

# AFR-1R

## Rich-Burn Air/Fuel Ratio Control System

The AFR-1R is the simplest to use rich-burn engine, single set point air/fuel ratio control system available. The system is designed to maximize the efficiency of a 3-way catalyst by maintaining the proper air/fuel ratio.

Maintaining the correct air/fuel ratio to enhance the performance of your catalytic converter shouldn't be that hard, and it's not if you choose the right equipment.

The FW Murphy AFR-1R features a single pre-catalyst set point target to optimize the catalysts performance. And when activating the optional post-catalyst set point target, the AFR-1R monitors the catalyst performance and adjusts the air/fuel ratio to maintain and prolong the catalyst performance.

The system includes the FW Murphy PV450 full-color graphical user interface for control functions, monitoring, programming and diagnostic displays. The eight-button display includes comprehensive built-in help files for added operator convenience.

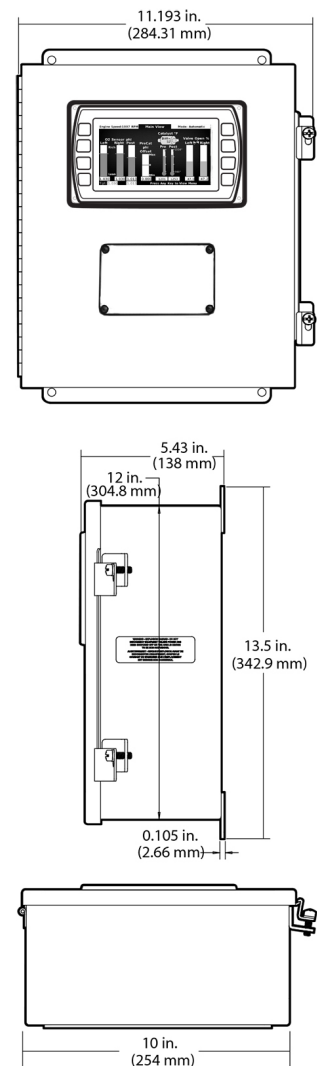
The AFR-1R air/fuel ratio controller represents cutting-edge technology in many areas: hardware, microprocessor power, control system software, operator interface options, adaptability to variable engine conditions and control requirements, software upgrade capability, in addition to comprehensive on-board diagnostics system (OBD).

### Technical Features

- 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, enclosure or remote mounted.
- Post catalyst, oxygen sensor input for real-time adaptation to changing catalyst performance (post catalyst sensor is optional).
- Pre and post catalyst thermocouple input for catalyst over temperature protection (ungrounded Type K thermocouples, optional).
- Pre and post catalyst differential temperature displayed.
- Separate alarm and shut-down dry-contact relays for flexibility in setup and operation.
- High-speed full-authority butterfly fuel control valves for quick response time (available).
- Proportional solenoid fuel control valves for auxiliary fuel control (available).



### Dimensions

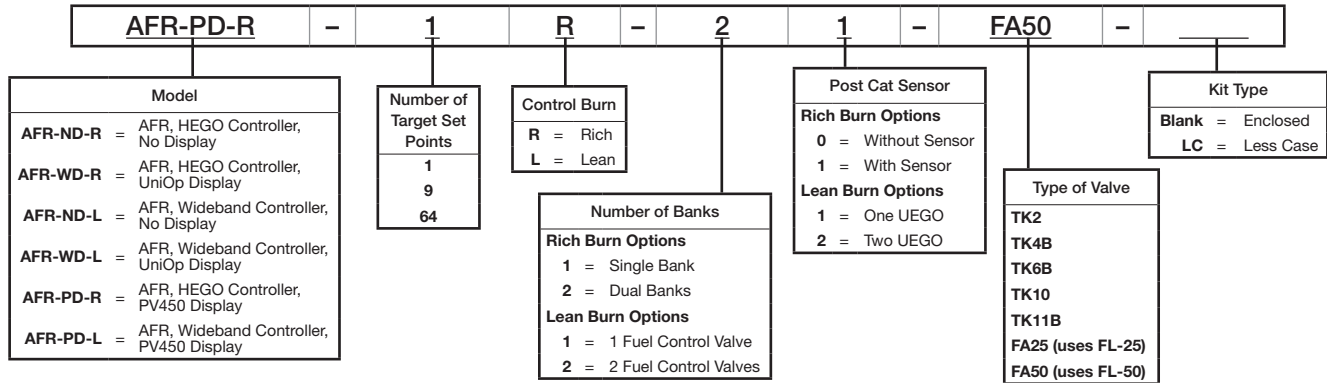


## Technical Features (continued)

- Heated exhaust gas oxygen sensors for optimum AFR control.
- IP 66 enclosure, 10 in. W x 13 in. H x 5 in. D.
- 12 / 24 VDC Nominal
- CD ignition input for engine speed reference with optional magnetic pickup input.
- Upgradeable to command multi-set point targets and accept additional end devices.

## How To Order

Options listed below applies to all Air/Fuel Controllers. All configurations may not be available. Call your sales representative or FW Murphy for more information. Sample order AFR-PD-R-1R-21-FA50 below.



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