

Config plasma

1.4S Step Kanalsteuerung



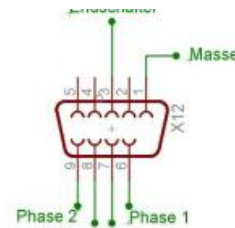
(vorgefertigte Baugruppe)

Abbildung ähnlich

- * Steuerung 1,4A - 4,2A (3A RMS)Phase
- * 3 Achsen
- * 2 Steckdosen 230V 1000W über Relais schaltbar
- * Anschluss für 3 Endschalter X,Y,Z
- * Anschluss für Notaus
- * Anschluss für Längensensor
- * 1/2 - 1/125 Mikroschrittbetrieb über Jumper einstellbar
- * Industrienetzteil intern 28V 6,5A Meanwell
- * Gewicht ca. 7kg

Zur Inbetriebnahme müssen Sie nur noch folgende Komponenten:

- * Notaus anschließen (Öffner an das offene Kabelende)
- * Ihre Software ggf. konfigurieren



Steckdosen:

Die beiden Steckdosen werden über Pin 1 und 14 der Software geschaltet

230V Anschluss Einbaustecker:

Durch öffnen des kleinen Deckels auf der Vorderseite erreichen Sie die 6,3A Sicherung.

Notaus:

In dem Einbaustecker muss **immer** die Kurzschlussbrücke oder der Notaus eingesteckt sein.

Schrittauflösung:

Die Steuerungen sind auf 1/8 Schritt (1600 Schritte pro Umdrehung) eingestellt.

Endstufen:

Verbaut werden Endstufen M542 von Leadschne

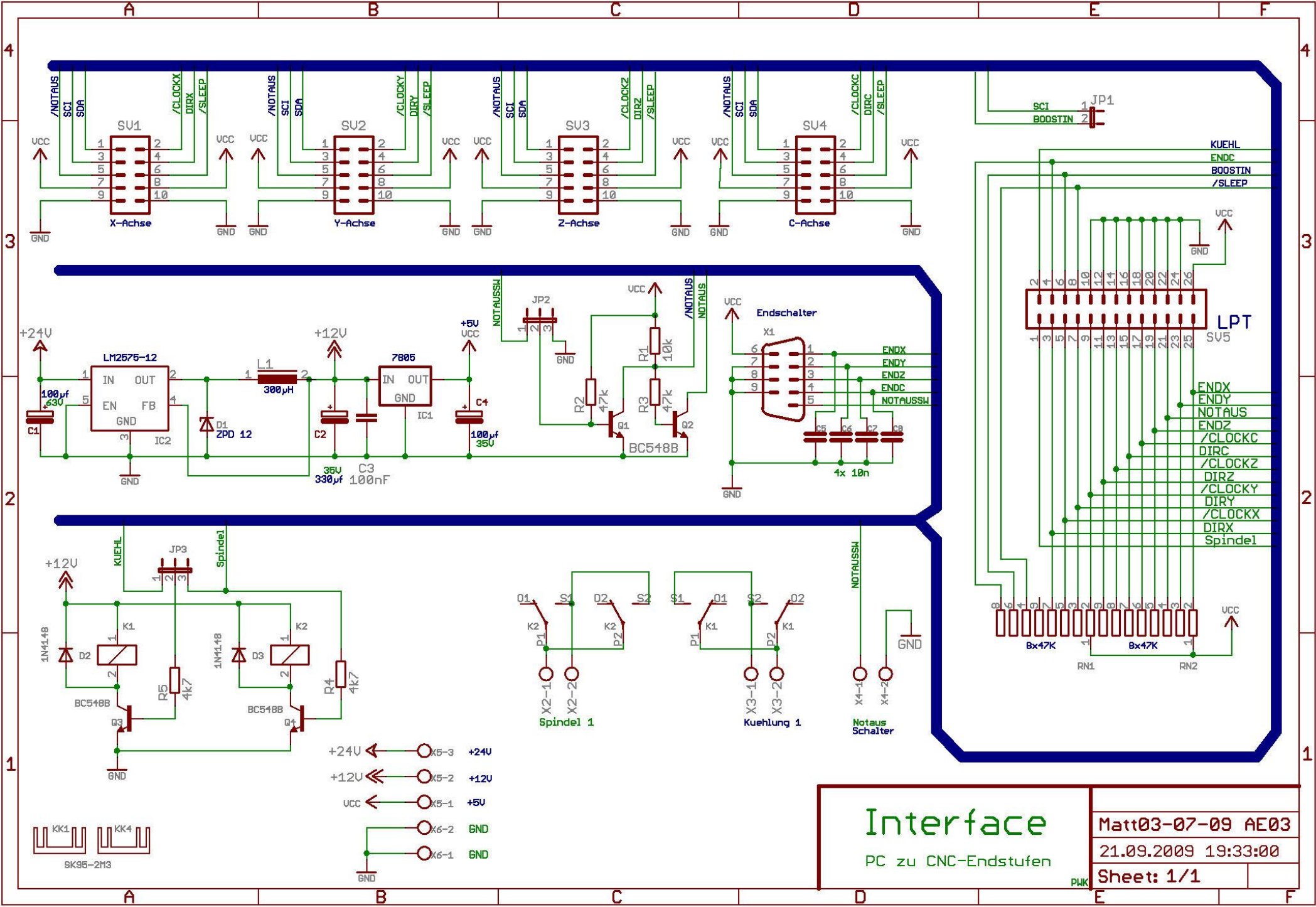
SIG und Res Buchse:

Sind nicht belegt und können für Sonderfunktionen verwendet werden.

PC-Anschluß über Flachbandkabel und D-SUB 25pol Stecker:

- Pin 1 AUS Bohrspindel an/aus (default)
- Pin 2 AUS Richtung Motor X
- Pin 3 AUS Takt Motor X
- Pin 4 AUS Richtung Motor Y
- Pin 5 AUS Takt Motor Y
- Pin 6 AUS Richtung Motor Z
- Pin 7 AUS Takt Motor Z
- Pin 8 AUS Richtung Motor 4 (z.B. Tangentialachse)
- Pin 9 AUS Takt Motor 4 (z.B. Tangentialachse)
- Pin 10 EIN Referenzschalter Z (default)
- Pin 15 inv Taster / LS (default)
- Pin 12 EIN Referenzschalter Y (default)
- Pin 13 EIN Referenzschalter X (default)
- Pin 14 AUS Kühlmittelpumpe an/aus (default)
- Pin 11 Notaus
- Pin 16 Boost
- Pin 17 inv Achse läuft
- Pin 18-25 Signalmasse (0V GND)

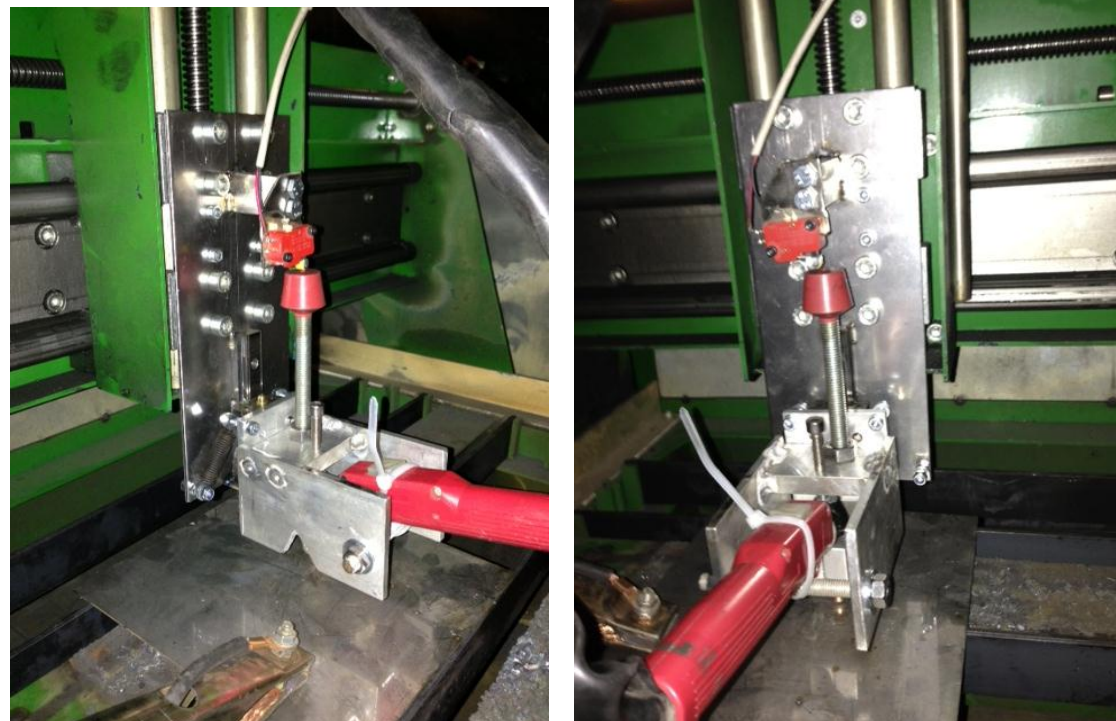
