

# ENX 22 EMT Encoder $\varnothing 22$ mm, 65 536 turns, Multi Turn 131 072 steps, Single Turn

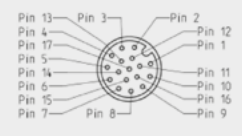
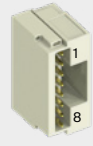


Key data		EMT absolute differential	
Multi-turn: max. no. of turns		65 536	
Multi-turn: resolution	bits	16	
Single-turn: steps per turns		131 072	
Single-turn: resolution	bits	17	
Encoder length L <sup>1</sup>	mm	22.7	
Ambient temperature	°C	-40...+105	
Weight	g	25	

Selection criteria		EMT absolute differential	
Multi-turn detection		■	
Detection of speed and rotation direction		■	
Speed and position control		■	
Compact and robust design		■	
High resolution		■	
Economical		▲	

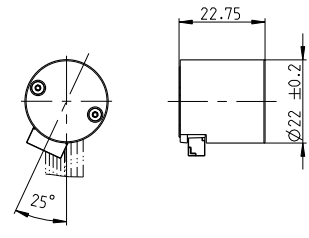
■ suitable ▲ suitable to a limited extent ● not suitable

Specifications	EMT for DCX, EC-4pole and EC-i		EMT integrated into IDX		
Supply voltage V <sub>CC</sub>	V	5 ± 0.5		5 ± 0.5	
Typical current draw	mA	90		90	
Max. speed	rpm	12 000		12 000	
Data encoding		Binary		Binary	
Min. clock frequency CLK	MHz	BiSS-C: 0.08	SSI: 0.3	BiSS-C: 0.08	SSI: 0.3
Max. clock frequency CLK	MHz	BiSS-C: 5	SSI: 1	BiSS-C: 5	SSI: 1
Timeout	µs	BiSS-C: 18	SSI: 7	BiSS-C: 18	SSI: 7
Setup time after Power On	s	Max. 0.1		Max. 0.1	
Moment of inertia of pulse disk	gmm <sup>2</sup>	≤ 1.55		≤ 1.55	
Plug manufacturer		Pin 1 GND		Pin 1 GND	
Plug type no. BM08B-NSHSS-TBT		Pin 2 do not connect		Pin 2 Motor NTC	
Matching connector type no. NSHR-08V-S		Pin 3 do not connect		Pin 3 +V <sub>CC</sub>	
		Pin 4 Data+ / SLO+		Pin 9 Motor NTC	
		Pin 5 Data- / SLO-		Pin 11 Data- / SLO-	
		Pin 6 CLK- / MA-		Pin 12 Data+ / SLO+	
		Pin 7 CLK+ / MA+		Pin 13 CLK+ / MA+	
		Pin 8 V <sub>CC</sub>		Pin 14 CLK- / MA-	
		Output signals: EIA standard RS422		Other pins not connected	
		Output current per channel: ±20 mA		Output signals: EIA standard RS422	
				Output current per channel: ±20 mA	



Configuration	EMT absolute differential	
Signal protocol	BiSS-C, SSI	

maxon modular system	Page	Dimensions of standard configuration	M 1:2	Additional information
<b>DC motor</b>				<sup>1</sup> The length shown here refers to the encoder. An additional intermediate plate is required for motor mounting. For more detailed information, see the combined dimensional drawing.
DCX 22	109-112			
DCX 26 L	113-114			
DCX 32 L	115			
DCX 35 L	116			
<b>EC motor</b>				EC motors: The angle value 0 is calibrated to the commutation phase of coil 1 (equates to Hall signal 1 for motors with Hall sensors, block commutation), see p. 64.
IDX 56	245-247			
IDX 70	248-250			
EC-4pole 22	287-288			
EC-4pole 30	289/291			
EC-i 30	298-301			
EC-i 40	302-307			
EC-i 52	308-309			



Connecting cable 300 mm for EMT to EPOS4 **708590**

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