

Incremental encoders

Solid shaft with clamping or synchro flange, PTB approved

50 or 500 pulses per revolution

GPI0W



GPI0W with clamping flange

Features

- Encoder with solid shaft $\varnothing 10$ mm or $\varnothing 6$ mm
- PTB approved
- Clamping or synchro flange
- High rotation speed up to 10000 rpm
- Compact design
- High resistance to shock and vibrations

Technical data - electrical ratings

| | |
|-----------------------------|-------------------------------|
| Voltage supply | 10...30 VDC |
| Reverse polarity protection | Yes |
| Consumption w/o load | ≤ 30 mA (24 VDC) |
| Pulses per revolution | 50...500 |
| Reference signal | Zero pulse, width 90° |
| Sensing method | Optical |
| Output frequency | ≤ 150 kHz |
| Output signals | A 90° B, N |
| Output stages | Push-pull short-circuit proof |
| Interference immunity | DIN EN 61000-6-2 |
| Emitted interference | DIN EN 61000-6-4 |
| Approval | UL approval / E63076 |

Technical data - mechanical design

| | |
|-------------------------|------------------------------------------------------------------------------------------------------|
| Size (flange) | $\varnothing 58$ mm |
| Shaft type | $\varnothing 6$ mm solid shaft (synchro flange) $\varnothing 10$ mm solid shaft (clamping flange) |
| Admitted shaft load | ≤ 20 N axial ≤ 40 N radial |
| Flange | Clamping or synchro flange |
| Protection DIN EN 60529 | IP 54 |
| Operating speed | ≤ 10000 rpm |
| Starting torque | ≤ 0.015 Nm (+25 °C, IP 54) |
| Rotor moment of inertia | 14.5 gcm ² |
| Materials | Housing: aluminium Flange: aluminium |
| Operating temperature | -25...+85 °C |
| Relative humidity | 95 % non-condensing |
| Resistance | DIN EN 60068-2-6 Vibration 10 g, 16-2000 Hz DIN EN 60068-2-27 Shock 200 g, 6 ms |
| Connection | Cable 2 m Cable 5 m Cable 10 m |
| Weight approx. | 250 g |

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Part number

Clamping flange and synchro flange

GPI0W. **10**

Pulse number - see table

Connection

- 12 Cable 2 m, axial
- 14 Cable 5 m, axial
- 16 Cable 10 m, axial
- 22 Cable 2 m, radial
- 24 Cable 5 m, radial
- 26 Cable 10 m, radial

Voltage supply / signals

- 10 10...30 VDC / push-pull

Flange / Solid shaft

- 0 Clamping flange, mounting M3 / \varnothing 10 mm
- 1 Clamping flange, mounting M4 / \varnothing 10 mm
- 5 Synchro flange, mounting M4 / \varnothing 6 mm

Accessories

Mounting accessories

| | |
|----------|-------------------------------------------------------------------------------------------------|
| 10117669 | Eccentric fixing, single (Z 119.006) |
| 10141255 | Adaptor plate for clamping flange for modification into synchro flange (Z 119.013) |
| 10117667 | Mounting adaptor for encoders with synchro flange (Z 119.015) |
| 10125051 | Mounting adaptor for encoders with clamping flange (M3) (Z 119.017) |
| 11034088 | Adaptor plate for clamping flange, mounting by eccentric fixings (order separately) (Z 119.025) |
| 10158124 | Bearing flange for encoders with synchro flange (Z 119.035) |

Part number (pulse number)

39 (50) | 15 (500)

Example: part number 15 = 500 pulses.

Incremental encoders

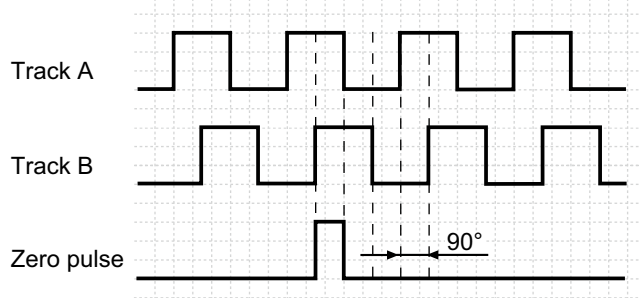
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Output signals

Clockwise rotating direction when looking at flange.



Terminal assignment

| Core colour | Assignment |
|-------------|----------------------|
| green | Track N (zero pulse) |
| blue | Track A |
| beige | Track B |
| black | GND (0 V) |
| brown | UB |

Trigger level

| Outputs | Push-pull circuit-proof |
|-------------------|-------------------------|
| Output level High | >UB -3 V (I = -20 mA) |
| Output level Low | <0.5 V (I = 20 mA) |
| Load High | <20 mA |
| Load Low | <20 mA |

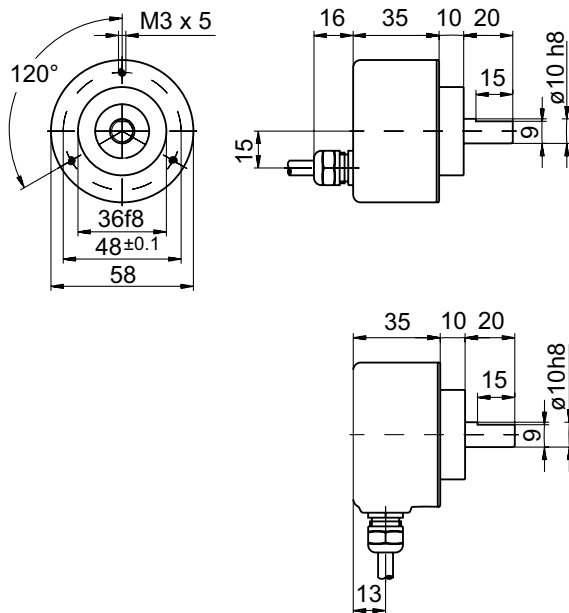
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Dimensions

Clamping flange



Synchro flange

