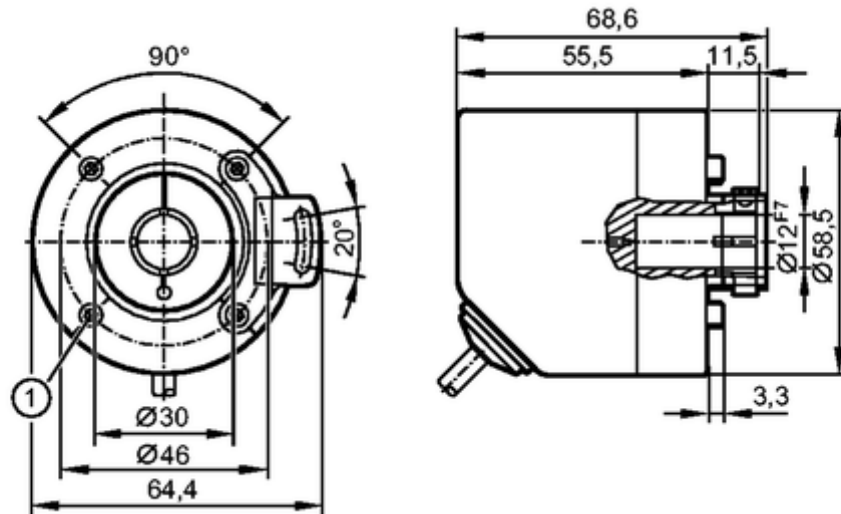


**efector 400****RO3500**

INCREMENTAL ENCODER BASIC LINE

Encoders



1: M3

**Product characteristics**

Hollow shaft encoder open to one side

HTL, TTL 50 mA

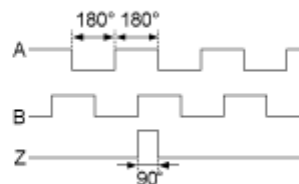
Cable

Magnetic detection system

Resolution 1...10000

**Electrical data**

Operating voltage [V]	4.75...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
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**Measuring / setting range****Encoders**

Resolution	programmable, factory setting 1024
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**Accuracy / deviations**

Accuracy	< 0.1°
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**Reaction times**

Power-on delay time [s]	0.5
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**Software / programming**

Programming options	Resolution, rotational direction, HTL, TTL
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**Interfaces****IO-Link device**

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

Max. permissible rpm / mech. [1/min]	12000
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Starting torque [Ncm]	< 2 (20 °C)
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Shaft, material [mm]	hollow shaft open to one side Ø 12 F7, stainless steel
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Installation depth/shaft [mm]	27
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Max. axial shaft alignment [mm]	0.5
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Vibration resistance	30 g
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Shock resistance	200 g
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Housing materials	flange: aluminium; housing: stainless steel 444/1.4521; cable plug: polyamide
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Tightening torque [Nm]	< 0.7 (Screw)
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Weight [kg]	0.483
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**Environment**

Max. relative air humidity [%]	95, Condensation not permissible
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Ambient temperature [°C]	-40...80, -25 °C for flexibly laid cable
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Storage temperature [°C]	-40...80
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Protection	IP 65 / IP66; IP 67 (housing); IP 64 (shaft)
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**Tests / approvals**

MTTF [Years]	292.2
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**Electrical connection**

Connection	PUR cable, screened / 2 m; 5 x 0.14 mm <sup>2</sup> ; Ø 4.9 mm; radial, can also be used axially
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Max. cable length [m]	100
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**Wiring**

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

Core colours

BK	black
BN	brown
BU	blue
GY	grey
WH	white

BU:	GND
GY:	B
BK:	Z/0-Pulse (90 deg)
screen:	Housing

**Remarks**

Pack quantity [piece]	1
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