Kübler

NEW PRODUCTS
2022

pulses for automation

Contents

Safety over
EtherCAT.

EtherNet/IP™

EtherCAT.
Technology Group

MQTT

INDUSTRIAL
ETHERNET

CIP Safety™

PROFIsafe

PROFI
NET

OPC UA

YOUR BENEFITS

Reduced cost of ownership

Constant encoder design

Maximum adaptability without additional costs / equipped for any application

Latest protocol stacks with significantly more features

Compatibility with existing Kübler Ethernet encoders

Extended and more direct service options

IIoT
Future-proof for Industry 4.0 / IIoT concepts

Performance up – costs down

Kübler Industrial Ethernet encoder platform

Industrial Ethernet in automation technology.
The use of Industrial Ethernet communication in modern industry is continuously increasing. In the future, in line with the Industrie 4.0 idea, all areas of industrial production plants will be united in a single network on the Industrial Ethernet platform, from the field devices to the control level to the cloud. And this with real-time data exchange.
The corresponding communication capability of the sensors plays an essential role here. This is why Kübler has put the focus on the development of a high-performance and efficient Industrial Ethernet encoder platform.

Common encoder base
· Absolute singleturn or multiturn encoders
· Sendix F58, multiturn with patented Intelligent Scan Technology™
· Sendix S58 for functional safety, multiturn with redundant mechanical gear unit
· Robust bearing construction in Safety-Lock™ design
· Options like approvals, surface protection, default configurations or features like shared device, I&M records 1-4, FSU, and many more
· Updates possible via integrated web server

For all Industrial Ethernet applications
· Industrial Ethernet protocols such as PROFINET IO, EtherCAT and EtherNet/IP
· Future convergent protocols such as OPC-UA and MQTT
· Application profiles such as PROFIdrive or PROFIenergy, as well as PROFIsafe, FSoE or CIP-Safety for functional safety
· Integrated web server and cyber security

kuebler.com/industrial-ethernet

Our products for Industrial Ethernet

For functional safety: Sendix S58 PROFIsafe see page 8

Sendix F58 PROFINET IO see page 9

IO-Link - door opener for Industrie 4.0 / IIoT

The right encoders, draw-wire encoders and LCD touch displays for your application.
IO-Link is establishing itself more and more on the market - and the trend is rising. IO-Link is used today in machine tools, production lines, intralogistics and packaging machines. IO-Link stands for simplicity, cost reduction and as a starting point for implementing future Industrie 4.0 / IIoT concepts. IO-Link products from Kübler open up new possibilities for your application. Let us make your existing or new machines / plants future-proof.

kuebler.com/io-link

INDUSTRIE 4.0
IIoT READY
Connectivity   Identification
Diagnostics   Adaptability

The intelligent networking of all components is based on the use of smart sensors. Numerous Kübler products allow industry 4.0 concepts to be realized today.
Find out more at:
kuebler.com/iiot

Time and cost savings

Efficient production thanks to Smart Sensor profile

Independent in use

Remote diagnosis and condition monitoring

IO-Link products for your application

Encoders see page 12

Draw-wire encoders see page 17

LCD display and process controller see page 27

SAE J1939 – communication for mobile automation

Simple and reliable.

For networking and communication in commercial vehicles for the transmission of measured values such as speed, position and inclination, the open standard SAE J1939 is used. The J1939 protocol was defined by the international Society of Automotive Engineers (SAE). Since the CAN (Controller Area Network, ISO 11898-1 and ISO11898-2) bus system has established itself in mobile automation, the SAE J1939 protocol uses it as the physical transmission layer. With Kübler products, you have the optimum solution for every application on and in your vehicle.

kuebler.com/mobile-automation

Our products for SAE J1939

Encoders see page 13

Draw-wire encoders see page 18

Inclinometers see page 21

For safety applications
## Sendix S58 PROFIsafe encoders

New generation - ready for the future.
The optical absolute Sendix S58 PROFIsafe encoders are based on the new Kübler Industrial Ethernet encoder platform and are therefore already designed today for future Industry 4.0 concepts. One example of this is the integrated web server: Features or adjustments can be implemented quickly and easily at any time.
As certified SIL3 / PLe encoders with redundant design and PROFINET interface, they support the PROFIsafe profile and are predestined for safety applications.

