

# RO1368



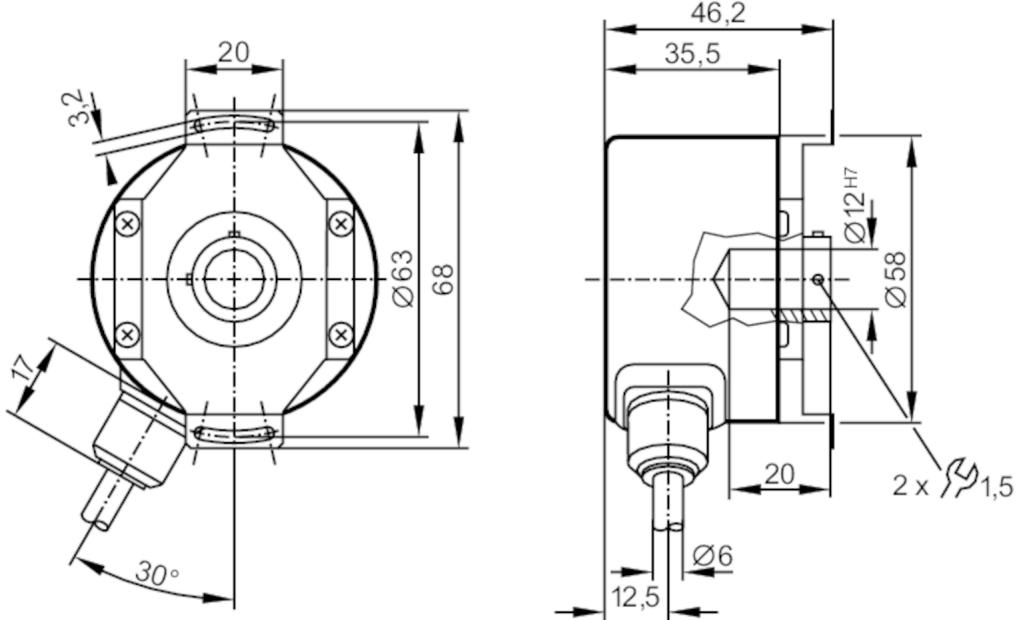
## Incremental encoder with hollow shaft

RO-5000-I05/N1U

Article no longer available - archive entry

Alternative articles: RO3501

When selecting an alternative article and accessories please note that technical data may differ!



### Product characteristics

|                     |                               |
|---------------------|-------------------------------|
| Resolution          | 5000 resolution               |
| Shaft design        | hollow shaft open to one side |
| Shaft diameter [mm] | 12                            |

### Application

|                    |             |
|--------------------|-------------|
| Function principle | incremental |
|--------------------|-------------|

### 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 | 5000 resolution |
|------------|-----------------|

### Operating conditions

|                             |                               |
|-----------------------------|-------------------------------|
| Ambient temperature [°C]    | -30...100                     |
| Note on ambient temperature | for firmly laid cable: -30 °C |

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## Incremental encoder with hollow shaft

RO-5000-I05/N1U

|                            |      |           |
|----------------------------|------|-----------|
| Storage temperature        | [°C] | -30...100 |
| Max. relative air humidity | [%]  | 98        |
| Protection                 |      | IP 64     |

### Tests / approvals

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

### Mechanical data

|                               |         |   |
|-------------------------------|---------|---|
| Weight                        | [g]     | 445   |
| Dimensions                    | [mm]    | Ø 58 / L = 35.5                             |
| Materials                     |         | aluminium                                   |
| Max. revolution, mechanical   | [U/min] | 12000                                       |
| Max. starting torque          | [Nm]    | 1   |
| Reference temperature torque  | [°C]    | 20  |
| Shaft design                  |         | hollow shaft open to one side               |
| Shaft diameter                | [mm]    | 12  |
| Shaft fit                     |         | H7  |
| Shaft material                |         | stainless steel                             |
| Installation depth of shaft   | [mm]    | 10  |
| Max. axial shaft misalignment | [mm]    | 1; (max. radial shaft alignment: ± 0,05 mm) |

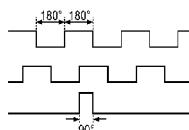
### Electrical connection

Cable: 1 m, PUR; radial

|             |                  |
|-------------|------------------|
| brown       | A                |
| green       | A inverted       |
| grey        | B                |
| pink        | B inverted       |
| red         | 0 index          |
| black       | 0 index inverted |
| blue        | L+ sensor        |
| white       | 0V sensor        |
| brown/green | L+ (Up)          |
| white/green | 0V (Un)          |
| lilac       | failure inverted |
| screen      | housing          |

### Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)