




| | Incremental | | | | | | | | | | |
|---|--|-------------|-------------|------|------|---|-------------|-------------|-------------|-------------|---|
| | ROD 420 | | | | | ROD 430 | | | | | ROD 480 |
| Interface |  | | | | |  | | | | |  1 V _{PP} ¹⁾ |
| Line counts* | 50 | 100 | 150 | 200 | 250 | 360 | 500 | 512 | 720 | - | |
| | 1000 | 1024 | 1250 | 1500 | 1800 | 2000 | 2048 | 2500 | 3600 | 4096 | 5000 |
| Reference mark | One | | | | | | | | | | |
| Cutoff frequency -3 dB | - | | | | | - | | | | | ≥ 180 kHz |
| Output frequency | ≤ 300 kHz | | | | | - | | | | | - |
| Edge separation <i>a</i> | ≥ 0.39 μs | | | | | - | | | | | - |
| System accuracy | 1/20 of grating period | | | | | | | | | | |
| Electrical connection* | <ul style="list-style-type: none"> • M23 flange socket, radial and axial • Cable (1 m/5 m) with or without M23 coupling | | | | | | | | | | |
| Supply voltage | DC 5 V ±0.5 V | | | | | DC 10 V to 30 V | | | | | DC 5 V ±0.5 V |
| Current consumption without load | ≤ 120 mA | | | | | ≤ 150 mA | | | | | ≤ 120 mA |
| Shaft | Solid shaft Ø 10 mm | | | | | | | | | | |
| Mech. permiss. shaft speed <i>n</i> | ≤ 16000 rpm | | | | | | | | | | |
| Starting torque (typical) | 0.01 Nm (at 20 °C) | | | | | | | | | | |
| Moment of inertia of rotor | ≤ 2.1 · 10 ⁻⁶ kgm ² | | | | | | | | | | |
| Shaft load ²⁾ | <i>Axial</i> : ≤ 40 N; <i>radial</i> : ≤ 60 N at shaft end | | | | | | | | | | |
| Vibration 55 Hz to 2000 Hz | ≤ 300 m/s ² (EN 60068-2-6) | | | | | | | | | | |
| Shock 6 ms | ≤ 2000 m/s ² (EN 60068-2-27) | | | | | | | | | | |
| Max. operating temp. ³⁾ | 100 °C (80 °C for ROD 480 with 4096 or 5000 lines) | | | | | | | | | | |
| Min. operating temp. | <i>Flange socket or fixed cable</i> : -40 °C <i>Moving cable</i> : -10 °C | | | | | | | | | | |
| Protection EN 60529 | IP67 at housing; IP64 at shaft inlet (IP66 upon request) | | | | | | | | | | |
| Mass | ≈ 0.3 kg | | | | | | | | | | |
| Valid for ID | 376840-xx | | | | | 376834-xx | | | | | 376880-xx ⁴⁾ |

Bold: This preferred version is available on short notice.

* Please select when ordering

¹⁾ Limited tolerances: signal amplitude: 0.8 V_{PP} to 1.2 V_{PP}

²⁾ See also *Mechanical design types and mounting*

³⁾ For the relationship of operating temperature to shaft speed and supply voltage, see *General mechanical information*

⁴⁾ Available with mechanical fault exclusion; for deviating specifications and special mounting information, see the *Fault Exclusion Customer Information* document