



NEW PRODUCTS

2024

Further information



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Safety over
EtherCAT®

EtherNet/IP™

EtherCAT®
Technology Group

MQTT

INDUSTRIAL ETHERNET



**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, parallel connection to several controllers, fast operational availability, 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 PROFInergy, as well as PROFI-safe or FSoE for functional safety
- Integrated web server and cyber security (in preparation)



Our products for Industrial Ethernet



For functional safety:
Sendix S58 PROFIsafe see page 8



Sendix F58 PROFINET IO see page 9



Sendix F58 EtherNet IP see page 10



Industry 4.0 / IIoT ready

Networked and intelligent products are a prerequisite for Industry 4.0. Kübler IO-Link products are able to say: „Who am I? Where am I? How do I feel?“.

„Industry 4.0 / IIoT ready“ means: In addition to the classical measuring task and transmission of measured values of an encoder, in addition to the transmission of power, signals and data of a slip ring, the Industry 4.0 / IIoT ready products must also provide further functionalities for networking the products and for collecting or transmitting additional information.



Connectivity

Connectivity stands for the ability to communicate additional information and / or to be integrated in a network. This can take the form of additional interfaces such as OPC-UA (e.g. for additional edge communication) or Industrial Ethernet communication as well as a digital interface such as BISS.



Identification

Identification is the ability to transmit technical information by means of an electronic data sheet / type plate. In addition, further information about the machine can be transmitted (e.g. information about the axis where the encoder is installed). Essentially, all the information required in the application for asset management is recorded here.



Diagnostics

Diagnostics functions provide relevant information about the condition of the product (e.g. error messages) or indirect information about the application. For example, an integrated temperature sensor can indicate that the permissible working temperature range has been exceeded. Or integrated vibration sensors provide information on the condition of the power train bearings. Highly integrated bearingless systems in particular can provide reliable information here. Log and time stamp functions in Industrial Ethernet encoders make it possible to create lifetime histograms.



Adaptability

Adaptability refers to adaptability, which can take place on two levels:

- At the operational level, the parameters / settings of an encoder can be changed during operation, e.g. to optimize setup processes or to eliminate measurement errors with digital signal processing.
- Software updates can be carried out at system level at any time.

The range of functions for the implementation of Industry 4.0 / IIoT concepts can be subsequently extended in order to guarantee the future viability of the system. Therefore, all Kübler fieldbus and Industrial Ethernet encoders are available with a firmware update function as standard.



IO-Link - door opener for Industry 4.0 / IIoT

The right encoders, measuring wheel systems, draw-wire encoders, inclinometers 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.



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



Measuring wheel systems
see page 16



Draw-wire encoders
see page 20



Inclinometers
see page 18



LCD display and process
controller see page 31

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.



Features	Benefits
<p>Latest Ethernet profiles</p> <ul style="list-style-type: none"> · PROFINET v2.4.1 · PROFIsafe Profil v2.6.1 · Encoderprofil V 4.2 · PROFIdrive Profil v4.2 	Support of the latest PROFINET features
<p>100 % future-proof</p> <ul style="list-style-type: none"> · Integrated web server · Cyber Security update in preparation 	Implement features and adaptations quickly and easily. High system availability, protection against misuse (acc. IEC 62443).
<p>High resolution</p> <ul style="list-style-type: none"> · Singleturn 15 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.
<p>High performance</p> <ul style="list-style-type: none"> · PROFINET IO, RT, IRT / IRT with up to 500 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

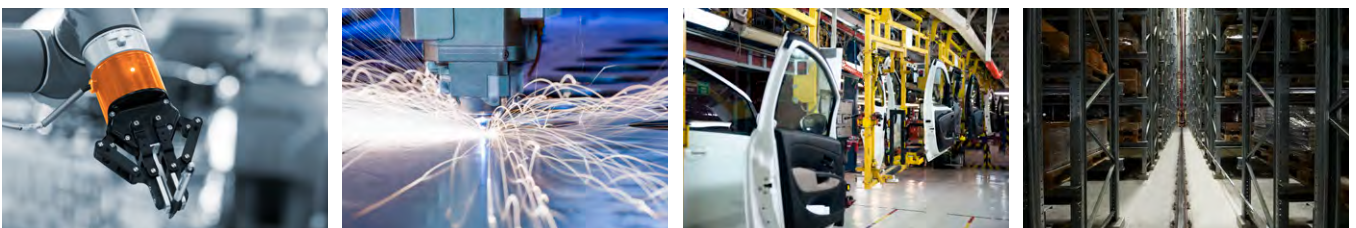
New generation.

