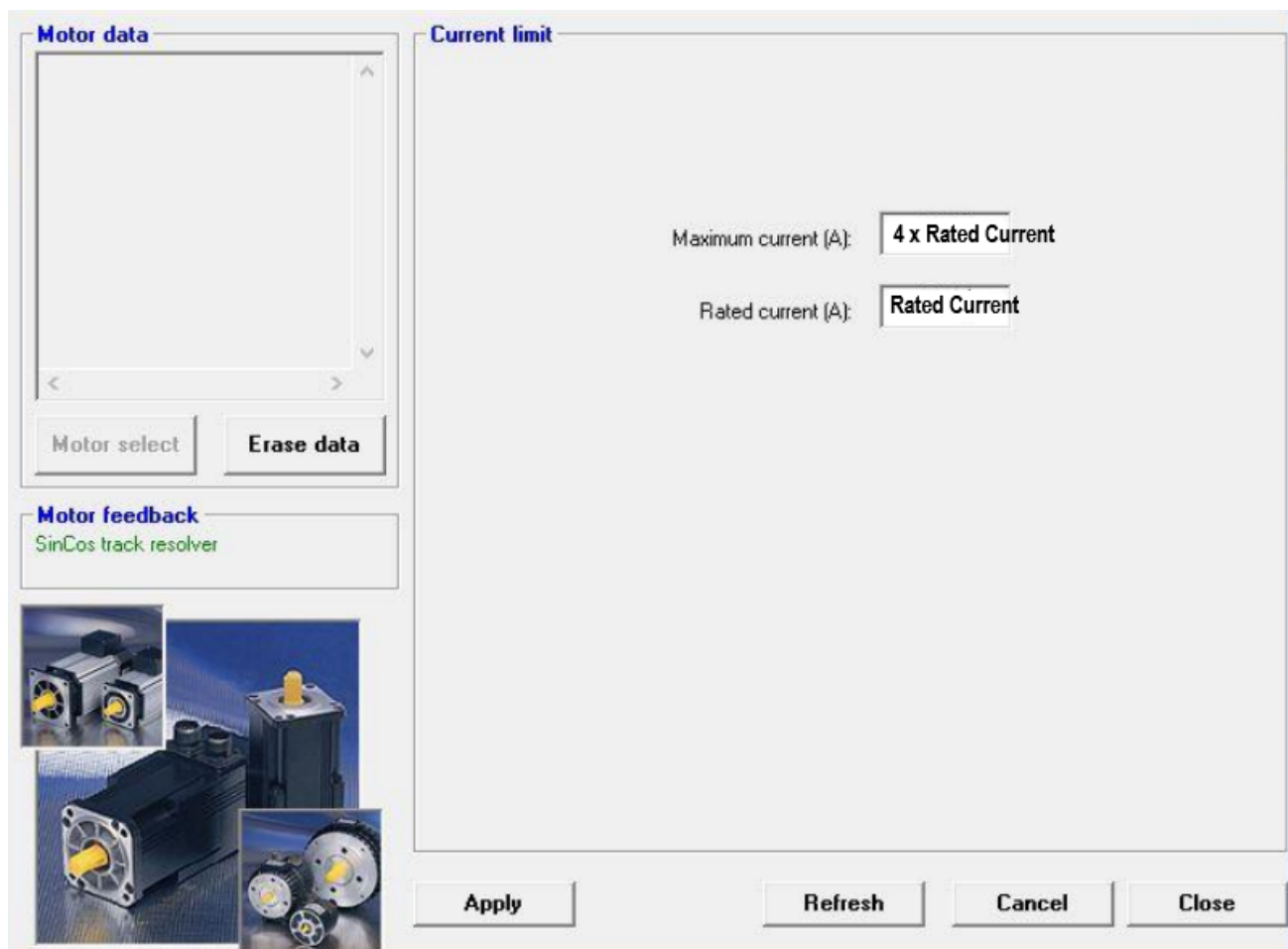


Xtrapulspack-Servoantrieb TTL-Inkrementalencoder

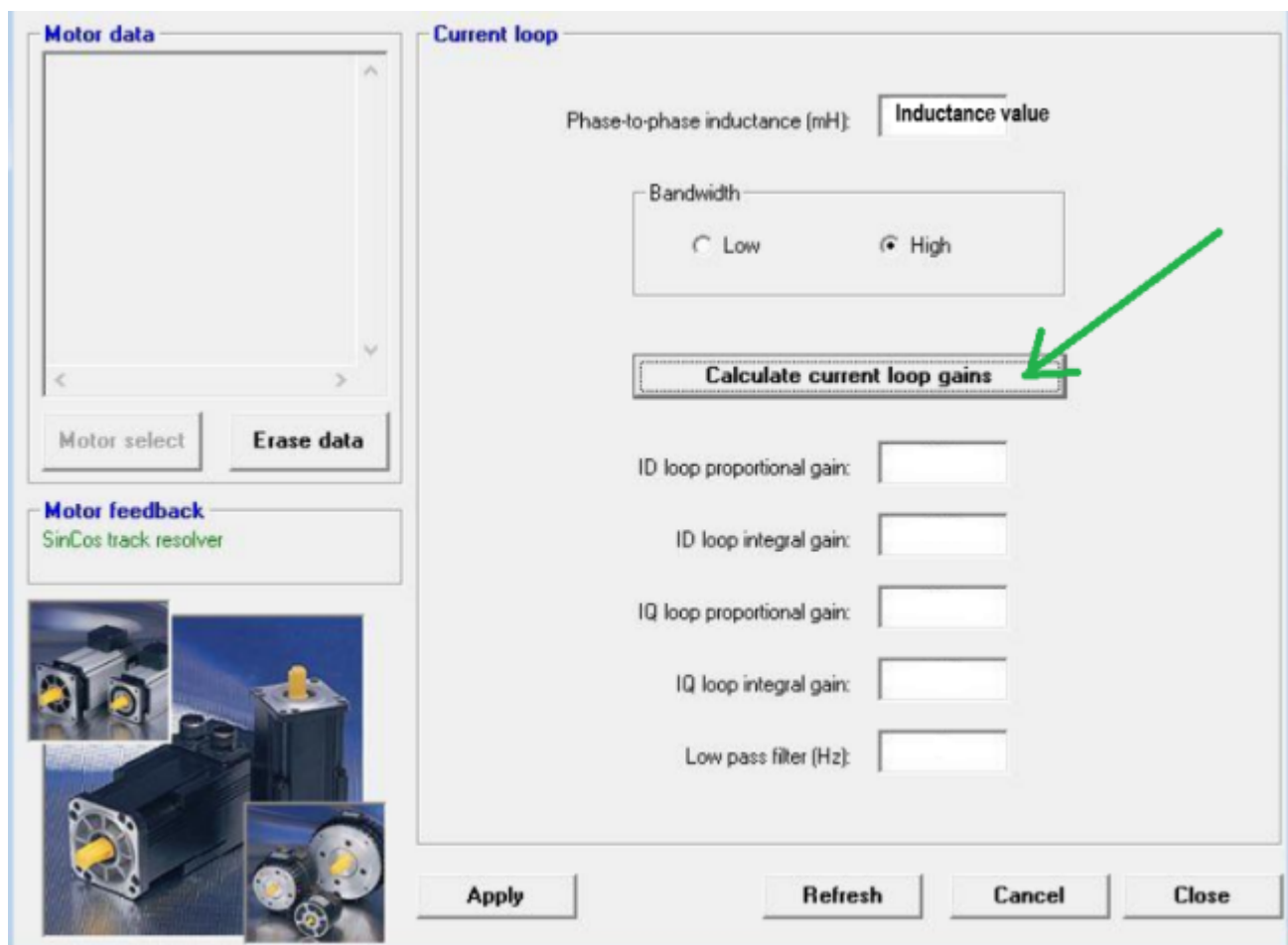
Für die Konfiguration des Xtrapulspack wird die Gem Drive Studio Software verwendet.

Bitte verwenden Sie unsere [Datasheet Engine](#), um die Motorparameter zu sehen.

