



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

Safety Services



www.kuebler.com/safety

Systems and components for Functional Safety

- Encoders certified up to SIL3/PLe absolute and incremental
- Modules for safe drive monitoring
- System solutions for safe processing of safety sensors
- Adapted service packages



Shortform Catalog 2016 / 2017

Kübler Short Profile

- Our pulses for innovation P. 4
- Our product portfolio P. 5

Position and Motion Sensors

- Incremental encoders P. 7
- Absolute encoders singleturn P. 8
- Absolute encoders multiturn P. 10
- Bearingless encoders P. 12
- Linear measuring technology P. 15
- Inclinometers P. 16

Functional Safety

- Encoders for Functional Safety P. 21
- Safety modules Safety-M compact P. 22
- Safety modules Safety-M modular P. 24
- Services P. 25

Transmission Technology

- Slip rings P. 29
- Optical fiber modules (LWL) P. 30
- Connection technology P. 31

Counters and Process Devices

- Pulse counters P. 35
- Preset counters P. 36
- Hour meter, timer P. 38
- Time preset counters P. 40
- Frequency display, tachometer P. 42
- Position displays P. 43
- Multifunction devices P. 44
- Energy meters P. 46
- Process displays, process controllers, setpoint adjusters P. 48
- Temperature displays, temperature controllers P. 48
- Strain-gauge controllers P. 49

Kübler Services

Addresses

- Kübler worldwide P. 54
 - Contact partners in Germany P. 56
-

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.



Our Product Portfolio



Position and Motion Sensors

- Incremental and absolute encoders
- Fieldbus and Industrial Ethernet encoders
- Bearingless encoders
- Explosion protected encoders ATEX / IECEx
- 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
- 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 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



Type: 8.5000.8354.0000
10-30 VDC 100 mA
S-No: 1225500212
Kubler

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.

Draw-wire sensors and linear measuring systems

Kübler offers 3 technologies for professional industrial positioning tasks and for length or linear displacement measuring systems:

- The tried-and-tested draw-wire sensors for measurement lengths up to 42.5 meters.
- The compact, non-contact magnetic measurement system LIMES.
- Systems with measuring wheels for direct detection on the running material or conveyor belt.

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.

Kübler Sendix



The Sendix family of devices guarantees an extremely safe, fast technology in an exceptionally compact housing. Among its trademarks is the sturdy Safety-Lock™ Design bearing structure that facilitates problem-free use outdoors, as well as a wide variety of connection and mounting options. Optimised encoders can be created within the modular system. Following the motto: the use determines the product.



- Extremely robust
- Compact dimensions
- Flexible mounting options
- Flexible connection options
- Wide temperature range

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



Incremental encoders

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ± 1°)	Optical (Accuracy ≤ ± 0.015°)	Resolution max. in ppr	Push-pull	RS422	SinCos	Open collector	Ø Hollow shaft max. in mm [inch]	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	Pulse frequency max. in kHz	RoHS compliant	Approvals
	Miniature, optical 2400 (shaft) 2420 (hollow shaft)	24 [0.94]	–	•	1.024	•	–	–	–	6 [0.24]	12.000	-20 ... +85 [-4 ... +185]	IP64	cable	5 ... 24 8 ... 30	160	•	c  US
	Miniature, magnetic 2430 (shaft) 2440 (hollow shaft)	24 [0.94]	•	–	256	–	•	–	–	6 [0.24]	12.000	-20 ... +85 [-4 ... +185]	IP67	cable	5	300	•	–
	Compact, optical Sendix Base KIS40 (shaft) Sendix Base KIH40 (hollow s.)	40 [1.57]	–	•	2.500	•	•	–	•	8 [0.31]	4.500	-20 ... +70 [-4 ... +158]	IP64	cable	5 10 ... 30	250	•	c  US
	Compact, optical 3610 (shaft) 3620 (hollow shaft)	36 [1.43]	–	•	2.500	•	•	–	–	8 [0.31]	12.000	-20 ... +85 [-4 ... +185]	IP64	cable M12	5 5 ... 18 8 ... 30	300	•	c  US
	Compact, optical plastic housing 3700 (shaft) 3720 (hollow shaft)	37 [1.46]	–	•	1.024	•	•	–	–	8 [0.31]	6.000	-20 ... +70 [-4 ... +158]	IP65	cable	5 5 ... 30 10 ... 30	250	•	c  US
	Standard, optical Sendix 5000 (shaft) Sendix 5020 (hollow shaft) 24one ¹⁾	58 [2.28]	–	•	5.000	•	•	–	•	15 [0.59] 15.87 [5/8"]	12.000	-40 ... +85 [-40 ... +185]	IP67	cable M12 M23 MIL Sub-D	5 5 ... 30 10 ... 30	300	•	c  US  2/22
	Standard, optical Sendix Base KIS50 (shaft) Sendix Base KIH50 (hollow s.)	58 [2.28]	–	•	5.000	•	•	–	•	15 [0.59]	6.000	-20 ... +70 [-4 ... +158]	IP65	cable M12 M23	5 5 ... 30 10 ... 30	300	•	CE  2/22
	Standard, optical high temperature 5803 (shaft) 5823 (hollow shaft)	58 [2.28]	–	•	5.000	•	•	–	–	12 [0.47]	12.000	-20 ... +110 [-4 ... +230]	IP65	cable M23 MIL	5 10 ... 30	300	•	c  US
	Standard, optical sine wave output, with zero pulse 5804 (shaft) 5824 (hollow shaft)	58 [2.28]	–	•	5.000	–	–	•	–	12 [0.47]	12.000	-20 ... +85 [-4 ... +185]	IP65	cable M23	5 10 ... 30	180	•	c  US
	Standard, optical sine wave output, highly interpolable Sendix 5814 (shaft) Sendix 5834 (hollow shaft)	58 [2.28]	–	•	1.024 and 2.048	–	–	•	–	15 [0.59]	12.000	-40 ... +90 [-40 ... +194]	IP67	cable M12	5 10 ... 30	400	•	c  US  2/22
	Standard, optical sine wave output, SIL2 / PLd Sendix SIL 5814FS2 (shaft) Sendix SIL 5834FS2 (hollow s.)	58 [2.28]	–	•	1.024 and 2.048	–	–	•	–	14 [0.55]	9.000/ 12.000	-40 ... +90 [-40 ... +194]	IP65	cable M12 M23	5 10 ... 30	400	•	c  US  2/22 SIL2 PLd
	Standard, optical sine wave output, SIL3 / PLc Sendix SIL 5814FS3 (shaft) Sendix SIL 5834FS3 (hollow s.)	58 [2.28]	–	•	1.024 and 2.048	–	–	•	–	14 [0.55]	9.000/ 12.000	-40 ... +90 [-40 ... +194]	IP65	cable M12 M23	5 10 ... 30	400	•	c  US  2/22 SIL3 PLc

1) We offer for all encoders configured with the underlined preferential options our free of charge 24one delivery promise.

Orders placed on working days before 9AM CET are manufactured and ready for dispatch the same day. The 24one delivery promise is limited to 20 pieces per delivery.

Incremental encoders

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ± 1°)	Optical (Accuracy ≤ ± 0.015°)	Resolution max. in ppr	Push-pull	RS422	SinCos	Open collector	Ø Hollow shaft max. in mm [inch]	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	Pulse frequency max. in kHz	RoHS compliant	Approvals
	Standard, optical high resolution 5805 (shaft) 5825 (hollow shaft)	58 [2.28]	–	•	36.000	•	•	–	–	12 [0.47]	12.000	-20 ... +105 [-4 ... +221]	IP65	cable M23	5 10 ... 30	800	•	c 
	Standard, optical stainless-steel Sendix 5006 (shaft) Sendix 5026 (hollow shaft)	58 [2.28]	–	•	5.000	•	•	–	–	15 [0.59]	6.000	-40 ... +85 [-40 ... +185]	IP67	cable M12	5 5 ... 30 10 ... 30	300	•	c  
	Standard, optical ATEX/IECEx – zone 1/21 7000 (shaft) 7020 (hollow shaft)	70 [2.76]	–	•	5.000	•	•	–	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	5 5 ... 30 10 ... 30	300	•	 
	Standard, optical ATEX/IECEx – zone 1/21 SIL2/PLd Sendix SIL 7014FS2 (shaft)	70 [2.76]	–	•	1.024 and 2.048	–	–	•	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	5 10 ... 30	400	•	  SIL2 PLd
	Standard, optical ATEX/IECEx – zone 1/21 SIL3/PLe Sendix SIL 7014FS3 (shaft)	70 [2.76]	–	•	1.024 and 2.048	–	–	•	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	5 10 ... 30	400	•	  SIL3 PLe
	Standard, optical ATEX/IECEx – mining 7100 (shaft) 7120 (hollow shaft)	70 [2.76]	–	•	5.000	•	•	–	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	5 5 ... 30 10 ... 30	300	•	 
	Standard, optical large hollow shaft 5821 (hollow shaft)	58 [2.28]	–	•	5.000	•	•	–	–	28 [1.10]	2.500	-20 ... +70 [-4 ... +158]	IP64	cable M12	5 8 ... 30	300	•	–
	Large hollow shaft, optical A020 (hollow shaft)	100 [3.94]	–	•	5.000	•	•	•	–	42 [1.65]	3.000	-40 ... +70 [-40 ... +140]	IP65	cable M12 M23	5 5 ... 30 10 ... 30	300	•	c 
	Large hollow shaft, optical robust A02H (hollow shaft)	100 [3.94]	–	•	5.000	•	•	•	–	42 [1.65]	6.000	-40 ... +80 [-40 ... +176]	IP65	cable M12 M23 MIL	5 5 ... 30 10 ... 30	300	•	c   
	Heavy Duty, optical Sendix H100 (shaft)	115 [4.53]	–	•	3.600	•	•	–	–	–	6.000	-40 ... +100 [-40 ... +212]	IP66	cable ¹⁾	5 ... 30 10 ... 30	300	•	
	Heavy Duty, optical Sendix H120 (hollow shaft)	100 [3.94]	–	•	5.000	•	•	–	–	28 [1.10]	6.000	-40 ... +100 [-40 ... +212]	IP67	cable ¹⁾ M12 M23 opt. fiber	5 10 ... 30	300	•	

1) With terminal box

Absolute encoders Singleturn

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ±1°)	Optical (Accuracy ±0.015°)	Resolution max. in bit	SSI interface	BiSS interface	Analog/RS485 interface	Parallel interface	Additional incremental track	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	RoHS compliant	Approvals
	Miniature, magnetic 2450 (shaft) 2470 (hollow shaft)	24 [0.94]	•	–	12	•	–	–	–	–	12.000	-20 ... +85 [-4 ... +185]	IP67	cable	5	•	–
	Compact, magnetic analog Sendix 3651 (shaft) Sendix 3671 (hollow shaft)	36 [1.43]	•	–	12	–	–	4 ... 20 mA 0 ... 10 V	–	–	6.000	-40 ... +85 [-40 ... +185]	IP69k	cable M12	10 ... 30 15 ... 30	•	e1 Ex 2/22
	Compact, optical Sendix F3653 (shaft) Sendix F3673 (hollow shaft)	36 [1.43]	–	•	17	•	•	–	Sin Cos RS422	–	12.000	-40 ... +90 [-40 ... +194]	IP67	cable M12	5 10 ... 30	•	c UL US
	Standard, optical parallel / analog 5850 (shaft) 5870 (hollow shaft)	58 [2.28]	–	•	13	–	–	4 ... 20 mA	•	–	12.000	-20 ... +85 [-4 ... +185]	IP66	cable M23	5 10 ... 30	•	c UL US
	Standard, optical parallel, highspeed 5852 (shaft) 5872 (hollow shaft)	58 [2.28]	–	•	14	–	–	–	•	–	12.000	-20 ... +85 [-4 ... +185]	IP66	cable M23	5 10 ... 30	•	c UL US
	Standard, optical Sendix 5853 (shaft) Sendix 5873 (hollow shaft)	58 [2.28]	–	•	21	•	•	–	Sin Cos RS422	–	12.000	-40 ... +90 [-40 ... +194]	IP67	cable M12 M23	5 10 ... 30	•	c UL US Ex 2/22
	Standard, optical Sendix 5873 (tapered shaft)	58 [2.28]	–	•	21	•	•	–	Sin Cos RS422	–	9.000	-40 ... +90 [-40 ... +194]	IP65	cable	5 10 ... 30 4.5 ... 5.5	•	c UL US
	Standard, optical Sendix SIL 5853FS2 (shaft) Sendix SIL 5873FS2 (hollow s.)	58 [2.28]	–	•	17	•	•	–	Sin Cos	–	9.000/ 12.000	-40 ... +90 [-40 ... +194]	IP65	cable M23	5 10 ... 30	•	c UL US Ex 2/22 SIL2 PLd
	Standard, optical Sendix SIL 5853FS3 (shaft) Sendix SIL 5873FS3 (hollow s.)	58 [2.28]	–	•	17	•	•	–	Sin Cos	–	9.000/ 12.000	-40 ... +90 [-40 ... +194]	IP65	cable M23	5 10 ... 30	•	c UL US Ex 2/22 SIL3 PLd
	Standard, optical stainless-steel SSI / parallel 5876 (hollow shaft)	58 [2.28]	–	•	14	•	–	–	•	–	6.000	-20 ... +80 [-4 ... +176]	IP67	cable M12	5 10 ... 30	•	c UL US Ex 2/22
	Standard, optical ATEX/IECEx – zone 1/21 Sendix 7053 (shaft) Sendix 7073 (hollow shaft)	70 [2.76]	–	•	17	•	•	–	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	Ex IECEx

Absolute encoders Singleturn

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ±1°)	Optical (Accuracy ±0.015°)	Resolution max. in bit	SSI interface	BiSS interface	Analog/RS485 interface	Parallel interface	Additional incremental track	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	RoHS compliant	Approvals
	Standard, optical ATEX/IECEx – Zone 1/21 SIL2/ PLd Sendix SIL 7053FS2 (shaft)	70 [2.76]	–	•	17	•	•	–	–	SinCos	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	  SIL 2 PLd
	Standard, optical ATEX/IECEx – zone 1/21 SIL3/ PLe Sendix SIL 7053FS3 (shaft)	70 [2.76]	–	•	17	•	•	–	–	SinCos	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	  SIL 3 PLe
	Standard, optical ATEX/IECEx – mining Sendix 7153 (shaft) Sendix 7173 (hollow shaft)	70 [2.76]	–	•	17	•	•	–	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	 