SIL3 PLe

in preparation

Features	Benefits
Latest Ethernet profiles · PROFINET v2.4.1 · Encoderprofil V 4.2 · PROFIsafe Profil v2.6.1 · PROFIdrive Profil v4.2	Support of the latest PROFINET features
100 % future-proof · Integrated web server · Cyber Security update in preparation	Implement features and adaptations quickly and easily. High system availability, protection against misuse (acc. IEC 62443).
High resolution · Singleturn 16 bit (safe) or 24 bit (non safe) / Multiturn 12 bit (safe) · Fully redundant multiturn information due to redundant multiturn gearbox · Transmission via safety telegrams 36/37, according to BP and XP	Reliable transmission of measurement and diagnostic data. Easy handling of input and output data of processes via standard telegrams.
High performance · PROFINET IO, RT, IRT / IRT with up to 250 µs cycle time	Ideal for highly synchronous applications, such as axis synchronization

Applications   Factory automation, automotive manufacturing, logistics, robotics
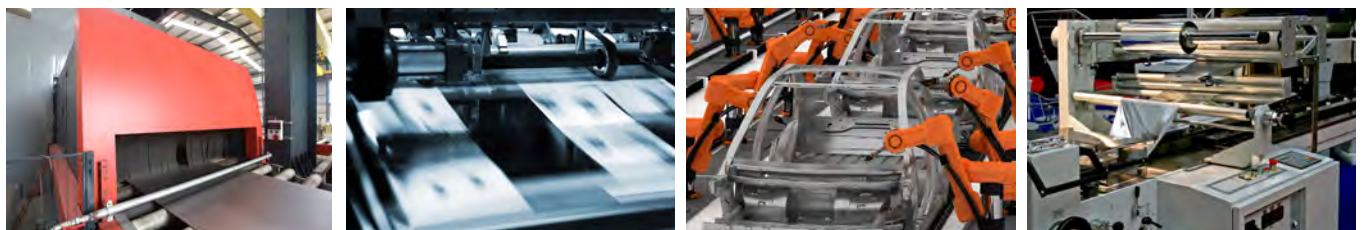
For realtime applications
Sendix F58 PROFINET IO encoders

New generation.
The optical absolute Sendix F58 PROFINET IO encoders are ideal for realtime applications. Thanks to the new technical platform, the encoders can also be integrated in PROFIdrive networks. The vertical communication, from control level to industrial production facilities, enables location-independent parameterization, remote diagnosis as well as priority-assisted process data exchange. Even maintenance work can be done in less time.

Features	Benefits
PROFINET IO, RT, IRT	Integration in applications with different performance requirements
Supports isochronous mode	Can be implemented in networks for tough realtime requirements with cycle times < 1 ms
Latest encoder profile (V 4.2)	Complete support for all Profinet features
Supports isochronous cycle times of a send cycle up to 31.25 µs and a jitter < 1 µs	Ideal for highly synchronous applications such as axis synchronization
PROFIdrive profile	Interoperability between diverse control and drive manufacturers thanks to PROFIdrive

Applications   Factory automation, automotive manufacturing, logistics, robotics

Extended with singleturn variants
Magnetic absolute Sendix M36 / M58 encoder family

Versatile and compact.

In addition to the existing multiturn variants, the absolute Sendix M36 / M58 encoders are now also offered as singleturn variants.

Due to the compact design of 36 mm, the wide range of electrical interfaces and the selection option of a 58 mm flange, these encoders are suitable for almost any application. The magnetic sensor technology and the high degree of protection ensure robustness.

Features	Benefits
Robust Magnetic sensor technology, robust bearing construction in Safety-Lock™ design, IP67 protection and temperature range of -40 °C ... +85 °C	Resistant to external influences such as dust, shock and vibration. For highest reliability in almost any application
Compact design 36 mm housing also available with a flange size of 58 mm. Quick recognition of the operating status by two-color LED.	Space-saving solution with simple and fast installation
High resolution Singleturn up to 14 bit and multiturn up to 29 bit with a wide range of electrical interfaces	Reliable measurement data with a communication protocol suitable for your application
Energy Harvesting Technology In the multiturn versions, electrical energy is generated in the encoder by external influences such as vibration	Reliable and permanent position detection. Absolute position saving even in the supply-free state. Therefore no battery necessary.

Sendix M36 / M58 encoder family

For extreme requirements
Sendix M36xxR encoders now also available as singleturn variants

Compact and extremely robust.
The Sendix M36xxR encoders complete the overall range of the magnetic absolute encoder family and are designed for extreme environmental conditions. An even more robust bearing design, an optional stainless steel housing and the highest degree of protection up to IP69k are special features of this version, which is now also offered as singleturn variants.

SSI   IO-Link

Analog output   CANopen   SAE J1939   E1

Features	Benefits
Extremely robust · Bearing construction in Safety-Lock™ Plus design with extra large bearing and mechanically protected shaft seal · Stainless steel version V4A · Degree of protection class up to IP69k, temperature range -40 °C ... +85 °C	· Resistant to shock and vibration as well as resistant to tolerances due to assembly errors · Additional protection against corrosion by (sea) water, chemicals, cleaning agents ... · High protection for operation under extreme environmental conditions
Compact design 36 mm housing with a flange size of 42 mm. Quick recognition of the operating status by two-color LED.	Space-saving solution with simple and fast installation
High resolution Singleturn up to 14 bit and multiturn up to 29 bit with a wide range of electrical interfaces	Reliable measurement data with a communication protocol suitable for your application
Energy Harvesting Technology In the multiturn versions, electrical energy is generated in the encoder by external influences such as vibration	Reliable and permanent position detection. Absolute position saving even in the supply-free state. Therefore no battery necessary.

