

DS Tech 

Technológiai és Tanácsadó Kft.

Energy Optimum

measurement and optimization of energy consumption



Energy Optimum is a system which keeps your electricity, gas, water, steam and other type of energy consumption under control.

Connect the system to the electricity, gas, water and other type of energy meters and using the the Operation Terminal (PC) you get:

- on-line track and visualisation of your current consumption;
- by using the graphical and numerical functions of the EGA Display software you can analyse consumption trends, peaks and other important occurrences;
- using the statistical functions you can optimise your energy contracts and save cost;
- you can set alarm power limit to avoid over-consumption.

Energy Optimum has automated control functions to keep the electricity and/or gas consumption under the contracted power limit. Energy Optimum Trend is a special software for those customers who purchase electricity from the competitive market in a schedule-based service form.



All system data can be stored and exported for further processes (i.e. MS Excel).

You can connect any kind of meters with pulse (relay) outputs. Other standard interfaces (i.e. RS485) are optional. Analogue signals (4...20 mA) or PT100 are also applicable.

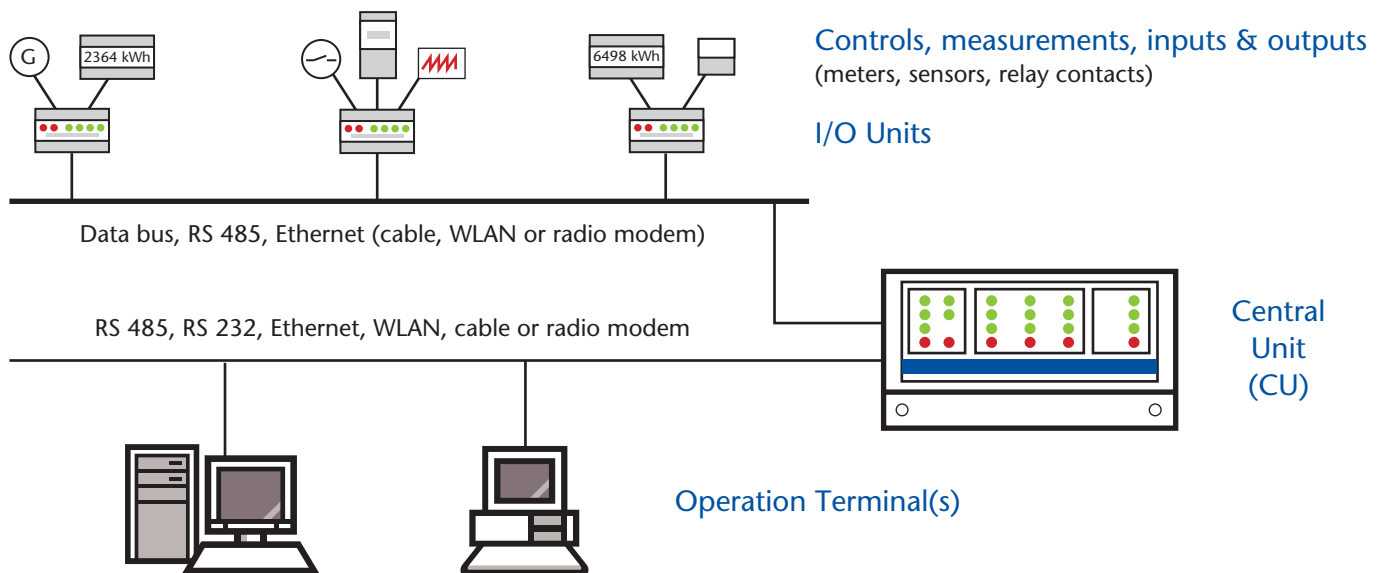
Energy Optimum Basic is an entry-level system which can be connected to the main electricity and gas meters and the system gives you measurement and analysis of your consumption with an additional alarm function to avoid over-consumption. You can extend your Energy Optimum Basic system with Input/Output Units building a complete energy metering and control system which has automated control functions to keep your energy costs under control.