Absolute encoders Singleturn Fieldbus

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ±1°)	Optical (Accuracy ±0.015°)	CANopen	SAE J1939	PROFIBUS DP	EtherCAT	PROFINET IO	EtherNet/IP	Resolution max. in bit	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	RoHS compliant	Approvals
	Compact, magnetic Sendix M3658 (shaft) Sendix M3678 (hollow shaft)	36 [1.43]	•	–	•	•	–	–	–	–	14	6.000	-40 ... +85 [-40 ... +185]	IP69k	cable M12	8 ... 30	•	 2/22
	Compact, optical Sendix F3658 (shaft) Sendix F3678 (hollow shaft)	36 [1.43]	–	•	•	–	–	–	–	–	16	12.000	-40 ... +85 [-40 ... +185]	IP67	cable	10 ... 30	•	 US
	Standard, optical Sendix 5858 (shaft) Sendix 5878 (hollow shaft)	58 [2.28]	–	•	•	–	•	•	•	–	16	9.000	-40 ... +80 [-40 ... +176]	IP67	cable M12 M23	10 ... 30	•	 US  2/22
	Standard, optical electronic singleturn Sendix F5858 (shaft) Sendix F5878 (hollow shaft)	58 [2.28]	–	•	–	–	–	–	–	•	16	8.000	-40 ... +80 [-40 ... +176]	IP65	M12	10 ... 30	•	 US  2/22
	Standard, optical ATEX/IECEx – zone 1/21 Sendix 7058 (shaft) Sendix 7078 (hollow shaft)	70 [2.76]	–	•	•	–	•	–	–	–	16	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	 
	Standard, optical ATEX/IECEx – mining Sendix 7158 (shaft) Sendix 7178 (hollow shaft)	70 [2.76]	–	•	•	–	•	–	–	–	16	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	 

Absolute encoders

Multiturn

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ±1°)	Optical (Accuracy ±0.015°)	Resolution max. in bit ST+MT	SSI interface	BiSS interface	Analog/RS485 interface	Additional incremental track	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	RoHS compliant	Approvals
 	Compact, magnetic electronic multiturn Sendix M3661 (shaft) Sendix M3681 (hollow shaft)	36 [1.42]	•	–	12 + 16	–	–	4 ... 20 mA 0 ... 10 V 0 ... 5 V	–	6.000	-40 ... +85 [-40 ... +185]	IP67	cable M12	10 ... 30 15 ... 30	•	  
 	Compact, magnetic electronic multiturn Sendix M3663 (shaft) Sendix M3683 (hollow shaft)	36 [1.42]	•	–	14 + 24	•	–	–	–	6.000	-40 ... +85 [-40 ... +185]	IP67	cable M12	10 ... 30	•	  
 	Compact, magnetic robust, electronic multiturn Sendix M3661R (shaft)	36 [1.42]	•	–	12 + 16	–	–	4 ... 20 mA 0 ... 10 V 0 ... 5 V	–	4.000	-40 ... +85 [-40 ... +185]	IP69k	cable M12	10 ... 30 15 ... 30	•	  
 	Compact, magnetic robust, electronic multiturn Sendix M3663R (shaft)	36 [1.42]	•	–	14 + 24	•	–	–	–	4.000	-40 ... +85 [-40 ... +185]	IP69k	cable M12	10 ... 30	•	  
	Compact, optical electronic multiturn Sendix F3663 (shaft) Sendix F3683 (hollow shaft)	36 [1.42]	–	•	17 + 24	•	•	–	SinCos RS422	12.000	-40 ... +90 [-40 ... +194]	IP67	cable M12	5 10 ... 30	•	
 	Standard, magnetic electronic multiturn Sendix M5861 (shaft)	58 [2.28]	•	–	12 + 16	–	–	4 ... 20 mA 0 ... 10 V 0 ... 5 V	–	4.000	-40 ... +85 [-40 ... +185]	IP65	cable M12	10 ... 30 15 ... 30	•	 
 	Standard, magnetic electronic multiturn Sendix M5863 (shaft)	58 [2.28]	•	–	14 + 24	•	–	–	–	4.000	-40 ... +85 [-40 ... +185]	IP65	cable M12	10 ... 30	•	 
	Standard, optical electronic multiturn Sendix F5863 (shaft) Sendix F5883 (hollow shaft)	58 [2.28]	–	•	17 + 24	•	•	–	SinCos RS422	12.000	-40 ... +85 [-40 ... +185]	IP67	cable M12 M23	5 10 ... 30	•	 
 	Standard, optical Motor-Line electronic multiturn Sendix F5883M (hollow shaft)	58 [2.28]	•	–	17 + 24	•	–	–	SinCos RS422	9.000	-40 ... +85 [-40 ... +185]	IP65	cable	5 10 ... 30	•	
	Standard, optical mechanical multiturn Sendix 5863 (shaft) Sendix 5883 (hollow shaft)	58 [2.28]	–	•	17 + 12	•	•	–	SinCos RS422	12.000	-40 ... +90 [-40 ... +194]	IP67	cable M12 M23	5 10 ... 30	•	 

Absolute encoders

Multiturn

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ±1°)	Optical (Accuracy ±0.015°)	Resolution max. in bit ST+MT	SSI interface	BiSS interface	Analog/RS485 interface	Additional incremental track	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	RoHS compliant	Approvals
	Standard, optical mechanical multiturn SIL2 / PLd Sendix SIL 5863FS2 (shaft) Sendix SIL 5883FS2 (hollow s.)	58 [2.28]	–	•	17 +12	•	•	–	SinCos	9.000/ 12.000	-40 ... +90 [-40 ... +194]	IP65	cable M23	5 10 ... 30	•	c   SIL2 PLd
	Standard, optical mechanical multiturn SIL3 / PLe Sendix SIL 5863FS3 (shaft) Sendix SIL 5883FS3 (hollow s.)	58 [2.28]	–	•	17 +12	•	•	–	SinCos	9.000/ 12.000	-40 ... +90 [-40 ... +194]	IP65	cable M23	5 10 ... 30	•	c   SIL3 PLe
	Standard, optical mechanical multiturn ATEX/IECEX – zone 1/21 Sendix 7063 (shaft) Sendix 7083 (hollow shaft)	70 [2.76]		•	17 +12	•	•	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	 
	Standard, optical mechanical multiturn ATEX/IECEX – zone 1/21 SIL2 / PLd Sendix SIL 7063FS2 (shaft)	70 [2.76]		•	17 +12	•	•	–	SinCos	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	  SIL2 PLd
	Standard, optical mechanical multiturn ATEX/IECEX – zone 1/21 SIL3 / PLe Sendix SIL 7063FS3 (shaft)	70 [2.76]		•	17 +12	•	•	–	SinCos	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	  SIL3 PLe
	Standard, optical mechanical multiturn ATEX/IECEX – mining Sendix 7163 (shaft) Sendix 7183 (hollow shaft)	70 [2.76]		•	17 +12	•	•	–	–	6.000	-40 ... +60 [-40 ... +140]	IP67	cable	10 ... 30	•	 
	Large hollow shaft, optical / magnetic, programmable 9081 (large hollow shaft)	90 [3.54]		•	13 +12	•	–	–	–	6.000	-20 ... +70 [-4 ... +158]	IP65	cable M23	4.75 ... 30 5 ... 30	•	c 

Absolute encoders

Multiturn

Fieldbus

		Ø Dimensions in mm [inch]	Magnetic (Accuracy ±1°)	Optical (Accuracy ±0.015°)	Resolution max. in bit ST+MT	CANopen	CANopenlift	PROFIBUS DP	DeviceNet	MODBUS RTU	EtherCAT	PROFINET IO	EtherNet/IP	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	RoHS compliant	Approvals
 	Compact, magnetic electronic multiturn, Sendix M3668 (shaft) Sendix M3688 (hollow shaft)	36 [1.42]	•	–	14 +24	•	–	–	–	–	–	–	–	6.000	-40 ... +85 [-40...+185]	IP67	cable M12	10 ... 30	•	  
 	Compact, magnetic robust, electronic multiturn Sendix M3668R (shaft)	36 [1.42]	•	–	14 +24	•	–	–	–	–	–	–	–	4.000	-40 ... +85 [-40...+185]	IP69k	cable M12	10 ... 30	•	   
	Compact, optical electronic multiturn Sendix F3668 (shaft) Sendix F3688 (hollow shaft)	36 [1.42]	–	•	14 +24	•	–	–	–	–	–	–	–	12.000	-40 ... +85 [-40...+185]	IP67	cable	10 ... 30	•	
 	Standard, magnetic electronic multiturn Sendix M5868 (shaft)	58 [2.28]	•	–	14 +24	•	–	–	–	–	–	–	–	4.000	-40 ... +85 [-40...+185]	IP65	cable M12	10 ... 30	•	 
 	Standard, optical electronic multiturn Sendix F5868 (shaft) Sendix F5888 (hollow shaft)	58 [2.28]	–	•	16 +16	•	–	–	•	–	–	•	•	12.000	-40 ... +80 [-40...+176]	IP67	cable M12	10 ... 30	•	 
	Standard, optical mechanical multiturn Sendix 5868 (shaft) Sendix 5888 (hollow shaft)	58 [2.28]	–	•	16 +12	•	•	•	–	–	•	•	–	9.000	-40 ... +85 [-40...+185]	IP67	cable M12 Sub-D	10 ... 30	•	 
	Standard, optical mechanical multiturn ATEX/IECEx – zone 1/21 Sendix 7068 (shaft) Sendix 7088 (hollow shaft)	70 [2.76]	–	•	16 +12	•	–	•	–	–	–	–	–	6.000	-40 ... +60 [-40...+140]	IP67	cable	10 ... 30	•	 
	Standard, optical mechanical multiturn ATEX/IECEx – minig Sendix 7168 (shaft) Sendix 7188 (hollow shaft)	70 [2.76]	–	•	16 +12	•	–	•	–	–	–	–	–	6.000	-40 ... +60 [-40...+140]	IP67	cable	10 ... 30	•	 
	Large hollow shaft, optical / magnetic 9080 (large hollow shaft)	90 [3.54]	–	•	13 +12	•	–	•	•	–	–	–	–	6.000	-10 ... +70 [-14...+158]	IP65	cable M12	10 ... 30	•	

Bearingless encoders

		Hollow shaft max. in mm ["]	Magnetic (Accuracy $\pm 1^\circ$)	With zero pulse	Resolution max. in ppr	Push-pull	RS422	SinCos	$\emptyset$ hollow shaft max. in mm	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Power supply in V DC	Pulse frequency max. in kHz	RoHS compliant	Approvals
 	Incremental, Standard magnetic RLI20 (hollow shaft)	30 [1.18]	•	–	3.600	•	•	–	30 [1.18]	12.000	-20 ... +80 [-4°F ... +176°F]	IP69k	cable	4.8 ... 26 4.8 ... 30	250	•	–
 	Incremental, Standard zero pulse, magnetic RLI50 (hollow shaft)	35 [1.38]	•	•	3.600	•	•	–	30 [1.18]	12.000	-20 ... +80 [-4°F ... +176°F]	IP69k	cable	4.8 ... 26 4.8 ... 30	250	•	–
	Incremental, Standard magnetic RI20/Limes LI20 (hollow shaft)	30 [1.18]	•	–	3.600	•	•	–	30 [1.18]	12.000	-20 ... +80 [-4°F ... +176°F]	IP69k	cable	4.8 ... 26 4.8 ... 30	250	•	–
	Incremental, Standard zero pulse, magnetic RI50/Limes LI50 (hollow shaft)	35 [1.38]	•	•	3.600	•	•	–	30 [1.18]	12.000	-20 ... +80 [-4°F ... +176°F]	IP69k	cable	4.8 ... 26 4.8 ... 30	250	•	–
 	Incremental, large hollow shaft magnetic RLI200 (hollow shaft)	390 [15.35]	•	–	16.000	•	•	–	180 [7.09]	12.000	-20 ... +80 [-4°F ... +176°F]	IP69k	cable	4.8 ... 26 4.8 ... 30	250	•	–
 	Incremental, large hollow shaft zero pulse, magnetic RLI500 (hollow shaft)	350 [13.78]	•	•	6.400	•	•	–	70 [2.76]	12.000	-20 ... +80 [-4°F ... +176°F]	IP69k	cable	4.8 ... 26 4.8 ... 30	250	•	–

**Linear measuring
technology
Magnetic measurement
system**

	Measuring max. in m	Accuracy max.	Resolution max. in μm	Dimensions in mm [inch]	Incremental RS422/Push-Pull	Incremental SinCos	Absolute analog	Absolute SSI/BISS	Absolute fieldbus	Traverse speed max. in m/s	Temperature range in $^{\circ}\text{C}$ [$^{\circ}\text{F}$]	Protection max.	Type of connection	RoHS compliant
	50	dep. on meas. length 0.08 mm for 1m	10	10x25x40 [0.39 x 0.98 x 1.57]	•	–	–	–	–	25	-20 ... +80 [-4 ... +176]	IP69k	cable	•
	50	dep. on meas. length 0.1 mm for 1m	5	10x25x40 [0.39 x 0.98 x 1.57]	•	–	–	–	–	16	-20 ... +80 [-4 ... +176]	IP69k	cable	•
	8	dep. on meas. length 0.03 mm for 1m	1	16x30x70 [0.63 x 1.18 x 2.76]	–	•	–	•	•	10	-10 ... +70 [+14 ... +158]	IP64	M12	•
	20	dep. on meas. length 0.17 mm for 1m	10	24x26x75 [0.94 x 1.02 x 2.95]	–	–	–	•	•	4	-10 ... +70 [+14 ... +158]	IP40	cable	•

