



- Position and Motion Sensors
- Functional Safety
- Transmission Technology
- Counters and Process Devices

Our Product Portfolio



Position and Motion Sensors

- Incremental and absolute encoders
- Motor Feedback Systems
- Bearingless encoders
- Shaft copying systems
- Linear magnetic measuring systems
- Draw-wire encoders
- Inclometers
- 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
- Modules for safe drive monitoring
- Safe fieldbus gateways
- Safe speed monitors
- Adapted service packages
- Connection technology

Counters and Process Devices

- Pulse counters and preset counters
- 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 Kuebler products are based on our long experience in these demanding application sectors. Learn more about our application-specific solutions under:

www.kuebler.com/industries

Position and Motion Sensors

Already back in 1997 Kübler introduced the first absolute multiturn encoder with hollow shaft and an installation depth of only 42 mm – a world first. Constant innovations such as the Safety-Lock™ Design or the first optical electronic multiturn stage were to follow this tradition and made new applications and customer solutions possible.



Incremental and absolute singleturn, multiturn and fieldbus encoders

Whether with interference-free positioning or controlling in real-time, as a result of their ingenious safety concept, their extremely rugged technology and their compact construction, Kübler encoders make a significant contribution to the reliability of plant and machinery.



Incremental and absolute bearingless encoders

Thanks to their technology, the magnetic bearingless encoders are almost wear-free and at the same time very robust.

With their reduced mounting depth of only 10 mm bearingless encoders are particularly compact and can be mounted quickly and easily on shaft diameters up to 390 mm.



Linear measuring technology

Kübler offers a wide range of solutions and technologies for measuring linear positions and motions:

- Shaft copying system
- Draw wire encoders
- Magnetic measuring system
- Length measuring kits



Inclinometers

Kübler inclinometers are naturally suited to use in harsh industrial environments, whether in railway technology, solar installations, commercial vehicles or cranes and hoists. They boast a compact, rugged construction, excellent shock resistance and a high protection rating.

new

Motor Feedback Systems for Servo Motors

Sendix S36

• Compact and robust

Suitable for installation on standard servomotors with an unchanged size of 36 mm only. Mechanical robustness thanks to latest mechanical gear technology, robust bearing structure, reliable connector technology, torque-proof stator coupling and wide temperature range.

• High signal quality

Resolution ≤ 2048 ppr SinCos or ≤ 24 bits fully digital thanks to Phased Array Sensor Technology.

• All interfaces

An encoder platform with all classical and all open source interfaces for the Single Cable Solution.

• Functional safety

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

Functional Safety

Safety is – not least since the EU Machinery Directive 2006/42/EC – an “integral part of the construction of drives”.

Systems and components for Functional Safety

- Approved SIL3/PLe encoders – absolute and incremental
- Safety modules for safe drive monitoring
- Control solutions for safe processing of safety sensors
- Adapted Service Packages



Functional Safety

Kübler's extensive product portfolio of rotary and linear position and motion sensors, with the matching safe encoder evaluation devices, provides the basis for safe application-specific drive solutions. However, safe single components alone do not ensure a safe global application. Legally compliant safety already begins when planning the machine, and this is why the Kübler Service technicians and engineers offer a wide range of supports both for the plant manufacturer and for the operator.



Functional Safety

The matter Functional Safety Technology is simplified by the certified encoders of the Sendix SIL family, which includes both incremental, absolute and ATEX /IECEX encoders.

Functional Safety has become an integral part of mechanical engineering.

With a view to machinery Directive 2006/42/EC, Kübler also provides MTTF values for its standard encoders. This allows the user to perform his own calculations in compliance with standard EN ISO 13849-1.

Safety modules

The safe encoder evaluation devices of the Safety-M family include single compact, standalone devices for simple applications as well as modular extendable compact controllers that can be connected via a gateway to any higher-level control system.

This allows realizing flexible safety release circuits integrating a safe speed and position monitoring to achieve simple machine safety. Kübler's technical safety solutions meet all high safety and reliability requirements.