Schritt 1) ⇒ Motorkonfiguration ⇒ Strombegrenzung



Schritt 2) => Motorkonfiguration => Stromregelung



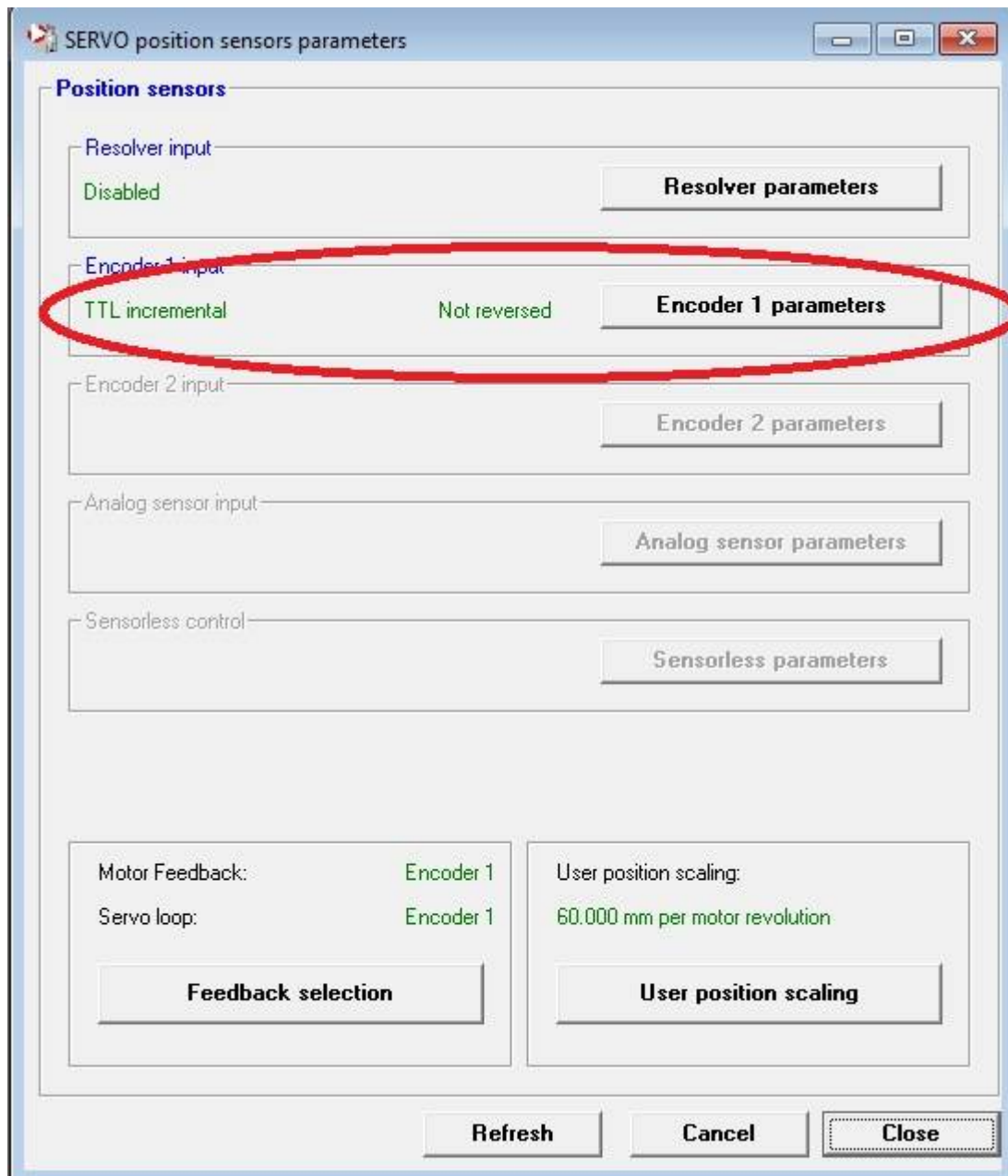
The screenshot shows a software interface for motor configuration. It is divided into two main sections: 'Motor data' on the left and 'Current loop' on the right. The 'Motor data' section includes a large empty text area, a 'Motor select' button, and an 'Erase data' button. Below this, the 'Motor feedback' section shows 'SinCos track resolver' as the selected option, accompanied by several images of different motor types. The 'Current loop' section contains the following controls:

- 'Phase-to-phase inductance (mH):' with a text input field containing 'Inductance value'.
- 'Bandwidth:' with two radio buttons, 'Low' and 'High', where 'High' is selected.
- A button labeled 'Calculate current loop gains', which is highlighted by a green arrow.
- 'ID loop proportional gain:' with a text input field.
- 'ID loop integral gain:' with a text input field.
- 'IQ loop proportional gain:' with a text input field.
- 'IQ loop integral gain:' with a text input field.
- 'Low pass filter (Hz):' with a text input field.

