## **MeterPAK**

# Fuel-Air Ratio Control for Linkageless Boilers



### Field-Flexible

Select the features you need, in the field, when you need them

- Firetube or Watertube
- Position Feedback or Full Metered
- O2 Monitoring or Trim
- VFD Control
- FGR Control
- Opacity Monitoring with Trip Option
- Stack Temperature Monitoring with Trip Option
- Efficiency Calculation



#### SATISFY PLANT DEMAND

MeterPAK delivers tight control during large or sudden load swings as well as steady-state operation, and includes cross-limits and other features to ensure the safety of your plant and personnel.

#### **MAINTAIN PEAK EFFICIENCY**

MeterPAK provides continuous adjustment and independent modulation of fuel and air to maintain the optimum fuel-air ratio at all times, improving your boiler's efficiency and reducing energy consumption.

#### MAXIMUM RETURN. MINIMUM INVESTMENT.

MeterPAK is suitable for new boilers or retrofitting existing control systems. And you only buy what you need: we don't force you to replace existing, functional Burner Management systems or field equipment, or use a specific manufacturer to get results. Standard features ensure you can get up and running in no time - and keep you operational. And MeterPAK's modular design means it's easy to maintain and repair.

- Modbus Communication
- ➤ Single-point, isolated I/O
- Optional color touchscreen with 100% operational backup
- ➤ Interface to BMS ours or theirs
- 2-year warranty



#### TAKE CONTROL WITH MeterPAK

Ensuring a safe and consistent steam supply for your plant is critical. But we also know that in today's economic climate, you have a budget to consider for total installed cost.

#### Feature-Rich & Cost-Effective

MeterPAK allows you to choose your control strategy and enable options in the field, as your field devices and budget permit, without adding hardware, reprogramming the controllers, or buying licenses. Demand signal source (drum pressure or plant master) can be selected from the front panel without reprogramming. Separate fuel-air curves and independent settings for lightoff and low-fire allow you to easily switch between fuels. Add opacity, FGR control or variable retransmission at any time. Options can be enabled via the controller keypad, the color touchscreen, or TunePAK software.

MeterPAK includes many standard features that other companies offer as extra-charge options, such as fuel flow totalization and indication, VFD control output and Modbus RS-485 for communication to a PC or HMI panel.

#### **Safety First**

The one thing you need to be inflexible about is safety. Protecting your plant, your process and your personnel is of first importance. Standard features and checks to ensure maximum safety from installation to operation include:

- Deviation limits on position feedback
- Minimum & maximum O2 trim limits and O2 Trip
- Cross-limits to prevent a fuel-rich combustion mixture
- High stack temperature and high opacity trip
- Automatic switch to manual based on air controller, safety system status, and alarm interlocks
- Data quality checks and self-diagnostics
- Burner safety shutdown interlocks

#### **Easy Setup & Tuning**

TunePAK PC-based software lets you set up and tune your MeterPAK controllers so you're ready to start up as quickly as possible. Once you've finished, you can save all settings in a file locally, with the option to store on our secure server. You can retrieve and restore them at any time - no need to re-enter values if you have to replace a controller or duplicate an installation. TunePAK is available for download on the MicroMod website.





#### Flexible Operations

MeterPAK controllers have bright, integral displays that provide complete operations capability, alarm indication, and setup menus without the need for a separate operator interface.



The optional color touchscreen allows total operation and setup, and is completely backed up by the controller displays, so you're never running blind. All MeterPAK parameters can be entered from the password-protected setup screens. The built-in data logger records process values as well as alarms and events, and the built-in web server allows remote personnel to monitor as well as control from virtually any networked device. It can also alert personnel about existing or pending issues via email or SMS text messages to ensure problems are addressed quickly in order to minimize downtime.