ENX 10 EASY / QUAD Encoder ∅10 mm, 1...1024 CPT

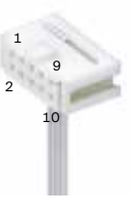
Key Data		EASY Incremental Differential	QUAD Incremental
Number of channels		3	2
Max. counts per turn		1024	1
Encoder length L[4]	mm	8.5	9.0
Ambient temperature	°C	-40 ... +100	-40 ... +100
Weight	g	<5	<5

Selection criteria	EASY Incremental Differential	QUAD Incremental
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	QUAD Incremental
Supply voltage Vcc	V	5 ±0.5	3.0 – 24
Typical current draw	mA	22	5.5
Max. operating frequency	kHz	1600	2
Max. Speed	rpm	30000	30000
Connector		10-pin 1.27 mm multipoint connector e.g. Samtec FFSD series	

Pin 1 Do not connect[1] (BiSS-C Data)
Pin 2 V_{CC}
Pin 3 GND
Pin 4 Do not connect[1] (BiSS-C CLK)
Pin 5 Channel $\overline{A}$
Pin 6 Channel A
Pin 7 Channel $\overline{B}$
Pin 8 Channel B
Pin 9 Channel $\overline{I}$
Pin 10 Channel I
Output signal: EIA-Standard RS 422
Output current per channel: ± 20 mA



Configuration		EASY Incremental Differential	QUAD Incremental
Counts per turn[2]		1 ... 1024	1
Electrical connection		Flat band cable / flexible cable FFC[3]	Connector 6-pin, 10-pin
Cable length	mm	50, 100, 150, 200, 300, 500, 1000 / FFC[3]: 138 mm	50, 100, 150, 200, 300, 500, 1000
Alignment of cable outlet in relation to motor flange	°	15	15

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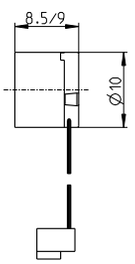
maxon DC motor		
DCX 10 S	EASY, QUAD	87
DCX 10 L	EASY, QUAD	88
DCX 12 S	EASY, QUAD	89
DCX 12 L	EASY, QUAD	90
DCX 14 L	EASY, QUAD	91–92
DCX 16 S	EASY, QUAD	93–94
DCX 16 L	EASY, QUAD	95–96
DCX 19 S	EASY, QUAD	97–98
DCX 22 S	EASY, QUAD	99–100
DCX 22 L	EASY, QUAD	101–102
DCX 26 L	EASY, QUAD	103–104
DCX 32 L	EASY, QUAD	105
DCX 35 L	EASY, QUAD	106
DC-max 16 S	EASY, QUAD	109–110
DC-max 22 S	EASY, QUAD	111–112
DC-max 26 S	QUAD	113–114

Dimensions Standard Configuration M 1:1



Notes

[1] Applying voltage to these pins can destroy the encoder.
[2] maxon controllers require a resolution of at least 16 counts per turn.
[3] FFC cable: 0.5 mm pitch, possible matching connector Molex 52745-1097; adapter 506579 required for maxon controllers.
[4] For attachment to DCX motors: plus 2-4 mm thick intermediate plate.

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