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 PROFdrive 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 μ s and a jitter < 1 μ s	Ideal for highly synchronous applications such as axis synchronization
PROFdrive profile	Interoperability between diverse control and drive manufacturers thanks to PROFdrive

Applications Factory automation, automotive manufacturing, logistics, robotics



Powerful and future-proof Sendix F58 EtherNet/IP encoders



New generation - ready for the future.

The optical absolute singleturn and multiturn Sendix F58 EtherNet/IP encoders are based on the latest CIP version v3.32 and EtherNet/IP version v1.30.

Key features are neighborhood detection, gear factor, the calculation of acceleration and simultaneous connection to up to 5 controllers. Thanks to the new framework, the functionality can be extended at any time via the integrated web server by update.

V2A/V4A

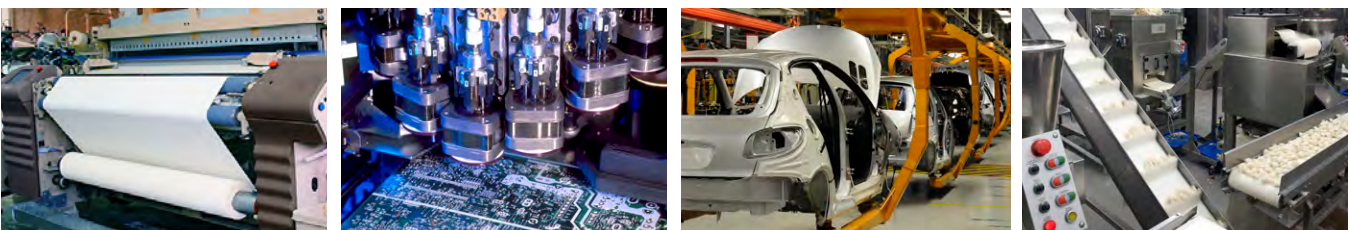


in preparation

EtherNet/IP™

Features	Benefits
Link Layer Discovery Protocol (LLDP)	Quick and easy device replacement through neighborhood detection
Scaling of the total resolution via the gear factor	Direct mapping of pitch ratios, e.g. for gear ratios or gear reductions
High resolution: singleturn up to 19 bit, multiturn up to 24 bit	Precise position detection
High-precision setting of velocity and acceleration values through filter and hysteresis	Cost and time savings when setting up the control system
Device Level Ring (DLR) ring redundancy of the network with two network ports	Communication is maintained when the ring structure is interrupted

Applications Automotive production, logistics as well as metalworking, textile, printing and packaging machines



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.



Features

Extremely robust

- Bearing construction in Safety-Lock™ Plus design with extra large bearing and mechanically protected shaft seal
- Stainless steel version V4A
- Protection level up to IP69k, temperature range -40 °C ... +85 °C

Compact design

36 mm housing with a flange size of 42 mm. Quick recognition of the operating status by two-color LED.

High resolution

Singleturn up to 14 bit and multiturn up to 29 bit with a wide range of electrical interfaces

Energy Harvesting Technology

In the multiturn versions, electrical energy is generated in the encoder by external influences such as vibration

Benefits

- 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

Space-saving solution with simple and fast installation

Reliable measurement data with a communication protocol suitable for your application

Reliable and permanent position detection. Absolute position saving even in the supply-free state. Therefore no battery necessary.

Extremely 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



New generation of bearingless encoders RIM200, RIM500 / RIM2000, RIM5000

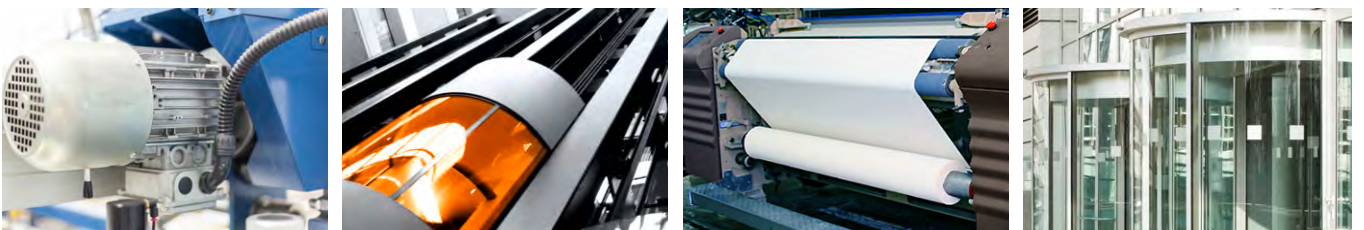
For maximum flexibility, higher performance and cost savings.

