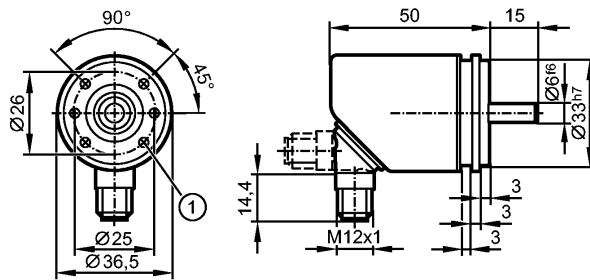


## RB3100

INCREMENTAL ENCODER BASIC LINE

Encoders



1: M3 x 0.5 6 mm deep

CE  IO-Link

### Product characteristics

Solid shaft encoder

HTL, TTL 50 mA

Connector

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

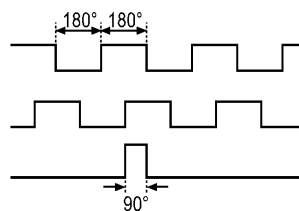
Switching frequency [kHz] 1000

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

## RB3100

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 10; radial 20
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; connector: stainless steel 316/1.4401
Weight [kg]	0.241

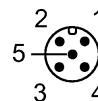
Environment	
Max. relative air humidity [%]	95, Condensation not permissible
Ambient temperature [°C]	-40...85
Storage temperature [°C]	-40...85
Protection	IP 65 / IP 66; IP 67 (housing); IP 64 (shaft)

Tests / approvals	
MTTF [Years]	292.2

Electrical connection	
Connection	M12 connector; radial, can also be used axially; 5-pole
Max. cable length [m]	100

### Wiring

IO-Link  
 1: L+  
 2: not to be used  
 3: L-  
 4: IO-Link  
 5: not to be used  
 screen: plug



encoder  
 1: UB  
 2: A  
 3: GND  
 4: Z/0-Pulse (90 deg)  
 5: B  
 screen: plug

Remarks	
Pack quantity [piece]	1