User manual
E201D05_01
Issue 1, 6th September 2018

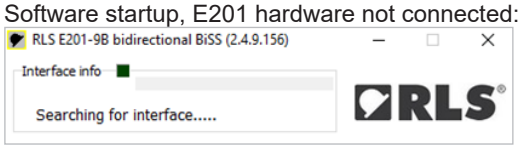
E201-9B demo software user manual

Software installation

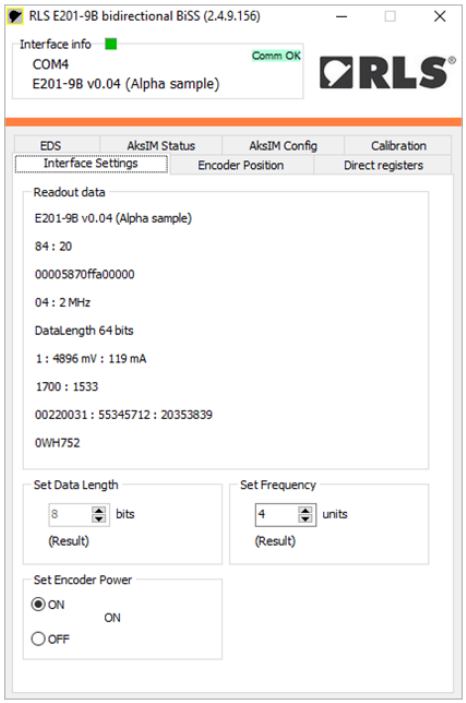
NOTE: Please ensure you have the latest software by downloading it from www.rls.si/e201-9b.

- Download the latest software and USB drivers package from www.rls.si.
- Run the wizard and follow the installation instructions.

Software startup, E201 hardware not connected:

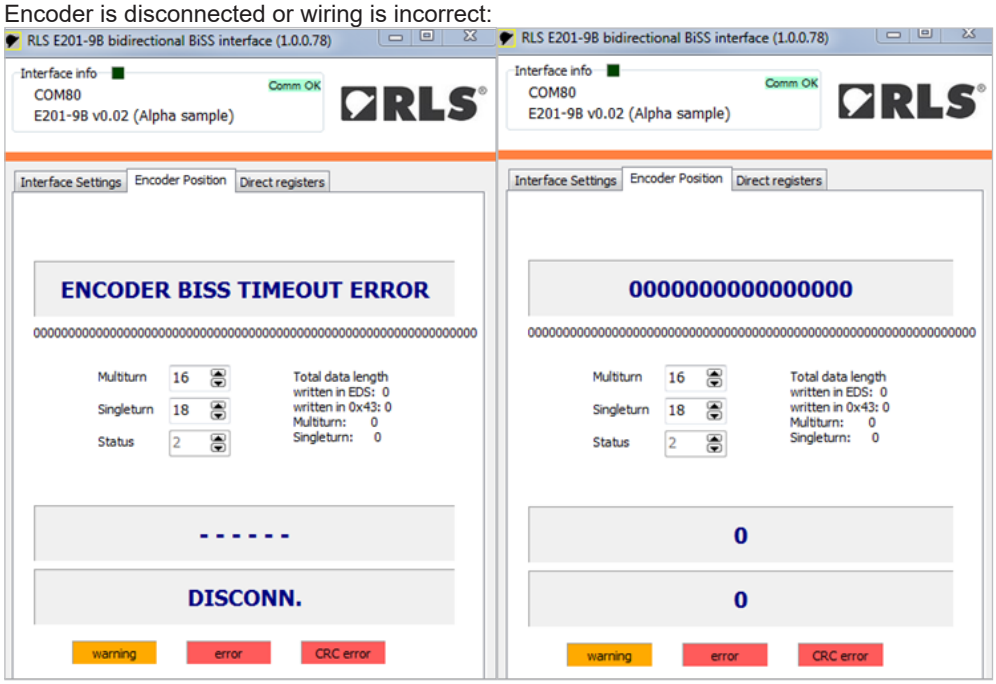


Interface status, readout of all supported commands.
Encoder voltage and current readout
Encoder power switch
BiSS frequency settings



