Kübler

Solutions for Lift technology
- Measuring systems
- Absolute encoders
- Incremental encoders
- Counting technology

pulses for automation

Lift

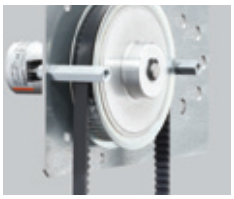
Kübler impulses for lift systems. Smooth-running and safe.

Measuring systems
The mechanical loading experienced by the encoder within the lift mechanics is quite considerable. And here the prefabricated LM lift systems prove their worth. Belt pulleys with duplex bearings, smooth-running toothed belts and a vibration-resistant encoder mounting fixture guarantee very quiet, smooth operation of the system.

Encoders
Sendix encoders from Kübler control the rotational speed and drive position, offer accurate shaft copying and monitor the speed limiters. Thus, they contribute essentially to the long service life and low maintenance requirements of lifts.

Counting Technology
An extensive choice of trip counters and hour meters allows for the precise and highly reliable definition of service intervals.

Kübler Headquarters, Villingen-Schwenningen, Germany



Lift systems for shaft-copying

Kübler encoders

Kübler counting technology

Solutions and accessories for retrofitting

The core business of the Kübler Group is the development, manufacture and marketing of leading-edge position and motion sensors, innovative display and counting technology as well as connection and transmission technology.

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

It is active worldwide with an export share of its turnover of about 70 percent. 8 group members and 50 strong sales partners offer product know-how, service and advice globally on-site.

We see the opportunities for our business in the field of application oriented innovations and in the provision of outstanding all-round service – always with the success of our customers in mind.

With over 350 employees and 3 production sites, we reliably ensure the high level of flexibility of our products, superior quality management as well as exceptional delivery dependability.

Lift systems for shaft-copying

Safety and silence in motion with the LM mechanical lift systems from Kübler.
Lift systems have to achieve a fine balance between many differing demands: key amongst these are reliability
and a very high level of safety, not forgetting at the same time a long service life, highest profitability and tranquil smooth-running.

Application areas

- Passenger lifts
- Goods lifts
- Automatic storage systems

Complete systems

- Quick, easy mounting
- With accessories - all from one source

Reliable

- Rugged construction
- Reduced load on encoder bearings due to separate belt pulley bearings
- Non-slip

Minimal noise generation

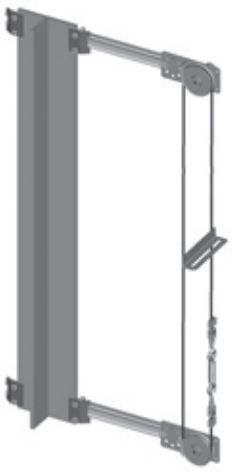
- Smooth-running toothed belt
- Vibration-free operation

Guided-belt systems LM3

With the guided-belt system, the encoder mounting fixture with the measuring wheels is located onto the lift car.

Circumferential system LM5

With the circumferential system, an encoder mounting fixture with measuring wheel is located at both the top and the bottom of the lift shaft. The encoder can be mounted either at the top or at the bottom as preferred.



LM3 and LM5 are the names of two new – ready-made, pre-assembled – Kübler complete systems for shaft-copying, which make a significant contribution to increased safety and reliability in lift technology, thanks to their innovative bearing design. And which also ensure considerably more “peace and quiet in the shaft” – thanks to an innovative vibration-resistant encoder mounting fixture and a smooth-running toothed belt.

They thus offer quiet, smooth-running handling characteristics, which do justice to the lift’s claim to be the calling card of the building.

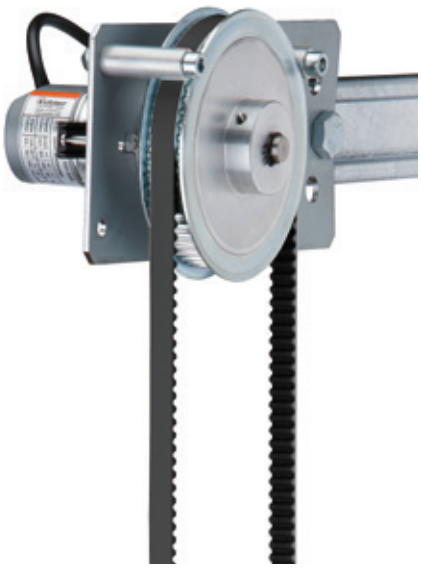
LM3 and LM5 - two different systems for different applications:

LM3 - Compact

The compact solution
- Guided-belt shaft copying
- Up to heights of 28 m
- Up to 1.6 m/sec lift car speed
- For smaller lifts

LM5 - Flexible

The flexible solution:
- Circumferential shaft copying
- Up to heights of 120 m
- Up to 5 m/sec lift car speed
- Suitable for mounting either at the top or at the bottom



LM3: Guided-belt shaft copying for heights up to 28 m

LM3 is a compact measuring system for shaft-copying up to heights of 28 m, with complete mechanical kit in proven toothed belt technology.
A smooth-running toothed belt and a vibration-resistant encoder mounting fixture ensure quiet operation.
The belt pulley can be mounted directly on the encoder shaft. With the guided-belt system, the encoder mounting fixture and the measuring wheels are located onto the lift car.