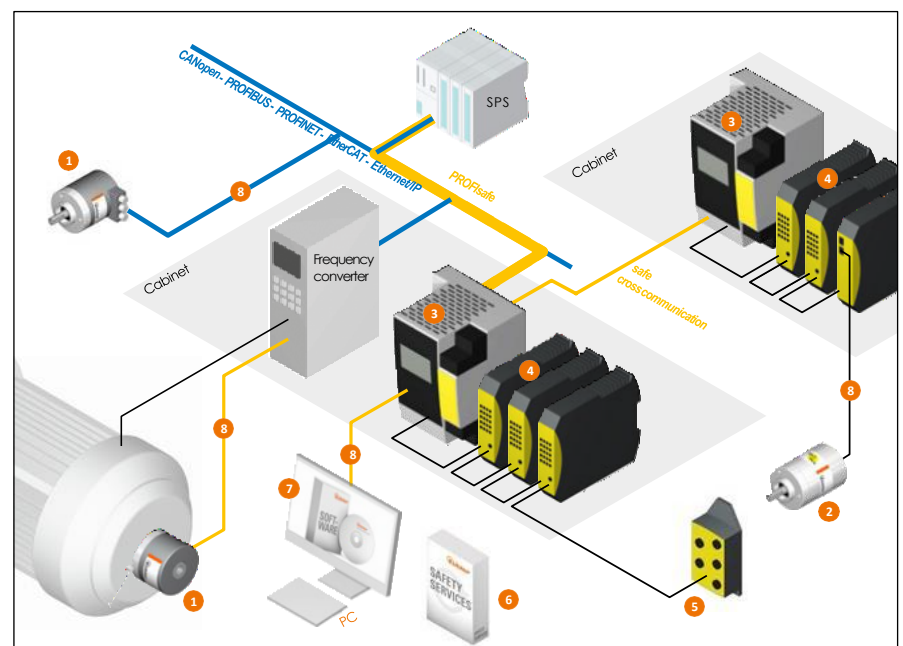
Safety services

Operators of machines or plants can be exposed to increased hazard potentials. These potentials can be mitigated with suitable protective equipment and safety measures.

Safety Services by Kübler will support you with custom-tailored service packages during the whole service life cycle of your machine/plant.

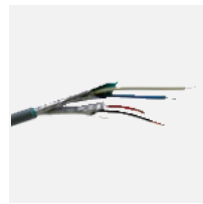
System overview

- 1 – Standard encoders
- 2 – Safe encoders
- 3 – Safety modules
- 4 – Expansion modules
- 5 – Decentralised input/output expansions
- 6 – Safety services
- 7 – PC software
- 8 – Connection technology



Transmission Technology

Quality down to the last detail. Our activities are orientated with the focus always on the customer – from the creation of the product right through to final delivery. This high quality extends to every detail, from the connectors to the optical fiber modules.



Slip rings

Innovation meets tried and tested product quality and compact dimensions: the new Kübler slip ring generation brings together a number of performance features under one umbrella. The areas of application are many and diverse: from packaging machines, via cranes through to rotary tables, slip rings are able to transmit power, signals or data from a stationary to a rotating platform. Versions for field bus signals such as Profibus or CANopen®, as well as for Ethernet transmission, are available.

Optical fiber transmitter modules

Kübler optical fiber modules solve transmission problems simply, reliably and yet at the same time economically. They reliably convert electrical signals into optical signals – and back again. This technology finds its use wherever electrical signals do not suffice to guarantee a safe transmission of the signals. Or where interference, too large distances or shielding prevent good communication. Even when subjected to extremely strong electro-magnetic fields, Kübler optical fiber modules can transmit signals over distances of up to 2000 metres. With perfect safety.

Signal converter

The signal converter portfolio includes various devices (frequency divider, level converter, signal converters and signal splitters), which adapt signals to most diverse applications.



I M12 cordsets with integrated control LEDs

The 8-pin M12 cordset for incremental encoders ensures fast, simple connections under difficult outdoor conditions. The transparent right-angle housing contains three LEDs for displaying channels A, B and Z.

- Monitors all important encoder functions
- Easy troubleshooting
- Installation help for zero point detection



Connectors and cables

The comprehensive choice of cables, connectors and cordsets from Kübler ensures error-free connections and highly accurate transmission. A perfect match for our encoders and counters.

Counters and Process Devices

Successful innovation? A question of corporate culture. In 1960 company founder Fritz Kübler developed the first short time meter with permanent time display. In 2007 Kübler introduced its unique combination meter HW 66, the first in the world to measure both time and energy in one device.