Extremly robust – Sendix M36xxR

Door opener for industry 4.0 / IIoT
Magnetic absolute encoders with IO-Link

Simple and cost-effective.

The Sendix M36 and M58 encoders with IO-Link stand for simple, fast and cost-effective commissioning. The basis for this is the standardized Smart Sensor profile to reduce programming effort and the use of 3-wire unshielded cables with M12 connectors.

These encoders also enable comprehensive diagnostics for condition monitoring as a basis for predictive maintenance.

Features	Benefits
Robust bearing structure in Safety-Lock™ design, magnetic sensors, optional stainless steel housing	Long service life even when exposed to significant shocks and vibrations
Protection level IP67 and temperature range of -40 °C ... +85 °C	For the highest reliability in almost all applications
Programmable digital limit switches for position and speed	Mark individual workspaces, an event is started when the value is exceeded or undercut
IO-Link interface (Version 1.1 according to IEC 61131-9)	Globally recognized standard
IO-Link can be integrated into all common fieldbuses	Flexible and easy to use for any system

Applications   Assembly lines, machine tools, packaging machines, bottling plants and intralogistics

Now also as singleturn version
Magnetic absolute encoders with SAE J1939

Easy integration in vehicles.
The Sendix M36 and M58 encoders feature a high protection level and a wide operating temperature range. They are specifically designed for applications in mobile automation. The SAE J1939 interface, which can be customized, allows very easy integration in the on-board network of your vehicles.

SAE J1939   (E₁)

Features	Benefits
Robust bearing structure in Safety-Lock™ Design, magnetic sensors, optional stainless steel housing	Long service life, even in case of strong shocks and vibrations
Protection level IP67 and temperature range from -40 °C ... +85 °C	High reliability, even in case of harsh conditions, in particular in outdoor applications
Multiturn variants with Energy Harvesting Technology	The advantages of an electronic multiturn encoder without the disadvantages of a battery
Indication of the operating state by two-color LED	Easy commissioning
Adaptable PGNs, predefinable PGs for position, speed and alarm	Easy integration in your vehicle network

Applications   Diesel drives, vehicle networks for trucks and buses, agricultural and forestry machinery, trailer connections, military vehicles, fleet management systems, motor homes, marine navigation systems

For integration in motors
Incremental bearingless encoders
RIL201, RIL501

For a compact motor design.
The magnetic bearingless encoders are free of wear and robust at the same time thanks to a contactless measuring principle. This means your motors can enjoy continuous operation without fault. The compact design really comes into its own in tight installation spaces.

$Sin \atop Cos$ RS422 / TTL   Push-Pull / HTL

Features	Benefits
100 % integration in the motor	Slim motor design is possible.
Compact dimensions – adapted to the corresponding installation space in the motor	Optimal integration in any motor concept
Kübler shielding technology	Interference field of the magnetic brake is shielded 100 %
High signal quality	Optimal drive control
Smart Technology	Intelligent solutions for different motors

Application asynchronous motors

Asynchronous motors are increasingly used in applications where the available space is limited. In response to this requirement, drives are becoming ever more compact.
To reduce the length, Kübler provides magnetic, bearingless encoders, which can also be integrated customer specifically in the motor. A scope of delivery tailored to customer requirements and comprising sensor head, magnetic ring and shielding (against magnetic effects from the brake) is provided for such purpose.
This modular system consisting of optimally coordinated components allows Kübler to provide solutions for all motor sizes with minimum variance.
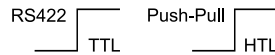
For mounting on large shafts
Robust bearingless encoders HDRI500, HDRI5000

For large motors and generators.
The bearingless encoders HDRI500 and HDRI5000 are used wherever it is not possible to mount encoders with bearings directly on large generator or motor shafts.
These encoders provide maximum resolution and enable high control quality via digital realtime signal processing.