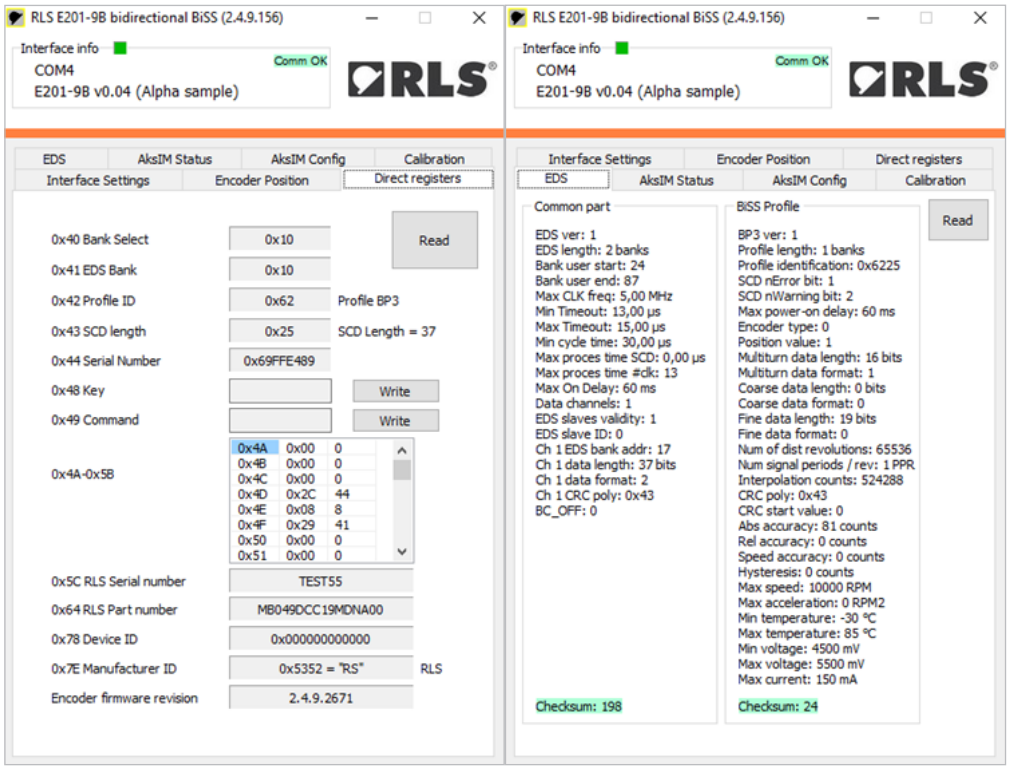
Nominal current consumption:
AksIM: 130 mA
Orbis: 67 mA

Encoder is disconnected or wiring is incorrect:



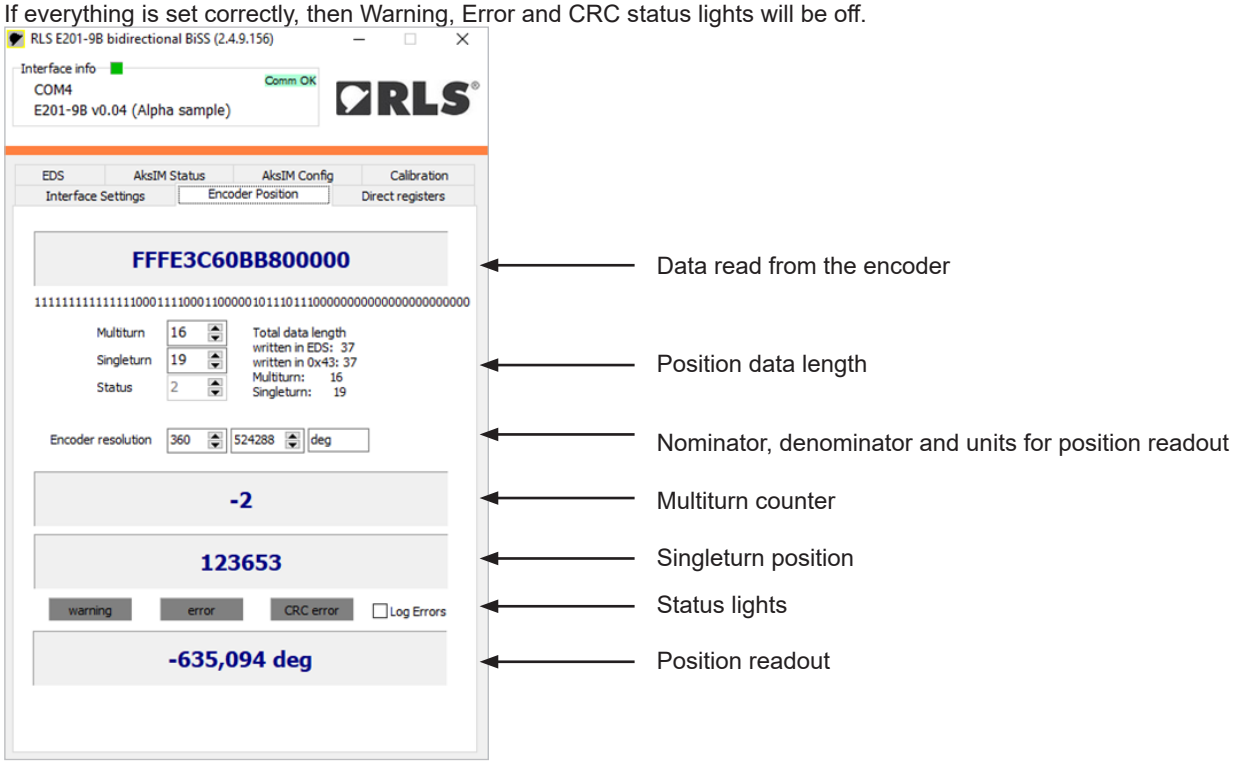
Reading registers in the encoder

Open tab Direct Registers and click Read. Multiple tabs will appear after successful read. Electronic datasheet (EDS) should be read next to get all the data about encoder and to configure single-cycle data packet to read encoder position.



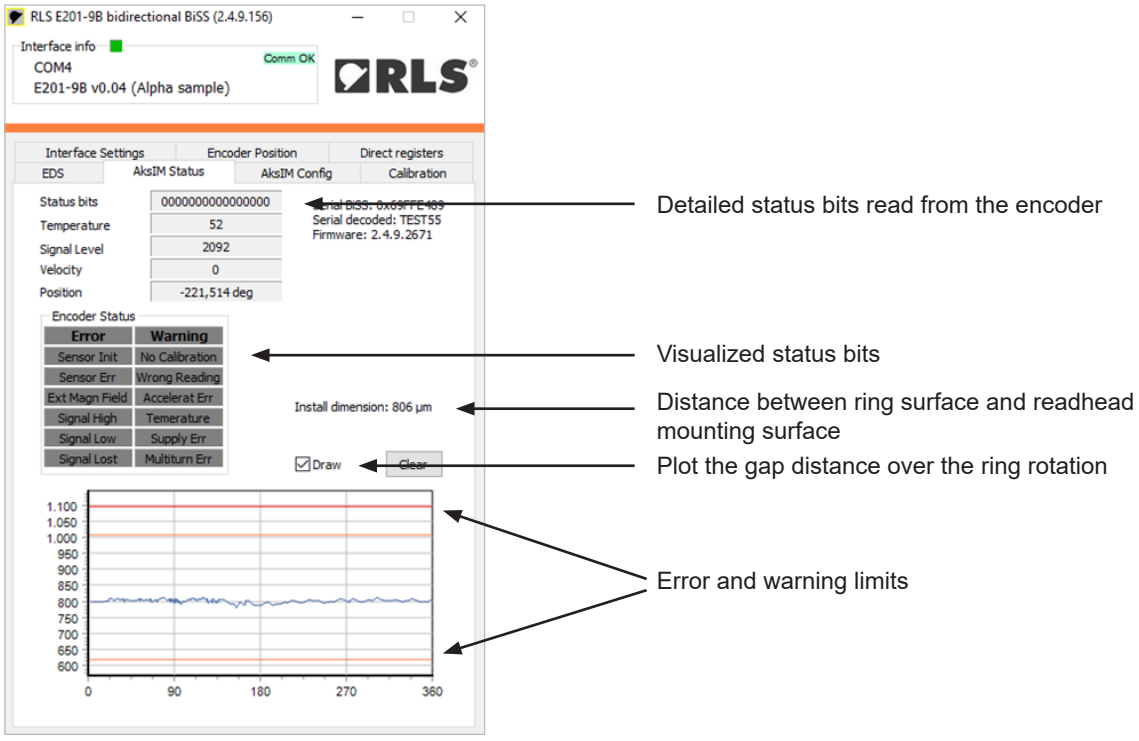
Reading encoder position

If everything is set correctly, then Warning, Error and CRC status lights will be off.

