

# Incremental encoders

Shaft with clamping or synchro flange, PTB approved

Resolution 50 or 500 pulses

## GPI0W



GPI0W with clamping flange

### Features

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

### Technical data - electrical ratings

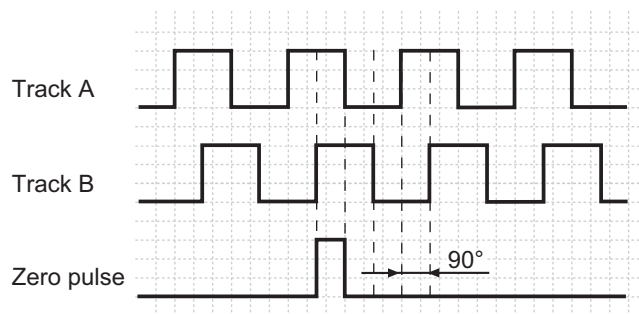
Voltage supply	10...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 30$ mA (24 VDC)
Resolution (steps/turn)	50...500
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 150$ kHz
Output signals	A $90^\circ$ B + N
Output circuit	Push-pull short-circuit proof
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	UL approval / E63076

### Technical data - mechanical design

Housing	$\varnothing 58$ mm
Shaft	$\varnothing 6$ mm (synchro flange) $\varnothing 10$ mm (clamping flange)
Flange	Clamping or synchro flange
Protection DIN EN 60529	IP 54
Operating speed	$\leq 10000$ rpm
Starting torque	$\leq 0.015$ Nm IP 54
Rotor moment of inertia	$14.5$ gcm <sup>2</sup>
Admitted shaft load	$\leq 20$ N axial $\leq 40$ N radial
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
Weight approx.	250 g
E-connection	Cable

### Output signals

Clockwise rotating direction when looking at flange.



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#### Part number

GPI0W.    10      

See part number (pulses)

E-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 / 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

#### Part number (pulses)

39 (50) | 15 (500)

Example: ordering key 15 = 500 pulses.

#### Accessories

##### Mounting accessories (page %S)

Z 119.006	Eccentric fixing, single
Z 119.013	Adaptor plate for clamping flange for modification into synchro flange
Z 119.015	Mounting adaptor for synchro flange
Z 119.017	Mounting angle for clamping flange
Z 119.025	Adaptor plate for clamping flange, mounting by eccentric fixings (order separately)
Z 119.035	Bearing flange for encoders with synchro flange

##### Terminal assignment

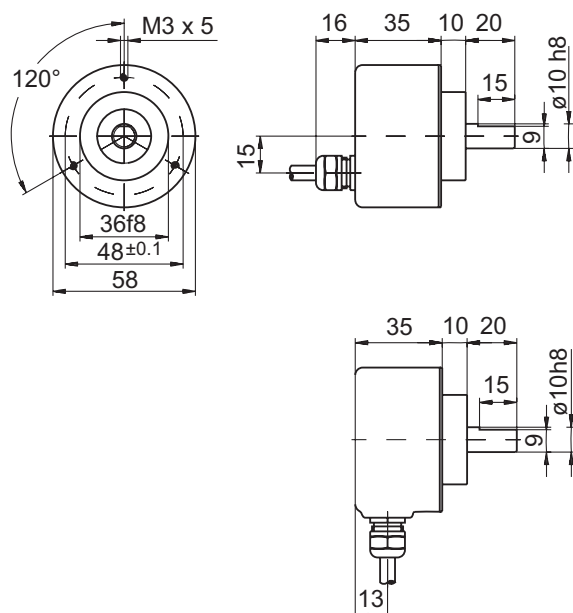
Core colour	Assignment
green	Track N (zero pulse)
blue	Track A
beige	Track B
black	GND (0 V)
brown	UB

##### 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

#### Dimensions

##### Clamping flange



##### Synchro flange

