

Ignition Control Systems (Murphy Power Ignition)

MPI-8/16/32 Ignition Controllers

- **MPI-8, MPI-16, MPI-32 Ignition Controllers** utilize the latest microprocessor-based designs to provide superior ignition performance and diagnostics for today's industrial gas engines. Operators of MPI controllers have more information to be used locally or remotely, giving them "full authority" to fine tune their operation for improved engine efficiency.



Certified for hazardous locations
Class 1, Division 2

Features:

- Crankshaft-referenced microprocessor-based system
- Patented Smart Coil technology
- Automatic energy control
- Five Timing Reference Options including Camless Operation
- Two field-adjustable timing schedules
- Highly accurate and stable timing ($\pm 0.25^\circ$)
- 16-bit microprocessor-based controllers
- Field-programmable from front panels
- Run-time diagnostics and prognostics
- 4-line window display (local or remote)
- Second communications port for remote communications
- Two analog inputs for remote timing control

Benefits:

- Optimized engine combustion and performance
- True Primary and Secondary Diagnostics
- Reduced fuel consumption
- Increased spark life
- Equalizes cylinder output
- Less RPM variations
- Reduces unscheduled downtime
- User friendly: no chips to change or remove
- No PC or handheld programmer required
- Easier operation
- Reduced emissions

► Sales • Service • Support

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FWMurphy Control & Instrumentation Solutions

Specifications:

Power Requirements:

MPI-16/8: 18-32 Volts (24 VDC nominal) 3.0 Amps max.
Note: The input current is dependent on firing rate.

MPI-32: 18-32 Volts, 6.0 Amps max.

Temperature: Operating Range : -20, +70C

CSA Certified for Class I, Div 2, Groups B, C, D

MPI-16: Fires 16 outputs.

MPI-8: Fires 8 outputs.

MPI-32: Fires 32 outputs, 2 outputs can fire simultaneously.

Energy Storage:

MPI-16/8: 125 mJ max, per tank cap

MPI-32: 180 mJ max, per tank cap

Output Electrical Specifications:

MPI-8: Single tank capacitor

MPI-16: Dual, alternately fired tank capacitors

MPI-32: Quad, alternately fired pairs of tank capacitors

Ignition Outputs are High-side firing referenced to the "T" pin on the output harness.

Note: These outputs are not ground referenced unless the "T" lead is grounded.

Recommend careful adherence to installation instructions.

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: This input retards timing (if programmed) when schedule A is active.

4/20mA B: This input retards the timing (if programmed) when schedule B is active.

Communications:

MPI-8/16: An auxiliary comm port is available, RS-485 interface, Modbus protocol

Note: This port has a user programmable slave ID, runs at 9600 baud or 19.2K.

All parameters available and can be modified in parallel with main front panel display.



Note: MPI Controllers have multiple inputs/outputs for all operating parameters. Please consult the Operating Manual for each MPI unit.

► MPI Distributor and Service Representative:



www.murphy-pi.com

Specifications and performance data subject to change without notice. Certified specifications and performance data available upon request.

Warranty - A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to <http://www.fwmurphy.com/warranty>