



Solutions and systems for water and wastewater technology

-  Cable
-  Connectivity
-  Cabinet
-  Control

Solutions and systems for

Water and Wastewater Technology

Optimize your systems with durable and efficient components from LÜTZE — in the control cabinet and beyond!

To meet the particularly high standards in the field of water and wastewater technology, the components and solutions used must fulfill very specific requirements.

In addition to their core functionality, space savings, reduction of energy consumption (and thus operating costs), high operational reliability, and minimization of downtime are certainly among the most important demands

placed on the installed components.

Furthermore, monitoring, easy installation, modular systems, a high degree of automation, and a low CO₂ footprint are essential



More efficiency, productivity, digitalization, and sustainability with future-proof solutions from LÜTZE.

Digitalization

- **Process monitoring:**
AirSTREAM Control Cabinet Wiring, Single Pair Ethernet, LCOS, and LUNA Board
- **Monitoring:**
AirSTREAM, LOCC-Box, PANELCON, Switches, M8 and M12 Actuator/Sensor Technology, Interface Technology, Single Pair Ethernet
- **Secure connection between system and drive technology:**
Data, Control, and Servo Cables and Assemblies
- **High degree of automation:**
AirSTREAM, LOCC-Box, PANELCON, Switches, M8 and M12 Actuator/Sensor Technology, and Interface Technology

Productivity

- **Increased operational safety:**
AirSTREAM, *AirBLOWER*, LOCC-Box, PANELCON, switches, M8 and M12 actuator/sensor technology, interface technology, Single Pair Ethernet
- **Ease of installation:**
LOCC-Box, PANELCON, switches, cable glands and cable entries, valve connectors
- **Fast processes through plug & play:**
M8 and M12 actuator/sensor technology, and interface technology
- **Standardization:**
AirSTREAM, valve connectors, LCOS und LUNA Board

LÜTZE Inside and Outside Cabinet

LÜTZE offers a perfectly coordinated and highly efficient portfolio for applications inside and outside the cabinet. Our four product areas are divided into solutions for use within and outside the control cabinet – depending on specific requirements.

For applications **outside the cabinet**, the Cable and Connectivity areas provide exceptionally reliable, robust, and highly flexible cables – optionally pre-assembled – as well as solutions for suppression technology, connectors, and network technology.

Inside the cabinet, the Cabinet division impresses with the

space-saving, thermally optimized, and energy-efficient *AirSTREAM®* wiring system.

The portfolio is complemented by the Control division, offering universal interface technology, power supply solutions, intelligent current monitoring, and industrial Ethernet infrastructure.



Sustainability

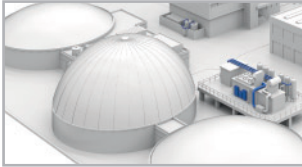
- **Reduction of energy consumption and costs:**
AirSTREAM, LCIS solid-state relays
- **Improvement of the CO₂ footprint:**
AirSTREAM, *AirBLOWER*,

Efficiency

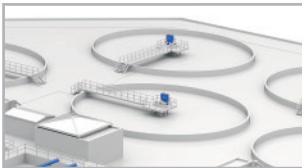
- **Energy cost savings:**
AirSTREAM, *AirBLOWER*, valve connectors, Power Supply
- **Space savings:**
AirSTREAM, Power Supply, LOCC-Box, PANELCON, switches, LCIS solid-state relays
- **Reduction of downtime:**
AirBLOWER, LCOS, LUNA-Board

Process Overview

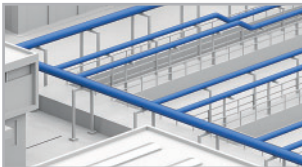
Solutions and systems for water and waste water technology



