

MEC-R1 RICH-BURN AIR/FUEL RATIO CONTROLLER



- Simplest air/fuel controller on the market.
- One setpoint target.
- Easy on-screen interface.
- Operator "Help" key on display.
- Non-intrusive installation on auxiliary fuel line.

The AFR That's Smart Enough To Keep It Simple.

Maintaining the right air/fuel ratio to support your catalytic converter and optimize engine efficiency shouldn't be that hard. And it's not – if you choose the right equipment.

For rich-burn natural gas engines that run with stable loads, the MIRATECH MEC-R1 air/fuel ratio controller is exactly the right choice. It's pure simplicity at every step – from installation to operation.

How simple is it?

- **The AFR that doesn't get in the way.** The MEC-R1 operates on an auxiliary fuel line, which can be easily isolated for maintenance, analysis, or troubleshooting. *Smart – and simple.*
- **Single setpoint.** No fine-tuning or tweaking needed. Set it and forget it! *Smart – and simple.*

- **Streamlined navigation.** Single-button access to the main functions. *Smart – and simple.*

Easy to install, easy to use: it just doesn't get any simpler. Or any smarter.



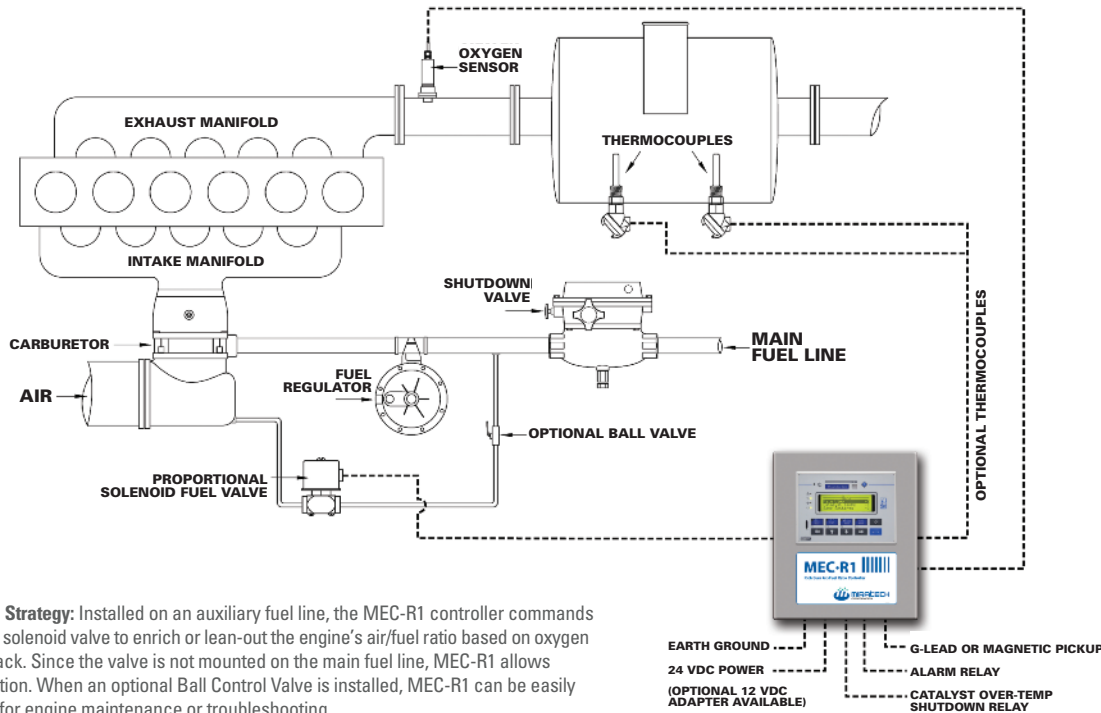
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MEC-R1: THE WORLD'S SIMPLIEST AIR/FUEL CONTROLLER.

The MEC-R1 air-fuel ratio control system is the simplest controller of its type on the market.

Set it and forget it: Enter a single setpoint target, and the system starts controlling the air-fuel mix – automatically.

Specifically engineered for low-horsepower, gaseous-fueled, carbureted, rich-burn industrial engines running with stable loads, the MEC-R was designed smart – for pure simplicity.



Smart Control Strategy: Installed on an auxiliary fuel line, the MEC-R1 controller commands a proportional solenoid valve to enrich or lean-out the engine's air/fuel ratio based on oxygen sensor feedback. Since the valve is not mounted on the main fuel line, MEC-R1 allows failsafe operation. When an optional Ball Control Valve is installed, MEC-R1 can be easily taken off-line for engine maintenance or troubleshooting.

Benefits

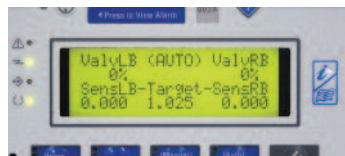
- Ideal for stable-load, low-horsepower applications with permit emissions limits as low as 0.5 g/bhp-hr – and variable load applications with permit limits as low as 1.5 g/bhp-hr.
- Fast, easy installation.
- Minimal operator training required.
- Fully automatic – no operator required in normal operation.
- On-screen help for setup and navigation.
- Comprehensive fault diagnostics.
- Ongoing compliance assured.
- Improved engine and emissions control performance.
- Better fuel economy in some applications.

Technical Features

- Microprocessor-based controller with a single setpoint.
- Setup and operation done entirely through the 4 Line x 20 Character Display – enclosure-mounted or remote.
- Heated exhaust gas oxygen sensor for optimum AFR control.
- Optional Post-catalyst oxygen sensor input for real-time adaptation to changing catalyst performance.
- Optional Pre- and Post-catalyst thermocouple inputs for catalyst temperature monitoring and over-temperature protection (ungrounded Type K thermocouples).
- Pre-/Post-catalyst differential temperature displayed (when optional thermocouples are used).
- Magnetic pickup or G-Lead ignition input for engine operating reference.
- Proportional solenoid control valves used for quick response.
- Separate alarm and shutdown dry-contact, DPST relays, 4 amp at 250VDC.
- NEMA 12 enclosure, 10"W x 13"H x 5"D.
- 24VDC, 4.8 amp max (application specific). Optional 12VDC.
- Upgradeable to command multiple setpoint targets and accept additional end devices.



Home Menu



Main (Default) Menu



Target (Rich/Len) Adjustment



Catalyst Temperatures



Alarms

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