Encoder mounting fixture LM3

Simple encoder mounting fixture with measuring wheel, for fixing on the lift car:

- Tensioning rollers with belt guide
- Smooth-running toothed-belt ensures extremely quiet operation
- Quick, easy mounting

Complete encoder mounting fixture comprising:

- Encoder mounting fixture with mounted measuring wheel
- Belt guide
- Belt fixing and tensioning set
- Screws and other small components

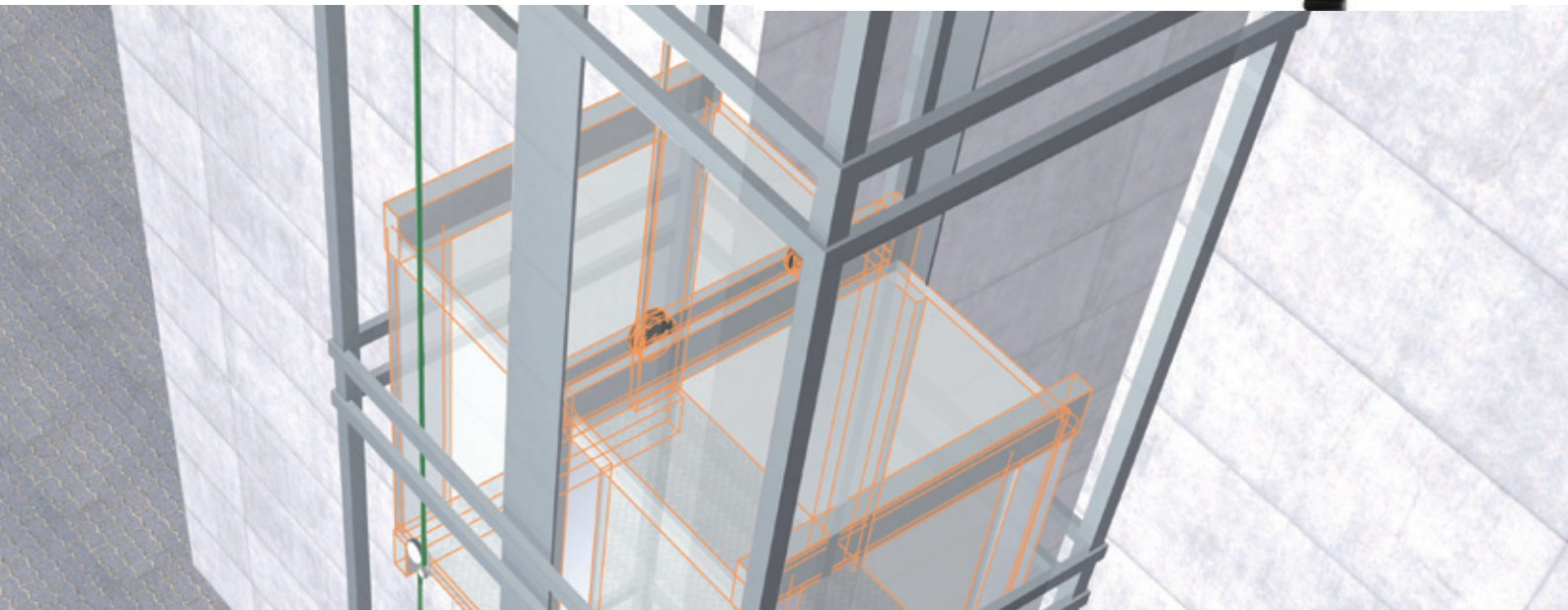
Order-No **8.LM3.01**

Suitable encoders:

- Incremental encoder: Order-No **8.5000.83XX.XXXX ***
  Calculation of pulse rate:
  $$\frac{300\ \text{mm}}{\text{Resolution, e.g. 0.5 mm}} = 600$$
- Absolute encoders:
  SSI: Order-No **8.5863.12XX.XXXX ***
  CANopen / CANLift: Order-No **8.5868.12XX.XXXX ***

CANopen

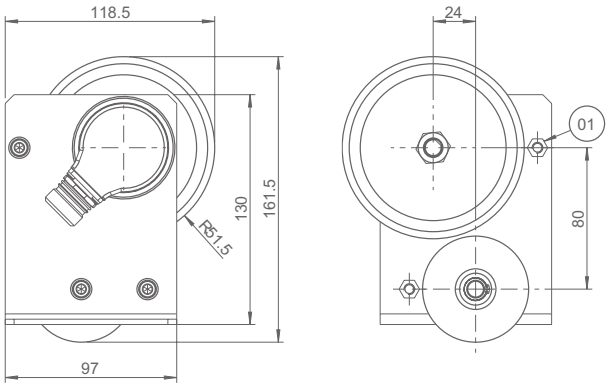
* see catalogue "Position and Motion Sensors"

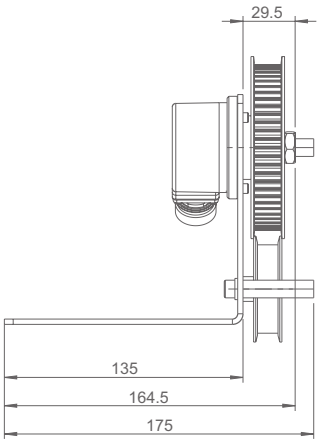


Technical data

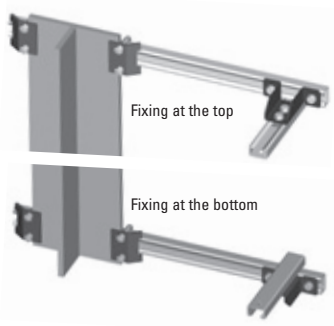
Resolution in the shaft depends on the resolution of the encoder

e.g. Incremental encoder with	3000 PPR = 0.1 mm
Absolute encoder	12 x 12 Bit < 0.1 mm
Lift car speed	max. 1.6 m/s
Max. height of lift	28 m
Effective circumference of belt pulley	300 mm
Working temperature range	-20° ... +85°C