With a new technology approach based on digital signal processing independent of previous ASIC solutions, Kübler has significantly expanded the range of applications for bearingless encoders. In conjunction with the available magnetic rings, the best possible accuracy is now always achieved. Influences due to individual installation and temperature differences during operation are automatically compensated in the sensor head. This facilitates integration into applications and makes the overall system even more powerful. Another advantage with the RIM2000 and RIM5000 versions is the programmability of the sensor resolution, in order to realize any pulse number independent of the magnetic ring used.



Features	Benefits
Programmability of the resolution	Any number of pulses can be realized for all magnetic ring versions
Flexibly adaptable at the customer	Changing the number of pulses per revolution is possible with an associated programming device
High signal quality	Very high speed quality in drive technology
Adaptable to customer requirements	Customer-specific OEM designs can be easily realized

Applications Motors, elevator technology, wind turbines, mechanical engineering, textile machines, automatic revolving doors



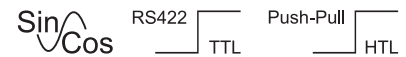
For integration in motors

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.



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.



Features

Mounting on shafts up to max. \varnothing 740 mm possible

Smart Technology

Realization of additional functions possible

High mounting tolerance

Benefits

Direct speed measuring on large shafts

Flexible adaptability to customer applications

Options for condition monitoring and predictive maintenance

Quick and easy mounting on the motor

Applications Large motors, generators

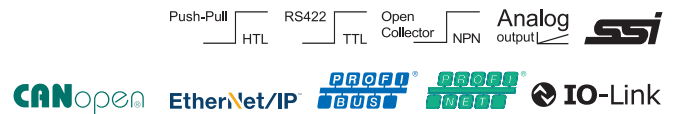


Detection of linear movements

Measuring wheel systems MWExx

Systems for speed measurement, position detection and length measurement.

Measuring wheel systems from Kübler are the ideal solution for reliable speed measurement, position detection and length measurement in applications with linear movements. These are recorded rotationally via the measuring wheel with attached encoder directly on the surface of the material to be measured and converted into linear data. Integrated springs ensure the necessary contact force of the measuring wheel on the surface of the material to be measured for reliable measured value capture.



Features	Benefits
The measuring wheel systems with spring arms can be installed vertically, horizontally or overhead. The encoder can be mounted on both sides in different orientations.	Flexible mounting options on the application
A wide range of rotary encoders - incremental or absolute encoders for all interfaces and with resolutions up to 36 000 ppr	The right sensor solution for every requirement
Measuring wheels with different circumferences and coatings	Slip-free, precise and reliable measuring results
Spring arms with adjustable contact force	In combination with the measuring wheel coating for optimum contact with the measuring surface for slip-free measuring results

Applications Automation in intralogistics, lift height measurement for automated guided vehicles, positioning solutions for storage and retrieval machines and many other applications in mechanical and plant engineering



Measuring wheel systems

Portfolio overview

	Type	Highlight	Contact force	Spring travel	Measuring wheel circumf.	Encoders
Compact Line						
	MWE11	smallest size	max. 10 N	max. 10 mm	100 mm	size 24 mm incremental
	MWE21	adjustable preload	max. 20 N	max. 16 mm	200 mm 6"	size 36/40 mm incremental/absolute
	MWE31	internal springs	max. 15 N	max. 10 mm	200 mm	size 36/40 mm incremental/absolute
Performance Line						
	MWE41	internal springs	max. 25 N	max. 10 mm	300 mm 12"	size 58 mm incremental/absolute
	MWE61	maximum contact force	max. 40 N	max. 80 mm	200 mm 300 mm 500 mm 12"	size 58 mm incremental/absolute
	MWE62	double measuring wheel system	max. 40 N	max. 80 mm	200 mm 300 mm 500 mm 12"	size 58 mm incremental

For static and dynamic applications Inclinometers IN6x and IN7x

Precise and fast measurement thanks to innovative sensor fusion.

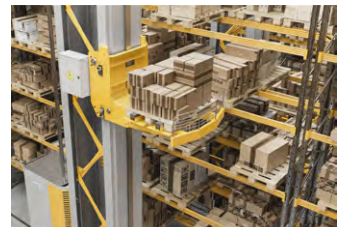
The new IN6x and IN7x inclinometers not only offer innovative sensor technology, but also simple programming options for individual requirements. IN7x inclinometers use an additional gyroscope sensor in addition to the acceleration measuring cell (MEMS) for precise angle measurement. An intelligent algorithm combines the acquired values for acceleration and rotation rate. This leads to a high speed of the measurement result and thus also enables the use in dynamic applications.



