

SBD-Servoantrieb

Die SDSetup-Software wird verwendet, um den SBD-Antrieb zu konfigurieren:

[:green_drive_motors:sdsetup.zip](#)

EtherCAT-Version ESI-Datei: [:green_drive_motors:cmz_sbd_etc.zip](#)

TwinCAT-Anwendungsnotiz: [:green_drive_motors:sdsetup-twincat_cmz_en.pdf](#)

CANopen-Version EDS-Datei: [:green_drive_motors:sbdcan.zip](#)

ProfiNET-Version GSDML-Datei: [:green_drive_motors:gsdml_sbd_ssd.zip](#)

TiA-Portal-Anwendungsnotiz: [:green_drive_motors:cmzdrivespnt_tiaportal.zip](#)

1) Angabe eines neuen Motors mit

Ein neuer Motor kann über Datei ⇒ Benutzermotoren ⇒ Verwalten hinzugefügt werden. Verwenden Sie [Datasheet Engine](#), um die Motorparameter anzuzeigen.

Nachfolgend zum Beispiel die GD350XS-Motorparameter.

User motors

Name: Manufacturer:

Motor data

Model:	GD350XS
Motion type:	AC3 linear
Poles:	2 poles
Rated current:	2.61 A
Max current:	9.00 A
Mass:	1.00 kg
Inductance:	7.50 mH
Resistance:	7.650 ohm
Force constant:	73.0 N/A
Rated force:	191.0 N
Max force:	1242.0 N
Rated speed:	4.000 m/s
*Max speed:	4.400 m/s
*Max voltage:	1000.0 V
Pole pitch:	60 mm

Feedback sensor

Type:

Phasing offset: ° Phase polarity: °

Temperature sensor

Type:

