



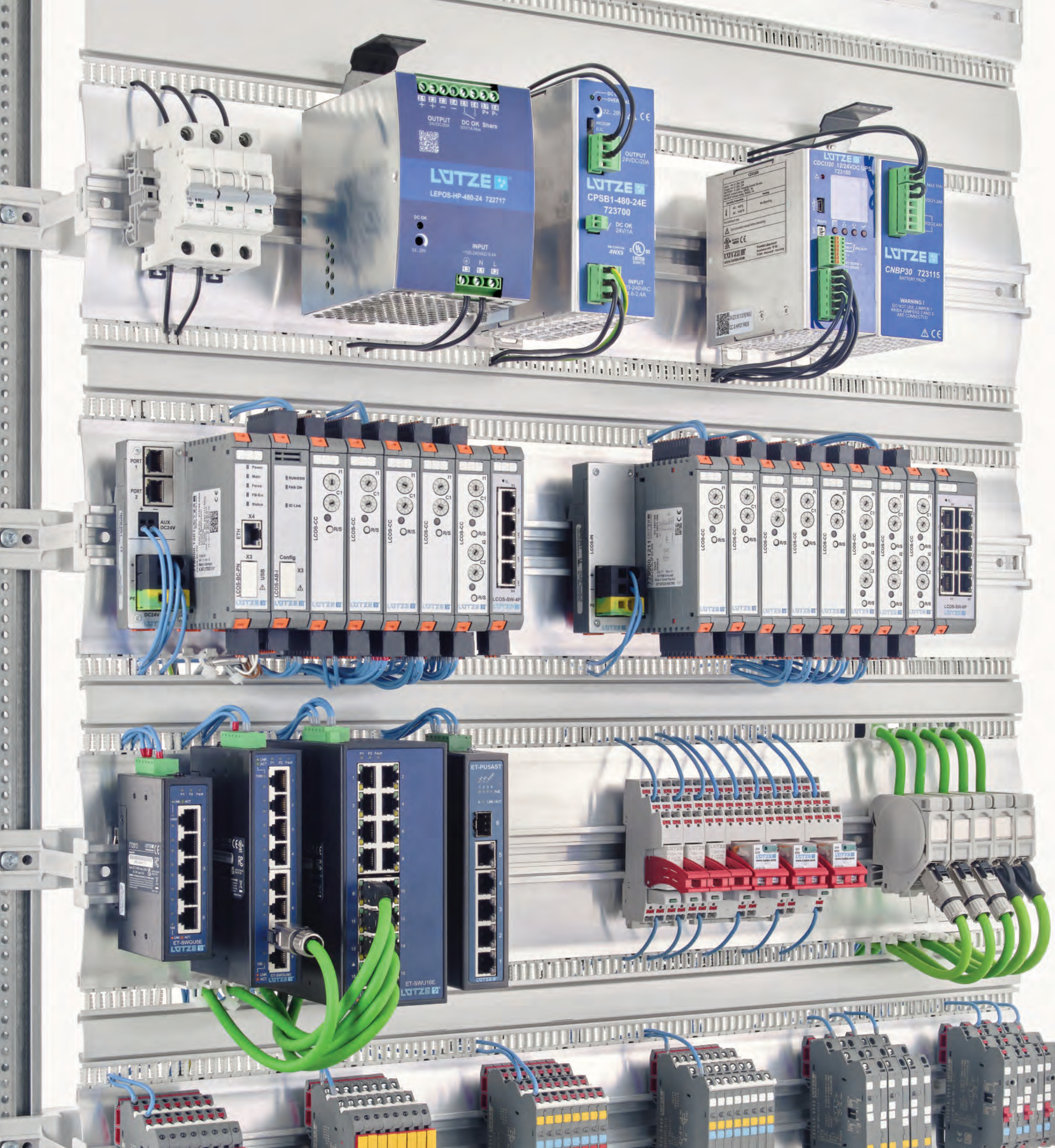


## Product overview

-  Cable
-  Connectivity
-  Cabinet
-  Control





# Welcome to LÜTZE

## LÜTZE - Efficiency in Automation

Over 65 years of tradition in automation - With numerous pioneering achievements and patents LÜTZE is one of the leading companies in the automation industry and railway technology.

LÜTZE AUTOMATION offers particularly efficient electronic and electrotechnical components as well as system solutions for a wide range of industries. The comprehensive, perfectly coordinated product range extends from highly flexible cables and cable assemblies to the energy-efficient **AirSTREAM®** wiring system for control cabinets and intelligent Industry 4.0 solutions in the areas of interface technology, current monitoring, power supply and Ethernet infrastructure.

LÜTZE is represented worldwide by sales companies and sales partners and is close to its customers in all markets.

