

ENX 22 EMT Encoder Ø22 mm, 65 536 turns, Multi Turn
131072 steps, Single Turn



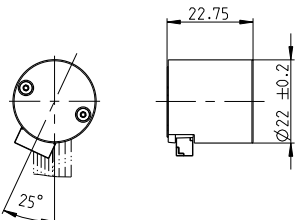
Key data		EMT absolute differential	
Multi-turn: max. no. of turns		65536	
Multi-turn: resolution	bits	16	
Single-turn: steps per turns		131072	
Single-turn: resolution	bits	17	
Encoder length L ¹	mm	22.7	
Ambient temperature	°C	-40...+105	
Weight	g	25	

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_{CC}	V 5 $\pm$ 0.5	5 $\pm$ 0.5
Typical current draw	mA 90	90
Max. speed	rpm 12000	12000
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	μ s 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	gcm ² $\leq$ 1.55	$\leq$ 1.55
Plug manufacturer JST	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_{CC}
	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_{CC}	Pin 14 CLK- / MA-
	Output signals: EIA standard RS422	Other pins not connected
	Output current per channel: $\pm$ 20 mA	Output signals: EIA standard RS422
		Output current per channel: $\pm$ 20 mA

Configuration	EMT absolute differential	
Signal protocol	BiSS-C, SSI	

Modular system	Page	Dimensions of standard configuration	M 1:2	Additional information
DC motor				¹ 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	111-114			
DCX 26 L	115-116			
DCX 32 L	117			
DCX 35 L	118			
EC motor				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. 66. Ordering information: For motors that cannot be configured online, the part numbers 711113 (BiSS-C) and 711112 (SSI) must be used when ordering.
IDX 56	249-251			
IDX 70	252-254			
EC-4pole 22	291-292			
EC-4pole 30	293/295			
EC-i 30	302-305			
EC-i 40	306-311			
EC-i 52	312-313			
ECX PRIME 22 L	239			

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

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