At the bottom of the 'Current loop' section, there are four buttons: 'Apply', 'Refresh', 'Cancel', and 'Close'.

Schritt 3) Positionssensoren

Um den digitalen Ausgangs-Inkrementalencoder als Motorfeedback zu verwenden, deaktivieren Sie bitte den Resolver-Eingang und wählen Sie TTL-Inkremental.



Verwenden Sie standardmäßig die Auflösung von 8192 Impulsen/Zyklus. Wenn der Motor eine andere Auflösung hat, verwenden Sie bitte die richtige hier.

SERVO position sensors parameters

Encoder 1 parameters

Enable encoder 1 input ☒

Encoder type: TTL incremental encoder

Resolution (inc per motor revolution): 8192
(1 signal period = 4 inc)

Zero mark pitch (inc): 0
(1 signal period = 4 inc)

Encoder 1 parameters

Zero mark shift (inc): 0

Zero mark width (inc): 32

Reverse direction ☐

Absolute encoder init.

Max. value (encoder modulo): 4095

Init. position range Read encoder position

Encoder position value: ...

Apply Refresh Cancel Close

Schritt 4) Positionssensoren ⇒ Benutzer-Positionsskalierung

User position scaling

Position unit

☐ Revolution

☐ Increment

☒ Millimeter

☐ Meter

☐ Degree

☐ Other unit:

Display factor

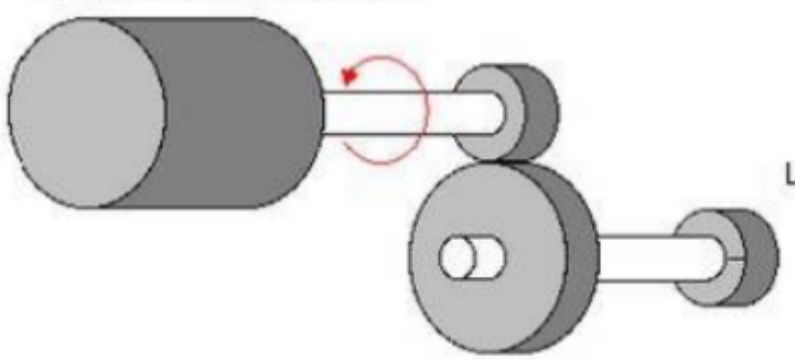
☐ 1

☐ 0.1

☒ 0.01

☐ 0.001

Motor displacement: 1 revolution



Load displacement in mm:

Apply Refresh Cancel Close

Schritt 5) Motorkonfiguration ⇒ Autophasing

Motor data

Motor select Erase data

Motor feedback
SinCos track resolver

Autophasing

Motor type

Rotative
Brushless

Start Autophasing procedure

Poles pairs: 1

Phase order: ☒ 120° ☐ 240°

Position sensor offset:

Apply Refresh Cancel Close

Schritt 6) Bewegungsprofilanforderungen angeben

Verwenden Sie Profilmodi, um mit dem **Position-Profilmodus** die Geschwindigkeits- und Beschleunigungsanforderungen für Ihre Anwendung anzugeben.

Schritt 7) Autotune durchführen

Verwenden Sie Regler $\Rightarrow$ Autotuning, um den Motor entsprechend den Position-Profilmodus-Spezifikationen abzustimmen.

From:
<https://dokuwiki.nilab.at/> - NiLAB GmbH
Knowledgebase

Permanent link:
https://dokuwiki.nilab.at/doku.php?id=de:green_drive_motors:xtrapulspack_incremental

Last update: 2026/09/11 12:44

