

# PL4000

## CONTROL MANAGEMENT SYSTEM FOR COMPRESSED AIR & REFRIGERATION

The PL4000 stabilizes pressure providing our customers with outstanding energy and cost savings, operating efficiency, increased productivity, and improved process related quality.

**Saves 15-40%**

*of the total electrical costs associated with Compressed Air and Refrigeration*



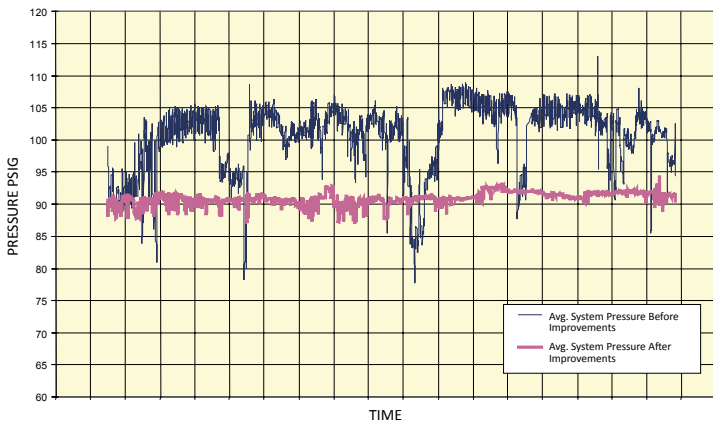
### FEATURES AND BENEFITS OF THE PL4000:

- Delivers a typical ROI of 12-18 months.
- Multiple compressor management and control System, capable of controlling both positive displacement and dynamic compressors simultaneously: the PL4000's prioritization system allows selection and operation of the optimum groups of compressors for any given demand.
- Uses an advanced priority scoring system for real-time staging of compressors against the required demand and pressure; a compressor's priority is dynamic: changing with time, based on system and external influences.
- Productivity and reliability is increased, reducing down time and maintenance costs.
- Provides a powerful monitoring and trending system: compressor power (kW), flow (SCFM, TR) and pressure (psig), all monitored and trended on-screen. Additionally, all data is downloadable through a simple graphical user interface menu.
- SCADA server ready for client connection to plant wide information systems.



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Example of System Pressure: Before and After Pneu-Logic Technology



### COMPRESSED AIR

Integrates with all components of compressed air systems:

- Compressors: variable speed, load/unload, variable displacement, sliding vane, multi-step reciprocating, centrifugal
- Pressure/Flow controllers
- Air dryers
- Ancillary equipment such as water pumps and cooling fans

### REFRIGERATION

Integrates with all components of refrigeration systems:

- Compressors: variable speed, slide valve, reciprocating
- Condensing units: fans, pumps
- Evaporator fans and pumps
- Hot-gas bypass valves
- Low-pressure circulation pumping systems

### COMPRESSOR INTERFACES

The PL4000 can control and monitor any compressor, whether it be an older discrete wired compressor from the 1970's or a new PLC microprocessor controlled compressor. It is not necessary to have similar makes, models or types of compressors; the PL4000 can mix and match as needed.

### DATA COLLECTION

All metrics including system flow, true power and pressure are stored in a text file format and are available for download using a variety of methods. Data storage is only limited by the size of the memory media.

### KEY PERFORMANCE INDICATORS

Key Performance Indicators (KPIs) are central to sustain energy savings. The PL4000 allows custom ratios of sensor monitoring points to customize KPIs that are meaningful to you and your facility. All data monitoring points and KPIs are logged for data download in text file format, which can easily be imported into a spreadsheet or data base program.

### DCS INTEGRATION

The PL4000 is made to communicate with the outside world. Not only is there a SCADA server present, but also an FTP and web server for interaction with standard web browsers. Proprietary DCS systems can also accommodate custom communication interfaces.

### OPTIONAL FEATURES

Analog I/O points are available for monitoring additional sensor metrics within the compressed air/refrigeration system, or for control of other components. The number of additional analog I/O points is unlimited and sensor metrics are available for on-screen trending and reporting.

