

ENERGY MANAGEMENT SYSTEM IMPLEMENTATION OFFER

SES CONTROL



Sprawność dzięki technologii

GDAŃSK ✦ WARSZAWA ✦ KRAKÓW ✦ POZNAŃ ✦ WROCŁAW ✦ ŁÓDŹ ✦ KATOWICE

SESCOM S.A. - operator usługi SES Service oraz systemów SES Support® i SES CONTROL
KRS: Sąd Rejonowy Gdańsk-Północ, Wydział VII KRS, nr 000314588; NIP: 9571006288; Regon 220679145
Kapitał Zakładowy: 1.650.000. PLN Sławomir Halbryt - Prezes Zarządu, Adam Kabat - Członek Zarządu, Sławomir Kądziała - Członek Zarządu
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Implementation benefits

SES CONTROL System designed and produced by SESCO S.A. (www.sescom.pl) is a solution of ENERGY MANAGEMENT SYSTEM class. It enables reduction of power consumption, remote control of lighting and technical device operations and perform remote technical parameter measurements.

ECONOMIZING ON POWER CONSUMPTION is achieved through navigating lighting sections and devices – energy receivers. Thanks to the assembly taking place in the switch chamber and internet connection, you can establish own work schedules of illumination and devices as well as perform on and off switching at any time (remotely – from any computer that has internet access). Eliminating wastage and avoiding the possibility of unjustified operation of lighting and other energy receivers, ex. applying partial lighting, night lighting, service lighting – you can reduce consumption costs in a rational and controlled way – without losing the comfort associated with the facility usage. Current implementations enable SES CONTROL Users to economize at a level of over 20% per month.

REMOTE CONTROL OF THE DEVICE is executed through sensors and measuring instruments – temperature and utility flow as well as energy consumption by devices. Visualization and interpretation of the measurement results enable to create optimal (in terms of the costs associated) device operation work schedules, support prevention activities, facilitate breakdown diagnosis, reduce service and repair costs and prolong the device's technical life expectancy.

REMOTE TECHNICAL PARAMETER MEASUREMENTS. Monitoring parameters of the surroundings (air temperature, humidity) as well as parameters of the electricity networks, enables to gain on-line knowledge about possible abnormalities and dangerous trends. Information about measurement results are archived and synthesized, and in case the accepted values are exceeded – alarm reminders are sent through e-mail or sms to recommended technical services.

Application

SES CONTROL System is used in commercial and office facilities and helps to reduce costs associated with each type of the facility, whether it's industrial, public (schools, medical services) or private, easier. The profitability of implementation, in the range of cost cutting of the power consumption, is confirmed in facilities having an area of few hundred square meters – with an investment return period below one year, very often during just a few months! In facilities which are sensitive to temperature changes, ex. server rooms, extended measurement modules are installed and alarm reminder systems implemented which send reminders of when the parameters are exceeded.

System construction and technical description

The SES MicroServer device reads measurements (ex. humidity, temperature) from the digital sensors DS1820. Communication takes place with the use of 1-Wire protocol.

Additionally, the SES MicroServer reads measurements from the electrical network parameters meter. Communication with the meters takes place with the use of ModBus protocol and RS485 interface. SES Control Platform application questions the SES MicroServer device and receives measurements from it. They are then archived on the main server. Based on the gathered measurements graphs are created.

The application enables you to project graphs from any archived day. Additionally, there exists a possibility to set border thresholds (minimal, maximal) for individual measured quantities, which when exceeded generate an alarm through an e-mail or sms.

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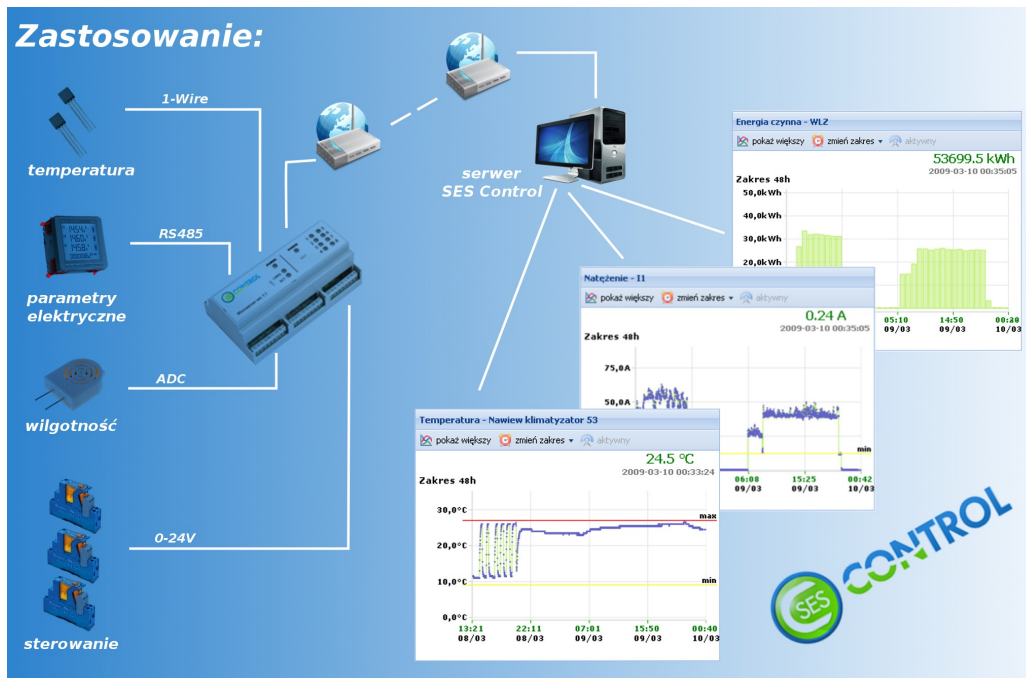
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The SES MicroServer device is also capable to control devices using 6 exits 24V DC and 2 exits 230V AC. Additionally, using the 24V DC relay coil (if necessary a contractor) you can control devices with free-form power. Control takes place by switching the voltage in the device on or off.