1. Digester



2. Clarifier



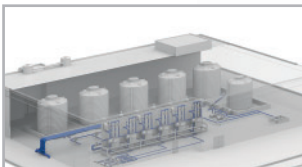
3. System Engineering



4. Chemical Treatment and Conditioning



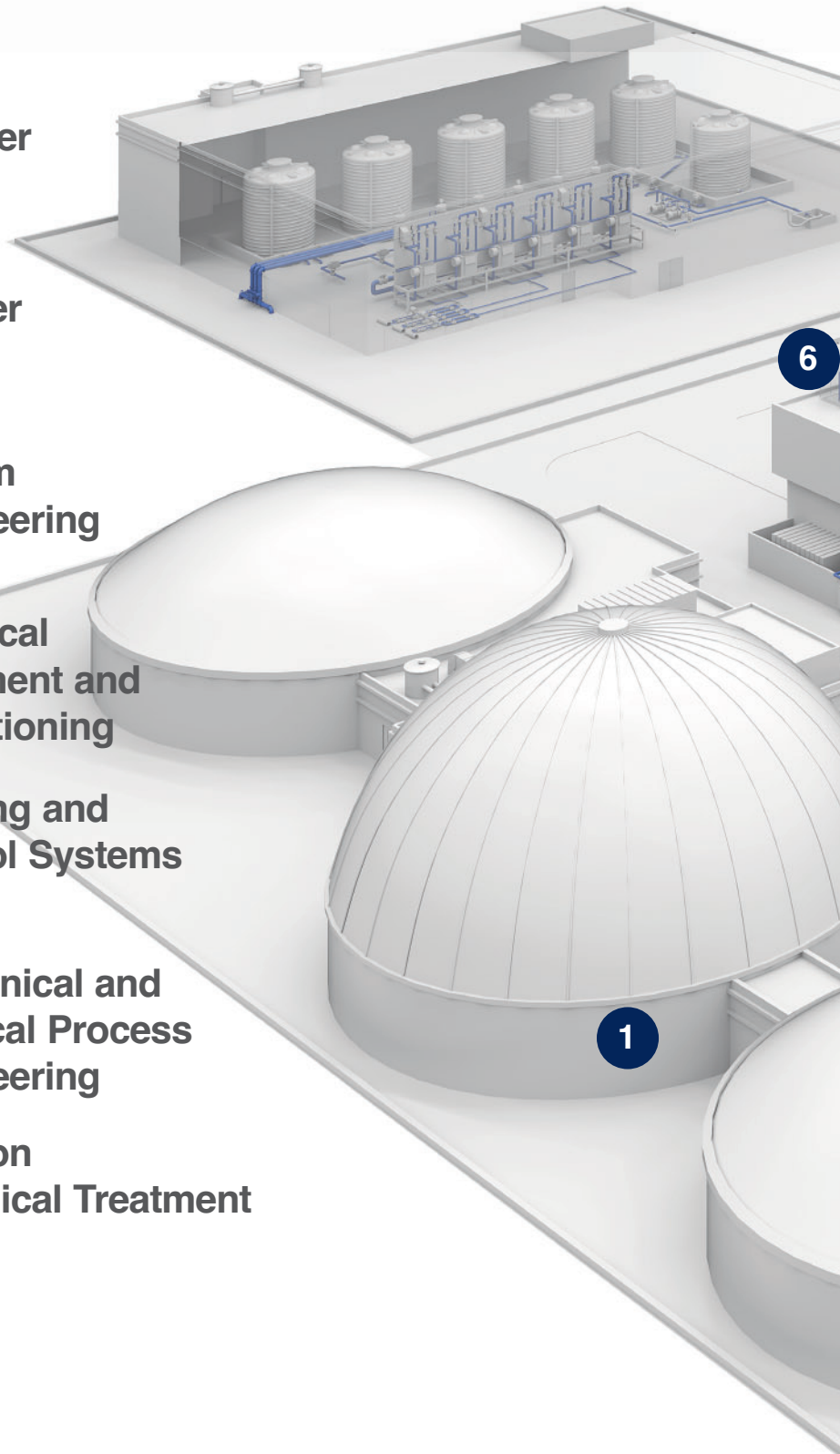
5. Building and Control Systems

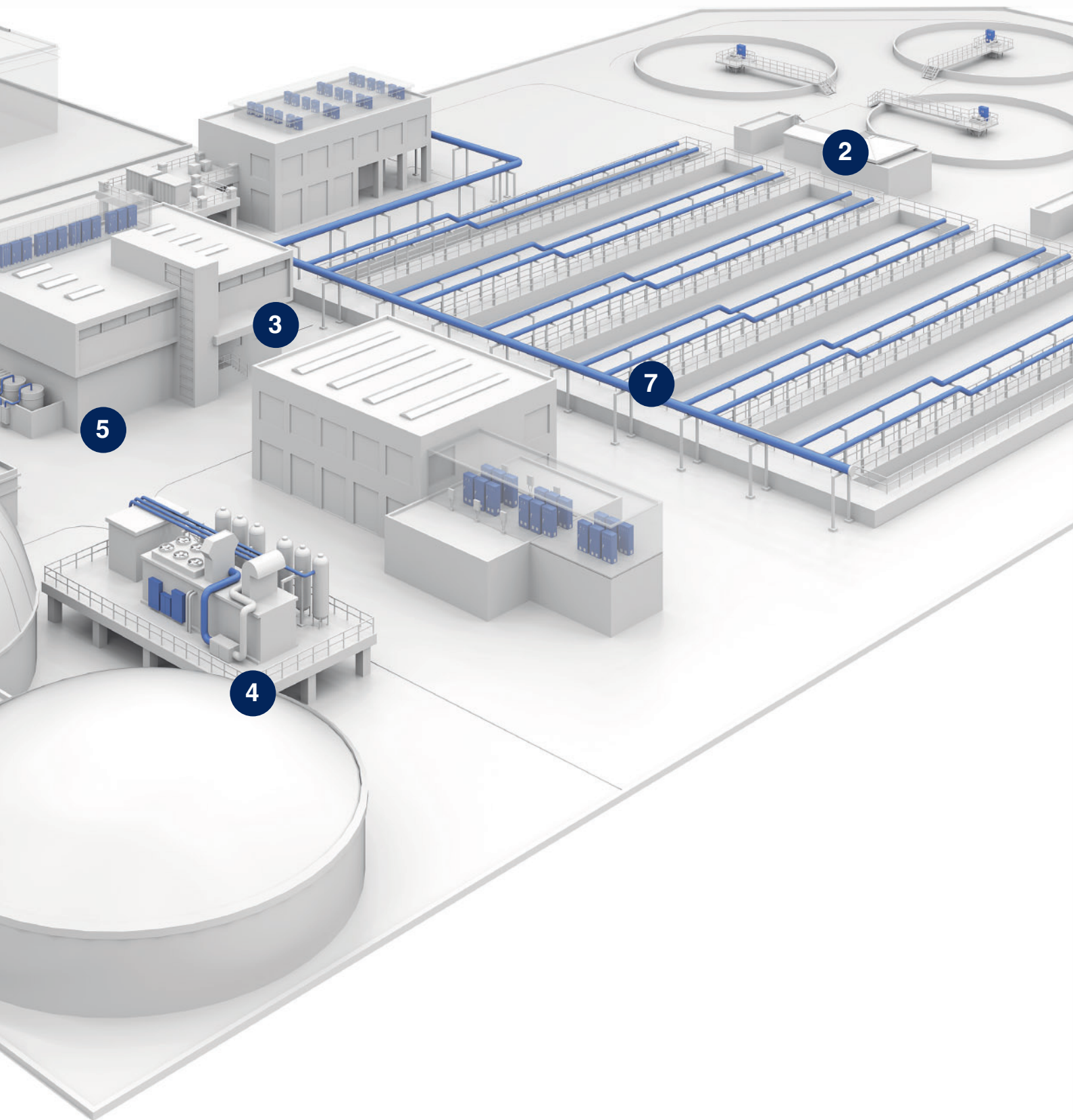


6. Mechanical and Physical Process Engineering



7. Aeration Biological Treatment





Efficiency in Automation

LÜTZE's efficient product portfolio ranges from highly flexible control cables and customized cable assemblies to the energy-efficient AirSTREAM wiring system for control cabinets, and extends to intelligent Industry 4.0 solutions in the areas of interface technology, power supply, and Ethernet infrastructure.

