

# RO6346

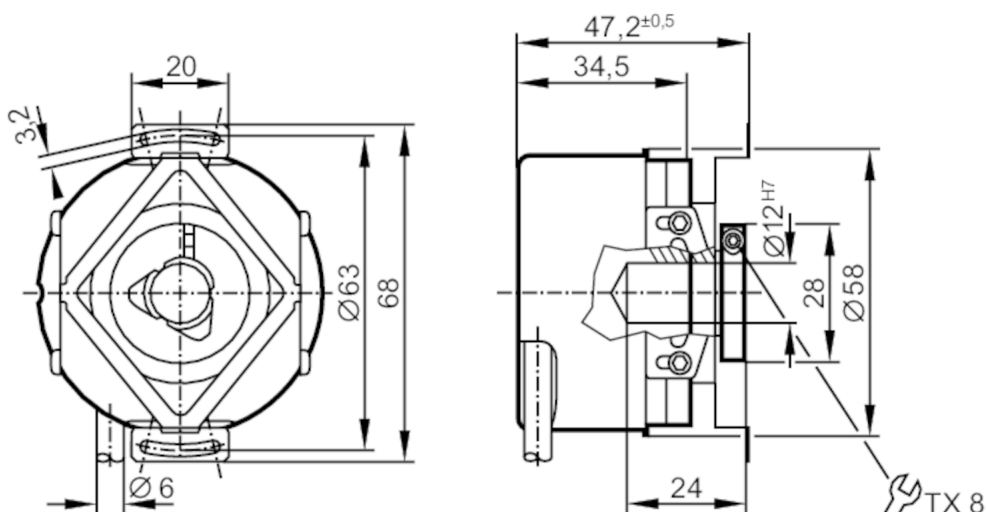
## Incremental encoder with hollow shaft

RO-2048-I24/N1U



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/ROP521 + E12402



### Application

Function principle incremental

### Electrical data

Operating voltage [V] 10...30 DC  
Current consumption [mA] < 150

### Outputs

Electrical design HTL  
Max. current load per output [mA] 50  
Switching frequency [kHz] 300  
Type of short-circuit protection < 60 s  
Phase difference A und B [°] 90

### Measuring/setting range

Resolution 2048 resolution

### Operating conditions

Ambient temperature [°C] -30...85  
Note on ambient temperature for firmly laid cable: -30 °C  
Max. relative air humidity [%] 98  
Protection IP 64; (on the housing: IP 67; on the shaft: IP 64)

### Tests / approvals

Shock resistance 200 g  
Vibration resistance 30 g  
MTTF [years] 190

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| Mechanical data               |         |                                             |
|-------------------------------|---------|---------------------------------------------|
| Weight                        | [g]     | 450                                         |
| 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) |

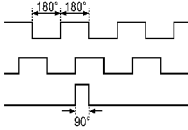
| Remarks |                      |
|---------|----------------------|
| Notes   | discontinued article |

### Electrical connection

Cable: 1 m, PUR; Maximum cable length: 300 m; radial, can also be used axially

|             |                  |
|-------------|------------------|
| brown       | A                |
| green       | A inverted       |
| grey        | B                |
| pink        | B inverted       |
| red         | 0 index          |
| black       | 0 index inverted |
| blue        | 10...30V sensor  |
| white       | 0V sensor        |
| brown/green | 10...30V (Up)    |
| white/green | 0V (Un)          |
| screen      | housing          |
| lilac       | failure inverted |

### Diagrams and graphs

|               |                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------|
| Pulse diagram |  <p>Output A<br/>Output B<br/>0 index</p> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------|

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