

**Selektro**

ELECTRONIC PRODUCT SOLUTIONS

# WE DELIVER TOTAL SOLUTIONS FOR ELECTRONICS ASSEMBLY



## Selektro as a total supplier

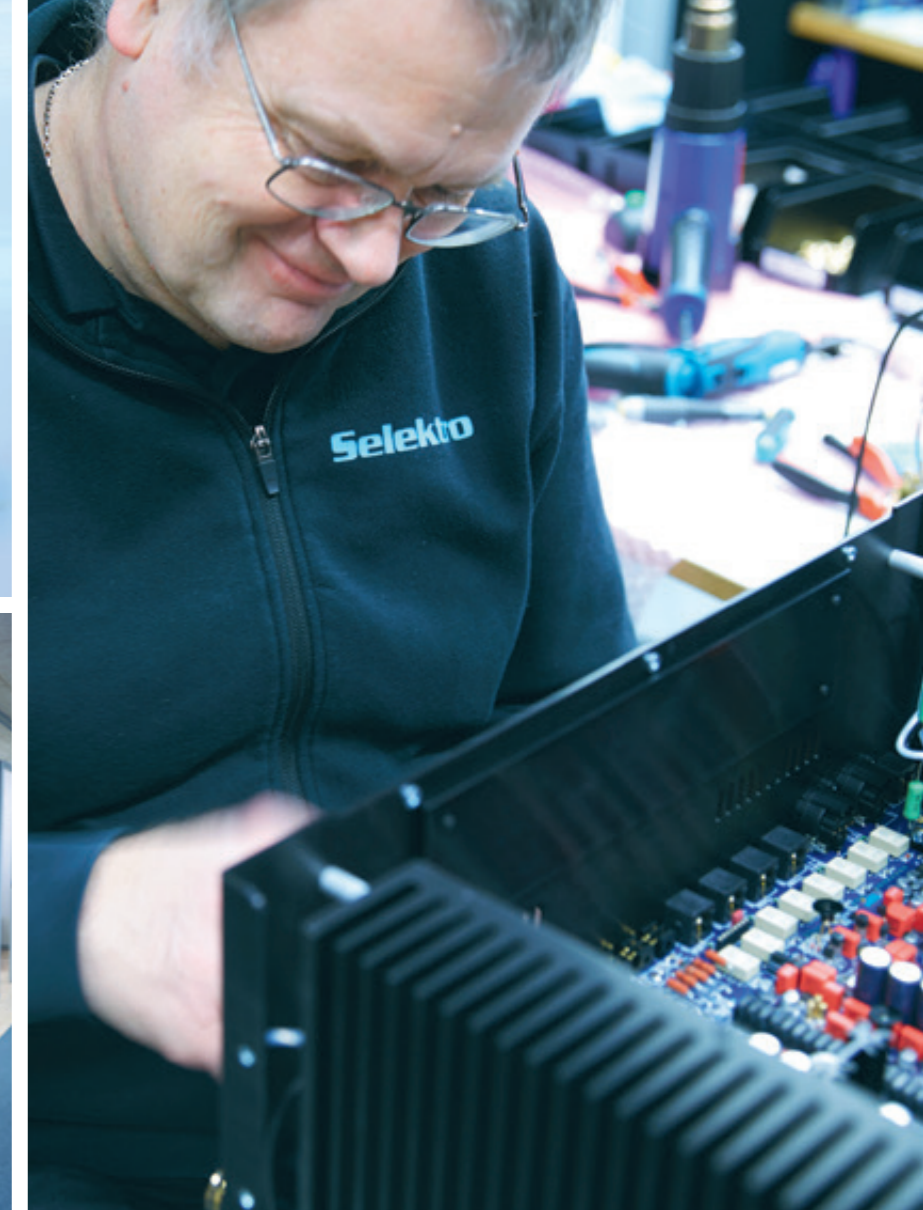
Selektro operates upon the concept of being a total supplier of electronic solutions. This provides our customers with many advantages, including:

- » Increased product quality due to broad knowledge and experience in all electronic phases.
- » Simple start-up of new products and inclusion of changes in existing products.
- » Rapid qualified answers due to a dynamic organization with short decision-making processes.
- » Greater focus on your own core skills by having a single total supplier as opposed to multiple subcontractors.

All this implies minimal effort by the customer, simply because Selektro can support the product in all its phases.