Ethernet Infrastructure

Switches, PoE-Switches, Ethernet Cables,
Bus and Network Cables

Relays and solid-state relays

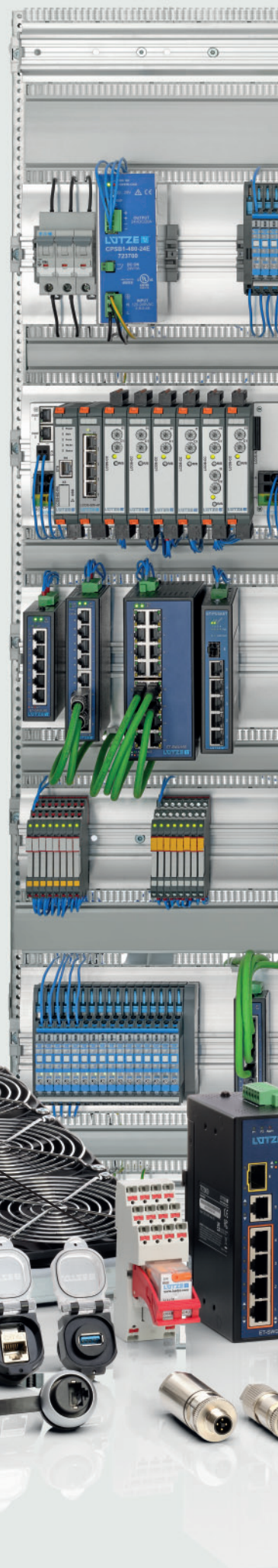
AirBLOWER and AirBLOWER Compact

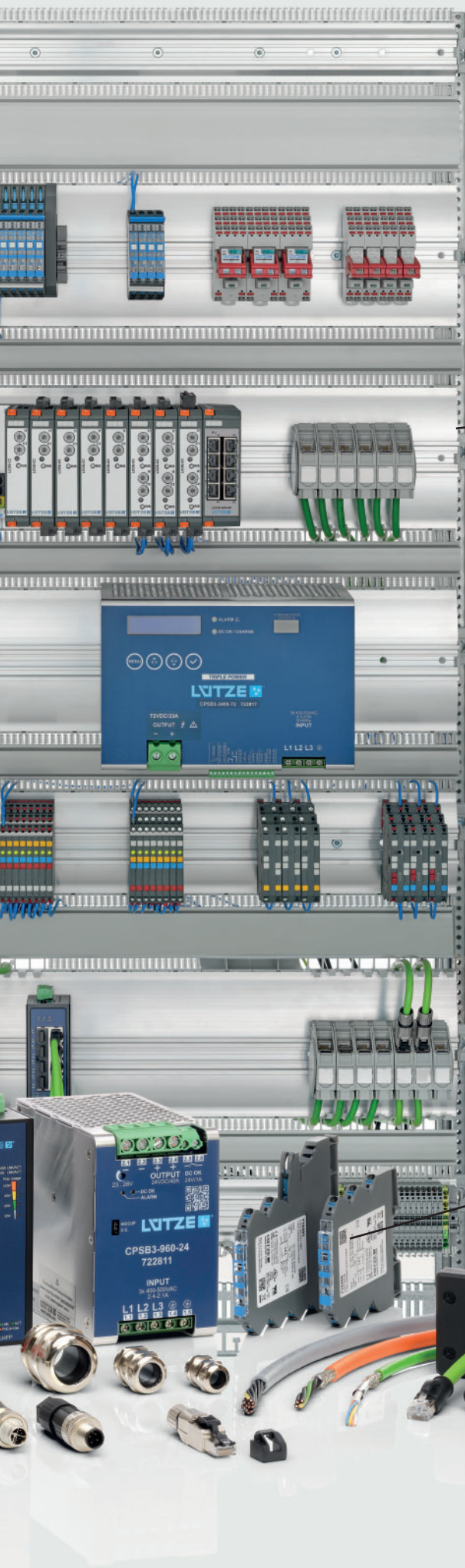
Cable Entries / USB-Interface Technology

Bus Coupler, Gateways, Panelcon

Suppression Technology and Valve Connectors

M8 and M12 Actuator/Sensor Technology





AirSTREAM and
AirSTREAM Compact

Power Supplies

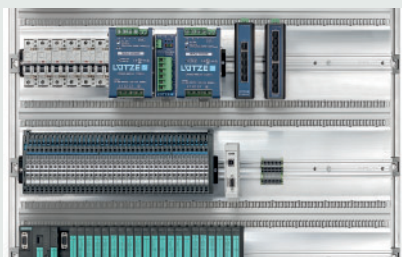
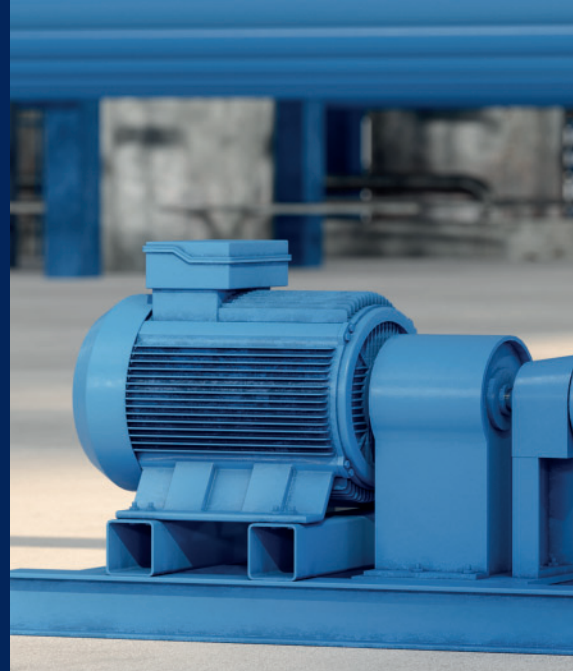
Selective load monitoring
LOCC-Box, LOCC-Box M, LUNA Board

Data, control, and Servo Cables
and **Assemblies**

Cable Glands

Cable Entries

Solutions for Water Pumps



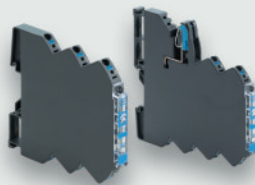
AirSTREAM &

AirSTREAM Compact

- Space savings of up to 30%
- Reduction of control cabinet size
- Shorter production times
- Standardization
- High mechanical durability
- Homogeneous control cabinet climate



Further information
about the product



Selective Load Monitoring **LOCC-Box / LOCC-Box Net:**

- Space-saving design, also available as the compact LOCC-Box-M in miniature format
- Reliable tripping behavior up to 120 m LUNA Board:
- Space-saving, easy to install, with reliable tripping behavior



Further information
about the product



Power Supplies

- Space-saving compact power supplies
- Very wide AC/DC input voltage range and output voltages of 12 V / 24 V / 48 V / 72 V
- Energy cost reduction



Further information
about the product



AirBLOWER & **AirBLOWER Compact**

- Reduction of downtime through prevention of hot spots
- Up to 25% energy savings by reducing active cooling demand
- Improvement of the CO₂ footprint
- Homogeneous control cabinet climate
- Reduction of filter mats



Further information
about the product



Ethernet Infrastructure

Switches / POE Switches:

- High operational reliability
- Easy installation
- Process monitoring / monitoring

Ethernet cables: connection of Ethernet technology / monitoring, EtherCAT, PROFINET, Ethernet, CAN bus, and other bus systems