Analog output  IO-Link

Features	Benefits
Analog as well as IO-Link interfaces	The right interface for every application - IO-Link as IIoT enabler
Intelligent combination of MEMS and gyroscope data	Precise and fast measurement for dynamic applications
“Easy Teach” – customer-specific settings via teach adapter	Determination of the center point as well as the start or end points
Further setting options via FDT/IODD (PACTware)	Direction of rotation, filter and spirit level functions. Selection of different analog output signals possible in the field..
LED display and spirit level function	For easiest assembly, fast commissioning and diagnostics in operation - visual supports save time and provide transparency
Temperature range -40 °C ... +85 °C and protection level IP68 / IP69K	Precise measurement even under the harshest environmental conditions, protection against salt spray and rapid temperature changes

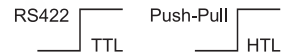
Applications Mobile machines, work and rescue platforms, automatic guided vehicles, general automation



Incremental, magnetic length measuring systems LI200, LI500 / LI2000, LI5000

Flexible and precise even for the harshest environments.

The new non-contact magnetic length measuring systems - consisting of sensor head and magnetic tape - now also enable measuring increments down to a minimum of 1 µm. In the customer-programmable version with the LI2000 or LI5000 sensor heads, the sensor system can be easily and flexibly adapted to the respective application requirements. Influences due to individual installation and temperature differences during operation are automatically compensated in the sensor head. Together with the wide temperature range and a protection class of IP68 / IP69k, this results in maximum reliability even in unprotected outdoor applications.



Features	Benefits
Programmability of the resolution	Flexible setting of the measuring steps adapted to the application-specific requirements
Flexibly adaptable at the customer	A change of the resolution is possible at any time with an associated programming device
High signal quality	The quality of the speed signal extends the possible applications in linear drives
Wide temperature range, IP68/IP69K protection, tested resistance to cyclic humidity and damp heat, and UV-resistant cable	Reliability even under extreme external conditions

Applications Medical technology, glass and wood processing, thermal solar systems, packaging technology, linear drives



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

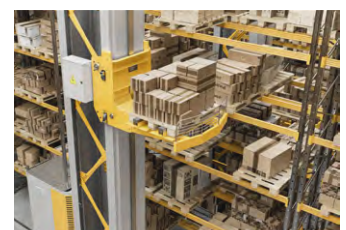
IO-Link offers completely new possibilities.

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.



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 stacker crane units and many other applications in mechanical and plant engineering



With redundant analog sensor Draw-wire encoders B75 and C105, Compact-Line

Measuring length up to 3 or 6 m.

The draw-wire encoders B75 and C105 are 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 these draw-wire encoders.



2xAnalog
output

Features

Redundant analog sensor (4 ... 20 mA or potentiometer)

B75 and C105 draw-wire mechanics can be combined with Sendix encoders

Flexible assembly

Closable ventilation and water drainage holes

Robust design

Benefits

Realization of new safety concepts

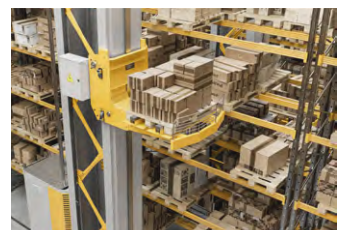
Matching interface for each application

Optimal integration: extraction direction individually adaptable to the relevant application requirement

Reliable in outdoor use: not affected by icing. Liquids can escape

Suitable for use in mobile automation

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



Safe position detection with Dual CAN Sensor Ants Safe LES02D

Simple. Safe. Precise.

The sensor Ants LES02D is an extremely robust, compact and non-contact measuring system. With a resolution of 0.5 mm and a travel speed of up to 10.5 m/s, absolute position values of the elevator car are determined without slippage using a non-contact measuring principle. The Ants LES02D sensor consists of two independently operating detection systems. With this dual CAN technology, 2 measured values are determined redundantly and transmitted to the control system for the realization of elevator and safety functions. Based on the absolute position feedback and the safe communication, numerous components in the elevator can be eliminated. This saves time and costs.



