



Encoders Bearingless Encoders Motor Feedback Systems Linear Measuring Technology Shaft Copying Systems Inclinometers Slip Rings Signal Converters Displays, Counters, Process Devices Safe Speed Monitors

Our Pulses for Innovations











The Kübler Group belongs today to the leading specialists worldwide in the fields of position and motion sensors, functional safety, counting and process technology and transmission technology.

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

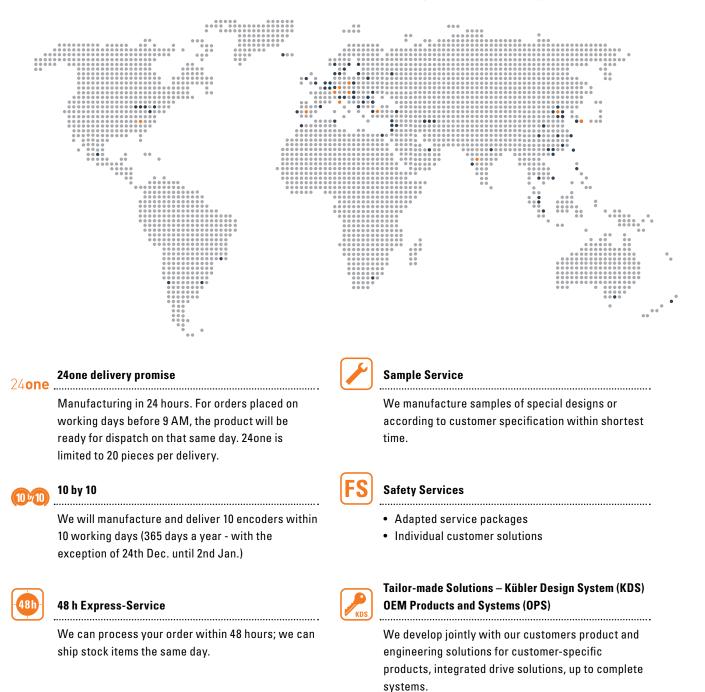
Ten international group members and distributors in more than 50 countries offer local product know-how, service and advice throughout the world. Innovative product and sector solutions, as well as solutions for functional safety and a high level of service, are the reasons behind our global success.

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

Over 480 dedicated people worldwide make this success possible and ensure that customers can continue to place their trust in our company.



Kübler Service for worldwide Planning Reliability





Technical Support

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

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Our Product Portfolio



Position and Motion Sensors

- Incremental and absolute encoders
- Motor Feedback Systems
- Bearingless encoders
- Shaft copying systems
- Linear measuring technology
- Draw-wire encoders
- Inclinometers
- Connection technology

Transmission Technology

- Slip rings, modular system
- Slip rings, bearingless modular system
- Slip rings, contactless transmission
- Slip rings, compact and low-maintenance
- Slip rings, Ethernet transmission
- Slip rings, high current
- Optical fiber signal transmission modules
- Cables, connectors and pre-assembled cordsets

Functional Safety

- Certified incremental and absolute encoders
- Certified explosion-protected encoders ATEX / IECEx

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- Modules for safe drive monitoring
- Safe fieldbus gateways
- Safe speed monitors
- Adapted service packages
- Connection technology

Displays, Counters, Process Devices

• Pulse counters and preset counters

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- Hour meters and timers
- Frequency meters and tachometers
- Combination time and energy meters
- Position displays
- Process displays and controllers for temperature, analog signals and strain-gauge
- Setpoint adjuster

We offer Solutions for the following Industries:



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:

www.kuebler.com/industries

NEW FOR 2019

Position and Motion Sensors

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MOTOR FEEDBACK SYSTEMS FOR SERVO MOTORS

Sendix S36 Motor-Line



ROBUST DESIGN

Its robust construction makes the Sendix S36 Motor-Line particularly shock and vibration resistant.

