

# LÜTZE-REPORT

The international magazine of the LÜTZE Group

**LOCC-BOX AND LOW CURRENTS**  
**BOSCH REXROTH CONNECTIVITY**  
**NEW GENERAL MANAGER**  
**SAFE RAILWAYS CROSSINGS**  
**LOGISTICS THRILLER IN AUTOMOTIVE INDUSTRY**  
**WALTZ IN THE TRAIN TOILET**  
**ONLINE: CONTROL CABINET HEAT ANALYSIS**

# e d i t o r i a l

## EDITORIAL



Udo Lütze  
Managing Director  
Lütze International Group

So close and yet so far!

The latest version of our LÜTZE Report focuses on automation solutions in infrastructure and mobility projects. We look at this field from as many perspectives as possible to demonstrate the variety and flexibility of our daily work.

Look forward to an exciting mix of information about remote heat, long-distance traffic, long-distance travel and, certainly a highlight, a logistics thriller that you don't encounter every day!

I hope you enjoy reading this edition.

Best wishes,  
Udo Lütze

2

**SkyBLUE**  
LÜTZE

**BLUECOMPETENCE**  
Alliance Member

Partner of the Engineering Industry  
Sustainability Initiative

Additional information concerning the SkyBlue sustainability campaign from LÜTZE is available on the Internet at: [www.luetze.de](http://www.luetze.de) or at the following direct link: <http://bit.ly/L2bbFy>



## INDEX

	Page
LOCC-BOX: FIRST CHOICE FOR LOW CURRENTS	3
BOSCH REXROTH CONNECTIVITY	4
MANUFACTURER MEETS DISTRIBUTOR A GLOBAL PARTNERSHIP	5
SCHWEIZER ELECTRONIC AG LSC FOR RAILWAY CROSSINGS	6-7
1,200 AIRSTREAM FRAME RESCUED FROM 'DISTRESS AT SEA'	8-9
CAT: WALTZ IN THE TRAIN TOILET	10
CONTROL CABINET HEAT ANALYSIS FOR EVERYONE	11

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# LOCC-Box: Your first choice for low currents

Mathieu Le Cocguen - LÜTZE FRANCE

For more than 15 years the French company TIGR has been planning and manufacturing intelligent solutions for heating and cooling buildings. Individually configurable district heat stations, magnetic dirt-resistant filters, pressure-maintaining stations and a number of other systems are used to thermally equip district heat and district cooling networks.

Full control of systems, which requires recognised expertise in this area, has allowed TIGR to realise projects in sensitive places in Paris: airports, the site of the French National Assembly, and also museums such as the Louvre.

The LOCC-Box systems are installed in terminal boxes that control and monitor the district heat stations. The largest grids can comprise dozens of district heat stations and cover several square kilometres.

It is therefore important to have effective and reliable protection for the various outputs (24 V DC) of a terminal box. The electronic protective circuits by LÜTZE are ex-



tremely sensitive and can detect overloads regardless of the cable length.

The new model 716409 was selected, this can be set from 0.2 to 2 A (by increments of

0.2A turning a thumb wheel switch) and was developed during this planning phase.

The power supply used for this application is low current, and only 72 watts are required, i.e. a maximum current value of 3 A. The new LOCC-Box system for low currents now offer even more protection for the five outlets.

The existing loads are a PLC, a display unit, two E/S blocks with currents of between 0.4 and 0.8 A. With finer settings the new product gives much better protection than the existing LOCC-Box 716401 (even with long cable runs).

The LOCC-Box modules can be quickly and easily installed thanks to its jumper comb system, particularly when the total load current is less than 3 A.



# AirSTREAM goes EPLAN

LÜTZE GERMANY

The *AirSTREAM* wiring system by the automation specialist LÜTZE, Weinstadt is now available in the EPLAN Data Portal. The enginee-ring of all *AirSTREAM* standard modules can be simplified.

The integration of the LÜTZE *AirSTREAM* wiring system in EPLAN Data Portal is of great benefit to designers of interdisciplinary engineering tools: Project planning, 3D layout, production and assembly of an *AirSTREAM* wiring frame are merged into one uniform data base that enable standardised procedures, automatic processes and continuous workflows. Part updates are carried out automatically via the EPLAN Data Portal.