2. Interface



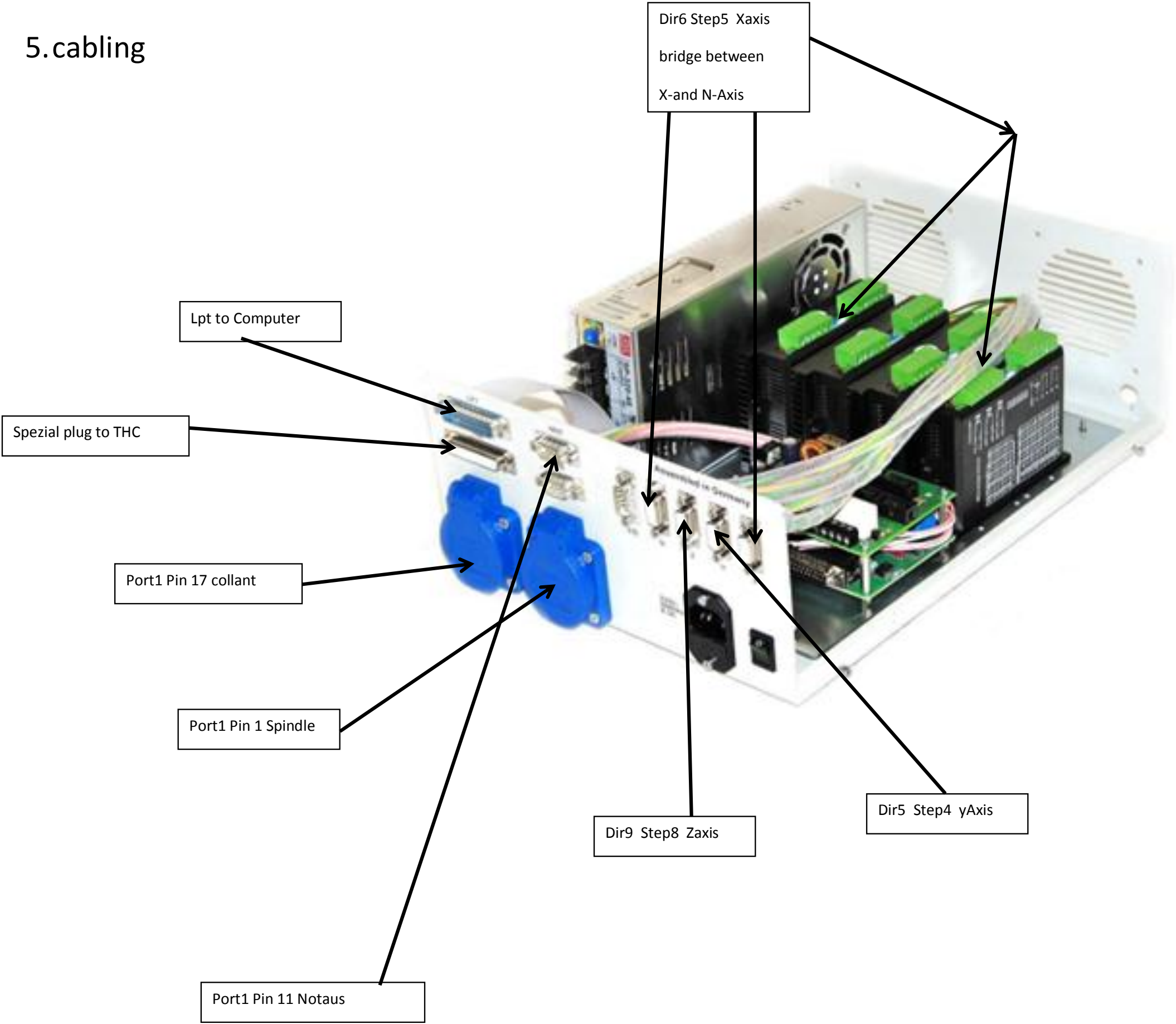
3. THC Proma elektronika



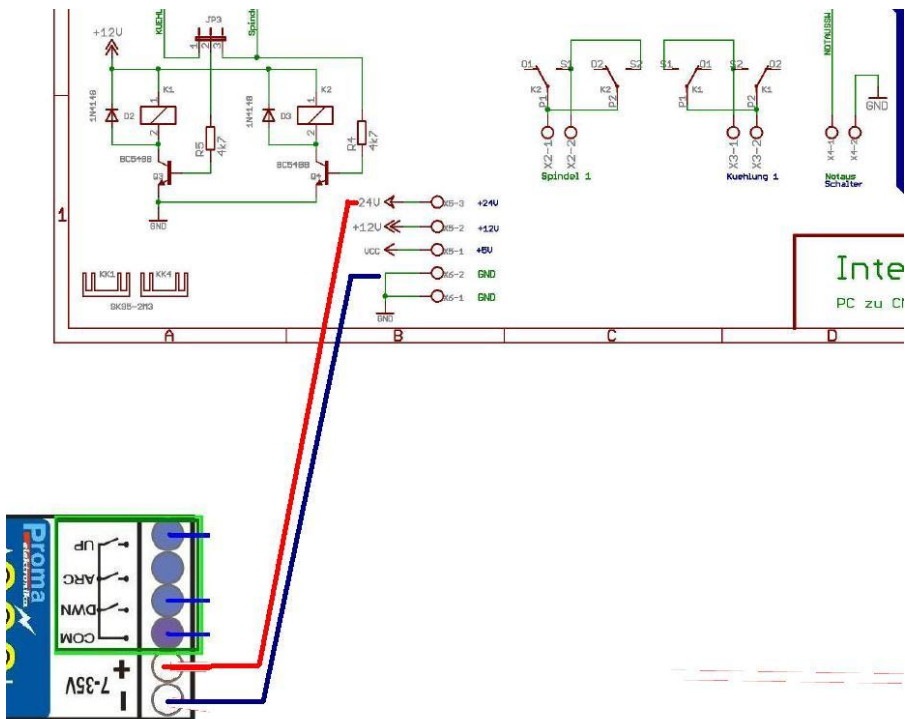
4. Floating head



5.cabling



6. THC cable



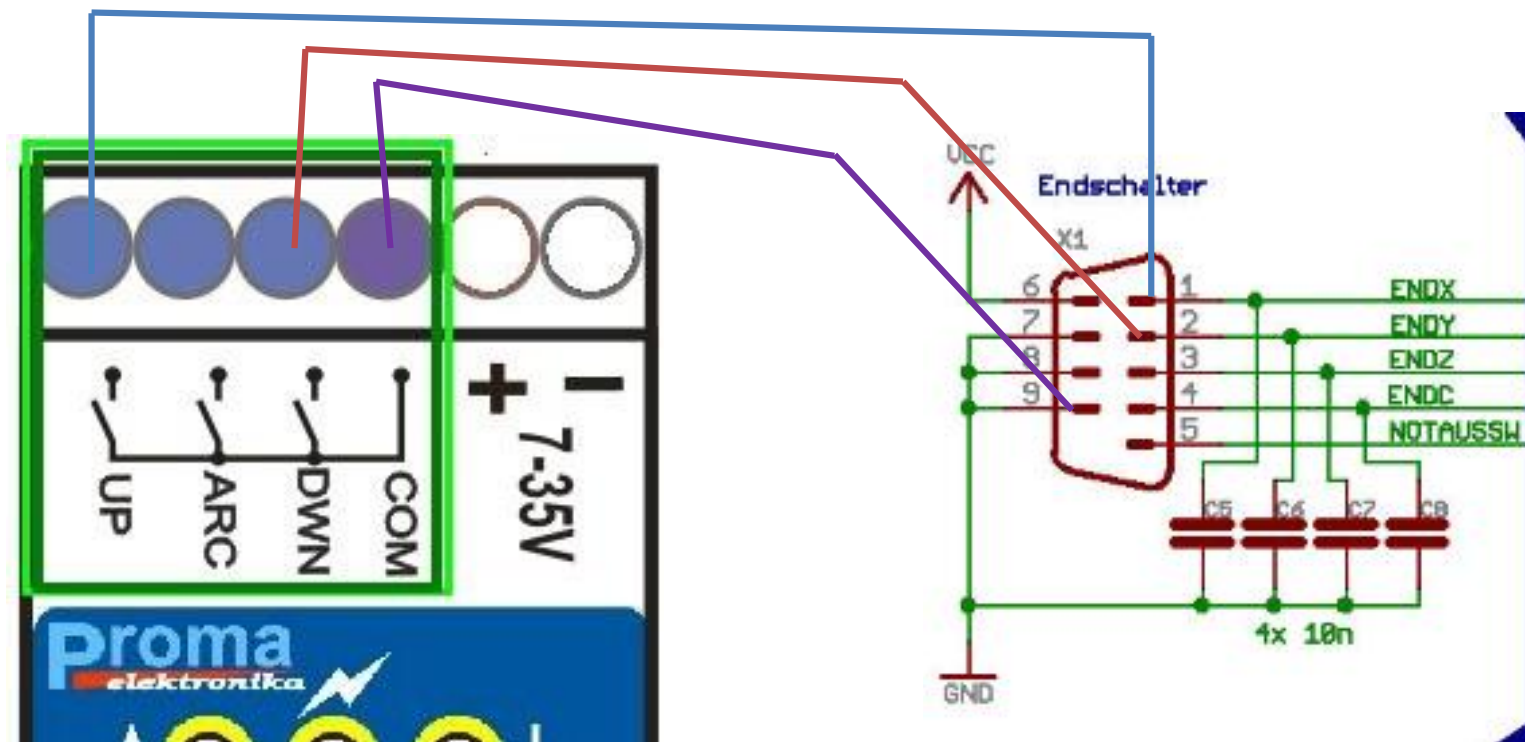
assignment: Input Signals

Voltage:

THC on: Port 1 Pin 18

THC up: Port 1 Pin 13

THC down: Port 1 Pin 12



7.Z-Axis cable:

cable: Input Signals

Z-Home: Port1 Pin 10



Mach3 3 config

Port Setup and Axis Selection

The screenshot shows the 'Engine Configuration... Ports & Pins' dialog box. The 'Port Setup and Axis Selection' tab is active. It contains two main sections: 'Port #1' and 'Port #2', separated by an 'OR' label. The 'Port #1' section has a checked 'Port Enabled' checkbox and a 'Port Address' field set to '0x378'. The 'Port #2' section has an unchecked 'Port Enabled' checkbox and a 'Port Address' field set to '0x278'. Below these is a 'Kernel Speed' section with radio buttons for 25000Hz (selected), 35000Hz, 45000Hz, 60000Hz, 65000Hz, 75000Hz, and 100khz. A note states: 'Note: Software must be restarted and motors retuned if kernel speed is changed.' To the right of the port settings is a 'MaxNC Mode' section with checkboxes for 'Max CL Mode enabled' and 'Max NC-10 Wave Drive', with a note 'Program restart necessary'. Below this is a 'Restart if changed' section with checkboxes for 'Sherline 1/2 Pulse mode.', 'ModBus InputOutput Support', 'ModBus Plugin Supported.', 'TCP Modbus support', 'Event Driven Serial Control', and 'Servo Serial Link Feedback'. At the bottom are three buttons: 'OK', 'Abbrechen', and 'Übernehmen'.

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

Port #1
☒ Port Enabled
0x378 Port Address
Entry in Hex 0-9 A-F only

OR

Port #2
☐ Port Enabled
0x278 Port Address
Entry in Hex 0-9 A-F only
☐ Pins 2-9 as inputs

MaxNC Mode
☐ Max CL Mode enabled
☐ Max NC-10 Wave Drive
Program restart necessary

Restart if changed
☐ Sherline 1/2 Pulse mode.
☐ ModBus InputOutput Support
☐ ModBus Plugin Supported.
☐ TCP Modbus support
☐ Event Driven Serial Control
☐ Servo Serial Link Feedback

Kernel Speed
☒ 25000Hz ☐ 35000Hz ☐ 45000Hz ☐ 60000Hz
☐ 65000Hz ☐ 75000Hz ☐ 100khz
Note: Software must be restarted and motors retuned if kernel speed is changed.

OK Abbrechen Übernehmen

Motor Outputs

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | **Motor Outputs** | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options























Signal	Enabled	Step Pin#	Dir Pin#	Dir LowActi...	Step Low A...	Step Port	Dir Port
X Axis		9	8			1	1
Y Axis		5	4			1	1
Z Axis		7	6			1	1
A Axis		0	0			0	0
B Axis		0	0			0	0
C Axis		0	0			0	0
Spindle		0	0			0	0

OK | Abbrechen | Übernehmen

Output Signals

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options








































Signal	Enabled	Port #	Pin Number	Active Low
Digit Trig		1	0	
Enable1		1	17	
Enable2		1	0	
Enable3		1	0	
Enable4		1	0	
Enable5		1	0	
Enable6		1	0	
Output #1		1	0	
Output #2		1	1	
Output #3		1	0	
Current Hi/Low		1	17	

OK Abbrechen Übernehmen

Input Signals

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | Motor Outputs | **Input Signals** | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

Signal	Enabled	Port #	Pin Number	Active Low	Emulated	HotKey
X ++		1	0			0
X --		1	13			0
X Home		1	13			0
Y ++		1	0			0
Y --		1	12			0
Y Home		1	12			0
Z ++		1	0			0
Z --		1	10			0
Z Home		1	10			0
Probe		1	15			0
Index		1	0			0
Limit Ovrd		1	0			0
EStop		1	11			0

OK Abbrechen Übernehmen

General Config4

General Logic Configuration

G20,G21 Control

☒ Lock DRO's to setup units

Tool Change

☐ Ignore Tool Change

☒ Stop Spindle. Wait for Cycle Start.

