



Rotary Encoders

For Stepper Motors and BLDC Motors

R35i

Incremental rotary encoder

Without integral bearing



Areas of application

- Feedback systems for stepper and BLDC motors
- Metrology

Characteristics

- Highly compact design (Ø 38.1 mm; height: 14 mm)
- Fast and easy mounting through an integral self-centering mounting aid
- High signal quality thanks to OPTO-ASIC technology
- Electronic adjustment of the commutation

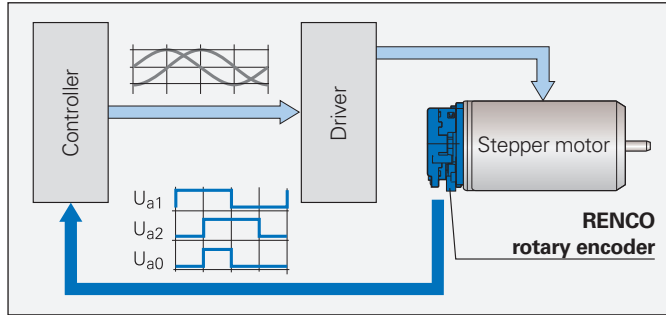
Specifications

- Up to 10 000 signal periods/rev.
- UVW block commutation for up to 32 motor pole pairs
- Interfaces: differential line driver as per RS-422 or single-ended driver output
- Operating temperature range: -30 °C to 115 °C

Practical solutions

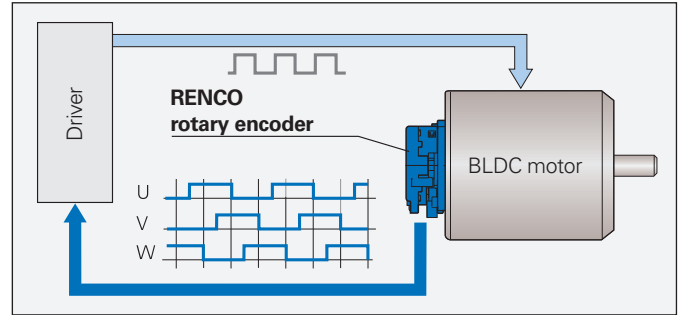
Stepper motors in Closed Loop mode

Feedback system with a high resolution of up to 40 000 measuring steps after four-fold evaluation of the incremental signals U_{a1} and U_{a2} .



BLDC motor

Feedback system with U_{VW} commutation signals



PWT 101 testing device



PWT 101

The PWT 101 is a testing device for the functional testing and mounting inspection of RENCO R35i and R35iL rotary encoders.

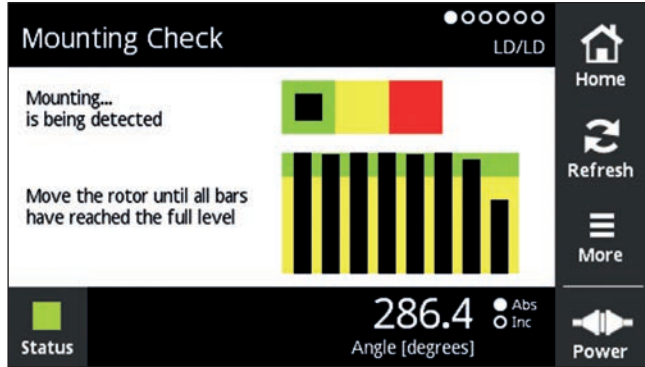
Thanks to its compact and rugged design, the PWT 101 is ideal for portable use. A 4.3" touchscreen makes operation especially easy.

The *block commutation* software module lets you perform the following tests and configurations:

- Mounting inspection
- Output signals
- Level display
- Counts
- Commutation offset
- Encoder information

Diagnostics and adjustment

Block commutation software module



Mounting inspection for errorless operation

The interface displays an 'Encoder information' screen. At the top, it says 'LD/LD'. Below this, a table lists various encoder specifications. The right sidebar contains icons for 'Home', 'Save', 'Save As', and 'Power'.

Serial number	64 797 469
ID number	1144900-35
Interface	LD/LD
Number of pole pairs	4
Reference mark	1
Line count	10000
Edge separation	10.66 μ s
Commutation offset	Not set
Evaluation of installation	Green (8/8)

Straightforward overview of encoder information and test results

Highest possible flexibility



Synchro flange



Flange (Ø 46.03 mm)



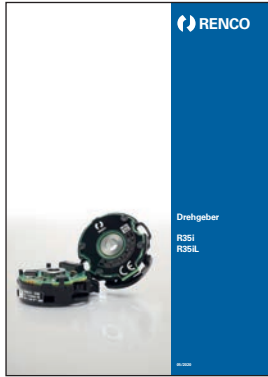
Cover cap, closed



Cover cap, with central hole

The R35i compact rotary encoder is available in different versions:

- Flange for axial mounting (Ø 32.5 mm and Ø 46.03 mm) or synchro flange (mechanically compatible with resolver size 15)
- Hollow shaft diameters: 4 mm to 8 mm and 1/4" to 3/8"
- PCB connector: horizontal (radial) or vertical (axial)
- Cover cap: closed or with central hole



Brochure
Rotary Encoders R35i/R35iL



Brochure
Encoders for Servo Drives


For more information, refer to the following brochures downloadable at:
www.renco.com and www.heidenhain.de, respectively.

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