

# Concerto & Quartetto

COMPRESSED AIR MANAGEMENT SYSTEM



# CONCERTO

## System

### CONCERTO: complete control and absolute flexibility

Numerous compressor stops and starts, energy wastage and wide variations in the compressor operation represent common problems in many compressed air systems.

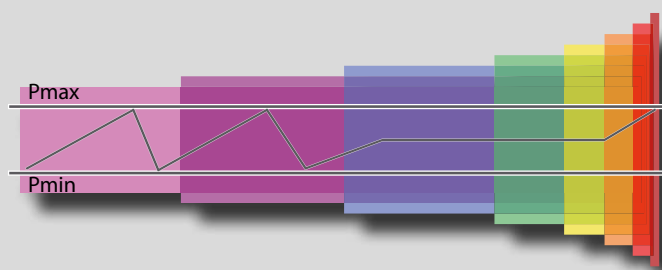
Concerto is Mattei's state-of-the-art compressed air management system, designed to satisfy any requirement of a compressed air user, regardless of the type of compressor installed. By the use of customisable functions the device allows the simultaneous command and control of **up to 16 compressors**, limiting the idle running times and optimising the customer's choice. Concerto enables **energy savings of over 35%**.



### A system in perfect harmony

**Concerto** can control compressors with different performances and functions, including those systems already installed, by automatically adjusting compressed air production according to the unit's air requirements.

The system automatically calculates the network's size, displaying the unit's key energy efficiency parameters and constantly monitoring management costs, this can also be viewed online.



## Constant cost monitoring

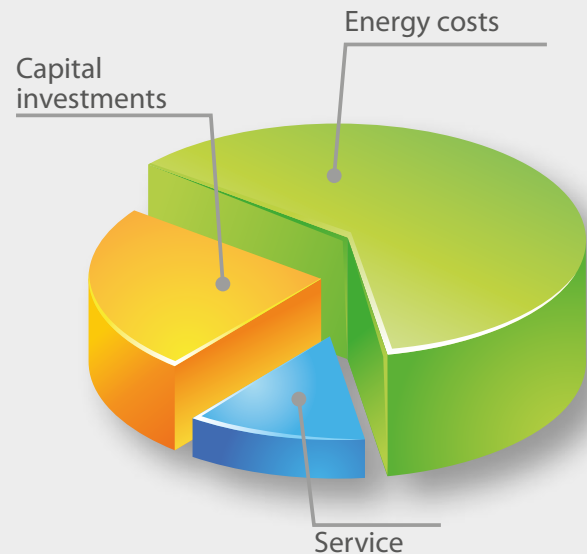


It is crucial for industry today to be aware of the availability and importance of a system that controls, manages and measures compressed air production systems.

The energy costs incurred during a compressor's entire life cycle are higher than those involved in the purchase and maintenance of the equipment.

Compressed air production systems evolve over time, and different (sometimes very different) compressors are frequently found in the same system.

**Concerto** is specifically designed to control and monitor compressor rooms, achieving the perfect harmonisation of all types of units. Concerto **optimises the costs and ensures safe and cost-effective compressor operation.**



### IMMEDIATE SAVING

Regardless of the combination and model of compressors, Concerto always selects the most economical configuration, maximizing the plant efficiency.

**Concerto** controller extends the life of your compressors, guaranteeing the **lowest number of motor start ups, and eliminating idle running times almost completely.**

### AN INTELLIGENT SYSTEM

**Concerto** requires only a few programming parameters and it works the rest out itself, enabling a combination of different compressors with different performances to perform efficiently by aligning production and consumption values.

A large display facilitates system programming, making it simple and intuitive.

## All-in-one management



Dryers, filters and condensate treatment accessories can be directly connected to the system via digital inputs. In the same way analogue output sensors can be connected, in order to monitor the entire compressed air system.

Due to this Concerto provides an extremely wide range of information regarding the plant management, which is also viewable via web server.





# CONCERTO

## System

### CONCERTO



#### efficient and modular

**Concerto** provides configuration flexibility, allowing numerous operating combinations. The control modules enable the control of up to 16 compressors of different types and from different manufacturers.

Concerto also manages and monitors **variable speed inverter compressors, ensuring operation within the maximum efficiency range.**

With this dynamic management system, it is the system's productivity that determines the best compressor combination to be started.



