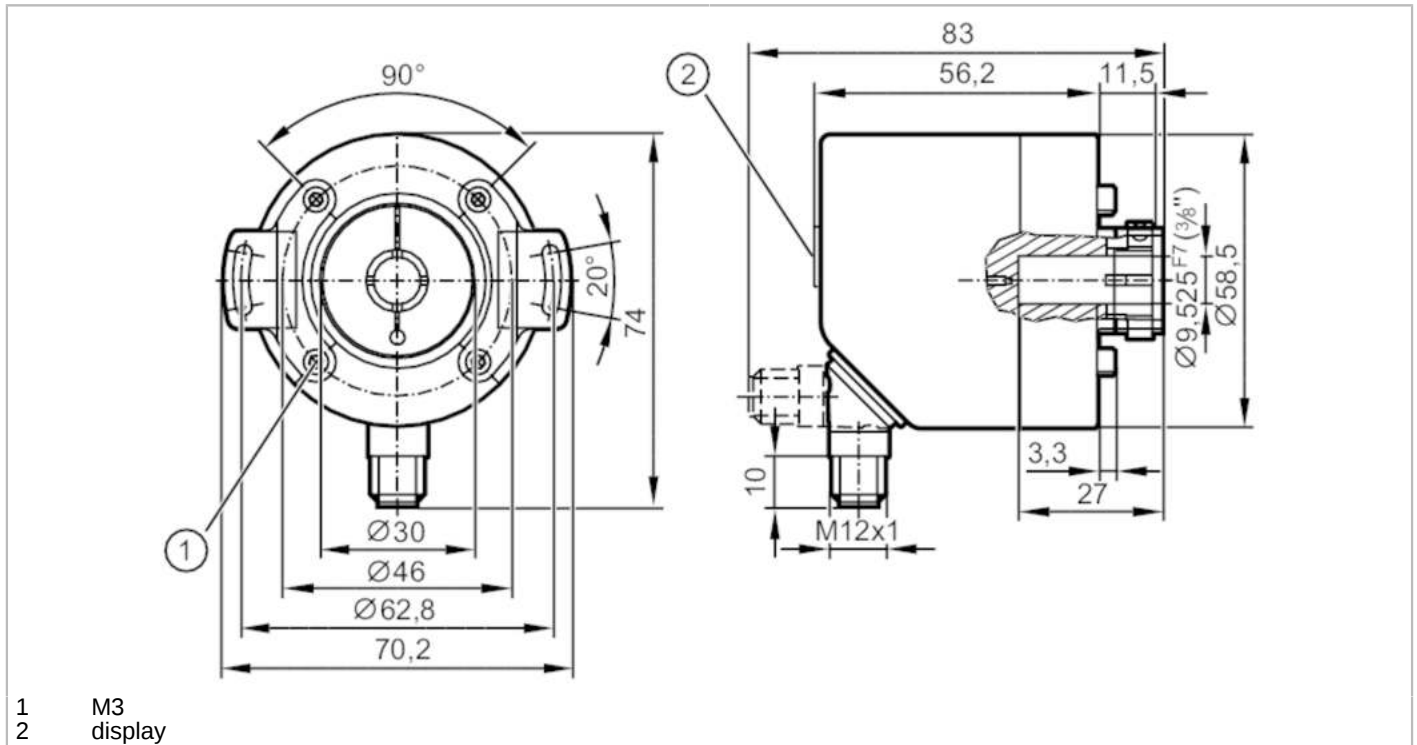


ROP523



Incremental encoder with hollow shaft and display

INCREMENTAL ENCODER PERFORMANCE LINE



- 1 M3
- 2 display



Product characteristics

| | |
|-------------------------|--|
| Resolution | 1...10000; (parameterisable; Factory setting: 1024) resolution |
| Communication interface | IO-Link |
| Shaft design | hollow shaft open to one side |
| Shaft diameter [mm] | 9.525 |

Application

| | |
|--------------------|---------------------------------|
| Function principle | incremental |
| Detection system | magnetic |
| Application | encoder; Speed monitor; counter |