Fixing kit

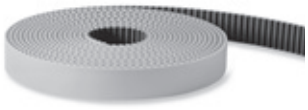


Complete kit consists of: C-Rails, 700 mm, brackets, screws and other small components

Order-No **8.BLM2.01**

Toothed belt

- Width 10 mm
- Polyurethane, with single parallel steel cords
- Low belt-stretch / High resistance to abrasive wear
- Resistant to the effects of UV radiation
- Maintenance-free / Resistant to ageing
- Temperature range -10°C ... +80°C
- Calculation of the required length of toothed belt = Lift height + approx. 5 m (depending on the distance between top and bottom fixing)



Order-No **05.ZAR1.XXX**

XXX = Length in metres,
Standard delivery lengths:
20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100 and 120 m (Other lengths on request)

LM5: Circumferential shaft copying for heights up to 120 m

LM5 is a flexible measuring system for shaft-copying, with complete mechanical kit in proven toothed belt technology.
A smooth-running toothed belt and a vibration-resistant encoder mounting fixture ensure quiet operation. The belt pulley benefits from separate bearing supports in the mounting fixture, so protecting the installed encoder from mechanical overloading. With the circumferential system, an encoder mounting fixture with measuring wheel is located at both the top and the bottom of the lift shaft.
The encoder can be mounted either at the top or at the bottom as preferred.

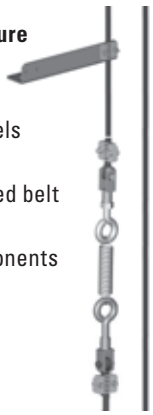
Encoder mounting fixture LM5

Encoder mounting fixture with measuring wheels for fixing in the lift shaft:

- Belt pulley with duplex bearings
- Mounted hollow-shaft encoder
- Separation of bearing load and sensor technology ensures high level of protection for the installed encoder
- Smooth-running toothed-belt ensures extremely quiet operation

Complete encoder mounting fixture
comprising:

- 2 x Encoder mounting fixture with mounted measuring wheels
- Belt guide
- Follower bracket set for toothed belt
- Belt fixing and tensioning set
- Screws and other small components



Order-No **8.LM5.01**

Suitable encoders:

- Incremental encoder:
  Calculation of pulse rate:

$$\frac{300\ \text{mm}}{\text{Resolution, e.g. } 0.5\ \text{mm}} = 600$$

- Absolute encoders:
  SSI:
  CANopen:

