ENX 19 EASY INT Encoder ⌀19 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	-1.4 (integrated into motor)	-1.4 (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

Specifications		EASY incremental differential	EASY Absolute
Supply voltage V_{cc}	V	5 ±0.5	5 ±0.5
Typical current draw	mA	22	22
Max. operating frequency	kHz	4000	
Max. Speed	rpm	200 000	200 000
Connector[2]		10-pin 2.54 mm multipoint connector (IEC/EN 60603-13 / DIN41651) cable AWG 26	without connector

EASY incremental differential:

Pin	1		not connected
Pin	2	(black)	V_{cc}
Pin	3	(brown)	GND
Pin	4		not connected
Pin	5	(red)	channel $\overline{A}$
Pin	6	(orange)	channel A
Pin	7	(yellow)	channel $\overline{B}$
Pin	8	(green)	channel B
Pin	9	(blue)	channel $\overline{I}$
Pin	10	(violet)	channel I

Output signal: EIA-Standard RS 422
Output current per channel: ± 20 mA

EASY Absolute:

cable AWG 26
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]		1…1024	
Signalprotokoll			BiSS-C, SSI
Cable length	mm	200, 500	200, 500
Electric connection			cable length/pin connection/connector

Modular system	Page
EC motor	
ECX SPEED 19 M	217–220
ECX SPEED 19 L	221–224

Sterilization information

[135°C / ⌇⌇⌇] Typically 1000 autoclave cycles

Sterilization with steam
Temperature	+134 ± 4°C
Compression pressure up to	2.3 bar
Rel. humidity	100%
Cycle length	18 minutes

The connector is not sterilizable and needs to be removed first.

Notes

[1] maxon controllers require a resolution of at least 16 counts per turn and commutation signals.
[2] H1, index and angle zero are aligned with angle commutation zero (see p. 66).

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