

INSIGHT

A Tour Through Murrelektronik









26 BRANCH OFFICES AND 5 PRODUCTION PLANTS

Oppenweiler, Germany Production of Fieldbus Systems, Interface Modules

Stollberg, Germany Production of Connectors

Stod, Czech Republic

Production of Interface Modules, Switch Mode Power Supplies, Transformers

Shanghai, ChinaProduction for the
Asian markets









STAY CONNECTED — REPRESENTED ON ALL CONTINENTS WORLDWIDE

The company was founded in 1975 by Franz Hafner

Over 2,000 employees, including 200 sales reps and customer service center technicians

Top student training is very important for Murrelektronik. Each year we offer a large number of apprenticeships in technical and commercial areas, as well as in logistics











MURRELEKTRONIK FIGURES & FACTS

Atlanta, USA
Production of Connectors



MURRELEKTRONIK IS YOUR PARTNER

- Over 65,000 products available to order conveniently in our online shop
- Subdivided into four product groups:
 - Electronics in the Control Cabinet
 - Interfaces
 - Connection Technology
 - I/O Systems
- For industries and market segments like:
 - Machine Tools
 - Machine Building and Plant Engineering
 - · Assembly and Handling Technology
 - Food & Beverage
 - Automotive Industry
 - Warehousing and Logistics
- Founded in Oppenweiler, Germany, in 1975
- Family-owned company
- Over \$264 million turnover in 2015



CUSTOMER
SERVICE
INDIVIDUAL
AND RELIABLE
ON-SITE HELP

Products for processoptimized installations

Developing cost-efficient solutions







MURRELEKTRONIKYOUR BENEFITS

MURRELEKTRONIK OFFERS REAL BENEFITS

- Over 200 sales reps and personal contacts in technical and inside sales
- On-site support
- Murrelektronik Express Service (MEX) guarantees the production of individual cable lengths within 48 hours
- 4 international warehouses (USA, Brazil, China, Germany)
- 1 million products in stock





SYSTEMATIC AND SUSTAINABLE QUALITY MANAGEMENT ACCORDING TO EN ISO 9001

Accredited test center and EMC laboratory

Endurance tests under extreme conditions

Practice-oriented test procedures guarantee best product quality











MURRELEKTRONIKQUALITY

MURRELEKTRONIK STANDS FOR QUALITY

- Accredited test center and EMC laboratory
- Individualized advice and support
- No hazardous materials used
- Complies with RoHS requirements
- First-class design and production quality: "Made in Germany"

Product tests are already done in the early project phases







WORLDWIDE AND INDUSTRY-WIDE!BENEFIT FROM OUR CROSS-INDUSTRY EXPERIENCE AND EXPERTISE

Warehousing & Logistics



Food & Beverage



Machine Tools



Automotive Industry

Airports

Offshore Industry











MURRELEKTRONIK REFERENCES

WE STAY CONNECTED TO OUR CUSTOMERS

- Customers in many industries
- Regional, national and international references
- ABB / Arburg / Atlas Copco Rock Drills / Audi BMW / Bosch / Bosch Rexroth / Chiron / Daimler Deckel Maho Gildemeister / EMAG / Festo FORD-Werke / Grob / HAWE Hydraulik / Heller Hermle / Homag / Index Werke / Krones / Liebherr LQ / Moeller / Mori Seiki / OKU / Rieter / Rosenbauer Salvagnini / Schneider Electric / Schuler / Schweiger Sidel / Siemens / Stihl / Teamtechnik / Trumpf Volkswagen / Witron

Paper Industry



stay connected

At Murrelektronik, we create lasting connections, both personally and technically.



1975 1976 1978 1982



Company founded Pioneer product: RC-S01/220



First international branch office in **Switzerland**



First presence at trade fairs: Eltec. Dortmund and EMO, Hanover (Germany)



Interface technology the second product range | 30 employees working in Oppenweiler



Murrelektronik becomes sponsor of the TV Oppenweiler

1985 1983 1984 1986 1989



Branch office in China Third product founded | First trainee range developed: is hired



valves and sensor connectors



Beginning of automation technology Number of **employees** rises to 148



Murrelektronik enters the, field of power supplies with switch mode power supply units



Moving to the current building with 270 employees Pioneering into fieldbus technology

1995 1997 1999 1993 1994



Murrelektronik acquires the company KSG in Stollberg, Germany



is expanded Branch office in USA is founded



Interface technology Commitment made to Brazilian charity house for children: Casa do Zezinho | Branch office in Brazil founded



online presence, and unveils the new company logo



Murrelektronik has New trade fair concept is created | 400 employees in Oppenweiler

2002 2004 2006 2005 2001



The Murrelektronik group expands to 1,000 employees worldwide | Launch of the MVK plastic fieldbus system



Start of SAP Launch of MVK Metal, a product for demanding requirements



Milestone: Cube67 wins the coveted **Automation Award**



Breaking ground for the new logistics center in Oppenweiler | 30 years Murrelektronik



Murrelektronik's Cube67 receives the IF Design Award



MURRELEKTRONIK HISTORY

Murrelektronik unites Yesterday, Today and Tomorrow...