Features	Benefits
Safe position and speed detection	The SIL3-certified measuring system consisting of sensor and code band provides absolute position values as well as speed information
SIL3- and ASME A17 certified	Applicable in numerous markets also outside Europe and North America
100 % slip-free	Flexible mounting on the elevator car as well as direct position feedback without the influence of possible slip
Maximum compact	Simple installation even in the tightest installation spaces - blends in well with the overall appearance of the elevator system even in glass elevators
Digitization of elevator installations	In combination with a suitable controller, numerous elevator and safety functions can be implemented - digitization of elevator systems saves time and costs

Applications Elevator technology, positioning of the elevator car, intralogistics, stacker cranes, car parking systems



Electronic overspeed governor Safe-System LES03 / SGT02

Control-independent.

To trigger electromechanical safety gears, the SIL3-certified sensor Ants LES03 can be combined with the SIL3-certified Safety Gear Trigger SGT02. This means that classic mechanical overspeed governor solutions with all the relevant components can be replaced.

The condition of the safety gear is constantly monitored by the SGT02 and can also be safely and easily reset after safe tripping. In addition to the requirements of EN 81-21, refuge spaces are generated during scaffoldless installation, which in particular provide increased protection for the installation personnel.

The LES03 / SGT02 safe system can also be combined with the evaluation unit PSU02 to realize further safety functions.



Features	Benefits
Electronic overspeed governor - can be combined with electromechanical safety gears	Replaces the mechanical speed governor with all the necessary components.
Control-independent	Perfectly suited for modernization projects. Triggering is independent of the control system. The position data can optionally be communicated to the control system and used via CANopen Lift.
Triggering, resetting and condition monitoring	In addition to triggering, Kübler also takes care of resetting and monitoring the electromechanical safety gear.
Additional refuge spaces (Shield Mode)	Meets requirements according to EN 81-21 and additionally provides refuge spaces already during scaffoldless installation
Reduced number of components	Reduced effort of installation and maintenance - less components in the safety circuit (simpler wiring)

Applications Elevator technology, elimination of mechanical overspeed governors, positioning of the elevator car, intralogistics, stacker cranes, car parking systems



Safety functions with electronic speed governor

Safe-System LES03 / SGT02 / PSU02

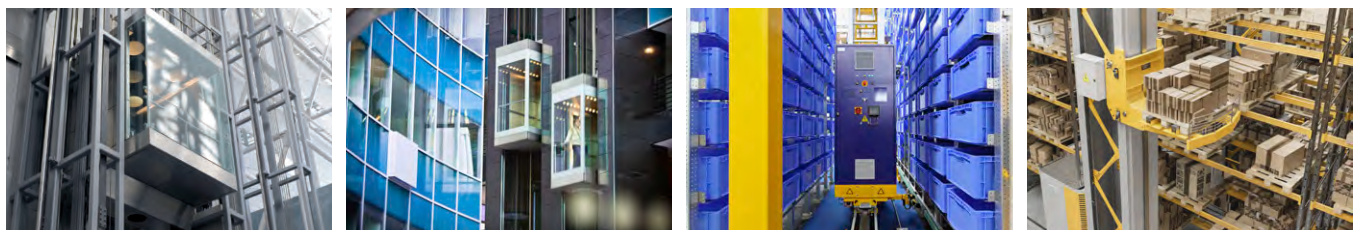
Digitization of elevator systems.

With the combination of the Ants LES03 sensor, the SGT02 Safety Gear Trigger and the PSU02 evaluation unit, numerous elevator and safety functions can be implemented in accordance with EN 81-20/21/50 and classic mechanical solutions can be replaced. This reduces both the complexity in the installation process and the number of components in the safety circuit of the elevator system. The state of the safety gear is constantly monitored by the SGT02 and can be easily and safely reset after safe tripping. The safe system not only provides a high level of safety for passengers, but also realizes refuge space during installation and maintenance of the elevator systems (shield mode).



Features	Benefits
Elevator and safety functions according to EN 81-20/21/50	Safe detection, transmission and processing of position and speed information of the elevator car
Digitization of elevator systems	Numerous mechanical components such as magnetic switches, ramps, and roller limit switches can be eliminated. In addition to costs, this saves installation and maintenance time.
Electronic overspeed governor - can be combined with electromechanical safety gears	Replaces the mechanical speed governor with all necessary components
Drawing, resetting and condition monitoring	In addition to triggering, Kübler also takes care of resetting and monitoring the electromechanical safety gear
Additional refuge spaces (Shield Mode)	Meets requirements according to EN 81-21 and additionally provides refuge spaces already during scaffold-free assembly

Applications Elevator technology, elimination of mechanical speed limiters, positioning of the elevator car



Concept Study

Smart Teaching Unit STU02



Simple parameterization via smartphone.