- Over 35% total savings
- Reduces energy costs related to idle operation by 99%
- Cuts maintenance costs by 30%
- Extends the compressor's life cycle by 50%
- Requires an investment of only 5%
- Constantly monitors unit operation

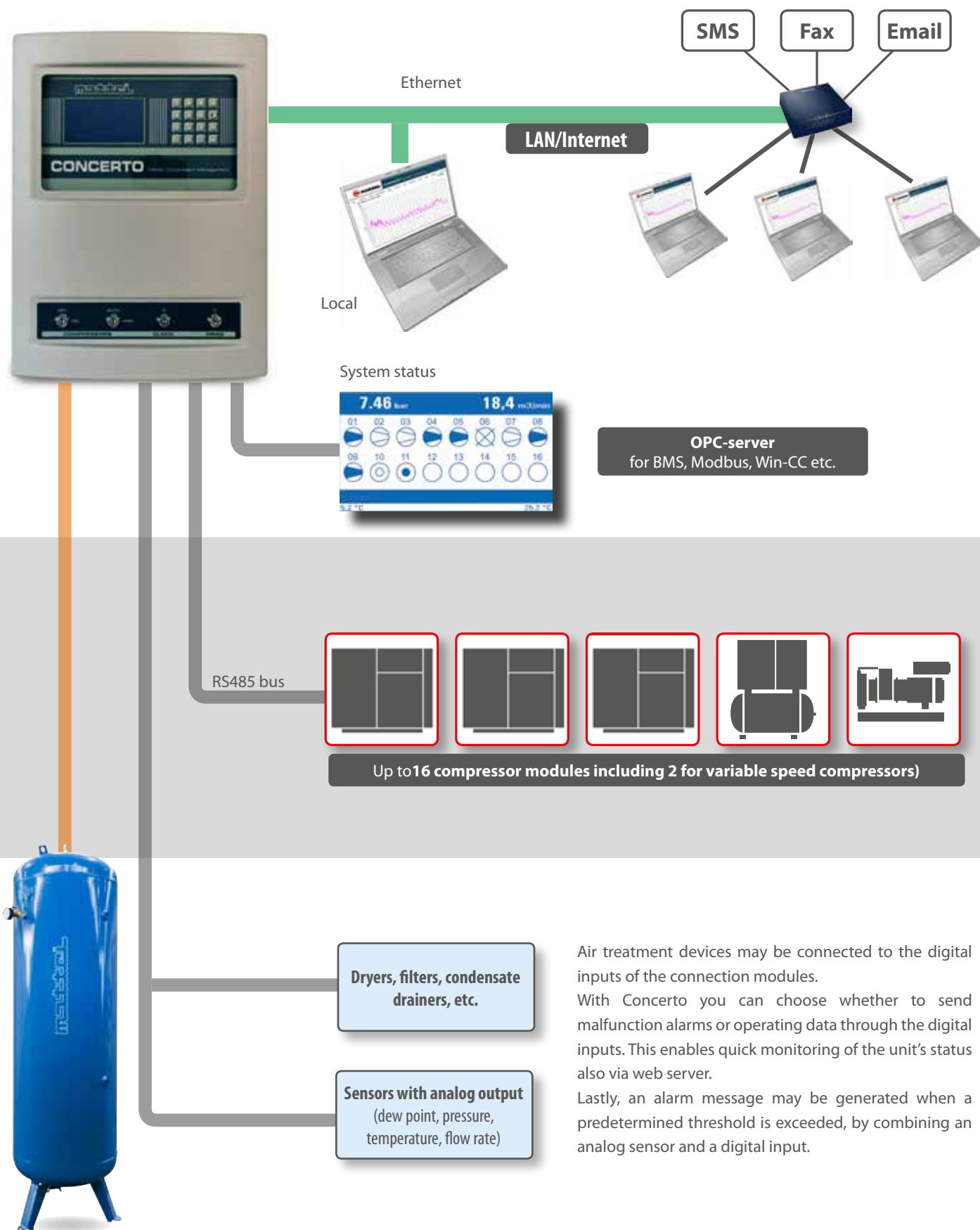
\* The data may vary according to the unit's distinctive features.

## Integrate communication

The main parameters, failure signals, maintenance intervals and energy consumptions can be directly displayed on a PC via a normal web server. This way the equipment can always be easily monitored and controlled in order to minimise unplanned events.

All of the data is collected on an internal long term storage device and is available to view in graph format for optimal system monitoring.





Pressure probe

Air treatment devices may be connected to the digital inputs of the connection modules. With Concerto you can choose whether to send malfunction alarms or operating data through the digital inputs. This enables quick monitoring of the unit's status also via web server. Lastly, an alarm message may be generated when a predetermined threshold is exceeded, by combining an analog sensor and a digital input.

# CONCERTO

## System

### QUARTETTO

When a production process requires variable amounts of compressed air or it is necessary to avoid any machine downtime, a controller optimises the compressed air system management.

**Quartetto**, obtained through a programmable controller, can control operation of more compressors, **up to max 4 units**, provided these are arranged with a remote start-stop control. It is not essential to drive exclusively Mattei compressors.

**Quartetto** can meet the line air demand and the working load for each compressor in the most efficient way and reducing the energy absorption.



