

Xtrapulspack-Servoregler TTL-Inkrementalencoder

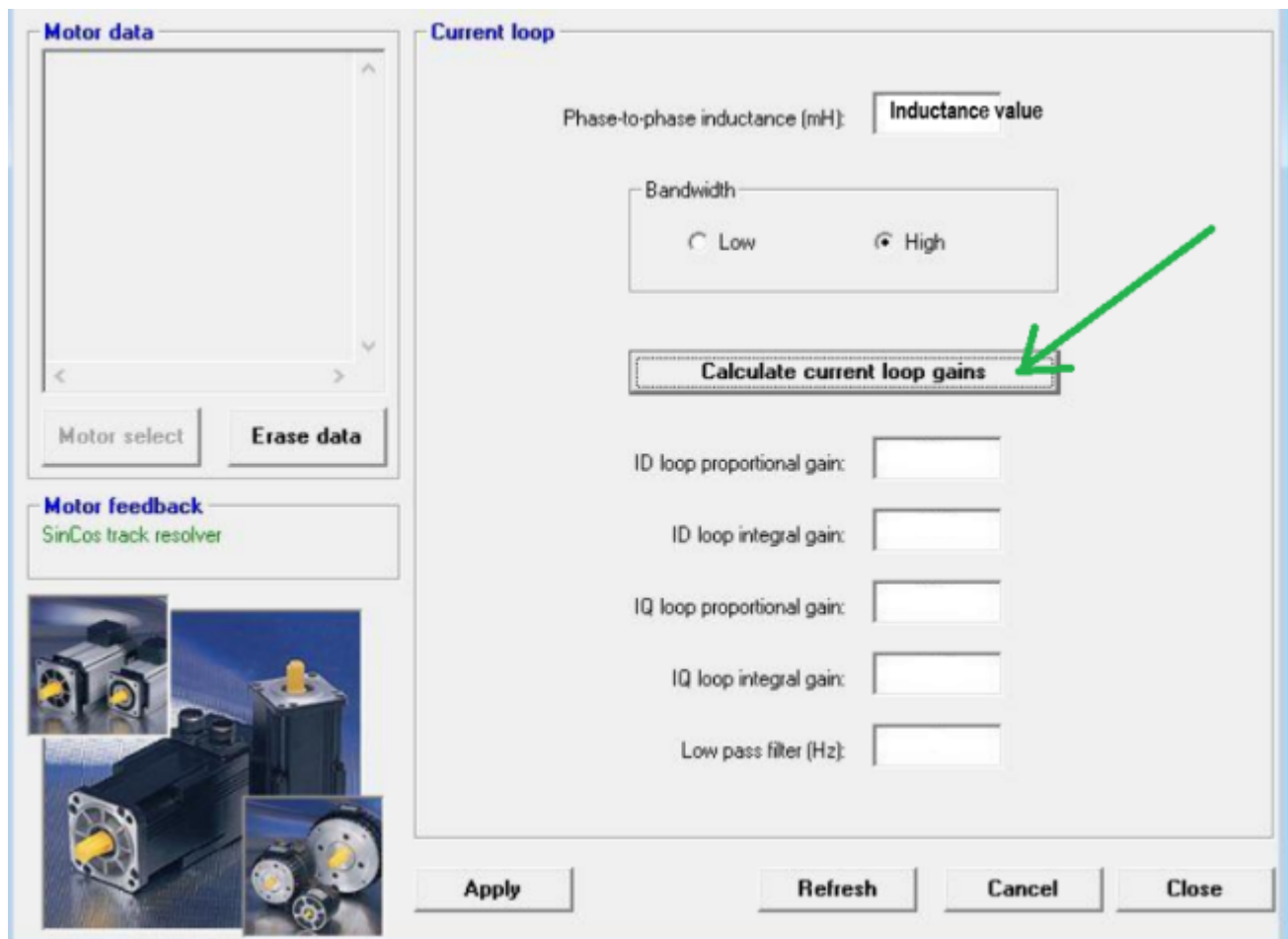
Für die Konfiguration des Xtrapulspack wird die Gem Drive Studio Software verwendet.

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

Schritt 1) ⇒ Motorkonfiguration ⇒ Strombegrenzung

The screenshot displays the 'Current limit' configuration window in the Gem Drive Studio software. The window is divided into two main sections: 'Motor data' on the left and 'Current limit' 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'. The 'Current limit' section contains two input fields: 'Maximum current (A):' set to '4 x Rated Current' and 'Rated current (A):' set to 'Rated Current'. At the bottom of the window, there are four buttons: 'Apply', 'Refresh', 'Cancel', and 'Close'. A collage of motor images is visible in the bottom left corner of the 'Motor data' section.

Schritt 2) => Motorkonfiguration => Stromregelung



The screenshot shows a software interface for motor configuration. On the left, there is a 'Motor data' section with a list box and 'Motor select' and 'Erase data' buttons. Below it is the 'Motor feedback' section, which currently shows 'SinCos track resolver' and includes several images of different motor types. The main area is the 'Current loop' configuration tab. It contains a 'Phase-to-phase inductance (mH)' field with a 'Inductance value' button. Below this is a 'Bandwidth' section with 'Low' and 'High' radio buttons, where 'High' is selected. A green arrow points to a button labeled 'Calculate current loop gains'. Below this button are five input fields for: 'ID loop proportional gain', 'ID loop integral gain', 'IQ loop proportional gain', 'IQ loop integral gain', and 'Low pass filter (Hz)'. At the bottom of the window 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.

SERVO position sensors parameters

Position sensors

Resolver input: Disabled **Resolver parameters**

Encoder 1 input: **TTL incremental** Not reversed **Encoder 1 parameters**

Encoder 2 input: **Encoder 2 parameters**

Analog sensor input: **Analog sensor parameters**

Sensorless control: **Sensorless parameters**

Motor Feedback: Encoder 1
Servo loop: Encoder 1 **Feedback selection**

User position scaling: 60.000 mm per motor revolution **User position scaling**

Refresh **Cancel** **Close**

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

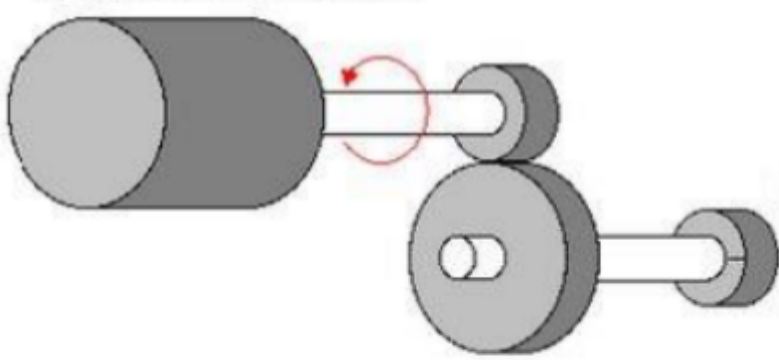
☐ 1

☐ 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.

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