



Model Number

RSI580-02YK1R61T-01024

Features

- **Resistant to salt water**
- **Industrial standard housing Ø58 mm**
- **1024 ppr**
- **Recessed hollow shaft**
- **10 V ... 30 V with short-circuit proof push-pull output**

Description

This hollow shaft encoder was specially developed for use in regions heavily influenced by maritime conditions or for offshore use.

The sea-waterproof coated housing and the stainless steel shaft are perfectly suited for these tough environmental influences. The internal electronics also meet these high requirements.

The durable code disc ensures that the encoder can be used for applications exposed to extreme shock and vibration loads.

Technical data

General specifications

Detection type	photoelectric sampling
Pulse count	1024

Functional safety related parameters

MTTF _d	140 a
Mission Time (T _M)	20 a
L _{10h}	2 E+9
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	< 4.4 V
Load current	max. per channel 40 mA, short-circuit protected (not with U _b), reverse polarity protected
Output frequency	max. 200 kHz
Rise time	400 ns

Connection

Cable	Ø7.8 mm, 6 x 2 x 0.14 mm ² , 1 m
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Standard conformity

Degree of protection	DIN EN 60529, IP65, IP66, IP68
Climatic testing	
Static climatic testing	DIN EN 60068-2-78, no moisture condensation
Cyclic climatic testing	DIN EN 60068-2-30 55 °C, 6 cycles
Salt spray test	DIN EN 60068-2-52, 672 h
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	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

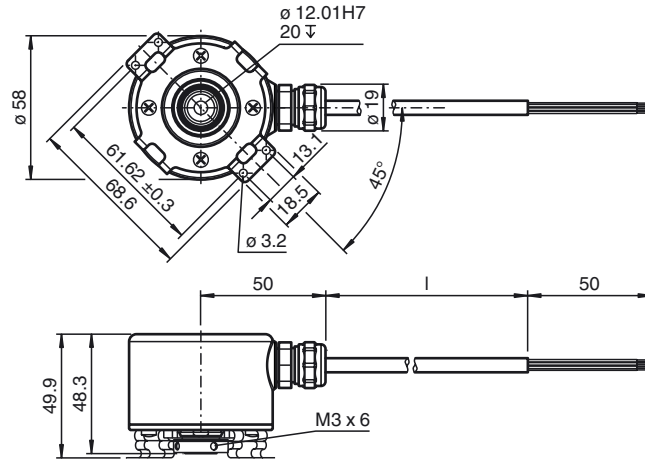
Mechanical specifications

Material	
Housing	aluminum, coated, salt water resistant
Flange	aluminum, coated, salt water resistant
Shaft	Stainless steel 1.4404 / AISI 316L
Mass	approx. 280 g
Rotational speed	max. 100 min ⁻¹
Moment of inertia	≤ 35 gcm ²
Starting torque	≤ 4.5 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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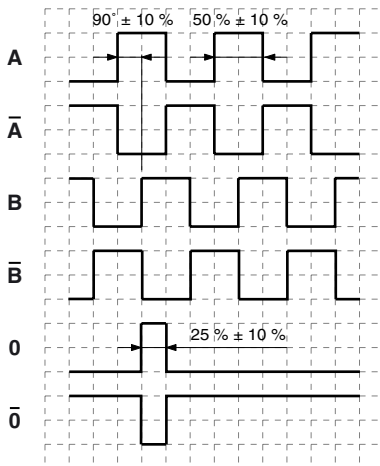
Dimensions



Electrical Connection

Signal	Cable Ø6.5 mm, 8-core
GND	White
U_b	Brown
A	Green
B	Gray
\bar{A}	Yellow
\bar{B}	Pink
0	Blue
$\bar{0}$	Red

Signal outputs



↺ cw - with view onto the shaft clamping ring

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