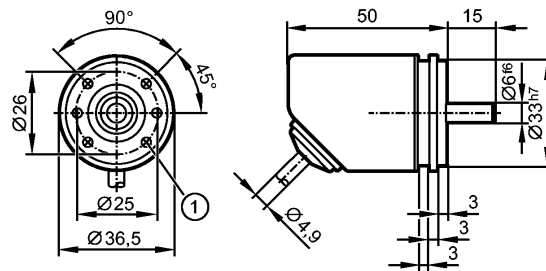


RB3500

INCREMENTAL ENCODER BASIC LINE

Encoders



1: M3 x 0.5 6 mm deep



Product characteristics

Solid shaft encoder

HTL, TTL 50 mA

Cable

Magnetic detection system

Resolution 1...9999

Electrical data

Operating voltage [V] 4.5...30 DC

Current consumption [mA] < 150

Max. permissible rpm / elec. [1/min] 12000

Phase difference A und B [°] 90

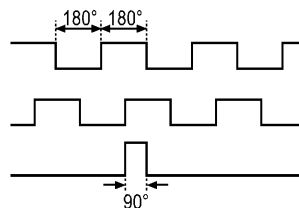
Switching frequency [kHz] 1000

Reverse polarity protection yes

Short-circuit protection yes

Protection class III

Pulse diagram



Direction of rotation clockwise (looking at the shaft)

Outputs

Output function HTL, TTL 50 mA

Measuring / setting range

Encoders

Resolution programmable, factory setting 1024

Accuracy / deviations

Accuracy < 0.1°

Reaction times

Power-on delay time [s] 0.5

Software / programming

Programming options Resolution, rotational direction, HTL, TTL

Interfaces

IO-Link Device

RB3500

INCREMENTAL ENCODER BASIC LINE

Encoders

| | |
|------------------------------|-------|
| Transfer type | COM 2 |
| IO-Link revision | V1.1 |
| SIO mode | yes |
| Min. process cycle time [ms] | 2.3 |

| Mechanical data | |
|----------------------------------------|-------------------------------------------------------------------------------|
| Max. permissible rpm / mech. [1/min] | 12000 |
| Starting torque [Ncm] | < 1 (20 °C) |
| Max. shaft load (at the shaft end) [N] | axial 40; radial 60 |
| Shaft, material [mm] | Ø 6, stainless steel |
| Vibration resistance | 30 g |
| Shock resistance | 200 g |
| Housing materials | flange: aluminium; housing: stainless steel 444/1.4521; cable plug: polyamide |
| Weight [kg] | 0.284 |

| Environment | |
|--------------------------------|-----------------------------------------------|
| Max. relative air humidity [%] | 95, Condensation not permissible |
| Ambient temperature [°C] | -40...80, -25 °C for flexibly laid cable |
| Storage temperature [°C] | -40...80 |
| Protection | IP 65 / IP 66; IP 67 (housing); IP 64 (shaft) |

| Tests / approvals | |
|-------------------|-------|
| MTTF [Years] | 292.2 |

| Electrical connection | |
|-----------------------|--------------------------------------------------------------------------------------------------|
| Connection | PUR cable, screened / 2 m; 5 x 0.14 mm ² ; Ø 4.9 mm; radial, can also be used axially |
| Max. cable length [m] | 100 |

Wiring

Core colours
 BK black
 BN brown
 BU blue
 GY grey
 WH white

IO-Link:
 BN: L+
 WH: not to be used
 BU: L-
 GY: not to be used
 BK: IO-Link
 screen: Housing

encoder:
 BN: UB
 WH: A
 BU: GND
 GY: B
 BK: Z/0-Pulse (90 deg)
 screen: Housing

| Remarks | |
|-----------------------|---|
| Pack quantity [piece] | 1 |