LIKA CKQ Programable Encoder Guide

Tools required;

- Laptop or suitable computer (windows or above)
- KIT IP/IQ58 Programming tool
- CKQ/CKP/IQ encoder
- LIKA software – Kit IP_IQ58 V2.7

Software
Zip file can be downloaded here. http://www.lika.it/eng/file7.php?id_file=3806

Unpack the software to a suitable folder on your computer. The Program does not require installing on the computer and runs from a double click of the "KIT_IP_IQ58_v2.7.exe" file. *Please note that suitable administration rights may also be required on your computer.*

The encoder should be connected to the KIT IP/IQ device- wire colour coding is as follows;

Function	Encoder/cordset cable	Terminal
+5VDC power supply *	Brown/Green	PWR+
0VDC	White/Green	PWR-
SDA Serial Data Line	Red	SDA
SCL Serial Clock Line	Black	SCL

The device can be connected to the lap top easily via the USB cable

A short introduction to the IP/IQ Programming tool for the set-up of LIKA Programmable incremental Encoder
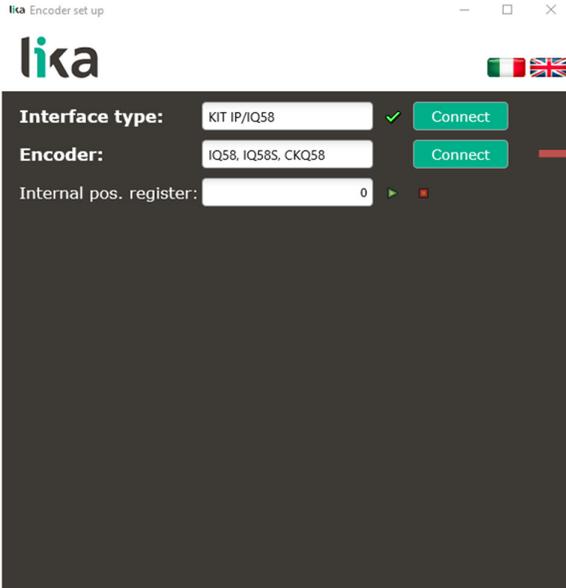
Once the USB device is connected to the computer, Double IT_IP_IQ58_v2.7.exe file.
The software screen should appear;

The Green tick indicates that the KIT IP/IQ device has been found by the software.

Click on connect
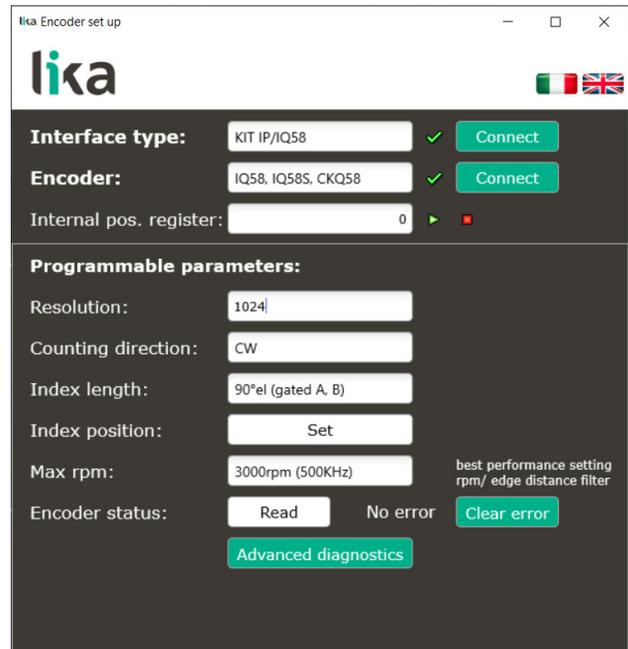
Once the encoder has been identified its current values will be displayed in the box. An encoder with defaults settings would show a resolution of 1024ppr.

Setting the parameters is only a mouse click on the field you wish to change. E.g. Resolution;

Click on the number and overwrite the existing number with the new required value e.g. 10000. Once you press the Enter key, the value is sent to the encoder. Once this has been received and confirmed a Green tick will appear next to the value

Additional features;
The counting direction can be changed by selecting the value and choosing CW or CCW
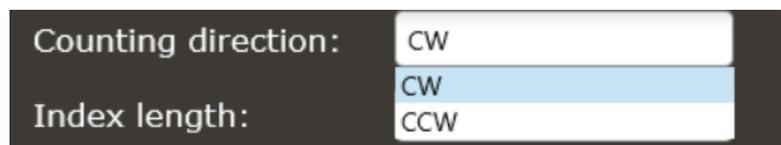
Other parameters can be changed in the same way

The index length, will change the length of the pulse, from 90° to 180° as shown below.
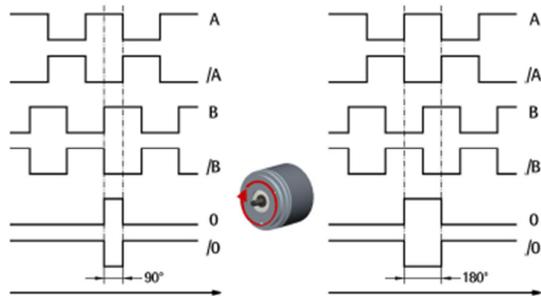
This can be helpful in some applications. The O pulse (sometimes called Z pulse) occurs once per revolution and can be used to synchronise the machine.

Index length: 90°el (gated A, B)

Index position: Set

The Index position (Zero pulse) can be set by the software, this helps define where in the encoders revolution this pulse occurs and can help fine tune the settings. The pulse can be set according to the mechanical position of the encoder and can also help make mounting the encoder simpler e.g. the positioning the locking collar in more difficult to reach locations. **NB this setting should be carried out after the other changes are made.**

Max rpm is not a value that can be directly changed, but will change according to the resolution set and is an indicator of limiting speed based on the frequency of pulses.

Max rpm: 3000rpm (500KHz)   best performance setting rpm/ edge distance filter

The Read button will re-fresh the parameters and check what Is currently set in the encoder. this will show any errors in communication. The error can be cleared by clicking on Clear Error.

Encoder status: Read   ✔ No error   Clear error

Or selecting   Advanced diagnostics   will open up the field to show details of the error

Encoder status: No error

Read

Clear error

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Close the software before disconnecting the encoder from the IP/IQ module.