RS422 ⌐ TTL   Push-Pull ⌐ HTL   Sin/Cos   BiSS INTERFACE

Features	Benefits
Mounting on shafts up to max. ø 740 mm possible	Direct speed measuring on large shafts
Smart Technology	Flexible adaptability to customer applications
Realization of additional functions possible	Options for condition monitoring and predictive maintenance
High mounting tolerance	Quick and easy mounting on the motor

Applications   Large motors, generators

Capture linear movements rotationally
Measuring wheel system MWE21

Direct measurement.
The MWE21 measuring wheel system is the ideal solution for reliable speed, position and distance measurement in applications with linear movements. These are recorded rotationally via the measuring wheel with mounted encoder and converted into measurement data.
An integrated spring ensures the contact pressure of the measuring wheel on the measuring surface required for reliable measured value acquisition. Due to its compact design, the system is also suitable for the tightest installation spaces and can be installed quickly and easily horizontally, vertically or overhead.

Push-Pull HTL RS422 TTL Open Collector NPN
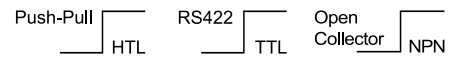
Features	Benefits
Compact measuring system with flexible mounting options: vertical, horizontal or overhead. Encoder can be mounted on both sides in 30° steps on the encoder spring arm.	Simple and fast mounting even for the tightest installation spaces
Integrated spring for optimum contact pressure of the measuring wheel on the measuring surface and as compensation for unevenness	Direct and reliable measurement on the measuring surface for precise speed, position and distance measurement
Robust incremental Sendix encoder with max. resolution up to 2500 pulses/revolution and max. speed up to 4500 min^{-1}	Accurate measurement values for efficient production operation
Measuring wheels for different measuring surfaces: Available with O-ring NBR70, smooth plastic (polyurethane) or diamond knurled (aluminum) coating in 200 mm and 6" circumferences.	Matching measuring wheels for any measuring surface
Integrated mechanical spring travel limitation	Spring overload protection ensures long service life

Applications   General mechanical engineering, storage logistic, woodworking, glass industry, packaging and textile machines, labelling and printing machines, inkjet and laser printers, conveyor technology

Door opener for industry 4.0 / IIoT
Draw-wire encoders with IO-Link interface

IO-Link offers completely new possibilities.
All draw-wire mechanisms from the Compact-Line and Performance-Line performance classes can be equipped with IO-Link encoders. The IO-Link interface offers completely new possibilities in combination with our draw-wire mechanisms. For example, pull-out speeds can be monitored and limit values can be set. The setting of application-specific switching points should be emphasized. This can replace existing components such as mechanical limit switches.

CANopen   **SAE J1939**   **IO**-Link

Features	Benefits
Digital limit switches for position and speed	Replaces existing solutions digitally - saves costs and installation time
Kübler Standard Profile and standardized IO-Link Smart Sensor Profile	Simple and flexible implementation in the IO-Link world
Versatile draw-wire portfolio with measuring ranges from 0.3 m to 42.5 m	The right performance for your application
Compact design with variable mounting options, different wire types and wire fastenings	Simple and individual mounting, suitable for limited installation space
Robust draw-wire mechanism, low-wear wire outlet and stable die-cast zinc housing	Ideal for dynamic applications with high travel speeds in harsh environments

Applications   Automation in intralogistics, lifting height measurement for driverless transport systems, positioning solutions for of rack control units and many other applications in mechanical and plant engineering

Easy integration in vehicles
Draw-wire encoders with SAE J1939

Robust draw-wire encoders.
All our draw-wire mechanisms of the Compact-Line and Performance-Line ranges can be equipped with encoders and SAE J1939 interface. The SAE J1939 interface, which can be customized, allows very easy integration in the on-board network of your vehicles. On request also available with e1 approval.

SAE J1939

Features	Benefits
Diverse draw-wire portfolio with measurement ranges of 0.3 m to 42.5 m	The right performance for your application
Compact design with variable mounting possibilities, different wire types and fastening methods	Easy and individual assembly, suitable for tight installation spaces
Adaptable PGNs, predefinable PGs for position, speed and alarm	Easy integration in your vehicle network
Robust draw-wire mechanics, low-wear wire outlet and sturdy zinc die-cast housing	Ideal for dynamic applications with high travel speeds in harsh environments

Applications   Diesel drives, vehicle networks for trucks and buses, agricultural and forestry machinery, trailer connections, military vehicles, fleet management systems, motor homes, marine navigation systems

With redundant analog sensor
Draw-wire encoder B75, Compact-Line

Measuring length up to 3 m.
The draw-wire encoder B75 is ideal for outdoor use
thanks to its robust design. The draw-wire
mechanics can be combined with various sensors.
That allows analog, incremental and fieldbus
interfaces to be selected freely.
New safety concepts can be realized with redundant
sensors. Integration in the tightest installation
spaces is possible thanks to the extremely flat
design. Individual alignment of the connection
technology, as cable or plug variant, helps ensure
maximum compactness of this draw-wire encoder.

