

# RA1007

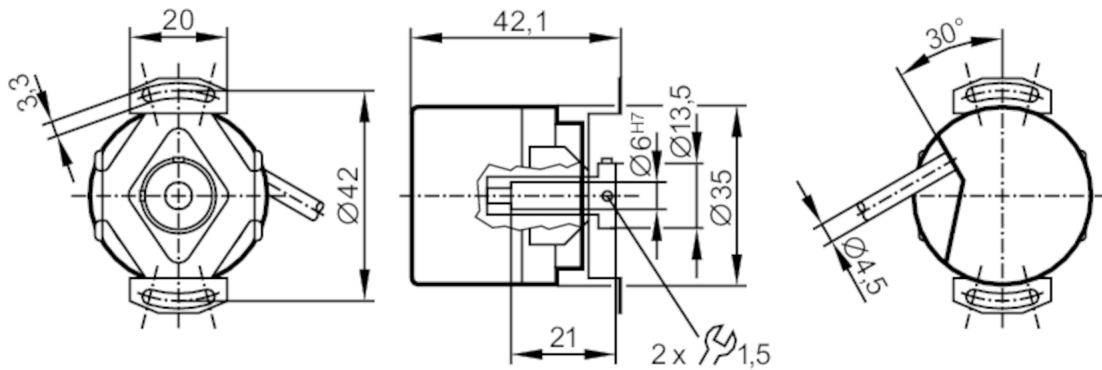
## Incremental encoder with hollow shaft

RA-0100-I05/N2



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### Application

Function principle incremental

### Electrical data

|                                 |      |
|---------------------------------|------|
| Operating voltage tolerance [%] | 10   |
| Operating voltage [V]           | 5 DC |
| Current consumption [mA]        | 120  |

### Outputs

|                                   |     |
|-----------------------------------|-----|
| Electrical design                 | TTL |
| Max. current load per output [mA] | 20  |
| Switching frequency [kHz]         | 300 |
| Phase difference A und B [°]      | 90  |

### Measuring/setting range

Resolution 100 resolution

### Operating conditions

|                                |                       |
|--------------------------------|-----------------------|
| Ambient temperature [°C]       | -40...100             |
| Note on ambient temperature    | for firmly laid cable |
| Max. relative air humidity [%] | 75; (briefly: 95 %)   |
| Protection                     | IP 64                 |

### Tests / approvals

|                      |                     |
|----------------------|---------------------|
| Shock resistance     | 100 g (6 ms)        |
| Vibration resistance | 10 g (55...2000 Hz) |
| MTTF [years]         | 114                 |



## Incremental encoder with hollow shaft

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| Mechanical data               |         |                               |
|-------------------------------|---------|-------------------------------|
| Weight                        | [g]     | 311.2                         |
| Dimensions                    | [mm]    | Ø 35 / L = 42.1               |
| Materials                     |         | aluminium                     |
| Max. revolution, mechanical   | [U/min] | 10000                         |
| Max. starting torque          | [Nm]    | 2.5                           |
| Reference temperature torque  | [°C]    | 20                            |
| Shaft design                  |         | hollow shaft open to one side |
| Shaft diameter                | [mm]    | 6                             |
| Shaft fit                     |         | H7                            |
| Shaft material                |         | steel (1.4104)                |
| Installation depth of shaft   | [mm]    | 6...21                        |
| Max. axial shaft misalignment | [mm]    | 0,5                           |

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

### Electrical connection

Cable: 2 m, PUR; radial, can also be used axially

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

### Diagrams and graphs

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

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