☐ AutoTool Changer

Angular Properties

Unchecked for Linear

☐ A-Axis is Angular

☐ B-Axis is Angular

☐ C-Axis is Angular

Pgm End or M30 or Rewind

☒ Turn off all outputs

☐ E-Stop the system

☐ Perform G92.1

☐ Remove Tool Offset

☐ Radius Comp Off

☒ Turn Off Spindle

M01 Control

☒ Stop on M1 Command

Serial Output

ComPort # BaudRate

☒ 8-Bit 1 Stop ☐ 7 Bit 2-Stop

Program Safety

☐ Program Safety Lockout

This disables program translation while the External Activation #1 input is activated.

Editor

GCode Editor

Startup Modals

☒ Use Init String on ALL "Resets"

Initialization String

Motion Mode

☒ Constant Velocity ☐ Exact Stop

Distance Mode ☒ Absolute ☐ Inc

IJ Mode ☐ Absolute ☒ Inc

Active Plane of Movement

☒ X-Y ☐ Y-Z ☐ X-Z

Jog Increments in Cycle Mode

Position 1	<input type="text" value="1"/>
	<input type="text" value="0.1"/>
	<input type="text" value="0.015"/>
	<input type="text" value="1"/>
Use 999 to indicate a	<input type="text" value="0.1"/>
Continuous Jog	<input type="text" value="0.015"/>
selection.	<input type="text" value="1"/>
	<input type="text" value="0.1"/>
	<input type="text" value="0.015"/>
Position 10	<input type="text" value="5"/>

Shuttle Wheel Setting

Shuttle Accel. Seconds

General Configuration

☐ Z is 2.5D on Output #6

☐ Home Sw. Safety

LookAhead Lines

☒ Ignore M calls while loading

☐ M9- Execute after Block

☐ UDP Pendent Control

☒ Run Macro Pump

☐ ChargePump On in EStop

☒ Persistent Jog Mode.

☒ FeedOverride Persist

☐ No System Menu in Mach3

☒ Use Key Clicks

☐ Home Slave with Master Axis

☐ Include TLO in Z from G31

☒ Lock Rapid FRO to Feed FRO

Rotational

☐ Rot 360 rollover

☐ Ang Short Rot on G0

☐ Rotational Soft Limits

Screen Control

☒ Hi-Res Screens

☐ Boxed DRO's and Graphics

☐ Auto Screen Enlarge

☐ Flash Errors and comments.

Inputs Signal Debouncing/Noise rejection

Debounce Interval: x 40us

Index Debounce

Disable Gouge/Concavity Checks

☒ G04 Dwell in ms

☐ Use WatchDogs

☐ Debug This Run

☐ Enhanced Pulsing

☐ Allow Wave Files

☐ Allow Speech

☐ Set Charge Pump to 5Khz - Laser Stndby

☐ Use OUTPUT20 as Dwell Trigger

☐ No FRO on Queue

Turn Manual Spindle Incr.

Spindle OV increment

CV Control

☐ Plasma Mode

☒ CV Dist Tolerance Units..

☐ G100 Adaptive NurbsCV

☒ Stop CV on angles > Degrees

Axis DRO Properties

☒ Tool Selections Persistent.

