ENX 13 EASY INT Encoder Ø13 mm, 1...1024 CPT/4096 steps, Single Turn Sterilizable, integrated into motor



Key data	EASY incremental differential	EASY Absolute
Number of channels	3	
Max. counts per turn	1024	
Steps per turn		4096
Resolution (bit single turn)		12
Encoder length L	mm 0 (integrated into motor)	0 (integrated into motor)
Ambient temperature	°C -40+125	-40+125
Weight	g <5	<5

Selection criteria	EASY incremental differential	EASY Absolute	
Speed and rotation direction detection			
Speed and position control			
Compact and robust design			
High resolution			
Cost effective			

suitable 🔺 suitable to a limited extent 🔎 not suitable

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Specifications		EASY incremental differential	EASY Absolute	
Supply voltage V _{cc}		5 ±0.5	5 ±0.5	
Typical current draw	mA		22	
Max. operating frequency		4000	202.022	
Max. Speed	rpm	200 000	200 000	
Connector ²		10-pin 2.54 mm multipoint connector (IEC/EN 60603-13 / DIN 41651) cable AWG 28 Pin 1 not connected Pin 2 (black) V _{cc} Pin 3 (brown) GND Pin 4 not connected Pin 5 (red) channel Ā Pin 6 (orange) channel Ā Pin 7 (yellow) channel B Pin 8 (green) channel B Pin 9 (blue) channel B Pin 9 (blue) channel I Pin 10 (violet) channel I Output signal: EIA-Standard RS 422 Output current per channel: ±20 mA	without connector cable AWG 28 green Data black V _{cc} brown GND yellow CLK Output signal: CMOS compatible Output current per channel: +20 mA	
Configuration		EASY incremental differential	EASY Absolute	
Counts per turn ¹		11024		
Signal protocol			BiSS-C, SSI	
Cable length	mm	200, 500	200. 500	
Electric connection		200,000	cable length/pin connection/connector	
Modular system	Page	Sterilization information	Notes	
EC motor			¹ maxon controllers require a resolution of	
ECX SPEED 13 M	201-204	135°C Typically 1000 autoclave cycles	at least 16 counts per turn and commutation signals.	
			at least to counts per turn and commutation signals.	
ECX SPEED 13 L	205-208	Sterilization with steam Temperature +134 ±4 Compression pressure up to 2.3 I Rel. humidity 100 Cycle length 18 minut The connector is not sterilizable and needs to be removed first.	 ² H1, index and angle zero are aligned with angle commutation zero (see p. 66). °C °C °C 	

Further technical details can be found in the product information in the online shop under Downloads.