

ENX 19 EASY INT Encoder \varnothing 19 mm, 1...1024 CPT / 4096 steps, Single Turn

Sterilizable, integrated into motor



ENX

| 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...100 | -40...100 |
| 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 ³ | EASY Absolute |
|--------------------------|---|--|
| Supply voltage Vcc | 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 |
| | Pin 1 Not connected Pin 2 (black) V _{CC} Pin 3 (brown) GND Pin 4 Not connected Pin 5 (red) Channel \bar{A} Pin 6 (orange) Channel A Pin 7 (yellow) Channel \bar{B} Pin 8 (green) Channel B Pin 9 (blue) Channel \bar{I} Pin 10 (violet) Channel I | cable AWG 26 green Data black V _{CC} brown GND yellow CLK |
| | Output signal: EIA-Standard RS 422 Output current per channel: ± 20 mA | 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 |

| maxon Modular System | Page | Sterilization information | Notes |
|----------------------|---------|--|---|
| maxon EC motor | | | |
| ECX SPEED 19 M | 203-206 | 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 | 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. 56). |
| ECX SPEED 19 L | 207-210 | | |
| | | The connector is not sterilizable and needs to be removed first. | |

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