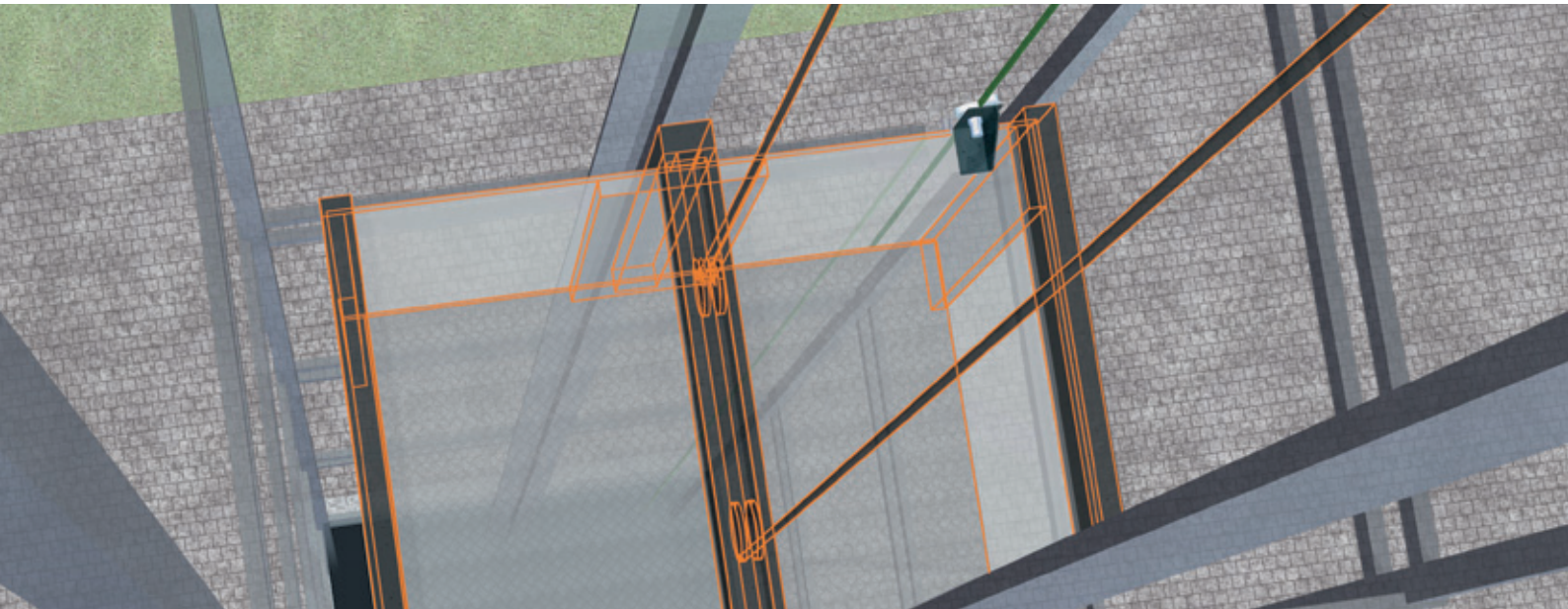
CANopen

Order-No **8.3620.24XX.XXXX ***

Order-No **8.F3683.33XX.XXXX ***

Order-No **8.F3688.37XX.XXXX ***

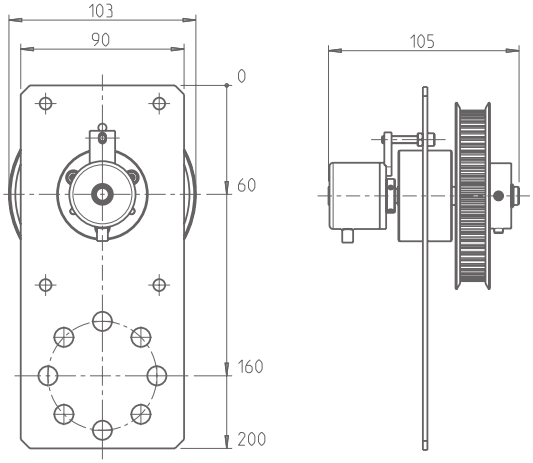
* see catalogue
" Position and Motion Sensors "

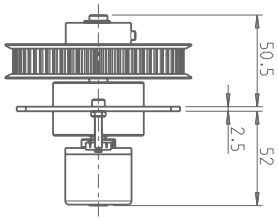


Technical data

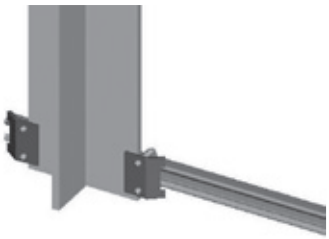
Resolution in the shaft depends on the resolution of the encoder.

e.g.	Incremental encoder with	3000 PPR = 0.1 mm
	Absolute encoder	12 x 12 Bit < 0.1 mm
Lift car speed		max. 5 m/s
Max. height of lift		120 m
Effective circumference of belt pulley		300 mm
Working temperature range		-20° ... +85°C





Fixing kit

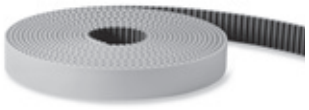


Complete kit consists of
2 x C-Rails, 700 mm long,
4 x carrier clamps

Order-No **8.BLM5.01**

Toothed belt

- Width 10 mm
- Polyurethane, with single parallel steel cords
- Low belt-stretch / High resistance to abrasive wear
- Resistant to the effects of UV radiation
- Maintenance-free / Resistant to ageing
- Temperature range -10°C ... +80°C
- Calculation of the required length of toothed belt = Lift height + approx. 5 m (depending on the distance between top and bottom fixing)