More technical details can be found on our website www.ses-control.pl

SES CONTROL system valuation and implementation

In case of facilities fulfilling the technical demands described on the next page – system implementation takes about 8-12 hours for each low voltage switch chamber.

Implementation – device installation, operation & communication correctness tests, creation of dedicated page with measurement visualizations and control panel – are performed by the SES CONTROL team.

The system service is carried out and kept up to date by the facility Users – through the mediation of an application placed on our company servers and made available to the Users through the www browser.

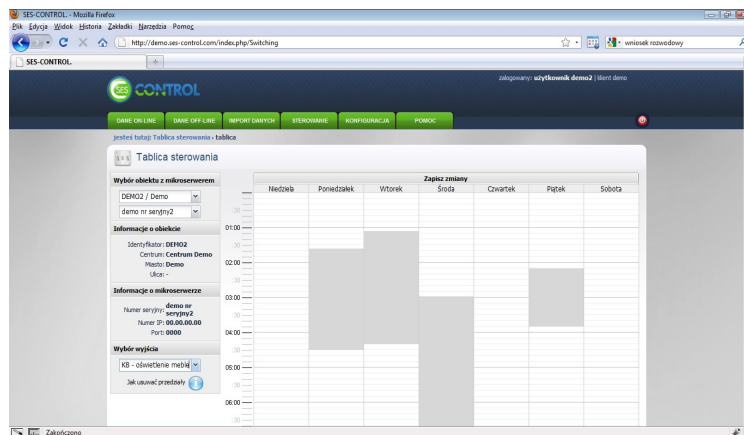
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System version – standard valuation	Price for single implementation (in single low voltage switch chamber)
Control (8 exits) + manual sensor	5.660,00 PLN netto
Control (8 exits) + manual sensor + temperature measurements (8 sensors, up to 20mb each)	6.860,00 PLN netto
Sterowanie (8 wyjść) + czujnik trybu ręcznego + pomiar temperatury (8 czujek, do 20mb każda) + pomiar zużycia energii	7.990,00 PLN netto

Monthly cost for accessing the visualization system, perform reports and on-line control – 39,00 PLN netto.



Technical conditions needed for SES CONTROL implementation

Preparing the building for system implementation requires:

- electrical installation divided into sections,
- providing contractors,
- providing space near the low voltage switch chamber needed for installation

In order to enable energy consumption measurements to take place at the electrical switch chamber, an energy meter with an impulse exit should be located there or a telephone cable connection up to 90m between the impulse meter and the switch chamber. If the facility does not have access to a meter with an impulse exit - possibility exists to install an additional energy meter or network quality meter at an extra cost.

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SES MicroServer ® measurement device receives specified IP and PORT address on which it monitors forthcoming questions. The gate's job is to redirect the external questions from the Contractor's server to the SES MicroServer ® device, which is found in the internal network of a specific company. Contractor's server has a constant IP address and only questions coming from that IP should be accepted by the gate. Standard TCP/IP is used to enable communication between devices.

For correct work of the contractor's server to take place as well as SES MicroServer ®, the following data is needed (before installation):

- availability of active network cable by the switch chamber
- local IP assigned for SES MicroServer ®,
- Port
- IP of local gate
- IP of external gate

SES CONTROL implementation profitability analysis & contact

To estimate initial benefits arising from the implementation of the system, potential investment return period and assess profitability of the implementation – just complete the below listed sheet and send it to the following address: control@sescom.pl or pass it on to us personally.

In case of any technical questions please contact as through e-mail at: control@sescom.pl. Contract and implementation service is assured by Mr Sławomir Kądziela, s.kadziela@sescom.pl, phone: +48 509 645247

Test questions – to each low voltage switch chamber

1. total load generated by lighting (installed lighting power)
2. total load generated by receivers other than lighting (installed power of all receivers)
3. list of other receivers
4. list of receivers demanding break free power supply
5. characteristics of used lighting with secured percentage division (metal halogen lamps, sodium lamps, fluorescent tube, energy-efficient lamps)
6. list of rooms attended by specific switch chamber
7. current work schedule of lighting
8. current work schedule of other receivers
9. general work schedule of the facility (or given room)
10. average monthly energy consumption amount for a specific facility (possibly with room division according to low voltage switch chamber)
11. average fee rate per 1 kW of electrical energy

References:

1. INDITEX – ZARA Polska
 2. H&M Hennes and Mauritz Polska
 3. GETIN BANK SA
- ... and other retail and bank chains

www.sescom.pl/referencje

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