

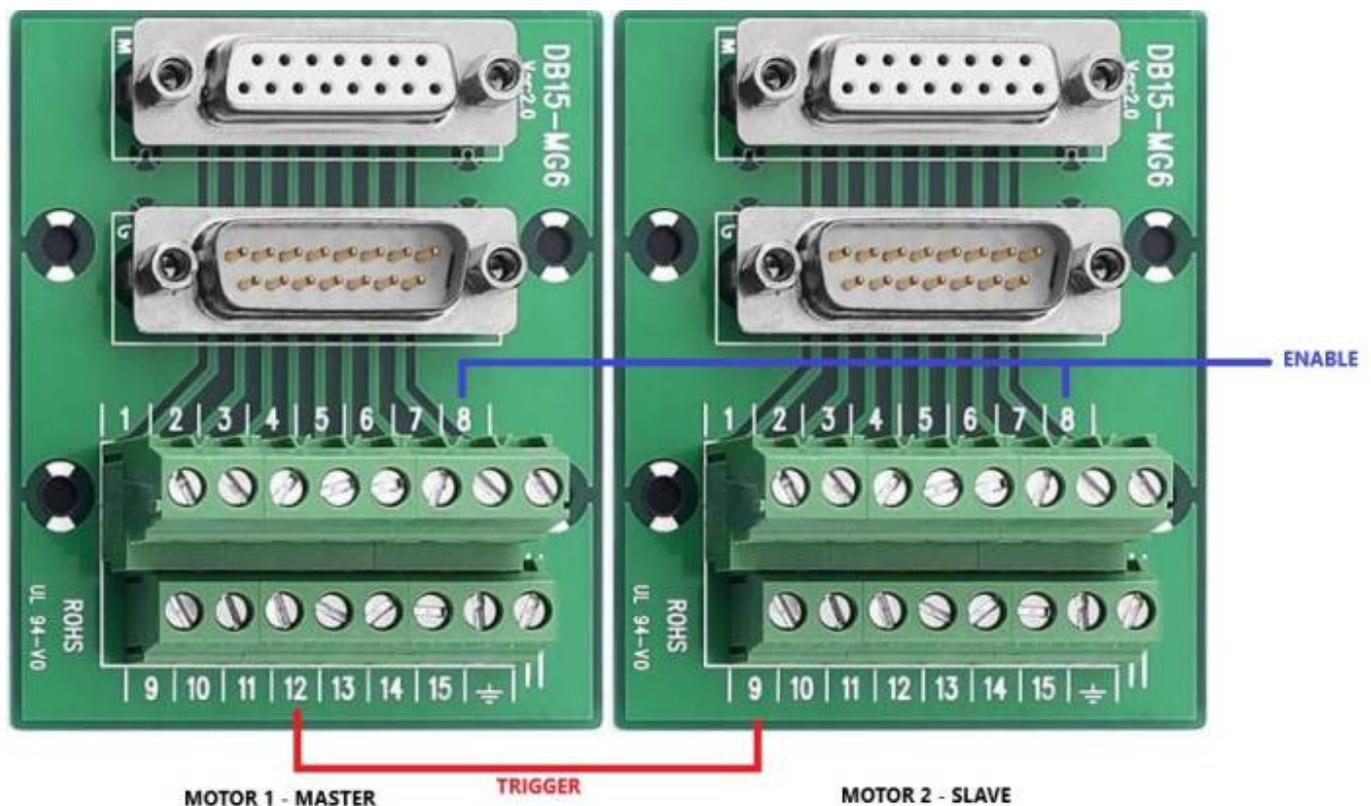
Master and slave mode

when two or more axis must be synchronized without PLC that send a trigger signal on digital input 1, one NLI motor can be used as a master to synchronized the others.

Connection between the two motors

Pin 12 (Digital output 2) of the master motor must be connected to Pin 9 (Digital Input 1) of slave motor

Pin 8 (Digital input 0) must be set to 24VDC to start the motion.



Example of configuration of the two axis

The waiting time of the master and slave must be set to a waiting time of 5 msec (1). On the master motor, the parameter 4098 Digital Output2 must be select to Master synch (2).

As regards the homing speed, please specify low speed (for example 10mm/sec) in the master motor and medium speed (for example 50mm/sec) in the slave motor. This to guarantee that the automatic homing of the slave is completed before the master motor starts the motion.

Master configuration

The screenshot shows the 'Master configuration' interface. The 'Motion Table' is the central element, displaying a list of motion profiles with columns for Index, Motion type, Position, Acceleration time (A), Constant speed time (B), Deceleration time (C), Waiting, and Trigger mode. The first row (Index 0) is highlighted in green, indicating it is the active profile. Its settings are: Motion type: Triangular, Position: 5,000 mm, A: 100 msec, B: 0 msec, C: 100 msec, Waiting: 5 msec, Trigger mode: Auto. A red circled '1' is placed above the 'Waiting' column for this row. To the right, the 'Motion mode' is set to '1 Maps - 10 positions pro map'. Below it, the 'Motion parameter' section shows 'Evaluate motion profile' with 'Cycle time' at 1156 msec, 'Motion per minute' at 52, and 'Duty motion' at 96%. The 'Digital input and output Configuration' section shows 'Digital Output 2' set to 'Master Synch', with a red circled '2' next to it. Other digital outputs are set to 'DIG IN HIC' and 'DIG IN LOV'. A blue 'I/O control' button is at the bottom right.

Slave configuration

Trigger mode of the index 0 (first row) must be set to DIG IN falling edge (1) with a waiting time of 3msec and the parameter 4098 Digital output2 must be set to In position (2)

The screenshot shows the 'Slave configuration' interface. The 'Motion Table' is similar to the master configuration, but the 'Waiting' time for the first row (Index 0) is set to 3 msec. The 'Trigger mode' for the first row is set to 'DIG IN fallin', with a red circled '1' next to it. The 'Motion mode' is the same as in the master configuration. In the 'Motion parameter' section, the 'Cycle time' is 1156 msec, 'Motion per minute' is 52, and 'Duty motion' is 96%. In the 'Digital input and output Configuration' section, 'Digital Output 2' is set to 'In Position', with a red circled '2' next to it. The 'I/O control' button is also present.

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