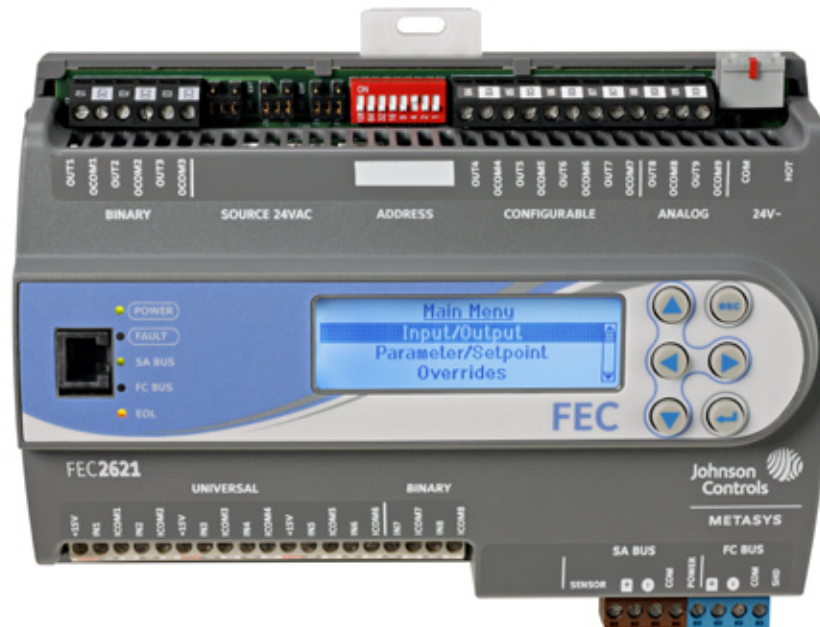




# Field Equipment Controllers



- Supports peer-to-peer communications
- Continuous Tuning Adaptive Control provides more efficient control and reduces level of manual intervention
- Advanced diagnostics for failure detection, resolution and prevention
- Standard packaging and terminations simplify installation
- Compatible with 9th edition of the UL Standard 864 for smoke control
- Field Equipment Controllers have been tested by the BACnet Testing Labs (BTL) and are certified as BACnet Application Specific Controllers

The Metasys® Field Equipment Controllers (FEC) are a complete family of BACnet® compatible field controllers and accessories designed with the flexibility to meet a wide range of your HVAC control applications. Built on the ASHRAE standard for building automation system control and communication, these controllers support Johnson Controls commitment to open communication standards and greater control options for you. The FEC family includes the 10-point FEC1600 and the 17-point FEC2600, as well as I/O expandability and VAV application specific controllers, all seamlessly integrated with the Metasys® building management system. FEC Controllers are available with LCD display.

Advanced Technology

Johnson Controls has developed the FEC family on solid, advanced technology. It all starts with a finite state control engine that serves as the foundation for all controllers. This finite state engine eliminates the classic cycling problem between heating and cooling resulting in lower energy costs.

The continuous tuning function of our Pattern Recognition Adaptive Control (PRAC) algorithm provides improved control performance by eliminating oscillating and sluggish control loops. It reduces commissioning time as well, automatically adjusting to seasonal change. And no operator intervention means reduced operating costs.

Our Proportional Variable Deadzone Controller (PVDC) is an adaptive flow controller applied to constant speed actuators. By expanding the control band based upon the amount of input noise, there is less hunting with reduced wear and tear on the mechanical system components.

For staged or on/off controllers our Pulse Modulated Adaptive Controller (PMAC) controls within a given band while minimizing the amount of cycling. This results in improved comfort and reduced maintenance costs.

Finally, the FEC family of controllers supports Bluetooth® wireless communications for commissioning and troubleshooting. This means that there is no need to be tethered to a device located high in the ceiling or squeezed into the back of a dusty equipment closet.

FEC Controller Family

The FEC family features configurable controllers, expanded capacity through input/output modules and an application-specific variable air volume controller. All of the devices in the FEC family communicate using standard BACnet protocol and integrate seamlessly into the Metasys building management system for a powerful building control solution.

Metasys® is a registered trademark of Johnson Controls, Inc.  
 LonWorks® is a registered trademark of Echelon Corp.  
 BACnet® is a trademark of the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.  
 Bluetooth® is a registered trademark of Bluetooth SIG, Inc.



FEC1600

- 10 point application configurable controller
- Fan coil unit control
- Heat pump unit control
- Unit ventilator control



FEC2600

- 17 point application configurable controller
- Large unitary controls
- Air handling units
- Roof-top unit control



Input/Output Modules

- Expands controllers for larger applications
- Flexible configurations: 4, 6, 12 and 17-point expandability
- Integrates at both field and supervisory levels



VMA1600

- Integrated actuator and flow sensor
- Support for single and dual duct applications
- Cooling only and cooling with reheat models available
- True digital control

