



### Model Number

**RSI580-02YAAR61T-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 <sub>d</sub>	140 a
Mission Time (T <sub>M</sub> )	20 a
L <sub>10h</sub>	2 E+9
Diagnostic Coverage (DC)	0 %

### Electrical specifications

Operating voltage U <sub>B</sub>	10 ... 30 V DC
No-load supply current I <sub>0</sub>	max. 60 mA

### Output

Output type	push-pull, incremental
Voltage drop U <sub>d</sub>	< 4.4 V
Load current	max. per channel 40 mA, short-circuit protected (not with U <sub>b</sub> ), reverse polarity protected
Output frequency	max. 200 kHz
Rise time	400 ns

### Connection

Connector	type 9416 (M23), 12-pin
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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)

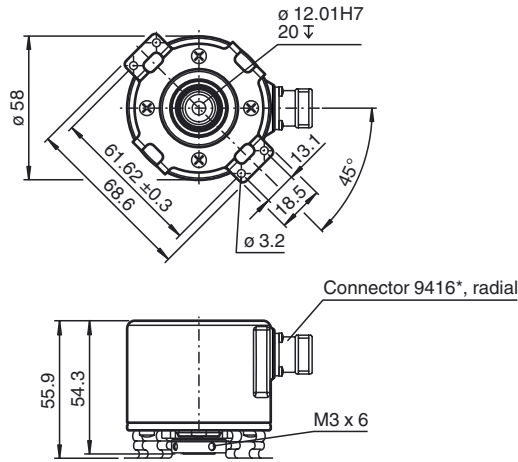
### Mechanical specifications

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 <sup>-1</sup>
Moment of inertia	≤ 35 gcm <sup>2</sup>
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**

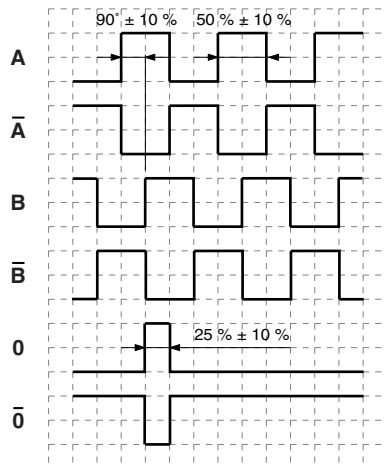


**Electrical Connection**

Signal	Connector 9416, 12-pin
GND	10
U <sub>b</sub>	12
A	5
B	8
$\bar{A}$	6
$\bar{B}$	1
0	3
$\bar{0}$	4
n.c.	2
n.c.	7
Screen	Housing
n.c.	9
n.c.	11

Release date: 2014-12-11 08:50 Date of issue: 2014-12-11 248673\_eng.xml

**Signal outputs**



↺ cw - with view onto the shaft clamping ring

**Order code**

**R S I 5 8 O - 0 2 Y A A R 6 1 T - 0 1 0 2 4**

- Pulse count** 1024
- Option** T Extended temperature range
- Output switching** 1 10 V ... 30 V, push-pull
- Signal output** 6 A + B + 0 and  $\bar{A}$  +  $\bar{B}$  +  $\bar{0}$
- Exit position** R Radial
- Connection type** AA Plug connector type 9416, 12-pin
- Flange version** Y Hollow shaft, customer specific operating conditions
- Shaft dimension** 02 Recessed hollow shaft Ø12 mm x 20 mm
- Housing material** O Offshore capable housing of aluminium, nickel plated
- Shaft version** S Recessed hollow shaft

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