Fault threshold: ohm

Overload protection

☒ Enabled

*Time: s

Brake

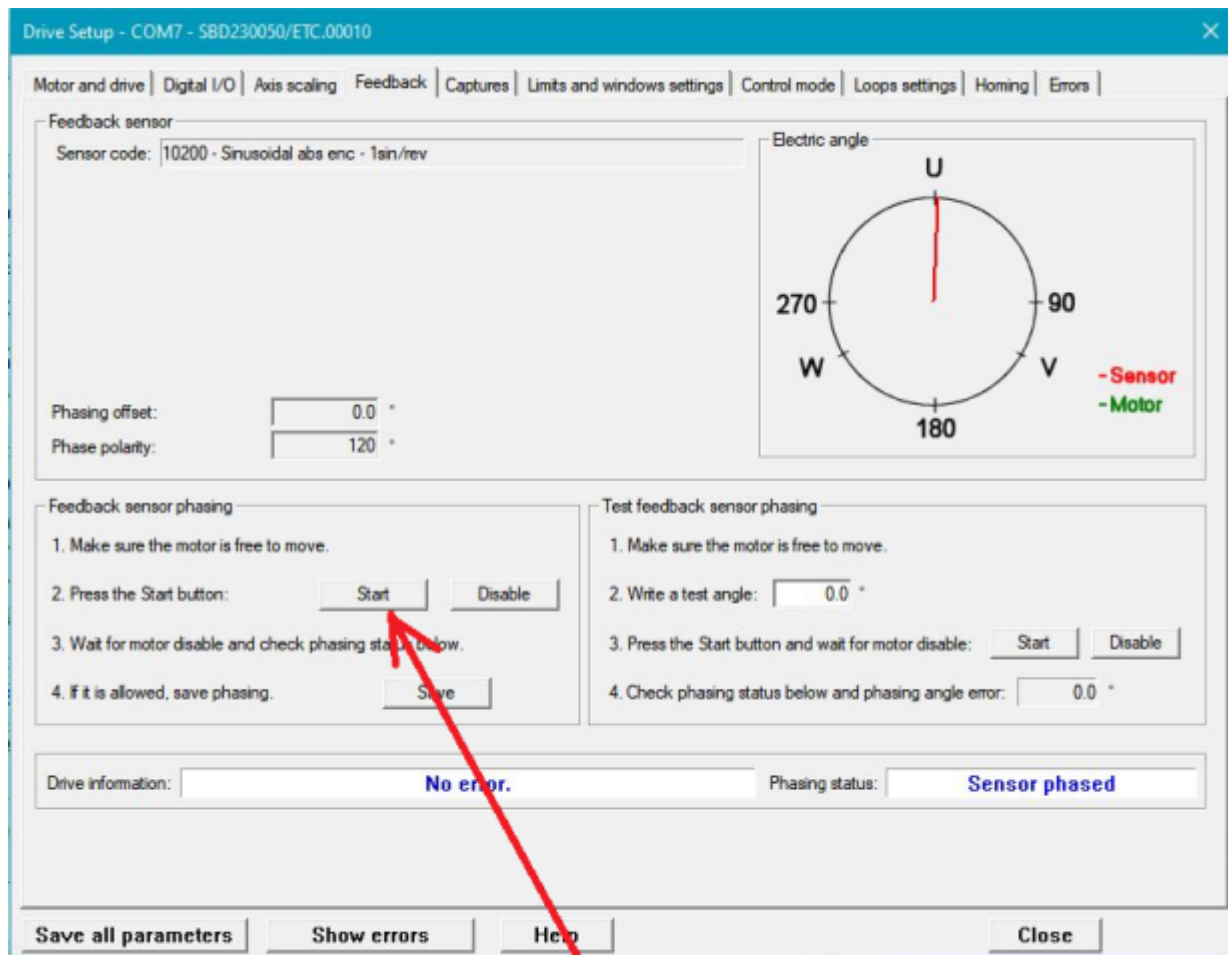
☐ Present

