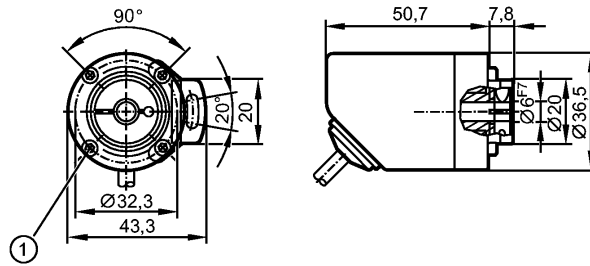


RA3500

INCREMENTAL ENCODER BASIC LINE

Encoders



1: M3 x 0.5 6 mm deep

CE  IO-Link

Product characteristics

Hollow shaft encoder open to one side

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

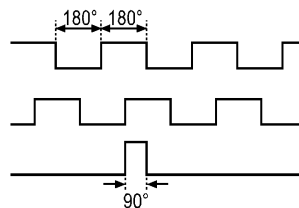
Switching frequency [kHz] 1000

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

RA3500

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)
Shaft, material [mm]	hollow shaft open to one side Ø 6 H7, stainless steel
Installation depth/shaft [mm]	18
Max. axial shaft alignment [mm]	0.5
Vibration resistance	30 g
Shock resistance	200 g
Housing materials	flange: aluminium; housing: stainless steel 444/1.4521; cable plug: polyamide
Tightening torque [Nm]	< 0.7 (Screw)
Weight [kg]	0.322

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	IO-Link:
BK black	BN: L+
BN brown	WH: not to be used
BU blue	BU: L-
GY grey	GY: not to be used
WH white	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