CANopen   **SAE** **J1939**   ◐ **IO**-Link

Analog output   Analog 2×output   **SSI**   PROFI**BUS**   PROFI**NET**

Features	Benefits
Redundant analog sensor (4 ... 20 mA or potentiometer)	Realization of new safety concepts
Can be combined with Sendix encoders	Matching interface for each application
Flexible assembly in 90° steps	Optimal integration: Extraction direction individually adaptable to the relevant application requirement.
Closable ventilation and water drainage holes	Reliable in outdoor use: not affected by icing. Liquids can escape
Robust design	Suitable for use in mobile automation

Applications   Mobile work machinery, work and rescue platforms, automatic guided vehicles, general automation

Even more compact – now also with redundant analog sensor
Draw-wire encoder C105, Compact-Line

Measuring length up to 6 m.
The draw-wire encoder C105 is ideal for outdoor use thanks to its robust design. Further development of the draw-wire mechanics makes the measuring system even more compact and reliable.
Thanks to the newly designed flexible wire opening, the sensor is able to compensate assembly tolerances. This results in increased availability even in adverse installation situations.
The draw-wire mechanics can be combined with various sensors. That allows analog, incremental and fieldbus interfaces to be selected freely.

CANopen   SAE J1939   IO-Link

Analog output   Analog 2×output   SSi   PROFIBUS   PROFINET

Features	Benefits
Redundant analog sensor (4 … 20 mA or potentiometer)	Realization of new safety concepts
Can be combined with Sendix encoders	Matching interface for each application
Flexible wire opening	For durable performance thanks to compensation of assembly tolerances
Individual alignment of the connection technology	Maximum flexibility during integration
Robust design	Suitable for use in mobile automation

Applications   Telescopic mast, mobile work machinery, work and rescue platforms, general automation

Easy integration in vehicles
Inclinometers IN88 with SAE J1939

Robust and versatile.

The sturdy housing, their high protection level and their wide temperature range ensure reliable operation and long service life. The special feature of the IN88 is its high accuracy, which remains constant even in harsh environments and in case of temperature fluctuations. The SAE J1939 interface, which can be customized, allows very easy integration in the on-board network of your vehicles.

SAE J1939   (E)1

Features	Benefits
Robust: aluminum housing, protection level IP67 / IP69k, temperature range -40 °C ... +85 °C	Optimally prepared for outdoor operation, long service life, high availability
Constant high accuracy - resolution 0.01°, parameterizable filter settings	The optimum measurement whatever the environment
Measurement of inclination angles in the measuring range from 0° ... 360° (1-dimensional) or ±85° (2-dimensional)	No restrictions, your application determines the measuring range
Slim design, stacked installation possible for redundancy	Easy and flexible space-saving installation
Adaptable PGNs, predefinable PGs for position, speed and alarm	Easy integration in your vehicle network

Applications   Diesel drives, vehicle networks for trucks and buses, agricultural and forestry machinery, trailer connections, military vehicles, fleet management systems, motor homes, marine navigation systems
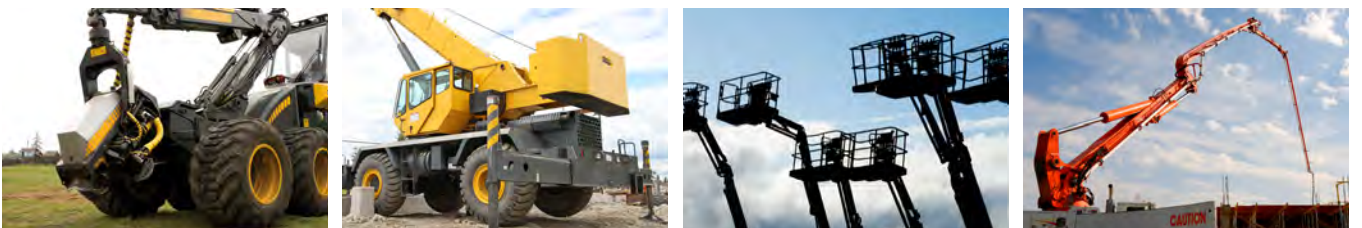
Absolute shaft copying system
Ants LEB02, measuring length up to 392 m

Absolute positioning.
Ants LEB02 an extremely robust, compact and non-contact measuring system. Elevator car absolute position values are measured slip-free with a resolution of 1 mm and a traverse speed of 8 m/s. Additional components such as magnetic switches are no longer needed. Especially the easy mounting reduces installation time, thus contributing to overall costs reduction.

