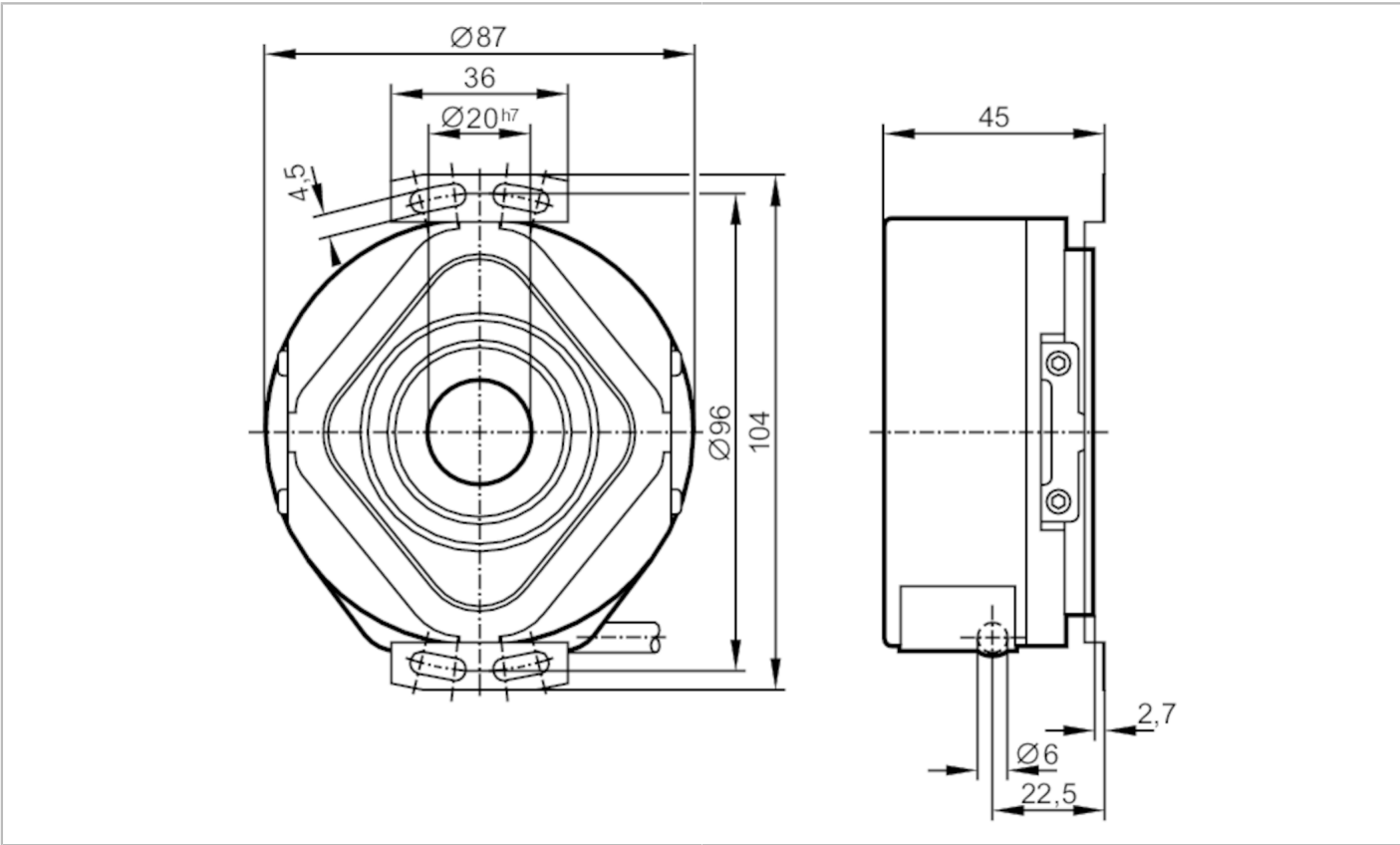




Incremental encoder with hollow shaft

RP-1800-I05/N10

Article no longer available - archive entry



| Product characteristics      |       |                                                   |
|------------------------------|-------|---------------------------------------------------|
| Resolution                   |       | 1800 resolution                                   |
| Shaft design                 |       | continuous hollow shaft                           |
| Shaft diameter               | [mm]  | 20                                                |
| 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                   |       | 1800 resolution                                   |
| Operating conditions         |       |                                                   |
| Ambient temperature          | [°C]  | -30...60                                          |
| Note on ambient temperature  |       | higher temperature upon request                   |
|                              |       | for the diagram see the installation instructions |



## Incremental encoder with hollow shaft

RP-1800-I05/N10

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

### Tests / approvals

|                      |              |                      |
|----------------------|--------------|----------------------|
| Shock resistance     |              | 100 g (6 ms)         |
| Vibration resistance | EN 60068-2-6 | 200 g (50...2000 Hz) |

### Mechanical data

|                               |         |                         |
|-------------------------------|---------|-------------------------|
| Dimensions                    | [mm]    | Ø 87 / L = 45           |
| Materials                     |         | aluminium               |
| Max. revolution, mechanical   | [U/min] | 6000                    |
| Max. starting torque          | [Nm]    | 10                      |
| Reference temperature torque  | [°C]    | 20                      |
| Shaft design                  |         | continuous hollow shaft |
| Shaft diameter                | [mm]    | 20                      |
| Shaft fit                     |         | H7                      |
| Shaft material                |         | steel (1.4104)          |
| Installation depth of shaft   | [mm]    | 10                      |
| Max. axial shaft misalignment | [mm]    | 1,5                     |

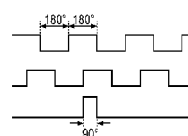
### Electrical connection

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)