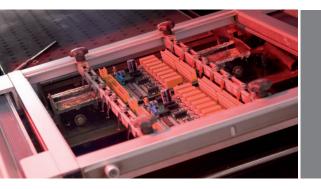


# LET US TAKE CONTROL

HIGH-PERFORMANCE BUILDING AUTOMATION INNOVATIVE CONTROL ENGINEERING

DEVELOPING SOLUTIONS OPENING UP NEW HORIZONS LIVING PARTNERSHIPS SECURING THE FUTURE TAKING RESPONSIBILITY

# INSIDE WE IMPROVE THE CLIMATE, OUTSIDE WE PROTECT IT



Automation solutions from SE-Elektronic create a healthy indoor climate and reduce the amount of energy required for heating, ventilating and cooling with zero loss of comfort. But that is not all: our cutting-edge applications for energy monitoring and management also help save natural resources while at the same time perceptibly reducing carbon emissions.

# MORE THAN 30 YEARS OF ENGINEERING SKILL AND EXPERTISE

SE-Elektronic has been manufacturing building automation components and software since 1983. With decades of experience in developing solutions under our belt, together with the fact that we exclusively produce in Germany, we are a first-choice provider.

From the start, we have helped to advance and key development in the area of communication sensors and actuators, as well as building automation.

OUR MISSION IN THE PAST, PRESENT AND FUTURE: To combine a comfortable indoor climate with efficient and sustainable business activities.



# THE FUTURE OF BUILDING AUTOMATION IS GREEN



An impressive 13.3% of primary energy in Europe is used to supply non-residential buildings with heat and electricity. Experts estimate that state-of-the-art automation solutions for heating, ventilation and cooling could reduce consumption by an average of 30%.

Your partner in the planning, development and implementation of highly efficient energy solutions: SE-Elektronic.

## RESPONSIBLE ENERGY MANAGEMENT PAYS OFF!

A study commissioned by the Federation of German Industries demonstrated that investments in control engineering, metering technology and building management systems pay off much more quickly than other energy saving measures. An increasing number of building operators have begun to realise how attractive such investments in building automation systems really are, for old and new buildings alike.

## SAVINGS POTENTIAL OF BUILDING MANAGEMENT SYSTEMS







RESTAURANTS **31%** HOTELS **25%** OFFICES **39%** 



schools/Universities

residential









Source: Fachverband Automation + Management für Haus + Gebäude im VDMA e.V. Frankfurt/Main

# A ONE-STOP-SHOP FOR INNOVATIVE SOLUTIONS



Compliance with sustainable environment management practices and statutory requirements will make automated BMS and energy management a must. If you want to offer your clients solutions combining open and scalability with high levels of economic efficiency and reliable operations, we are your perfect partner. Benefit from our experience and development expertise.

## GROWING AWARENESS OF ENERGY ISSUES CALLS FOR STATE-OF-THE-ART SOLUTIONS



USING OPEN AND SCALEABLE TECHNOLOGIES



REDUCING ENERGY COSTS



REDUCING EMISSIONS

ASSUMING RESPONSIBILITY

SHAPING THE FUTURE

## WHAT YOU CAN EXPECT FROM SE-ELEKTRONIC

- Open and expandable solutions which is easily to integrate in existing structures
- Customised development projects, prototypes, low-to high-volume solutions from the concept phase through to series production



Energy-efficient building automation solutions, low energy consumption, improved efficiency in heating, ventilation and cooling

High operational reliability, service and support for standard and customer-specific solutions



# BACnet – BUILDING AUTOMATION AND CONTROL NETWORKS





## BACnet – THE BASIS FOR ALL SE-PRODUCTS

BACnet (Building Automation and Control networks) is a networking protocol for building automation. BACnet is the name of a uniform independent standard for data communication.

The advantage of BACnet solutions is their remarkable flexibility.

The BACnet protocol enables communication between devices. This communication is the pre-requisite of interoperability, which means that devices can execute different functions in unison within an application framework.

BACnet is a protocol governing data exchange between different technical building services components. It provides a consistent description of communication across the different management and automation levels, in particular for heating, cooling and ventilation, light control systems, fire detection and conveying systems, as well as monitoring lifts and escalators.

Data are transmitted through different pathways such as Ethernet, RS485 and modems. SE-Elektronic has focused on these media and supports BACnet/IP, PTP and MS/TP protocols. We have paid special attention to the implementation of the modem protocol PTP and offer customised solutions for this, too.



# SE-ELEKTRONIC – A BACnet PIONEER



We guarantee that SE-Elektronic solutions speak your language. This is because all communication with third-party control centres and control devices is based on standardised communication protocols such as the BACnet protocol. We have made an important contribution to the development and spread of BACnet as the communication standard for building automation.

## IN-HOUSE DEVELOPED CERTIFIED BACnet-STACK

Already in its early history SE-Elektronic made a decision to develop its own BACnet stack in order to be able to fully exploit the advantages of the BACnet functions. Our BACnet stack is based on a modular concept and can easily be matched and scaled to fit the requirements of various applications. We are setting benchmarks. Use them to solve your challenging tasks.