[www.luetze.com](http://www.luetze.com)

Cable

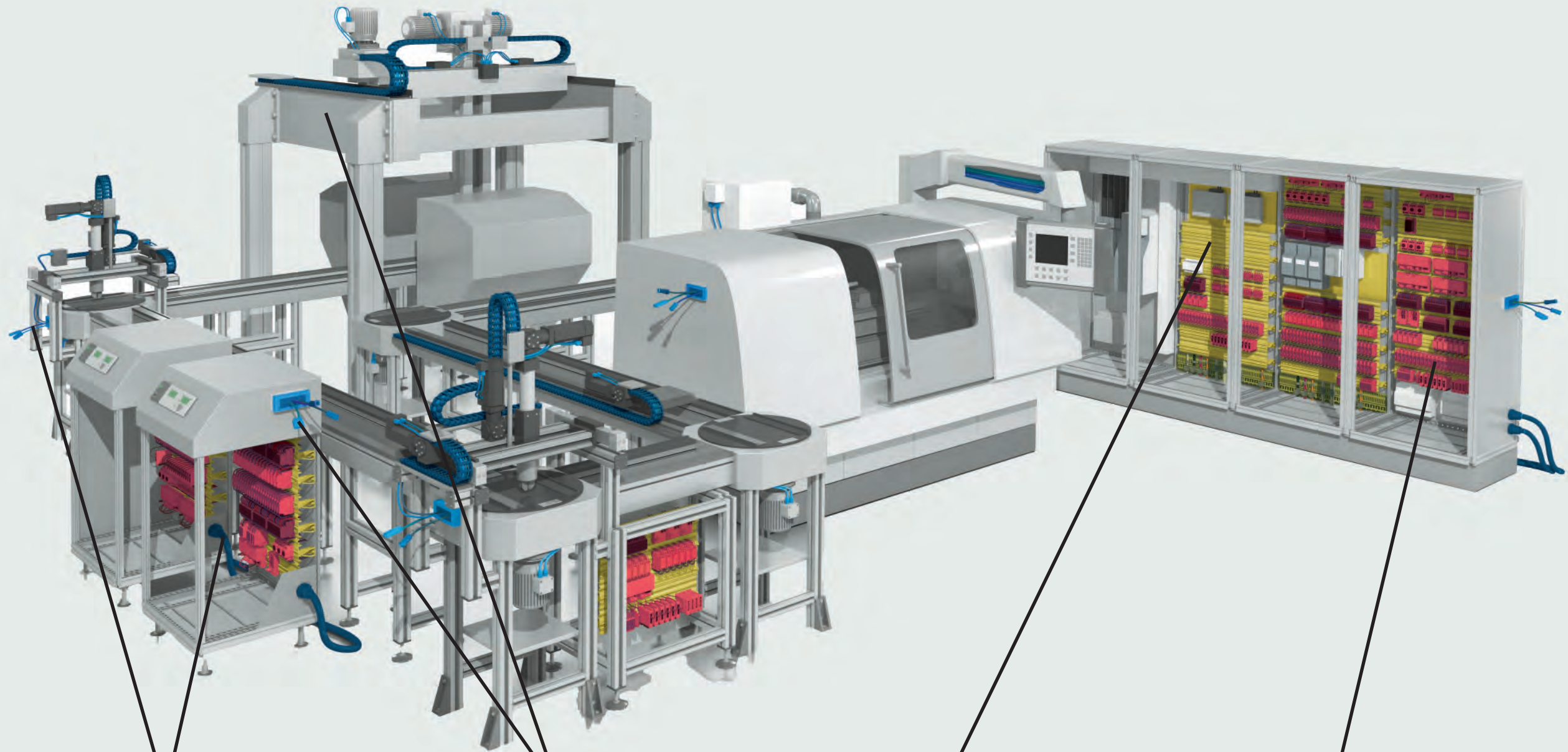
Connectivity

Cabinet

Control



# Efficiency in Automation - **LÜTZE** solutions at a glance



## Cable Solutions

Highly flexible cables with  
UL-approvals for the export orientated  
mechanical engineering  
Page 6 - 8



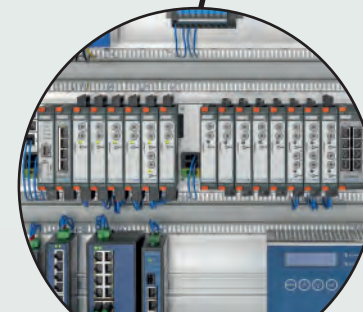
## Connectivity Solutions

Industrial Ethernet, cable assemblies  
for servo drive systems and  
interference suppression technology  
Page 9 - 11



## Cabinet Solutions

Thermal optimisation of the control  
cabinet with great energy-saving  
potential  
Page 12 - 15



## Control Solutions

Intelligent current monitoring  
and power supply, interface  
technology and flexible enclosure  
systems  
Page 16 - 20





## Cable Solutions

### Flexible cables for industrial automation

LÜTZE is your professional partner with a high-quality product portfolio for automated manufacturing – especially for export-oriented mechanical engineering. The focus is particularly on cables for dynamic applications.

For decades, LÜTZE has been offering the proven and highly reliable LÜTZE SUPERFLEX® cables for installation in drag chains.

