

# EMIP – Quick reference

## EMIP – Programming tool

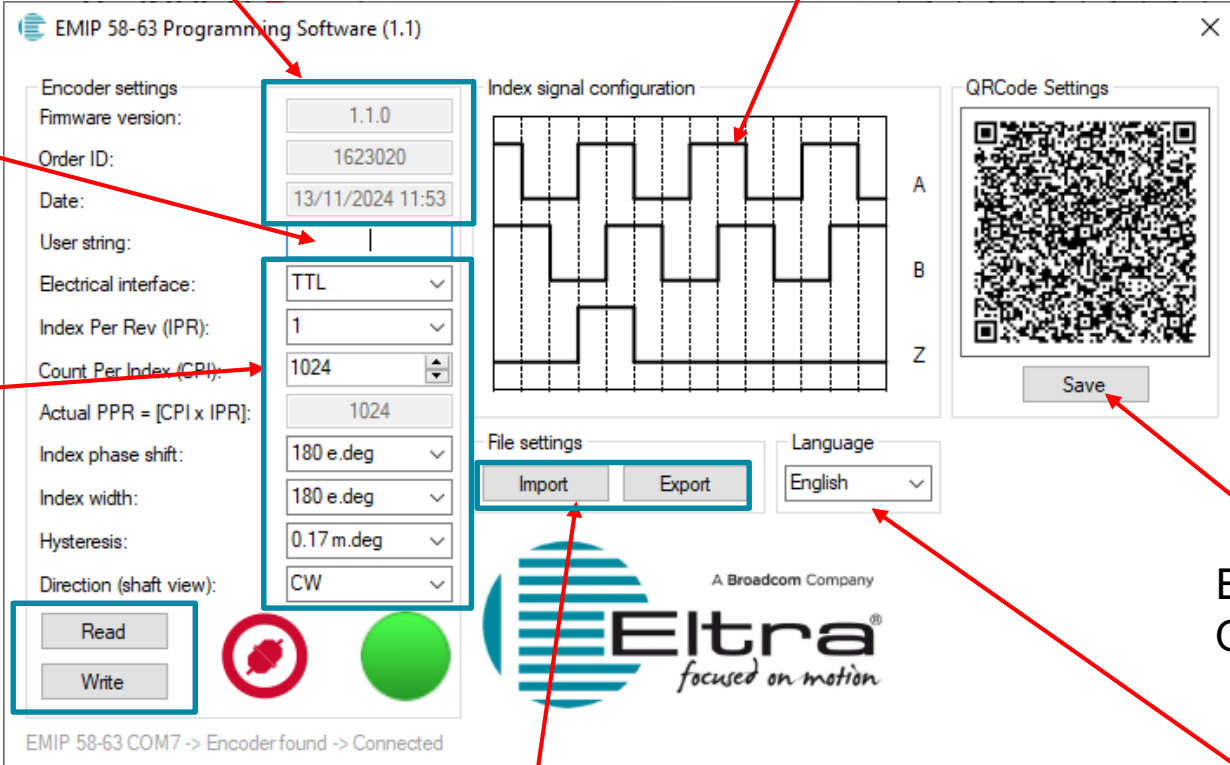


- USB interface PC side
- 4 wires interface encoder side (+V DC / 0V / Z+ / Z-)
- No additional power supply required
- Switch to control the encoder power supply of the encoder
- 2 led (USB / encoder power supply) for diagnosis purposes
- M12 / M23 / MIL -> cage clamp cable dongles available as optional (rif. *en UPT-001.pdf*)

# EMIP – Programming Sequence

1. Download the drivers and the software (<http://www.eltra.it/download-area/installation-manual-gsd-eds//download/1830>). You need to be logged in before downloading the file
2. Unzip the EMIP-58-63-PCSW.zip file
3. Install the USB drivers (USB driver/CDM212364\_Setup.exe)
4. Install the EMIP software (Setup.exe)
5. Plug the USB programming tool to the PC USB port. The green LED on the programming tool turns on
6. Run the EMIP software. The icons show that encoder is not connected
7. Connect the encoder to the USB programming tool through the cable dongle
8. Click on the Plug icon
9. Power on the encoder within 10 second through the switch on the programming tool. The icons change and the red LED on the programming tool turns on
10. Select the parameters in the GUI
11. Save the settings into the encoder (Write). Wait about 2 seconds
12. Switch off the encoder power supply from the encoder.
13. Click on the Plug icon
14. The icon shows that the encoder is not connected
15. Disconnect the encoder





The screenshot shows the EMIP 58-63 Programming Software (1.1) interface. It includes several sections: Encoder settings, Index signal configuration, QRCode Settings, File settings, and Language. Red arrows point from descriptive text to specific elements in the GUI.

- Production data (read only)**: Points to the Firmware version, Order ID, and Date fields.
- User string (e-label)**: Points to the User string input field.
- Encoder parameters to be selected**: Points to the Electrical interface, Index Per Rev (IPR), Count Per Index (CPI), Actual PPR, Index phase shift, Index width, Hysteresis, and Direction (shaft view) settings.
- Read or Write parameters from / to the encoder**: Points to the Read and Write buttons.
- Signal configuration graph**: Points to the Index signal configuration graph showing waveforms for A, B, and Z signals.
- Import or Export product setting from / to a file**: Points to the Import and Export buttons in the File settings section.
- Export a QRCode**: Points to the Save button in the QRCode Settings section.
- Language Selector**: Points to the Language dropdown menu.

## Hysteresis Preferential Settings

Hysteresis indicates the (angular) delay between the mechanical position and the position indicated by the encoder when changing direction.

We recommend to validate the parameters based on your specific application.

The below settings are generic and not intended for any specific application.

Hysteresis	Actual PPR
0.00 (OFF)	> 16384
0.01 m deg	> 8192 AND <= 16384
0.02 m deg	> 4096 AND <= 8192
0.04 m deg	> 2048 AND <= 4096
0.08 m deg	> 1024 AND <= 2048
0.17 m deg	> 512 AND <= 1024
0.35 m deg	> 256 AND <= 512
0.70 m deg	<= 256

## Icons legend

Encoder not connected and not power



Encoder connected and powered on.



Encoder not powered on.



Communication time out: click on the Plug icon and power on the encoder





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