

SBD Servo Drive

SDSetup software is used to configure SBD drive: [:green_drive_motors:sdsetup.zip](#)

EtherCAT version ESI file: [:green_drive_motors:cmz_sbd_etc.zip](#)

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

CanOPEN version EDS file: [:green_drive_motors:sbdcan.zip](#)

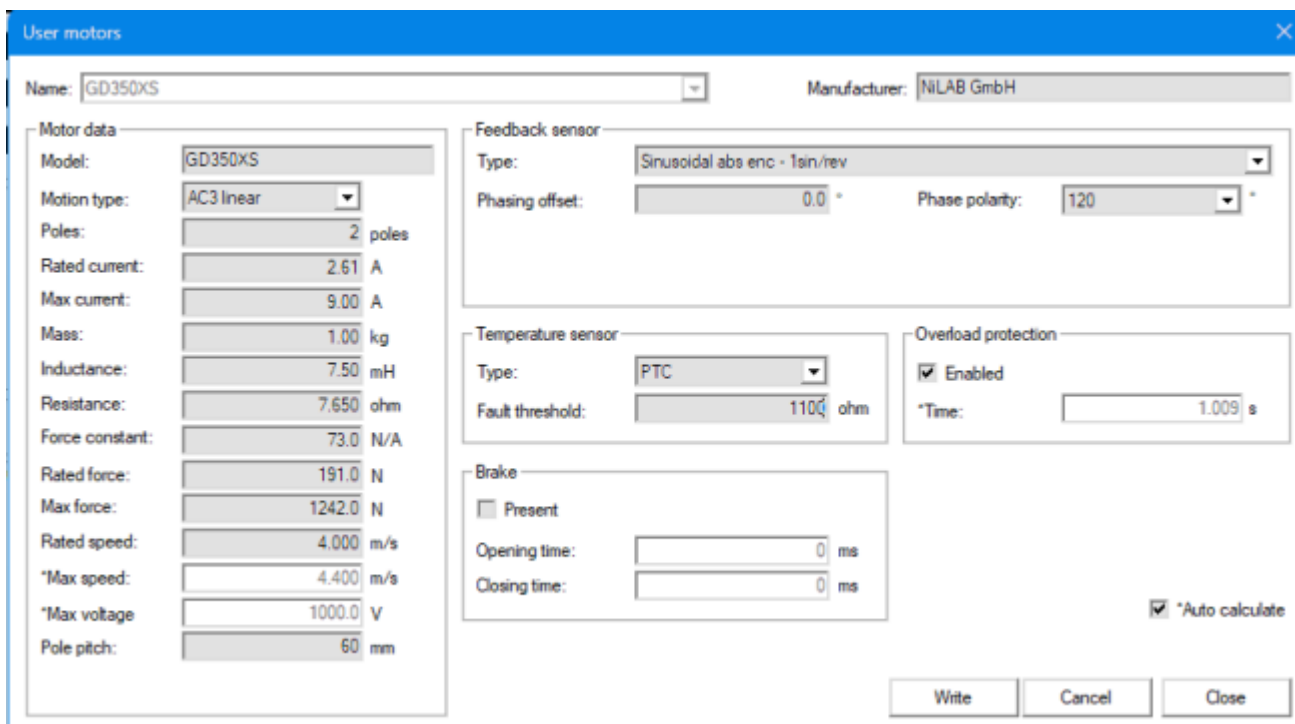
ProfiNET version GSDML file: [:green_drive_motors:gsdml_sbd_ssd.zip](#)

TiA Portal application note: [:green_drive_motors:cmzdrivespnt_tiaportal.zip](#)