### Operating mode

**Balance hours:** for installation consisting of compressors of the same power where you want to use the machines alternately and obtain even wear;

**Priority:** for installation where the installer / end user decides the priority of the compressor (ie the sequence of action) by assigning them a number;

**Smart:** operating principle to obtain the best performance by optimizing the power consumption (saving) for a plant always reactive to any changes in the pressure.



### Hardware

- ▶ Master controller with LCD display (2 lines, 16 characters) and LED;
- ▶ 230 Vac power supply;
- ▶ 4 digital outputs;
- ▶ Probe signal  $4 \div 20$  mA.

### Software

- ▶ Up to 4 different compressors (piston, screw vane, scroll,...);
- ▶ Weekly programming;
- ▶ Display of information in different languages;
- ▶ Sends any reports of system irregularities via SMS, e-mail or fax.



## Concerto



Power supply connection	
System	1~/N/PE
Voltage	90-230 V 50/60 Hz
Display	LCD-Display 240x128 Pixel
Interfaces	
Total compressor modules	16
Number of variable speed compressors that can be connected	2
Number of modules for sensors and accessories	8
Compressor connections	
Compressor connection	4 x RS485
Max serial line lenght	max. 1200 m
Client	1 x Ethernet
Storage card	SD card (1 GByte)
Temperature	
Operation and storage	0 - 45 °C
Casing	
Size	380 x 480 x 130 mm
Design	Plastic box for wall mounting
Protection index	IP 54
Weight	~4 kg
EMC conformity	
EN 61000-4-2 EN 61000-4-5	
EN 61000-4-3 EN 61000-4-6	
Concerto standard supply	Pressure probe - Integrated SD storage card - Documentation - Web-server system

Power supply	230 V~ ± 15% - 50/60 Hz
Consumption	~ 25mA
Protection degree	IP30
Insulation class	□
Working temperature	-5 ÷ 50°C with 90% RH (non condensing)
Storage temperature	-20 ÷ +70°C
Grey box: ABS auto - extinguishing (V0)	
Connections: screw terminals	
Nr. 3 function key + nr. 1 Start / Stop button	
Nr. 1 input for pressure transducer 4 ÷ 20 mA, working range 0 ÷ 15 bar	
Visualization through back-light graph LCD (128x64 dots)	
Nr. 1 time - keeper, accuracy 0,1% with no rechargeable buffer battery: electrical life over 10 years	
Nr. 4 relay with contact 8 (2) A- 250V~ for:	
Operating compressor 1-2-3	
Operating compressor 4 or alarm output with free contacts	
Quartetto can be provided with nr. 1 pressure transducer (working range 0 ÷ 15 bar or 0 ÷ 50 bar), 4 ÷ 20 mA 2 wire with stainless steel membrane AISI 316L	

## Quartetto







**ITALY - ING. ENEA MATTEI SpA**

Strada Padana Superiore, 307  
20090 VIMODRONE (MI)  
Tel + 39 02253051 - Fax +39 0225305243  
E-mail: info@mattei.it

[www.matteigroup.com](http://www.matteigroup.com)



**UNI EN ISO 9001:2015**

REV.0

**FRANCE**

MATTEI COMPRESSEURS  
Phone +33 535 542 205 - Fax +33 972 316 833  
E-MAIL: infos@mattei.fr - www.mattei.fr

**GERMANY**

MATTEI KOMPRESSOREN DEUTSCHLAND GmbH  
Phone +49 7151 5002560 - Fax +49 7151 5002565  
E-MAIL: info@mattei-kompressoren.de - www.mattei-kompressoren.de

**GREAT BRITAIN**

MATTEI COMPRESSORS Ltd  
Phone +44 (0)1789 450577 - Fax +44 (0)1789 450698  
E-MAIL: info@mattei.co.uk - www.mattei.co.uk

**U.S.A.**

MATTEI COMPRESSORS Inc  
Phone +1 410 5217020 - Fax +1 410 5217024  
E-MAIL: info@matteicomp.com - www.matteicomp.com

**RUSSIAN FEDERATION**

ING. ENEA MATTEI SpA  
Phone +7 499 1124877  
E-MAIL: mattei-rus@mail.ru

**SPAIN**

ING. ENEA MATTEI SpA  
Phone +34 93 435 03 94 - Fax +34 93 455 26 76  
E-MAIL: info@mattei.it

**PEOPLE'S REPUBLIC OF CHINA**

Mattei (SuZhou) Air Compressors Manufacturing Co., Ltd  
WFOE by Ing. Enea Mattei SpA - Italy  
Tel: +86 512 56951120 Fax: +86 512 56951121  
E-MAIL: info@matteisuzhou.cn - www.matteigroup.com