As a result, the design and production times for a LÜTZE *AirSTREAM* frame are minimised allowing products to be launched much faster.



## BOSCH REXROTH Connectivity

LÜTZE GERMANY

**LÜTZE expanding their extensive programme of cables suitable for C-tracks to include prefabricated motor cables for BOSCH REXROTH® SERVO drives.**

The prefabricated servo motor cables for BOSCH REXROTH® are suitable for use as servo motor and encoder cables. All cables are suitable for the Bosch Rexroth® systems EcoDrive and IndraDrive with the standard types RKL, IKG and IKS. On request, LÜTZE supplies customised lengths of 0.5 m for orders of just one unit.

The new LÜTZE prefabricated cables for Bosch Rexroth® always supply maximum

performance thanks to the use of the low-loss LÜTZE SUPERFLEX® cables. The special LÜTZE cable design offers maximum efficiency and also guarantees a long service life in the track. All cables have cURus approvals.

The LÜTZE SUPERFLEX® cables stand out due to their high active and passive interference resistance and excellent flexible properties. All LÜTZE SUPERFLEX® cables are highly suited for use in harsh industrial conditions. They are flame resistant, halogen-free and are highly resistant to oil, grease, coolants and lubricants.

## CEO and CFO

LÜTZE GERMANY

**Automation specialist Friedrich Lütze, Weinstadt, have reorganised their management team and welcome CEO Martin Teufel and CFO Richard Schmidhofer.**

On 8.11.2016 Martin Teufel was appointed as Managing Director and CEO of Friedrich Lütze GmbH based in Weinstadt. This means that Martin Teufel will now be responsible at LÜTZE for global product, life-cycle, supply chain management and also the customer relationship and support processes in the German market. For many years Martin Teufel has been the Strategic Director for the international LÜTZE Group and knows LÜTZE

like the back of his hand.

This new appointment is flanked by the appointment of Richard Schmidhofer as the new CFO of the LÜTZE Group.







# Manufacturer meets Distributor - A global partnership

LÜTZE UK

**RS Components** and Allied Electronics in North America, are the trading brands of Electrocomponents plc - a £1.2bn turnover group of companies - with operations in 32 countries, including the UK, France, Italy, Germany, and as far afield as Chile, New Zealand and China. They offer around 500,000 products to over one million customers through the internet, catalogues and trade counters - shipping more than 44,000 parcels a day.

Sourced from 2,500 Global suppliers, the broad product range includes electronics, automation and control, test and measurement, electrical and mechanical components.

Now RS Components and Lütze UK have joined forces to offer the LOCC-Box - the latest technology to give protection for control systems and field cabling, to a global audience, through the groups' 16 distribution centres across the world.

## **So why have RS Components chosen Lütze?**

Lütze is innovative with their product development associated with factory automation solutions and bring leading edge technology into the automation control environment in the form of LOCC Box.

This technology for the protection of control systems and field cabling, is supporting the advancement of the switch mode power supplies. This is usually the provider of a 24VDC voltage in a control panel, enabling the user to have a fast re-acting current protection with diagnostics at the control voltage level - i.e. 12,24 & 48VDC industrial control systems - where traditional branch circuit protection of MCBs (miniature circuit breakers) or fuses can't react quick enough to protect the integrity of the system under an overload fault condition in the circuit.


Lütze is continually advancing the LOCC box family with new additions such as the Lütze

LOCC-Box-SC which can be used to adapt the current range and the characteristics to the limit values, inline with the manufacturer's guidelines for auxiliary contacts on safety relays. The

LOCC-Box-SC offers significant cost benefits when protecting safety relays in safety critical circuits, reducing expensive manufacturing plant downtime to replace the damaged component.

RS Components consider LOCC-Box to be an exciting addition to their already progressive and innovative product range. This is the start of a partnership that's made to measure, with products tailored to the requirements of a worldwide customer base - a truly global partnership.





**About the Schweizer Electronic AG:**  
Founded in 1964  
more than 150 employees across the world

**About the technology:**  
Solutions for securing  
railway crossings and building sites  
Locomotive control systems



# Schweizer Electronic AG: LSC for railway crossings

## LÜTZE SWITZERLAND

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**SCHWEIZER ELECTRONIC is a railway safety and infrastructure specialist that was founded by Margit and Rudolf Schweizer in 1964 and is still owned by the family.**

Innovative solutions by the high-tech company based in Reiden, secure railway building sites and crossings in Europe and overseas. The certified locomotive control systems help railway personnel at work.