The highly flexible LÜTZE SUPERFLEX® portfolio includes:

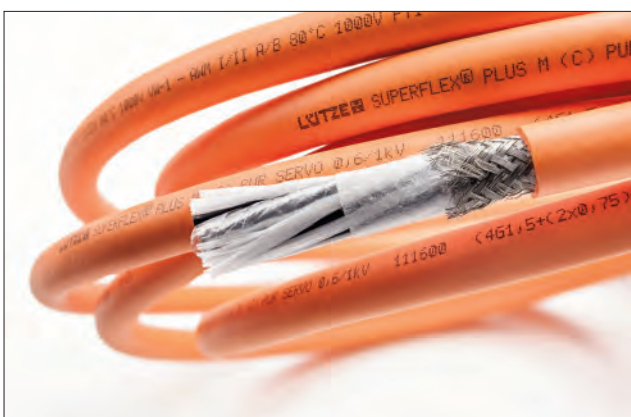
- Bus and network cables
- Motor and servo cables
- Control cables
- Electronic cables

## Network and Bus Cables

- Industrial Ethernet from Cat.5 to Cat.7
- Industrial Ethernet Cat.6A and Cat.7 are suitable for use in application in the energy supply chain and are torsion-capable
- Up to +/- 180°/m.
- Single Pair Ethernet
- Extensive programme of Profinet cables
- NEW: Profinet Type R



## Online Catalog



### Motor and Servo Cables

- Low capacitance for low-loss power transmission
- Particularly efficient
- DESINA-compliant
- Wide range for various drives
- Available pre-assembled
- Approved for the North American market



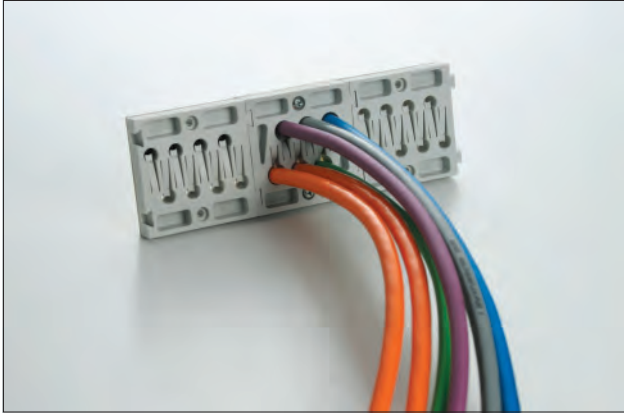
### Control cables

- LÜTZE SUPERFLEX® for use in drag chains
- LÜTZE SILFLEX® for occasional movement applications
- Small external diameter



### Electronic cables

- LÜTZE SUPERFLEX® TRONIC for use in drag chains
- Actuator-sensor variant
- Approved for the North American market
- Low capacitance



## **LÜTZE CABLEFIX® Flanges – The intelligent way of cable routing**

- Convenient, time-saving, and secure
- For actuator, sensor, BUS, and control cables
- Easy installation, quick setup
- For individual arrangement and expansion



## **LÜTZE EMC fittings**

- PG and metric EMC fittings for optimal shielding
- Easy handling for quick EMC connection of the braided shield
- Integrated strain relief



## **LÜTZE plastic cable fittings and accessories**

- Available in PG and metric versions





## Connectivity Solutions

### High Quality Cable Assemblies

LÜTZE solutions in the field of cable assembly are utilised by almost all industries, but particularly by the mechanical engineering, energy technology and electromechanical sectors. LÜTZE has more than 30 years of experience in this field and works closely with its globally represented sales companies and agencies for the majority of its international customers.

For maximum flexibility and delivery performance, all assembly activities are bundled at the LÜTZE Connectivity Competence Centre in the Czech Republic.

The overriding principle for cable assemblies is quality assurance in accordance with the ISO 9001 QM management system, supported by internal CIP processes.

# LÜTZE PANELCON® KEYSTONE

Modular communication interface with a wide range of industrial modules

- Reliable industrial-grade service interfaces for control panels and operator panels
- The high variety of Keystone modules offers the optimal adaptation of the appropriate handover points for your application
- Very robust material with the highest protection class IP 65/67/69, suitable for indoor and outdoor applications



[Online Catalog](#)



## LÜTZE PANELCON®

The new LÜTZE PANELCON® fitting bushes with hinged lids are ideal for this purpose, and allow very tight and attractive transfer points and service interfaces.

- The respective connection type is clearly visible below the hinged lid.
- Defined open and closed state thanks to audible engagement
- Lead seal and description plate possible



## Industrial Ethernet

Industrial Ethernet Network cables and components assembled by Lütze are designed for industrial applications, and comply with applicable standards and mechanical parameters according to system requirements.

All components undergo a 100% electrical inspection and meet all common network specifications.



## Connectors for all application areas

Plug connections are so varied, it is hardly a field of electrical engineering. When coupling, (mounting-) disconnecting and connecting electrical contacts requires much more knowledge than just know-how about the male and female ends.





## High Quality Cable Assemblies

### Customized servo cables

LÜTZE offers assembled cables that are 100% compatible with the common servo drive system standards.

### Customized variants

On request, we customize servo assemblies according to the user's specifications and requirements. LÜTZE gladly assists with project planning and documentation.



## Interference suppression technology

### Suitable protection for contactors, valves, and motors

As a specialist in suppressors, LÜTZE offers suitable overvoltage protections in various housing options for contactors, valves and motors or other inductors.

Special functions or designs are available on request.



