

Programowanie serwonapędów SD6 / SC6 / SI6

firmy Stober Antriebstechnik



STÖBER
DriveControlSuite



**Konfiguracja parametrów w programie DriveControlSuite
dla zparametryzowania pracy silnika z zewnętrznym enkoderem**

Praca w takim trybie możliwa jest w aplikacji STOBER Drive Based Synchronous.

Pierwszym krokiem jest podłączenie enkodera do tzw. szybkich wejść karty opcjonalnej tj. BE4 oraz BE5.

Następnie przechodzimy do ustawień enkodera w programie DCS gdzie wybieramy zewnętrzny enkoder jako master:

Wizards - A1 : Axis 1 - T1 : Drive controller 1 - M1 : Module 1

| | | | | |
|---|---|------------------|--|---------------|
| <ul style="list-style-type: none">Status displayEnergy supplyBraking resistor> MotorHolding brakeEncoder> X4X120Binary inputBinary output simulationSource for encoder simulation binary outp...Master encoder scaling> Axis model> ReferencingJog control panelPLCopen control panelSTOBER device control> Application STOBER Drive Based Synchronous> Motion core> Controller cascade> Terminals> Control/status words> EtherCATSynchronization PLL> Protection functions> Local operationRemote maintenance> Monitoring drive controller> Fault memorySave valuesRestart | Encoder | | | |
| | 1.B26 Motor encoder | 2: X4 encoder | Motor encoder | |
| | 1.C34 Actual motor speed low pass | 0,8 ms | E08 n-motor filtered | 0,000 rpm |
| | 1.B297 Maximum-speed motorencoder | 10000 rpm | E09 Motor position | 1980,2335 rev |
| | 1.B298 Error-tolerance motorencoder | 1,0 | B299 Error-evaluation motorencoder | 0,0 |
| | | | B296 Error-counter motor-encoder | 0 |
| | 1.I02 Position encoder | 0: Motor encoder | Position encoder | |
| | 1.I19 Position/ actual speed low pass | 1,0 ms | 1.I88 Actual speed | 0 °/s |
| | 1.I297 Maximum speed position encoder | 60000 °/s | 1.I80 Current position | -35531,1779 ° |
| | 1.I298 Error tolerance position encoder | 1,0 | I299 Error evaluation position encoder | 0,0 |
| | | | I296 Error counter position encoder | 2985 |
| | G104 Source master encoder | 1: BE encoder | Master encoder | |
| | G342 Masterfilter position low pass | 1,0 ms | G105 master-encoder velocity | 0 °/s |
| | G297 maximum-speed master-encoder | 10E+6 °/s | G122 Lead-position producer | 423,6328 ° |
| | G298 error-tolerance master-encoder | 1,0 | G299 error-evaluation master-encoder | 0,0 |
| | | | G296 error-counter master-encoder | 0 |

Back Next

W kolejnym kroku przechodzimy do ustawień wejść binarnych, gdzie zmieniamy typ enkodera na inkrementalny, H41 odpowiada za skalowanie, H42 to ilość impulsów enkodera.

Wizards - A1 : Axis 1 - T1 : Drive controller 1 - M1 : Module 1

- Status display
- Energy supply
- Braking resistor
- > Motor
- Holding brake
- ▼ Encoder
 - > X4
 - X120
 - Binary input**
 - Binary output simulation
 - Source for encoder simulation binary outp...
 - Master encoder scaling
- > Axis model
- > Referencing
- Jog control panel
- PLCopen control panel
- STOBER device control
- > Application STOBER Drive Based Synchronous
- > Motion core
- > Controller cascade
- > Terminals

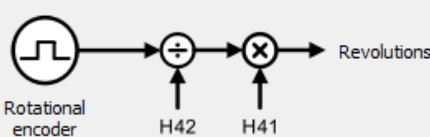
Binary input

1.H40 BE encoder:

1.H43 Encoder version:

1.H41 BE numerator:

1.H42 BE denominator:




Rotational encoder → \div (H42) → \times (H41) → Revolutions

Kolejny krok to przejście do ustawień aplikacji oraz wybranie komendy GearIn:

- Status display
- Energy supply
- Braking resistor
- > Motor
- Holding brake
- > Encoder
- > Axis model
- > Referencing
- Jog control panel
- PLCopen control panel
- STOBER device control
- ▼ Application STOBER Drive Based Synchronous
 - Command operating mode**
 - General sources
 - Scaling analog inputs
 - Additional functions
 - Synchronous operation
 - Jog
- > Motion core
- > Controller cascade
- > Terminals
- > Control/status words
- > EtherCAT
- Synchronization PLL
- Protection functions
- > Local operation
- Remote maintenance
- > Monitoring drive controller
- > Fault memory
- Save values
- Restart

Command operating mode

| | | | |
|-------------------------------|--|---|---|
| 1.J40 Command | <input type="text" value="12: MC_GearIn"/> | 1.J50 Selected command | <input type="text" value="12: MC_GearIn"/> |
| 1.J41 Motion-ID | <input type="text" value="0"/> | 182 Active motion ID | <input type="text" value="255"/> |
| 1.J42 Position | <input type="text" value="0,0000 °"/> | 1.J36 Position D (Master Sync Position) | <input type="text" value="0,0000 °"/> |
| 1.J43 Velocity 1 | <input type="text" value="0 %/s"/> | 1.J52 Source velocity 1 | <input type="text" value="0: Parameter J43"/> |
| 1.J49 Velocity 2 | <input type="text" value="0 %/s"/> | 1.J54 Source velocity 2 | <input type="text" value="0: Parameter J49"/> |
| 1.J56 Velocity Override | <input type="text" value="100,00 %"/> | 1.J51 Source velocity Override | <input type="text" value="0: Parameter J56"/> |
| 1.J44 Acceleration | <input type="text" value="1000 %/s²"/> | | |
| 1.J45 Deceleration | <input type="text" value="1000 %/s²"/> | | |
| 1.J46 Jerk | <input type="text" value="337E+36 %/s³"/> | | |
| 1.J47 Maximum positive M/F | <input type="text" value="100,0 %"/> | | |
| 1.J48 Maximum negative M/F | <input type="text" value="100,0 %"/> | | |
| 1.J53 Engage brake at the end | <input type="text" value="0: Inactive"/> | | |



[Synchronbetriebs](#)

W tym momencie po załączeniu enable oraz wykonaniu komendy execute silnik będzie się poruszał synchronicznie z ruchem zewnętrznego enkodera.