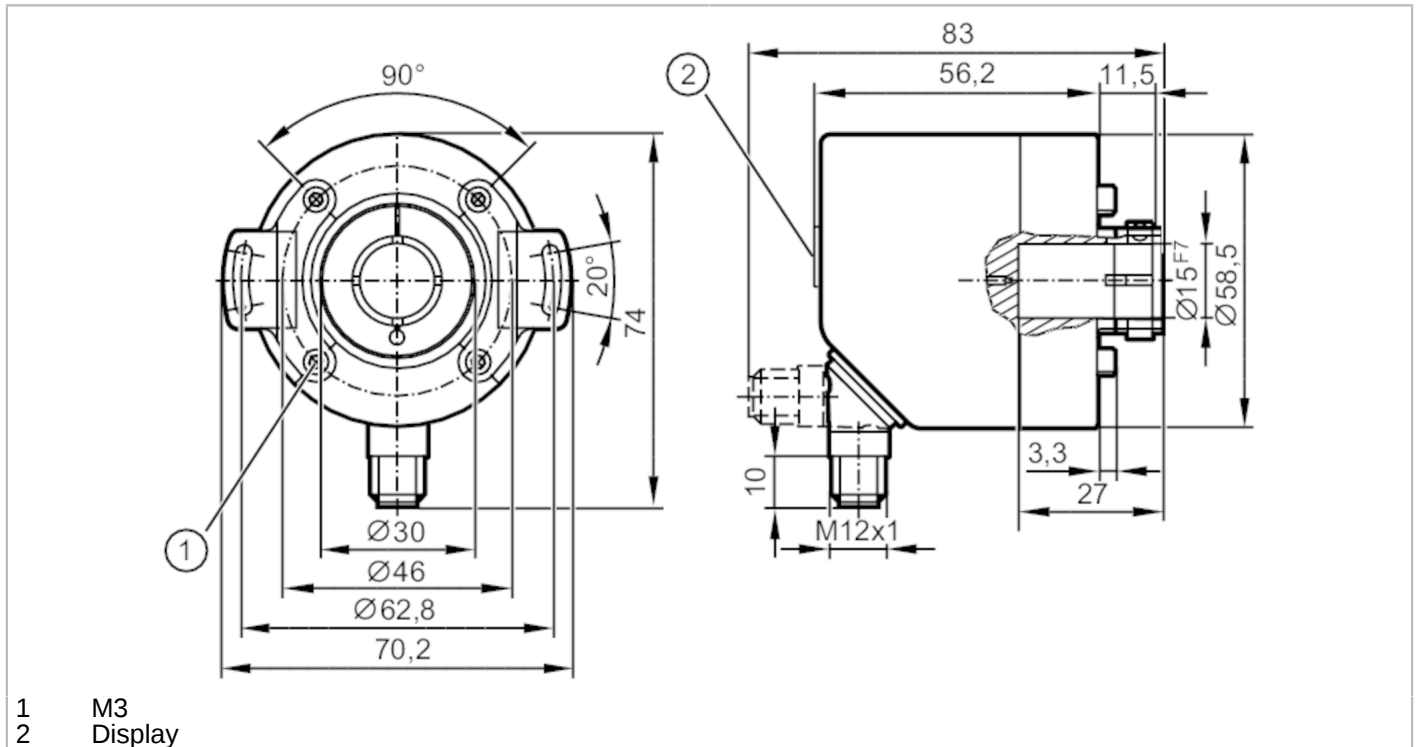


ROP522



Incremental encoder with hollow shaft and display

INCREMENTAL ENCODER PERFORMANCE LINE



| 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] | 15 |
| 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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INCREMENTAL ENCODER PERFORMANCE LINE

