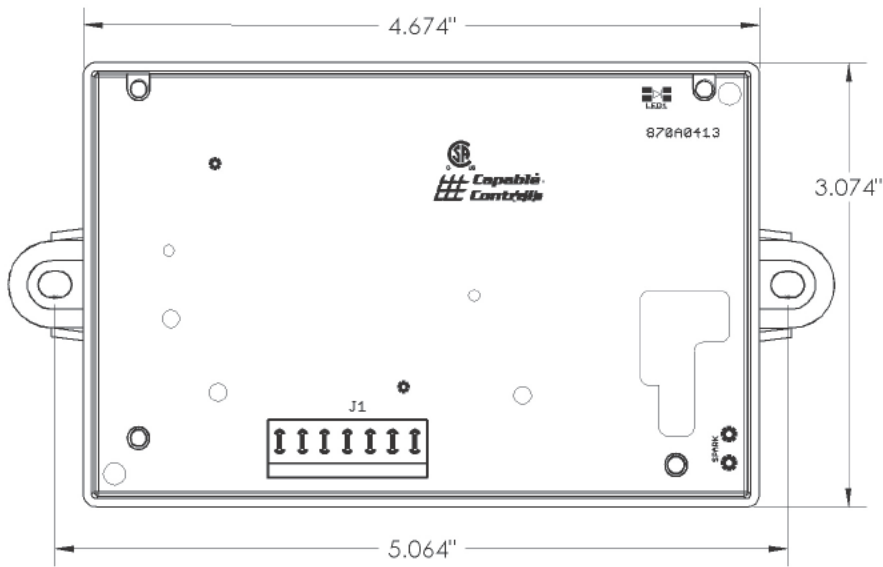
Pre-purge	0-99 seconds
Inter-purge	0-99 seconds
Trial time	3-250 seconds
Trials for ignition	1-9 tries 0=continuous
Flame failure response	1 second maximum not variable



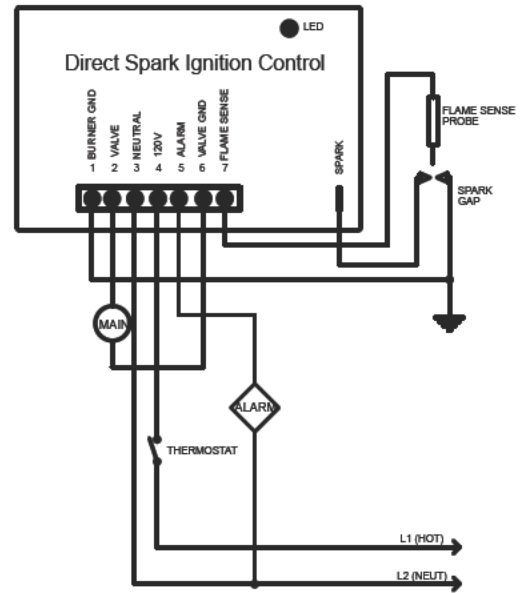
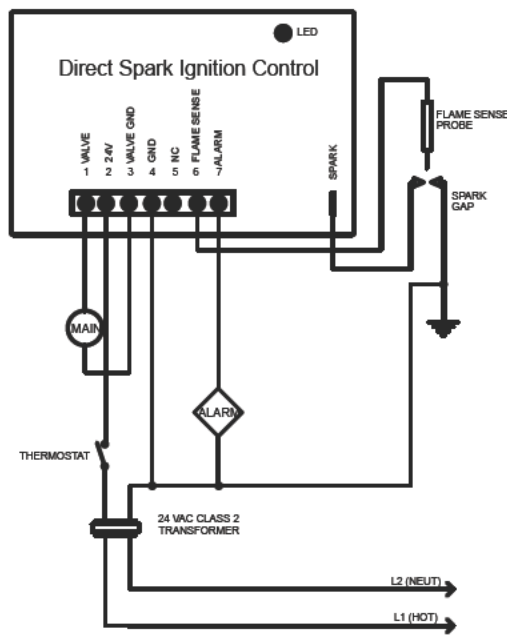
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- Terminal Designations:**
- Pin 1 Burner Ground
 - Pin 2 Valve Output
 - Pin 3 Line Neutral
 - Pin 4 Line Hot
 - Pin 5 Alarm Output (option)
 - Pin 6 Valve Ground
 - Pin 7 Flame Sense (external)



Note: Internal Flame Sense: 6 PIN CONNECTOR
 External Flame Sense: 7 PIN CONNECTOR
 PCB 413 TYPICAL WIRING, HARDWARE TYPE 50

Note: The NC pin is the normally closed contacts to the VALVE
 Alarm Option: 7 PIN CONNECTOR
 PCB 414 TYPICAL WIRING, HARDWARE TYPE 49

ERROR CODES

Red Flashes	Error Definition	Error Type
1 flash, then pause	No flame in trial time	Lockout
2 flashes, then pause	Flame Sense stuck on	Lockout
3 flashes, then pause	Pilot/Main Relay failure	Lockout
4 flashes, then pause	Repetitive Flame loss error	Lockout
5 flashes, then pause	Rollout error	Lockout
6 flashes, then pause	ASP Airflow error	Lockout
7 flashes, then pause	Internal Control error	Lockout
On Solid Red	Line Voltage/Freq. Error	Standby

Led Indications, Normal Operations

Green, 1/2 sec. on, 1/2 sec. off	Pre-purge, Inter-purge, Post-purge
Green, blinking rapidly	Trial for ignition
Green, on solid	Flame detected, pilot/main burners on