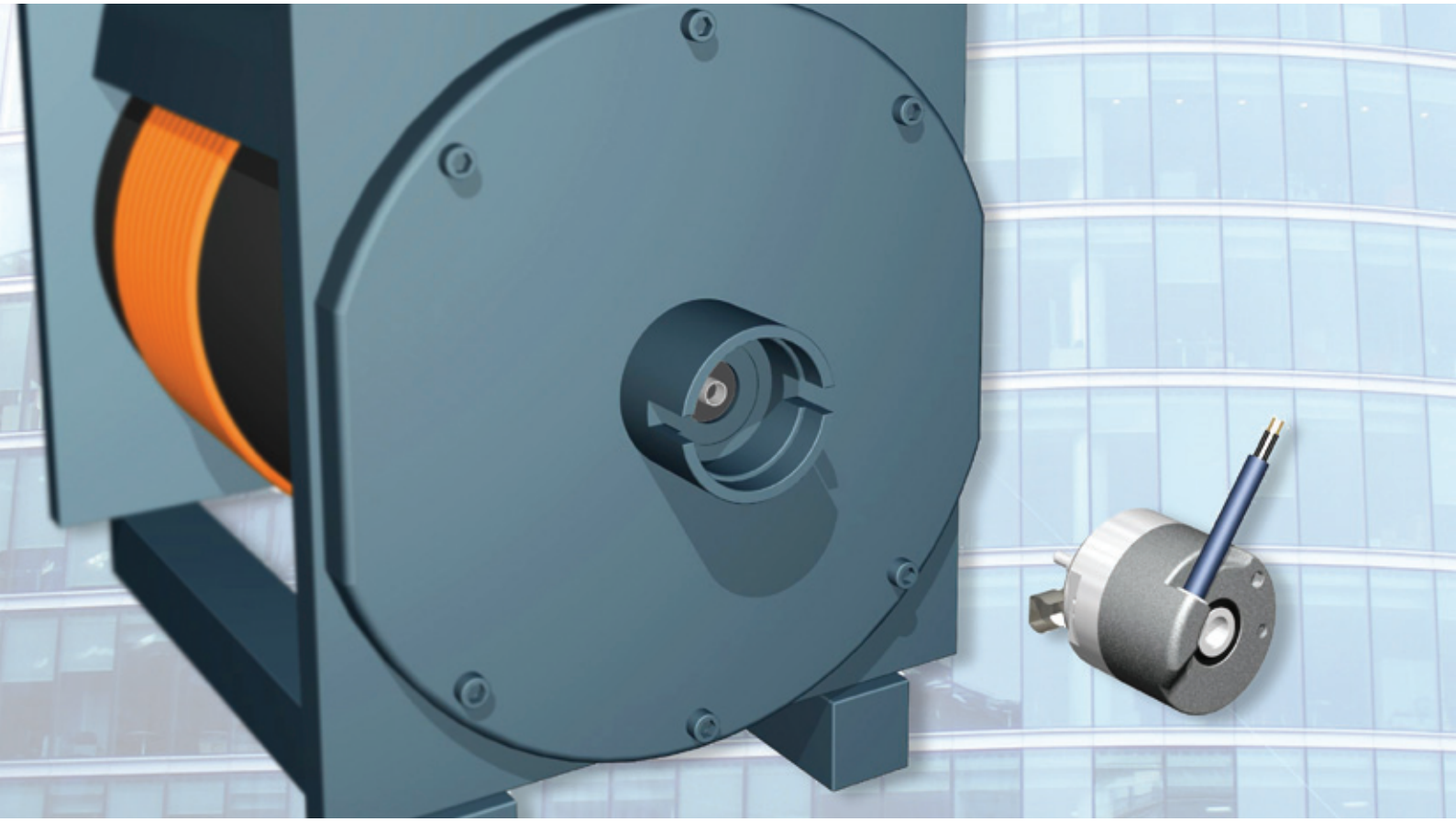


Order-No **05.ZAR1.XXX**

XXX = Length in metres,
Standard delivery lengths:
20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100 and 120 m (Other lengths on request)

Encoders for direct drives with new mounting solution

Kübler developed an innovative solution for mounting the absolute singleturn encoders on gearless drives (direct drives).
Its great advantage with respect to the mounting versions used until now lies in its easy and fast mounting, thanks to an innovative torque stop. A Set button allowing a fast start-up and the open absolute BiSS interface – including an incremental SinCos track – are further highlights of these encoders.
This solution offers the manufacturers of gearless lifts new possibilities for reducing notably the assembly work, as well in production as in operation.



Sendix absolute 5873

Easy mounting on direct drives

With SinCos track, tapered shaft and Set key

- Tapered shaft for a high-accuracy direct coupling to the direct drive
- Singleturn resolution up to max. 17 bits with BiSS or SSI interface
- Optional zero point setting button for an easy start-up
- SinCos incremental track with 2048 pulses/revolution

BiSS INTERFACE

SET button for a fast start-up

Tapered shaft fastened on the drive shaft by a central tightening screw

Quick assembly thanks to the innovative torque stop

Tangential cable outlet for optimal connection

BiSS Interface

The Open Source BiSS (Bidirectional/Serial/ Synchronous) interface is based on a protocol for achieving a real-time interface for a digital, serial and secured communication between a controller and sensors and actuators.
The BiSS protocol has been designed for industrial applications, in which transmission speeds, safety (CRC), flexibility and minimized implementation work are required.

Weblink
http://www.biss-interface.com

BiSS features

- Open Source
- Hardware compatible with the SSI (Synchronous Serial Interface) standard
- Cyclic read-out of sensor data up to 64 bits per slave
- Isochronous, real-time capable data transmission
- Bidirectional communication using two unidirectional links
- Point-to-point or multislave networks
- Maximum user data rate, driver and line-dependant transmission values of e.g. 10 MHz up to 100 m
- CRC-secured communication
- Continuous uninterrupted data transmission thanks to the switching of operating modes
- Control of actuators on the bus during sensor data transmission

Encoders for Functional Safety

Safety is – not least since the EU Machinery Directive 2006/42/EG – an "integral part of the construction of drives". When choosing the right encoder for functional safety the principle applies that safety is achieved through the intelligent combination of encoder, controller and actuator.
Sendix SSI absolute encoders, with an additional SinCos incremental output, and SinCos versions of incremental encoders are available with certification.

But safety goes further than this: safe components are characterised by a robust reliable interface and by the ability to cope with high mechanical and electronic loads.

Multitalented device

Absolute encoder with incremental sine/cosine signals, multiturn stage and integrated functional safety

Drive control using incremental sine and cosine signals is a tried-and-tested technology with a number of advantages. The high interpolatability of the analogue sine and cosine signals, with more than 1 million steps per revolution, allows for precise control of both slow turning as well as highly dynamic drives.

Combined with the high resolution and very accurate position information provided by the absolute encoder, all the data necessary for a precisely controlled motor start-up with an encoder is available. Furthermore, the multiturn sensor technology permits position control over a wide range. And finally, the high information content of the signals – all independent of one another – forms the basis for a sensor with high functional safety.

Compliance with Safety Standards

According to DIN EN 13849-1 and DIN EN 61800-5-2 up to SIL3/PLe/Kat.4 the following safety functions can be implemented with the encoder:

SS1:	Safe Stop 1	controlled braking, STO after time or standstill
SS2:	Safe Stop 2	controlled braking until SOS
SOS:	Safe Operating Stop	safe operating stop in position control
SLS:	Safe Limited Speed	
SLI:	Limited Increment of Position	
SLP:	Safe Limited Position	
SSR:	Safe Speed Range	
SDI:	Safe Direction	
SSM:	Safe Speed Monitoring	

Safe Incremental Encoder Function

In order to achieve safe incremental information with the encoder, the controller must monitor the validity of the analogue, 90° phase-shifted sine/cosine signals with the help of the function: $\sin^2 + \cos^2 = 1$

Safe Absolute Encoder Function

In order to obtain safe information with the encoder regarding the absolute position, the controller counts the incremental pulses and compares the result with the absolute positions also provided by the encoder.

Safe mechanical connection

A 100% reliable mechanical connection is required for a safe function in the applications. Suitably sturdy fixing elements can help eliminate the risk of faults.

