

The Kübler Absolute Encoder Family – an Overview:



		Singleturn Sendix [®] absolut							
		3650	3670	5853	5873	5858	5878	5850	5870
Interface	SSI	x	x	x	x			x	x
	SSI + incremental track			x	x				
	SSI + SIN/COS track			x	x				
	BISS			x	x				
	BISS + incremental track			x	x				
	BISS + SIN/COS track			x	x				
	Parallel							x	x
	Analogue output	x	x					x	
	Profibus DP					x	x		
	CANopen	○	○			x	x		
EtherCAT					○	○			
Mechanical characteristics	Shaft max.	8 mm	-	10 mm	-	10 mm	-	10 mm	-
	Blind hollow shaft max.	-	10 mm	-	-	-	15 mm	-	12 mm
	Through hollow shaft max.	-	-	-	15 mm	-	-	-	12 mm
Performance characteristics	Max. speed rpm	6000	6000	12000	9000	9000	9000	12000	6000
	Resolution max. in bit	9	9	17	17	16	16	14	14
	Programmable					x	x		
	Set key (optional)			x	x	x	x		
	Status-LED (optional)	x	x	x	x	x	x		
	Safety-Lock™			x	x	x	x		
	Temperature min.	-40° C	-40° C	-40° C	-40° C	-40° C	-40° C	-20° C	-20° C
	Temperature max.	+85° C	+85° C	+90° C	+90° C	+80° C	+80° C	+85° C	+80° C
IP max.	69K	69K	67	67	67	67	65	66	

x = available as standard product
○ = in preparation

		Multiturn Sendix [®] absolut								
		5863	5883	5868	5888	5862	5882	9081	5860	9080
Interface	SSI	x	x			x	x	x		
	SSI + incremental track	x	x			x	x	x		
	SSI + SIN/COS track	x	x							
	BISS	x	x							
	BISS + incremental track	x	x							
	BISS + SIN/COS-track	x	x				x			
	RS485					x	x	x		
	Profibus DP			x	x				x	x
	CANopen			x	x				x	x
	CANlift			x	x					
	EtherCAT			○	○					
	DeviceNet								x	x
Mechanical characteristics	Shaft max.	10 mm	-	10 mm	-	10 mm	-	12 mm	10 mm	12 mm
	Blind hollow shaft max.	-	15 mm	-	15 mm	-	-	-	15 mm	-
	Through hollow shaft max.	-	14 mm	-	-	-	12 mm	28 mm	-	28 mm
Performance characteristics	Max. speed rpm	12000	9000	9000	9000	6000	6000	6000	6000	6000
	Mechanical gear	x	x	x	x					
	Non-contact gear					x	x	x	x	x
	Resolution max. in bit	29	29	28	28	25	25	25	25	25
	Programmierbar			x	x	x	x	x	x	x
	Control outputs	x	x	x	x	x	x	x	x	x
	Set key (optional)	x	x	x	x					
	Status-LED (optional)	x	x	x	x					
	Safety-Lock™	x	x	x	x					
	Temperature min.	-40° C	-40° C	-40° C	-40° C	-20° C	-20° C	-20° C	-20° C	-10° C
	Temperature max.	+90° C	+90° C	+80° C	+80° C	+70° C	+70° C	+70° C	+70° C	+70° C
IP max.	67	67	67	67	65	65	65	65	65	

Absolute Multiturn Encoders from Kübler – mechanical or electrical?



Unique:
The optimal solution from Kübler – fits your application.



Characteristics	Geared Multiturn New! Sendix[®] absolut	Existing type series Electronic Multiturn
For use near to strong magnetic fields, e.g. for geared motors with brake	Very good: Sendix Absolut Encoders are 100% resistant to magnetic fields. They succeed against other geared solutions, which to some extent use magnetic sensor technology.	Limited: Because of magnetic sensitive parts (as is common with encoders with electronic multiturns).
High dynamic – high precision feedback	Very good: Highly deterministic and fast, allows feedback cycle times << 20 µs, additional incremental RS422 (TTL compatible) or SIN/COS track with 2048 pulses as option .	Good: With optional incremental RS422 tracks with 2048 pulses (TTL compatible).
Outdoor applications Wet environment	Very good: Sendix absolut up to IP 67.	Good: Up to IP 65.
Very high or low temperatures e.g. outdoor applications	Very good: Sendix absolut for a wide temperature range of -40 °C bis 90 °C	Good: -20°C up to +80 °C.
Limited space Large hollow shaft	Good: Sendix absolut is the first encoder on the market to offer a through hollow shaft up to 14 mm or blind hollow shaft solutions up to 15 mm. This offers space-saving possibilities.	Very good: Integrative and Intelligent Sensing Technology permits hollow shafts up to 28 mm or the slimmest multiturn encoder on the market, with an installation depth from only 40,5 mm with through hollow shaft.
Safety critical equipment	Very good	Limited: Partly geared Multiturns are specified.
Programmability	Limited: Resolution Single-turn, Offset, Code direction, configuration by factory (configuration software in preparation).	Very good: Full range scaleable and additional features like 4 programmable outputs (with EzTurn).
Set Up	Very good: SET-key and Status-LED facilitate the set up locally, additional DIR- and SET-Inputs.	Good: SET- and DIR-Inputs.

■■■ pulses for automation