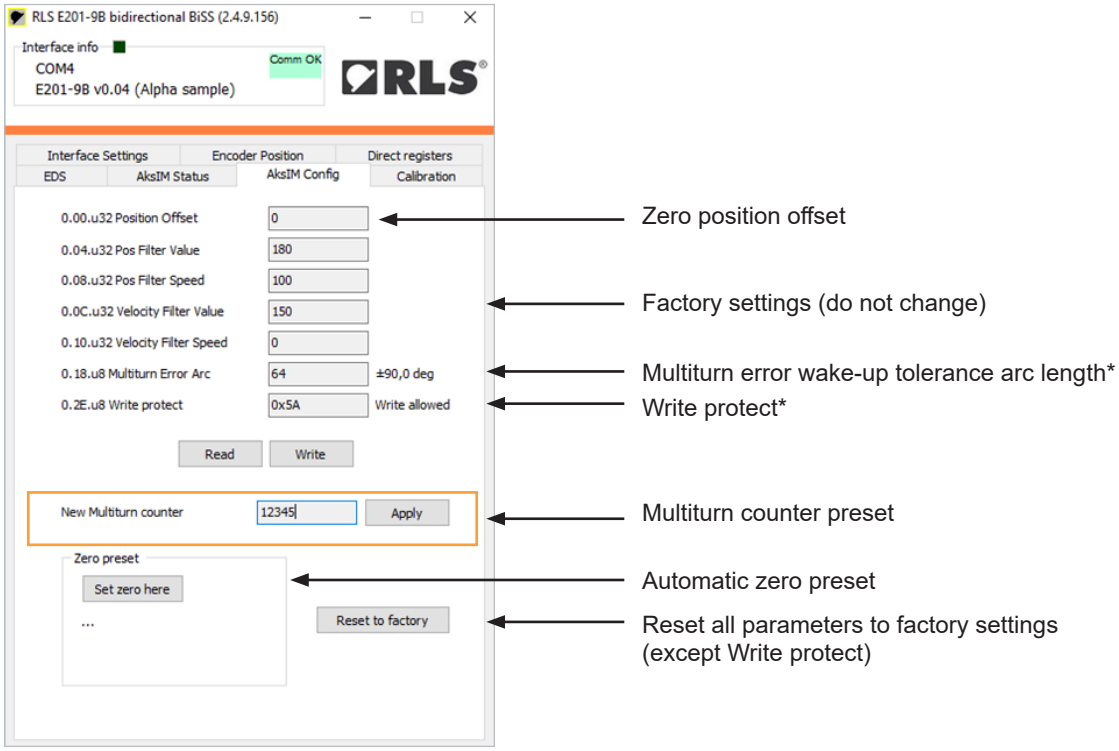


Encoder status

Readout of detailed status bits and auxiliary values.



Encoder settings

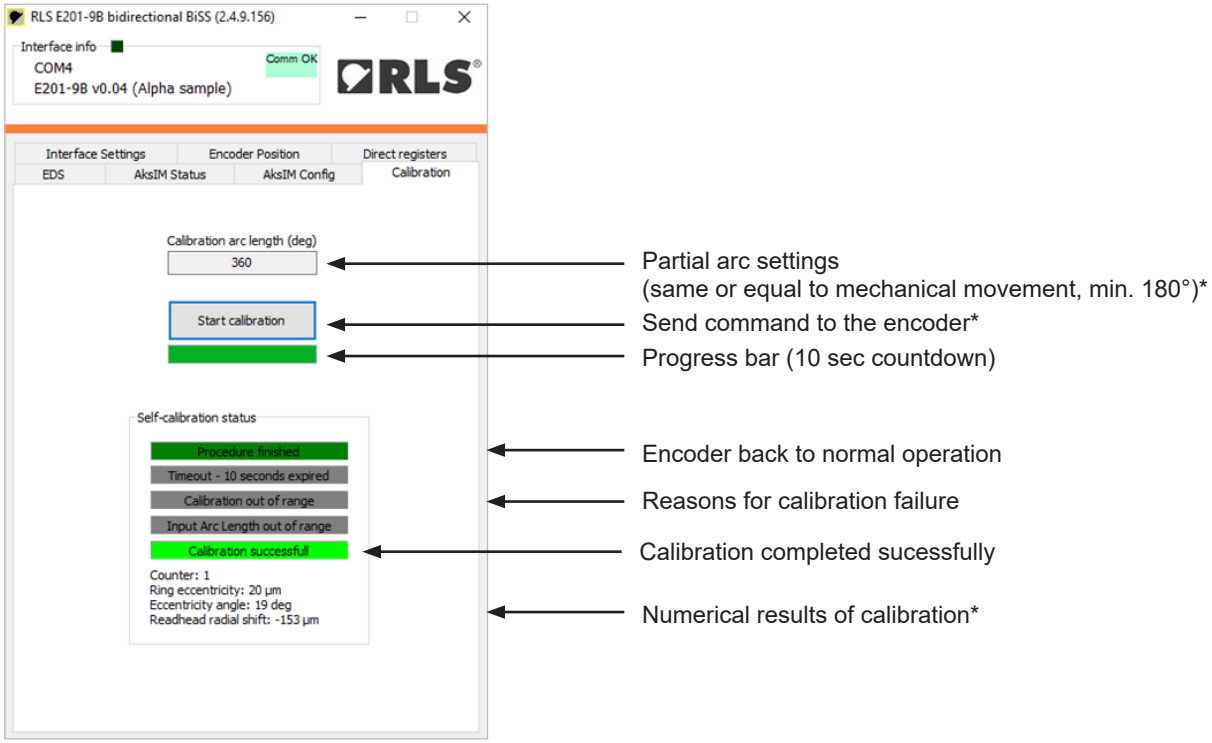


* Parameters available with later encoder firmware revisions.