Features	Benefits
Absolute positioning	Elimination of additional sensors in the elevator shaft – reduction of installation time and of overall costs. Highest elevator availability - no referencing required in case of power failure.
Slip-free measuring system	Direct measurement on the elevator car - always the right positioning
Measuring length up to 392 m	Suitable for 99.9 % of all buildings worldwide
Robust stainless steel tape	Reliable and long service life
Mounting kit	Easy mounting, reduction of installation time

Applications   Elevator technology, positioning of the elevator car

Safe shaft copying system
Ants LES02 with PSU02, acc. to EN 81-20/21/50

Absolute positioning.
The PSU02 is combined with the Ants LES02 sensor to realize elevator and safety functions in compliance with EN 81-20/-21/-50.
The Ants LES02 measures the absolute car position 100 % slip-free. The PSU02 evaluates the safe position feedback and triggers by means of safety relays, jointly with the elevator control, the required safety functions.

Features	Benefits
Absolute positioning	Elimination of additional sensors in the elevator shaft – reduction of installation time and of overall costs. Highest elevator availability - no referencing required in case of power failure.
SIL3/PLe certified by TÜV	Fulfils safety functions according to EN 81-20/21/50 in conjunction with a safe elevator control / evaluation unit. Simplifies the overall certification of the elevator.
Slip-free measuring system	Direct measurement on the elevator car - always the right positioning.
Measuring length up to 392 m	Suitable for 99.9 % of all buildings worldwide
Mounting kit	Easy mounting, reduction of installation time

Applications   Elevator technology, positioning of the elevator car
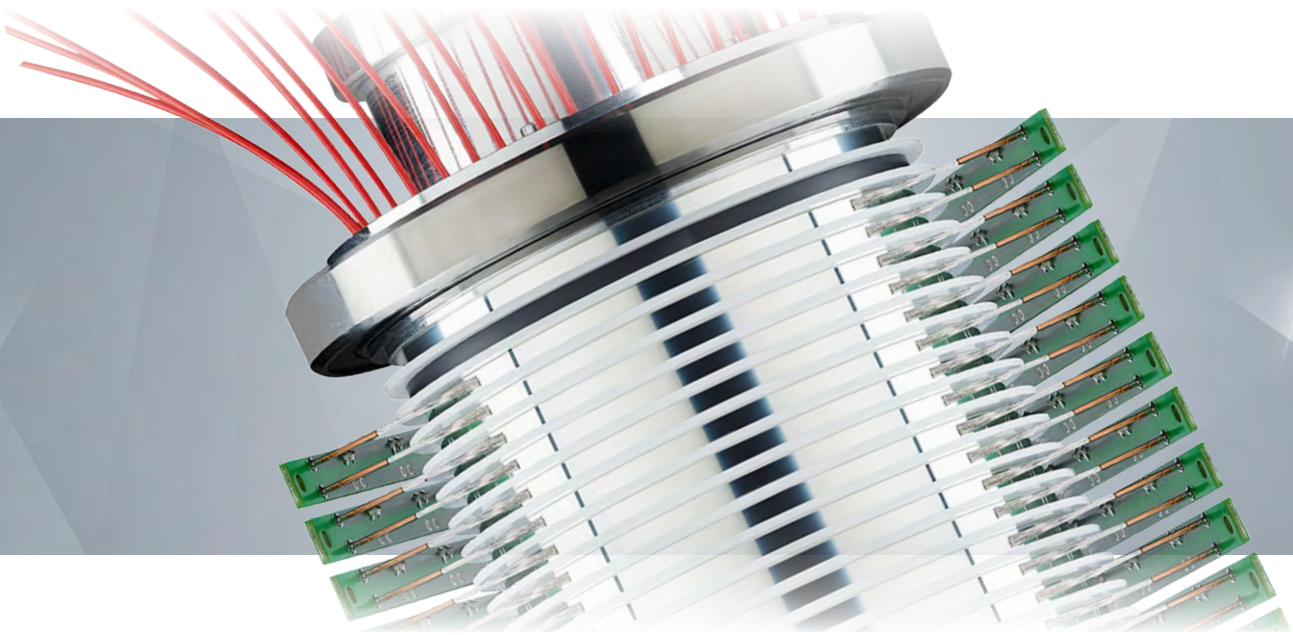
Customized slip ring solutions

Reliable power, signal, and data transmission according to your requirements.
Innovative solutions for the transmission of power, signals, and data are derived from your requirements. With 20 years of experience in the field of transmission technology, Kübler has specialized in certain technologies, having grouped these into technological modular systems for you. From contacting transmission with gold wire or metal graphite brushes, to contactless capacitive, inductive, or optical transmission, to integrated sensors or media lead-throughs for liquids and gases. The design of each slip ring is specially adapted to your wishes. Your advantage: You will receive an individual and tailored slip ring solution for your application.

kuebler.com/slip-rings

Technology

Contacting slip rings.
Contacting transmission is based on special contact brushes that slide against the matching counter-rotating contact rings. The appropriate contact technology is selected based on the application. Our modular system includes a wide range of contacting transmission technologies, including gold wire, silver bundles, and metal graphite brushes.

