



## ControlLinks™ Fuel Air Control System Go Linkage-less

*Enjoy the accuracy, efficiency, features and price of microprocessor-based fuel-air control*

Now you can get more from fuel-air control in power burner applications. Greater accuracy. More efficient burners. More features. Less service time. Less down time. And a reasonable price.

How? The Honeywell ControlLinks™ system. It gives superior performance and quality over conventional jackshaft systems with the benefits of a microprocessor-based fuel-air control.

### Key features

Honeywell's linkage-less system gives you important advantages over mechanical systems.

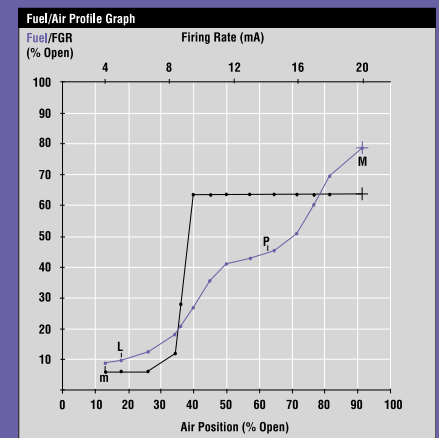
- **Controls to 0.1 degree accuracy** across two independent fuel air curves for greater efficiency. The upshot: reduced energy costs, less environmental impact



Improve performance, drive down costs. The Honeywell ControlLinks™ system controls the relationships between fuel flow, airflow and flue gas recirculation (FGR) on a single- or dual-fuel power burner. The system optimizes combustion efficiency.

- **Reduced set-up time** for OEMs and onsite contractors. A contractor, for example, can complete setup for a two-fuel system in just 4 to 6 hours compared to the 8 to 16 hours when jackshafts are used
- **Easier and faster** to service than mechanical cam and linkage assemblies with many moving parts
- **Innovative safety features** include a unique feedback potentiometer circuit, component anti-swap protection and curve verification algorithms
- **Basic LED diagnostics** speed troubleshooting and reduce downtime. Get full diagnostics information through a PC or laptop

### Maximum efficiency.



One-fuel with FGR curve. Get optimal combustion efficiency and savings.

In a major advantage over jackshafts, the ControlLinks system allows contractors, users and burner designers to develop *entirely independent combustion curves* for each fuel.

The ControlLinks system uses:

- Unique air curves and fuel curves
- Different light-off points
- Different minimum and maximum modulation points

Compare that with traditional jackshaft systems used on power burners. They use a single-source modulation point, so fire-rate curves for two fuels are interdependent-and less precise. Plus, the everyday wear and tear on components in mechanical assemblies erodes accuracy.

Get superior performance and quality at a competitive price. Ask for the Honeywell ControLinks™ Fuel Air Control System on your new burner equipment.

### System components

The Honeywell ControLinks System consists of a Fuel Air Ratio Controller, up to four Universal Parallel Positioning Actuators, Wiring Subbase and commissioning software.

### Description

The **R7999 Fuel Air Ratio Control**, when commissioned, monitors and controls the burner fuel and air flows to maintain proper combustion. The R7999 provides LED status for power, alarm and motor drives. Included with every device are fault-annunciating LEDs that are accessed by pressing and holding the reset button. Voltage rating of 100 to 120VAC +10/-15%, frequency rating of 50/60Hz± 10% and ambient temperature rating of -40 to 140°F support a broad range of applications. The system requires a 4-20 mA input, which the P7810C Solid State Pressure Control can provide.

The **Q7999 Wiring Subbase** is a panel-mounted subbase for the R7999 Fuel Air Ratio Control. All wiring is to the subbase for ease of installation.

The **ML7999 Universal Parallel-Position Actuator** provides 100 lb.-in torque to control combustion air dampers, modulating fuel valves, oil modulation valves, and flue gas recirculation (FGR) dampers. The actuator provides a precision potentiometer feedback to the R7999 fuel air control to support accurate positioning of valves and dampers to optimize burner performance. The ML7999 integral power supply uses line voltage for power and supports a broad application of 100 - 240 Vac +10%/-15% 50/60 Hz±102.

The **ZM7999 Commissioning Software** is required to configure the R7999. The ZM7999 Commissioning

Software is Windows 95/98 compatible. The software uses online step-by-step instructions to assist the service technician with the setup of the fuel, air and FGR (if used) on the burner. The ZM7999 can also be used as a service tool to access fault history information from the R7999. A separate ZM7999 is not required for each Fuel/Air Ratio Control System. It is only required during configuration or service if changing the control.

### Hardware/software requirements

The commissioning process requires the use of the ZM7999 ControLinks Commissioning Software running on a laptop or PC with a minimum operating system of Windows 95. Additional minimum requirements:

- Pentium-class processor (or equivalent)
- 16 megabytes of RAM
- 1 gigabyte hard drive with 100 megabytes of free hard-drive memory
- The PC or laptop must have a RS232-to-RS485 converter to communicate with the R7999
- Shielded cable is recommended as interface wiring

### Broad product line

When you choose Honeywell, you can enjoy the convenience of one-stop shopping and the savings that come from single-sourcing. And you get Honeywell quality, reliability and technology leadership.

### Learn more

For more information, contact your Honeywell representative, go to [www.honeywell.com/bbc](http://www.honeywell.com/bbc) or call 1-800-345-6770, ext. 423.

### Home and Building Control

In the US: Honeywell, 1985 Douglas Drive North, Golden Valley, MN 55422-3992

In Canada: Honeywell Limited, 35 Dynamic Drive, Toronto, ON M1V 4Z9



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[www.honeywell.com](http://www.honeywell.com)