Mechanical robustness

- Latest mechanical gear technology
- Robust bearing structure in Safety-Lock™ Design
- Reliable connector technology
- Torque-proof stator coupling
- Wide temperature range

Electronic robustness

• Blue LED technology for accurate scanning and long service life

Phased Array Sensor technology

COMPACT

Consistent size of only 36 mm for:

- All singleturn and multiturn variants
- All medium and high power ranges with a resolution < 2048 ppr SinCos or < 24 bits fully digital

(+) High-resolution and compact. Possibility to standardize the attachment between the encoder and the motor, and thus to reduce the number of motor variants. This saves space and costs.

ALL INTERFACES

RS485+Sincos BISS

An encoder platform with all common interfaces.

+ From now on, you and your customers will have maximum flexibility when selecting your preferred electrical interfaces.

Biss

HIGH SIGNAL QUALITY

The use of the Phased Array Sensor technology allows achieving a resolution \leq 2048 ppr SinCos or \leq 24 bits fully digital, ensuring in addition high signal quality also in the event of shocks and vibrations.

+ Premium quality perceptible in

- even in harshest environments.

everyday operation. The robust design ensures

reliable and perfect operation of your motors

Performance increase thanks to the high resolution.
The controlled servo motor shows a more stable operating
behavior and produces less heat.

FUNCTIONAL SAFETY

Certified Motor Feedback System, from the sensors, through the mechanics, up to the electrical interface.

• Safe speed monitoring and fast acceptance for the certification of the complete system.





www.kuebler.com/motor-feedback

SHAPING THE FUTURE WITH KÜBLER

New Single Cable Solutions for the drive technology. So far, the interface was the limiting factor. This will change in the future thanks to the open source and fully digital

BiSS Line and SCS open link interfaces for Motor Feedback Systems. They will allow enormous cost advantages and offer the possibility of developing smart motor concepts.



With the Sendix S36 Motor-Line, nothing stands in your way of smart motor concepts





ANALYTICS FOR SMART MOTOR

Functions such as the electronic data sheet (EDS). saving customer-specific user data and the connection of additional sensors such as for example temperature sensors are available for the analytics.

+ A permanent condition monitoring of the motor allows detecting and correcting faults at an early stage. This leads to higher plant availability and performance improvement.

Intelligent Sensor Analytics

lloT **Condition Monitoring Smart Motor**

Predictive Maintenance

COMPACT INTEGRATION

Bearingless encoders. Incremental and absolute.

Thanks to their contactless measuring principle, the magnetic bearingless encoders are at the same time wear-free and robust. They ensure faultless continuous operation of your motors. Their compact design is particularly suitable for tight installation spaces. Unlike encoders with bearings, they allow a large hollow shaft up to Ø 390 mm. This ensures perfect integration of the bearingless encoders in any motor concept.

+ YOUR BENEFIT

- Space and costs savings
- Faultless continuous operation of your motors
- Sensor solution scalable thanks to different
 magnetic ring sizes
- Optimal mounting solution in smallest installation spaces



INCREMENTAL BEARINGLESS ENCODERS

Ideal for accurate rotary speed measurement. Resolution of up to 16,000 pulses per revolution and available as HTL or TTL variants. Easy and fast installation thanks to various shaft mounting possibilities such as press-fit, hub screw or screwed flange. Large mounting tolerance between the magnetic ring and the sensor head.



Suitable for shaft diameters ≤ 35 mm

RLI20 RLI50 with zero pulse

Resolution \leq 3,600 ppr



Suitable for shaft diameters ≤ 390 mm

RLI200 RLI500 with zero pulse

Resolution ≤ 16,000 ppr



ABSOLUTE BEARINGLESS ENCODERS RLA50 Ideal for accurate position and angle measurement. Resolution of up to 16,000 measuring steps per

revolution and available as SSI or CANopen variants. Additional incremental signals for highly dynamic drives.



SMART BEARINGLESS ENCODERS

Reduce system costs. Increase robustness. Save installation space.