The SCHWEIZER ELECTRONIC Group employs more than 150 employees. It has sites in Switzerland, Germany, England, Italy, Austria and Spain as well as sales partners in Finland, Russia and Australia.

For more than 50 years, SCHWEIZER ELECTRONIC products have stood for

quality and safety, making this Swiss company one of the major players in this market.

### **Controlling with standard components**

The flex control railway crossing control system is the heart of the flex system platform. This complete new development was designed to cope with the changing and future requirements of modern railway projects.

flex control is made almost completely of standard industrial automation components. The climate-optimised control cabinet allows inexpensive installation outdoors.

### **Compact control system with LSC**

Thanks to the compact design of the control system that uses the LÜTZE LSC system, the control unit can also be installed easily in transformer buildings and signal box rooms.

Switching from the 19" equipment to the space-saving LÜTZE LSC wiring system played an important role in making control cabinets even more compact and inexpensive.



# 1,200 AirSTREAM frame rescued from 'distress at sea'

LÜTZE GERMANY

8



**Shipping containers of the AirSTREAM frames very quickly to the Chinese plant of a German automobile manufacturer - that is a tough task. It becomes a real challenge when the sea route is suddenly closed. Deadlines can only be met with a great amount of effort and good luck.**

Lütze has a long-standing and close technology partnership with the automobile manufacturer from Lower Saxony. Developing the control cabinet infrastructure is the common goal. Volkswagen lists LÜTZE as a supplier for the energy-efficient AirSTREAM wiring system. This demands that LÜTZE has a duty to provide the product: wherever VW builds a new plant in the world, a large quantity of AirSTREAM frames need to be made available directly in a very short time.

This is currently the case in China, where Volkswagen is investing heavily. A new

plant is currently being built in Qingdao, a city with a population of more than one million on the East Coast. Production of vehicles is due to start in 2018.

## **The demise of a large shipping company**

Around 1,200 AirSTREAM frames are expected at the site between Autumn 2016 and Spring 2017, and this is where it gets interesting. There were huge problems connected to the sea route: after the seventh largest container shipping company in the world declared itself insolvent, there was a drop in freight capacity of 80 ships and 500,000 standard containers. The failure of the South Korean Hanjin shipping company meant that all other container ships were overbooked. Lütze therefore faced this risk of defaulting on its delivery deadlines. It seemed almost impossible to get the numerous containers to China on time.

There was only one way to meet the delivery requirements in Qingdao: Air freight. So, LÜTZE sent 80 euro pallets bearing AirSTREAM frames to China by air. It is fairly obvious that this was the most expensive way to send such large items - but it was the quickest. And this is all that counts. These are costs that LÜTZE was happy to bear because we believe that unconventional commitment is essential to a good partnership.

But this only solved the most urgent part of the freight problem. The question was how we were going to send the rest, much larger, part of the AirSTREAM frame shipment from the Swabian town of Weinstadt to the East Chinese Sea? Especially as there were further bottlenecks which exacerbated the problem. The Lufthansa pilot strike impacted on the cargo business, and the seasonal business in the transportation industry also took its toll. And in China, the New



Year celebrations meant that the Shanghai Port came to a standstill for a week.

The dispatch department at LÜTZE were working flat out to try and get a further batch to China before this enforced break. And, thanks to a bit of luck and his good contacts, Peter Jurczyk, head of purchasing and logistics at LÜTZE, was actually able to squeeze six containers onto a ship at the last minute. This meant that around 600 AirSTREAM frames were sent off in the middle of December so that they would reach China punctually before the Chinese New Year. Three further containers were shipped just before the end of the year; these will be followed continuously every month

by further shipments of one to two FEU (Forty-foot Equivalent Unit, i.e. a standard container 40 foot long and 8 foot wide).

LÜTZE naturally celebrated the ultimately successful shipments by drinking Tsingtao beer. The small green bottles, which almost every Chinese bar here stocks, are imported from Qingdao – same place, just written differently.

