# RU1182

## Incremental encoder with solid shaft

RU-1024-I05/S1E

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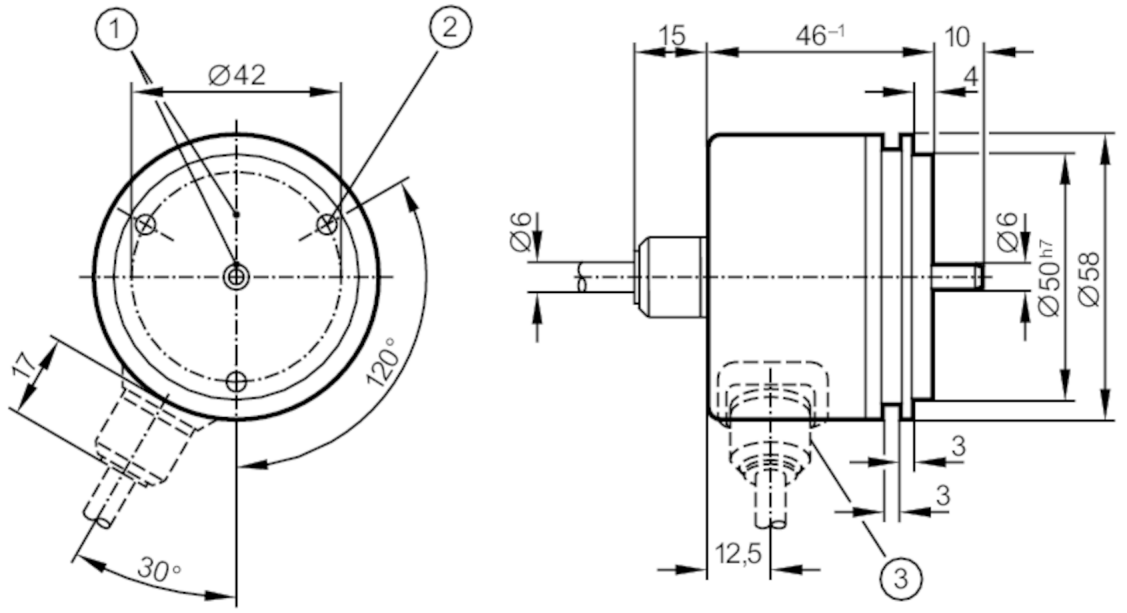


1 reference mark
2 M4 Depth 5 mm

| | | |
|---|---|---|
| **Product characteristics** | | |
| Resolution | | 2500 resolution |
| Shaft design | | solid shaft |
| Shaft diameter | [mm] | 6 |
| **Electrical data** | | |
| Operating voltage tolerance | [%] | 10 |
| Operating voltage | [V] | 5 DC |
| Current consumption | [mA] | 150 |
| **Outputs** | | |
| Electrical design | | TTL |
| Max. current load per output | [mA] | 20 |
| Switching frequency | [kHz] | 300 |
| Phase difference A and B | [°] | 90 |
| **Measuring/setting range** | | |
| Resolution | | 2500 resolution |
| **Operating conditions** | | |
| Ambient temperature | [°C] | -30...100 |
| Note on ambient temperature | | for firmly laid cable: -30 °C |
| Storage temperature | [°C] | -30...100 |
| Max. relative air humidity | [%] | 98 |
| Protection | | IP 66 |

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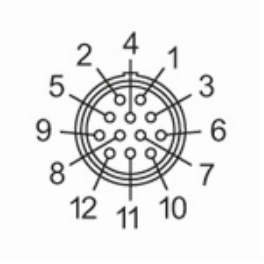
| Tests / approvals | | |
|---|---|---|
| Shock resistance | | 100 g (6 ms) |
| Vibration resistance | | 10 g (55...2000 Hz) |

| Mechanical data | | |
|---|---|---|
| Dimensions | [mm] | Ø 58 / L = 46 |
| Materials | | aluminium |
| Max. revolution, mechanical | [U/min] | 12000 |
| Max. starting torque | [Nm] | 1 |
| Reference temperature torque | [°C] | 20 |
| Shaft design | | solid shaft |
| Shaft diameter | [mm] | 6 |
| Shaft material | | steel (1.4104) |
| Max. shaft load axial (at the shaft end) | [N] | 10 |
| Max. shaft load radial (at the shaft end) | [N] | 20 |
| Fixing flange | | synchro-flange |

## Electrical connection

Cable: 1 m, PUR; axial

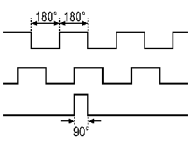
Connector: 1 x Bajonett (ifm 1000.2)




| | |
|---|---|
| pin 1 | A |
| pin 2 | A inverted |
| pin 3 | B |
| pin 4 | B inverted |
| pin 5 | L+ sensor |
| pin 6 | 0 index |
| pin 7 | 0 index inverted |
| pin 9 | +5V (Up) |
| pin 10 | 0V sensor |
| pin 11 | housing |
| pin 12 | 0V |

## Diagrams and graphs

Pulse diagram




direction of rotation clockwise (looking at the shaft)