

|                                    | Incremental   |             |             |                                   |                      |             |             |             |             |             |             |
|------------------------------------|---|-------------|-------------|-----------------------------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                    | ROD 426   | ROD 466     | ROD 436     | ROD 486                           |                      |             |             |             |             |             |             |
| Incremental signals                | □□TTL   |             | □□HTL       | ~ 1 V <sub>PP</sub> <sup>1)</sup> |                      |             |             |             |             |             |             |
| Line counts*                       | 50  | 100         | 150         | 200                               | 250                  | 360         | <b>500</b>  | 512         | 720         | -           |             |
|                                    | <b>1000</b>   | <b>1024</b> | <b>1250</b> | 1500                              | 1800                 | <b>2000</b> | <b>2048</b> | <b>2500</b> | <b>3600</b> | <b>4096</b> | <b>5000</b> |
|                                    | 6000 <sup>2)</sup> 8192 <sup>2)</sup> 9000 <sup>2)</sup> 10000 <sup>2)</sup>  |             |             |                                   |                      |             |             | -           |             |             |             |
| Cutoff frequency -3 dB             | -   |             |             |                                   |                      |             |             |             |             | ≥ 180 kHz   |             |
| Scanning frequency                 | ≤ 300 kHz/≤ 150 kHz <sup>2)</sup>   |             |             |                                   |                      |             |             |             |             | -           |             |
| Edge separation a                  | ≥ 0.39 μs/≥ 0.25 μs <sup>2)</sup>   |             |             |                                   |                      |             |             |             |             | -           |             |
| System accuracy                    | 1/20 of grating period  |             |             |                                   |                      |             |             |             |             |             |             |
| Power supply                       | 5 V ± 10 %  |             | 10 to 30 V  |                                   | 10 to 30 V           |             | 5 V ± 10 %  |             |             |             |             |
| Current consumption without load   | 120 mA  |             | 100 mA      |                                   | 150 mA               |             | 120 mA      |             |             |             |             |
| Electrical connection*             | <ul style="list-style-type: none"> <li>• <b>Flange socket</b> M23, radial and axial</li> <li>• <b>Cable 1 m/5 m</b>, with or <b>without coupling</b> M23</li> </ul> |             |             |                                   |                      |             |             |             |             |             |             |
| Shaft                              | Solid shaft D = 6 mm  |             |             |                                   |                      |             |             |             |             |             |             |
| Mech. permissible speed n          | ≤ 16000 min <sup>-1</sup>   |             |             |                                   |                      |             |             |             |             |             |             |
| Starting torque                    | ≤ 0.01 Nm (at 20 °C)  |             |             |                                   |                      |             |             |             |             |             |             |
| Moment of inertia of rotor         | ≤ 2.7 · 10 <sup>-6</sup> kgm <sup>2</sup>   |             |             |                                   |                      |             |             |             |             |             |             |
| Shaft load <sup>3)</sup>           | Axial 10 N/radial 20 N at shaft end   |             |             |                                   |                      |             |             |             |             |             |             |
| Vibration 55 to 2000 Hz            | ≤ 300 m/s <sup>2</sup> (EN 60068-2-6)   |             |             |                                   |                      |             |             |             |             |             |             |
| Shock 6 ms/2 ms                    | ≤ 1000 m/s <sup>2</sup> /≤ 2000 m/s <sup>2</sup> (EN 60068-2-27)  |             |             |                                   |                      |             |             |             |             |             |             |
| Max. operating temp. <sup>4)</sup> | 100 °C  |             | 70 °C       |                                   | 100 °C <sup>5)</sup> |             |             |             |             |             |             |
| Min. operating temp.               | <i>Flange socket or fixed cable: -40 °C</i><br><i>For frequent flexing: -10 °C</i>  |             |             |                                   |                      |             |             |             |             |             |             |
| Protection EN 60529                | IP 67 at housing; IP 64 at shaft end <sup>6)</sup>  |             |             |                                   |                      |             |             |             |             |             |             |
| Weight                             | Approx. 0.3 kg  |             |             |                                   |                      |             |             |             |             |             |             |

**Bold:** These preferred versions are available on short notice

\* Please select when ordering

1) Restricted tolerances: Signal amplitude 0.8 to 1.2 V<sub>PP</sub>

2) Signal periods; generated through integrated 2-fold interpolation (TTL x 2)

3) Also see *Mechanical Design and Installation*

4) For the correlation between the operating temperature and the shaft speed or supply voltage, see *General Mechanical Information*

5) 80° for ERN 80 with 4096 or 5000 lines

6) IP 66 upon request