Further information
about the product



Relays and Solid-State Relays

- Support energy reduction and space savings



Further information
about the product



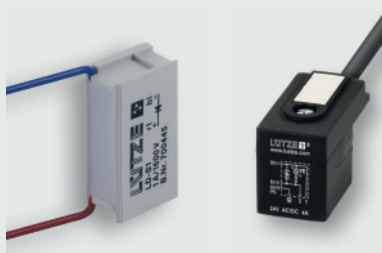
Cable Entries & USB-Interface Technology

BUS Coupler & Gateways:

- High degree of automation
- Process monitoring / monitoring
- High operational reliability

Panelcon® Keystone IP69K:

- Modular, user friendly



Suppression Technology & Valve Connectors

Suppression technology:

- For operational safety

Valve connectors:

- High protection rating
- Energy reduction with Energy Saver



M8 & M12 Actuator/Sensor Technology

- High degree of automation



Further information about the product



Further information about the product



Further information about the product



Cable Glands / Cable Entries

Cable entries:

- High protection rating and mechanical durability, easy to install

Cable glands:

- High protection rating, easy handling



Cables & Cable Assemblies

Servo cables and assemblies:

- According to Siemens®, Allen Bradley®, Bosch®, and soon SEW® standards

Data and control cables:

- For flexible and highly flexible applications and high mechanical durability
- Cables for pumps and process water



eco I mate® Aquarius

The shieldable Aquarius series, made of plastic, is a suitable solution for outdoor instrumentation.

Highlights:

- Wide range of sizes and layouts with up to 48 pins
- Secure and durable 1/3-turn bayonet locking system
- Protection ratings up to IP69K
- PCB mounting options



Further information about the product



Further information about the product

Solutions for Wastewater Treatment Plants



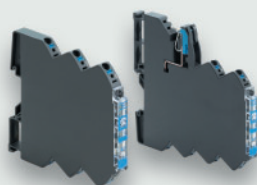
AirSTREAM &

AirSTREAM Compact

- Space savings of up to 30%
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- Shorter production times
- Standardization
- High mechanical durability
- Homogeneous control cabinet climate



Further information
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Further information
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Relays and Solid-State Relays

- Support energy reduction and space savings



Further information
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Cable Entries & USB-Interface Technology

BUS Coupler & Gateways:

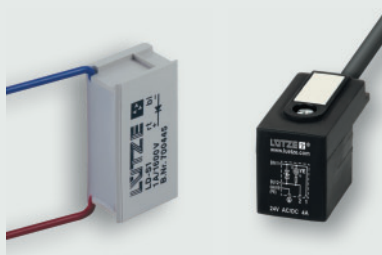
- High degree of automation
- Process monitoring / monitoring
- High operational reliability

Panelcon® Keystone IP69K:

- Modular, user friendly



Further information about the product



Suppression Technology & Valve Connectors

Suppression technology:

- For operational safety

Valve connectors:

- High protection rating
- Energy reduction with Energy Saver



Further information about the product



M8 & M12 Actuator/Sensor Technology

- High degree of automation



Further information about the product



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Cable glands:

- High protection rating, easy handling



Further information about the product



Cables & Cable Assemblies

Servo cables and assemblies:

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Data and control cables:

- For flexible and highly flexible applications and high mechanical durability
- Cables for pumps and process water



Further information about the product

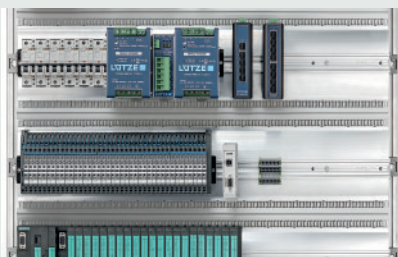


heavy I mate®

Heavy-duty rectangular connectors:

- Robust design, high protection level
- High number of contacts, various signal types
- Excellent EMC protection, suitable for outdoor use
- Very reliable locking system

Solutions for Industrial Wastewater Treatment



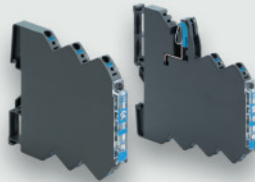
AirSTREAM &

AirSTREAM Compact

- Space savings of up to 30%
- Reduction of control cabinet size
- Shorter production times
- Standardization
- High mechanical durability
- Homogeneous control cabinet climate



Further information
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Further information
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Ethernet Infrastructure

Switches / POE Switches:

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Ethernet cables: connection of Ethernet technology / monitoring, EtherCAT, PROFINET, Ethernet, CAN bus, and other bus systems



Further information
about the product



Relays and Solid-State Relays

- Support energy reduction and space savings



Further information
about the product



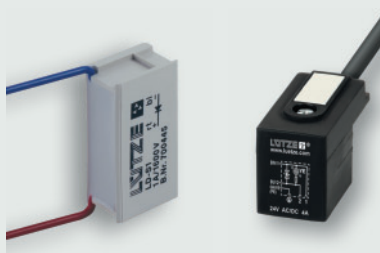
Cable Entries & USB-Interface Technology

BUS Coupler & Gateways:

- High degree of automation
- Process monitoring / monitoring
- High operational reliability

Panelcon® Keystone IP69K:

- Modular, user friendly



Suppression Technology & Valve Connectors

Suppression technology:

- For operational safety

Valve connectors:

- High protection rating
- Energy reduction with Energy Saver



M8 & M12 Actuator/Sensor Technology

- High degree of automation



Further information about the product



Further information about the product



Further information about the product



Cable Glands / Cable Entries

Cable entries:

- High protection rating and mechanical durability, easy to install

Cable glands:

- High protection rating, easy handling



Cables & Cable Assemblies

Servo cables and assemblies:

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Data and control cables:

- For flexible and highly flexible applications and high mechanical durability
- Cables for pumps, drinking water and process water



signal I mate® M16 Connectors

Signal transmission with extended functions. M16 connectors can be used in all types of sensors, measuring and control systems, as well as camera applications such as servo motors.

Highlights:

- Excellent shielding properties
- Higher electrical load capacity than M12
- Up to 19 positions within one interface
- Extensive expertise in PCB connection solutions



Further information about the product



Further information about the product

Cable Assemblies for Aquaculture



The French company Faivre Industrie develops, manufactures, and distributes machinery and equipment for the aquaculture sector and is now one of the leading companies in Europe. Based on decades of experience, Faivre has created a comprehensive range of high-quality products that meet the highest standards.

For Faivre's drum filters, LÜTZE developed special connection cables for the asynchronous motors of the pumps as well as for the emergency shutdown system.

The drum filters are used to purify varying volumes of water to meet the

needs of fish farming operations for filtration of both inflow and outflow water. Particles as small as 26 µm are filtered out in the closed circuit, ensuring that both the incoming and outgoing water is properly cleaned.

The operating principle is simple: the water to be filtered enters the drum filter, whose outer surface is made up of panels covered with stainless steel mesh. Impurities larger than the mesh openings adhere to the inner side of the filter panels. The drum rotates slowly—depending on the model, at 3 to 8 rpm—and thereby separates the impurities from the water.

A flush ramp at the highest point of the drum cleans the plates and conveys the contamination into the sludge channel.

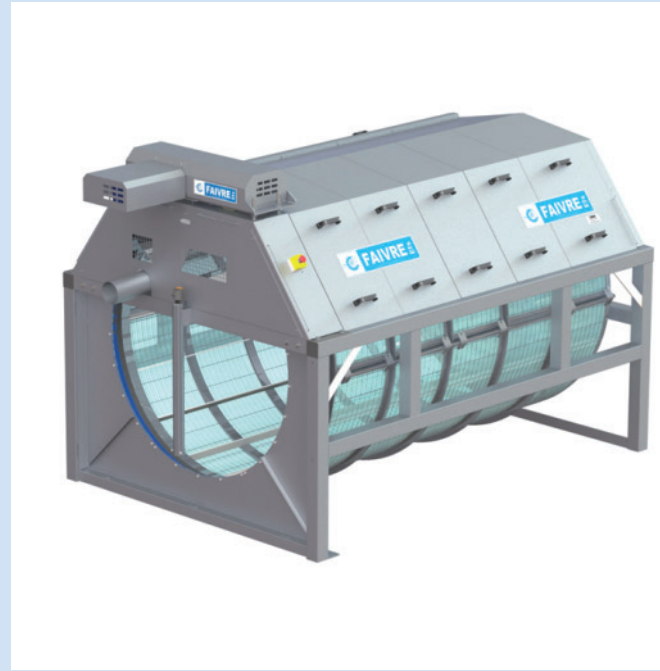
The motor cables consist of a plug on the motor or emergency stop device and a pre-assembled socket with a ten-meter connection cable.

Read the full
article here



Keyfacts

- **Customer:** Faivre Industrie
- **Location:** France
- **Industry:** Aquakultur
- **Machine/Project:** Drum filter – asynchronous motors of the pumps
- **LÜTZE Solutions:** Pre-assembled motor cables



Products used for this application

Inside Cabinet:



Motor cable with
M23 round connector

Possible additional products for this application

Outside Cabinet:



Tüchel
IP&S Easy & Safe 2P+E
CEE-Plug according
IEC 60309-1, -2



Tüchel
motionlgrade™ M23 Elite Series
Motor connection

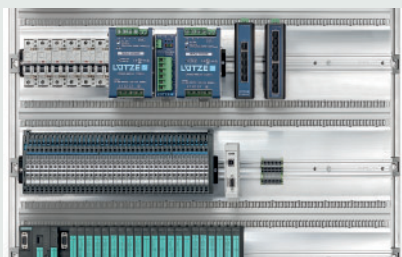


LTW X-Lok
Ultra High density
Alternative Solution to M12



CONEC
Sensor Actor Line, overmolded,
circular connectors M8/M12

Solutions for Filtration Systems



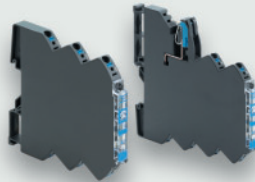
AirSTREAM &

AirSTREAM Compact

- Space savings of up to 30%
- Reduction of control cabinet size
- Shorter production times
- Standardization
- High mechanical durability
- Homogeneous control cabinet climate