Contactless slip rings.
Contactless transmission is either inductive, capacitive, or optical. Depending on requirements, we also use these technologies in combination with other contactless and contacting transmissions. For example analog signals could be inductive, field buses and Industrial Ethernet up to 16 Gbps capacitive, and power up to 120 A contacting.

Mechanical possibilities

Media lead-through.
addition to electrical transmission, other media are often also connected. We develop the suitable solution for you for a fast and uncomplicated mounting. In short: Plug and Play.

Slip ring design.
Whether standard or customized – we offer you the right design for your application. The housing is available in plastic, aluminum, or stainless steel and is therefore protected against water spray, water jets, and dust. In addition, slip rings from Kübler are tested for electromagnetic compatibility (EMC). Integrated sensors such as Kübler encoders, temperature monitoring, and much more are used to implement condition monitoring. And don't forget the connection technology, which we design according to your requirements.

Solution for End-of-Arm-Tooling
Pancake slip ring SR160P

Slip ring for robotics.
The pancake slip rings are the ideal solution for
End-of-Arm-Tooling in robotics. They guarantee the
reliable transmission of signals, data and load in a
very short installation space and at low weight. The
system consists of two superimposed boards with
slip ring tracks and transfer brushes.
The flexible design allows optimal integration into
your End-of-Arm-Tooling.
For example, for additional positioning on high-
precision robots, the slip ring can also be combined
with a secondary encoder.

Features	Benefits
Flexible design with installation depth from 10 mm at ø 160 mm	Optimal integration into your End-of-Arm-Tooling
High contact reliability	Reliable and maintenance-free operation
Up to 20 channels for fieldbus / Industrial Ethernet, signal and load transmission (up to 5 A / 60 VAC, 48 VDC)	Flexible application for a wide range of requirements
Optionally with integrated Kübler absolute encoder	For example, for additional positioning on high-precision robots (secondary encoder)

Applications   Robotics, End-of-Arm-Tooling

Smart solution for Industry 4.0 / IIoT
Slip ring SRS250

With integrated sensors.

Power, signals and Industrial Ethernet communication are transmitted reliably via the slip ring. The integrated sensors support the implementation of Industry 4.0 / IIoT concepts via functions like condition monitoring or electronic data sheet. Its robust modular design and various connection options ensure flexible and reliable applications. Thanks to its innovative contact technology, this slip ring is particularly low-maintenance and durable.

Features	Benefits
Transmission of Industrial Ethernet and analog signals (0 ... 20 mA, 0 ... 10 V, Pt100 / 1000 and thermocouples)	Reliable networking and fault-free system control
Transmission of current up to 600 V / 100 A	Optimal supply for powerful drives
Integrated system of sensors	High system availability thanks to condition monitoring, Lifetime histograms and predictive maintenance
Electronic data sheet	Simplifies commissioning and asset management
High protection level IP64 (optional IP67)	Reliable and durable performance
Designed for maximum adaptability	High level of integration in the system saves space and costs

Applications   Filling systems, labelling machines, sealing machines, automatic rotary machines, construction machinery, cranes

Simple and versatile
LCD display and process controllers
573T IO-Link

Optimal for IO-Link applications.
With the type 573T, 2 IO-Link values or 2 standard signal readings can be displayed for further processing and evaluation.
One advantage of the new multifunctional devices is the easy commissioning thanks to plain text programming with resistive touch screen.
All display, counting, measuring and control tasks can also be implemented as transmitters.

Analog output   **RS232**   **RS485**   **Modbus**   **IO**-Link

Features	Benefits
Plain text programming, touch screen (color switching), no operation manual necessary	Simple and fast commissioning - saves money and time
4 fast transistor and/or 2 relay switching outputs	Flexible programming of the switching states with display color switching, adapted to your application
High resolution analog output up to 16 bit	Processing of the standard signal readings or IO-Link values for further processing
Available RS232 or RS485 interface, with MODBUS, ISO 1745 or printer protocol and/or IO-Link interface	Support during commissioning or control of your application with many display formats such as double or large display
Modular design and order code (switching outputs, analog output and/or interfaces)	Only the required functions are included in the device

Applications   Factory automation, general mechanical engineering, automation technology, mobile automation

Our pulses for innovations

The Kübler Group is one of the world's leading manufacturers and specialists for encoders and sensors to measure position, motion, and inclination, as well as slip rings for transmitting power, signals, and data.

The portfolio of premium products is rounded off by counters, process devices, and reliable speed monitors to record and evaluate various measured variables.

Founded in the year 1960 by Fritz Kübler, the family business is now led by the next generation of Gebhard and Lothar Kübler.

Innovative product and sector solutions, as well as solutions for functional safety and a high level of service, are the reasons behind our global success.