Energy Optimum

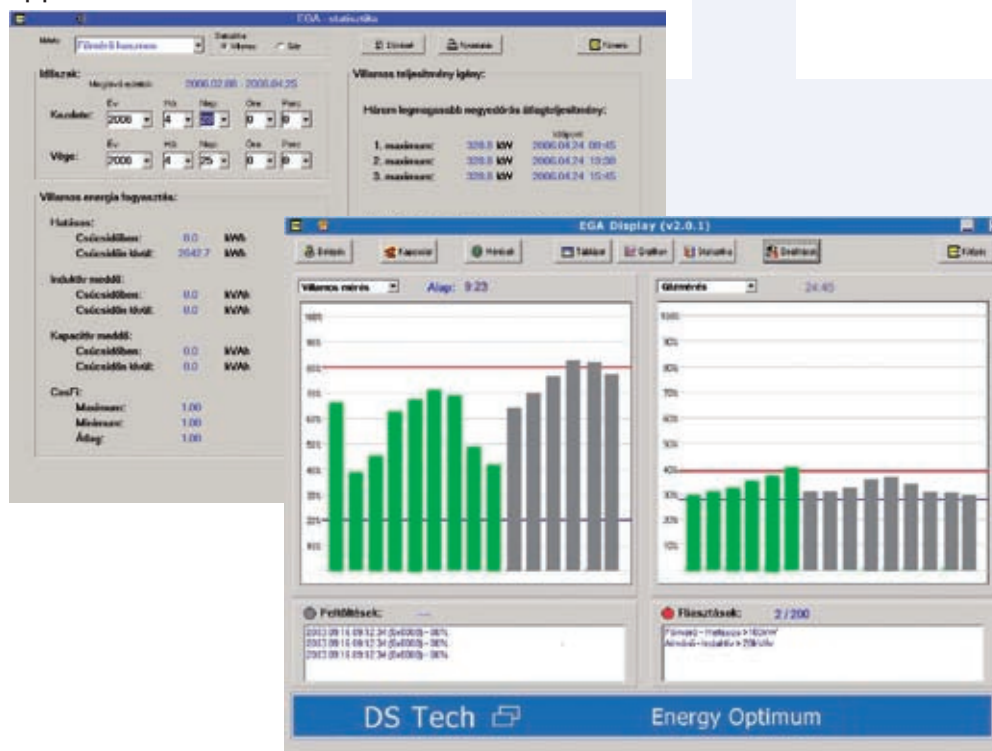
measurement and optimization of energy consumption

The Energy Optimum Central Unit and the Input/Output Unit receive and store data from the connected meters. You need the Operation Terminal (PC with the EGA Display software) only for setting the system parameters, visualisation and analysis of the consumption, saving and export

of received data. The communication between the Central Unit, the Input/Output Units and the Operation Terminal can be the most suitable mix of data transmission: RS485 or RS232 bus cable, RS485 wireless modem, ethernet via cable or WLAN, telephone or GSM modem.



The **EGA Display software** is the user interface of the Energy Optimum system visualizing the actual consumption and events (alarms, signals, failures). Using EGA Display you can set the parameters, analyse your consumption and events, complete statistics, archive and export your data for further software applications.



EGA Display functions:

- Data collection from the CU and the I/O Units
- Display of the current energy consumption
- Parameter settings
- Alarms and status signals
- Graphical and numerical visualization
- Statistical and analytical functions

Central unit (CU)

Digital inputs

20 digital inputs with dedicated and programmable functions.

Dedicated inputs:

Electrical measurements:

PW – Effective energy

QI – Inductive reactive energy

QC – Capacitive reactive energy

SYNC – 15 minute synch input

PEAK – Peak time signal

Gas measurements:

GQ – Uncorrected consumption

GQN – Input for gas corrector

GSYNC – 60 minute synch

Analogue inputs

2 of 4...20mA and

2 optional (4...20 mA or PT100)

Digital outputs (signals/alarms)

12 digital (relay) outputs for signals, alarms and control signals (peak shaving)

Communication

RS485 (RS485/RS232 converter accessory)

Ethernet

Power supply

24VDC (accessory Power Supply)

Input/Output Units (I/O Units)

Digital inputs

20 or 12 digital inputs with programmable functions.

Analogue inputs

2 programmable (4...20 mA or PT100)

Digital outputs (signals/alarms)

6 or 12 digital (relay) outputs for signals, alarms and control signals (peak shaving)