Kübler will find, together with you, the suitable solution that will allow making your motors even more compact both today and in the future. You will thus reduce your system costs and obtain an individually integrated sensor solution. The Smart Technology provides evaluated data for Condition Monitoring and Predictive Maintenance.

🕂 YOUR BENEFIT

- 100% integration in the motor
- Slim motor design
- High assembly tolerance
- Accurate control
- Ready for the Smart Motor

THE SUITABLE SOLUTION FOR EVERY APPLICATION

RLI – PERFORMANCE

The smart bearingless encoder

Smart Technology:

- The digital signal processing with active signal errors correction ensures highest signal quality
- Integrated digital signal filters and electronic nameplate with user memory
- Adjustable line number and application-specifically programmable filters
- Possibility for Condition Monitoring and Predictive Maintenance

RLI – STANDARD

RLI – BASE

FOR HIGH-PERFORMANCE APPLICATIONS

- Very high resolution reaching 2,000,000 ppr
- Direct digital output of position, speed and acceleration
- Highest signal quality over the whole speed range from 0 to 12,000 rpm
- Digital interface SPI, RS485 and BiSS

FOR SIMPLE APPLICATIONS

FOR STANDARD APPLICATIONSResolution up to 16,000 ppr

• Resolution up to 500 ppr

• High signal quality

• Low signal quality requirements



INTERFERENCE FIELDS – NO PROBLEM. KÜBLER SHIELDING TECHNOLOGY.

Electromagnetically actuated brakes generate strong magnetic fields, which make the operation of a bearingless magnetic encoder in their immediate proximity impossible. A shielding method calculated by FEM manages to shield the interference field of the brake at 100 % in the area of the sensor.

THE UNIVERSAL SOLUTION FOR LARGE SHAFTS Encoder AX with large hollow shaft

Highest flexibility for your application.

The AX encoder allows attaching all standard encoders in 58 mm size to large shafts with diameters up to 45 mm.

It allows implementing very easily all possible interfaces: from the classic SSI Multiturn encoder up to the high-performance Industrial Ethernet encoder.



Characteristics	Your Benefits
Hollow shafts from ø 16 mm to ø 45 mm	Suitable for large shafts and large motors
Decoupling of hollow shaft and encoder	 Reliable measurement, prevents bearing damages to the encoder
Available with all common standard encoders in ø 58 mm size	 Highest flexibility for the choice of the encoder characteristics
Proven torque stop, length up to 150 mm	Easy installation, reliable operation

Applications

The AX encoder is the ideal solution for large shaft diameters such as e.g. for large motors.

These mechanics, combined with the suitable encoder, offer substantial advantages for applications requiring particularly high

encoder versatility in terms of electrical interfaces, resolutions and mechanical interfaces.









EASY INTEGRATION IN VEHICLES Absolute encoders with SAE J1939

Robust magnetic encoders. 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. On request also available with e1 approval.



Characteristics	Your 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
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

The automation in utility vehicles is continuously advancing. Also the control networks in vehicles are becoming increasingly extensive. The SAE J1939 protocol has been developed especially for these networks.

SAE J1939 based protocols are used mainly in the following 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.



EASY INTEGRATION IN VEHICLES Inclinometers with SAE J1939

Robust and versatile. Their 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.



Characteristics	Your 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

The automation in utility vehicles is continuously advancing. Also the control networks in vehicles are becoming increasingly extensive. The SAE J1939 protocol has been developed especially for these networks. SAE J1939 based protocols are used mainly in the following 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.



EASY INTEGRATION IN VEHICLES Draw-wire encoders with SAE J1939

Robust draw-wire encoders. All our draw-wire mechanisms of the Compact and Performance 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

Characteristics	Your 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 die-cast zinc housing	 Ideal for dynamic applications with high travel speeds in harsh environments

Applications

The automation in utility vehicles is continuously advancing. Also the control networks in vehicles are becoming increasingly extensive. The SAE J1939 protocol has been developed especially for these networks.