Electromechanical counters

The indestructible all-rounders – from microcounters to standard hour meters. The mature technology platform of the robust counters with electromagnetic drive and mechanical counting drum system is still as up-to-date today as it always was. Due to their low power consumption these counters are ideal for battery operation. Their significant features include – as always – their excellent shock, impact and magnetic-field resistance.

Electronic counters

Have everything that counts. Kübler offers a wide range of counters for pulses, frequency, position and time – all with proven quality. Electronic counters from the house of Kübler boast very high protection levels and require only minimal installation depths. The possibilities when it comes to their areas of application are therefore virtually limitless.

Process devices

Control is better. Kübler process devices reliably display and control their process values such as temperature, analog signals (0/4 ... 20 mA, 0/2 ... 10 V) or pressure – with linearization functions with up to 16 control points. Here the Codix name guarantees the concept of simple, unified operation. The Kübler process technology portfolio includes process and temperature displays, process, temperature and strain-gauge control devices and setpoint generators.

1 Kübler Codix



The Kübler Codix brand name stands for universal usability and standard dimensions, as well as for the philosophy of simple menu-driven programming of our latest counter generation. At the centre of the sophisticated technology lie the large, easy-to-read LED or LCD displays and the intuitive operation, which we also offer with text menu programming. The high quality plug-in screw terminals make a significant contribution to the fast, user-friendly start-up.

- Very bright LED display
- High contrast LCD display
- Robust housing
- High IP protection
- Simple, unified programming
- Fast count and frequency inputs

1 Kübler Codix

With Codix:

