



Model Number

RHI58N-*****1

Features

- Industrial standard housing Ø58 mm
- Up to 50,000 ppr
- Hollow shaft
- 10 V ... 30 V with short-circuit proof push-pull output

Description

High performance are key words for this rotary encoder. Its outstanding feature is the-high resolution angle.

Usually all six output channels of this incremental rotary encoder are assigned to ensure flexible use of the encoder in a wide range of applications.

This incremental rotary encoder is available as hollow shaft design with a shaft Ø10 mm, Ø12 mm or Ø15 mm.

The rotary encoder is held in place by an included torque rest.

The electrical connection is made with a cable connector.

Technical data

General specifications

Detection type	photoelectric sampling
Pulse count	max. 50000

Functional safety related parameters

MTTF _d	140 a
Mission Time (T _M)	20 a
L _{10h}	70 E+9 at 6000 rpm
Diagnostic Coverage (DC)	0 %

Electrical specifications

Operating voltage U _B	10 ... 30 V DC
No-load supply current I ₀	max. 60 mA

Output

Output type	push-pull, incremental
Voltage drop U _d	< 3 V
Load current	max. per channel 40 mA , short-circuit protected, reverse polarity protected
Output frequency	max. 200 kHz
Rise time	400 ns

Connection

Cable	Ø6.5 mm, 4 x 2 x 0.14 mm ² , 1 m
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Standard conformity

Degree of protection	DIN EN 60529, IP54
Climatic testing	DIN EN 60068-2-78 , no moisture condensation
Emitted interference	EN 61000-6-4:2007/A1:2011
Noise immunity	EN 61000-6-2:2005
Shock resistance	DIN EN 60068-2-27, 100 g, 3 ms
Vibration resistance	DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz

Ambient conditions

Operating temperature	-5 ... 80 °C (23 ... 176 °F) , movable cable
	-20 ... 80 °C (-4 ... 176 °F), fixed cable
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

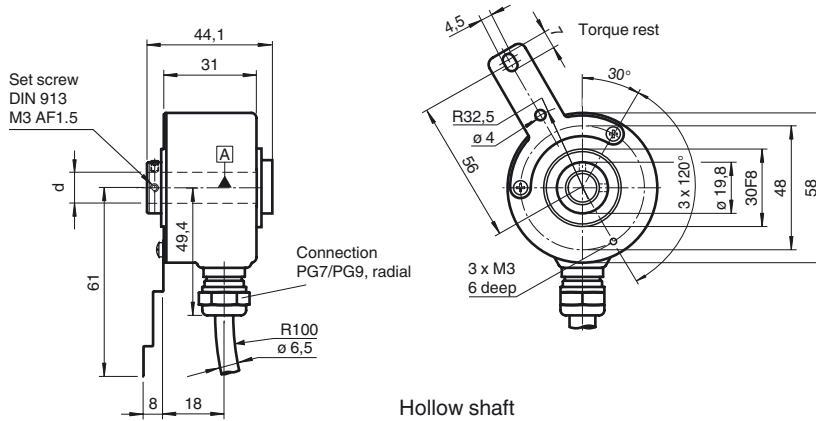
Mechanical specifications

Material	
Housing	powder coated aluminum
Flange	3.1645 aluminum
Shaft	Stainless steel 1.4305 / AISI 303
Mass	approx. 290 g
Rotational speed	max. 6000 min ⁻¹
Moment of inertia	≤ 40 gcm ²
Starting torque	≤ 1.5 Ncm
Shaft load	
Angle offset	1 °
Axial offset	max. 1 mm

Approvals and certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source
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Dimensions

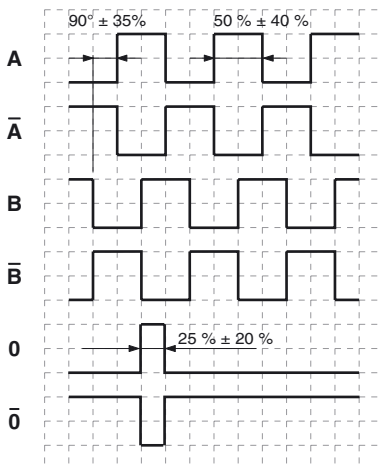


Electrical connection

Signal	Cable
GND	White
U _b	Brown
A	Green
B	Grey
\bar{A}	Yellow
\bar{B}	Pink
0	Blue
$\bar{0}$	Red
U _b Sens ^{*)}	Violet ^{*)}
GND Sens ^{*)}	Black ^{*)}
Screen	-

^{*)} only for devices with 5 V supply and RS 422 interface

Signal outputs



↻ cw - with view onto the shaft clamping ring

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