



Intelligent Solutions for Compressed Air Systems

PL4000

COMPRESSED AIR MASTER CONTROL SYSTEM



The PL4000 (*Patent Pending*) provides our customers with the greatest possible compressed air energy and cost savings, operating efficiency, increased productivity and improved process related quality.

THE PL4000 MASTER CONTROL SYSTEM:

- Is a 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 group of compressors for any given flow demand.
- Stores production data in terms of cumulative airflow and consumption and historical high and low air pressure by the hour, day and month. All data is downloadable through a web browser connected to the PL4000.
- Saves, on average, 15-30% of the total compressed air electrical costs for any given facility.
- Can have a significant impact on productivity. Pneu-Logic customers have experienced productivity increases from 0.5-1.5%.

- Is a powerful monitoring system including but not limited to the following metrics and KPIs:

METRIC	KPI
◇ System Flow	◇ acfm/ kw
◇ True Power	◇ \$/ 1000 cu. ft.
◇ Pressure	◇ cu. ft./ lb. product

- 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.
- Typically results in an ROI of 12-18 months.
- Is ready for SCADA server/client connection to plant wide information systems.



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TECHNICAL DATA

Power	115VAC, 50/60 Hz
Enclosure Dimension	36" x 48" x 12"
Weight	150 lbs
Pressure Sensors* (typical)	0 to 200 psig
Temperature Sensors* (typical)	0° to 200°F
Power Sensors*	Customized
Flow Sensors*	Customized
Sensors Power	24VDC
Sensors Signal	2 wire, 4 to 20 mA
I/O Communication	Modbus TCP Profibus Custom (unlimited)
No. of Compressors (max)	Unlimited
Compressor Systems (discrete)	Unlimited
Compressor Types	Rotary Screw Centrifugal Reciprocating Other
Reporting	Customized
Alarm Functions	Customized
Internationalization	Fully i18n
Approvals	cUL, CSA, CE

*PL4000 sensors are largely customized for each customer facility.



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.

PRESSURE FLOW CONTROLLERS / VSD COMPRESSORS

The PL4000 integrates well with pressure stabilizing devices, such as pressure/ flow controllers and variable speed compressors. The integration with these devices can range from simply dictating the pressure set points to taking complete control of the device.

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 different methods. Data storage is only limited by the size of memory media.

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 any additional sensor metrics within the compressed air system or 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.