## Actuator-sensor in automation technology

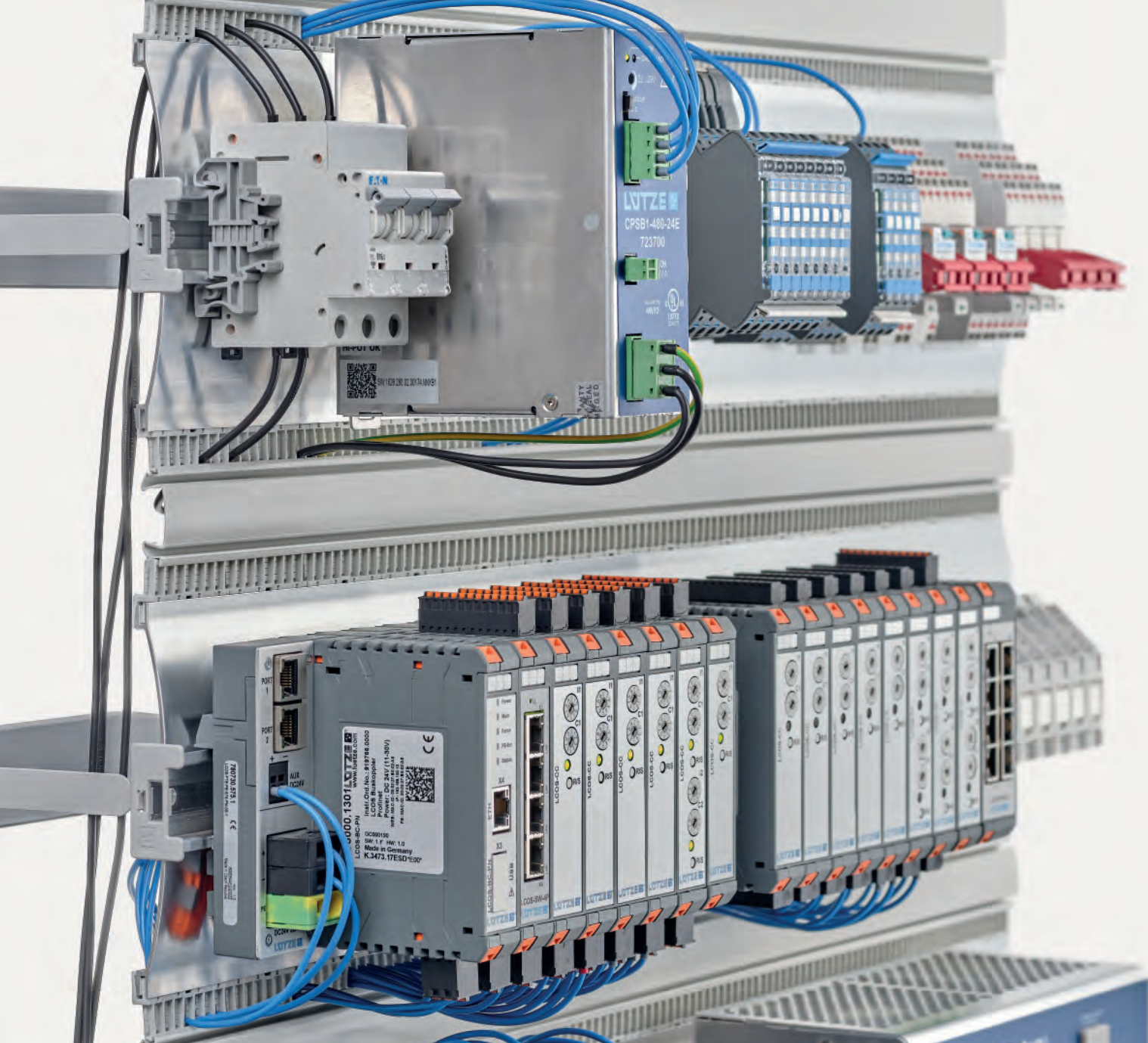
The area of actuator networks is currently experiencing significant growth, not least because of the digital transformation of an increasing number of Industry 4.0 applications. Whether in automation or other fields, these networks are always composed of numerous sensor or actuator nodes, providing data to be observed and analyzed for forming various decisions.



## Wall pass throughs

To prevent increased risk when the control cabinet door is open, LÜTZE offers wall pass throughs for the control cabinet for M8, M12, RJ45, and USB. With the pluggable Plug-and-Play standard interfaces, the connections between all control and data cables and the control cabinet are guaranteed.

The LÜTZE panel pass through devices have IP65, thus providing easy and safe access to the components and devices in the control cabinet.



## Cabinet Solutions

### Channel-free and energy-saving: The *AirSTREAM*® System

In control cabinet construction, the components are becoming increasingly powerful and compact due to growing switching functions. This also means that the thermal loss rate is higher. The usual cable channel further traps the heat, creating hot spots. Standard climate control features in control cabinets are often not able to dissipate these hotspots. The cooling energy does not reach where it should. The consequences are frequent failures and machine downtimes.

The *AirSTREAM*® system offers a thermally optimized, and at the same time space- and time-saving alternative to the mounting panel – including practical online tools for planning and simulating the temperature in the control cabinet.

*AirSTREAM*® enables demand-based cooling in the control cabinet, with significantly lower energy requirements and a corresponding reduction in CO2 emissions.



## AirTEMP® Controller - Detailed condition monitoring of the enclosure

The *AirTEMP*® Controller unit enables centralised and efficient monitoring of individual enclosures or enclosure series combinations that are equipped with the *AirSTREAM*® wiring system. The condition monitoring system enables thermal monitoring to increase operational safety and ensure a sustainable and homogeneous climate in the enclosure.

