

# Incremental encoders

## Incremental encoder, surface mount housing

1...120 pulses per revolution

### G 305



G 305 with single shaft

#### Features

- Low-cost encoder
- Optical sensing method
- Up to 120 pulses with 1 or 2 pulse tracks
- Surface mount housing for measuring wheel
- Shaft at one or both ends
- Versatile mounting options

#### Technical data - electrical ratings

Voltage supply	10...30 VDC
Consumption w/o load	≤40 mA
Pulses per revolution	5...120
Sensing method	Optical
Output frequency	≤10 kHz (1 track) ≤6 kHz (2 tracks)
Output signals	A or A 90° B
Output stages	Push-pull short-circuit proof

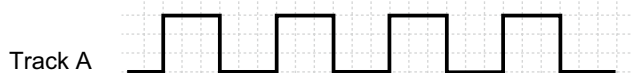
#### Technical data - mechanical design

Size (flange)	62.5 x 70 mm
Shaft type	∅7 mm solid shaft single / dual shaft
Admitted shaft load	≤5 N axial ≤10 N radial
Protection DIN EN 60529	IP 30 (with housing connector), IP 52 (with PG cable)
Operating speed	≤6000 rpm
Material	Housing: plastic, glass-fibre reinforced
Operating temperature	0...+60 °C
Relative humidity	95 % non-condensing
Connection	Connector M18, 5-pin Cable 2 m
Weight approx.	130 g

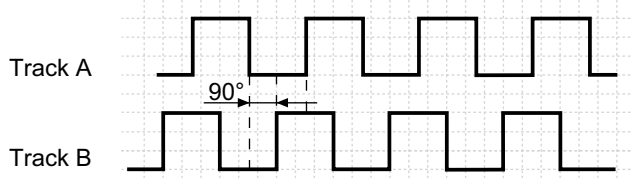
#### Output signals

Clockwise rotating direction when looking at flange.

For 1 track



For 2 tracks



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G 305

#### Part number

G 305.

Pulse number - see table

Voltage supply / signals

- 1 10...30 VDC / 1 track connector output
- 4 10...30 VDC / 1 track cable gland
- A 10...30 VDC / 2 tracks connector output
- D 10...30 VDC / 2 tracks cable gland

Connection / impulse track

- 0 Housing connector / 1 track
- 1 Housing connector / 2 tracks
- M Cable gland / 2 m cable / 1 track
- T Cable gland / 2 m cable / 2 tracks

Solid shaft

- 10 Single protruding
- 20 Dual protruding

Pulse tracks

- 0 1 track
- 2 2 tracks

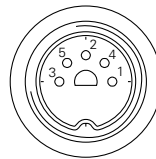
#### Accessories

##### Connectors and cables

11034148	Female connector M18, 5-pin, without cable (Z 127.001)
10126835	Female connector M18, 5-pin, 2 m cable (Z 127.002)
10126038	Female connector M18, 5-pin, 5 m cable (Z 127.004)
10129304	Female connector M18, 5-pin, 10 m cable (Z 127.006)

##### Terminal assignment

Connector	Cable colour	Assignment
Pin 1	brown	UB
Pin 2	blue	GND
Pin 3	black	Track A
Pin 4	beige	Track B (2 pulse tracks) (n.c. 1 pulse track)



#### Part number (pulses)

1 impulse track

08 (5)	10 (40)	13 (80)	A1 (5)	A3 (50)
11 (10)	03 (50)	20 (90)	A7 (25)	A4 (60)
01 (20)	04 (60)	06 (100)	A8 (30)	B1 (64)
12 (25)	18 (64)	07 (120)	A9 (40)	
02 (30)				

2 impulse tracks

More impulse numbers upon request.

Example: Order no. 08 = 5 impulse

#### Dimensions