Linear measuring technology

Draw wire mechanics

		Measuring max. in m	Accuracy max.	Resolution max. [mm]	Dimensions in mm [inch]	Incremental RS422 / Push-Pull	Absolute analog	Absolute SSI/BISS	Absolute fieldbus	Traverse speed max. in m/s	Temperature range in °C [°F]	Protection max.	Type of connection	RoHS compliant
	Draw wire encoder A30 with analog sensor	0.6	±0.1 % of measuring range	0.15	32.45 x 40.7 x 28.6 [1.28 x 1.60 x 1.13]	–	4 ... 20 mA 0 ... 10 V DC 10 kΩ	–	–	0.8	-10 ... +80 [-4 ... +176]	IP50	cable	•
	Draw wire encoder A40 with analog sensor	1	±0.1 % of measuring range	0.1	40x40 x max. 72 [1.57 x 1.57 x 3.90]	–	4 ... 20 mA 0 ... 10 V 10 kΩ	–	–	0.8	-20 ... +90 [-4 ... +194]	IP50 IP65	cable	•
	Draw wire encoder A50 with encoder or analog sensor	1.25	±0.05 % of measuring range	0.05	50x50 x max. 99 [1.97 x 1.97 x 3.90]	•	4 ... 20 mA 0 ... 10 V 1 kΩ	•	•	10	-20 ... +85 [-4 ... +185]	IP67	cable M12	•
	Draw wire encoder A40 with incremental encoder	2	±0.1 % of measuring range	0.15	32.45 x 40.7 x 28.6 [1.28 x 1.60 x 1.13]	•	4 ... 20 mA 0 ... 10 V DC 10 kΩ	–	–	0.8	-10 ... +80 [-4 ... +176]	IP45	cable	•
	Draw wire encoder A41 with analog sensor	2	±0.1 % of measuring range	0.1	40x40 x max. 72 [1.57 x 1.57 x 2.83]	•	4 ... 20 mA 0 ... 10 V 10 kΩ	–	–	0.8	-20 ... +90 [-4 ... +194]	IP50 IP65	cable	•
	Draw wire encoder A41 with absolute encoder	2	±0.35 % of measuring range	0.15	41x41 x max. 96.3 [1.61 x 1.61 x 3.79]	–	4 ... 20 mA 0 ... 10 V DC 10 kΩ	•	•	1	-10 ... +80 [-4 ... +176]	IP50	cable	•
	Draw wire encoder B75 with encoder or analog sensor	3	±0.35 % of measuring range	0.15	75x75 x max. 127.4 [2.95 x 2.95 x 5.02]	–	4 ... 20 mA 0 ... 10 V DC 10 kΩ	–	–	0.8	-40 ... +80 [-40 ... +176]	IP65	cable	•
	Draw wire encoder B80 with encoder or analog sensor	3	±0.05 % of measuring range	0.05	80x80 x max. 144 [3.15 x 3.15 x 5.67]	•	4 ... 20 mA 0 ... 10 V 1 kΩ	•	•	10	-20 ... +90 [-4 ... +194]	IP67	cable M12 M23	•
	Draw wire encoder C105 with encoder	6	±0.1 % of measuring range	0.1	105x85 x max. 163 [4.13 x 3.35 x 6.42]	•	–	•	•	3	-20 ... +80 [-4 ... +176]	–	cable	•
	Draw wire encoder C120 with encoder or analog sensor	6	±0.05 % of measuring range	0.08	120x120 x max. 136 [4.72 x 4.72 x 5.35]	•	4 ... 20 mA 0 ... 10 V 1 kΩ	•	•	10	-20 ... +90 [-4 ... +194]	IP67	cable M12 M23	•
	Draw wire encoder D135 with encoder or analog sensor	42.5	±0.05 % of measuring range	0.08	135x135 x max. 318 [5.32 x 5.32 x 12.52]	•	4 ... 20 mA 0 ... 10 V 1 kΩ	•	•	10	-20 ... +90 [-4 ... +194]	IP67	cable M12 M23	•

Linear measuring technology

		Measuring max. in m	Accuracy max.	Resolution min. in mm	Dimensions in mm [inch]	Incremental RS422/Push-Pull	Incremental SinCos	Absolute analog	Absolute SSI/BISS	Absolute fieldbus	Traverse speed max.	Temperature range in °C [°F]	Protection max.	Type of connection	RoHS compliant
	Lift measuring system for shaftcopying LM3	53	±0.5mm	0.1	dep. on type	•	•	–	•	•	6 m/s	-20 ... +85 [-4 ... +185]	IP67	cable M12 M23 MIL	•
	Length measuring kit, mini measuring wheel system, incremental incl. encoder	∞	±0.015°	0.1	74 x 50 x 52 [2.91 x 1.97 x 2.05]	•	•	–	–	–	2.000 min ⁻¹	-20 ... +80 [-4 ... +176]	IP64	cable	•
	Length measuring kit with rack and pinion incremental / absolute incl. encoder / preset counter	∞	0.5mm	0.1	dep. on rack	•	•	–	•	–	0.5 m/s	-20 ... +80 [-4 ... +176]	IP67	cable M12 M23 MIL	•
	Length measuring kit with measuring wheels incremental / absolute incl. encoder / preset counter	∞	±0.015°	0.1	dep. on the measuring wheel	•	•	–	•	–	2.000 min ⁻¹	-20 ... +80 [-4 ... +176]	IP67	cable M12 M23 MIL	•

Inclinometers

		Measuring angle max.	Accuracy max.	Resolution max.	Dimensions in mm [inch]	Absolute analog	CANopen	Reaction time in s	Temperature range in °C [°F]	Protection max.	Type of connection connector	RoHS compliant	Approvals
	Inclinometer MEMS, capacitive analog IS40, 1-dimensional	360°	±0.5°	0.15°	60 x 30 x 20 [2.36 x 1.18 x 0.79]	4 ... 20 mA 0.1 ... 4.9 V	–	0.1	-30 ... +70 [-24 ... +158]	IP69k	M12	•	–
	Inclinometer MEMS, capacitive analog IS40, 2-dimensional	±60°	±0.5°	0.15°	60 x 30 x 20 [2.36 x 1.18 x 0.79]	4 ... 20 mA 0.1 ... 4.9 V 2 % ... 98 %	–	0.1	-30 ... +70 [-24 ... +158]	IP69k	M12	•	–
	Inclinometer MEMS, capacitive CANopen IN88, 1- and 2-dimensional	±85° 360°	±0.4°	0.01°	80 x 60 x 23 [3.15 x 2.36 x 0.91]	–	•	0.1	-40 ... +85	IP69k	M12	•	
	Inclinometer MEMS, capacitive CANopen IS60, 1-dimensional	360°	±0.5°	0.1°	68 x 42.5 x 42.5 [2.68 x 1.67 x 1.67]	–	•	0.1	-40 ... +80 [-40 ... +176]	IP69k	M12	•	–
	Inclinometer MEMS, capacitive CANopen IS60, 2-dimensional	±60°	±0.5°	0.1°	68 x 42.5 x 42.5 [2.68 x 1.67 x 1.67]	–	•	0.1	-40 ... +80 [-40 ... +176]	IP69k	M12	•	–

Accessories for Position and Motion Sensors

Kübler original accessories are individually adapted to match each particular model. They meet our high quality demands.



Connectors



Cable



Measuring wheels



Couplings



Flange adapters



Bearing units



Spring encoder arm



Displays



Draw-wire accessories

Isolation / adapter inserts for hollow shaft encoders

Thermal and electrical isolation of the encoders.

These isolation inserts prevent currents from passing through the encoder bearings. These can occur when using inverter controlled three-phase or AC vector motors and considerably shorten the service life of the encoder bearings. In addition the encoder is thermally isolated as the plastic does not transfer the heat to the encoder.

Tip:

By using these adapter inserts you can achieve six different hollow shaft diameters, all on the basis of one encoder.



IN1	IN2
1.234	56.78
[kHz]	[kHz]

DIL 1 → PRG mode

OK

C



ON

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.

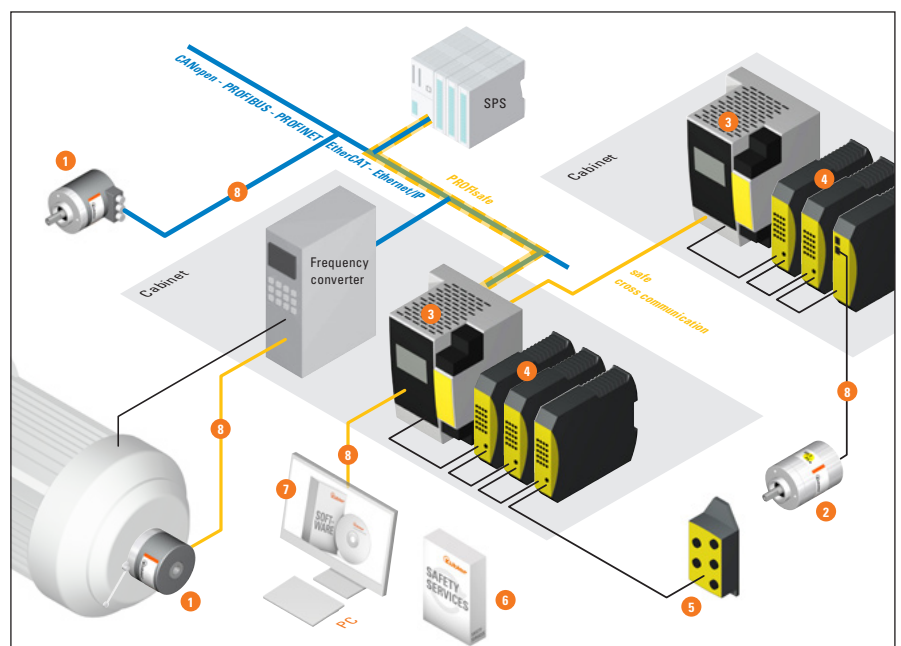
Safety services

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



Incremental encoders

		Ø Dimensions in mm [inch]	Optical (Accuracy $\leq \pm 0.015^\circ$)	Resolution max. in ppr	SinCos interface	Power supply in V DC	Ø Hollow shaft max. in mm [inch]	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	Pulse frequency max. in kHz	RoHS compliant	Approvals
	Standard, optical sine wave output, SIL2 / PLd Sendix SIL 5814FS2 (shaft) Sendix SIL 5834FS2 (hollow s.)	58 [2.28]	•	1.024 and 2.048	•	5 10 ... 30	14 [0.55]	9.000 / 12.000	-40 ... +90 [-40 ... +194]	IP65	Cable M12 M23	400	•	  
	Standard, optical sine wave output, SIL3 / PLe Sendix SIL 5814FS3 (shaft) Sendix SIL 5834FS3 (hollow s.)	58 [2.28]	•	1.024 and 2.048	•	5 10 ... 30	14 [0.55]	9.000 / 12.000	-40 ... +90 [-40 ... +194]	IP65	Cable M12 M23	400	•	  
	Standard, optical ATEX/IECEx – zone 1/21 SIL2 / PLd Sendix SIL 7014FS2 (shaft)	70 [2.76]	•	1.024 and 2.048	•	5 10 ... 30	–	6.000	-40 ... +60 [-40 ... +140]	IP67	Cable	400	•	  
	Standard, optical ATEX/IECEx – zone 1/21 SIL3 / PLe Sendix SIL 7014FS3 (shaft)	70 [2.76]	•	1.024 and 2.048	•	5 10 ... 30	–	6.000	-40 ... +60 [-40 ... +140]	IP67	Cable	400	•	  

Absolute encoders Singleturn

		Ø Dimensions in mm [inch]	Optical (Accuracy $\leq \pm 0.015^\circ$)	Resolution max. in bit	SSI interface	BiSS interface	Additional incremental track	Power supply in V DC	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	RoHS compliant	Approvals
	Standard, optical SIL2/ PLd Sendix SIL 5853FS2 (shaft) Sendix SIL 5873FS2 (hollow s.)	58 [2.28]	•	17	•	•	Sin Cos	5 10 ... 30	9.000 / 12.000	-40 ... +90 [-40 ... +194]	IP65	Cable M23	•	
	Standard, optical SIL3/ PLe Sendix SIL 5853FS3 (shaft) Sendix SIL 5873FS3 (hollow s.)	58 [2.28]	•	17	•	•	Sin Cos	5 10 ... 30	9.000 / 12.000	-40 ... +90 [-40 ... +194]	IP65	Cable M23	•	
	Standard, optical ATEX/IECEx – zone 1/21 SIL2/ PLd Sendix SIL 7053FS2 (shaft)	70 [2.76]	•	17	•	•	Sin Cos	10 ... 30	6.000	-40 ... +60 [-40 ... +140]	IP67	Cable	•	
	Standard, optical ATEX/IECEx – zone 1/21 SIL3/ PLe Sendix SIL 7053FS3 (shaft)	70 [2.76]	•	17	•	•	Sin Cos	10 ... 30	6.000	-40 ... +60 [-40 ... +140]	IP67	Cable	•	

Absolute encoders

Multiturn

	Ø Dimensions in mm [inch]	Optical (Accuracy $\leq \pm 0.015^\circ$)	Resolution max. in bit ST+MT	SSI interface	BiSS interface	Additional incremental track	Power supply in V DC	Speed max. in min ⁻¹	Temperature range in °C [°F]	Protection max.	Type of connection	RoHS compliant	Approvals
	58 [2.28]	•	17 + 12	•	•	SinCos	5 10 ... 30	9.000 / 12.000	-40 ... +90 [-40 ... +194]	IP65	Cable M23	•	
Standard, optical mechanical multiturn SIL2 / PLd Sendix SIL 5863FS2 (shaft) Sendix SIL 5883FS2 (hollow s.)													
	58 [2.28]	•	17 + 12	•	•	SinCos	5 10 ... 30	9.000 / 12.000	-40 ... +90 [-40 ... +194]	IP65	Cable M23	•	
Standard, optical mechanical multiturn SIL3 / PLe Sendix SIL 5863FS3 (shaft) Sendix SIL 5883FS3 (hollow s.)													
	70 [2.76]	•	17 + 12	•	•	SinCos	10 ... 30	6.000	-40 ... +60 [-40 ... +140]	IP67	Cable	•	
Standard, optical mechanical multiturn ATEX/IECEX – zone 1/21 SIL2 / PLd Sendix SIL 7063FS2 (shaft)													
	70 [2.76]	•	17 + 12	•	•	SinCos	10 ... 30	6.000	-40 ... +60 [-40 ... +140]	IP67	Cable	•	
Standard, optical mechanical multiturn ATEX/IECEX – zone 1/21 SIL3 / PLe Sendix SIL 7063FS3 (shaft)													

Safety modules

Safety-M compact

Basic modules

	Monitoring - number of axes	Encoder systems	Safe digital input lines	Analog input lines	Relay output lines	Digital output lines	Analog output lines	Encoder interface	Max. number of expansion/ bus modules	Power supply in V DC	Module width in mm [inch]	RoHS compliant	Approvals
	1	1	4/2	–	1	4	1 opt.	SinCos	0	24	50	•	SIL3 PLe
Speed monitoring 1 axis / 1 encoder system SMC1													
	1	2	4/2	–	1	4	1 opt.	HTL/TTL/ SinCos	0	24	50	•	SIL3 PLe
Speed monitoring 1 axis / 2 encoder systems SMC2													

Safety modules

Safety-M modular

Basic modules

		Monitoring - number of axes	Digital safe input lines	Analog input lines	Relay output lines	Digital safe output lines	Safe cross communication	Communication interface	Encoder interface terminal	Max. number of expansion modules	Power supply in V DC	Module width in mm [inch]	RoHS compliant	Approvals
	Digital, with USB diagnostic interface SMBD.420	• 1)	8 / 4	• 1)	• 1)	2	–	–	HTL/ Proximity switch	31 safe slaves	24	22.5 [0.89]	•	SIL3 PL _e cUL _{US}
	Digital, with Ethernet diagnostic interface SMBD.32E	• 1)	6 / 3	• 1)	• 1)	2	•	–	HTL/ Proximity switch	31 safe slaves	24	22.5 [0.89]	•	SIL3 PL _e cUL _{US}
	Gateway, universal CANopen SMBU.021	• 1)	6 / 3	• 1)	• 1)	6	•	CANopen	–	31 safe slaves	24	100 [3.94]	•	SIL3 PL _e cUL _{US}
	Gateway, universal PROFIBUS DP SMBU.031	• 1)	6 / 3	• 1)	• 1)	6	•	PROFIBUS DP	–	31 safe slaves	24	100 [3.94]	•	SIL3 PL _e cUL _{US}
	Gateway, universal EtherCAT SMBU.0B1	• 1)	6 / 3	• 1)	• 1)	6	•	EtherCAT	–	31 safe slaves	24	100 [3.94]	•	SIL3 PL _e cUL _{US}
	Gateway, universal PROFINET IO SMBU.0C1	• 1)	6 / 3	• 1)	• 1)	6	•	PROFINET IO	–	31 safe slaves	24	100 [3.94]	•	SIL3 PL _e cUL _{US}
	Gateway, universal EtherNet/IP SMBU.0D1	• 1)	6 / 3	• 1)	• 1)	6	•	EtherNet/IP	–	31 safe slaves	24	100 [3.94]	•	SIL3 PL _e cUL _{US}
	Gateway, safe PROFIsafe / PROFIBUS DP SMBS.S31	• 1)	6 / 3	• 1)	• 1)	6	–	PROFIsafe PROFIBUS DP	–	31 safe slaves	24	100 [3.94]	•	SIL3 PL _e cUL _{US}
	Gateway, safe PROFIsafe / PROFINET IO SMBS.SC1	• 1)	6 / 3	• 1)	• 1)	6	–	PROFIsafe PROFINET IO	–	31 safe slaves	24	100 [3.94]	•	SIL3 PL _e cUL _{US}

1) Via expansion module.