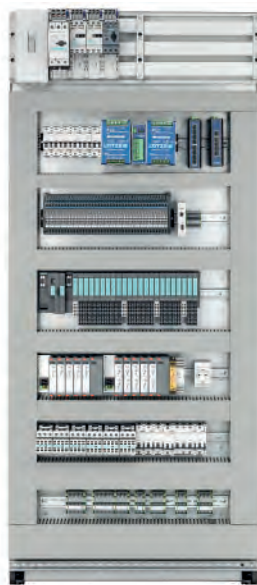


Online Catalog



*AirSTREAM*®

Platzersparnis



Konventioneller Aufbau

### More space in the control cabinet

By separating into a setup and wiring level, cable channels are no longer needed. This allows components to be arranged more compactly in the available space, impacting space utilization.

As a result, *AirSTREAM*® (shown left) allows for reduced control cabinet volume compared to the mounting panel by optimizing space utilization (space gain shown in orange). Control cabinets can be smaller, or fields can be saved. Alternatively, space is available for subsequent changes to the control system.



### More energy efficiency and less CO<sup>2</sup> through demand-based cooling

With the *AirSTREAM*® system, *AirBLOWER*® fan systems, and the associated infrastructure, LÜTZE offers tailored solutions for uniform heat distribution in various control cabinets.

As numerous scientific studies have shown, the intelligent *AirSTREAM*® overall concept minimizes thermal stress on the components. *AirSTREAM*® enables demand-based control cabinet cooling that is precisely adapted to the power loss of power electronics, cabinet parameters, and environmental conditions.

In total, this means less cooling power is needed, hot spots are avoided, components last longer, and operational safety increases.



### **AirSTREAM® Compact**

The compact and space-saving variant of the *AirSTREAM®* was specially developed for small control cabinets and enclosures. The completely compatible profile rails of the classic *AirSTREAM®* are mounted in the compact version using special supports. This saves space at the back of the cabinet. Furthermore, the extensive accessories of *AirSTREAM®* can also be used for *AirSTREAM® Compact*.



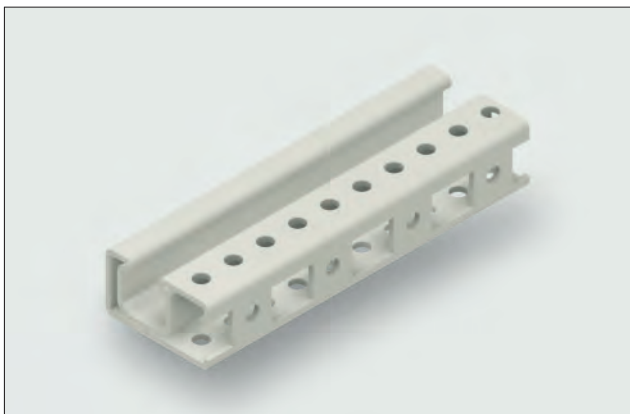
### **AirTEMP® 2.0 - Temperature simulation**

With *AirTEMP® 2.0*, practical thermal forecasts for control cabinets equipped with LÜTZE *AirSTREAM®* wiring systems can be created – including an import function for EPLAN part lists and type test compliance according to EN 61439 (Chapter 10.10 | temperature limits). Thanks to this online tool, the most effective measures for demand-based cooling can be swiftly and easily identified.



### **CrossBoard®**

The CrossBoard® from WÖHNER brings a busbar system up to 160 A to the *AirSTREAM®* wiring frame. The CrossBoard® is an out-of-the-box busbar system that allows for innovative power distribution to be implemented quickly and conveniently. The CrossBoard® is available in the standard lengths of 500, 700, 900 and 1100 mm and covers the standard cabinet widths and *AirSTREAM®* frame widths.



### **AirSTREAM® - The modular system from LÜTZE**

Mounting rails, brackets, comb segments and various rail profiles form the *AirSTREAM®* modular system for maximum flexibility in the control cabinet. These few elements open up almost infinite possibilities for control cabinet builders and planners. Even handling large and heavy components is very simple.



AirBLOWER®



## Better climate with **AirBLOWER®** and **AirBLOWER® Compact**

With the **AirBLOWER®** fan systems and **AirBLOWER® Compact**, as well as the associated infrastructure consisting of control units and temperature sensors, tailored solutions to uniform the heat distribution in various control cabinets.

**AirBLOWER®** clip-in fans can be easily mounted from the front in the wiring frame without tools.

The **AirBLOWER®** fan systems remove waste heat, improve air circulation, save cooling energy, and unify the control cabinet climate.

In addition to the classic **AirBLOWER®** fan bank, for normal and larger control cabinets, there is the **AirBLOWER® Compact** for smaller control cabinets and switch boxes.

AirBLOWER® Compact



## Control unit for **AirBLOWER®**

**Technical data for  
AirBLOWER® control unit LCOS-AB-I:**

- -25 °C to 70 °C
- Communication via IO link
- Configured via FDT/DTM
- 24 V power supply
- 2 W power consumption
- 24 V connection for fan module
- Floating outputs for error message  
(Standard broken wire, over-temperature (45 °C +/- 5 K)  
- can be configured freely) e.g. temperature unit



## **AirBLADE®** eliminates hot spots

In hot spot areas, the use of an **AirBLADE®** is recommended. **AirBLADE®** units are like comb segments with a 50 mm grid and can be easily replaced. Hot spots are reduced thanks to the precise ventilation.

However, bear in mind that sensitive components need to be protected. If possible, sensitive parts should not be placed in hot spot areas.