Electrical data

| | |
|------------------------------------|--------------|
| Operating voltage [V] | 4.75...30 DC |
| Current consumption [mA] | < 350 |
| Protection class | III |
| Reverse polarity protection | yes |
| Max. revolution electrical [U/min] | 12000 |

Outputs

| | |
|------------------------------|------------------------------|
| Electrical design | HTL/TTL |
| Switching frequency [kHz] | 1000 |
| Factory setting | Output function: HTL (50 mA) |
| Short-circuit protection | yes |
| Phase difference A and B [°] | 90 |

Measuring/setting range

| | |
|------------|--|
| Resolution | 1...10000; (parameterisable; Factory setting: 1024) resolution |
|------------|--|

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| Speed monitor | | |
|-------------------------------------|---|------------------------------------|
| Set point SP | -9994...9999 U/min | -166.6...166.7 Hz |
| Reset point rP | -9999...9994 U/min | -166.7...166.6 Hz |
| Counter | | |
| Preset point | 1...9999 | |
| Accuracy / deviations | | |
| Accuracy | [°] | 0.1 |
| Software / programming | | |
| Parameter setting options | encoder; Resolution; direction of rotation; HTL; TTL; Speed monitor; Resolution | |
| Interfaces | | |
| Communication interface | IO-Link | |
| Transmission type | COM2 (38,4 kBaud) | |
| IO-Link revision | 1.1 | |
| SIO mode | yes | |
| Min. process cycle time | [ms] | 2.3 |
| Operating conditions | | |
| Ambient temperature | [°C] | -40...85 |
| Storage temperature | [°C] | -40...85 |
| Max. relative air humidity | [%] | 95; (condensation not permissible) |
| Protection | IP 65; (on the housing: IP 67; on the shaft: IP 65) | |
| Tests / approvals | | |
| Shock resistance | 100 g | |
| Vibration resistance | 20 g | |
| MTTF | [years] | 218 |
| Mechanical data | | |
| Weight | [g] | 486 |
| Dimensions | [mm] | Ø 58.5 / L = 69 |
| Materials | flange: aluminium; housing: stainless steel (1.4521 / 444); display window: PEI | |
| Max. revolution, mechanical [U/min] | 12000 | |
| Max. starting torque | [Nm] | 2 |
| Reference temperature torque | [°C] | 20 |
| Shaft design | hollow shaft open to one side | |
| Shaft diameter | [mm] | 9.525 |
| Shaft material | stainless steel | |
| Installation depth of shaft | [mm] | 27 |
| Max. axial shaft misalignment | [mm] | 0,5 |
| Displays / operating elements | | |
| Display | 10-segment display, red/green 4-digit parameterisable | |
| | 2 x LED, yellow | |
| | 5 x LED, green | |
| Accessories | | |
| Items supplied | Stator coupling: 2 | |

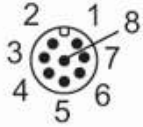


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Electrical connection

Connector: 1 x M12, radial, can also be used axially; coding: A; Moulded body: stainless steel (316 / 1.4401); Maximum cable length: 100 m; (IO-Link: max. 20 m)



IO-Link

| | |
|--------|----------------|
| 1 | L+ |
| 2 | not to be used |
| 3 | L- |
| 4 | IO-Link |
| 5 | not to be used |
| 6 | not to be used |
| 7 | not to be used |
| 8 | not to be used |
| Screen | plug |

encoder

| | |
|--------|--------------------|
| 1 | UB |
| 2 | A |
| 3 | GND |
| 4 | Z/O-Pulse (90 deg) |
| 5 | B |
| 6 | A- |
| 7 | B- |
| 8 | Z- |
| Screen | plug |

Preset counter

| | |
|--------|----------------|
| 1 | UB |
| 2 | IN1 |
| 3 | GND |
| 4 | not to be used |
| 5 | OUT1 |
| 6 | not to be used |
| 7 | not to be used |
| 8 | not to be used |
| Screen | plug |

Speed monitor

| | |
|--------|----------------|
| 1 | UB |
| 2 | OUT2 |
| 3 | GND |
| 4 | not to be used |
| 5 | OUT1 |
| 6 | OUT2- |
| 7 | OUT1- |
| 8 | not to be used |
| Screen | plug |



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Diagrams and graphs

Pulse diagram