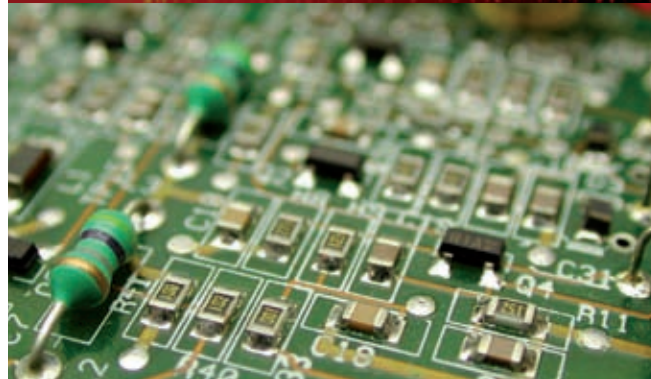
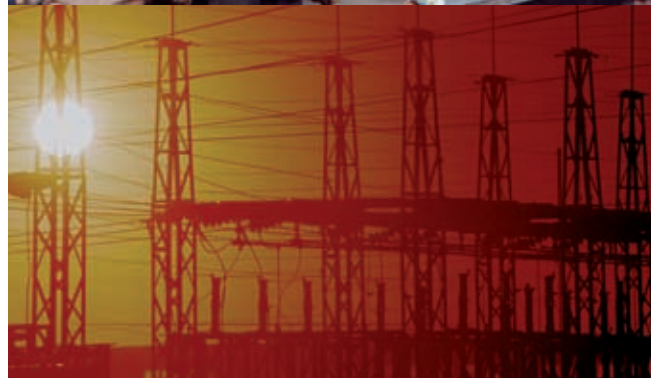
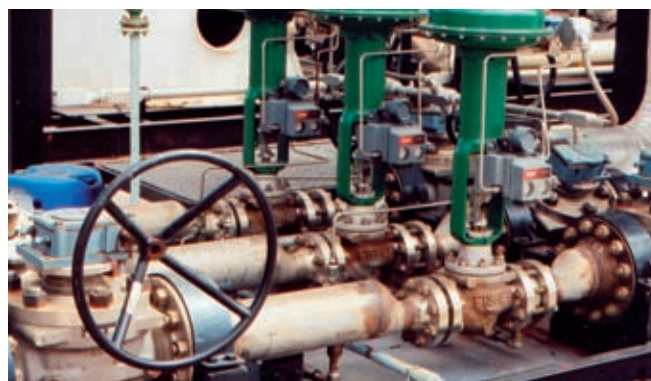
Communication

RS485 (RS485/RS232 converter accessory)

Ethernet

Power supply

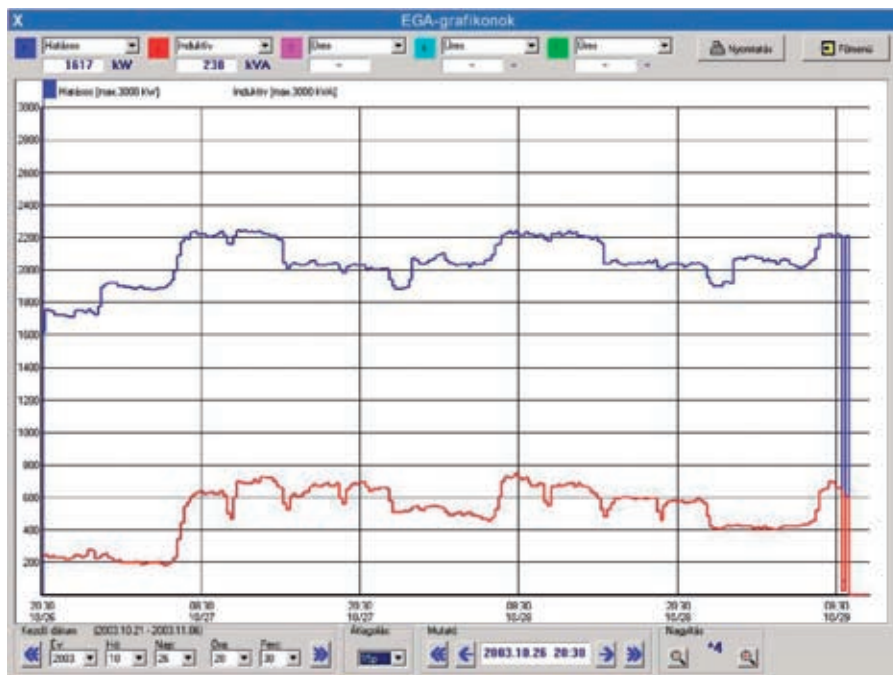
24VDC (accessory Power Supply)



Opto-isolated digital inputs receive wide range of DC signals between 5...24 Volts.

The CU and I/O Units are ideal for use in factory floors and in any normal industrial environment (IP65 Protection Classification). Additional metal housings for outdoor installations are optional.

The front panel LEDs of the CU and I/O Units show the system status (normal mode, failure, data transmission).



Optional inputs

RS232 or RS485 interface based devices can be connected to the system (tailor-made software needed, optional).



Please contact us for further information and commercial offer!

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