In 1975, Franz Hafner began this company in Oppenweiler with a vision. Today, Murrelektronik is a worldwide company that is still owner-managed and driven by that vision.

2007 2008 2009 2010 2012



Murrelektronik's hot air balloon takes off | Introduction of MICO = Top product



Murrelektronik is among the **TOP 100** Mid-Sized Companies



Start of the campaign Entry into active CONNECTIVITY safety technolog



Entry into active safety technology | Branch office in Turkey is founded



CONNECTIVITY by Murrelektronikbecomes a system
consulting brand

2013 2014 2015



Murrelektronik's Connectivity App Wins the Automation App Award | Murrelektronik has 1,700 employees worldwide



Murrelektronik has received the award for: **Best B2B Shop** in the Electronic Industry



Murrelektronik has received the "Best Place to Learn" award | 40 years Murrelektronik

MURRELEKTRONIK HAS OFFICES WORLDWIDE TO ASSIST YOU



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SYSTEM ADVICE WITH CONNECTIVITY CITY

Go from the industry overview to your application ...

... to the appropriate product and link to the online catalog











CONNECTIVITY BY MURRELEKTRONIK

PROCESS OVERVIEW

- On-site analysis
- Exchanging the basic documentation
- Discussing the current status

- Concept overview
- Analyzing advantages and disadvantages
- Bill of materials

- Customer-specific requirements
- Industry-specific requirements
- Several concept options

- E-plan and CAD data
- Electronic catalog data (BMEcat)
- Setup support

Assessing Status

Creating a Concept

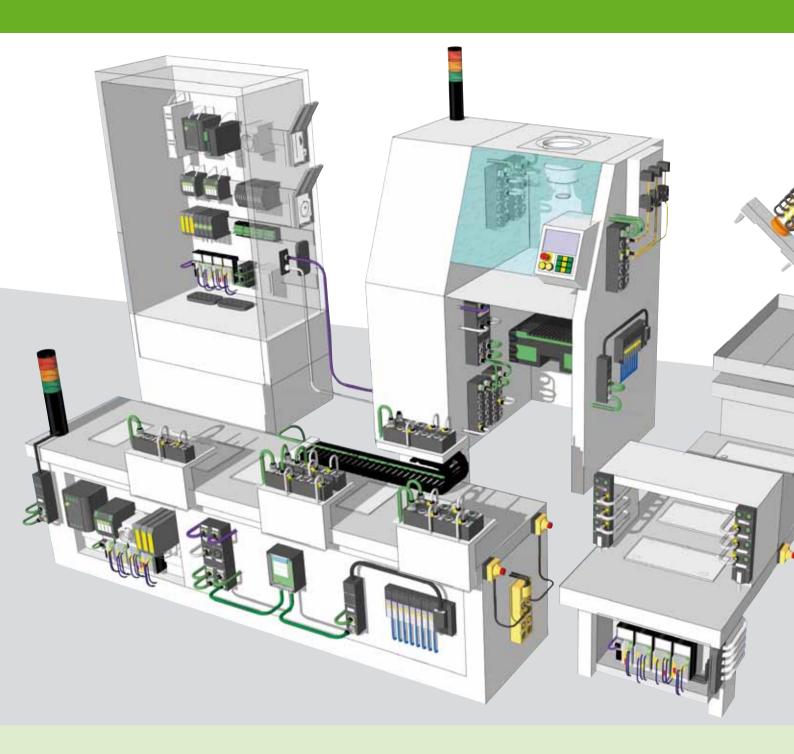
Selecting the Design

Project Support

4.

2

11

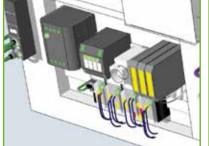


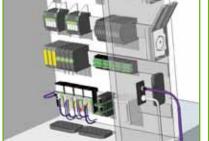
WITH CUSTOM INSTALLATION CONCEPTS SAVE TIME AND MONEY!