## Control Solutions

### Components and solutions for Industry 4.0

With its portfolio from the area of Control, LÜTZE covers the area of current overload and short circuit protection, as well as the entire spectrum of industrial power supplies. The LOCC-Box® and LCOS® CC systems guarantee intelligent and reliable power monitoring, and all the possibilities of integration into the latest Industry 4.0 applications.

Additionally, LÜTZE offers a wide range of signal and temperature converters, as well as switching devices for coupling signals and switching loads - also suitable for use in switch boxes. The LÜTZE Control range is complemented by switches, media converters, and bus couplers for industrial network infrastructure and numerous function modules, as well as by the modular electronic housing system LCOS® for equipping with any desired electronics.



## LEPOS® - The entry series

LEPOS® power supply units are a cost-optimized series of power supply units for standard applications. In addition to a 1-phase Basic series, the 1-phase Performance series is available for more complex requirements. The 2-phase Wide Range series is the ideal choice for global applications. The 3-phase devices offer full performance without compromise.



[Online Catalog](#)



### COMPACT - Series

- Power supplies for inductive, resistive, and highly capacitive loads
- Single-phase, three-phase, and 1-/2-/3-phase options
- Output power ranging from 30 W to 2400 W
- Very compact design
- Parallel and redundant operation possible
- Efficiency up to 95.9%
- DC/DC converters, uninterruptible power supplies, and redundancy modules



### LOCC-Box® current monitoring system

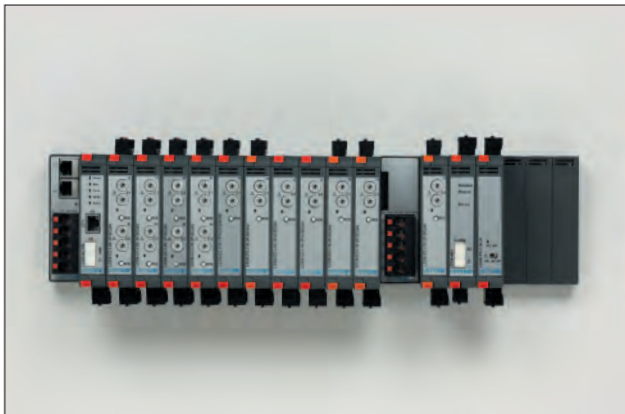
- Electrical and optical status reports
- Communication via field buses such as PROFINET-IO, Profibus-DP, EtherCAT or Ethernet/IP and CANopen
- Compact design
- Very narrow electronic load monitoring with 4.05 mm per channel
- Single-channel and two-channel versions



### LOCC-Box®-Mini

**The 1-channel current control in a miniature format**

- Adjustable current range from 1A to 8A
- Adjustable characteristic fast-acting - super slow
- Optimal size, installation depth < 8.8 cm
- Direct connection of the load with + and -
- Smallest and narrowest stand-alone module with 40 setting options
- Replacement for circuit breakers



### LCOS® LUNA®

- Maximum supply current of 100 A
- Supply voltage DC 24 V - max. AC/DC 230 V
- 6- and 11-fold variant, active and passive variant
- Integration in fieldbus systems possible
- Expansion through extension modules or individual LCOS function carriers
- Data bus forwarding to expansion modules with renewed power supply up to AC/DC 230 V, 100 A
- No accessories necessary



### LCOS®-PS

- Single-phase power supplies with wide input range for worldwide use
- 30 W, 60 W and 120 W units
- Usable as a stand-alone module or within the "LÜTZE Communication System"
- Very high output reserve, e.g. 150% for 5s at 24 V at 24 V



### LCOS® CC

- Electronic load monitoring within the "Lütze Communication System"
- Adjustable current range from 1A to 10A
- Adjustable characteristic from fast to super slow
- Electrical and optical status reports
- Single-channel variant with 2-pole disconnection (galvanically isolated)
- 2-channel variant with 1-pin shutdown
- Direct connection the load to + and -



### LCOS® Unmanaged Ethernet-Switches

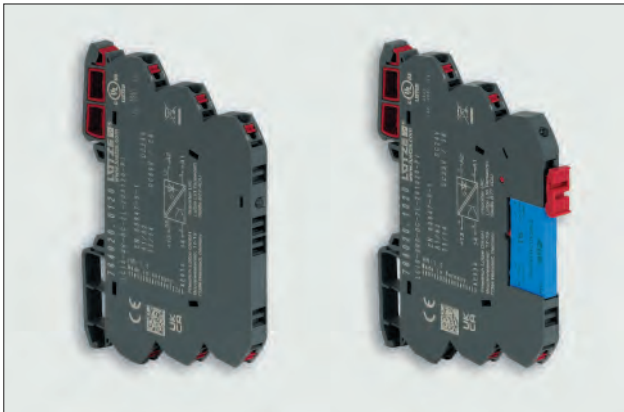
- AC/DC 24V power supply
- Variable power supply
  - Energy bus or
  - 3-pin clamp-type terminal Push-In
- Can be used as a standalone module or in the "LÜTZE Communication System"
- Compact design and universal application
- QoS - Quality of Services





### LCIS<sup>®</sup> relay modules

- For the potential-free switching of small loads.
- Space-saving 6.2 mm width, 15.9 mm and 31 mm
- Closed and pluggable design
- Control voltage of DC 12 V - AC/DC 230 V
- Relay with 1, 2 and 4 changers
- Screw or Push-In connection
- UL and DNV approval



