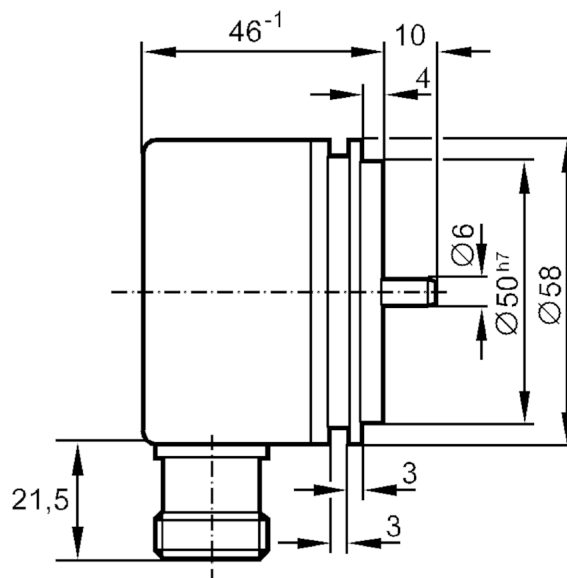
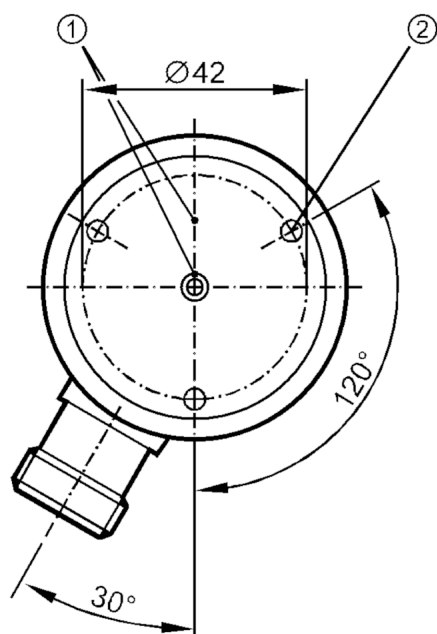




## Incremental encoder with solid shaft

RU-4096-I05/K

Article no longer available - archive entry



- 1 reference mark
- 2 M4 Depth 5 mm



### Product characteristics

|                     |                 |
|---------------------|-----------------|
| Resolution          | 4096 resolution |
| Shaft design        | solid shaft     |
| Shaft diameter [mm] | 6               |

### 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 | 4096 resolution |
|------------|-----------------|

### Operating conditions

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



## Incremental encoder with solid shaft

RU-4096-I05/K

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

### Tests / approvals

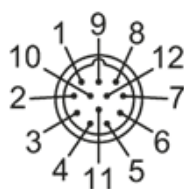
|                      |  |                     |
|----------------------|--|---------------------|
| Shock resistance     |  | 100 g (6 ms)        |
| Vibration resistance |  | 15 g (55...2000 Hz) |

### Mechanical data

|                                           |         |                |
|-------------------------------------------|---------|----------------|
| Weight                                    | [g]     | 422.4          |
| Dimensions                                | [mm]    | Ø 58 / L = 56  |
| 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



|                  |                  |
|------------------|------------------|
| pink (1)         | B inverted       |
| blue (2)         | L+ sensor        |
| red (3)          | 0 index          |
| black (4)        | 0 index inverted |
| brown (5)        | A                |
| green (6)        | A inverted       |
| lilac (7)        | failure inverted |
| grey (8)         | B                |
| pin 9            | n.c.             |
| white/green (10) | 0V               |
| white (11)       | 0V sensor        |
| brown/green (12) | L+               |
| Screen           | housing          |

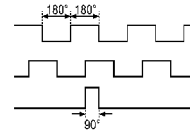


## Incremental encoder with solid shaft

RU-4096-I05/K

### Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)