The strict focus on quality ensures the highest levels of reliability and a long service life for our products in the field.

Eleven international group members and distributors in more than 50 countries offer local product know-how, service and advice throughout the world.

Over 500 dedicated people worldwide make this success possible and ensure that customers can continue to place their trust in our company.

Product portfolio – Made in Germany

MEASUREMENT

Rotary speed and position detection, linear position, and speed measurement as well as inclination angle detection.

- Encoders
- Bearingless encoders
- Motor Feedback Systems
- Linear measuring systems
- Shaft copying systems
- Inclinometers

TRANSMISSION

Reliable and interference-free transmission of power, signals, and data. Communication between control system and sensors.
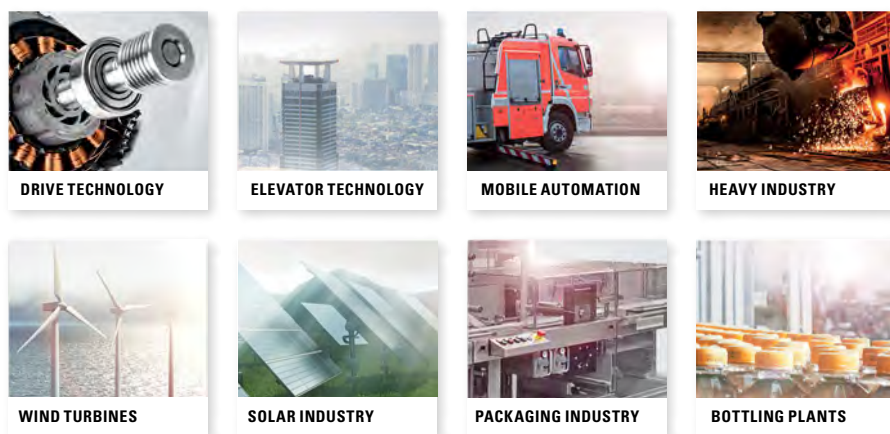
- Slip rings
- Slip rings, customized solutions
- Signal converters and optical fiber modules
- Cables and connectors

EVALUATION

Recording of quantities, counting of units of any kind, and reliable speed and position recording for functional safety.

- Displays and counters
- Process devices
- Safe speed monitors up to SIL3/PLe

We offer solutions for the following industries:

DRIVE TECHNOLOGY

ELEVATOR TECHNOLOGY

MOBILE AUTOMATION

HEAVY INDUSTRY

WIND TURBINES

SOLAR INDUSTRY

PACKAGING INDUSTRY

BOTTLING PLANTS

The high performance level and reliability of the Kübler products are based on our long experience in these demanding application sectors. Learn more about our application-specific solutions under:

kuebler.com/industries

Kübler Service for worldwide planning reliability

24**one**

24one delivery promise

Manufacturing in 24 hours. For orders placed on working days before 9 AM, the product will be ready for dispatch on that same day. 24one is limited to 20 pieces per delivery.

10 by 10

We will manufacture and deliver 10 encoders within 10 working days (365 days a year - with the exception of 24th Dec. until 2nd Jan.)

48 h Express-Service

We can process your order within 48 hours; we can ship stock items the same day.

Sample Service

We manufacture samples of special designs or according to customer specification within shortest time.

Safety Services

Individual customer solutions.

Tailor-made Solutions – Kübler Design System (KDS) OEM Products and Systems (OPS)

We develop jointly with our customers product and engineering solutions for customer-specific products, integrated drive solutions, up to complete systems.

Technical Support

Kübler' applications team is present on site all over the world for advice, analysis and support.

Kübler Germany	+49 7720 3903 952	Kübler Turkey	+90 216 999 9791
Kübler France	+33 3 89 53 45 45	Kübler China	+86 10 8471 0818
Kübler Italy	+39 026 423 345	Kübler India	+91 2135 618200
Kübler Poland	+48 61 84 99 902	Kübler USA	+1 855 583 2537
Kübler Austria	+43 3322 43723 12		

KÜBLER WORLDWIDE

500 EMPLOYEES · 4 PRODUCTION SITES · PRESENCE IN OVER 50 COUNTRIES

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FRITZ KÜBLER GMBH

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KÜBLER TURKEY OTOMASYON TICARET LTD. STI.

KÜBLER INC.

KÜBLER AUTOMATION INDIA PVT. LTD.

KUEBLER (BEIJING) AUTOMATION TRADING CO. LTD.

KUEBLER KOREA (BY F&B)

KÜBLER AUTOMATION SOUTH EAST ASIA SDN. BHD.

Kübler Group
Fritz Kübler GmbH
Schubertstrasse 47
78054 Villingen-Schwenningen
Germany

Phone +49 7720 3903-0
Fax   +49 7720 21564
info@kuebler.com

kuebler.com