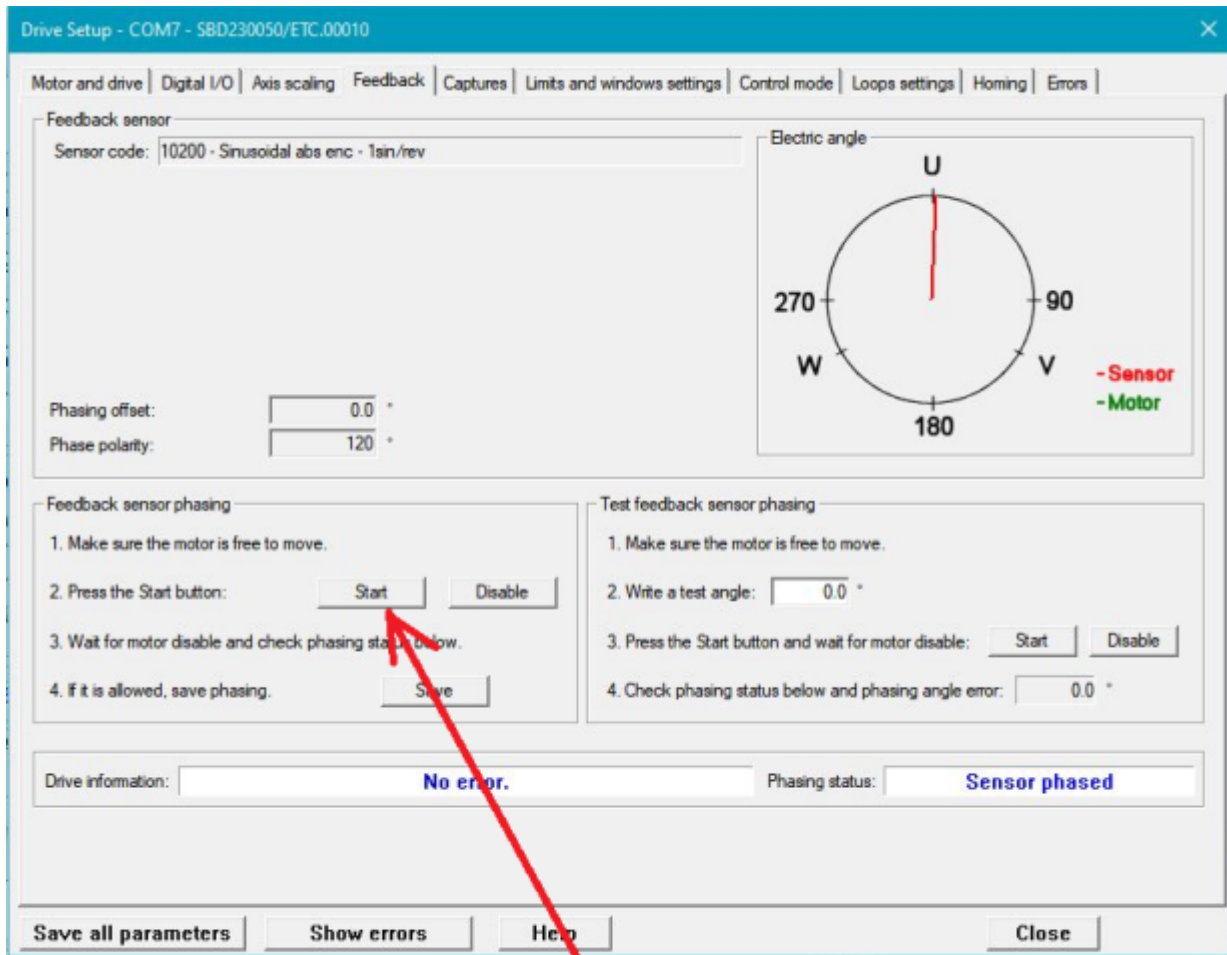
1) Specify a new motor using

A new motor can be added using File ⇒ User motors ⇒ Manage. Use [Datasheet Engine](#) to view the motor parameters.

Here below, for example the GD350XS motor parameters.



2) Phasing the motor



3) Tuning the motor

Using function generator, specify a motion profile

Oscilloscope screen - COM10 - SBD230050/ETC.00010

Channels | Loops settings | Function generator | Fast tuning | Gains calculation | Tuning current | Resonance estimator | Inertia estimator

1. Activate enable input if it is present.
2. Select the function generator: Profile position
3. Select the reference: Relative, forward and backward, multiple sequence
4. Set the parameters:

Profile target position	0.0600	m
Profile velocity	0.500	m/s
Profile acceleration	1.000	m/s ²
Profile deceleration	1.000	m/s ²
Profile interval	100	ms

Tuning end option: Deceleration ramp and previous state
Tuning end deceleration: 9.549 m/s²

Start Stop Disable End

Position: -0.0927 m Drive status: Operation Enable
Drive information: No error.

