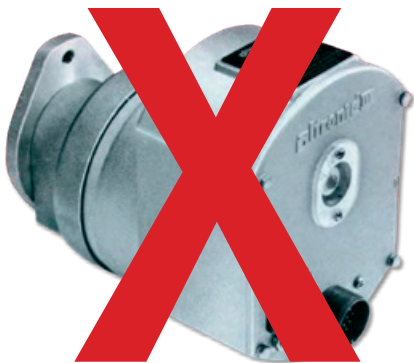


## ■ Ignition Systems

# Advantages of MOTORTECH Electronic Ignition Systems

Compared to ALTRONIC® Magnetos

In general, the MOTORTECH electronic ignition systems are maintenance free!



### They do not have:

- X A mechanical drive
  - ▶ *This means less maintenance*
- X A plastic coupling that wears out due to temperature, oil and vibration
- X Moving parts in the ignition controller
- X They are not affected from heat produced by the engine
- X The output voltage to the coils corresponds to the speed of the engine.
  - ▶ *At cranking speeds the ignition magneto cannot deliver as much ignition energy*

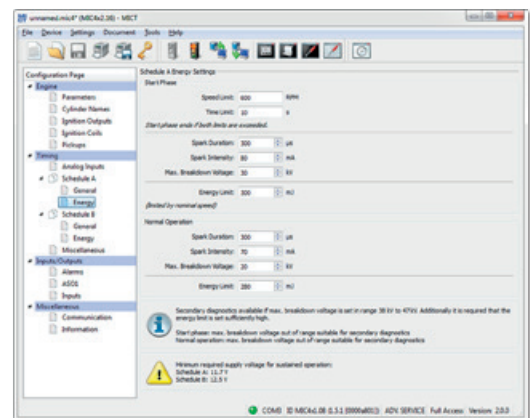
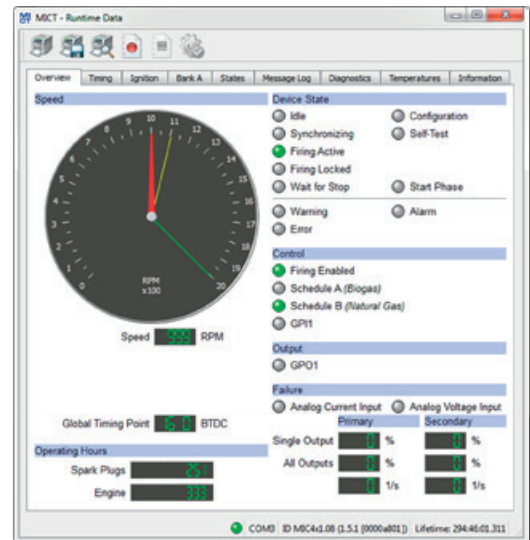
### Electronic Ignition Systems offer the following features:

- ✓ They are powered by batteries or a power supply and make available full ignition energy from cranking to full speed
- ✓ They are less in cost
- ✓ Very accurate as they do not rely on a mechanical drive to trigger
- ✓ They use pickups (1 to 3) to sense the position of the crankshaft and camshaft and the speed.

## Ignition Systems

### Additional features offered by Microprocessor Controlled Ignition Systems:

- ✓ They can be programmed by the operator
- ✓ They calculate crankshaft/camshaft positions in real time depending on the power of the microcontroller
- ✓ They offer very accurate ignition timing (0.1° crankshaft)
- ✓ They offer features like
  - Programmable timing curves based on
    - ▶ Speed
    - ▶ Analog inputs
    - ▶ Potentiometers
    - ▶ Etc.
  - Programmable energy
    - ▶ Spark duration
    - ▶ Spark intensity
    - ▶ Spark energy
  - Programmable safety features
    - ▶ Over speed shutdown
    - ▶ Alarms
    - ▶ Temperature alarms and shutdowns
    - ▶ Etc.
  - Can be integrated into SCADA system
  - Designed to work with other components (DetCon detonation controller, etc.)
  - All data can be read via PowerView3 HMI module



MICT – MOTORTECH Integrated Configuration Tool  
Sample Screens

### Conclusion:

- ✓ MOTORTECH Electronic Ignition Systems offer the tools that are required to achieve:
  - ▶ Higher loads
  - ▶ Optimized combustion
  - ▶ Fine tuning of the engine
  - ▶ Higher efficiency of the engine
  - ▶ Higher availability of the equipment
  - ▶ Cost reduction on maintenance
  - ▶ Less components to stock in inventory