

Programming box DA012060

See the information about the connection here:

https://www.nilab.at/dokuwiki/doku.php?id=integrated_drive_motors:prog_box

In order to program the intergrated linear motor using the NiLAB Starter software you need the programming cable DA012060. This cable converts the USB to RS232/RS485. The programming cable is provided with a connector box compatible with connectors used with NLi080Q/X and NLi20QX. **The programming cable is only for point to point programming and diagnosis with personal computer based on Windows with our software NiLAB Starter.** In order to communicate with more than one motor with long cable connection using PC, please use a standard USB to MODBUS RTU gateway or Ethernet to MODBUS RTU gateways.

How to connect

First step is to plug the USB cable into the PC and see which is the related COM port using the Windows Device Manager. For example here COM7 corresponds to USB to RS232/RS485 programming cable.

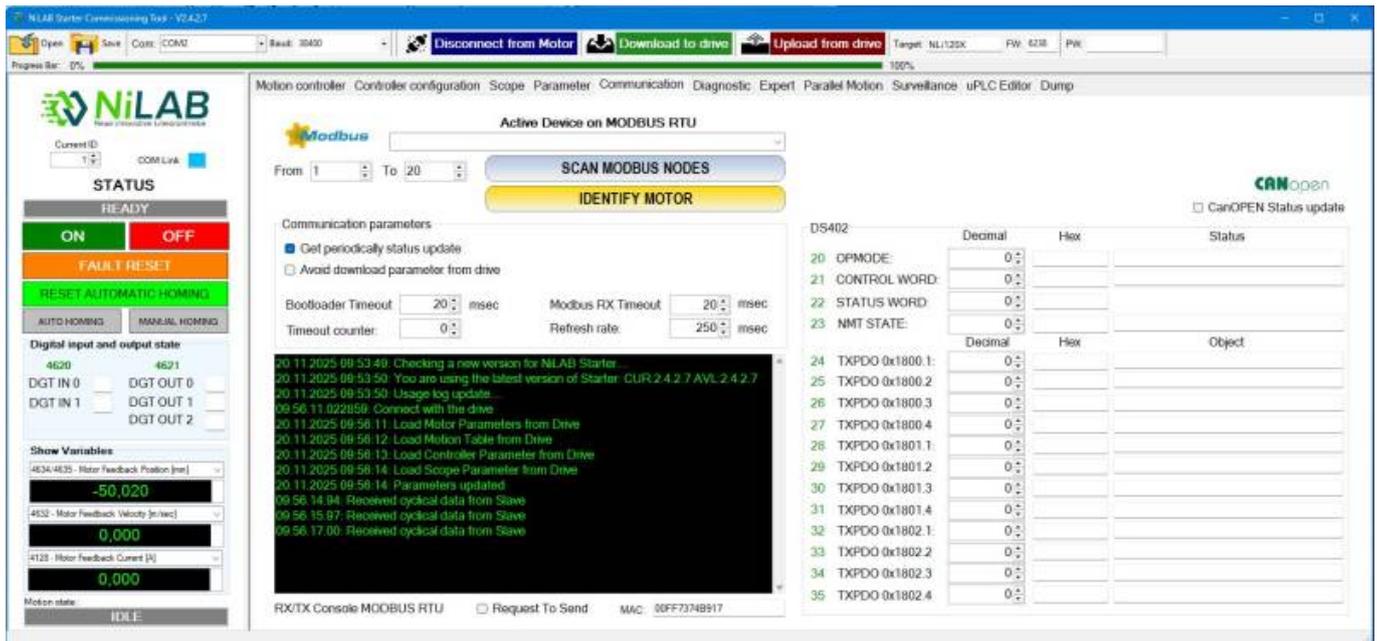
The screenshot shows the NiLAB Starter Commissioning Tool interface. The 'Com:' dropdown menu is open, showing a list of COM ports: COM1, COM2, COM3, and COM14. The 'Connect to drive' button is visible. The main interface displays the 'STATUS' section with 'DISCONNECTED' and 'ON/OFF' buttons. Below this are 'Digital input and output state' and 'Show Variables' sections. The 'Motion Table' section contains a table with columns for Index, Motion type, Position, Acceleration time, and Constant speed time. The 'Motion control' section includes a 'START MOTION' button and a 'Homing Done' indicator.

| Index | Motion type | Position | Acceleration time or motion time | Constant speed time | Decel |
|-------|-------------|----------|----------------------------------|---------------------|-------|
| 1793 | 0 | 0,000 | 0 | 0 | |
| 1804 | 1 | 0,000 | 0 | 0 | |
| 1815 | 2 | 0,000 | 0 | 0 | |
| 1826 | 3 | 0,000 | 0 | 0 | |
| 1837 | 4 | 0,000 | 0 | 0 | |
| 1848 | 5 | 0,000 | 0 | 0 | |
| 1859 | 6 | 0,000 | 0 | 0 | |
| 1870 | 7 | 0,000 | 0 | 0 | |
| 1881 | 8 | 0,000 | 0 | 0 | |
| 1892 | 9 | 0,000 | 0 | 0 | |

Then, you have to select the right one on the combobox list in the NiLAB Starter Software and then press the button "Connect to Motor".

Connect using communication window

1. Button to scan modbus nodes to search the motor actually connected to the MODBUS
2. List box to select the motor from the MODBUS (the list reports the serial number, the firmware version and the current status)
3. Checkbox to select the search interval for MODBUS nodes (from 1 to 20 is default)
4. Checkboxes to select the periodically status update to have continuous updates about the drive status, digital input/outputs status and axis status
5. Timeout value for MODBUS rx transmission and bootloader transmission
6. Console to see the rx and tx transmission on the bus
7. Canopen PDOs and status



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