#### MORE FLEXIBILITY

- extensive BIBB and object library
- routing across all interfaces
- UTF-8 character set (all characters sets around the world), ANSI X3.4, ISO-8859-1, UCS-2, UCS-4
- multilingual capability, can be changed anytime, even during the run-time (no restart necessary)
- TCP/IP communication in parallel with MS/TP via RS485

#### LEANER

Resources used only for functions which are required for a specific device type.

#### FASTER

Direct access to data and functions of applications.

#### MORE AFFORDABLE Reduced hardware requirements thanks to our own optimised BACnet stack.

Our products offer all options for BACnet communication via Ethernet, modem and 2-wire cabling (RS485). And of course we can also implement or integrate other bus systems.

WE OFFER BESPOKE AND ENERGY-EFFICIENT SOLUTIONS TO OUR OEM CUSTOMERS.

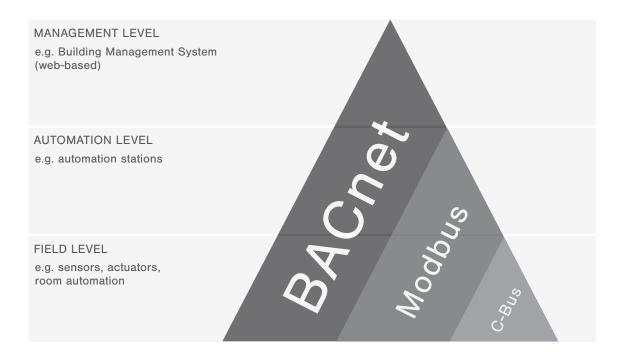


# YOUR PARTNER FOR THE FUTURE



At SE-Elektronic the name of the game is versatility. This means that our solutions span all levels of building automation today and can be adapted to the demands of a wide range of different buildings: from industrial buildings or hotels to public buildings like universities or hospitals. Whether customengineered solutions, small or high- volume: with SE-Elektronic you cannot go wrong.

## **BUILDING AUTOMATION – SYSTEM LEVELS**



#### HARDWARE

- automation stations
- operating devices, I/O modules
- sensors, actuators
- interfaces, modems, gateways
- room automation

#### SOFTWARE

- monitoring and control
- programming and parameterisation
- · visualisation and processing

## SERVICES

- customised application services
- · development capabilities locally
- support services and training

# 100% QUALITY MADE IN GERMANY



Building automation solutions must meet the most exacting demands in terms of performance, availability and longevity, every single day. Which is why we never compromise on quality. Our devices are only shipped to customers after thorough testing. In addition we carry out our own long-term tests, which provide early clues as to potential improvements.

#### HOW WE GUARANTEE THAT YOUR INVESTMENTS ARE SAFE

- · SE-Elektronic develops all of its solutions itself 100% and produces exclusively in Germany
- certified quality management system in accordance with DIN EN ISO 9001:2008 in-house test lab, long-term tests
- products are BACnet certified and BTL-listed acc. to revision 12
- products carry the extended AMEV mark AS-B
- we are members of the BACnet Interest Group Europe e.V and of the German Engineering Association (VDMA).

#### NATIONAL AND INTERNATIONAL PRESENCE

Through our partner network we are present at many locations in Germany and in a number of other European countries. In other words – we are in your area.

## OUR CORPORATE CULTURE COUNTS

SE-Elektronic is a training centre which is accredited by the Chambers of Industry and Commerce and offers commercial as well as technical vocational courses. As a medium-sized company, values such as a sense of family, team spirit and social responsibility within the region are very important to us. Further training at regular intervals, team-building and leisure activities are the basis for motivated and committed employees.



The Management: Hermann Lippert, Bogomir Dajcman

"Wherever you see the SE-Elektronic logo on a product you can be absolutely sure that it is the product of German engineering expertise, and has been tested inside and out for highest levels of quality. You have our word on it."

, Knuf B. Day Come

DEVELOPING SOLUTIONS OPENING UP NEW HORIZONS LIVING PARTNERSHIPS SECURING THE FUTURE TAKING RESPONSIBILITY

# HOW CAN WE SHAPE YOUR FUTURE?



The future belongs to those who approach building automation from an ecological perspective. With real-time monitoring and control from anywhere in the world. At this future SE-Elektronic is helping to create, making valuable contributions to building automation solutions that are efficient, secure and sustainable.

We offer complete solutions for

- HVAC systems
- · lift and hoisting equipment
- · security and access control
- · sanitary facilities/water purification
- renewable energies

#### ENERGY MANAGEMENT

- · web-based energy-monitoring solution
- innovative, high-performance building automation solutions

BACNET PROSPECTS SE-Elektronic makes BACnet the communication standard of choice for all trades

So come and talk to us about your most challenging projects.

WE LOOK FORWARD TO MEETING YOU!



## **SE-Elektronic GmbH**

Eythstraße 16 73037 Göppingen Germany Phone: +49 7161 9584-0 Fax: +49 7161 9584-30 info@se-elektronic.de www.se-elektronic.de