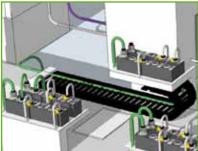
ELECTRONICS IN THE CONTROL CABINET

INTERFACES

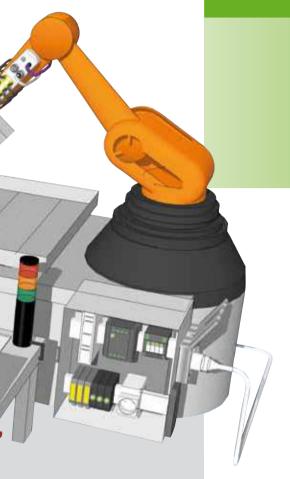
CONNECTION TECHNOLOGY











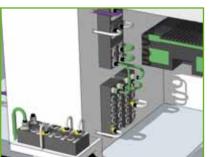
MURRELEKTRONIK BEST PRACTICE APPLICATIONS

REDUCING THE TOTAL COSTS WHEN INSTALLING I/Os

- Flexible installation concepts => Optimized processes in all segments
- Convenient diagnostics => Increased machine availability
- Reducing assembly and setup time
- Optimizing logistics
- Fewer wiring efforts

INTEGRATED APPROACH = COST-EFFECTIVE RESULTS!

I/O SYSTEMS











I/O SYSTEMS





PRODUCTS4 PRODUCT RANGES



Electronic components for applications in the cabinet, for different tasks and applications on a high technical level.

2 INTERFACES
SERVICE INTERFACE, CABLE ENTRY SYSTEMS,
SIGNAL TOWERS

Over 4,000 interface combinations possible to go from the control cabinet into the field, offering maximum flexibility.

CONNECTION TECHNOLOGY CONNECTORS, CABLES

Murrelektronik offers one of the most comprehensive product ranges on the market to connect sensors and actuators.

I/O SYSTEMS
FIELDBUS TECHNOLOGY, DISTRIBUTION SYSTEMS

I/O Systems are the distributing link between PLC and sensor/actuator level that go from passive distribution systems to fieldbus technology in compact or modular design.





EMC filters are essential components that ensure interference-free operation of machines and systems. They function in two directions: First, they dampen interferences that originate from the inside of a machine or a system, a problem that is hard to avoid. Second, they ensure that interferences from adjacent machines and installations do not disturb the intact field within the system. Murrelektronik offers a comprehensive product line with single and 3-phase units (up to 180 A).

Filters are available in a slim book design with convenient DIN rail mounting. Two-stage filters help to meet the limits of radio frequency interference in residential and mixed zones. Ground straps are another important suppression technology: They connect filters to the protective earth (PE). This way, ground straps discharge all interference safely and comply with the relevant standards.



PRODUCTS ELECTRONICS IN THE CONTROL CABINET



Suppressor modules from Murrelektronik help avoid damage when load voltage spikes create problems (for example contactors, motors or valves). They enable an EMC-compatible design of systems, machines, and equipment. They considerably limit voltage spikes — especially if they are installed close to the interference source. Using a suppressor increases the lifetime of contacts and coil-windings, as well as reduces the operating and maintenance costs. When developing the products, Murrelektronik collaborates closely with the manufacturers of motors, contactors, and valves. Therefore, the modules are precisely matched for the sources of voltage spikes.





1 POWER SUPPLY AND DISTRIBUTION

Power supply modules are the heart of every control cabinet. They set the pace. Murrelektronik is your one-stop supplier for these products! We offer a wide range of transformers for adjusting voltages – they are available as control, isolation and safety transformers.

Rectified power supplies (for transforming AC voltage into smoothed DC voltage) and switch mode power supplies (for transforming into regulated DC voltage) are also offered in a wide product range.

Murrelektronik's portfolio also features a wide selection of redundancy and buffer modules. They protect power supplies from interferences. Intelligent current management is another important product line. MICO monitors currents, indicates when approaching the maximum load, and detects over-stress.





PRODUCTS ELECTRONICS IN THE CONTROL CABINET

1 INTERFACE TECHNOLOGY

Converting, amplifying, transferring signals – interface components have to fulfill various requirements while being potential-free. Murrelektronik offers a comprehensive product range for this field of automation technology. Relays are available for all voltage ranges. They are especially slim, so they don't take up a lot of space in the control cabinet.

Optocoupler modules from Murrelektronik are suitable for coupling and isolating elements for various control functions. Active interface modules collect signals and transfer them into formats that the following receiver can process. Murrelektronik's active brake rectifiers simplify connecting DC brakes. The tree switches can combine up to eight Ethernet terminal devices in a single, compact device.





