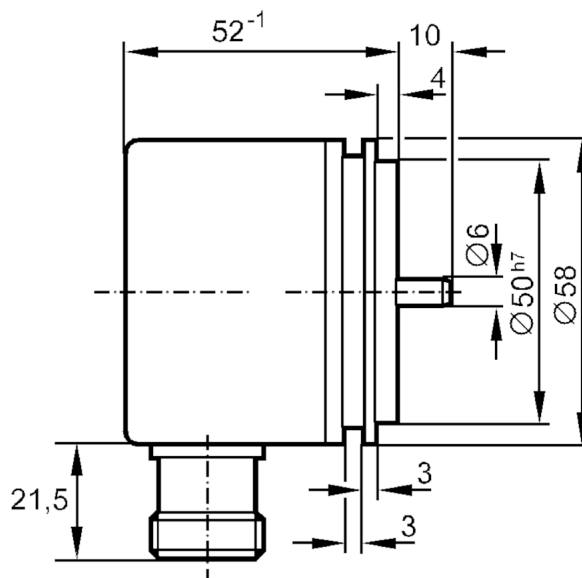




## Incremental encoder with solid shaft

RU-1000-I24/K

Article no longer available - archive entry



- 1 reference mark
- 2 M4 Depth 5 mm



### Product characteristics

|                     |                 |
|---------------------|-----------------|
| Resolution          | 1000 resolution |
| Shaft design        | solid shaft     |
| Shaft diameter [mm] | 6               |

### 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 and B [°]      | 90     |

### Measuring/setting range

|            |                 |
|------------|-----------------|
| Resolution | 1000 resolution |
|------------|-----------------|

### Operating conditions

|                          |           |
|--------------------------|-----------|
| Ambient temperature [°C] | -30...85  |
| Storage temperature [°C] | -30...100 |



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|                            |     |       |
|----------------------------|-----|-------|
| Max. relative air humidity | [%] | 98    |
| Protection                 |     | IP 64 |

Tests / approvals

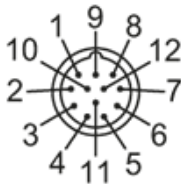
|                      |  |                     |
|----------------------|--|---------------------|
| Shock resistance     |  | 100 g (6 ms)        |
| Vibration resistance |  | 15 g (55...2000 Hz) |

Mechanical data

|                                           |         |                |
|-------------------------------------------|---------|----------------|
| Weight                                    | [g]     | 420            |
| Dimensions                                | [mm]    | Ø 58 / L = 62  |
| 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

Connector: 1 x M23 (ifm 1001.4), radial



|        |                  |
|--------|------------------|
| 1      | B inverted       |
| 2      | L+ sensor        |
| 3      | 0 index          |
| 4      | 0 index inverted |
| 5      | A                |
| 6      | A inverted       |
| screen | housing          |
| 7      | failure inverted |
| 8      | B                |
| 9      | n.c.             |
| 10     | 0V (Un)          |
| 11     | 0V sensor        |
| 12     | L+               |



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### Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)