[www.nabolink.dk](http://www.nabolink.dk)



*“Innovation and LEAN are fundamental at Selektro, and we want to contribute and participate in driving our customers’ competitiveness”*

*Karl-Peter Andersen, CEO*

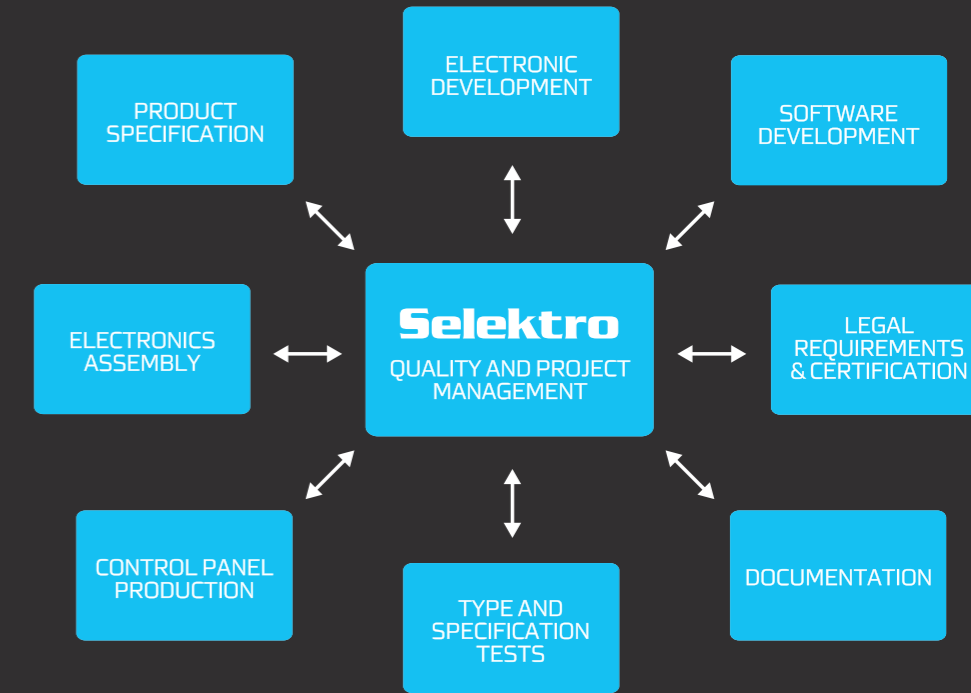
## WE INVEST IN PEOPLE, OUR CUSTOMERS AND NEW TECHNOLOGY

### Flexible EMeS

Selektro is a flexible Electronic Manufacturing Services partner with major focus on engineering - we term this flexible EMeS.

Innovation and LEAN are fundamental at Selektro, and we want to contribute and participate in driving our customers’ competitiveness. We do this by close cooperation where we proactively suggest product improvements and appropriate redesigns.

Quality is a natural prerequisite at Selektro. Based upon our experience we continually strive to optimize our internal processes.



Selektro operates upon the concept of being a **total supplier of electronic solutions**. Most of our customers allow us to manage the entire production process. Others entrust us with smaller specialist projects. In both situations **it allows our customers to concentrate on their own skills**.









## DEVELOPMENT FROM IDEA TO PROTOTYPE

Our Development Department is extremely competent as regards the development of electronic products. It has a broad customer base that includes leading Danish and international industrial companies. A creative environment has been established that can participate from the conceptual phase, thereby allowing all possible solutions to be considered. We can:

- » Prepare specifications from a customer's concept.
- » Perform analyses to clarify the critical parts of a project.
- » Develop and design hardware and software.
- » Perform or participate in validation to ensure compliance with specific requirements.
- » Participate in verification and field tests with a customer.
- » Produce quick prototypes, for example to demonstrate concepts.
- » Produce documentation prior to and for production.

At Selektro our skilled R&D engineers focus on high-quality and reliable solutions for our customers, developed and optimized for fabrication and productivity without compromising the valued Danish engineering tradition.

