

# ICM2910 SERIES IGNITION CONTROL MODULES



## Features

- **Direct Spark Ignition (DSI) control modules**
- **Microprocessor-based**
- **Controls spark ignitor and gas valve**
- **Monitors timing, trial for ignition, flame sensing and lockout**
- **Compatible with LP or natural gas**
- **Redundant Gas valve design conforms to ANSI Z21.20**
- **Conforms to UL STDs 60730-1 and 60730-2-5.**
- **Certified to CSA STD E60730-1 and CSA STD C22.2#60730-2-5**

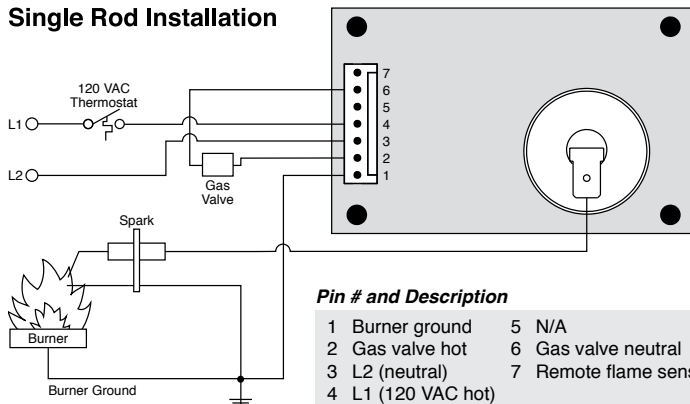


## Mode of Operation

When the thermostat initiates a “Call for Heat”, the **ICM2910** will perform a hardware check. After the hardware check, the **ICM2910** will start a pre-purge where applicable. Once the pre-purge has ended, the spark source and the gas valve relay are energized simultaneously for the duration of the trial for ignition period. A flame rectification circuit confirms the presence of the flame. Upon flame detection, the spark source is turned off. If flame is not sensed, the control will turn off the spark source and gas valve and start an inter-purge where applicable before the next trial for ignition. If flame is not detected after the trial(s) for ignition, the control will enter a hard lockout. To clear the hard lockout, remove the input voltage to the control or recycle the thermostat’s heat call.

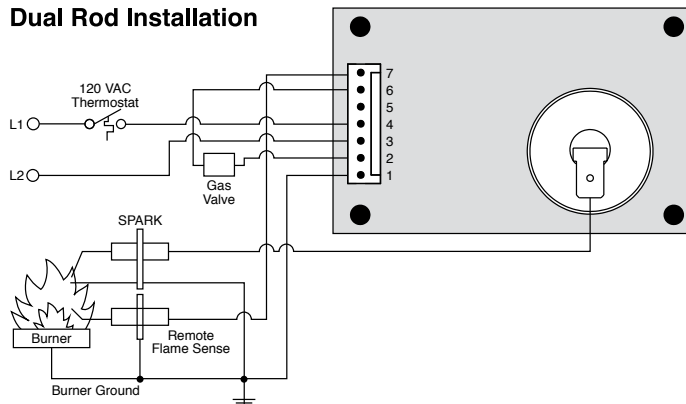
## Wiring Diagram

### Single Rod Installation



Pin # and Description	
1	Burner ground
2	Gas valve hot
3	L2 (neutral)
4	L1 (120 VAC hot)
5	N/A
6	Gas valve neutral
7	Remote flame sense

### Dual Rod Installation



## Ordering Information

ICM P/N	Replaces Fenwal P/N	# Ignition Trials	Pre-Purge Time	Inter-Purge Time	Trial for Ignition Time
ICM2910-200-005	35-725200-005	1	None	None	10s
ICM2910-201-007	35-725201-007	1	None	None	15s
ICM2910-201-501	35-725201-501	1	5s	None	4s
ICM2910-201-505	35-725201-505	1	5s	None	10s
ICM2910-205-015	35-725205-015	3	None	15s	10s
ICM2910-205-017	35-725205-017	3	None	15s	15s
ICM2910-205-021	35-725205-021	3	None	25s	4s
ICM2910-205-115	35-725205-115	3	15s	15s	10s
ICM2910-205-521	35-725205-521	3	5s	25s	4s
ICM2910-206-515	35-725206-515	3	5s	15s	10s
ICM2910-405-013*	35-725405-013	3	None	15s	7s

\* Open board design

## Specifications

- **Control Voltage:** 102-138 VAC
- **Flame Current:** 1uA minimum
- **Current Draw:** 50mA maximum
- **Gas Valve:** 1.5A@120 VAC
- **Flame Failure Response Time:** 0.8 seconds maximum
- **Operating temperature:** -40°F to 175°F (-40°C to 80°C)
- **Dimensions:** 5.23”L x 2.53”W x 1.86”H
- **Mounting:** Surface mount using (2) #8 screws