### LCIS<sup>®</sup> semiconductor relay modules

- For contact-free switching of loads up to 10 A
- Switching voltages up to AC 275 V
- Space-saving 6.2 mm width
- Closed and pluggable designs
- 2 and 3-conductor technology
- Screw or Push-In connection
- UL and DNV approval



### Unmanaged Ethernet-Switches

- Redundant AC/DC wide range supply  
DC 12-48 V, AC 24 V
- PoE+ Switches with 4- and 8-ports
- Fast- and 1Gbit Ethernet Switches, 5-, 8- and 16 ports
- Expanded temperature range -40 - +75 °C
- Intelligent energy management
- SFP - Ports for LWL connection



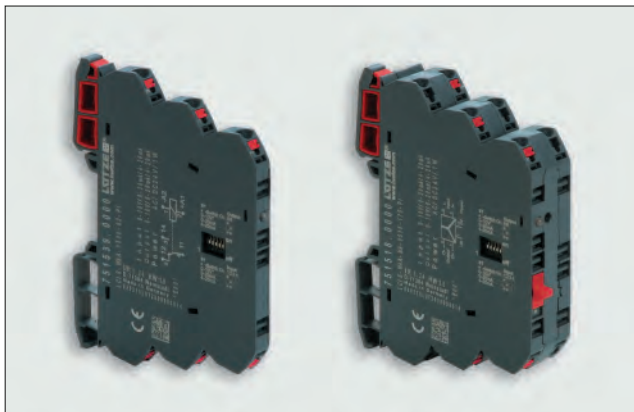
### LCON<sup>®</sup> programmable converter FDT/DTM

- Complete galvanic isolation
- High precision                      • Analog splitter
- 1 kHz transmission frequency
- Temperature converters for PT, TE and more
- Analog converter with input  $\pm 30$  V,  $\pm 5$  A
- Temperature and analog limit switch temperature with 2 freely configurable switching thresholds
- Setting via software (PACTware) and/or DIP switch
- Various analog outputs
- UL and DNV approval



## LCIS® Signal and Temperature Converter

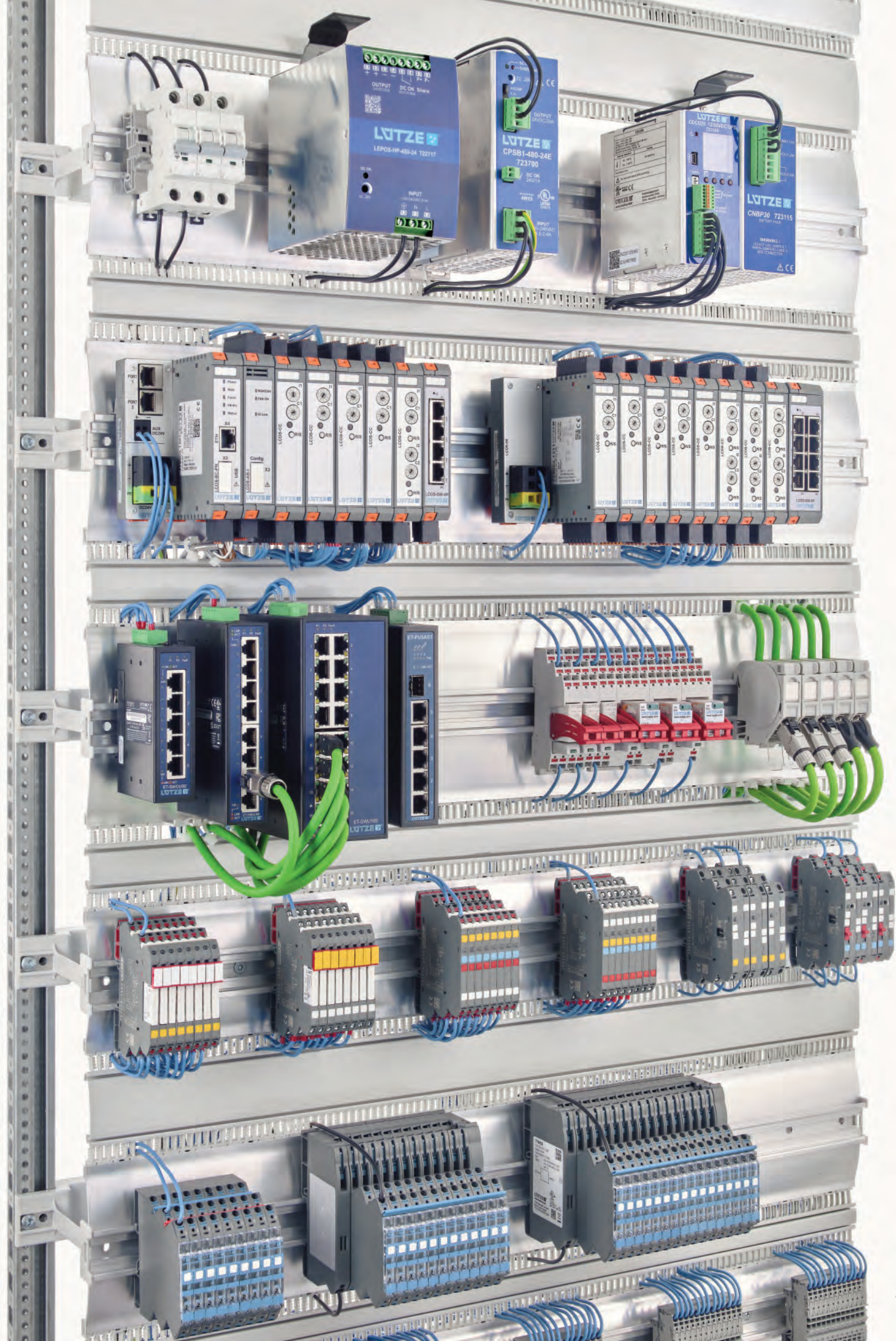
- With permanently defined measuring ranges
- 3-way separation
- Power supply AC/DC 24 V and 24 - 240 V
- Isolation voltage up to 4.0kV
- Standard signal converters active / passive
- Screw or Push-In connection
- UL and DNV approval
- Various analog outputs
- Temperature converters for PT and TE
- Analog converter - input +- +20V, +20mA