Safety modules

Safety-M modular

Expansion modules

		Digital input lines	Analog input lines	Digital output lines	Relay contacts	Encoder interface	Power supply in VDC	Module width in mm [inch]	RoHS compliant	Approvals
	Axis expansion, incremental EMAI.012	–	–	–	–	HTL	24	22.5	•	SIL3 PL _e cUL _{US}
	Axis expansion, absolute EMAA.032	–	–	2	–	SinCos SSI TTL	24	22.5	•	SIL3 PL _e cUL _{US}
	I/O expansion, digital 8 + 8 / 4 EMIO.SIO.048	8	–	8 / 4	–	–	24	22.5	•	SIL3 PL _e cUL _{US}
	I/O expansion, digital 16 / 8 + 1 EMIO.SIO.810	16 / 8	–	2 / 1	–	–	24	22.5	•	SIL3 PL _e cUL _{US}
	I/O expansion, digital 8 / 4 + 4 / 2 EMIO.SIO.420	8 / 4	–	4 / 2	–	–	24	22.5	•	SIL3 PL _e cUL _{US}
	I/O expansion, digital 4 / 2 + 4 EMIO.SIO.204	4 / 2	–	4	–	–	24	22.5	•	SIL3 PL _e cUL _{US}
	I/O expansion, digital 2 / 1 + 2 EMIO.SIO.10xP	2 / 1	–	2	–	–	–	45	•	SIL3 PL _e cUL _{US}
	I/O expansion, analog 2 / 1 EMIO.SAI.200	–	2 / 1	–	–	–	24	22.5	•	SIL3 PL _e cUL _{US}
	I/O expansion, relay 1 x 4 contacts EMIO.SR.004	–	–	–	4	–	24	22.5	•	cUL _{US}
	I/O expansion, relay 2 x 4 contacts EMIO.SR.008	–	–	–	8	–	24	22.5	•	cUL _{US}
	I/O expansion, digital (non safe) 8 + 8 EMIO.IO.880	8	–	8	–	–	24	22.5	•	cUL _{US}

Services

Advice, Safety services

		Contents
	Risk Assessment	• Directives and standards research • Analysis of the operating modes • Risk assessment • Documentation
	Safety Concept	• Analysis of the risks • Selection of the components • Documentation
	Start-up / Validation	• Installation of the components • Functional test in the plant • Acceptance of the components • Documentation
	Safety Retrofit	• Project management • Working out a safety concept • Components procurement • Modification / Integration • Commissioning / Acceptance • Documentation

Services

Support, Application / Service

	Contents
PreSales	• Kübler Hotline • Web Service • Application Engineering • Tailor-made Solutions – Kübler Design System (KDS) • OEM Products and Systems (OPS) • Prototyping • Training
AfterSales	• Kübler Hotline • On-Site Service • Commissioning Support • Repair Service • 48 h Express Service • Service Sites • Service Centers / Technical Hotline

Accessories for Functional Safety

Kübler original accessories are individually adapted to match each particular model. They meet our high quality demands.



Connection technology



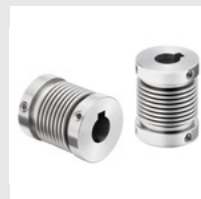
Decentralized I/O expansion module



Encoder signal splitting



Fixing components



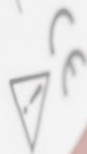
Bellows couplings



Software

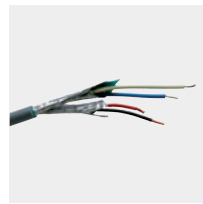


Kubler
SR06DE-255-2-3-XX2
S-No.:
Connection No. 1-3
Connection No. 4-5
24V 16A
48V 2A
Fitz-Kubler GmbH
Made in Germany
www.kubler.com



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.

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.

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.

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



Slip rings

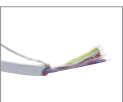
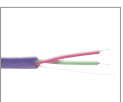
		Power / Current (Load)	Signal (Data)	Pneumatics	Hydraulics	N° of channels max.	Ø Hollow shaft max. in mm [inch]	Current max. in A	Protection max.	Speed max. in min ⁻¹	Temperature range max. in °C [°F]
	Modular, construction system SR085	•	•	•	•	20	30 [1.18]	25	IP64	800	-35 ... +85 [-31 ... +185]
	Modular, construction system, bearingless SR085B	•	•	–	–	10	34 [1.34]	16	IP40	200	0 ... +75 [+32 ... +167]
	Modular, contactless signal transmission SRI085	•	•	–	–	9	30 [1.18]	16	IP64	800	-30 ... +85 [-22 ... +185]
	Compact, low-maintenance SR060E	•	•	–	–	5	25 [0.98]	20	IP64	500	0 ... +75 [+32 ... +167]
	Three chamber system, Ethernet transmission SR120	•	•	•	•	20	–	25	IP64	300	-35 ... +85 [-31 ... +185]
	Modular construction, individual product SR160	•	•	•	•	20	–	25	IP65	200	-35 ... +85 [-31 ... +185]

Optical fiber modules (LWL)

		Interface	Transmission distance in m	Input frequency in kHz	Temperature range in °C [°F]	Power / Current in VDC	Power consumption in W
	Optical fiber module, incremental LWL	RS422 HTL	2000	400	-10 ... +60 [-14 ... +140]	5 10 ... 30	2
	Optical fiber module, absolute LWL.A	SSI	2000	1000	-10 ... +70 [-14 ... +158]	5 10 ... 30	1

Connection technology

Cable, unprepared, cut to length

	PVC cable	PUR cable	TPE cable	Cross section in mm ²	Cable diameter in mm	For incremental encoders	For absolute encoders	For safety modules	RoHS compliant
	•	•	–	5 x 0.14 [AWG25] 5 x 0.75 [AWG18]	approx. 4.7 approx. 7.5	•	–	–	•
	–	•	–	8 x 0.14 [AWG25] 3 x 2 x 0.14 [AWG25] + 2 x 0.5 [AWG20]	approx. 5.5 approx. 7.4	–	•	•	•
	–	•	–	4 x 2 x 0.25 [AWG23] + 2 x 1 [AWG17]	approx. 7.9	•	•	•	•
	•	•	•	10 x 0.14 [AWG25] + 2 x 0.5 [AWG20] 12 x 0.14 [AWG25] 6 x 2 x 0.14 [AWG25] 5 x 2 x 0.14 [AWG25] + 2 x 0.5 [AWG20] 6 x 2 x 0.14 [AWG25]	approx. 6.9 approx. 6.7 approx. 7.5 approx. 8.5 approx. 7.3	•	•	–	•
	•	–	–	18 x 0.14 [AWG25]	approx. 7.8	–	•	–	•
	•	•	–	2 x 0.34 [AWG25] 2 x 0.52 [AWG20] + 2 x 1.04 [AWG17] 3 x 2 x 0.25 [AWG23] 2 x 2 x 0.34 [AWG22]	approx. 7.6 approx. 8.4 approx. 6.2 approx. 4.8	•	•	•	•

Connection technology

Connectors, self-assembly

		N° of pins	Housing	Connection technology	Cable diameter Ø in mm	Straight connector	Right angle connector	Wall/panel lead-through	For fieldbus
	M12	4/5/8/12	Metal	Screw terminals	4 - 8	•	•	•	•
	M23	12/17	Metal	Solder pins	5.5 - 10.5	•	—	•	—
	MIL	7/10	Metal	Solder pins	5 - 8	•	—	—	—
	RJ45	8	Plastic	Crimp connection	4.5 - 8	•	—	—	•
	Sub-D	9	ABS metallized	Solder pins	3.5 - 8.6	—	•	—	—

Connection technology

Cordsets, pre-assembled

		PVC cable	PUR cable	TPE cable	Optical fiber	Straight connector	Right angle connector	For incremental encoders	For absolute SSI / BiSS encoders	For fieldbus	For analog interfaces	For safety modules
	with M12 connector	•	•	—	—	•	•	•	•	•	•	•
	with M23 connector	•	•	•	—	•	—	•	•	—	•	—
	Simplex patch cable optical fiber	—	—	—	•	•	—	•	•	—	—	—
	with RJ45 connector	—	•	—	•	—	—	—	•	—	—	•
	with Sub-D connector	•	•	—	—	—	•	•	•	•	—	•

Kublercodix

024.5

WED

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.

i 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

i 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.

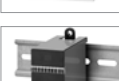
Pulse counters

Electronic

		Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Presets: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals	
LCD pulse counters																						
	Codix 130 adding or subtracting, AC/DC	•	–	–	–	–	–	–	•	•	–	LCD	8	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-10 ... +60 [+14 ... +140]	IP65	Batt.	•	CE, UL	
	Codix 131 count direction or difference counter, AC/DC	•	–	–	–	–	–	–	•	•	–	LCD	8	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-10 ... +60 [+14 ... +140]	IP65	Batt.	•	CE, UL	
	Codix 132 count direction, AC	•	–	–	–	–	–	–	–	•	•	–	LCD	8	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-10 ... +60 [+14 ... +140]	IP65	Batt.	•	CE, UL
	Codix 140 adding 0...9999999	•	–	–	–	–	–	–	•	•	–	LCD	7	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-20 ... +65 [-4 ... +149]	IP65	DC	•	–	
LCD service counters																						
	Codix 142 service counter 0...9999999	•	–	–	–	–	–	1 o	•	•	•	LCD	7	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-20 ... +65 [-4 ... +149]	IP65	DC	•	–	
LED pulse counters																						
	Codix 520 adding	•	–	–	–	–	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL	
	Codix 521 6 count modes	•	–	–	–	•	–	1 o	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL	
	Codix 524 Multifunction	•	•	•	•	•	–	1 o	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL	
	Codix 52U with dual functions in 4 combinations	•	•	•	•	–	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL	
	Codix 52P + Frequency 6 count modes	•	–	•	•	•	–	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL
	Codix 52T / 52C 2 totalisers with separate scaling; 52C with separate inputs	•	–	–	–	–	–	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL
	Codix 540 adding	•	–	–	–	–	–	–	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL	
	Codix 541 6 count modes	•	–	–	–	•	–	1 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL	
	Codix 544 Multifunction	•	•	•	•	•	–	1 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL	
	Codix 54U with dual functions in 4 combinations	•	•	•	•	–	–	–	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL	
	Codix 54P + Frequency 6 count modes	•	–	•	•	•	–	–	–	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL
	571 multifunctional (also reciprocal) analog output, serial interface	•	•	•	•	•	SI	2 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–	
LCD module																						
	190 PCB mounting	•	–	–	–	–	–	–	–	•	–	LCD	7	32 x 18 [1.26 x 0.71]	–	5	-40 ... +80 [-40 ... +176]	–	DC	•	–	
	192 PCB mounting	•	–	–	–	–	–	–	–	•	–	LCD	6	32 x 18 [1.26 x 0.71]	–	5	-40 ... +85 [-40 ... +185]	–	DC	•	–	

Pulse counters

Electromechanical

		Pulse	Time	kWh	Panel mounting	PCB mounting	Base mounting	DIN rail mounting	Reset	Number of digits	Dimensions in mm [inch]	Panel cut-out in mm [inch] (for front panel version)	Standard temperature range in °C [°F] (extended temp. range on request)	Protection max.	Supply type	RoHS compliant	Approvals
Micro counters																	
	K 46 / K 47 high shock resistance	•	–	–	•	•	–	–	–	6 / 7	30 x 20 [1.18 x 0.79] panel mount	27 x 14 [1.06 x 0.55]	-10 ... +60 [+14 ... +140]	IP65	DC	•	–
	K 66 / K 67 high shock resistance, magnetic field resistant	•	–	–	•	•	–	–	–	6 / 7	30 x 20 [1.18 x 0.79] panel mount	27 x 14 [1.06 x 0.55]	-10 ... +60 [+14 ... +140]	IP65	DC	•	–
	K 04 / K 05 high shock resistance	•	–	–	•	•	–	–	–	4 / 5	26 x 15 [1.02 x 0.59] panel mount	24 x 13 [0.94 x 0.51]	-10 ... +60 [+14 ... +140]	IP65	AC/DC	•	c 
	K 06 / K 07 / AK 07 high shock resistance	•	–	–	•	•	•	–	–	6 / 7	32 x 15 [1.26 x 0.59] panel mount	30 x 13 [1.18 x 0.51]	-10 ... +60 [+14 ... +140]	IP65	AC/DC	•	c 
	SK 07 high shock resistance, for DIN rail	•	–	–	–	–	•	•	–	7	30 x 65 [1.18 x 2.56]	–	-10 ... +60 [+14 ... +140]	IP50	AC/DC	•	c 
Mini counters																	
	W 15 also in DIN format 48 x 24 mm [1.89 x 0.94"]	•	–	–	•	–	–	–	manual	5	from 34 x 23 [1.34 x 0.91]	from 31 x 20 [1.22 x 0.79]	-10 ... +50 [+14 ... +122]	IP40	AC/DC	•	–
	W 16 / W 17 also in DIN format 48 x 24 mm [1.89 x 0.94"]	•	–	–	•	•	–	–	–	6 / 7	from 34 x 23 [1.34 x 0.91]	from 31 x 20 [1.22 x 0.79]	-10 ... +50 [+14 ... +122]	IP41	AC/DC	•	–
Standard counters																	
	Bk 14 very long service life	•	–	–	•	–	–	–	manual	4	from 37 x 28 [1.46 x 1.10]	from 33.3 x 25 [1.31 x 0.98]	-10 ... +60 [+14 ... +140]	IP40 IP41	AC/DC	•	–
	B 16 / B 18 very long service life	•	–	–	•	–	–	• ¹⁾	manual (only B16)	6 / 8	from 50 x 25 [1.97 x 0.98]	50 x 25 [1.97 x 0.98]	-10 ... +60 [+14 ... +140]	IP40 IP41	AC/DC	•	–
	Mk 14 / Mk 16 very long service life	•	–	–	•	–	–	–	manual electrical	4 / 6	from 37 x 26 [1.46 x 1.02]	from 33.3 x 22 [1.31 x 0.87]	-10 ... +45 [+14 ... +113]	IP40 IP41	AC/DC	•	–
Dual function counters																	
	HC 77 combination hour meter and totaliser	•	•	–	•	–	–	–	–	2 x 7	from 48 x 48 [1.89 x 1.89]	45 x 45 [1.77 x 2.78] ø 50.5 [1.99]	-15 ... +50 [+5 ... +122]	IP65	AC/DC	•	c 
	SHC 77 combination hour meter and totaliser	•	•	–	–	–	–	•	–	2 x 7	48.5 x 61.5 [1.91 x 2.42]	–	-15 ... +50 [+5 ... +122]	IP52	AC/DC	•	c 
	HW 66 / HW 66 M combination hour meter and energy meter	–	•	•	•	–	–	• ¹⁾	–	2 x 6	from 48 x 48 [1.89 x 1.89]	45 x 45 [1.77 x 2.78] ø 50 [1.97]	-20 ... +55 [–4 ... +131]	IP65	AC	•	–