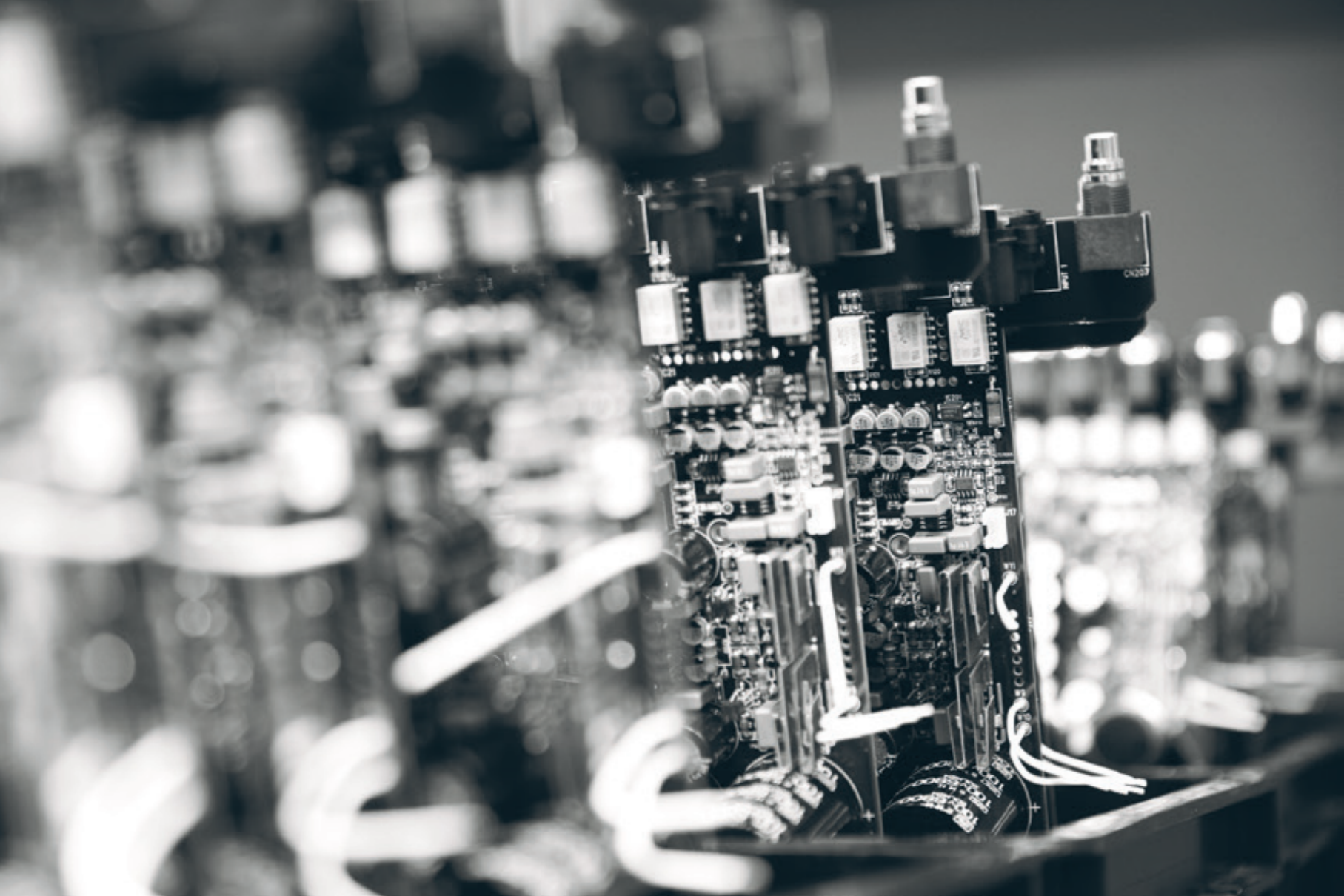


*“Developed  
and optimized  
for fabrication  
and productivity”*

*Ryan Dreier,  
R&D Engineer / HW*







# FROM **PROTOTYPE** AND 0-SERIES TO **VOLUME** PRODUCTION

## **ELECTRONIC ASSEMBLY**

At Selektro A/S we aim at offering our customers a high level of technological production. This is by using modern, flexible and effective production equipment operated by qualified staff. This includes X-ray inspection for verification and analysis. Our SMT machines with vision and component control ensure very high standards in SMD mounting. It is for this reason that Selektro invests significant amounts in high-technology production equipment.

## **BOX BUILDING**

Selektro A/S currently performs the final assembly of products for multiple customers. In addition to final assembly, packing, including of manuals, accessories and more in the customer's own packaging material, we increasingly manage the dispatching of goods directly to the customer's dealers and product users.

## **TECHNICAL PRODUCTION AND PRODUCTION PREPARATION DEPARTMENTS**

The Technical Production Department and Production Preparation Department manage processes associated with the designed product. Based upon the customer's Bill of Materials (BOM) and drawings, all data to be used for controlling component flow and resources in production are prepared and implemented.

Our customers benefit from the assistance provided by the technicians in our Technical Production Department. This includes consultancy to optimise production. They can also advise on whether individual products satisfy the statutory requirements in their intended markets.