SAE J1939 based protocols are used mainly in the following 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 LEB01, measuring length up to 392 m

Absolute position measurement. Ants LEB01 is 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 5 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.



Characteristics	Your Benefits
Absolute positioning	 Elimination of additional sensors in the elevator shaft (magnetic switches) – 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

Specially developed for the elevator car position acquisition, this measuring system based on a contactless technology contributes to the smooth operation of elevator plants. The absolute position measurement allows doing without many additional components such as magnetic switches. Installation work is therefore reduced contributing, in addition to the drop in costs for additional components, to overall costs reduction.



SAFE SHAFT COPYING SYSTEM Ants LES01, fulfills EN81-20/21/50 requirements

Absolute position measurement. Ants LES01 is an extremely robust, compact and contactless SIL3 certified measuring system. Elevator car absolute position values are measured slip-free with a resolution of 1 mm and a traverse speed of 5 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.



 Elimination of additional sensors in the elevator shaft (magnetic switches) – reduction of installation time and of overall costs
 Highest elevator availability - no referencing required in case of power failure
 Performs safety functions according to EN81-20/21/50 in conjunction with a safe elevator control / evaluation unit Simplifies the complete elevator certification
 Direct measurement on the elevator car - always the right positioning
Suitable for 99.9 % of all buildings worldwide
Suitable for 33.3 % of all buildings worldwide

Applications

In conjunction with a safe elevator control / evaluation unit, this SIL3 certified measuring system for safe elevator car position determination allows realizing numerous safety functions required by standard EN81-20/21/50. The absolute position measurement allows doing without many additional components such as magnetic switches. Installation work is therefore reduced contributing, in addition to the drop in costs for additional components, to overall costs reduction. In addition, the SIL3 certification simplifies the certification of the complete elevator.



COMPACT OUTDOOR DRAW-WIRE SYSTEM Draw-wire encoder C60, measuring length up to 4 m

Robust with redundancy. Its extremely robust design, its high protection level IP69k and its wide temperature range reaching -40°C ... +85°C make the new draw-wire encoder C60 a particularly reliable and long-lasting equipment. Its flexibility and adaptability reflects in the broad selection of housing and wire types, its wide measuring range and its various interfaces. The C60 draw-wire encoder is also available in redundant version.



Characteristics	Your Benefits
Various constructions, open, closed housing or housing with perforated sheet metal cover	The suitable robustness for every application: ensures high plant availability
Protection level up to IP69k, wide temperature range -40°C +85°C	Reliable and long-term outdoor use
Stainless steel wire (ø 1.0 mm) and various wire fastenings (clip, M4 thread and ring)	Flexible and optimum connection to your application
Excellent linearity up to ±0.1 %	You achieve high performance and in addition save costs
Potentiometer, 0 5 V, 0 10 V, 4 20 mA and CANopen interfaces	Usual interfaces, suitable for your application
Redundant version possible	 High plant availability

Applications

Many sensors reach their limits in outdoor applications. Besides being extremely robust and accurate, they also must be as costeffective as possible. The new draw-wire encoders now combine these requirements in one device. Special housing and wire types and mounting methods ensure, in addition to a wide measuring range, reliable and long-term operation in demanding applications – at extremely economical prices.



EXTREMELY RUGGED AND EFFICIENT

Draw-wire encoder D120, measuring range 3 ... 10 m **Q**

For outdoor applications. The new draw-wire encoders D120 are especially reliable and durable thanks to their extremely rugged design, high protection level (IP69k), and wide temperature range. The extensive selection of housing and wire types, wide measurement range and various interfaces reflect flexibility and adaptability. An additional highlight is the possibility of redundancy.