Opening time: ms

Closing time: ms

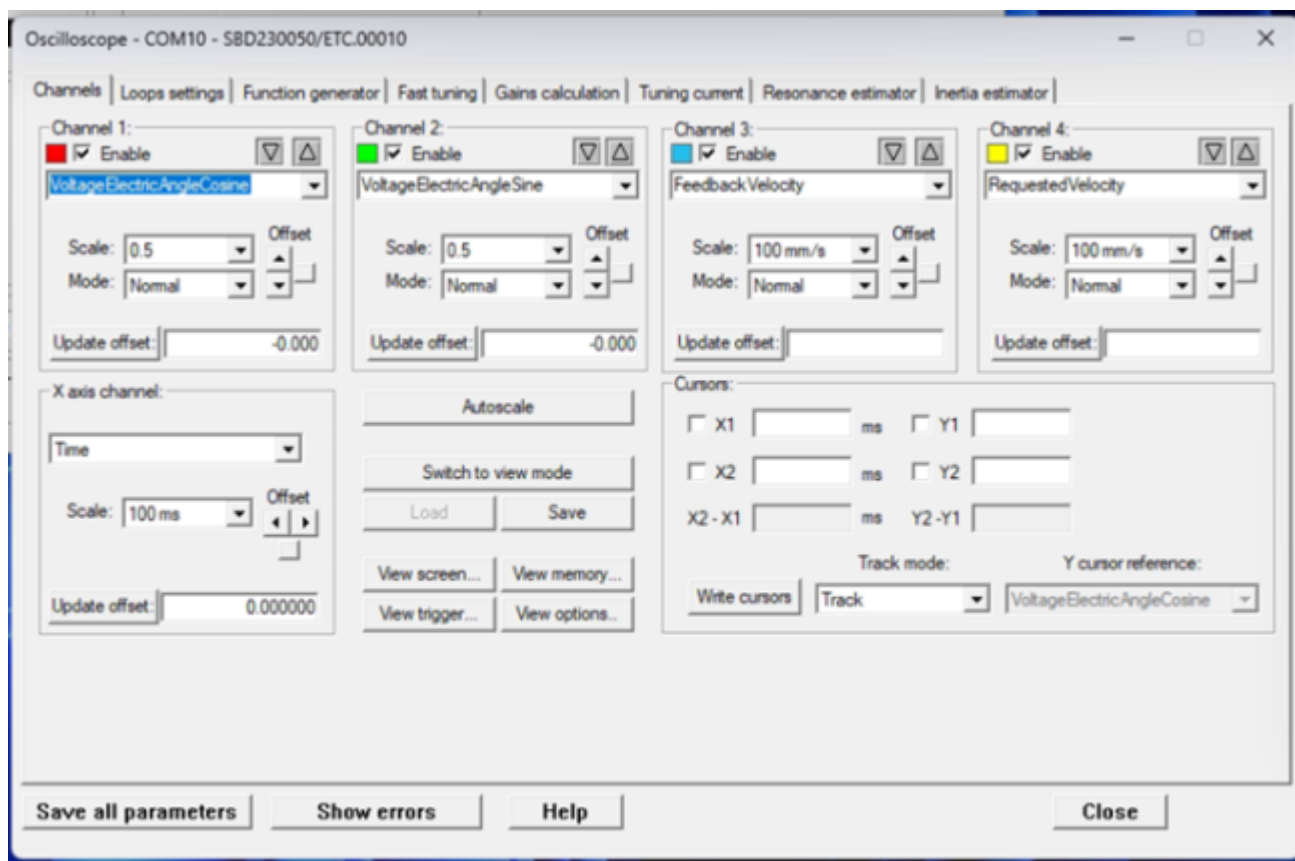
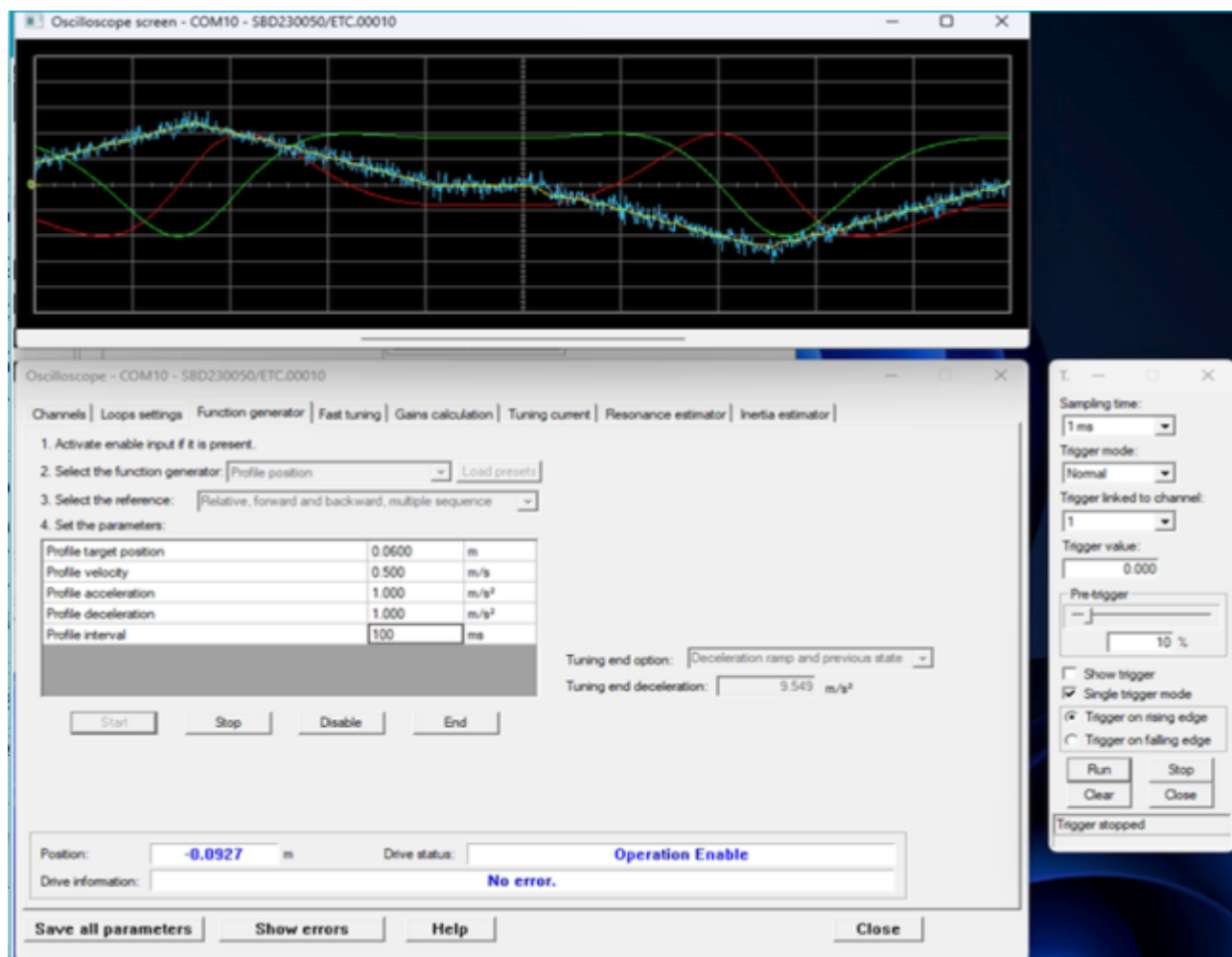
☒ *Auto calculate