1) With mounting frame

Pulse counters

Pneumatic

	Panel mounting	PCB mounting	Base mounting	DIN rail mounting	Reset	Number of digits	Panel cut-out in mm [inch] (for front panel version)	Signal	Protection max.	Count frequency max. in Hz	RoHS compliant
	•	–	–	–	manual (PMk 14, PMk 16)	4/6/8	33.3x22 [1.31 x 0.87] 48x24 [1.89 x 0.94]	L signal = 1.5 ... 8 bar O signal ≤ 0.15 bar	IP41	17 / 50	•

Standard counters

Preset counters

Electronic

	Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Preset: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
--	-------	------	-----------	------------	----------	--	---------------------------------------	--------------	------------------	--------------	---------	------------------	-------------------------------	----------------------------	--------------------	------------------------------	-----------------	--------------	----------------	-----------

LCD preset counters

	•	–	–	–	–	–	1 r	•	•	•	LCD	2x6	48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77]	63.2 [2.49]	-10 ... +50 [+14 ... +122]	IP65	Batt.	•	c 
	•	•	–	–	•	–	1 r 2 r	•	•	•	LCD/ LED Look	2x6	48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77]	91 [3.58]	-10 ... +50 [+14 ... +122]	IP65	AC/DC	•	–
	•	•	•	•	•	–	up to 4 r 6 o	•	•	•	LCD/ LED Look	2x6	48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c 

LED preset counters

	•	•	•	•	•	SI FB	2 r	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c 
	•	•	•	•	•	SI	2 o	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–
	•	–	–	–	•	SI	4 o	•	•	•	LED	6/8	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–
	•	–	–	–	•	SI	4 o	•	•	•	LED	6/8	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–

Preset counters

Electromechanical

Standard counters

		Pulse	Time	Panel mounting	PCB mounting	Base mounting	DIN rail mounting	Presets	Reset	Number of digits	Dimensions in mm [inch]	Panel cut-out in mm [inch] (for front panel version)	Temperature range in °C [°F]	Protection max.	Supply type	RoHS compliant
	BVa 15 adding with preset constantly visible	•	–	•	–	–	• ¹⁾	1	manual	2 x 5	from 50 x 50 [1.97 x 1.97]	50 x 50 [1.97 x 1.97]	-10 ... +60 [+14 ... +140]	IP40	AC/DC	•
	MVs 13 subtracting	•	–	•	–	–	–	1	manual electrical	2 / 3	from 39 x 55 [1.54 x 2.17]	33.3 x 50 [1.31 x 1.97]	-10 ... +45 [+14 ... +113]	IP40	AC/DC	•
	MVs 16 subtracting	•	–	•	–	–	• ¹⁾	1	manual electrical	6	from 50 x 50 [1.97 x 1.97]	50 x 50 [1.97 x 1.97]	-10 ... +45 [+14 ... +113]	IP40	AC/DC	•

1) With mounting frame G300002/G300003

Hour meter Timer Electronic

		Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Presets: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
LCD hour meter																					
	Codix 134 99999h59m or 99999.99h	—	•	—	—	—	—	—	•	•	—	LCD	7	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-10 ... +60 [+14 ... +140]	IP65	Batt.	•	cULus
	Codix 135 9999h59m59s or 9999999.9h	—	•	—	—	—	—	—	•	•	—	LCD	8	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-10 ... +60 [+14 ... +140]	IP65	Batt.	•	cULus
	Codix 141 99999.99h	—	•	—	—	—	—	—	•	•	—	LCD	7	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-20 ... +65 [-4 ... +149]	IP65	DC	•	—
LCD service timers																					
	Codix 143 service timer 99999.99h	—	•	—	—	—	—	1 o	•	•	•	LCD	7	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-20 ... +65 [-4 ... +149]	IP65	DC	•	—
LED timers																					
	Codix 523 h, min, sec or hh.mm.ss	—	•	—	—	—	—	1 o	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	cULus
	Codix 524 multifunction	•	•	•	•	•	—	1 o	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	cULus
	Codix 52U with dual functions in 4 combinations	•	•	•	•	—	—	—	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	cULus
	Codix 543 h, min, sec or hh.mm.ss	—	•	—	—	—	—	1 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	cULus
	Codix 544 multifunction	•	•	•	•	•	—	1 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	cULus
	Codix 54U with dual functions in 4 combinations	•	•	•	•	—	—	—	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	cULus
LCD time modules																					
	194 PCB mounting	—	•	—	—	—	—	—	•	—	—	LCD	6	32 x 18 [1.26 x 0.71]	—	5 [0.20]	-40 ... +80 [-40 ... +176]	—	DC	•	—
	198 PCB mounting	—	•	—	—	—	—	—	•	—	—	LCD	6	32 x 18 [1.26 x 0.71]	—	5 [0.20]	-40 ... +85 [-40 ... +185]	—	DC	•	—

Hour meter Timer Electromechanical

		Pulse	Time	kWh	Panel mounting	PCB mounting	Base mounting	DIN rail mounting	Reset	Number of digits	Dimensions in mm [inch]	Panel cut-out in mm [inch] (for front panel version)	Standard temperature range in °C [°F]	Protection max.	Supply type	RoHS compliant	Approvals
Micro timers																	
	HK 47 high shock resistance	—	•	—	•	•	—	—	—	7	30x20 [1.18 x 0.79] panel mount	27x14 [1.06 x 0.55]	-10 ... +60 [+14 ... +140]	IP66	DC	•	—
	HK 07 / AHK 07 high shock and impact resistant	—	•	—	•	•	•	—	—	7	32x15 [1.26 x 0.59] panel mount	30x13 [1.18 x 0.51]	-10 ... +60 [+14 ... +140]	IP65	DC	•	—
Timers with DIN dimensions																	
	HK 17 small dimensions	—	•	—	•	—	—	—	—	7 / 8	from 37x26 [1.46 x 1.02]	33x22 [1.30 x 0.87]	-15 ... +50 [+5 ... +122]	IP65	AC/DC	•	c  US
	H 37 also in DIN format 48x24 mm [1.89 x 0.94"]	—	•	—	•	—	—	• ¹⁾	—	7 / 8	from 48x24 [1.89 x 0.94]	from 45x22 [1.77 x 0.87]	-15 ... +50 [+5 ... +122]	IP65	AC/DC	•	c  US
	H 57 DIN format 48x48 mm [1.89 x 1.89"]	—	•	—	•	—	—	—	—	7 / 8	from 48x24 [1.89 x 0.94]	45x45 [1.77 x 1.77] ø60 [2.36]	-15 ... +50 [+5 ... +122]	IP65	AC/DC	•	c  US
Timers for DIN rail mounting																	
	AH 57 DIN format 48x48 mm [1.89 x 1.89"]	—	•	—	—	—	—	•	—	7 / 8	48.5x61.5 [1.91 x 2.42]	—	-15 ... +50 [+5 ... +122]	IP65	AC/DC	•	c  US
	SHK 07 high shock resistance	—	•	—	—	—	—	•	—	7	30x65 [1.18 x 2.56]	—	-10 ... +60 [+14 ... +140]	IP52	AC/DC	•	—
	SH 17 36mm wide	—	•	—	—	—	—	•	—	7	36x90 [1.42 x 3.54]	—	-10 ... +70 [+14 ... +158]	IP65	AC/DC	•	—
Timers, round design																	
	HR 47 opt. run indicator	—	•	—	•	—	—	—	—	7	ø58 [2.28]	ø50.5 [1.99]	-25 ... +80 [+13 ... +176]	IP65	AC/DC	•	—
	HR 76 high shock resistance	—	•	—	•	—	—	—	—	6	from ø58.7 [2.31]	ø50.8 [2.00]	-30 ... +65 [+22 ... +149]	IP65	AC/DC	•	c  US
Standard timers																	
	HB 26 plug-in version, long service life	—	•	—	•	—	—	• ¹⁾	manual	6	from 50x25 [1.97 x 0.98]	50x25 [1.97 x 0.98]	-15 ... +50 [+5 ... +122]	IP41	AC/DC	•	—
	HB 27 long service life	—	•	—	•	—	—	• ¹⁾	—	7	from 50x25 [1.97 x 0.98]	50x25 [1.97 x 0.98]	-15 ... +50 [+5 ... +122]	IP51	AC/DC	•	—
Dual function counters																	
	HC 77 combination hour meter and totaliser	•	•	—	•	—	—	—	—	2x7	from 48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77] ø60 [2.36]	-15 ... +50 [+5 ... +122]	IP65	AC/DC	•	c  US
	SHC 77 combination hour meter and totaliser	•	•	—	—	—	—	•	—	2x7	48.5x61.5 [1.91 x 2.42]	—	-15 ... +50 [+5 ... +122]	IP52	AC/DC	•	c  US
	HW 66 / HW 66 M combination hour meter and energy meter	—	•	•	•	—	—	• ¹⁾	—	2x6	from 48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77] ø60 [2.36]	-20 ... +55 [+4 ... +131]	IP65	AC	•	—

1) With mounting frame

Time preset counters Electronic

LCD time preset counters

		Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Preset: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
	901 1 preset – pulse, time (battery)	•	•	–	–	–	–	1,	•	•	•	LCD	2x6	48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77]	63.2 [2.49]	-20 ... +65 [-4 ... +149]	IP65	batt.	•	c 
	Codix 907 / 908 decade keyboard, count frequency 5 kHz	•	•	–	–	•	–	1 r 2 r	•	•	•	LCD/ LED Look	2x6	48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77]	91 [3.58]	-10 ... +50 [+14 ... +122]	IP65	AC/DC	•	–
	Codix 923 / 924 multicolor display, decade keyboard, count frequency 60 kHz	•	•	•	•	•	–	up to 4 r 6 o	•	•	•	LCD/ LED Look	2x6	48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c 

LED time preset counters

	Codix 560 LED multifunction preset counters, 14 segment LED, automatic help texts, opt. serial interface	•	•	•	•	•	SI FB	2 r	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c 
	571 multifunctional (also reciprocal) analog output, serial interface	•	•	•	•	•	SI	2 o	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–

Time preset counters Electromechanical

Standard preset counters

	HVa 15 adding	–	•	•	–	–	• 1)	1	manual	2 x 5	from 50 x 50 [1.97 x 1.97]	50 x 50 [1.97 x 1.97]	-15 ... +50 [+5 ... +122]	IP42	AC/DC	•
---	-------------------------	---	---	---	---	---	------	---	--------	-------	----------------------------------	--------------------------	------------------------------	------	-------	---

1) With mounting frame G300002/G300003

Frequency display Tachometer

		Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Presets: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	 RoHS compliant	Approvals
LCD frequency display																					
	Codix 136 in Hz	–	–	•	•	–	–	–	–	–	–	LCD	8	48x24	45x22.2 [1.77 x 0.87]	47.7	-10 ... +60 [+14 ... +140]	IP65	Batt.	•	 
LED frequency display																					
	Codix 522 1/sec or 1/min	–	–	•	•	–	1 o	–	–	•	•	LED	6	48x24 [1.89 x 0.94]	45x22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	 
	Codix 524 multifunction	•	•	•	•	–	1 o	•	•	•	•	LED	6	48x24 [1.89 x 0.94]	45x22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	 
	Codix 52U with dual functions in 4 combinations	•	•	•	•	–	–	•	•	•	•	LED	6	48x24 [1.89 x 0.94]	45x22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	 
	Codix 52P + Frequency 6 count modes	•	–	•	•	•	–	•	•	•	•	LED	6	48x24 [1.89 x 0.94]	45x22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	 
	Codix 542 1/sec or 1/min	–	–	•	•	–	1 o	–	–	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	 
	Codix 544 multifunction	•	•	•	•	•	1 o	•	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	 
	Codix 54U with dual functions in 4 combinations	•	•	•	•	•	–	•	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	 
	Codix 54P + Frequency 6 count modes	•	–	•	•	•	–	•	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	 

Frequency displays Tachometers With limits

Frequency displays

Tachometers

With limits

	Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Presets: o = optocoupler, r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
LCD tachometers (with multicolour, LED look)																				
	Codix 923 / 924 multicolor display, decade keyboard, count frequency 60 kHz						up to 4 r 6 o	•	•	•	LCD/LED Look	2x6	48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	
LED preset counters																				
	Codix 560 LED multifunction preset counters, 14 segment LED, automatic help texts, opt. serial interface						SI 2 r	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	
	571 multifunctional (also reciprocal) analog output, serial interface						SI 2 o	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	—
	574 dual frequency display, 4 outputs, analog output, serial interface						SI 4 o	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	—

Position displays

LCD position displays



Codix 133
phase discriminator
(quadrature) x1 and x2
evaluation

Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Presets: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
-------	------	-----------	------------	----------	--	--	--------------	------------------	--------------	---------	------------------	-------------------------------	----------------------------	--------------------	------------------------------	-----------------	--------------	----------------	-----------

—	—	—	—	•	—	—	•	•	—	LCD	8	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	47.7 [1.88]	-10 ... +60 [-4 ... +149]	IP65	Batt.	•	UL US
---	---	---	---	---	---	---	---	---	---	-----	---	--------------------------	----------------------------	----------------	------------------------------	------	-------	---	-------

LED position displays



Codix 521
6 count modes

•	—	—	—	•	—	1 o	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	UL US
---	---	---	---	---	---	-----	---	---	---	-----	---	--------------------------	----------------------------	--------------	------------------------------	------	----	---	-------

Codix 524
multifunction

•	•	•	•	•	—	1 o	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	UL US
---	---	---	---	---	---	-----	---	---	---	-----	---	--------------------------	----------------------------	--------------	------------------------------	------	----	---	-------

Codix 52P + Frequency
6 count modes

•	—	•	•	•	—	—	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	UL US
---	---	---	---	---	---	---	---	---	---	-----	---	--------------------------	----------------------------	--------------	------------------------------	------	----	---	-------