Characteristics	Your Benefits
Various designs: open, closed housing or housing with perforated plate cover	The right level of durability for every application ensures reduced downtimes
Protection level to IP69k, wide temperature range from -40°C +85°C	Reliable and durable outdoor use
A variety of stable wire types (from 0.5 to 1.5 mm) and wire fastenings (clip, M4 screw thread and ring)	Flexible and ideal integration into your application
Excellent linearity up to ±0.1 %	High performance and cost savings
Potentiometer, 0 5 V, 0 10 V, 4 20 mA, CANopen interfaces	Common interfaces suitable for your application
Redundant version available	 High system availability

Applications

Sensors reach their limits in outdoor applications. In addition to maximum durability and precision, they must also be cost-effective. The new draw-wire encoders now unite these demands in a single device. Special housing, wire and fastening types ensure reliability and durability in demanding applications with wide measurement ranges – all at very economical prices.



LENGTH AND INCLINATION MEASUREMENT Draw-wire encoder C100, measuring length up to 5 m

With integrated inclinometer. Its robust design and its high IP67 protection level make the draw-wire encoder C100 a particularly reliable device. It can be mounted easily and optimally in any application. Ranging from the integrated inclinometer up to the relay output, many additional options are available. In order to increase plant availability, this draw-wire encoder offers the possibility to integrate a redundant system in its very compact housing.





Characteristics	Your Benefits
Measuring length up to 5 m	The suitable measuring length for every application
Integrated inclinometer (optionally redundant)	Cost, space and installation work saving
Redundant sensors	For even higher plant availability
Different types of sensors (analog, incremental, CANopen, relay output, switch output)	The right sensor for every need – simple selection and fast installation
Linearity up to ±0.1 % of the measuring range	 High accuracy at economic prices
High protection level IP67 and wide temperature range from -40°C +85°C	Reliability and long service life for outdoor applications

Applications

Automated approach and position measurement for load monitoring are increasingly important functions in mobile machinery. The new draw-wire encoder C100, qualified as « mobile-robust », has been especially developed for these applications. The sensors must in the same time be cost-effective, with a robust construction and show the best repeatability possible. Kübler's draw-wire encoders demonstrate their strengths, among others, in the following applications:

lift table, telescopic masts, supports and general automation technology.



LENGTH AND INCLINATION MEASUREMENT Draw-wire encoder D125, measuring length up to 10 m

With integrated inclinometer. Its robust design and its high IP67 protection level make the draw-wire encoder D125 a particularly reliable device. It can be mounted easily and optimally in any application. Ranging from the integrated inclinometer up to the CANopen output, many additional options are available. In order to increase plant availability, this draw-wire encoder offers the possibility to integrate a redundant system in its very compact housing.



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Characteristics	Your Benefits
Measuring length from 6 10 m	The suitable measuring length for every application
Integrated inclinometer (optionally redundant)	Cost, space and installation work saving
Redundant sensors	 For even higher plant availability
Different types of sensors (analog, CANopen)	The right sensor for every need – simple selection and fast installation
Linearity up to ± 0.5 % of the measuring range	 High accuracy at economic prices
High protection level IP67 and wide temperature range from -40°C +85°C	Reliability and long service life for outdoor applications

Applications

Automated approach and position measurement for load monitoring are increasingly important functions in mobile machinery. The new draw-wire encoder D125, qualified as « mobile-robust », has been especially developed for these applications. The sensors must in the same time be cost-effective, with a robust construction and show the best repeatability possible. Kübler's draw-wire encoders demonstrate their strengths, among others, in the following applications:

lift table, telescopic masts, supports and general automation technology.



EXTENDED POSSIBILITIES

Safety-M speed monitoring SMC1.3 and SMC2.4

Speed monitor: The proven Safety-M compact devices are becoming even more versatile: more inputs and outputs, more interfaces. The removable operating and diagnostic display (OLED) stands for easy parameterizing. The safe inputs and outputs and the integrated signal splitter allow integration in existing safety circuits and upgrading old machines.