Our technicians in the Technical Production Department also build and maintain test equipment and can repair a wide range of electronic equipment.

PRODUCTION





## QUALITY AND CERTIFICATIONS

We are ISO 9001, ISO 14001, ISO 29001 and EN 80079-37 (ATEX) certified. Furthermore, Selektro manufactures according to IPC's quality standard IPC-A-610 Rev. E Class 2 and 3.

Selektro has many years of product certification experience. Besides consulting and preparing the necessary documentation, Selektro can manage all processes associated with authorities and certification organizations, this pertaining to acquisition of CE and marine/offshore certifications as well as for the preparation of UL/CSA approvals.



*“At Selektro our specialty is the manufacturing of industry electronics for all types of physically-stressed and demanding environments - manufacturing at a high level of quality and flexibility”*

*Margret Joensen,  
Production Manager*







## CUSTOM MADE PRODUCTS FOR HARSH ENVIRONMENTS

**Selektra has core competencies in the development, design and manufacturing of industry-electronic products for use in all types of physically-stressed and demanding environments.**

Selektra is an innovative company creating technological advances in close cooperation with our customers. With courage to think outside the box, we work in a targeted fashion to find optimal solutions to complex problems. Furthermore, Selektra invests in our customers.

Selektra's products are used around the world in many different type of industries, for example Marine industry, Automotive industry, Pumping industry, High-end Audio, Grid Balancing, Machine builders etc. These are just some of the customers that benefit from our expertise.

PRODUCTION



AUTOMOTIVE & HYDRAULICS



CLEANTEC / GRID MANAGEMENT



MARITIME / OFFSHORE



DEFENCE & SECURITY



CABLES & HARNESSES



INDUSTRIAL & PUMPING



# MANUFACTURED AND DESIGNED IN SCANDINAVIA

## CONTROL PANELS

The panel production factory at Selektro is a competent subcontractor. It specialises in all drafting and dimensioning work and manages all required approvals. Customer specifications always form the basis of the solutions, thereby ensuring that we satisfy their needs. Control panel production spans everything from series-produced machine controls to complex process panels.

## PLC CONTROL AND SOFTWARE

Selektro can participate in all phases of PLC (Programmable Logic Controller) product development, from product concept to finished product. We can assist in clarifying a potential project, allowing you, as the customer, to achieve the best and most practical PLC solution.

The planning of major control system projects for machine construction is performed by our engineers who have vast expertise in this area.

This includes preparing solution proposals, functionality descriptions and control lists as tools for use in later programming.

PLC controls are constructed and programmed in recognised PLC products such as Siemens, Allen-Bradley, Omron, Schneider and Mitsubishi.

## FINAL CHECK AND FUNCTIONALITY TEST

Control panels are always scoped, built and delivered in type-tested modular systems that comply with current national, European and international norms and standards. All control panels undergo final checks and operating tests prior to leaving Selektro.

Control panels are supplied with comprehensive documentation and are produced in accordance with EN61439-1, EN61439-3, EN61439-4 and EN60204-1.



*“It’s easy to custom design  
your electronic control  
panels with Selektro”*

*Per Thomsen,  
Technical Account Manager*





*“We must treat our colleagues and partners with respect, protect the environment and be considerate to one another in the best possible manner”*