| Speed monitor | | |
|-------------------------------|--|------------------------------------|
| Set point SP | [U/min] | -9994...9999 |
| Set point SP | [Hz] | -166.6...166.7 |
| Reset point rP | [U/min] | -9999...9994 |
| Reset point rP | [Hz] | -166.7...166.6 |
| 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 | COM 2 | |
| 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; (IP 67: on the housing; IP 65: on the shaft) | |
| Tests / approvals | | |
| Shock resistance | | 100 g |
| Vibration resistance | | 20 g |
| MTTF | [years] | 218 |
| Mechanical data | | |
| Weight | [g] | 469.5 |
| Dimensions | [mm] | Ø 58.5 / L = 69 |
| Materials | flange: aluminium; housing: stainless steel (1.4521 / 444); plug: stainless steel (1.4401 / 316); 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] | 15 |
| Shaft material | stainless steel | |
| Installation depth of shaft | [mm] | 27 |
| Max. axial shaft misalignment | [mm] | 0,5 |

ROP522



Incremental encoder with hollow shaft and display

INCREMENTAL ENCODER PERFORMANCE LINE

| Displays / operating elements | |
|-------------------------------|---|
| Display | 10-segment display, red/ green 4-digit parameterisable |
| | 2 x LED, yellow |
| | 5 x LED, green |

| Accessories | |
|------------------------|--------------------|
| Accessories (supplied) | Stator coupling: 2 |

| Electrical connection | |
|-----------------------|----------------|
| 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/0-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 |



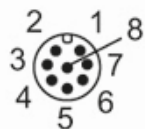
Incremental encoder with hollow shaft and display

INCREMENTAL ENCODER PERFORMANCE LINE

Speed monitor

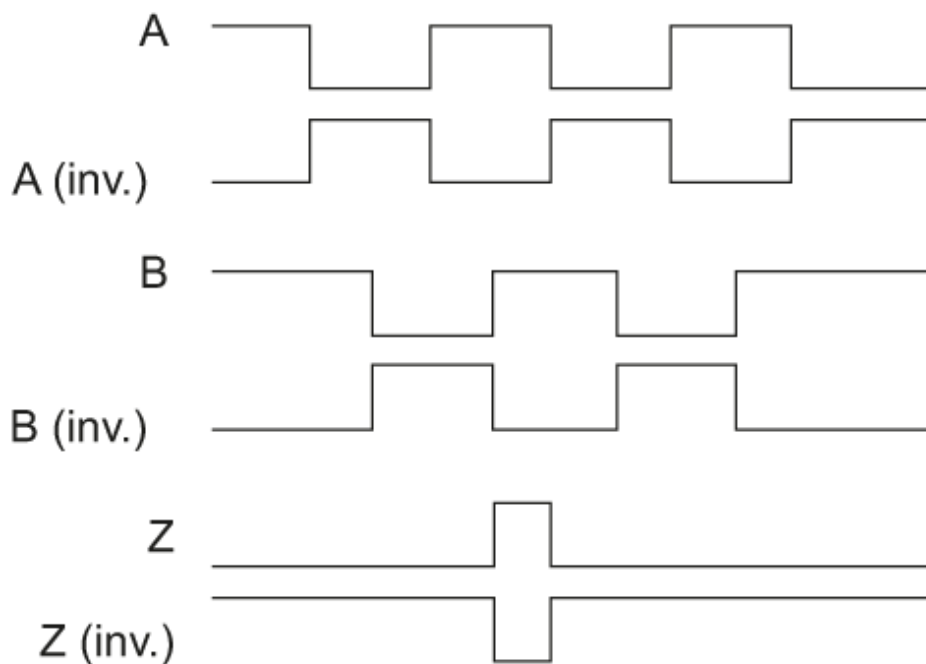
| | |
|--------|----------------|
| 1 | UB |
| 2 | OUT2 |
| 3 | GND |
| 4 | not to be used |
| 5 | OUT1 |
| 6 | OUT2- |
| 7 | OUT1- |
| 8 | not to be used |
| Screen | plug |

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



Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)