☒ Optional Offset Save

☒ Persistent Offsets

☒ Persistent DROs

☐ Copy G54 from G59.253 on startup

OK

Mill options

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

Z - Inhibit
☐ Z - Inhibit On
Max Depth Units
☒ Persistent

Compensation G41,G42
☒ Advanced Compensation Analysis

Digitizing
☐ 4 Axis Point Clouds
☐ Add Axis Letters to Coordinates

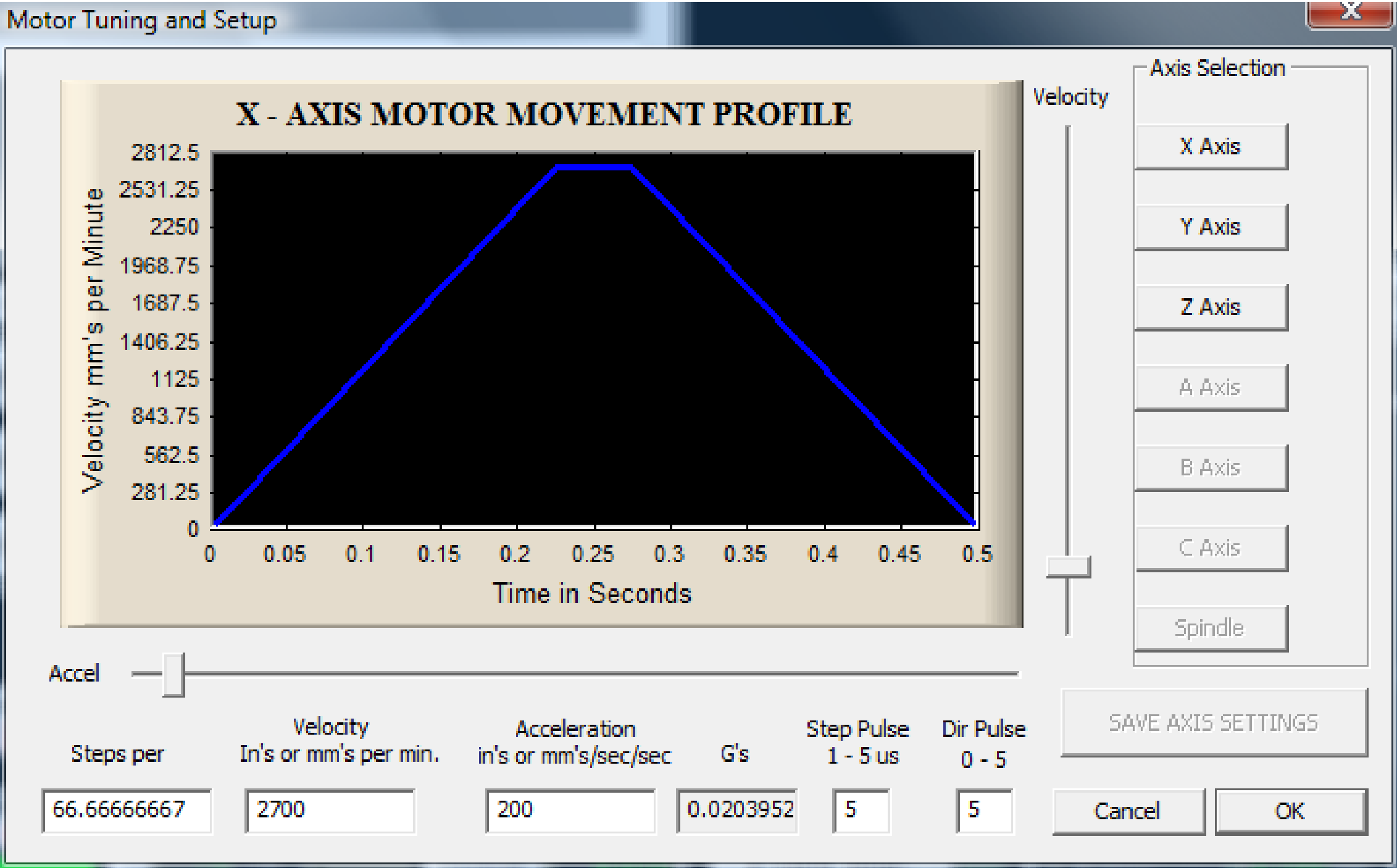
Loop Control
☐ Allow Servo Hold on Input#1
Max CL Closed Loop Emulation

THC Options
☒ Allow THC UP/DOWN Control even if not in THC Mode.
☐ G28.1 No Initial Move.
☐ Set OUTPUT5 when in THC

General Options
☐ Homed true when no home swithes
G73 Pullback

OK | Abbrechen | Überehmen

Motor Tuning (Gewindespindel 16x4 bei allen Achsen)



Change to 400 steps