MTTFd Values

With regard to the requirements of the Machinery Directive 2006/42/EC the MTTFd values for the most important standard encoders from Kübler are also provided.
This thus enables the user to carry out his own calculations according to DIN EN 61800-5-2 and DIN EN ISO 13849.

Sendix 5814SIL / 5834SIL

Incremental encoders with SinCos outputs

The incremental position of the encoder family 58x4SIL is provided in the form of an analogue sine/cosine signal; here the resolution per revolution is 1024 or 2048 sine/cosine periods.
Additional features:

- With protected Safety LockTM Technology: interlocked bearings for a high degree of ruggedness, accuracy and long service life.
- Protection rating IP65 or IP67
- Magnetically insensitive due to optical scanning.

Sendix 5853SIL/5873SIL, Sendix 5863SIL/5883SIL

Absolute encoders single and multiturn with SSI and SinCos outputs

The absolute position of the encoder family 58x3SIL is transmitted in the form of a digital SSI or BiSS data word. With the singleturn variants 5853SIL and 5873SIL the resolution is between 10 bits and 17 bits, depending on the variant.
In contrast to the singleturn variants 5853SIL / 5873SIL, the multiturn variants 5863SIL / 5883SIL have in addition a gear for detecting positions greater than 360°. The number for detecting the revolutions amounts to 12 bits. This thus gives a total resolution for the multiturn of up to 29 bits.
The incremental position is provided in the form of an analogue sine/cosine signal. The resolution per revolution is 1024 or 2048 sine/cosine periods.
Additional features:

- Interlocked bearings for a high degree of ruggedness, accuracy and long service life.
- Protection rating IP65 or IP67
- Magnetically insensitive due to optical scanning.

Kübler encoder solutions for lift technology

For lifts with a long service life and low maintenance.
Encoders control the rotational speed, drive position and accurate shaft copying and monitor the speed limiters. Sendix encoders from Kübler offer an appropriate, tailor-made technology for these key functions – with proven, extremely rugged quality. Among their most important features are the long service life of the devices - due to their high resistance to shock and vibration and their wide temperature range from -40°C up to +90°C. Thanks to sturdy bearings, short-circuit proof outputs and reverse polarity protection, they are not susceptible to damage during installation.

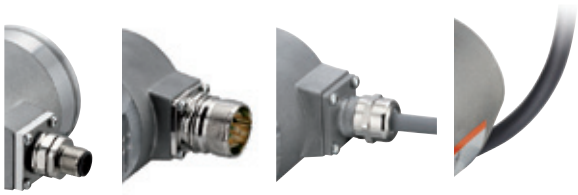
Safe

- Sturdy bearing construction with its Safety-Lock™ Design:
  - Interlocked bearings with large bearing span
  - Extra strong outer bearings
  - Extended service life – Machine downtime and repairs are eliminated
  - Avoids disc crashes and loss of pulses
  - Tolerates installation errors
- Technology that is unaffected by magnetic fields
- Functional Safety

Versatile and compact

The unique modular concept allows for an undreamt of array of versions.

- Hollow shafts up to 15 mm in 58 mm or 50 mm format
- Very compact construction
- Flexible and universal in use with many possible connection options



Fast

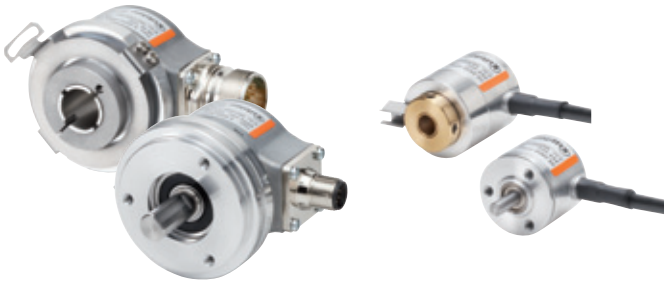
- Very high clock frequency (up to 10 MHz)
- Short control cycles
- Fast start-up

Reset via control input or SET-key

- Quick simple on-site start-up
- CANopen and CANlift: possibility to reset the encoder after incorrect programming

SSI · BiSS INTERFACE · CANopen · CANopen LIFT · PROFIBUS · PROFINET · EtherCAT

Incremental encoders



Controlling of speed and position

Sendix incremental 5000/5020

- Extremely compact housing with 50 mm outside diameter
- Flange compatible with all 58 mm standard flanges
- Resolution up to 5000 rpm.
- Short-circuit proof outputs
- High scanning rate (300 kHz)
- Shaft diameter: 6 ... 12 mm
  Hollow shaft diameter: 6 ... 15.87 mm (through shaft)
- Speed max. 12000 rpm
- Load capacity radial 80 N

For monitoring of speed limiters

Miniature incremental encoders 2400 / 2420

- Only 24 mm outside diameter, high performance
- Wide temperature range (-20°C ... +85 °C)
- Sturdy cable outlet
- Temperature compensation
- Broad input voltage range (5 ... 24 V or 8 ... 30 V)
- Highly flexible cable (can be used with drag chains at 0°C ... 70°C)
- Low power consumption despite high scanning rate
- Short-circuit proof

Lift drives with geared motors

Cost-effective incremental standard encoders from Ø 58 mm up to Ø 100 mm (also available for retrofitting on handwheels)

- Through hollow shaft up to 42 mm with only 49 mm clearance, and 100 mm in size
- Through hollow shaft up to 28 mm for 58 mm size
- Simple to install, simple to replace
- Always the right encoder
- Long service life, durable – unaffected by rough installation
- Plug & Play: cable with SUB-D connector and corresponding pin layout for all common controllers can be supplied as standard
- Up to 5,000 rpm
- RS422 (TTL), push-pull (HTL) and SinCos
- Many fixing options
- Short-circuit proof outputs, reverse connection protection for power supply

Absolute Singleturn / Multiturn encoders

With the Sendix absolute series, in singleturn and multiturn versions, Kübler is setting standards when it comes to speed, safety and versatility.
The multiturn versions are based on purely optical sensor technology with a mechanical gear module and are thus 100 percent resistant to magnetic fields. Even strong magnetic fields, as occur for example with brakes on drive motors, do not impair the functionality.

