



Em-400

Stand-Alone Compressor Controller

The Em-400 Stand-Alone Compressor Controller combines field-proven multi-loop surge protection with a built-in live surge map display resulting in an easy to use, feature-rich control system. This system may be used for single and multiple-body compressors.

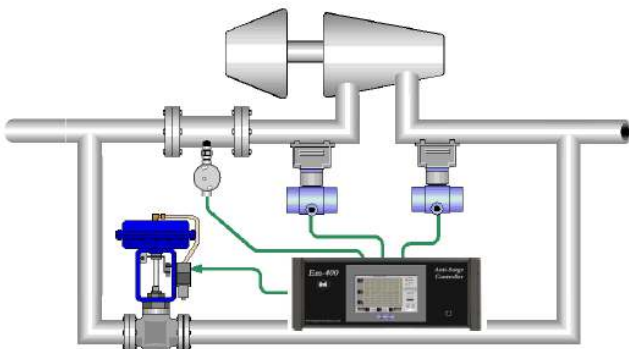


Petrotech Surge Control

Utilizing the field-proven Petrotech, Inc. surge control algorithm, the Em-400 provides a stable, robust, and practical approach to compressor and surge control applications. The Petrotech algorithm provides accurate surge control by defining the surge point over a wide range of process gas conditions which results in optimum surge protection and eliminates unnecessary recycling. The advanced Petrotech surge protection method automatically compensates for changes in molecular weight, temperature, compressibility, pressure, and compressor rotor speed. The Em-400's configurable software is based upon Petrotech's experience gained in providing thousands of compressor control systems spanning over 40 years.

Em-400 Features

- Petrotech Field-Proven Surge Control
- Multi-body Control
- Standard Fallback Strategies
- Performance Control
- Ethernet and Serial Ports
- Built-in Touch-Screen
- HMI Alarm Logging



The System

Deployed successfully since the early 1990's in PLC (Programmable Logic Controller) based control systems, the Petrotech surge control algorithm is a stable and field-proven application. The Em-400 Stand-Alone Controller incorporates the Petrotech surge control software into a 4U (7 inch high) rack-mount. It has the ability to operate independently or as a part of a complete train control system.

Mounted on the front of the Em-400 is the touch-screen graphical user interface or HMI (human machine interface). This display provides access to all user settings and system configuration. The HMI provides alarm logs, trending and comprehensive system status displays. For those applications where redundancy is needed, the Em-400 also provides easy redundant controller option.

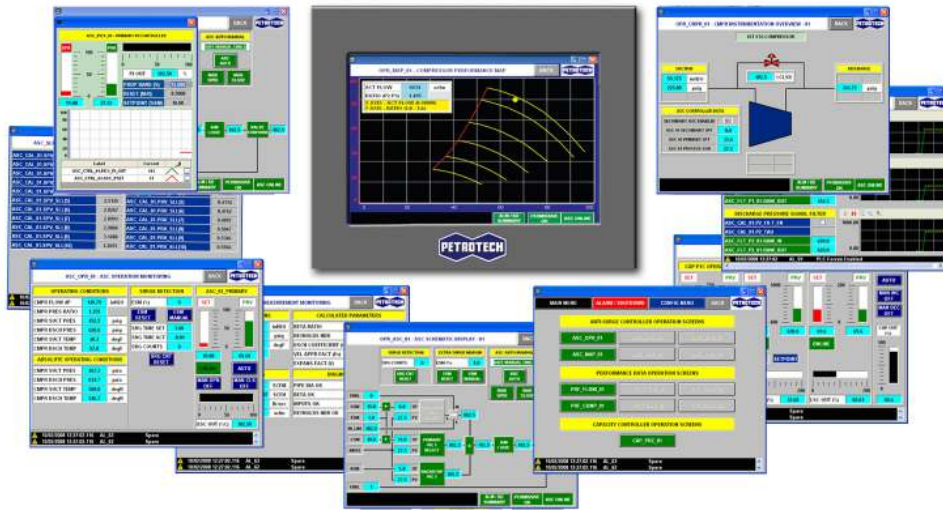
System options include:

- Capacity Control
- Load Sharing
- Recycle Transfer Control
- Pressure Override Control

As a full service supplier, Petrotech also provides recycle valves and valve sizing services to complete a compressor control retrofit.

The Em-400's HMI display, built into the front panel, gives the operator an accurate picture of the compressor performance and eliminates the need for a separate display system.

The Em-400 Stand-Alone Compressor Controller



List of Features

The following features are expected on most stand-alone surge controllers, including the Em-400.

Similar Features

Surge Control, Load Sharing, Pressure Ratio, Fallback Strategies, Adaptive Gain, Decoupling, Setpoint Hover, Safety Margin Auto-Adjustment, Capacity Control, Slam Track Prevents Reset Windup, Multiple Algorithm Selection, Guide Vane Correction, Valve Conforming, Pre-Surge Detection Logic, Asymmetrical Damping, Adjustable Ramp Rates, Input Filtering, Molecular Weight Compensation, Auto Only/Hard Manual/Safe Manual Option, Redundancy, Positive Shutoff, Front Panel Operator Interface, Bar-Graph, Numeric Values, Setpoint Adjustment, Start/Stop, MODBUS Communications, Serial Communications, Wireless Ethernet, Load Sharing, Compressor performance, Remote Monitoring, Event Playback and Recycle Valve Pre-Stroke Test.

The following features can only be found in the Em-400 product offering.

List of Em-400's Unique Features

Built-In Color Touch Screen HMI Display, Live Compressor Map, Recycle Transfer Control (RTC), Up to Three Recycle Loops in a Single System, Secondary Surge Controller, Backstop Control, Built-in Sequence of Events Logging/Display, Alarm History, System Overview Graphic, Default Ethernet Communications, Trends, Front-Mounted Ethernet Service Connection and First Out Status.

Petrotech provides a full range of products and services for rotating machinery. We provide integrated control systems for gas, hydro and steam turbines, generators, compressors, pumps, reciprocating engines and all associated auxiliary systems. Also installation, startup, and commissioning services for a full turnkey solution.

For more information about Petrotech's products and services, visit our website at www.petrotechinc.com.



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