Codix 541
6 count modes

•	—	—	—	•	—	1 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	UL US
---	---	---	---	---	---	-----	---	---	---	-----	---	--------------------------	--------------------------	--------------	------------------------------	------	-------	---	-------

Codix 544
multifunction

•	•	•	•	•	—	1 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	UL US
---	---	---	---	---	---	-----	---	---	---	-----	---	--------------------------	--------------------------	--------------	------------------------------	------	-------	---	-------

Codix 54P + Frequency
6 count modes

•	—	•	•	•	—	—	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	UL US
---	---	---	---	---	---	---	---	---	---	-----	---	--------------------------	--------------------------	--------------	------------------------------	------	-------	---	-------

Position displays With limits

		Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Presets: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
LCD position preset counters (with multicolour, LED look)																					
	Codix 907 / 908 decade keyboard, count frequency 5 kHz	•	•	–	–	•	–	1 r 2 r	•	•	•	LCD/ LED Look	2x6	48x48 [1.89 x 1.89]	45 x 45 [1.77 x 1.77]	91 [3.58]	-10 ... +50 [-14 ... +122]	IP65	AC/DC	•	–
	Codix 923 / 924 multicolor display, decade keyboard, count frequency 60 kHz	•	•	•	•	•	–	up to 4 r 6 o	•	•	•	LCD/ LED Look	2x6	48x48 [1.89 x 1.89]	45 x 45 [1.77 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c  us
LED position preset counters																					
	570 SSI display, analog output, serial interface	–	–	–	–	•	SI	2 r; o	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–
	Codix 560 LED multifunction preset counters, 14 segment LED, automatic help texts, opt. serial interface	•	•	•	•	•	SI FB	2 r	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c  us
	571 multifunctional (also reciprocal) analog output, serial interface	•	•	•	•	•	SI	2 o	•	•	•	LED	6	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–
	572 dual preset counters with 4 outputs and analog output, serial interface	•	–	–	–	•	SI	4 o	•	•	•	LED	6/8	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–
	575 dual SSI display with 4 outputs and analog output, serial interface	•	–	–	–	•	SI	4 o	•	•	•	LED	6/8	96x48 [3.78 x 1.89]	92x45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–

Multifunction devices

Electronic

		Pulse	Time	Frequency	Tachometer	Position	Fieldbus (FB) / Serial interface (SI)	Presets: o = optocoupler; r = relay	Reset manual	Reset electrical	Programmable	Display	Number of digits	Dimensions front in mm [inch]	Panel cut-out in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
LED multifunction display																					
	Codix 524 multifunction	•	•	•	•	•	–	1 o	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL
	Codix 544 multifunction	•	•	•	•	•	–	1 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL
LCD multifunction preset counters																					
	901 1 preset – pulse, time (battery)	•	•	–	–	–	–	1 r	•	•	•	LCD	2x6	48 x 48 [1.89 x 1.89]	45 x 45 [1.77 x 1.77]	63.2 [2.49]	-20 ... +65 [-4 ... +149]	IP65	batt.	•	CE, UL
	Codix 907 / 908 decade keyboard, count frequency 5 kHz	•	•	–	–	•	–	1 r 2 r	•	•	•	LCD/ LED Look	2x6	48 x 48 [1.89 x 1.89]	45 x 45 [1.77 x 1.77]	91 [3.58]	-10 ... +50 [+14 ... +122]	IP65	AC/DC	•	–
	Codix 923 / 924 multicolor display, decade keyboard count frequency 60 kHz	•	•	•	•	•	–	up to 4 r 6 o	•	•	•	LCD/ LED Look	2x6	48 x 48 [1.89 x 1.89]	45 x 45 [1.77 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL
LED multifunction preset counters																					
	Codix 560 LED multifunction preset counters, 14 segment LED, automatic help texts, opt. serial interface	•	•	•	•	•	SI FB	2 r	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	91 [3.58]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL
	571 multifunctional (also reciprocal) analog output, serial interface	•	•	•	•	•	SI	2 o	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	141 [5.55]	0 ... +45 [+32 ... +113]	IP65	AC/DC	•	–
LED dual function displays																					
	Codix 52U with dual functions in 4 combinations	•	•	•	•	–	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL
	Codix 52P + Frequency 6 count modes	•	–	•	•	•	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL
	Codix 52T 2 counters with separate scaling	•	–	–	–	–	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL
	Codix 52C 2 counters with separate inputs and separate scaling	•	–	–	–	–	–	–	•	•	•	LED	6	48 x 24 [1.89 x 0.94]	45 x 22.2 [1.77 x 0.87]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL
	Codix 54U with dual functions in 4 combinations	•	•	•	•	–	–	–	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL
	Codix 54P + Frequency 6 count modes	•	–	•	•	•	–	–	•	•	•	LED	6	96 x 48 [3.78 x 1.89]	92 x 45 [3.62 x 1.77]	83 [3.27]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	CE, UL

Multifunction devices

Dual function counters

Electromechanical

		Pulse	Time	kWh	Panel mounting	PCB mounting	Base mounting	DIN rail mounting	Reset	Number of digits	Dimensions in mm [inch]	Panel cut-out in mm [inch] (for front panel version)	Temperature range in °C [°F]	Protection max.	Supply type	RoHS compliant	Approvals
	HC 77 combination hour meter and totaliser	•	•	—	•	—	—	—	—	2x7	from 48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77] ø 60 [2.36]	-15 ... +50 [+5 ... +122]	IP65	AC/DC	•	c  US
	SHC 77 combination hour meter and totaliser	•	•	—	—	—	—	•	—	2x7	48.5x61.5 [1.91 x 2.42]	—	-15 ... +50 [+5 ... +122]	IP52	AC/DC	•	c  US
	HW 66 / HW 66 M combination hour meter and energy meter	—	•	•	•	—	—	• ¹⁾	—	2x6	from 48x48 [1.89 x 1.89]	45x45 [1.77 x 1.77] ø 60 [2.36]	-20 ... +55 [-4 ... +131]	IP65	AC	•	—

1) With mounting frame

Energy meters

	Pulse	Time	kWh	Panel mounting	PCB mounting	Base mounting	DIN rail mounting	Reset	Number of digits	Dimensions in mm [inch]	Panel cut-out in mm [inch] (for front panel version)	Temperature range in °C [°F]	Protection max.	Supply type	RoHS compliant	Approvals
 HW 66 / HW 66 M combination hour meter and energy meter	—	•	•	•	—	—	• 1)	—	2 x 6	from 48 x 48 [1.89 x 1.89]	45 x 45 [1.77 x 1.77] ø 50 [1.97]	-20 ... +55 [-4 ... +131]	IP65	AC	•	—

Process displays
Process controllers
Setpoint adjusters

LED process displays

	Analog input 0...20; 4...20 mA	Analog input 0...10; 2...10 V	Analog input ±10 V	Temperature Thermocouples	Temperature Resistance thermometers (RTDs)	mV/V sensors / strain gauge input	Input characteristic curve S = control points	Presets / Limit values o = optocoupler; r = relay	Analog output	Display	Number of digits	Dimensions front in mm [inch]	Depth in mm [inch]	Temperature range in °C [°F]	Protection max.	Power supply	RoHS compliant	Approvals
 Codix 529 Min / Max value detection	•	•	—	—	—	—	linear	—	—	LED	5	48 x 24 [1.89 x 0.94]	59 [2.32]	-10 ... +50 [+14 ... +122]	IP65	DC	•	CE, UL, US
 Codix 530 Min / Max value detection with totaliser	•	•	—	—	—	—	linear	—	—	LED	5	48 x 24 [1.89 x 0.94]	59 [2.32]	-10 ... +50 [+14 ... +122]	IP65	DC	•	CE, UL, US
 Codix 565 analog input signal Min / Max value detection 2 limit values with totaliser, tare, analog output	•	•	•	—	—	—	12 S	2 r	•	LED	6	96 x 48 [3.78 x 1.89]	90.5 [3.56]	-20 ... +65 [-4 ... +149]	IP65	AC/ DC	•	CE, UL, US

LED process controllers

 Codix 565 analog input signal Min / Max value detection 2 limit values with totaliser, tare, analog output	•	•	•	—	—	—	12 S	2 r	•	LED	6	96 x 48 [3.78 x 1.89]	90.5 [3.56]	-20 ... +65 [-4 ... +149]	IP65	AC/ DC	•	CE, UL, US
 573 2 inputs, 2 limit values or analog output mA u. V	•	•	•	—	—	—	16 S	2 o	•	LED	6	96 x 48 [3.78 x 1.89]	129 [5.08]	0 ... +45 [+32 ... +113]	IP65	AC/ DC	•	—

LED setpoint adjuster

 Codix 533 setpoint adjuster 0...12 V output 0...24 mA output manual or time-based operation	—	—	—	—	—	—	—	—	—	LED	4	48 x 24 [1.89 x 0.94]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	CE, UL, US
---	---	---	---	---	---	---	---	---	---	-----	---	--------------------------	--------------	------------------------------	------	----	---	------------

1) With mounting frame

Temperature displays Temperature controllers

LED temperature displays

	Codix 531 Min / Max value detection	—	—	—	—	Pt100 Ni100	—	—	—	—	LED	5	48 x 24 [1.89 x 0.94]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	c 
	Codix 532 Min / Max value detection	—	—	—	J; K; N	—	—	—	—	—	LED	5	48 x 24 [1.89 x 0.94]	59 [2.32]	-20 ... +65 [-4 ... +149]	IP65	DC	•	c 
	Codix 564 Min / Max value detection, 2 limit values, analog output	—	—	—	B; E; J; K; N; R; S; T	Pt100 0...500 Ω	±100 mV	12 S	2 r	•	LED	6	96 x 48 [3.78 x 1.89]	90.5 [3.56]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c 

LED temperature controllers

	Codix 564 Min / Max value detection, 2 limit values, analog output	—	—	—	B; E; J; K; N; R; S; T	Pt100 0...500 Ω	±100 mV	12 S	2 r	•	LED	6	96 x 48 [3.78 x 1.89]	90.5 [3.56]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c 
--	--	---	---	---	------------------------------	--------------------	------------	------	-----	---	-----	---	--------------------------	----------------	------------------------------	------	-------	---	---

Strain-Gauge controllers

LED strain-gauge controllers

	Codix 566 Min / Max value detection, 2 limit values with totaliser, tare, analog output	—	—	—	—	1.0 1.5 2.0 3.0 3.3 mV/V	12 S	2 r	•	LED	6	96 x 48 [3.78 x 1.89]	90.5 [3.56]	-20 ... +65 [-4 ... +149]	IP65	AC/DC	•	c 
---	--	---	---	---	---	---	------	-----	---	-----	---	--------------------------	----------------	------------------------------	------	-------	---	---

i Accessories for counters and process devices

Although little remains to be added – within the comprehensive range of accessories you can still find many more ideas to adapt Kübler counters and process displays exactly to your requirements.



DIN-rail adapters



Bezel adapters



Sealing covers



Socket boxes



Mounting fixtures and supports



Software



Blind enclosures



Sealing gaskets

i Codix with analog output

The Codix devices with analog output can scale the measured values accordingly and convert them into a different analog standard signal (0 ... 10 VDC; 2 ... 10 VDC; 0 ... 20 mA; 4 ... 20 mA) to transmit them to a higher-level controller or send them to a curve tracer or large display. It is possible to transmit the current measured value in addition to the minimum or maximum values as well as the total value.

Together with the 2 output relays simple local control tasks can be undertaken – quite simply, without the need for programming knowledge, with direct display for user-friendly control on site.

i Codix with serial interface

The Codix devices with serial interfaces enable uncomplicated read-out or write of all important values in the device for monitoring and control purposes. Connection of large displays and printers can also be executed simply and without problem.

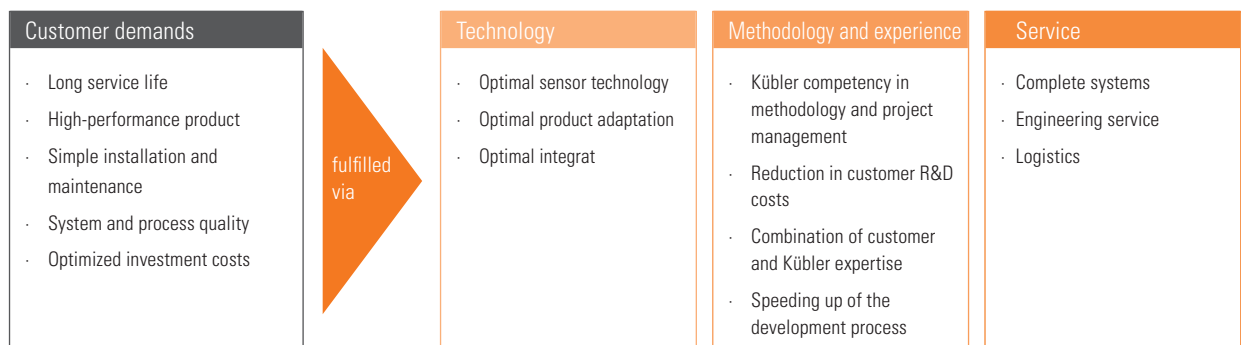
Furthermore, the interface permits parameter and other settings of the display to be stored or transmitted quickly and easily to a number of devices. Several devices with various measuring tasks can be networked together in order to monitor complete operating or process tasks. The Codix devices offer the standard RS232 and RS485 interfaces – the standard Modbus and CR/LF protocols have already been implemented for the Codix 560.

Tailor-made solutions – Kübler Design System

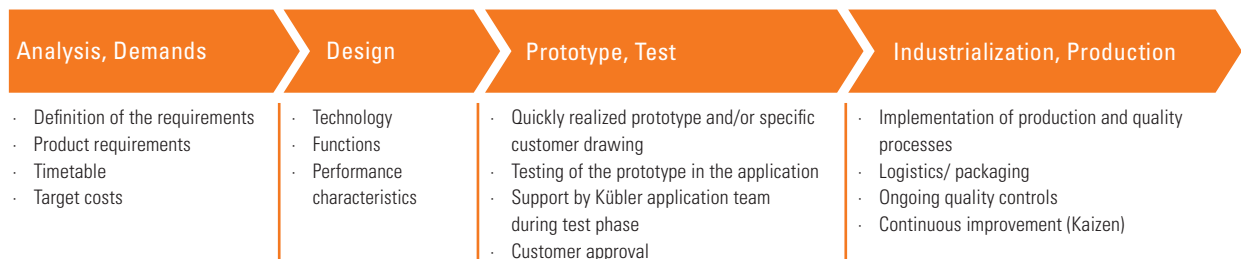
With the KDS method our customers receive a lasting solution to lowering costs, reducing the number of models available or eliminating quality deficiencies. With KDS we develop product and engineering solutions together. The method stands out because of its structured process; this delivers innovation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

Gebhard and Lothar Kübler, Managing Directors Fritz Kübler GmbH

The Kübler Design System – satisfying customer demands



The 4 phases of the Kübler Design System



PRESALES

- Selection tool
- Kübler website: Product Finder

Kübler industry specialists for applications and complete integration solutions – on site worldwide.