Absolute shaft copying/lift car positioning

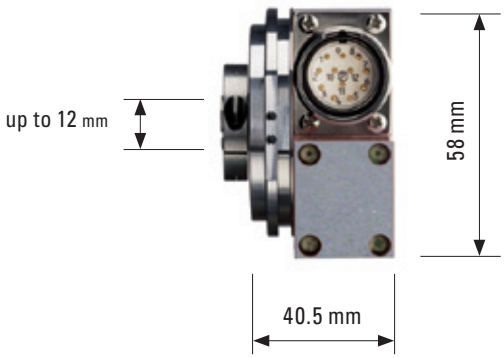
Absolute Multiturn encoders Sendix 5863 / 5868

- Up to 17 bits per revolution, 4096 revolutions (12 bit)
- Update rate > 100 kHz, Jitter 1 µs/5 µs
- SSI Clock speed 50 kHz ... 2 MHz
- 1 Status output
- Also digital BiSS interface option (up to 10 MHz)
- First multiturn encoder in 58 standard format with gear module and through hollow shaft (through hollow shafts up to 14 mm, as well as 15 mm as blind hollow shaft)

Ultra flat multiturn encoder

Sendix 5882

- Absolute technology eliminates the need for reference runs – requires no additional reference sensors
- For lift systems with limited installation space – only 40.5 mm clearance required
- With additional incremental track (2048 ppr.) for simultaneous speed control and positioning with just a single device. Save on installation time and money.



CANopen LIFT © CiA

Sendix Absolute with CANopen Lift interface

The Sendix encoders with CANopen Lift interface are available in singleturn and multiturn versions, with removable bus terminal cover for optimal integration in complex CAN networks or with fixed connections – also directly with a SUB-D connector – for the easiest connection possible to the control.

The CANopen Lift interface (Profile DS 417 V1.1) allows a particularly simple implementation of the lift control with suitable special functions such as:

- Car Position unit
- 2 virtual devices: for the position in absolute measuring steps and the position as absolute displacement information in mm
- Lift number programmable
- Independent setting of the node address in conjunction with the CAN identifiers
- Factor for speed calculation (e.g. measuring wheel circumference)
- Integration time for speed value from 1...32
- 2 working areas with 2 upper and lower limits and the corresponding output states
- Extended error management for position sensing with integrated temperature control
- PDO Mapping of variables in the memory, whether position, speed, acceleration or working area – the user decides, which information is available in real-time.

Moreover, the LED's and the SET button allow easy start-up and diagnosis. Node address and baud rate can be adjusted by means of rotary/DIP switches or through software.

Two devices in one:
Multiturn encoder with additional incremental track.

The Sendix absolute CANopen field bus encoders are also available with an additional TTL incremental track.
This allows achieving simultaneously, with one single encoder, positioning via the CAN network and a direct rotary speed feedback via the incremental track. This saves costs and installation space for a second encoder.
The encoder delivers, in parallel with the CANopen output, an additional TTL compatible signal with 2048 pulses per revolution. For that purpose, the encoder is equipped, in addition to the CANopen output, with a RS 422 interface with the signals A, A/, B, B/.

Counting technology

Kübler offers an extensive range of trip counters and hour meters for the precise and highly reliable definition of service intervals. The combination of hour meter and trip counter allows a very reliable definition of these periods.
The comprehensive choice of counters includes extremely tamper-proof, compact electromechanical counters, as well as economical LCD counters – also with 230 VAC inputs for direct connection.

The universal Preset Counter Codix 923/924

The ready-to-go control and display solution for pulses, time, position and frequency or as a service counter with total sum display.
Special designs can be used for monitoring and positioning of shaft-copying systems.

Trip counters and hour meters

Electromechanical trip counters and hour meters. Panel cut-out or DIN rail mount. 100% duty-cycle.
Very economical way of upgrading all lift systems, long service life thanks to high shock resistance and IP 65 protection.

Electronic multifunction devices

Programmable as:
- Pulse counter, timer, position display, speed indication, service counter

Programmable as dual function counters:
- Pulses / Time, Pulses / Pulses, Time / Time, Pulses / Frequency

Electromechanical combination meters

HC 77 / SHC 77: Trip counters and hour meters for DIN rails in one device. 100% duty-cycle, rugged design.
HW 66: Hours run and energy consumption for correct costing and billing. Remote readout possible.

Solutions and Accessories for retrofitting

Older lift systems with belt shaft copying can easily be retrofitted, and additionally protected, with the new robust bearing unit. The bearing unit separates the bearing load from the sensor technology and thus makes a significant contribution to lengthening the service life of the lift.
It provides the ideal solution, where strong forces exert pressure on the shafts – for example when belts are under high tension. The robust bearing unit is suitable for all Sendix 50xx and 58xx series encoders.

