

Compressed Air Control System

ESP 20/20



The new modular design includes a flange mounted controller and operator interface device with an optional NEMA 4/12 enclosure. Compressor interfaces are accomplished with local compressor mounted modules that communicate with the central controller via a two wire network.

ESP 20/20

THE GARDNER DENVER ESP 20/20 Central System Controller features a main processing unit with a graphical touch-screen Human/Machine Interface that will manage from 2 through 12 air compressors. The base control features the exclusive Bullseye control scheme that uses the Gardner Denver Rate of Pressure Change control algorithm to efficiently add and delete compressors while maximizing the use of control storage (when used in conjunction with the Gardner Denver XMX Demand Expander). The base unit can include Demand Expander control as an optional feature.

The ESP 20/20 controller will manage rotary screw, reciprocating and centrifugal compressors in a common compressed air system providing the following field selectable control schemes.

Rotational Sequence

This basic control feature provides for a rotational sequence that is best applied to compressors of like size, rotating the operation of each compressor to equalize wear. The sequence of operation and sequence interval are operator selectable.

Custom Sequential

Custom sequences can be operator entered and edited to provide a manual sequence when desired.

SUPER ENERGY SAVER OPTIONS

Base Expert

The Gardner Denver exclusive Base Expert control sequence is designed to be used with compressors of different size and capacity where the sum of the trim compressor capacities exceed the size of the largest base compressor capacity. Schemes are available for compressors piped behind and after Demand Expanders. This control scheme adds and deletes base compressors as required, keeping the smaller and more efficient compressors in a trim position.

Dynamic Expert

Dynamic Expert is another Gardner Denver exclusive control sequence for use when compressors are of different size and capacity and the trim compressor(s) do not exceed or equal the size of the largest base compressor. This intelligent algorithm determines if and when a smaller compressor can perform in the lead position by replacing a larger partially loaded compressor in the sequence.



Technical Data

ESP 20/20

Specifications

Power	115VAC, 50 or 60 Hz 25 Watts Maximum
Dimension	8.5" X 11" X 6" Deep
Weight	5 lbs.
Enclosure (Optional)	16" X 16" X 8" NEMA 4/12
Pressure Sensor	0-150 PSI, 4-20 mA 2 Wire
Graphical Display	Color Touch Screen
I/O Communication	Compo Bus "S"
Remote I/O Compressor Wiring	22 Gauge Shielded Cable
Maximum Number of Compressors	12
Compressor Types	Reciprocating Rotary Screw Centrifugal
Control Steps	2, 3 and 5 Step Control
Alarm Output (Optional).....	2 Amp NO Isolated Contact

Compressor Interfaces

The ESP 20/20 Controller will interface with any conventionally wired compressor of two, three or five step control. Approved interfaces are available for most OEM microprocessor based compressor controllers.

Demand Expander Control

The ESP 20/20 can be ordered to control one single valve or two valve Demand Expander. Optionally, additional Demand Expanders can be added to the controller.

Optional Features

- Additional Analog Input Devices (up to 16)
- Demand Expander Control
- Media Storage Device for Data Logging and Event Logging
- Automatic Report Generator Communicating through:
 - Ethernet
 - Serial Modem (email)
 - Device Net
 - Other
- MIS or Scada Integration



Gardner Denver®

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