### LÜTZE wiring system

LÜTZE was able to establish the AirSTREAM wiring system in the market excellently within just a few years. Because it has clear advantages in terms of design, planning, as-

sembly and an extremely effective air conditioning concept: the special design of the units and wiring offers significant thermodynamic benefits. For instance, compared to standard systems, up to 23 percent of the cooling costs can be saved and CO2 emissions reduced. The extremely space-saving design of all AirSTREAM frames also has other advantages. Within the scope of Green Carbody Technologies innovation alliance initiated by Volkswagen, LÜTZE has been working with numerous partners to intensively research very energy-efficient and sustainable technologies.



### The seventh largest freight shipping company is bankrupt.

Hanjin Shipping from South Korea has a fleet of more than 140 container ships and runs numerous lines in East Asia, Europe and the USA. The company docked at 80 ports in more than 35 countries on a regular basis. In August 2016, the company filed for insolvency. As a result, 89 of Hanjin's ships were refused access to ports in 26 countries for fear that they would not be able to pay the port charges.

The supply conditions for the crews on the approximately 70 ships carrying a total of around 500,000 containers was dramatic. Thanks to a court order, the ships were at least allowed to enter ports in the USA. The ships of the insolvent shipping company were carrying global goods worth more than 12 billion euros. (Source: Wikipedia)



The City Airport Train (CAT) brings travellers from the airport into Vienna city centre. In the sanitary areas of the train, panoramic photographs and musical classics prepare tourists for the sight-seeing gems in the city. LÜTZE provides the appropriate sound for business in the bathroom.



# CAT: Waltz in the train toilet

## LÜTZE TRANSPORTATION

Having to go to the toilet on a train - there are more pleasant activities. But in the CAT, everything is different. Just imagine - you open the door of the WC and find yourself in the Viennese Prater park with the big wheel in front of you! Or in front of the Hundertwasser house, the State Opera House, the Vienna Secession, the Town Hall or the Stift Klosterneuburg (monastery).

### Rooms transformed; passengers enchanted

The operator of the CAT commissioned the popular sightseeing locations to be "moved" on board into the six train WCs. The respective panoramic photos run from the side walls via the shelving, right down to the toilet seat, covering the entire room. With the additional acoustic background music, passengers are perfectly prepared for their visit to Vienna.

### Sounds to match the tourist attractions

Music and suitable background noises that

match the respective motif enliven each scenario. For example, in the WC containing the Vienna Opera House, we can hear the audience whispering; instruments are tuned and then Mozart's "Le Nozze die Figaro" begins. To complement the panorama of the Prater park, we hear the theme music from the film "Der dritte Mann" (The Third Man) with the un-mistakable zither sound by Anton Karas. Those visiting the toilet decorated with Vienna's Town Hall will hear market noise and the Johann Strauss classic "Wiener Blut" (Viennese Blood). A special fragrance is also added to the visual and acoustic accents for further sensory enjoyment.

### Audio signal transducers can also waltz

The musical background is what brings LÜTZE into the "experience" of these WCs. Or more accurately, the audio signal transducers by Lütze Transportation GmbH. Rail transport places particularly high requirements on

signaling, control technology and interfaces. The IRIS-certified solutions by LÜTZE cover all of these areas. Normally, the audio signal transducers are used in the driver's cabs on locomotives and railcars. The warning signals or alarm announcements are emitted from the loudspeaker. However the City Airport Train can even reproduce finely differentiated musical audio files.

With the WC Refurbishment Project, the CAT once again underlines the focus on its customer. The operators are the airports Wien AG and the ÖBB (Austrian Federal Railways). Featuring many different services, they provide Vienna's fastest and most comfortable connection between the airport and the city centre.