Robust bearing unit

Separation of bearing load and sensor component
with belt shaft copying:
- Simple to upgrade and retrofit, no mechanical adaptation required
- Long service life, durable – unaffected by rough installation
- Versatile
- Dimensionally compatible with all Sendix encoders of series 50XX and 58XX
- Increases the maximum bearing load by a number of times
- Versions for retrofitting of shaft encoders
- Versions for hollow shaft encoders where installation

Shaft extension

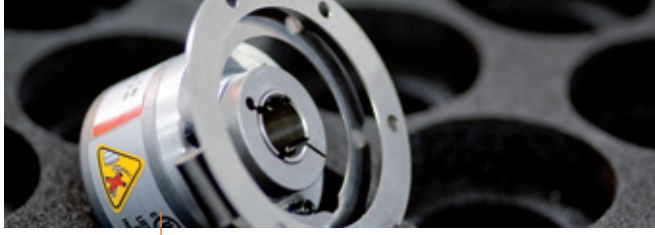
Upgrading encoders with handwheels
- Simple shaft extension for the handwheels
- Option to mount the encoder behind the handwheel
- Reduction of the shaft diameter, enabling use of a standard encoder

Cables and connectors

Plug & Play:
Cable for all common connectors and controllers with corresponding PIN layout can be supplied as standard.

Fixing technology

Wide-ranging fixing technology ensures quick easy installation and a long service life.



Presales

Kübler – the service specialists for every industrial sector and application – supplying complete integrated solutions – globally on your doorstep

Sample Service – Fast delivery of customised versions

Selection tool
Kübler website: Product Finder

Delivery Service: 10 by 10,
48 h Express and Repair Service

Kübler Service for planning dependability

Fast, reliable service and professional advice have top priority at Kübler. We are globally on your doorstep in 6 service and application centres and offer our customers planning dependability.

We deliver from stock within one day. We can manufacture your special orders within 48 hours. Moreover, 10 by 10 is our delivery offensive, which ensures that – for quantities of up to 10 pieces – you will receive all catalogue products so marked within 10 days.
Our processes and services are certified and are constantly being improved.

10 by 10

With our 10 by 10 Service we will manufacture 10 encoders within 10 working days.

The benefits to you: easier to order, the delivery can be calculated, flexibility for small production batches.

10 by 10

Technical Hotline

Our Hotline will answer your technical questions Mon-Fri within normal working hours:

Kübler GmbH, Germany	+49 7720 3903-35
Kübler France	+33 3 89 53 45 45
Kübler Italy	+39 0 26 42 33 45
Kübler China	+86 10 5134 8680
Kübler India	+91 9819 457 872
Kübler Poland	+48 6 18 49 99 02

Sample and Repair Service

The Kübler Service Centre can quickly manufacture special, customised versions within a short space of time. We are happy to help you with the practicalities of using our products – at your location if desired. We can carry out repairs within a maximum of 5 working days.

48 h Express Service

Short delivery times, a high level of on-time delivery, guaranteed quality and enthusiastic, service-oriented employees – these are what our customers can depend on.

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

48h

Kübler plus

Service Excellence provided by Kübler application specialists for target sectors

Product security – replacement models at the end of the product life-cycle

Aftersales

Service Centres, globally on your doorstep:
Advice, analysis, support during installation in over 50 countries

« We were able to considerably reduce our average delivery time and I can confirm that delivery schedules were always adhered to. Technical support is very professional, efficient and not at all bureaucratic. »

Purchasing Manager, German Producer of Geared Motors

Tailor-made solutions – Kübler Design System

« With the KDS method our customers receive a lasting solution to lowering costs, reducing the number of models available or eliminating quality deficiencies. With KDS we develop product and engineering solutions together. The method stands out because of its structured process; this delivers innovation through experience and cooperation with the customer. »

Gebhard and Lothar Kübler, Managing Directors Kübler GmbH

The Kübler Design System – satisfying customer demands

Customer demands

- Long service life
- High-performance product
- Simple installation and maintenance
- System and process quality
- Optimised investment costs

fulfilled via

Technology

- Optimal sensor technology
- Optimal product adaptation
- Optimal integration

Methodology and experience

- Kübler competency in methodology and project management
- Reduction in customer R&D costs
- Combination of Customer and Kübler Expertise
- Speeding up of the development process

Service

- Complete systems
- Engineering Service
- Logistics

The 4 phases of the Kübler Design System

Analysis, Demands

- Definition of the requirements
- Product requirements
- Timetable
- Target costs

Design

- Technology
- Functions
- Performance characteristics

Prototype, Test

- Quickly realized prototype and/or specific customer drawing
- Testing of the prototype in the application
- Support by Kuebler application team during test phase
- Customer approval

Industrialisation, Production

- Implementation of production and quality processes
- Logistics/ packaging
- Ongoing quality controls
- Continuous improvement (Kaizen)

Product information

We offer additional information on our products and system solutions in the following main catalogues:

Position and Motion Sensors

- Encoders
- Draw wire encoders
- Magnetic measurement systems
- Inclinometers
- Connection technology
- Accessories

Order-No. German **R.100.568**
Order-No. English **R.100.569**

Counting and Process Technology

- Pulse Counters
- Preset Counters
- Timers / Hour Meters
- Tachometers / Frequency Meters
- Position Displays
- Multifunction Counters
- Energy Counters
- Process and Temperature Displays

Order-No. German **R.100.156**
Order-No. English **R.100.157**

Transmission Technology

- Slip rings
- Fibre Optic Modules

Order-No. German **R.600.948**
Order-No. English **R.600.948.001**

Lift

www.kuebler.com

Kübler

w w w . k u e b l e r . c o m / l i f t

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