‘Enercon’ Management Controllers – T39

ENERCON "S & SX" SERIES MANAGEMENT CONTROLLERS

The central element of the EnergAir™ compressor Management System is the Enercon system controller.

The Enercon S & SX series are specialised supervisory and control units designed to provide management of air compressors under optimised pressure control and compressor utilisation.

Range:

Enercon S2	up to 2 compressor units	Y04ENER08.00
Enercon S4	up to 4 compressor units	Y04ENER09.00
Enercon SX5	up to 5 compressor units (expands to 12 using options)	Y00ENER03.00
Enercon SX8	up to 8 compressor units (expands to 12 using options)	Y00ENER18.00

The flexibility of the Enercon series, and its range of interfaces, means that most types of compressors can be controlled, including rotary screw, vane and reciprocating types in load/unload, multi-step and variable speed configurations.

Using microprocessor control, high accuracy electronic pressure sensing and a single pressure band control philosophy, the Enercon series controllers offer a range of intelligent options to optimise system characteristics and reduce energy costs associated with compressed air systems.

These options are described as follows:

Pressure Optimisation

Pressure optimisation has a dramatic effect on overall system efficiency. As an example: a 0.5 bar decrease in the operating pressure of a system will typically produce a 5.25% reduction in the overall cost of electricity consumed by the system.

Control Optimisation

Demand matched compressor selection ensures that the most efficient compressors are employed. In addition, the ability to customise sequence selection and fine tune system operating pressure means that further significant operational cost reductions are achieved.

Leakage Optimisation

By allowing the user to pre-set system operating times and/or air system pressure and demand changes, the Enercon series cuts unnecessary wastage/leakage costs.

Operating Facilities Offered by the Enercon:

Maximum Efficiency mode:

This operation mode is suited to installations with compressors of different capacities operating with a variety of system characteristics. The Enercon SX series will select the most efficient combination of compressor capacities to suit a given demand.

Equalised Running Hours:

The Enercon can be set to sequence each compressor so that the running hours of all compressors in the system are similar over a period of time. Routine maintenance can then be synchronised.

Priority Settings:

When operating in the standard sequence rotation mode each compressor can be assigned a sequence priority, which will modify the sequence selection order. Priority can be used to achieve maximum efficiency of compressors, which have different capacities or where a particular compressor or number of compressors needs to follow a different strategy from the normal sequence.

Pressure balancing:

When managing multiple compressor stations where an imbalance in system pressure occurs in the distribution pipe work between the stations, pressure balancing allows the Enercon to use more than one pressure reference as its target and utilise compressors in each station accordingly.

Enercon Expansion options:

System I/O Expansion modules

The standard Monitoring, Control & Optimisation capabilities of the Enercon Series management controllers are expandable, via system expansion modules (or I/O), to additional compressed air equipment, including compressed air filters, dryers, water pumps and cooling fans. Additionally, I/O expansion modules can be used to gather and monitor information from sensors including pressure, temperature, bearing condition, flow, filter differential and dewpoint sensors.

This capability ensures total air system automated monitoring, control & optimisation.

Enersoft PC Visualisation:

Enersoft is a PC based software package for Visualisation & Analysis of the EnergAir™ compressor Management system.

Providing a tailor made and ready to use solution for control, monitoring, trending, efficiency management and reporting of compressed air key performance indicators.

Enersoft is available in all language fonts that the resident PC's operating system supports.

*** See over for a table of product specific features & options**

Model	S2	S4	SX5	SX8
Maximum number of compressors:				
2	✓	✓	✓	✓
4		✓	✓	✓
5			✓	✓
8				✓
12 (via RS485 communication port & hardware option)			✓	✓
Type of Compressor regulation:				
Fixed Speed Compressor	✓	✓	✓	✓
Variable Speed Compressor			✓	✓
Variable Load (e.g. multi step piston used in P.E.T. application)			✓	✓
Compressor Connectivity:				
Interface iPCB	✓	✓	✓	✓
RS485 (with option PCB)	✓	✓		
RS485 (standard)			✓	✓
Maximum System Pressure:				
Up to 600bar (8700psi)	✓	✓	✓	✓
Operating Mode:				
Timer Rotation	✓	✓	✓	✓
Equal Hours Running		✓	✓	✓
FIFO			✓	✓
Energy			✓	✓
Pyramid			✓	✓
Enercon Functions:				
Rotation Timer	✓	✓	✓	✓
Priority Selection		✓	✓	✓
System Pre-fill		✓	✓	✓
Inbuilt Real Time Clock:				
Time Display			✓	✓
System Standby			✓	✓
Target Pressure Change			✓	✓
Auxiliary Input Remote Control Function:				
System Standby	✓	✓	✓	✓
Target Pressure Change		✓	✓	✓
Auxiliary Input Connectivity Options:				
PLC/BMS/EMS contact	✓	✓	✓	✓
Time Clock (External)	✓	✓		
Manual Override	✓	✓	✓	✓
Alarm Beacon	✓	✓	✓	✓
Remote Output Contact:				
Function Selectable	✓	✓	✓	✓
RS485 Comm.'s Options (S2 & S4 require RS485 Comm.s PCB)				
2 x I/O Box expansion & annunciation on Enercon display		✓	✓	✓
8 x I/O Box expansion & annunciation on Enercon display			✓	✓
PC Visualisation (Enersoft)	✓	✓	✓	✓

For further information on the range of interfacing, I/O, sensors & PC solutions from EnergAir™, please consult the relevant Product Factsheets. Product Factsheets can be downloaded @ www.energair.com