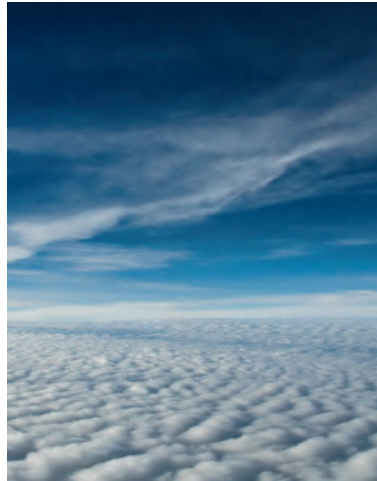
## LCIS® Universal-converter

- Universal setting of measuring ranges thanks to DIP-Switch
- 2 and 3-way separation
- Wide range supply of AC/DC 24 - 240 V
- Isolation voltage up to 4kV
- Frequency, temperature and standard signal converter
- Variants for building technology with Manual-0 Automatic
- UL and DNV approval

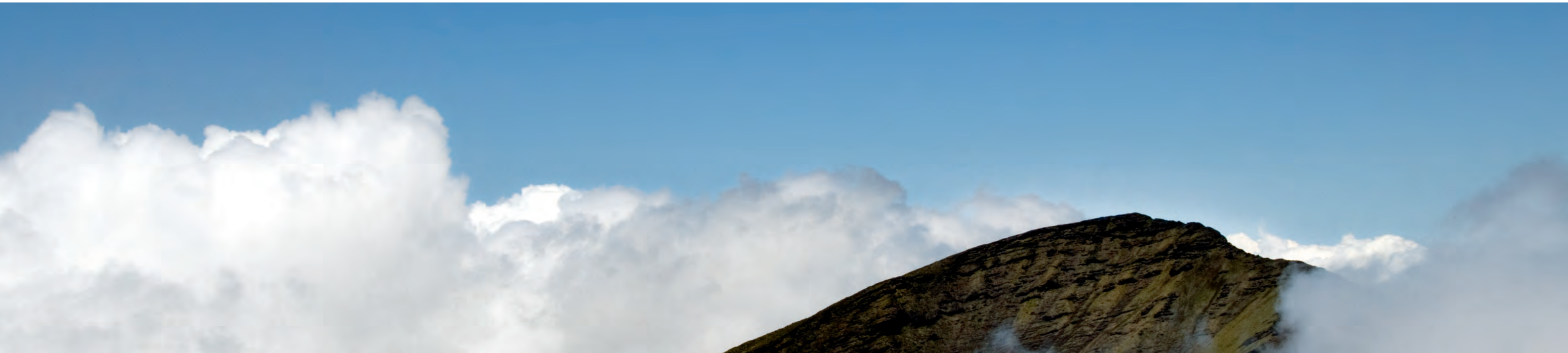








# Business Management: Sustainable and forward-looking



## The future is blue

Sustainable enterprise means thinking and planning ahead, understanding and embedding the belief that long lasting success is more important than short-term profit maximisation.

This is an attitude that has existed within LÜTZE for quite some time. Economic and environmental responsibilities complement each

other well and are reflected in the sustainable management and product policy - and from now in the SkyBLUE campaign.

We manufacture our products in a resourceful and energy-conscious manner. We use long lasting, environmentally-friendly materials. And our products, in turn, help our customers save energy and

resources.  
Good for everyone: for us, for the environment, for our customers a win-win-win situation.

## Goods with real value

The value of a product or a solution from LÜTZE is determined by its sustainable qualities as well. Every innovation is only as successful in the future if it has a long-term positive effect. Therefore, we provide long lasting as well as highly efficient components. We are incorporating the necessary knowledge and manufacturing competence in numerous joint

projects with the objective of improving energy efficiency and sustainable technologies and industries. Thus, LÜTZE provides answers and demonstrates how to handle resources responsibly, with our environment and our future in mind.



**RoHS**



### Cable Solutions

High flexing cables for industrial applications

### Connectivity Solutions

Industrial Ethernet, Cable Assemblies,  
Actuator Sensor Interface, Connectors and  
Suppression Technology

### Cabinet Solutions

*AirSTREAM* complete system for thermally  
optimized and space-saving cabinet wiring

### Control Solutions

Industrial Power Supplies and Electronic Current  
Control for Industrial Internet of Things. Infrastructure  
for Industrial Networks, Signal Converter, Relays and  
modular Electronics Housing

### Transportation Solutions

Solutions for the demanding Railway Sector,  
for example Control Technology,  
Interface Solutions and Signalling

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