Save all parameters Show errors Help Close

Sampling time: 1 ms
Trigger mode: Normal
Trigger linked to channel: 1
Trigger value: 0.000
Pre-trigger: 10 %
Run Stop Clear Close
Trigger stopped

Oscilloscope - COM10 - SBD230050/ETC.00010

Channels | Loops settings | Function generator | Fast tuning | Gains calculation | Tuning current | Resonance estimator | Inertia estimator

Channel 1: Enable VoltageElectricAngleCosine Scale: 0.5 Mode: Normal Update offset: -0.000

Channel 2: Enable VoltageElectricAngleSine Scale: 0.5 Mode: Normal Update offset: -0.000

Channel 3: Enable FeedbackVelocity Scale: 100 mm/s Mode: Normal Update offset:

Channel 4: Enable RequestedVelocity Scale: 100 mm/s Mode: Normal Update offset:

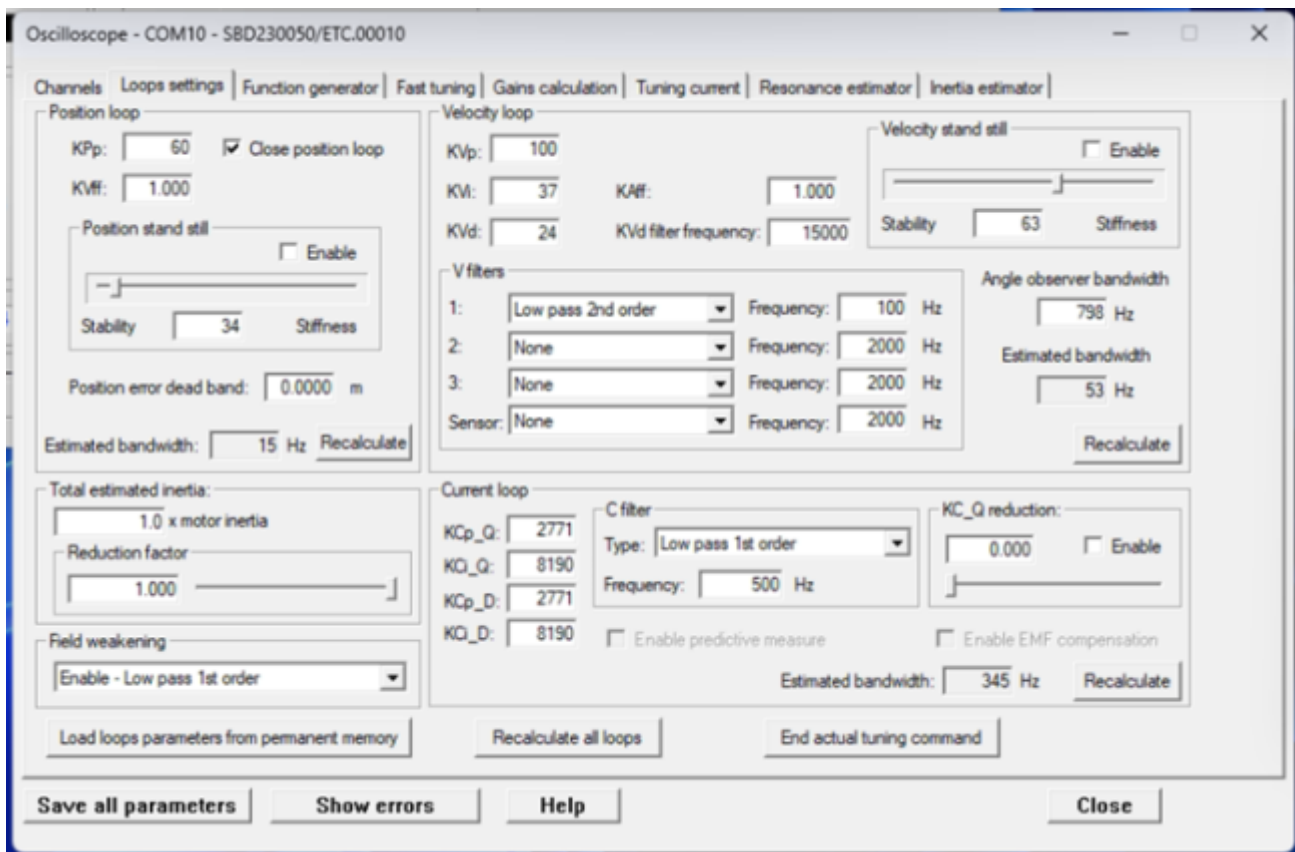
X axis channel: Time Scale: 100 ms Update offset: 0.000000

Autoscale Switch to view mode Load Save View screen... View memory... View trigger... View options...

Cursors: X1 X2 X2 - X1 Y1 Y2 Y2 - Y1 Track mode: Track Y cursor reference: VoltageElectricAngleCosine Write cursors

Save all parameters Show errors Help Close

4) Example of loop settings



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

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