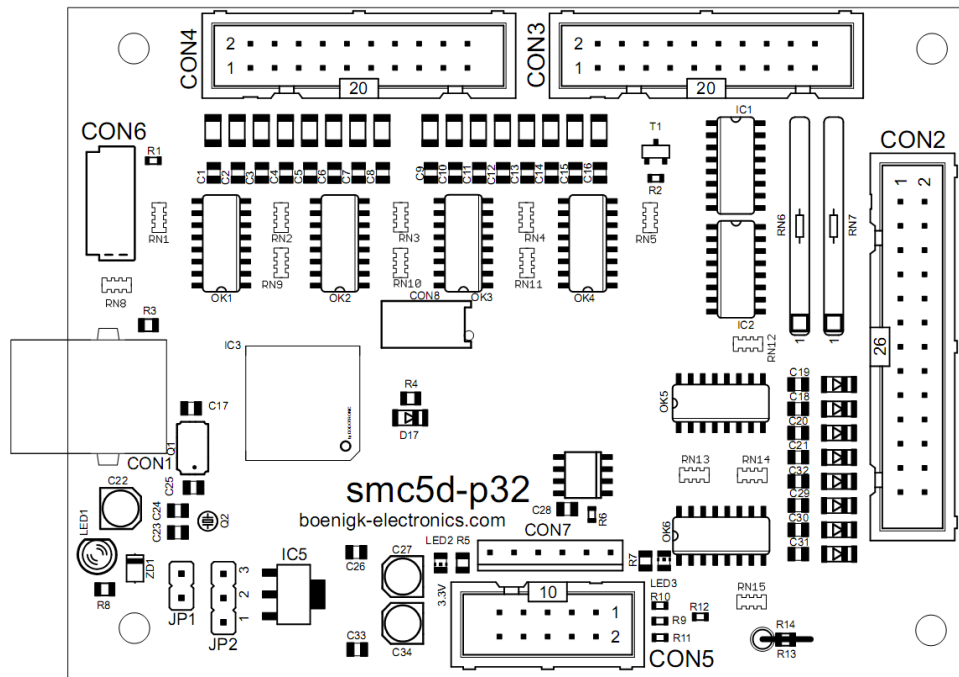


## Controller *smc5d-p32* start-up (alubox version)

1. After installing the USB driver and the cncGraF program, controller SMC5D must be connected to the computer and the stepper motor driver.
2. Start the cncGraF PRO program.
3. Switch on the stepper motor driver. The spindle of the milling machine should not switch on. Otherwise, go to menu Machine Parameters and invert the output of spindle (default Output 1).



### List of signals on D-SUB 25

- |                                       |   |
|---------------------------------------|---|
| 1. (Output 1) Spindle 5 Volt          | 14. (Output 2) Pump 5 Volt                    |
| 2. X direction 5 Volt                 | 15. (Input 5) Reference switch for axis A     |
| 3. X clock 5 Volt                     | 16. A direction 5 Volt                        |
| 4. Y direction 5 Volt                 | 17. Current reduction for motors 5 Volt       |
| 5. Y clock 5 Volt                     | 18. A clock 5 Volt                            |
| 6. Z direction 5 Volt                 | 19. (Input 6) Reference switch for axis B     |
| 7. Z clock 5 Volt                     | 20. X2/Y2 clock 5 Volt                        |
| 8. (Output 3) 5 Volt                  | 21. B direction 5 Volt                        |
| 9. (Output 4) 5 Volt                  | 22. B clock 5 Volt                            |
| 10. (Input 1) Reference switch axis X | 23. (Input 7) Reference switch for axis X2/Y2 |
| 11. (Input 2) Reference switch axis Y | 24. (Input 8) Tool-length-sensor              |
| 12. (Input 3) Reference switch axis Z | 25. GND                                       |
| 13. (Input 4) Scanner                 |   |

5 Volt, output current 20 mA