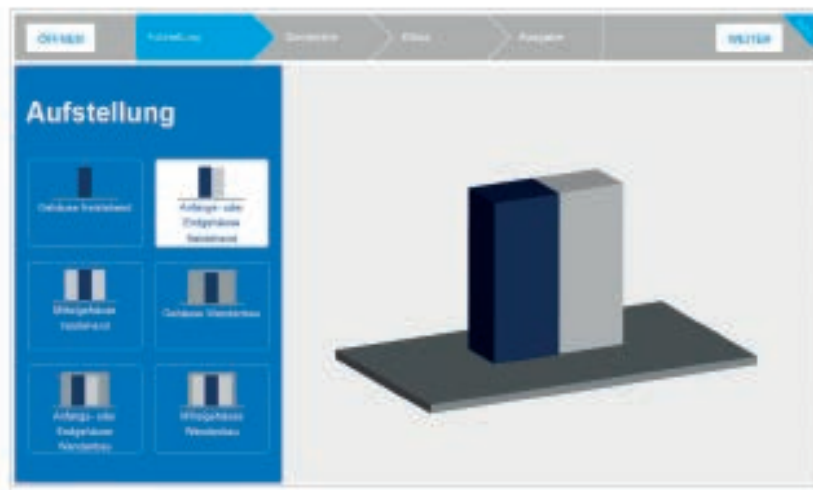


### Link to video:

<http://www.w24.at/Nachrichten/240928>







# EPLAN

LÜTZE GERMANY

**LÜTZE will be making their cable portfolio, which contains 1,500 cables from the European and American cable programme, available in the EPLAN Data Portal.**

In addition to C-track and Network cables, LÜTZE will also be offering Control, Servo and Bus cables in the EPLAN data library. As one of the very first cable manufacturers, LÜTZE now offers the opportunity to research approved cables for North America. The search for cables that are NEC, NFPA 79 or UL 508A approved is now very simple. Engineers and developers can integrate all LÜTZE cables and wires into the CAE design environment of EPLAN in a highly efficient and process-optimised manner.

Engineers searching for a suitable cable can quickly lose track. As an integrated web service of the EPLAN platform, the EPLAN Data Portal offers decisive benefits: instead of time-consuming research, e.g. according to cable type, cable label or item number, the EPLAN Data Portal offers convenient research functions via free search fields. All LÜTZE cables can then be copied from the EPLAN Data Portal directly into an EPLAN design drawing via a drag-and-drop function.

## Control cabinet heat analysis for everyone

LÜTZE GERMANY

**LÜTZE enables an analysis of the heat build-up and distribution in the control cabinet with its web-based AirTEMP configurator. The AirTEMP configurator can be used free-of-charge and is available to all cabinet engineers.**

The AirTEMP configurator by LÜTZE allows a differentiated thermodynamic analysis of a control cabinet with mounting plate or AirSTREAM wiring system: the different temperature and temperature layers that can develop in a control cabinet can be determined quickly and easily. The AirTEMP configurator works by splitting the control cabinet into three virtual zones. The precise temperature for each of these three zones is calculated precisely. Also, it allows a simulation of the effect of cooling options such as the Airblower, Airblades or even an air conditioning unit.

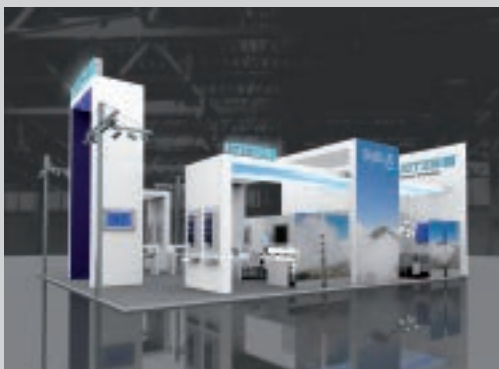
All the user needs to do is enter the key data of his control cabinet and the loss outputs of the installed devices. AirTEMP calculates everything else from this.

Practical tests confirm the results and model assumptions of the AirTEMP tool.

In addition to Lütze's own research and development department, scientific participation also made a contribution to the development of the LÜTZE AirTEMP application.



### Exhibitions 2017



Exhibition	Place	Country	Date
ATX West	Anaheim	USA	07.-09.02.2017
all about automation	Friedrichshafen	D	08.-09.03.2017
SIFER	Lille	F	21.-23.03.2017
Automate	Chicago	USA	03.-06.04.2017
HMI Hannover	Hannover	D	24.-28.04.2017
SMART	Linz	AT	16.-18.05.2017
Trako	Gdansk	PL	26.-29.09.2017
Expo	Atlanta	USA	09.-11.10.2017
SPS IPC Drives	Nürnberg	D	28.-30.11.2017

**NEW!**

# The LÜTZE SUPER CABLE App!

Discover what  
really matters  
in a cable!



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