Further information
about the product



Selective Load Monitoring

LOCC-Box / LOCC-Box Net:

- Space-saving design, also available as the compact LOCC-Box-M in miniature format
 - Reliable tripping behavior up to 120 m
- LUNA Board:**
- Space-saving, easy to install, with reliable tripping behavior



Further information
about the product



Power Supplies

- Space-saving compact power supplies
- Very wide AC/DC input voltage range and output voltages of 12 V / 24 V / 48 V / 72 V
- Energy cost reduction



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AirBLOWER &

AirBLOWER Compact

- Reduction of downtime through prevention of hot spots
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Further information
about the product



Ethernet Infrastructure

Switches / POE Switches:

- High operational reliability
- Easy installation
- Process monitoring / monitoring

Ethernet cables: connection of Ethernet technology / monitoring, EtherCAT, PROFINET, Ethernet, CAN bus, and other bus systems



Further information
about the product



Relays and Solid-State Relays

- Support energy reduction and space savings



Further information
about the product



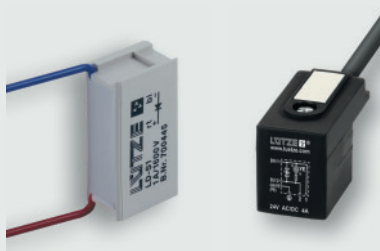
Cable Entries & USB-Interface Technology

BUS Coupler & Gateways:

- High degree of automation
- Process monitoring / monitoring
- High operational reliability

Panelcon® Keystone IP69K:

- Modular, user friendly



Suppression Technology & Valve Connectors

Suppression technology:

- For operational safety

Valve connectors:

- High protection rating
- Energy reduction with Energy Saver



M8 & M12 Actuator/Sensor Technology

- High degree of automation



Further information about the product



Further information about the product



Further information about the product



Cable Glands / Cable Entries

Cable entries:

- High protection rating and mechanical durability, easy to install

Cable glands:

- High protection rating, easy handling



Cables & Cable Assemblies

Servo cables and assemblies:

- According to Siemens®, Allen Bradley®, Bosch®, and soon SEW® standards

Data and control cables:

- For flexible and highly flexible applications and high mechanical durability



Circular interface

Mpronto-12 socket & plug:

The first M12 push-pull connector — backward compatible



Further information about the product



Further information about the product

The future of water supply is in the control cabinet



Electricity and water don't usually mix — except when modernizing a water supply system.

During the modernization of the municipal water supply in Elmshorn, a wide range of trades were involved — including LÜTZE.

The AirSTREAM system, with its innovative thermal management concept, ensures a consistent control cabinet climate and extends the service life of components. Because AirSTREAM operates without cable ducts, air can circulate freely. Fans such as the AirBLOWER further support air circulation and can be

combined with cooling units.

The water from Elmshorn originates from 17 wells up to 160 meters deep and is treated in two waterworks to supply around 60,000 people. To ensure long-term reliability of the water supply, the municipal utility company Stadtwerke Elmshorn modernized its automation systems — planned and implemented by the Elkomp Group.

A comprehensive concept was required — covering wells, control centers, pump management, data acquisition, and alarm systems. The result was the “Waterworks of the Future”, now serving as a reference

project for other utilities.

Control is managed via a central server. Under normal operation, communication takes place via ADSL, with M2M mobile communication as a backup in case of failure. Remote maintenance is possible at all times. Firewalls, VPN, and a manual control panel provide additional security, while an RFID system prevents unauthorized access.