**The fastest way to get started ...
no need for a manual**

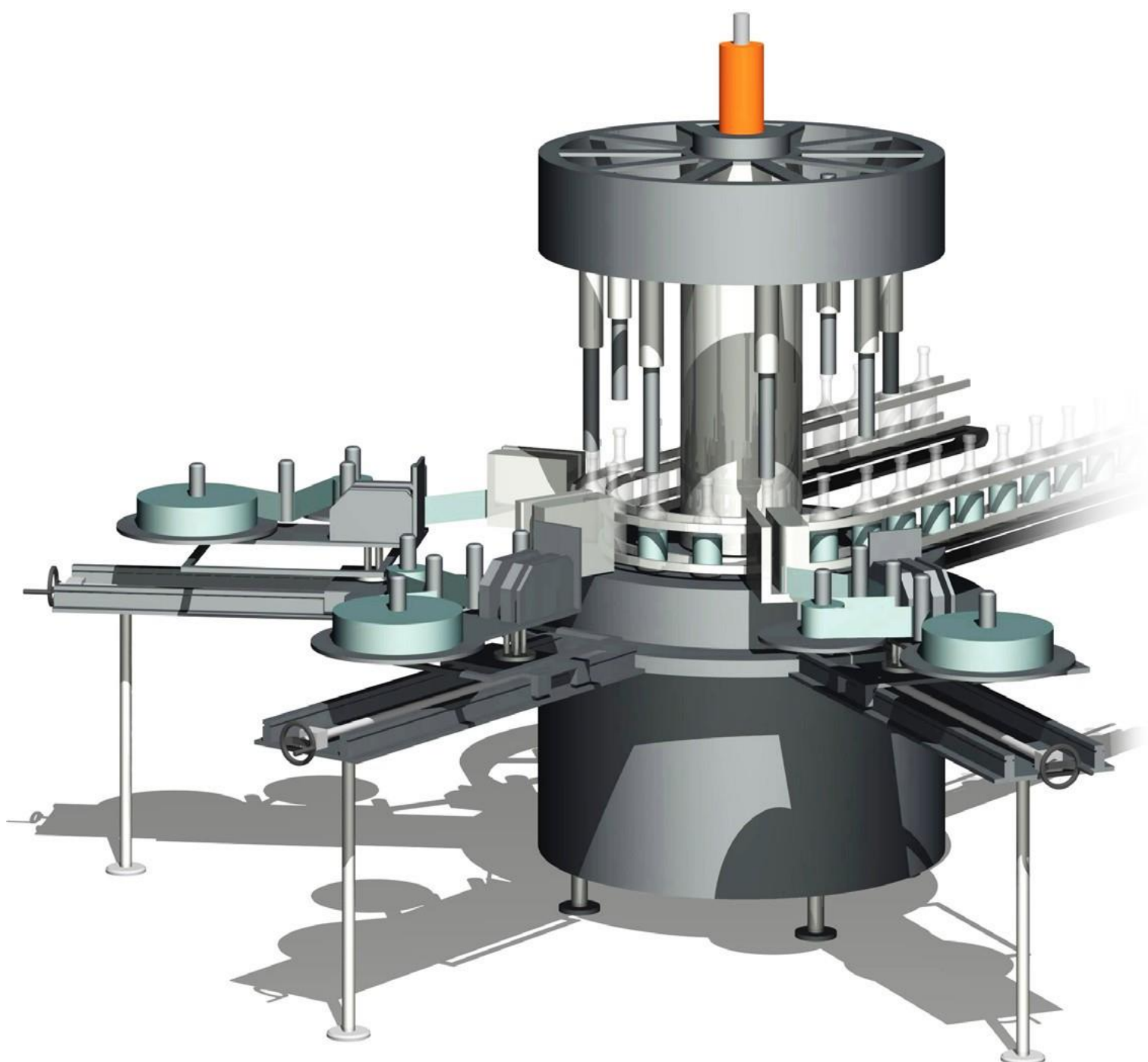


CODIX sets new standards when it comes to user-friendliness.

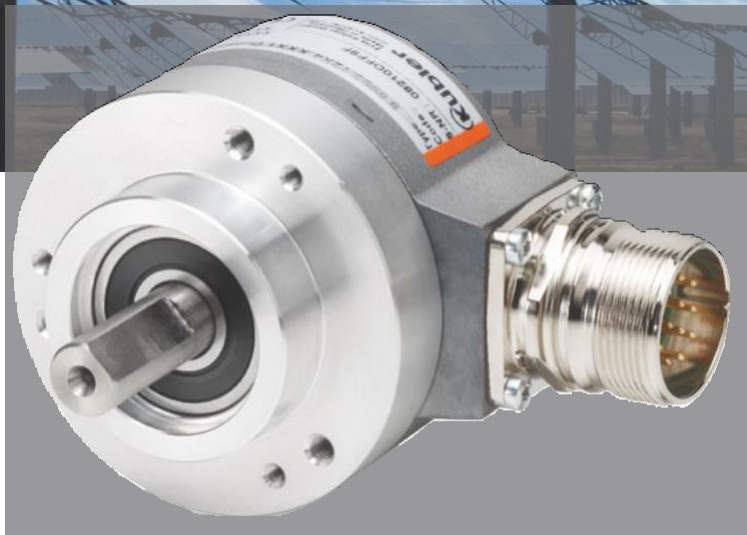
- Help text as running text
- Easy-to-read 14-segment LED 6-digit display
- Simple programming via 4 keys on the front
- One front key as well as 2 additional inputs can be programmed for specific applications
- Practical quick-start guide for setting the parameters and operating the device. The guide can be affixed directly to the front of the unit and can be removed and re-applied as required.

Ethernet transmission – Slip ring

Three-chambersystem. The slip ring SR120 is ideal for applications requiring high transmission rates. The three-chambersystem allows parallel transmission of signals, load, data and Ethernet. Various connection possibilities and a robust and modular design ensure flexible and reliable operation. Thanks to its proven contact technology, this slip ring requires very little maintenance and boasts a particularly long service life.



SOLAR ENERGY



- Incremental Encoders
- Absolute Encoders
- Linear Measuring Technology
- Inclinometers
- Customer Specific Solutions

Encoders and Slip Rings for Industrial Internet of Things (IIoT)

The implementation of IIoT concepts in practice is one of the central challenges for every development engineer. The definition of individual concepts is the first step. In concrete terms, this means: which of the possibilities offered by IIoT should be used? In addition to a wide range of 'Industry 4.0 / IIoT ready' encoders and slip rings, Kübler also offers support during implementation.



Use Cases

Industrial Internet of Things opens up new perspectives and new business ideas. Compared to the current automation world, which is mainly device-oriented, Industry 4.0 /IIoT offers a complete system view. In addition, the technology enables manufacturer-independent access to device data, additional standardized services and simplified device administration. The implementation should take place step by step and be based on practical applications or implementations (use cases). Therefore, we recommend defining the individual use cases first and then planning the technical implementation.