Kübler presents a further evolutionary step in elevator technology: the Concept Study Smart Teaching Unit STU02.

With this innovation, the evaluation unit PSU02 is parameterized quickly and easily via an intuitive web interface for desktop and mobile devices.

The Smart Teaching Unit STU02 then communicates with the evaluation unit PSU02 via CAN.

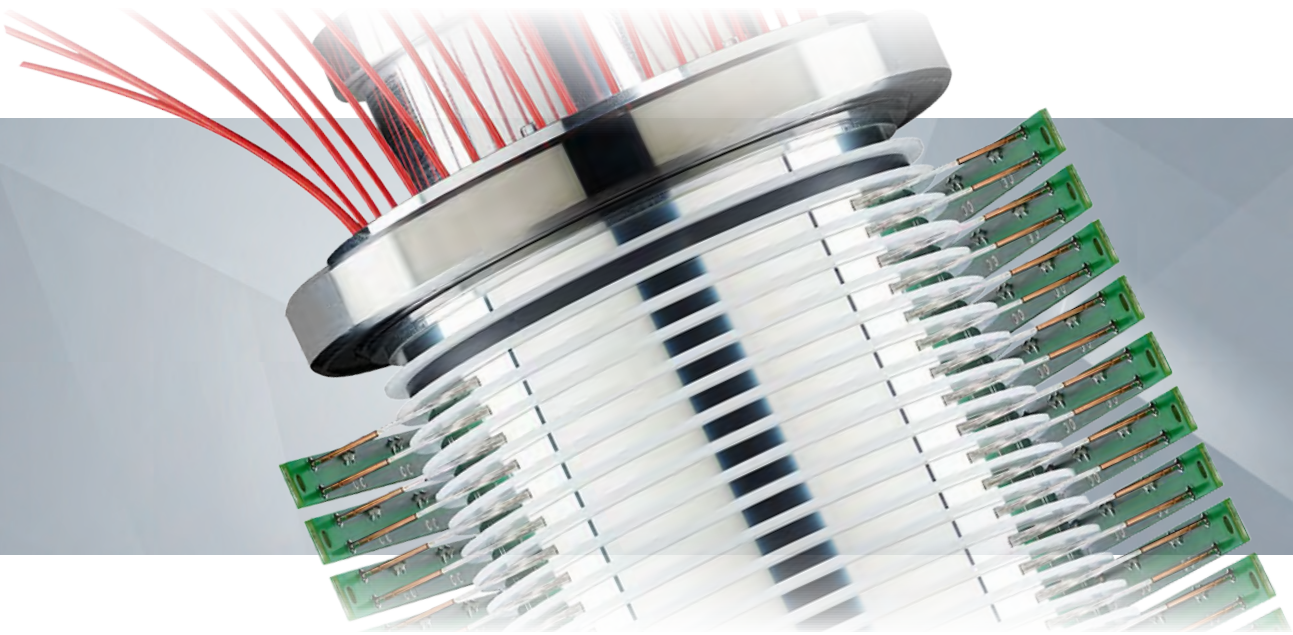
Ideally, the parameterization (teaching) of the evaluation unit is implemented directly in a CAN-capable controller.



Features	Benefits
Operation via mobile devices	The Smart Teaching Unit STU02 provides a secure WLAN network. This makes it easy to connect to the SGT02 via the mobile device, which then communicates with the PSU02 via CAN.
Parameterization (teaching)	Control independent parameterization of PSU02
Visual menu navigation	Simplest handling thanks to intuitive menu navigation and visual explanations
Parameter overview	Supports commissioning and facilitates acceptance by the Notified Body - complete transparency in the event of service
Diagnostic function	Quick and easy diagnostics to reduce downtime with overview of error messages

Applications Elevator technology, shaft copying, intralogistics, stacker cranes, car parking systems





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.



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 silver graphite brushes as well as gold and silver wire technology.

Contactless slip rings.

Contactless transmission of data and signals can be based on inductive, capacitive or fiber-optic principles. Depending on the requirements, these contactless transmission technologies can also be used in combination with contacting ones.

