

F W M U R P H Y

# AFR

Air/Fuel Ratio Control



State-of-the-art engine control  
in one easy-to-use solution





# FW Murphy AFR Control Systems

FW Murphy's complete line of Air/Fuel Ratio Control Systems offers state-of-the-art engine control in one simple, easy-to-use product. The controllers offer easy installation, and by using the same PV450 display on all AFR systems, minimal operator training is required.

# AFR

## Air/Fuel Ratio Control



**AFR-1R** - simplest single set point AFRC system available

**Designed for low-horsepower, gas-fueled, carbureted rich-burn industrial engines**

- Microprocessor-based controller with a single set point
- Set point and operation done entirely through the full-color graphic display, enclosed or remote mounted
- Post catalyst, oxygen sensor for real-time adaptation to changing catalyst performance (post-catalyst sensor optional)
- Pre- and post-catalyst thermocouple input for catalyst over temperature protection (ungrounded Type K thermocouples optional)

**AFR-9R** - simplest load-following AFRC system available

**Designed for a wide range of horsepower, gas-fueled carbureted rich-burn industrial engines**

- Designed to maximize the efficiency of a three-way catalyst over varying engine loads, speeds, fuel quality, ambient temperatures and barometric pressure
- Works without operator intervention after initial program setup
- Nine set point targets based on a combination of three RPM settings and three manifold pressure settings (3 x 3)
- Three valve default position settings for automatic feed-forward control to optimize catalyst performance

**AFR-64R** - advanced rich-burn load-following AFR control system

**Fits virtually any gas-fueled, carbureted, rich-burn industrial engine - with or without a catalytic converter**

- 64 load-specific air/fuel set points and automatically tracks engine load changes based on engine RPM and manifold air pressure (8 x 8 target table)
- Windows-based software compatible with most laptop computers used for system setup and operator interface
- Full-color graphic display – optional, enclosure or remote mounted
- Windows-based Data Plotting software for easy and accurate troubleshooting

**AFR-64L** - advanced lean-burn, load-following AFR control system

**Fits virtually any gas-fueled, carbureted, lean-burn industrial engine**

- 64 load-specific air/fuel set points and automatically tracks engine load changes based on engine RPM and manifold air pressure (8 x 8 target table)
- Windows-based software compatible with most laptop computers used for system setup and operator interface
- Full-color graphic display – optional, enclosure or remote mounted
- Windows-based Data Plotting software for easy and accurate troubleshooting

> See back page for model selection and contact information.



# How To Order Your Control System Kit

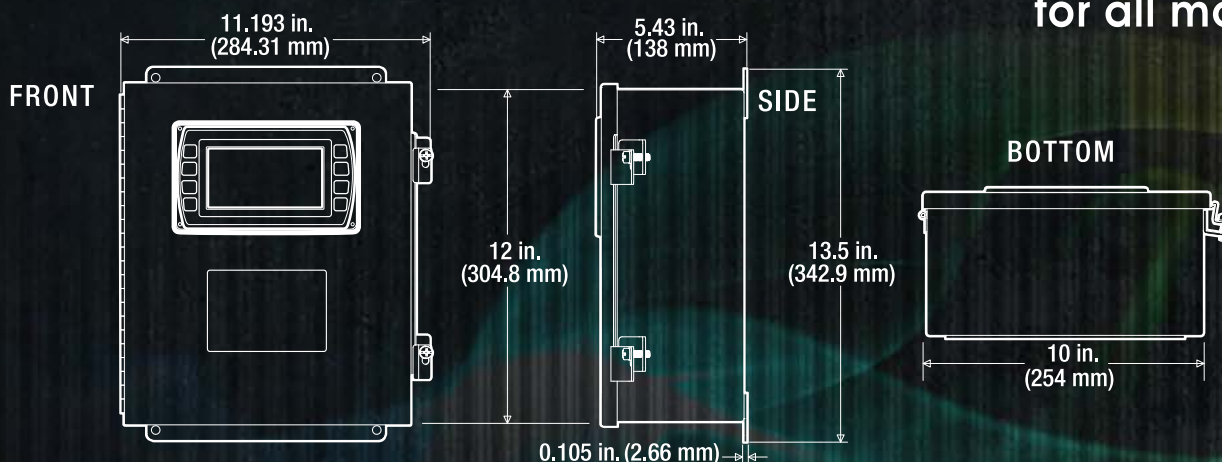
## THE MATRIX BELOW HELPS YOU SELECT YOUR KIT CONFIGURATION:

NOTE: NOT ALL CONFIGURATIONS ARE AVAILABLE - CONTACT YOUR REPRESENTATIVE OR FW MURPHY TO CONFIRM YOUR SELECTION

AFR – PD – R –	64	R –	2	1 –	FA50 –	LC
<b>SELECT A MODEL</b> AFR-ND-R (HEGO controller; no display) AFR-WD-R (HEGO controller; UniOp display) AFR-ND-L (Wideband controller; no display) AFR-WD-L (Wideband controller; UniOp display) AFR-PD-R (HEGO controller; PowerView display) AFR-PD-L (Wideband controller; PowerView display)	<b>SETPOINTS</b> 1 (One target set point) 9 (Nine target set points) 64 (Sixty four target set points)	<b>CONTROL</b> R (Rich burn) L (Lean burn)	<b>NUMBER OF BANKS</b> 1 (Single bank-Rich burn) 2 (Dual banks-Rich burn) 1 (One fuel cntrl. valve-Lean burn) 2 (Two fuel cntrl. valves-Lean burn)	<b>POST CAT. SENSOR</b> 0 (No sensor-Rich burn) 1 (Yes sensor-Rich burn) 1 (One UEGO-Lean burn) 2 (Two UEGO-Lean burn)	<b>VALVE TYPE</b> TK2 TK4B TK6B TK10 TK11B FA25 (Uses FL-25) FA50 (Uses FL-50)	<b>KIT TYPE</b> Blank (Enclosed) LC (Less case)

EXAMPLE MODEL NUMBER: AFR – PD – R – 64R – 21 – FA50 – LC

## Dimensions for all models



Call for your panel: 918.317.4100 or email: [sales@fwmurphy.com](mailto:sales@fwmurphy.com)

In order to bring you the highest quality, full-featured products, we reserve the right to change our specifications and designs at any time.

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

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**FW MURPHY**  
 PRODUCTION CONTROLS