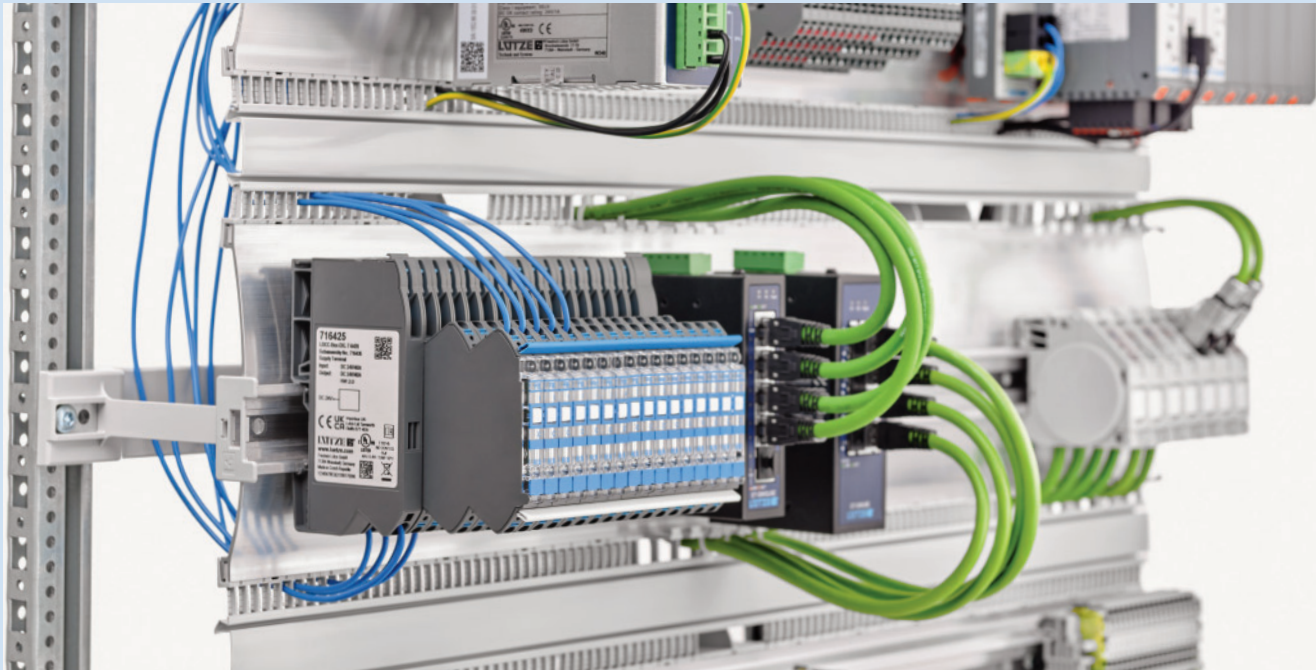
The control cabinets were equipped with AirSTREAM wiring frames — modular, space-saving, and future-proof.

Read the full
article here



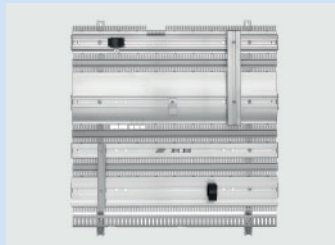
Keyfacts

- **Customer:** Stadtwerke Elmshorn GmbH
- **Location:** Elmshorn, Germany
- **Industry:** Water treatment and water supply
- **Machine/Project:** Digital control solution for waterworks and well systems
- **LÜTZE Solutions:** *AirStream*, *AirBlower*



Products used for this application

Outside Cabinet:



AirSTREAM Compact
Wiring system
Part-Nr.: 360473F0000



AirBLOWER
Control cabinet ventilation
Part-Nr.: 777000.1011



CLEAN CABLE Cable portfolio
approved for drinking water
applications. Certifications
according to ACS, KTW WRAS,

Possible additional products for this application

Outside Cabinet:



Tuchel
ecoImate® m
Sensors or auxiliary drives



Tuchel
motionlgrade™ M23 Elite Series
motor connection

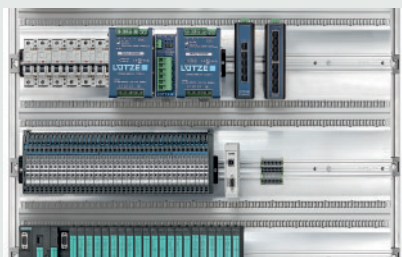


LTW FLOS
Series K High Performance
Push-Pull plug connector



LTW X-Lok
Ultra High density
Alternative Solution to M12

Solutions for Water Analysis Systems



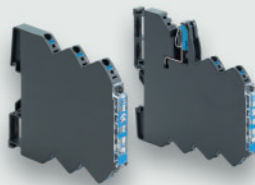
AirSTREAM &

AirSTREAM Compact

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Further information
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Relays and Solid-State Relays

- Support energy reduction and space savings



Further information
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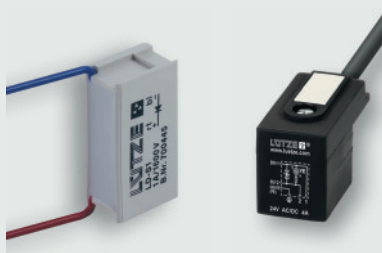
Cable Entries & USB-Interface Technology

BUS Coupler & Gateways:

- High degree of automation
- Process monitoring / monitoring
- High operational reliability

Panelcon® Keystone IP69K:

- Modular, user friendly



Suppression Technology & Valve Connectors

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Valve connectors:

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M8 & M12 Actuator/Sensor Technology

- High degree of automation



Further information about the product



Further information about the product



Further information about the product



Cable glands / Cable Entries

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Cable glands:

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Highlights:

- Excellent shielding properties
- Higher electrical load capacity than M12
- Up to 19 positions within one interface
- Extensive expertise in PCB connection solutions



Further information about the product



Further information about the product

LÜTZE industry team

Your contacts for Water and Wastewater Technology

In addition to the products, machines, and system types shown, we also offer further solutions for machines and systems not listed.

Our water and wastewater team will be happy to provide personal consultation to help you find the right LÜTZE solution for your specific application.



Rudolf Killmann

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