- Delivery Service 10 by 10
- 48 h Express and Repair Service

Sample Service – Fast delivery of customized versions



Kübler Service for Planning Dependability

Fast, reliable service and professional advice have top priority at Kübler. We are globally on your doorstep in 8 service and application centres and offer our customers planning dependability. Our processes and services are certified and are constantly being improved.

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.



Sample Service

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



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.)



Technical Support

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



48 h Express Service

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

Kübler Germany / Austria

+49 7720 3903 952

Kübler France

+33 3 89 53 45 45

Kübler Italy

+39 0 26 42 33 45

Kübler Poland

+48 6 18 49 99 02

Kübler Turkey

+90 216 999 9791

Kübler China

+86 10 8471 0818

Kübler India

+91 8600 147 280

Kübler USA

+1 855 583 2537



Safety Services

- Adapted service packages
- Individual customer solutions

AFTERSALES



Service Excellence provided by Kübler application specialists for target sectors



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

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



Kübler worldwide

Kübler Group



**Fritz Kübler GmbH,
Germany**
Phone +49 7720 3903-0
info@kuebler.com
www.kuebler.com



**Fritz Kübler SARL,
France**
Phone +33 3 89 53 45 45
info@kuebler-sarl.com
www.kuebler.fr



**Kübler Italia S.r.l.,
Italy**
Phone +39 026 423 345
info@kuebler.it
www.kuebler.it



**Kübler Österreich
Austria**
Phone +43 720 510459
at@kuebler.com
www.kuebler.com



**Kubler SP. Z O.O.,
Poland**
Phone +48 61 84 99 902
info@kubler.pl
www.kubler.pl



**Kübler Turkey Otomasyon Ticaret
Ltd. Sti.
Turkey**
Phone +90 216 999 9791
cengizhan.temurcin@kuebler.com
www.kuebler.com.tr



**Kuebler (Beijing) Automation
Trading Co. Ltd.,
China**
Phone +86 10 8471 0818
beijing@kuebler.com
www.kuebler.com



**Kuebler Automation India Pvt. Ltd.
India**
Phone +91 99 7065 5599
Phone +91 20 6790 1-200 / 230 /
214 / 202
info@kuebler.in
www.kuebler.in



**Kuebler Korea (by F&B),
South Korea**
Phone +82 51 319 12 30
fnb@kuebler.co.kr
www.kuebler.kr



**Kuebler Inc.
USA**
Phone +1 704-705-4710
Toll Free +1-855-KUEBLER (583-2537)
usa@kuebler.com
www.kuebler.com/usa

Europe

Austria
Kübler Österreich
Deutsch Bieling 35
A-7522 Heiligenbrunn
Phone +43 720 510459
Fax +43 720 510456
at@kuebler.com
www.kuebler.com

Belarus
FEK Company
Pushkin Ave., 29B
BY-220015 Minsk
Phone +375 17 202 68 00
Fax +375 17 202 68 01
turck@fek.by
www.fek.by

Belgium
Turck Multiprox N.V.
Lion d'Orweg 12
B-9300 Aalst
Phone +32 53 76 65 66
Fax +32 53 78 39 77
mail@multiprox.be
www.multiprox.be

Bulgaria
Sensomat Ltd.
Ul.Stratsin 4, v.h.A, app.1
P.O.B. 116
BG-9300-Dobrich
Phone +359-888 403 570
Fax +359-58-603 033
info@sensomat.info
www.sensomat.info

Croatia
Bering d.o.o.
Naselje Tršinski 7b
HR-49210 Zabok
Phone +385 49 221 182
Fax +385 49 223 658
bering@email.t-com.hr
www.bering.hr

Czech Republic
TURCK S.r.o.
Na Brně 2065
CZ-500 06 Hradec Králové
Phone +420 - 4 95 51 87 66
Fax +420 - 4 95 51 87 67
turck-cz@turck.com
www.turck.cz

Denmark
Hans Folsgaard A/S
Theilgaardstr. 1
DK-4600 Køge
Phone +45 43 20 86 00
Fax +45 43 96 88 55
hf@hf.net
www.hf.net

Estonia
Standel AS
Kiisa 8
EE-11313 Tallinn
Phone +372 6 558 180
Fax +372 6 558 179
standel@standel.ee
www.standel.ee

Finland
Sähkölehto Oy
Holkitie 14
FIN-00880 Helsinki
Phone +358 9 774 6420
Fax +358 9 759 1071
office@sahkolehto.fi
www.sahkolehto.fi

France
Fritz Kübler S.à.r.l.
Compteurs et codeurs
industriels
2 rue de Grande Bretagne
F-68310 Wittelsheim
Phone +33 3 89 53 45 45
Fax +33 3 89 53 66 77
info@kuebler-sarl.com
www.kuebler.fr

Germany
Fritz Kübler GmbH
Schubertstrasse 47
D-78054
Villingen-Schwenningen
Phone +49 7720 3903-0
Fax +49 7720 21564
info@kuebler.com
www.kuebler.com

Great Britain
OEM Automatic Ltd
Whiteacres, Cambridge Road
Whetstone
GB-Leicester LE8 6ZG
Phone +44 116 284 99 00
Fax +44 116 284 17 21
information@uk.oem.se
www.oem.co.uk

Greece
Industrial Automation
Systems
L.J. Skourgialos
241, El. Venizelou Ave.
GR-176 73 Kallithea - Athens
Phone +30 210 9510260
Fax +30 210 9511048
info@ias.gr
www.ias.gr

Hungary
Kvalix Automatika Kft.
Kiss Ernő u. 1-3
H-1046 Budapest
Phone +36 1 272 2242
Fax +36 1 272 2244
info@kvalix.hu
www.kvalix.hu

Iceland
Reykjafell Ltd.
Skipholt 35
IS-125 Reykjavik
Phone +354 5 88 60 00
Fax +354 5 88 60 88
reykjafell@reykjafell.is
www.reykjafell.is

Ireland
Kübler Group
Fritz Kübler GmbH
Schubertstr. 47
D-78054
Villingen-Schwenningen
Phone +49 7720 3903-0
Fax +49 7720 21564
info@kuebler.com
www.kuebler.com

Italy
Encoders:
Kübler Italia Srl.
Viale Sarca, 96
I-20125 Milano MI
Phone +39 026 423 345
Fax +39 026 611 3843
info@kuebler.it
www.kuebler.it

• Counters and process
devices:
MAS AUTOMAZIONE S.R.L.
Via G. Galilei 20
I-20090 Segrate (MI)
Phone +39 02 26 92 20 90
Fax +39 02 26 92 16 87
info@masautomazione.it
www.masautomazione.it

Lithuania
UAB FEK Elektronika
Naujarduko 91-415
LT-03160, Vilnius, Lietuva
Phone +370 700 01760
Phone +3705 2133603
Fax +3705 2159198
info@fek.lt
www.fek.lt

Netherlands
Duranmatic B.V.
Robijn 800
NL-3316 KE Dordrecht
Phone +31 78 631 05 99
Fax +31 78 613 11 33
info@duranmatic.nl
www.duranmatic.nl

Norway
ELTECO AS
Floodmyrveien 24
N-3946 Porsgrunn
Phone +47 35 56 20 70
Fax +47 35 56 20 99
firmapost@elteco.no
www.elteco.no

Poland
Kubler Sp. z o.o.
ul. Dabrowskiego 441
PL-60-451 Poznan
Phone +48 61 849 99 02
Fax +48 61 849 99 03
info@kubler.pl
www.kubler.pl

ASTAT sp. z o.o.
ul. Dabrowskiego 441
PL-60-451 Poznan
Phone +48 61 848 8871
Fax +48 61 848 8276
info@astat.com.pl
www.astat.com.pl

• Electronic counters and
process displays:
IMPOL-1 Sp.J.
ul. Krakowiaków 103
PL-02-255 Warszawa
Phone +48 22 886 56 02
Fax +48 22 886 56 04
biuro@impol-1.pl
www.impol-1.pl

• Encoders:
OEM AUTOMATIC Sp. z o.o.
ul. Działkowa 121 A
PL-02-234 Warszawa
Phone +48 22 863 27 22
Fax +48 22 863 27 24
info@pl.oem.se
www.oemautomatic.pl

Portugal
LA2P – Tecnologias de
Automação, LDA
Rua Teófilo Braga, 156 A
Escrit. F - Edifício S. Domingos
Cabeço do Mouro
PT-2785 - 122 S. Domingos
de Rana
Phone +351 21 444 70 70
Fax +351 21 444 70 75
la2p@la2p.pt
www.la2p.pt

Romania
Syscom 18 SRL
Calea Plevnei 139B, Sector 6
RO-060011 Bucharest
Phone +40 21 310 26 78
Fax +40 21 316 91 76
syscom@syscom18.com
www.syscom.ro

Russia
Servotechnica ZAO
Klara Tsetkin str., 33/35
RUS-125130 Moscow
Phone +7 495 797 8866
Fax +7 495 450 0043
info@servotechnica.ru
www.servotechnica.ru

Slovakia
S.D.A. s. r. o.
Jána Bottu 4
SK-974 01 Banská Bystrica
Phone +421 48 472 34 11
Fax +421 48 472 343 69
sekretariat@s-d-a.sk
www.s-d-a.sk

Slovenia
Balluff d.o.o.
Livadna ulica 1
SLO-2204
Miklavž na Dravskem polju
Phone +386 2 6 29 03 00
Fax +386 2 6 29 03 02
senzorji.sb@siol.net
www.senzorji-sb.si

Spain
Elion, S.A.
Farell, 5
E-08014 Barcelona
Phone +34 93 298 20 00
Fax +34 93 431 18 00
elion@elion.es
www.elion.es

Sweden
OEM AUTOMATIC AB
Dalagatan 4, Box 1011
S-57328 Tranås
Phone +46 75-242 4100
Fax +46 75-242 4119
info@aut.oem.se
www.oemautomatic.se

Switzerland
(French)
Fritz Kübler S.à.r.l.
2 rue de Grande Bretagne
F-68310 Wittelsheim
Phone +33 3 89 53 45 45
Fax +33 3 89 53 66 77
info@kuebler-sarl.com
www.kuebler.fr

(Italian)
Kübler Italia Srl.
Viale Sarca, 96
I-20125 Milano MI
Phone +39 026 423 345
Fax +39 026 611 3843
info@kuebler.it
www.kuebler.it

(German)
Fritz Kübler GmbH
Schubertstraße 47
D-78054
Villingen-Schwenningen
Phone +49 7720 3903-0
Fax +49 7720 21564
info@kuebler.com
www.kuebler.com

Turkey
Kübler Turkey Otomasyon
Ticaret Ltd. Sti.
Bağcılar Mah.
Serpinti Sok.No:6 Kat:4
TR - 34893 Pendik/Istanbul
Phone +90 216 999 9791
Fax: +90 216 999 9784
cengizhan.temurcin@kuebler.com
www.kuebler.com

• Encoders, process devices
and transmission technology:
Sanil Teknik
Elektrik San. ve Tic. Ltd. Sti.
Okçumusa Caddesi
Tasak Sokak
No: 27/5 Karaköy
TR-34420 Istanbul
Phone +90 212 256 94 28
Fax +90 212 256 94 04
sanil@sanil.com.tr
www.sanil.com.tr

• Counters:
ERUZ Elektrik San. ve Tic. A.S.
Necatibey Caddesi
Sait Demirbag Han No.5 K.1
TR-34425 Istanbul
Phone +90 212 2 93 60 36
Fax +90 212 2 44 51 56
eruzelektrik@eruzelektrik.com.tr
www.eruzelektrik.com.tr

Ukraine
SV Altera Ltd.
4, Ivana Lépse blvd, Kyiv,
UA-03680 Ukraine
Phone +38 044 496-18-88
Fax +38 044 496-18-18
office@sv-altera.com
www.svaltera.ua

**Catalog distributors:
(Europe)**

Austria
Farnell GmbH
Birkenstrasse 2
A-5300 Salzburg/Hallwang
Phone +43 662 - 218 06 80
Fax +43 662 - 218 06 70
verkauf.at@farnell.com
www.farnell.at

RS Components
Albrechtser Straße 11
A-3950 Gmünd
Phone +43 28 52 505
Fax +43 28 52 53 223
www.rs-components.at

France
RS Components SAS
Rue Norman King BP 40453
F-60031 Beauvais CEDEX
Phone +33 3 44 10 16 48
Fax +33 3 44 10 16 44
www.radiospares.fr

Farnell France SAS
81-83 rue Henri Depagneux
BP 60426 Limas
F-69654 Villefranche sur
Saône
Cedex
Phone +33 4 74 68 99 99
Fax +33 4 74 68 99 90
ventes@farnell.com
www.farnell.fr

Great Britain
RS Components Ltd.
PO Box 99, Corby
GB-Northants NN17 9RS
Phone +44 84 58 50 99 00
Fax +44 15 36 40 56 78
www.rs-components.com

Farnell
Canal Road
GB-Leeds, LS12 2TU
Phone +44 8447 11 11 11
Fax +44 8447 11 11 13
sales@farnell.co.uk
www.farnell.co.uk

Italy
RS Components S.p.A.
Via De Vizzi 93/95
I-20092, Cinisello Balsamo,
Milano
Phone +39 02 660 581
Fax +39 02 660 580 51
www.rs-components.it

Distrelec Italia s.r.l.
Via Canova 40/42
I-20020 Lainate (Mi)
Phone +39 02 - 93 75 51
Fax +39 02 - 93 75 57 55
info-it@distrelec.com
www.distrelec.com

Switzerland
Distrelec AG
Grabenstraße 6
CH-8606 Nänikon
Phone +41- 44 9 44 99 11
Fax +41- 44 9 44 99 88
www.distrelec.com

Farnell AG
Brandschenkestr. 178
Postfach 1703
CH-8027 Zürich
Phone +41 1 - 204 64 64
Fax +41 1 - 204 64 54
verkauf.ch@farnell.com
www.farnell.ch

America, Asia, Australia, Africa

Argentina
AUMECON S.A.
Acassuso 4768
1605 Munro
Prov. de Buenos Aires
Phone +54 11 47 56 1251
Fax +54 11 47 62 63 31
ventas@aumecon.com.ar
www.aumecon.com.ar

Australia
Balluff PTY LTD
Unit 18 Malvern Street
Bayswater, VIC 3153
Phone +61 1300 225833
Fax +61 1300 653894
sales@balluff.com.au
www.balluff.com.au

Brazil
Brastronic Comércio e
Serviço Importação e
Exportação Ltda.
Representante Exclusivo
no Brasil
Rua Antônio Pagano,
43 - Jardim Prudência
Cep 04368-040 São Paulo
Phone +55 (11) 5670-8970
vendas@kebrasil.com.br
www.kebrasil.com.br

Canada
Turck Chartwell Canada Inc.
140 Duffield Drive
Markham, Ontario L6G 1B5
Phone +1 905 513 7100
Fax +1 905 513 7101
sales@www.chartwell.ca
www.chartwell.ca

