

Special Encoders & Sensors

Incremental encoder, surface mount housing

Resolution 1...120 pulses

G 305



G 305 with single shaft

Features

- Low-cost encoder
- Optical sensing
- 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 |
| Resolution (steps/turn) | 5...120 |
| Sensing method | Optical |
| Output frequency | ≤10 kHz (1 track) ≤6 kHz (2 tracks) |
| Output signals | A or A 90° B |
| Output circuit | Push-pull short-circuit proof |

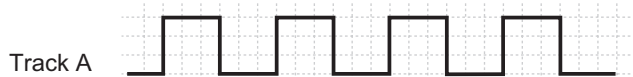
Technical data - mechanical design

| | |
|-------------------------|---|
| Housing | 62.5 x 70 mm |
| Shaft | ∅7 mm single / dual shaft |
| Protection DIN EN 60529 | IP 30 with housing connector IP 52 with PG cable |
| Operating speed | ≤6000 rpm |
| Admitted shaft load | ≤5 N axial ≤10 N radial |
| Material | Housing: plastic, glass-fibre reinforced |
| Operating temperature | 0...+60 °C |
| Relative humidity | 95 % non-condensing |
| Weight approx. | 130 g |
| E-connection | Connector or cable |

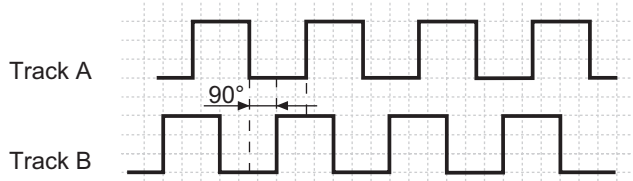
Output signals

Clockwise rotating direction when looking at flange.

For 1 track



For 2 tracks



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Part number

G 305.

See part number (pulses)

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

E- 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

Shaft

- 10 Single protruding
- 20 Dual protruding

Pulse tracks

- 0 1 track
- 2 2 tracks

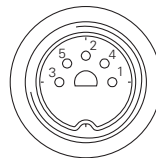
Accessories

Connectors and cables (page %S)

| | |
|-----------|---|
| Z 127.001 | Mating connector M18, 5-pin, less cable |
| Z 127.002 | Mating connector M18, 5-pin, 2 m cable |
| Z 127.004 | Mating connector M18, 5-pin, 5 m cable |
| Z 127.006 | Mating connector M18, 5-pin, 10 m cable |

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.

Dimensions