Characteristics	Your Benefits
Connection of incremental encoders (HTL differential,	This results in a versatility in drive safety functions
HTL proximity switch, RS422)	
Integrated signal splitter	No complex, external cable routing – easy routing to the controller/frequency inverter
Local diagnosis	 With status LED on the front panel and removable OLED touchscreen with plain language display
1 analog output 4 20 mA	Fast internal signal conversion of the speed into analog values
More encoder interfaces, 8/4 control inputs, 4/2 safe relay outputs, 500 mA electronic switching outputs	 Higher flexibility, allows monitoring more complex applications

Applications

In order to guarantee safe interaction between man and machine, system and machine engineers are utilizing more and more safety technology. This results in new requirements and machine concepts. The compact base module of the Safety-M compact series impresses with critical functions and is easy to implement. The modules are used in the following applications: machine and system engineering, cranes, steelworks, wind turbines, stage technology, and storage and conveyor technology.



SIGNAL CONVERTER PORTFOLIO

Frequency divider, level converter, signal converters and splitters

Ū	al converter portfolio includes at allow adapting signals to the cations.	
	HTL ► TTL; TTL ► HTL SinCos ► HTL / TTL; SSI ► HTL / TTL; f (kHz) ► Analog; SSI ► Analog	Analog



Characteristics	Your Benefits
Efficient: they convert frequencies or signals with clock frequencies of up to 1 MHz	Adaptation to the application control, which is not able to process the provided sensor signal directly
DIN rail mounting with plug-in screw terminals and standard connectors. Compact design.	 Easy modular mounting. Easy module replacement if other levels are required.
Programming via interface, USB or DIL switches	 Highest adaptability for every application
Level converter with galvanic isolation	No transmission of interference pulses

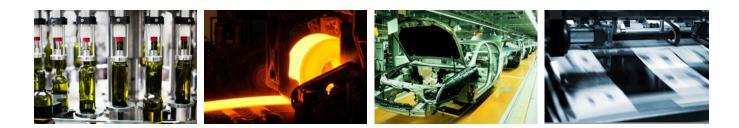
Applications

Frequency adaptation for older and slower controls used with fast sensors.

Level conversion to allow using sensor signals for different terminals.

Signal converters to use sensor signals for given control inputs, e.g. SSI ► Analog.

Signal splitting and separation by a signal splitter to allow using one sensor on 2 controls.



CONTACTLESS GIGABIT ETHERNET TRANSMISSION Slip ring SR160 with integrated Sendix encoder

All in one device. Two separate channels 100 Mbps Ethernet or one channel 1 Gbps Ethernet allow transmitting in parallel loads up to 40 A. Media, switching signals or fieldbuses can be freely combined and are transmitted durably and maintenance-free thanks to reliable technologies. The integration of our Sendix encoders

provides additional position information.



Characteristics	Your Benefits
Contactless data transmission, 2 channels 100 Mbps Ethernet or 1 channel 1 Gbps	 E.g. possibility of separate transmission of data and safety functionalities, high data rates
Integration of encoder and general sensor systems	Condition Monitoring - supply of additional functions such as position, temperature, humidity, etc.
Parallel transmission of load, signal and data, media flow in air or hydraulic models	Ensures high variability and flexibility
Multitude of connector and cable connections available	Quick and easy installation
Designed for the highest adaptability	We create a solution specifically tailored to your needs

Applications

Slip rings take over the rotating transmission of currents, signals, or data between stationary and rotating platforms. Slip rings must be reliable despite their exposure to harsh environments. The SR160 slip ring is suited for these applications: fairground rides, filling systems, labelling machines, sealing machines, automatic revolving transfer machines, construction machinery.



POWERFUL AND RUGGED Slip ring SR250H

High current up to 100 A. The SR250H slip ring transmits loads up to 100 A, signals and data for powerful drives in parallel. The rugged modular design and a variety of connection options ensure flexibility and reliability. Innovative contact technology ensures that the slip ring is particularly low-maintenance and durable. Custom solutions are no problem for the SR250H – contact us!



