



# FENWAL CONTROLS

## GAS BURNER CONTROL

UNIVERSAL POWER 35-40 SERIES

**12/24VDC • Direct Spark Ignition • Advanced Communications • Harmonized**

The 35-40 Series is designed for the next generation of gas-fired appliances using internally-regulated DC power supplies.

These 12/24VDC controls provide high energy 18KV spark output for reliable gas ignition. Appliance support and troubleshooting is enhanced through Universal Asynchronous Receiver/Transmitter (UART) communications, providing real-time control status data. The 35-40 is designed from the ground up to meet the latest ANSI Z21.20-2014 harmonized ignition standard well in advance of the October 2023 deadline.

The microprocessor design of the 35-40 Series provides precise, repeatable timing and operating sequences. Power and diagnostic LEDs provide immediate status when supporting your appliance.

### Additional options include:

- Single/three try ignition
- Local/remote flame sensing
- Isolated gas valve option
- Automatic reset
- Non-volatile lockout
- Intelligent alarm out
- Enclosure
- Wiring harness



## 35-40 Series – Product Specifications:

Parameters	Specifications
Input Power	10-14VDC or 20-28VDC
Input Current	300mA with gas valve relay energized (control only)
Gas Valve	5.0A max (continuous)
Alarm	Open Collector: 30VDC max. Pull to GND: 100mA max.
Operating Temperature	-40°F to +176°F (-40°C to +80°C)
Flame Sensitivity	0.7 µA minimum
Flame Failure Response Rate	0.8 seconds maximum
Flame Detector Self-check Rate	Once per second minimum
Gas Types	Natural, LP, or manufactured
Spark Rate	16 per second
Max. Size (LxWxH) with enclosure	5.3 x 3.3 x 1.8 inches (13.5 x 8.4 x 4.6 cm)
Moisture Resistance	Conformal coated to operate non-condensing to 95% R.H. Module should not be exposed to water
Ingress Protection	Not rated, protection provided by appliance in which it is installed
Tries for Ignition	One or three try versions available
Trial for Ignition Periods	4, 7, 10, 15 seconds available
Pre-purge and Inter-purge Timings	0, 15, 30 seconds

## Approvals and Listings:



Design Certified to ANSI Z21.20-2014  
CAN/CSA C22.2 No. 60730-2-5-14



CE Approved to EN 298-2012



Code Compliant to:  
AS 4625 - 2008  
AS 4622 - 2004

**RoHS**

RoHS Compliant



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