2) Phasenlage des Motors



3) Tuning des Motors

Mit dem Funktionsgenerator ein Bewegungsprofil angeben.



4) Beispiel für Loop-Einstellungen

The screenshot displays the 'Oscilloscope - COM10 - SBD230050/ETC.00010' control interface. It features a top navigation bar with tabs: Channels, Loops settings (selected), Function generator, Fast tuning, Gains calculation, Tuning current, Resonance estimator, and Inertia estimator. The main area is divided into several sections for configuring different control loops:

- Position loop:** Includes KPp (60), KVF (1.000), a 'Close position loop' checkbox, a 'Position stand still' section with an 'Enable' checkbox and a slider, and 'Stability' (34) and 'Stiffness' settings. A 'Position error dead band' is set to 0.0000 m. An 'Estimated bandwidth' of 15 Hz is shown with a 'Recalculate' button.
- Velocity loop:** Includes KVp (100), KVi (37), KAd (1.000), KVd (24), and KVd filter frequency (15000). A 'Velocity stand still' section has an 'Enable' checkbox and a slider. 'Stability' (63) and 'Stiffness' settings are present.
- V filters:** A table for configuring three filters:

Filter	Type	Frequency
1:	Low pass 2nd order	100 Hz
2:	None	2000 Hz
3:	None	2000 Hz

A 'Sensor' dropdown is set to 'None' with a frequency of 2000 Hz. An 'Angle observer bandwidth' of 798 Hz and an 'Estimated bandwidth' of 53 Hz are shown with a 'Recalculate' button.
- Current loop:** Includes KCp_Q (2771), KQ_Q (8190), KCp_D (2771), and KQ_D (8190). A 'C filter' section has a 'Type' dropdown set to 'Low pass 1st order' and a 'Frequency' of 500 Hz. A 'KC_Q reduction' section has a slider set to 0.000 and an 'Enable' checkbox. There are checkboxes for 'Enable predictive measure' and 'Enable EMF compensation'. An 'Estimated bandwidth' of 345 Hz is shown with a 'Recalculate' button.

At the bottom, there are buttons for 'Load loops parameters from permanent memory', 'Recalculate all loops', 'End actual tuning command', 'Save all parameters', 'Show errors', 'Help', and 'Close'.

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Knowledgebase

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