Characteristics	Your Benefits
Rugged stainless steel housing, high protection level (up to IP67), and high-quality seals	 Reliable in harsh environments, resistant to chemical cleaning agents
Load transmission up to 100 A	Optimum supply of powerful drives
Parallel transmission of load, signal and data, media flow in air or hydraulic models	Ensures high variability and flexibility
Multitude of connector and cable connections available	Quick and easy installation
Designed for the highest adaptability	We create a solution specifically tailored to your needs

Applications

Slip rings take over the rotating transmission of currents, signals, or data between stationary and rotating platforms. Slip rings must be reliable despite their exposure to harsh environments. The SR250H slip ring is ideally suited for these applications: filling systems, labelling machines, sealing machines, automatic revolving transfer machines, construction machinery, cranes.



COMPACT DISPLAY FOR ANALOG STANDARD SIGNALS Codix 534 – LED process display with many functions

LED process display. Front panel mounting with scalable, bright 5-digit LED display. The 14-bit resolution ensures an accurate measured value display range, with minimum and maximum value detection and scalable time-controlled totalizing of the measured value.



Characteristics	Your Benefits
1 current measurement input, 1 voltage measurement input, fast measuring time of max. 0.1 second	Versatile use with most diverse sensors
Galvanic separation with reverse polarity protection, 14-bit resolution	Highly accurate and reliable display of the measured values
Freely definable characteristic curve end points to adapt the desired display value; display with leading zero blanking and programmable decimal point	Easy handling and reading of the display
Totalizer with programmable factor, divisor and decimal point; Automatic min./max. detection	Direct display of the required values on site, without preparation by a control

Applications

Kübler displays are used wherever values must be measured directly on site in the production process and displayed. The Codix 534 is ideal for the measurement and display of flow, level, weight, speed, adjustable stop positioning, production speed, temperature, pressure, voltage, current, mixing ratio. Typical industries are e.g. process industry, woodworking Special machines construction, packaging, food industry, climate, cooling, heating, panel builder, power plants, chemical industry.



SIMPLE AND VERSATILE

Multifunctional display / control devices 570T, 571T, 573T

Touchscreen. A benefit of these new multifunctional devices is their user friendliness using simple plain language programming with resistive touchscreen. All metering, measuring and control tasks, such as pulse sensing for quantity, position, frequency, and time (571T). SSI signals for position measurement/control (570T) as well as processing of standard signal inputs and transmitters (573T).



Characteristics	Your Benefits
Plain language programming, touchscreen (color switching), no instruction manual required	Easy and quick start-up – saves costs and time
Four fast transistor and/or two relay switch outputs	Flexible programming of switching states, adapted to your application
High analog output resolution of up to 16 bit	Preparation of measured values as standard signal inputs for further processing
Available RS232 or RS485 interface	Support for the commissioning or control of your application
Modular design and order number (switch outputs, analog output, and/or interface)	The device only includes the necessary functions

Applications

The displays monitor and control limits or transmit scaled measured values. For example: valve control for gas turbines, measurement of the total length of multilevel crane systems, monitoring of lock gates, blade adjustment for turbines, pitch adjustment for wind turbines, positioning of processing machines (wood, metal, glass), ice surface processing machines, level indicators in tank systems. Flow monitoring in production systems, dwell time of parts in ovens, for example, beyond the frequency measurement (reciprocal), speed measurement from the run time.



KÜBLER WORLDWIDE

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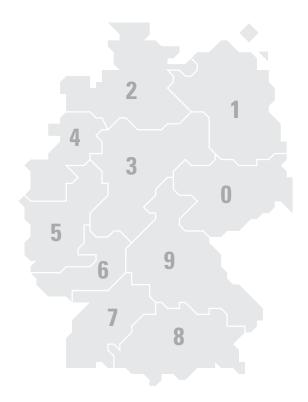
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