China
Kuebler (Beijing) Automation
Trading Co. Ltd.
Rm 1603, B Area, Tower 2,
Wangjing Soho,
No.1 Futong East Street,
Chaoyang, Beijing,
China,100102
Phone +86 10 8471 0818
Fax: +86 10 8471 0819
beijing@kuebler.com
www.kuebler.com

Egypt
AEE Advanced Electronic
Engineering Co.
3 Hassan El-Sheraia St.Off
El-Horiya St-Heliopolis
Cairo
Phone +20 2 2418 50 20
Fax +20 2 2415 92 65
hfarid@aecontrols.com
www.aeecontrols.com

Hong Kong
Po Kwong Electric (HK) Ltd.
Rm. 177-180, 1/F, Blk C,
Hang Wai Ind. Ctr.,
6 Kin Tai St., Tuen Mun, N.T
Phone +852 24 23 66 22
Fax +852 24 61 10 02
sales@pokwong.com
www.pokwong.com

India
Kuebler Automation India Pvt Ltd
Plot No 677, S. No. 269/3,
Paud Road, Bhugaon,
Pune 412 115,
Maharashtra
Phone +91 99 7065 5599
Phone +91 20 6790 1-200 / 230 /
214 / 202
Fax +91 20 6790 1232
info@kuebler.in
www.kuebler.in

Indonesia
PT. Supra Engineering
Jl. Pecenongan 17 D
RI-10120 Jakarta
Phone +62 21 345 73 55
Fax +62 21 345 73 18
atsupra@supra.co.id
www.supra-engineering.com

Israel
Omega Engineering
P.O.Box 190
Ein Carmel 30860
Phone +972-4-9544993
Fax +972-4-9544992
info@omegae.net
www.omegae.net

Lebanon
Industrial Technologies S.A.L
(ITEC)
Blvd. Fouad Chehab
Point Center, Sin El Fil, Beirut
Phone +961 (1) 491161
Fax +961 (1) 491162
info@iteclb.com
www.iteclb.com

Malaysia
dpstar Smart Solutions Sdn Bhd
No. 37-1, Jalan OP 1/2
Pusat Perdagangan One Puchong,
Off Jalan Puchong,
47160 Puchong,
Selangor Darul Ehsan,
Malaysia
Phone +603 8074 8866
Fax +603 8074 8666
chrisliu@dpstar.com.my
www.dpstar.com.my

Mexico
TURCK Comercial, S. de RL de CV
Blvd. Campestre No. 100
Parque Industrial SERVER
C.P. 25350 Arteaga, Coahuila
Phone +52 844 411 6650
Toll Free: 01-800-01-TURCK
(Mexico only)
Fax +52 844 482 6926
mexico@turck.com
www.turck.com.mx

Morocco
r2i Consult SARL
109 rue Montaigne Val
Fleuri Maarif Casablanca
Maroc
Phone +212522986960
Fax +212522989537
info@r2imaroc.ma
www.r2imaroc.com

New Zealand
Carrel-Electrade Ltd.
P.O. Box 11-078
Ellerslie
NZ-Auckland 1542
Phone +64 95251753
Fax +64 95251756
sales@carrel-electrade.co.nz
www.carrel-electrade.co.nz

Peru
Techpro SAC
Calle Alberto del Campo 414
Magdalena del Mar
Lima 17 - Peru
Phone +51 98943 58-54
Fax +51 17272 685
techpro.peru@techprocorp.net
www.techprocorp.net

Philippines
Technorand Sales Coporation
122 McArthur Highway
O Malabon, Metro Manila
Phone +632 985 07 05
Fax +632 716 59 86
technorand@gmail.com

Singapore
Raymond International Pte. Ltd.
Blk 219 Henderson Road #07-04
Henderson Industrial Park
Singapore 159556
Phone +65 62 76 37 38
Fax +65 62 76 37 39
sales@raymondcom.com
www.raymondcom.com

South Africa
Kübler Group
DC Auto-Motion (Pty) Ltd.
11 Sunrock Close,
131 Sunnyrock, Ext. 2
Germiston, Gauteng.
Phone +27 11 453 1740
Fax +27 86 508 5929
dave@dcauto-motion.co.za
www.kuebler.co.za

South Korea
Kuebler Korea (by F&B)
578, Kwaebop-dong, Sasang-ku
Pusan Industrial Supplies
Market 9-116
PUSAN
Phone +82 51 319 12 30
Fax +82 51 319 12 50
fnb@kuebler.co.kr
www.kuebler.kr

Taiwan, R.O.C.
• Encoders, transmission
technology:
E-E-Sensors & Automation Int'l Corp.
No.17-2, Beichang 2nd St.
Fengshan Dist.,
Kaohsiung City 83053
Taiwan, R.O.C.
Phone +886-7-7323606
Fax +886-7-7333023
ez-corp@umail.hinet.net
www.e-sensors.com.tw

• Electronic counters and
process devices:
Canaan Electric Corp.
6F-5, No. 63, Sec. 2
Chang An East Road
Taipei
Phone +886 225 08 23 31
Fax +886 225 08 47 44
sales@canaan-elec.com.tw
www.canaan-elec.com.tw

Thailand
Technology Instruments Co., Ltd.
549/9 Onnut Road Kwaeng
Pravet, Khet Pravet
Bangkok 10250
Phone +662 74 388 88
Fax +662 74 388 43
marketing@tic.co.th
www.tic.co.th

Tunisia
H2M Technologies
13, Rue El Moutanabi
TN-2037 El Menzah 7 - Tunis
Phone +216 71 42 76 77
Fax +216 71 42 76 88
h2m.tech@planet.tn

U.S.A.
Kuebler Inc.
10430-J Harris Oak Boulevard
Charlotte, NC 28269
Phone +1-704-705-4710
Toll Free +1-855-KUEBLER (583-2537)
Fax +1-704-733-9170
usa@kuebler.com
www.kuebler.com/usa

• Counting and process
technology:
Howland Technology
8129 North Austin AVE
Morton Grove, IL 60053
Toll-free number:
1-800-951-8774
Phone 847 965 9808
Fax 847 901 9846
sales@howlandtechnology.com
www.kueblerusa.com

United Arabe Emirates
Baer Measurements LLC
P.O. Box 111393
Al Gaith Tower 505,
Hamdan Street
Abu Dhabi - UAE
Phone +971 2 627 2097
Fax +971 2 627 2091
info@bml.ae
www.bml-international.com

Vietnam
GNN Co., Ltd
153, Nguyen Van Thu
Da Koa Ward, District 1
Ho Chi Minh City
Phone +84 8 3517 4923
Fax +84 8 3517 4924
contact@gnnvietnam.com
www.gnnvietnam.com

Contact partners in Germany

PLZ 01000 ... 09999

PLZ 15000 ... 15999
Kübler Vertriebsbüro Süd-Ost
Lars Meyer
Durchfahrt 9
09569 Oederan
Phone +49 37292 283500
Fax +49 37292 283501
lars.meyer@kuebler.com

PLZ 10000 ... 14999

PLZ 16000 ... 19999
PLZ 20000 ... 32999
PLZ 38000 ... 39999
Kübler Vertriebsbüro Nord
Hermi Herrmann
Mohnblumenweg 6
28876 Oyten
Phone +49 4207 6880-32
Fax +49 4207 6880-34
hermi.herrmann@kuebler.com

PLZ 33000 ... 33999

Kübler Vertriebsbüro West
Torsten Czubkowski
Auf der Umcke 11 a
59757 Arnsberg
Phone +49 2932 891898
Fax +49 2932 53311
torsten.czubkowski@kuebler.com

PLZ 34000 ... 37999

Kübler Vertriebsbüro Mitte
Stefan Heinigk
Gartenstraße 10
35759 Driedorf
Phone +49 2775 578427
Fax +49 2775 578428
stefan.heinigk@kuebler.com

PLZ 40000 ... 47999

Kübler Vertriebsbüro West
Torsten Czubkowski
Auf der Umcke 11a
59757 Arnsberg
Phone +49 2932 891898
Fax +49 2932 53311
torsten.czubkowski@kuebler.com

PLZ 48000 ... 49999

Kübler Vertriebsbüro Nord
Hermi Herrmann
Mohnblumenweg 6
28876 Oyten
Phone +49 4207 6880-32
Fax +49 4207 6880-34
hermi.herrmann@kuebler.com

PLZ 50000 ... 54999

PLZ 55300 ... 55999
PLZ 56500 ... 56999
PLZ 58000 ... 59999
Kübler Vertriebsbüro West
Torsten Czubkowski
Auf der Umcke 11a
59757 Arnsberg
Phone +49 2932 891898
Fax +49 2932 53311
torsten.czubkowski@kuebler.com

PLZ 55000 ... 55299

PLZ 56000 ... 56499
PLZ 57000 ... 57999
Kübler Vertriebsbüro Mitte
Stefan Heinigk
Gartenstraße 10
35759 Driedorf
Phone +49 2775 578427
Fax +49 2775 578428
stefan.heinigk@kuebler.com

PLZ 60000 ... 65999

PLZ 67000 ... 67599
PLZ 68000 ... 69999
Kübler Vertriebsbüro Mitte
Stefan Heinigk
Gartenstraße 10
35759 Driedorf
Phone +49 2775 578427
Fax +49 2775 578428
stefan.heinigk@kuebler.com

PLZ 66000 ... 66999

PLZ 67600 ... 67999
Kübler Vertriebsbüro West
Torsten Czubkowski
Auf der Umcke 11a
59757 Arnsberg
Phone +49 2932 891898
Fax +49 2932 53311
torsten.czubkowski@kuebler.com

PLZ 70000 ... 79999

Kübler Vertriebsbüro Süd-West
Philipp Lang
Lembergstraße 6
72119 Ammerbuch-Altingen
Phone +49 7032 2293665
Fax +49 7032 2993454
philipp.lang@kuebler.com

PLZ 80000 ... 87999

PLZ 89200 ... 89499
Kübler Vertriebsbüro Süd
Bernhard Preißler
Am Seeacker 8
93326 Abensberg
Phone +49 9443 9186926
Fax +49 9443 9186974
bernhard.preissler@kuebler.com

PLZ 88000 ... 89199

PLZ 89500 ... 89999
Kübler Vertriebsbüro Süd-West
Philipp Lang
Lembergstraße 6
72119 Ammerbuch-Altingen
Phone +49 7032 2293665
Fax +49 7032 2993454
philipp.lang@kuebler.com

PLZ 90000 ... 93999

PLZ 95000 ... 95999
Kübler Vertriebsbüro Süd-Ost
Lars Meyer
Durchfahrt 9
09569 Oederan
Phone +49 37292 283500
Fax +49 37292 283501
lars.meyer@kuebler.com

PLZ 94000 ... 94999

Kübler Vertriebsbüro Süd
Bernhard Preißler
Am Seeacker 8
93326 Abensberg
Phone +49 9443 9186926
Fax +49 9443 9186974
bernhard.preissler@kuebler.com

PLZ 96000 ... 99999

Kübler Vertriebsbüro Mitte
Stefan Heinigk
Gartenstraße 10
35759 Driedorf
Phone +49 2775 578427
Fax +49 2775 578428
stefan.heinigk@kuebler.com

Approved system partners/ distributors

22149 Hamburg
Hermann Seidel GmbH
Techn. Vertretungen
Rahlstedter Str. 16
Phone +49 40 675085-0
Fax +49 40 675085-85
info@seidel-gmbh.de
www.seidel-gmbh.de

42499 Hückeswagen
Fuhrmeister + Co. GmbH
Industrie-Elektronik
Stahlschmidsbrücke 61
Phone +49 2192 851122
Fax +49 2192 851127
info@fuhrmeister-gmbh.de
www.fuhrmeister-gmbh.de

66287 Götterborn
Herbert Neundörfer
GmbH & Co. KG
Werksvertretungen
Am Campus 5
Phone +49 6825 9545-0
Fax +49 6825 9545-99
info@herbert-neundoerfer.de
www.herbert-neundoerfer.de

82069 Hohenschäftlarn
Bachmann
Electronic GmbH
Am Wagnerfeld 4
Phone +49 8178-8676-0
Fax +49 8178-8676-50
info@bachmann-electronic.de
www.bachmann-electronic.de

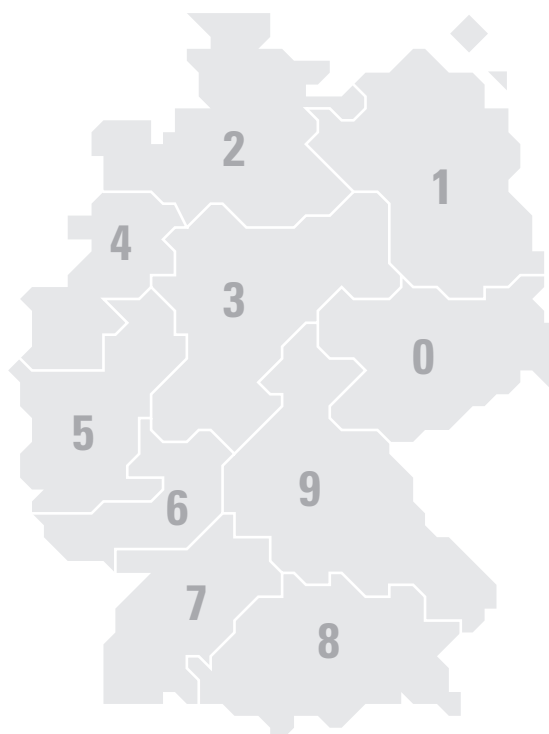
Catalogue distributors (Germany):

28359 Bremen
Distrelec Schuricht GmbH
Lise Meitner-Str. 4
Phone +49 1805 2234-35
Fax +49 1805 2234-36
scc@distrelec.de
www.distrelec.de

64546 Mörfelden-Walldorf
RS Components GmbH
Hessenring 13 b
Phone +49 6105 401234
Fax +49 6105 401100
www.rs-components.de

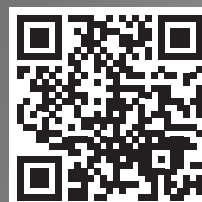
85609 Aschheim
Farnell GmbH
Karl-Hammerschmidt-Straße 38
Phone +49 89 61303-0
www.farnell.de

92240 Hirschau
Conrad Electronic SE
Klaus-Conrad-Straße 1
92240 Hirschau
Phone +49 9604 408 787
www.conrad.com





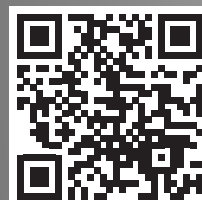
Kübler



Position and Motion
Sensors



Functional Safety



Transmission
Technology



Counters and Process
Devices

Kübler Group
Fritz Kübler GmbH
Schubertstrasse 47
D-78054 Villingen-Schwenningen
Germany
Phone +49 7720 3903-0
Fax +49 7720 21564
info@kuebler.com
www.kuebler.com