*Karl-Peter Andersen, CEO*

# OPTIMIZATION OF PROCESSES & A **SUSTAINABLE** WAY OF THINKING

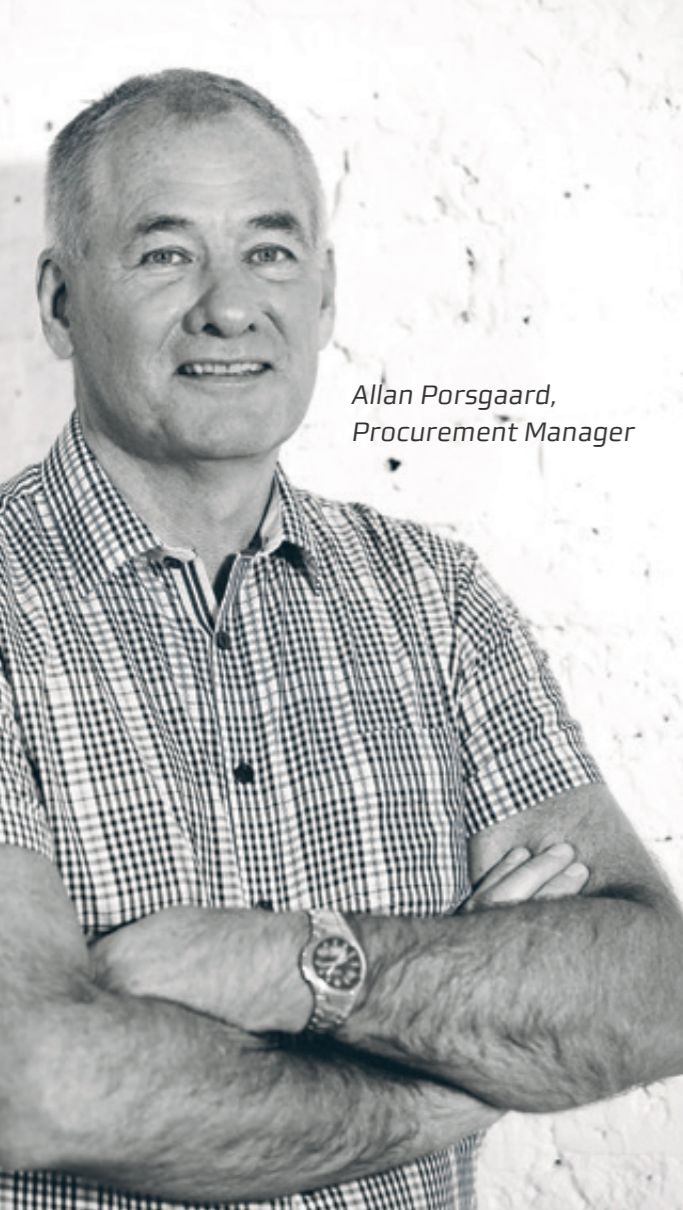
I believe that we as a company and society can only survive in the longer term if we work seriously and focused with this important agenda.

We must treat our colleagues and partners with respect, protect the environment and be considerate to one another in the best possible manner.

It is for this reason that Selektro places attention on CSR (Corporate Social Responsibility) as well as the company's energy consumption. For example, Selektro has installed an energy monitoring system, thereby allowing the company to use its energy resources in an optimal manner.







Allan Porsgaard,  
Procurement Manager

# EXPERT KNOWLEDGE AND STRONG SKILLS

## Future-proofing

Our after-sales service also takes the future into account. Our Purchasing Department has solid market knowledge and can ensure competitive prices on raw materials and can assist when selecting components.

We monitor supplier relationships and can often warn customers about future component supply problems, while simultaneously providing technical advice about alternative solutions.

Such situations arise regularly as products become obsolete from component manufacturers and a Last Time Buy occurs. This allows our customers to efficiently manage their products' life cycles, thereby avoiding bad investments and can phase out products with minimal expense.







## EXPERT KNOWLEDGE AND STRONG SKILLS

Selektro can relieve customers of many resource-demanding tasks, for example those associated with customer service and after-sales service during the warranty period.

Selektro offers a cost-effective approach for the expertise required to meet modern service obligations for advanced electronics. These usually require specialist equipment and specially trained staff. We can determine whether the most economically viable solution is to repair or replace, and provide the required service.

By using our resources, our customers can combine their electronics products with profitable service contracts and repair agreements.

AFTER-SALES  
SERVICE







# INTEGRATED LOGISTICS

Selektro increases the value chain by offering several different logistics solutions. With time, customers who order box-build solutions also outsource all logistics.

We can pack products according to customer specifications. We use serial numbers, batch numbers and other EDI numbers as requested by the customer. We then send the finished product to the end user according to customer's instructions.

Fast and reliable delivery to the customer's customer, for example in specially assigned packaging with correct documentation and error-free electronic tracking, is an important competitive parameter that Selektro can offer.

LOGISTICS





## DEVELOPMENT, SMD MOUNTING, BOX BUILDING, CONTROL PANELS AND QUICK PROTOTYPES

Selektro is an **innovative company** creating technological advances in close cooperation with our customers. With courage to think outside the box, we work in a targeted fashion to find optimal solutions to complex problems.

Most of our customers allow us to manage the entire production process. Others entrust us with smaller specialist projects. In both situations it allows our customers to concentrate on their own core skills.

Our products are used around the world in many different types of industries, for example in concrete factories, water companies, purification plants, automotive industry, marine industry, grid management, pump industry and machine construction. These are just some of the customers that benefit from our expertise.







# ELECTRONIC ASSEMBLY WITH ATTENTION ON OPTIMIZATION AND DEVELOPMENT

See more at [www.selektro.dk](http://www.selektro.dk) or contact [sales@selektro.dk](mailto:sales@selektro.dk)

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