IntelliSpark® IS SERIES Intelligent Ignition Control System

Protect the health of your spark-ignited natural gas engine with FW Murphy’s IntelliSpark ignition controller and components.

True primary and secondary diagnostics provide users with an intelligent view of engine operation, while increased programming capabilities give you ultimate control. The IntelliSpark systems feature microprocessor and capacitive discharge functionality for any application that requires a cost-effective operation.

IntelliSpark technology is utilized in FW Murphy’s Engine Integrated Control System (EICS®).

Put this power to work and see reduced costs and enhanced flexibility.

- Maximizes the performance of spark-ignited natural gas engines
- Crankshaft-referenced 16-bit microprocessor-based system
- Patented Smart Coil™ technology
- Automatic energy control
- Five timing reference options including camless operation
- Two field-adjustable timing schedules
- Optimized engine combustion and performance
- True primary and secondary diagnostics
- Increased spark life

Ignition Controllers Available as
IS-8 Solution – fires 8 outputs
IS-16 Solution – fires 16 outputs
IS-32 Solution – fires 32 outputs

Approved for hazardous areas
Class I, Div. 2, Groups B, C and D.
IS Series Specifications

- **Power Requirements:**
  - IS-16/8: 10-30 Volts (12/24 VDC nominal), 3.0 Amps max.
  - IS-16: 10-30 Volts (12/24 VDC nominal), 6.0 Amps max.
  
- **Environment:**
  - Temperature Operating Range: -4 to +158 F (-20 to +70 C)
  - Enclosure Rating: IP167 with display mounted in the enclosure
  - Enclosure Rating: Type 4 with no display mounted in the enclosure

- **Energy Storage:**
  - IS-8/16: 125 mJ max, per tank capacitor
  - IS-32: 180 mJ max, per tank capacitor

- **Outputs:**
  - IS-8: Fires 8 outputs
  - IS-16: Fires 16 outputs
  - IS-32: Fires 32 outputs, 2 outputs can fire simultaneously.

- **Output Electrical Specifications:**
  - IS-8: Single tank capacitor
  - IS-16: Dual, alternately fired tank capacitors
  - IS-32: Quad, alternately fired pairs of tank capacitors. Ignition Outputs are High-side firing referenced to the “T” pin on the output harness.

- **Maximum Output Current Pulse Rating:** 40 Amps
  
  **Note:** Current pulse amplitude is dependent on the coils in use and the tank capacitor voltage.
  - IT-230 Series coils: 7 Amp pulse @ 230Volts
  - IT-150 Series coils: 35 Amps @ 150 Volts
  - IT-250 series coils: 20 Amps @ 250 Volts

- **4/20 mA Inputs:**
  - 4/20mA A: Programmable to retard timing when schedule A is active.
  - 4/20mA B: Programmable to retard timing when schedule B is active.

- **Communications:**
  - IS-8/16: Available auxiliary comm port, RS-485 interface, Modbus protocol.

  **Note:** The port has a user programmable slave ID, runs at 9600 baud (19.2K).
  All parameters available can be modified in parallel via front panel display window.

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**IS Series Dimensions**

**Front**

9.84 in. (249.9 mm)

**Side**

9.84 in. (249.9 mm)

11.8 in. (299.9 mm)

**End**

9.84 in. (249.9 mm)

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**IS Series Approvals**

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Class I, Div. 2, Groups B, C and D.