



### Model Number

RHS58N-\*\*\*\*\*Z

### Features

- Incremental encoder with sin/cos interface
- 1024 or 2048 signal periods
- Industrial standard housing Ø58 mm
- Hollow shaft up to 15 mm
- Temperature compensated, interpolateable voltage signals

### Description

Compatibility says it all for this incremental rotary encoder.

The RHS58 provides sinusoidal / cosinusoidal signals at a resolution of up to 2.048 signal periods per revolution

Focussing on the designs that are most often required has allowed us to offer rapid availability at an attractive price.

This 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.

### Technical data

#### General specifications

Pulse count max. 2048

#### Electrical specifications

Operating voltage  $U_B$  5 V DC  $\pm$  5 %

No-load supply current  $I_0$  max. 70 mA

#### Output

Output type sine / cosine

Amplitude 1  $V_{SS} \pm 10\%$

Load current max. per channel 20 mA, short-circuit protected, reverse polarity protected

Output frequency max. 200 kHz (3 dB limit)

#### Connection

Cable Ø6.5 mm, 4 x 2 x 0.14 mm<sup>2</sup>, 1 m

#### Standard conformity

Degree of protection DIN EN 60529, IP54

Climatic testing DIN EN 60068-2-3, no moisture condensation

Emitted interference EN 61000-6-4:2007/A1:2011

Noise immunity DIN EN 61000-6-2

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

-40 ... 100 °C (-40 ... 212 °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<sup>-1</sup>

Moment of inertia  $\leq 40$  gcm<sup>2</sup>

Starting torque  $\leq 2.5$  Ncm

Shaft load

Angle offset 1 °

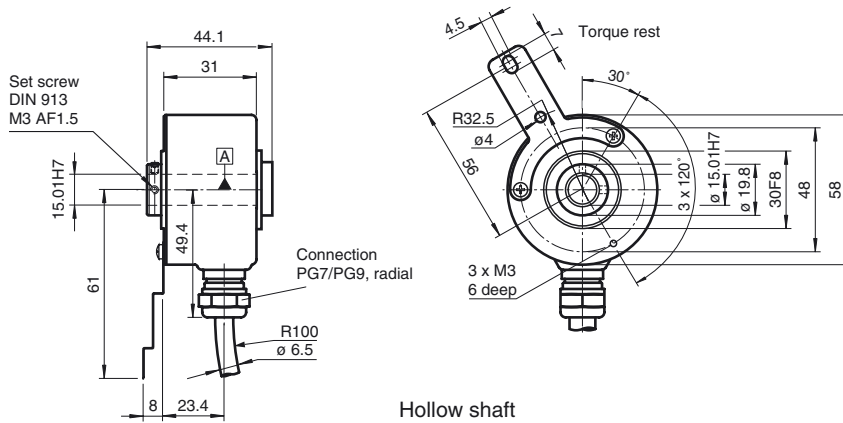
Axial offset max. 1 mm

#### Approvals and certificates

UL approval

cULus Listed, General Purpose, Class 2 Power Source

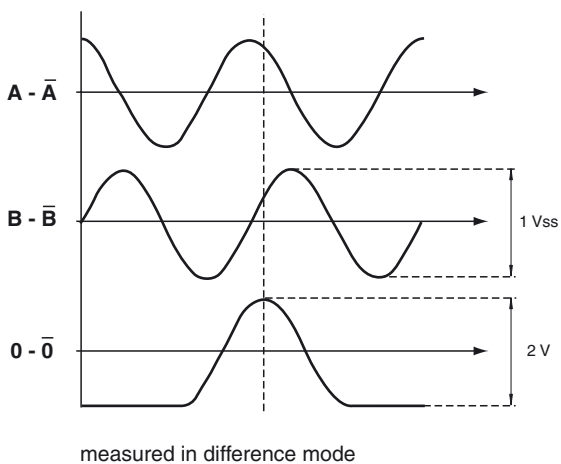
**Dimensions**



**Electrical connection**

Signal	Cable Ø6.5 mm, 8-core
GND	White
$U_b$	Brown
A / cos	Green
B / sin	Grey
$\bar{A}$ / $\overline{\text{cos}}$	Yellow
$\bar{B}$ / $\overline{\text{sin}}$	Pink
0	Blue
$\bar{0}$	Red
Screen	-

**Signal outputs**

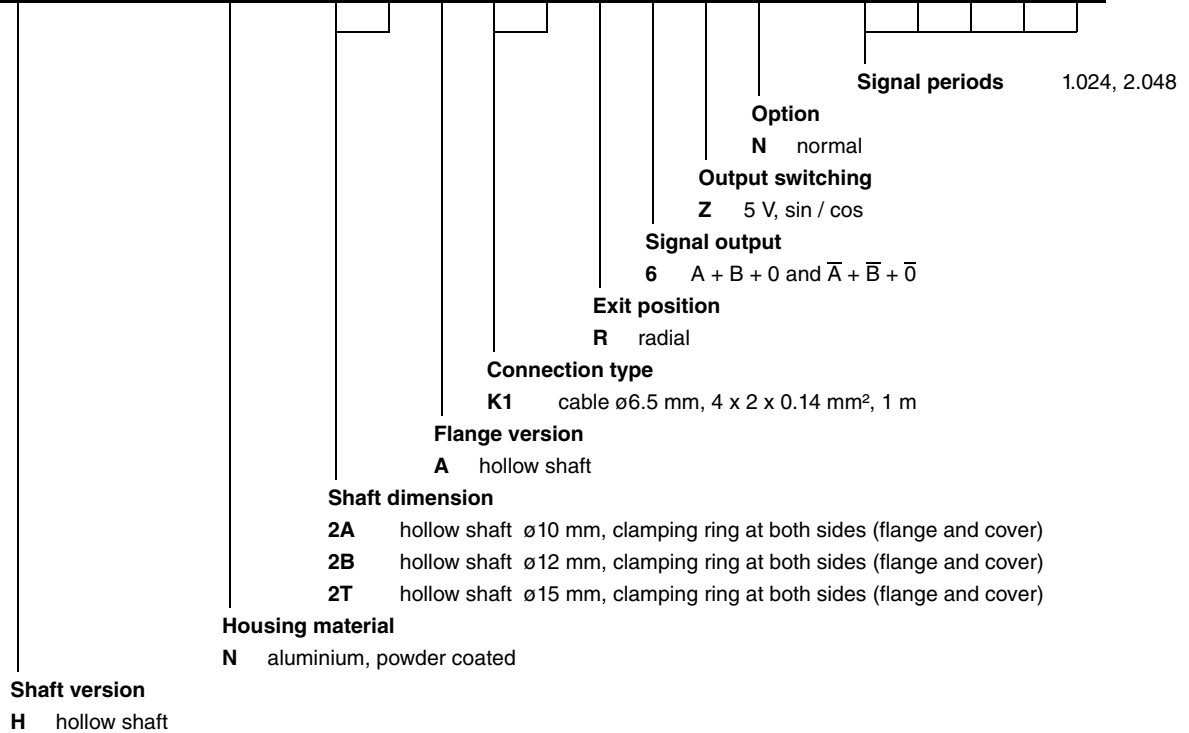


↻ cw - view towards clamping ring

Release date: 2014-12-12 16:31 Date of issue: 2014-12-12 t34576\_eng.xml

Order code

**R H S 5 8 N - A K 1 R 6 Z N -**



Release date: 2014-12-12 16:31 Date of issue: 2014-12-12 t34576\_eng.xml