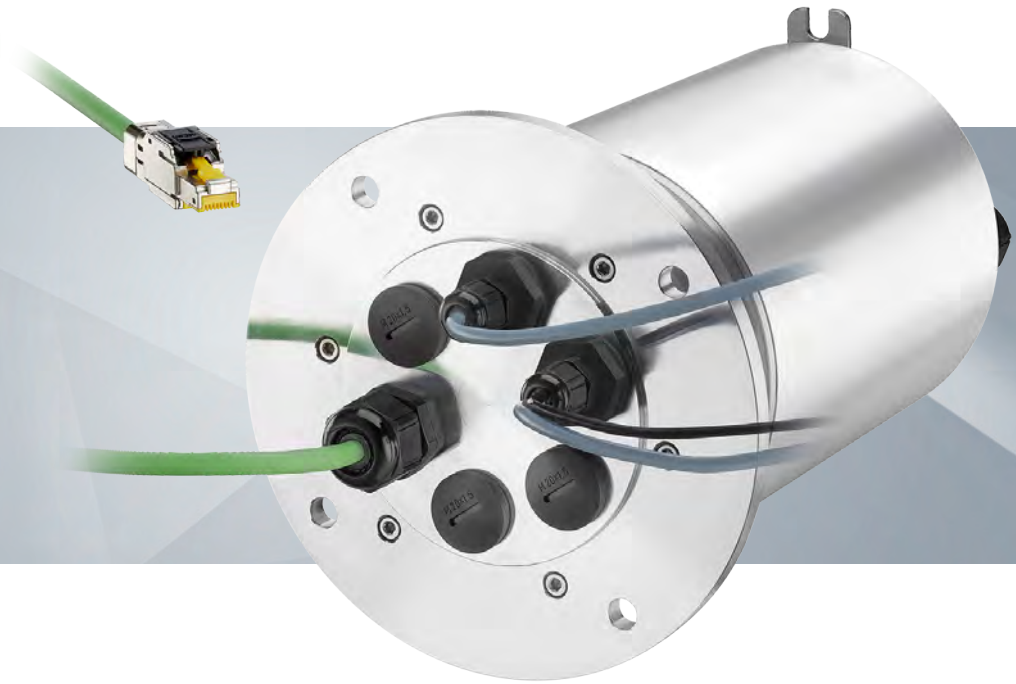
Mechanical possibilities

Media lead-through.

In addition to electrical transmission, other media are often connected such as compressed air, vacuum, hydraulics, lubricants, cleaning agents and other fluids. We develop the suitable solution for you for 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 meets the requirements of protection classes up to IP67. 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.



Gigabit transmission thanks to new slip ring platform

“High-end” transmission for Industry 4.0 / IIoT.

Due to the increasing networking of all components of a plant / machine and the associated complexity of machine controllers through to the implementation of Industry 4.0 / IIoT concepts such as Condition Monitoring, the demand for high-end data transmission is increasing.

Following this trend, Kübler has developed a new, future-proof slip ring platform, which on the one hand is equipped with reliable „high-end” transmission technology in a maximum compact design and on the other hand has a 1 Gbit module.

This operates without further electronic components and thus enables interference-free, reliable and direct transmission.

Technologies

“Powerful” transmission.

Load transmission requirements of up to 800 V and 80 A per transmission path are covered by the new slip ring platform.

Individual adaptation.

The new modular slip ring platform is designed for slip rings with a freely usable hollow shaft of up to 50 mm and forms the basis for our sizes from 130 mm.

In addition to a version with a hollow shaft, we also offer a flange version as standard. Furthermore, any form of customer-specific adaptation is possible with the new slip ring platform, both mechanically and electrically.

The 1 Gbit module

For integrated Industry 4.0 / IIoT concepts.

The new slip ring platform is equipped with a so-called 1 Gbit module. This operates without any additional electronic components and thus enables interference-free, reliable and direct transmission. The Ethernet module is a bus-independent and cost-optimized solution.



Now with connector technology

Slip ring SR060E



“Plug and Play” with the Easy Connect module.

The Flow-Pack slip ring specialist SR060E in the 60 mm size is now also available with the new Easy Connect module - a pre-wired connection cap with connectors. Without time-consuming wiring, the slip ring can be quickly and safely integrated into the system on site. It can also be easily replaced via „plug and play“.

