

# **E** CS Engine Integrated Control System

Optimizing your engine's performance and maintaining emission compliance is easier than ever with FW Murphy's Engine Integrated Control System (EICS). EICS combines many products into a complete integration package precalibrated specifically for your engine.

EICS combines key components - ignition system (powered by IntelliSpark®), air/fuel control, speed governing, interface and diagnostics, sensors, harnessing, catalyst and engine control unit (ECU) - in one package, saving you money and man-hours associated with the installation and setup of separate engine components.

EICS has been preconfigured for your convenience, ensuring your engine will run at optimum performance without the need for manual field adjustments. Its D-EPR valve accommodates wide variations in fuel composition and speed/load range, maintaining efficiency with load following technology for even the toughest gas lift applications.

In addition, EICS eliminates the need for pretest site visits by maintaining emissions - saving you time and money. With EICS you can be certain your site will pass required testing, like JJJJ, without the need for pretesting to get dialed in.

## Turnkey Engine Integration Package



- Integrated capacitor discharge ignition, air/fuel control and speed governing
- Precalibrated and dyno tested for your specific engine
- Advanced diagnostics maintain engine compliance
- Simplified installation
- Operates across all variations in speed/load range
- No field adjustments required



# ECS Engine Integrated Control System Elements Explained



- D-EPR > Direct-Acting Electronic Pressure Regulator for precise fuel metering necessary for optimum combustion, fuel economy and transient response
  - Single-stage microprocessor based electromechanical fuel pressure regulator that incorporates a high speed actuator
  - Hard anodized body for corrosive fuel environments
  - Operates on low pressure fuel supply



MIXER >

- Air / fuel management mixer
- · Fast response fuel metering
- · Specifically designed for naturally aspirated and turbocharged engines
- Hard anodized body and stainless steel fuel valve for corrosive fuel environments

#### CATALYST >



- Sealed stainless steel metallic substrate catalytic converter assembly with ANSI flanges and multiple pre/ post converter sensor ports
- Optimized precious metal loading for low emissions requirements and wide range of fuels
- Packaged complete with pre/post UEGO sensors and RTDs

#### WIRING HARNESS >



- Prefabbed custom wire harness designed for specific engines
- Wire harness solutions include labeled wiring and connectors to simplify and eliminate connectivity errors

#### COLOR DISPLAY >



- · User display and interface
- Mid-sized modular CAN display with full-color graphics and resolution
- · Displays operation, status and

#### ECU >



- Full spark / fuel control module
- · Advanced model-based control to optimize performance
- Cutomized software to meet customer requirements
- lanition
- Reporting
- Air/Fuel Ratio
- Local/Remote
- Diagnostic
- Efficiency
- Regulation

#### THROTTLE BODY >



- Electronic speed governing control
- · Suction or discharge pressure based speed control options
- · Offers best-in-class governing

#### SMART COIL >



- Capacitor discharge ignition with Smart Coil™ technology
- · High quality construction for durability
- Designed to fit wide range of applications

## **№ FW** MURPHY<sup>™</sup>

FW MURPHY PRODUCTION CONTROLS SALES, SERVICES & ACCOUNTING 5417 S. 122ND E. AVE. TULSA, OK 74146

CONTROL SYSTEMS & SERVICES 105 Randon dyer road Rosenberg, TX 77471

MANUFACTURING 5757 FARINON DRIVE San Antonio, TX 78249

### **DOMESTIC SALES & SUPPORT**

FW MURPHY PRODUCTS PHONE: 918 317 4100 EMAIL: INFO@FWMURPHY.COM WWW.FWMURPHY.COM

FW MURPHY CONTROL SYSTEMS & SERVICES PHONE: 281 633 4500 EMAIL: CSS-SOLUTIONS@FWMURPHY.COM

### INTERNATIONAL SALES & SUPPORT

PHONE: +86 571 8788 6060 EMAIL: APSALES@FWMURPHY.COM

LATIN AMERICA & CARIBBEAN PHONE: +1 918 317 2500 EMAIL: LASALES@FWMURPHY.COM

PHONE: +82 70 7951 4100 EMAIL: SKOREASALES@FWMURPHY.COM