PRODUCTSINTERFACES



Interfaces that connect the control cabinet to the field are an important part of all machines and installations. Murrelektronik's MSDD Modlink front panel interfaces are a modular system for servicing the panel. They are designed to connect analysis or programming devices to the control cabinet. The MPV control cabinet coupling is the right solution for permanent plug connections. Murrelektronik also supplies cable entry systems that ensure sealed connections. The innovative MSDD hybrid fieldbus couplings combine repeater and entry systems. Eurocard holders connect individual parts to control units. We have large number of outlets available for almost all countries worldwide. For optical indication of all operating states, the signal towers of the Modlight product group are available in different models for all kinds of machines and installations.



PRODUCTSCONNECTION TECHNOLOGY

3 CONNECTORS AND CABLES

Murrelektronik offers one of the most comprehensive program ranges on the market for connecting sensors and actuators. A great number of connectors are available from stock or will produced within 48 hours from when you place your order – with order quantities starting from 1 piece!

The connectors are available in various forms. The product range includes the classic M8- and M12 round plug connectors, valve connectors and many more models. Different types of connectors are offered: with connection cable, with open ended wires or for field wiring. They feature various cable materials, wire sections, jacket colors, and number of poles. Murrelektronik offers models for demanding industrial environments (as used in machine and plant construction) as well as for applications that require quick connections, like in handling technology. Furthermore, the selection comprises versions for outdoor applications, the Food and Beverage industry, or for the mobile hydraulic sector.





4 FIELDBUS TECHNOLOGY

With Murrelektronik's fieldbus technology you can connect sensors and actuators conveniently and systematically to a higher control level. This allows cost-effective installation and automation solutions in machines and plants for many industries like: assembly and handling technology, machine building, materials-handling technology, logistics, process technology and building installations.

Murrelektronik offers solutions for any application. Cube67 is a modular system especially for application-friendly installations. Impact67 equals major cost savings. MVK Metal is made for demanding industrial environments. MASI is unique because of its extremely simple installation technology. Murrelektronik's fieldbus modules enable convenient and thorough diagnostics: with a clearly visible LEDs at the port and error messages in the control. The principle of "changing the bus without changing the system" provides flexibility. For safety-related applications, suitable solutions are available that guarantee optimum protection of man and machine. Products for the control cabinet complete the fieldbus technology range.





PRODUCTSI/O SYSTEMS

4 DISTRIBUTION SYSTEMS

Murrelektronik's passive distribution boxes provide a convenient method for connecting sensors and actuators to the control cabinet. These cost-efficient, safe and space saving installation solutions are designed for small and mid-sized machines. A wide range of application is possible. The comprehensive product portfolio enables the use in normally dry applications (warehousing, packaging, handling), heavy duty applications (metal and wood working, or polymer processing), in the Food and Beverage sector up to mobile outdoor applications.

Compared to single wire solutions with terminal boxes, installations with passive distribution boxes offer many advantages: smaller design, tighter connections, shorter assembly time and fewer materials are needed. Their integrated LEDs enable diagnostic options. Moreover, pluggable solutions with distribution boxes (M8 and M12) eliminate wiring errors.





BE CLEVER – REDUCE COSTS AND INCREASE EFFICIENCYWITH PREDEFINED COMPONENTS OR PRODUCTS THAT ARE SPECIALLY DESIGNED FOR YOU

Murrelektronik offers a wide range of predefined products that meet your specific requirements











SERVICE RESOURCES

BRIGHT IDEAS

- Kabelbutler™
- Value Added Assembly
- Customized Developments







INCREASE EFFICIENCY AND COST-EFFECTIVENESS BENEFIT FROM THE TECHNICAL EXPERIENCE

They always find the answers to your questions – Murrelektronik's Customer Service Center (CSC)



Convenient online ordering:

shop.murrelektronik.com







SERVICE SUPPORT

SERVICE WITH TECHNICAL BACKGROUND

- Technical Support for Cross Referencing
- Customer Service Center (CSC)
- eCatalog/BMEcat
- Online Catalog
- Murrelektronik App

Murrelektronik App

Murrelektronik product information in the palm of your hand – perfect for use in the field. Just scan the bar code or type in the part number and receive access to installation instructions, data sheets, construction files and many more.









www.murrelektronik.com

The information contained herein has been compiled with the utmost care. Liability for the correctness, completeness and topicality of the information is restricted to gross negligence.

Our company embraces social responsibility in all aspects of our business activities. Our brochures are printed using environmentally friendly production techniques and products.