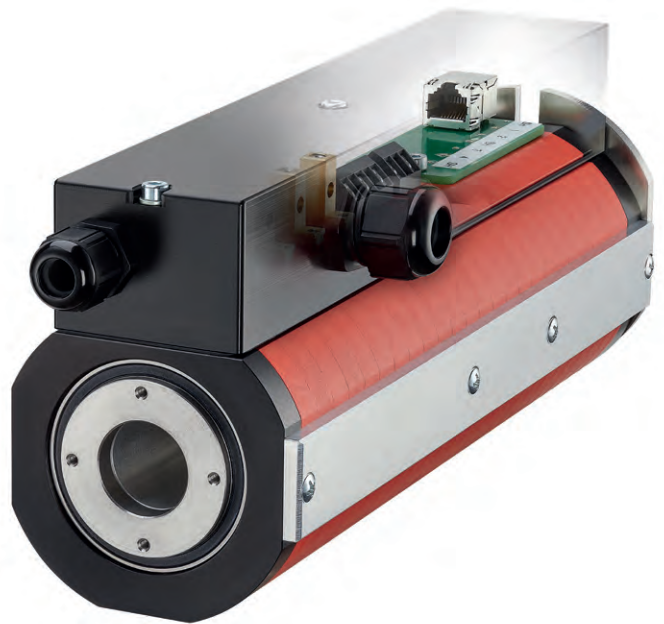
Features	Benefits
Pre-wired connection cap with standard plug-in connections (also customer-specific)	<ul style="list-style-type: none"> · No time-consuming wiring work on the application, pre-wired connection cables are connected via plug connectors (plug and play) · Time and cost savings during installation · High level of system safety due to reverse polarity protection of the connectors · Quick and easy replacement by user
Modular design for max. 3 load and 2 signal channels	Individual configuration of the slip ring possible
Current ratings up to 16 A and voltages up to 400 V (per channel) - Hollow shaft diameter up to 25 mm	Wide range of electrical and mechanical connection options
Innovative contact materials and maintenance cycles only every 100 million revolutions	Long service life and low-maintenance operation

Applications Packaging industry, robotics, rotary tables



Industrial Ethernet transmission

Slip ring SR085IE



For Industry 4.0 / IIoT concepts.

Reliable transmission of Industrial Ethernet is now also possible in the 85 mm size. For this purpose, the SR085 slip rings from Kübler have been expanded with a Fast Ethernet module that enables a transmission rate of up to 100 Mbps. The connection for data transmission is made as standard via a CAT5e cable with RJ45 plug connection. Customer-specific special solutions can also be implemented on request, such as M-type industrial connectors.



Features

Optional Ethernet module for transmission of all common Industrial Ethernet protocols

Robust GFK housing in modular design

Reliable transmission of loads up to 25 A

Flange mounting or simple plug-on via a hollow shaft

Benefits

- Transmission of Industrial Ethernet up to 100 Mbit/s
- Fast connection via RJ45 connector with CAT5e cable
- Quick and easy replacement by user

Individual configuration for all applications

Prepared for a wide range of applications even with high current load

The application determines the mechanical connection - the SR085IE slip ring adapts to

Applications Food industry, rotary tables in pharmaceuticals, automotive industry, general mechanical engineering



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.

Twelve 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
- Inclometers

TRANSMISSION

Reliable and interference-free transmission of power, signals, and data. Communication between control system and sensors.

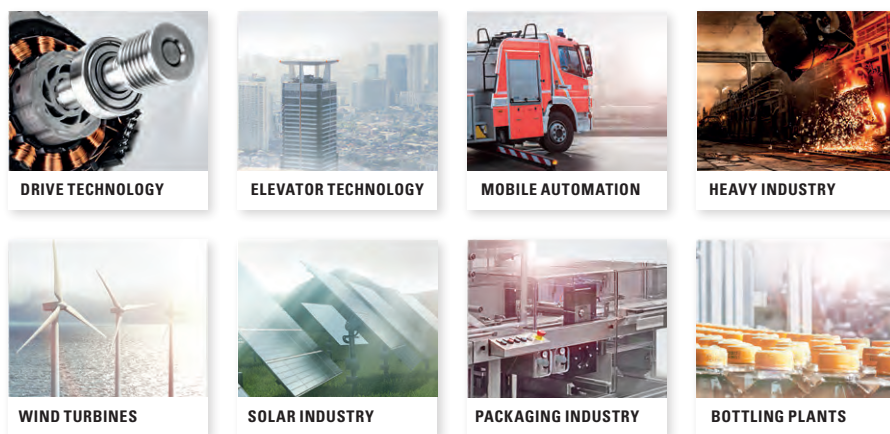
- Slip rings
- Slip rings, customized solutions
- Signal converters and optical fiber modules
- Cables and connectors

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:



The high performance level and reliability of the Kubler 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

24ONE 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 48 h Express-Service

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

Technical Support

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

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Sample Service

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

FS Safety Services

Individual customer solutions.

Key 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.

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