MOTOR CONTROLLER

Manual or controlled by software which operates up to six motors simultaneously

Short description:

The motor controller used the CL4-E from Nanotec. The USB port of Nanotec CL4-E has been connected directly to the USB-B female.

[CL4-E - Motor Controller / Drive | 1050 W Peak Power | NANOTEC](#)

The motor controller comes with basic software installed, so you can use it stand-alone.

If you want to use the completely functionality of the motor-controller you can use the software Plug& Drive Studio 2 from Nanotec.
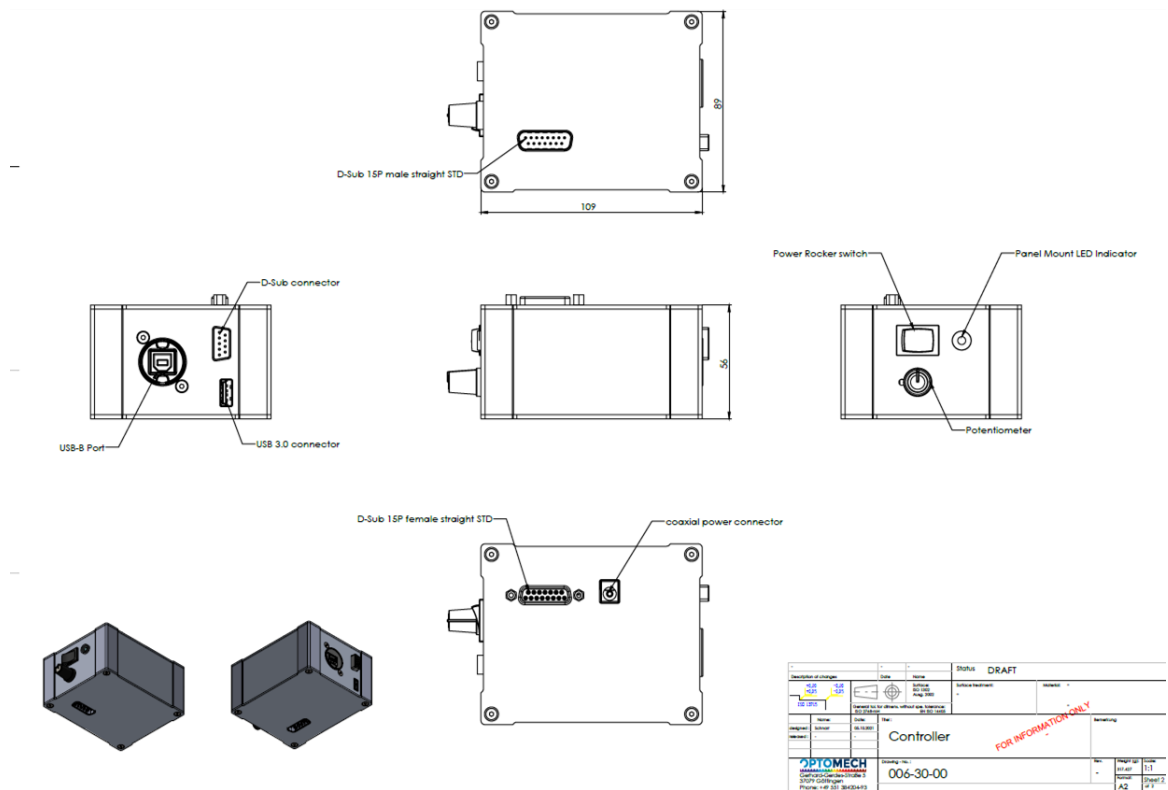
[Plug & Drive Studio 2 | NANOTEC](#)

WARNING! If you use Plug& Drive Studio 2 from Nanotec you can change every parameter. It is possible to destroy the plugged-in stage if you configure the parameter wrong. For Example: every Stage from Optomech is open loop. If you configure closed-loop the plugged-in stage immediately will be destroyed.

Advanced functionality:

- You can stack multiple motor-controllers together (maximum 6).
  The controllers were then electrical connected via DB-15 plug
- Control all plugged motor-controllers via CAN
- At the top of the stacked motor-controllers, or at the top at one single motor-controller too, you must plug in a standard CAN controller.
- You must configure every motor-controller themself first before you can use CAN.

Motor-Controller
V0.1

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Operating and display elements:

- Double switch to move the plugged-in stage
- Rotary potentiometer to control moving speed
- LED two colours for status indication

Ports:

- USB-A v3.1 female – Connection for a stage via supplied USB-C v3.1 cable
- USB-B v2.0 female – PC connection via supplied USB 2.0 cable
- D-SUB 9-pin female – optional encoder connector
- D-SUB 15 pin socket/ plug – for connecting to other motor controllers and a control unit, for central control of all connected motor controllers.
- Socket assignment: CAN/ RS485 / 12 V power supply
  ATTENTION!!! A maximum of 6 motor controllers may be connected directly to each other!
- Hollow socket – 12 V power supply connection (scope of delivery)

Power-on order:

- Plug in 12 V power supply first
- Now plug in our Stage by USB-A to USB-C Cable (v3.1 or higher needed)
  - ➢ Now you can use the stage stand-alone
- If needed plug in USB-B plug for PC connection. (USB v1.1 or higher needed)

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<u>Coming soon</u>:

- - Also, you can order our CAN to USB controller and stack it to our-motor-controller(s). Now you can use our software "Stage_drive_simple" to control all plugged in stages in one user-interface at your PC.
- - Every motor-controller is pre-configured and will be automatically detected by software.
- - You must select first which product device is connected to which motor-controller.
- - After that you can drag & drop the displayed devices to the control panel in visualization at your display.
- - You can change between different visualizations. For example: you use 3 linear-stages together as a X-Y-Z-Stage. Now you can write your 3D coordinate in the input field of the software. After clicking on Turn, all three linear stages move to the entered position.

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