Setting multiturn counter and clearing Multiturn counter error

Write the desired number and press Apply. Value must be between 0 and 65535.

Running encoder self-calibration



* Parameters available with later encoder firmware revisions.

If measured ring eccentricity is too big (> 0.2 mm), it is recommended to adjust mechanical assembly.

Setting encoder zero position

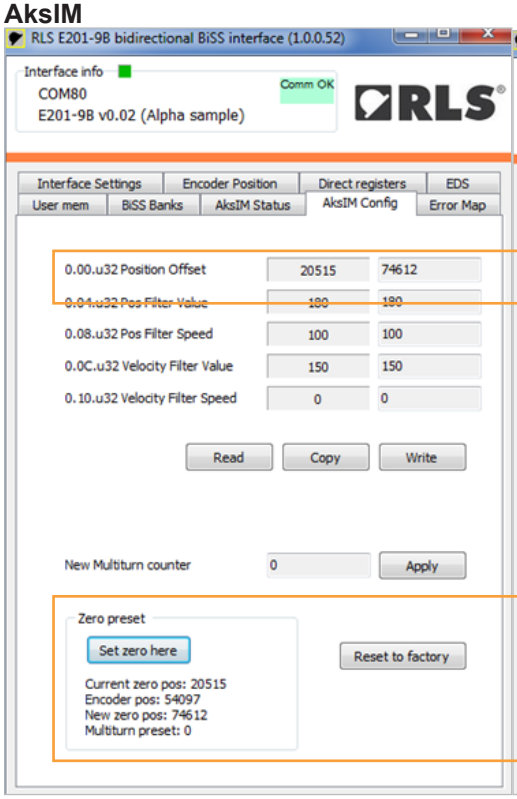
1. Manual

Switch to tab AksIM Config or Orbis Config. Read current zero offset. Write desired position offset (unit is encoder counts). Value bust be between 0 and max encoder count value. Press Write button. This number will be subtracted from the absolute encoder position.

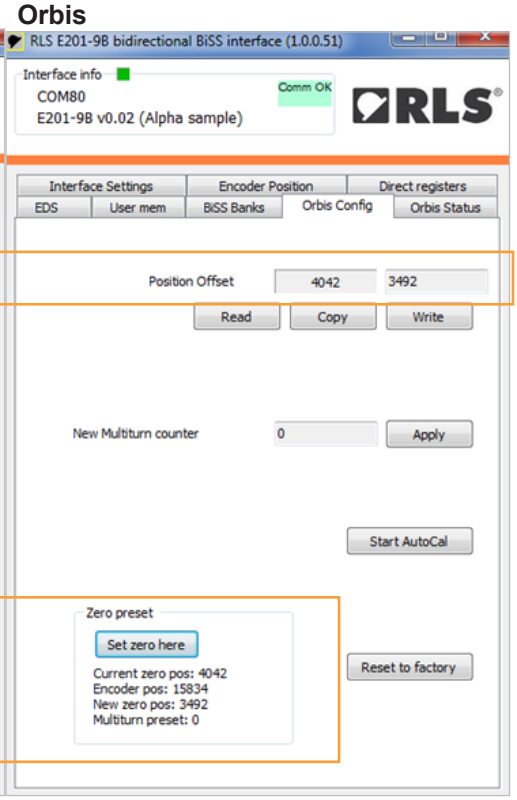
2. Automatic

Rotate the encoder to mechanical position, where zero is required. Press the button “Set zero here”. Multiturn and singleturn position will be set to zero on this mechanical position.

AksIM

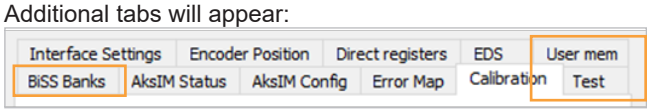


Orbis



Advanced functions

Press CTRL + A
Additional tabs will appear:



BiSS Banks are used to check the raw data contents of all registers on the encoder.
User mem offers access to free memory for storage of custom data into the encoder.
Test allows recording the encoder data for further analysis.

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Document issues

Issue	Date	Page	Corrections made
1	6. 9. 2018	-	New document