

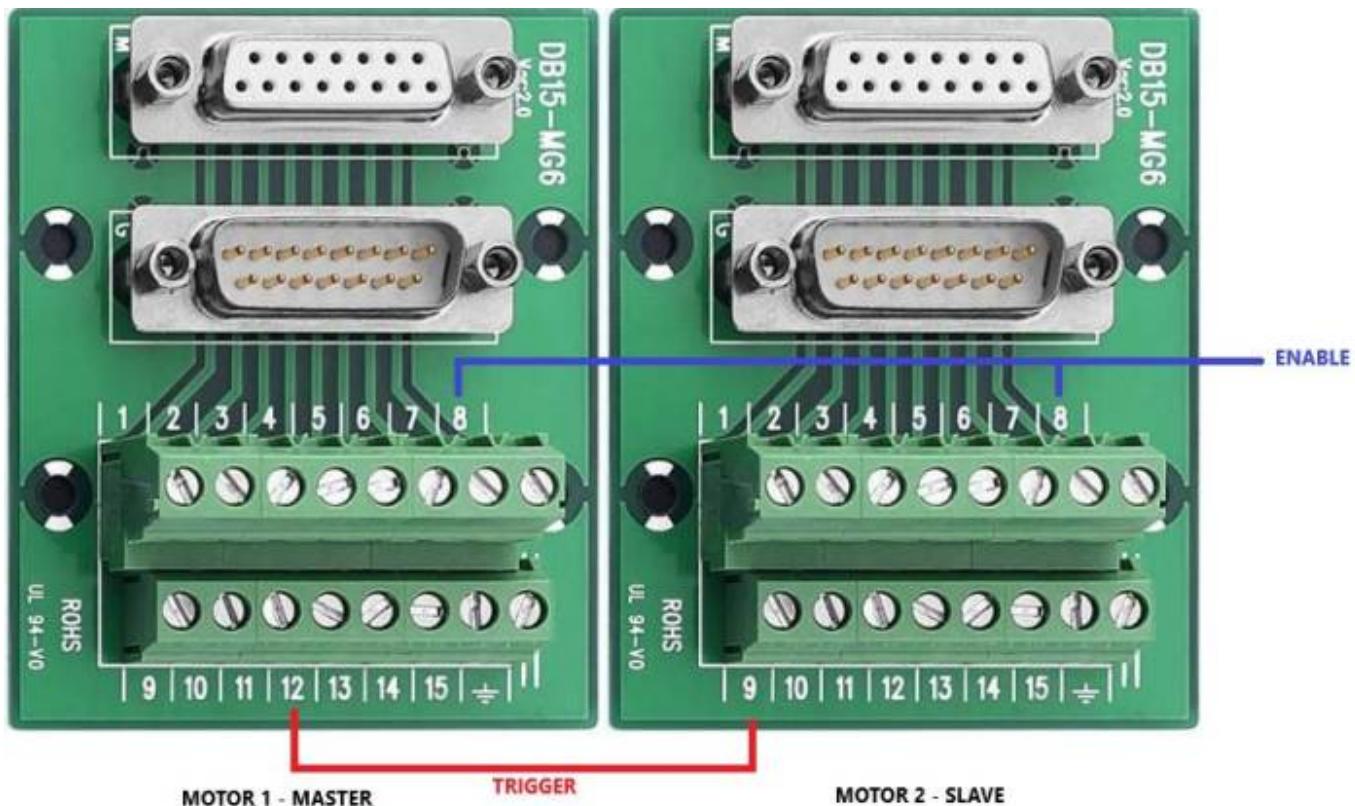
# Master and slave mode

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 synchronize 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 selected 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

Motion controller Controller configuration Scope Parameter Communication Diagnostic Expert Parallel Motion Surveillance									
Motion Table									
<b>MODBUS ADDRESS</b> <div style="display: flex; justify-content: space-between;"> <span><input checked="" type="checkbox"/> Load/Write these data from/to motor</span> <span>Value changed and not downloaded</span> <span>Value downloaded / uploaded correctly</span> </div>									
Index	Motion type	Position	Acceleration time or motion time	Constant speed time	Deceleration time	Waiting	Trigger mode		
1793 0	Triangular	5,000 mm	100 msec	0 msec	100 msec	5 msec	Auto		
1804 1	Triangular	45,000 mm	100 msec	0 msec	100 msec	5 msec	Auto		
1815 2	None	65,000 mm	100 msec	0 msec	0 msec	20 msec	Auto		
1826 3	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1837 4	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1848 5	None	41,500 mm	140 msec	0 msec	190 msec	10 msec	DIG IN HIC		
1859 6	None	35,000 mm	140 msec	0 msec	140 msec	10 msec	DIG IN LO1		
1870 7	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1881 8	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1892 9	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		

**Motion mode**  
 1792 1 Maps - 10 positions pro map

**Motion parameter**  

Evaluate motion profile

Cycle time
1156 [msec]

Motion per minute
52

Duty motion
96 [%]

**Digital input and output Configuration**

Drive Enable (active low)
Digital Output 0

Drive Fault (active low) OR DIR (Rotolinear)
Digital Output 1

4098
Digital Output 2

Master Synch
(2)

Digital Output 0

Digital Output 1

Digital Output 2

In Position

I/O control

## 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)

Motion controller Controller configuration Scope Parameter Communication Diagnostic Expert Parallel Motion Surveillance									
Motion Table									
<b>MODBUS ADDRESS</b> <div style="display: flex; justify-content: space-between;"> <span><input checked="" type="checkbox"/> Load/Write these data from/to motor</span> <span>Value changed and not downloaded</span> <span>Value downloaded / uploaded correctly</span> </div>									
Index	Motion type	Position	Acceleration time or motion time	Constant speed time	Deceleration time	Waiting	Trigger mode		
1793 0	Triangular	5,000 mm	100 msec	0 msec	100 msec	3 msec	DIG IN falli		
1804 1	Triangular	45,000 mm	100 msec	0 msec	100 msec	3 msec	Auto		
1815 2	None	65,000 mm	100 msec	0 msec	0 msec	20 msec	Auto		
1826 3	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1837 4	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1848 5	None	41,500 mm	140 msec	0 msec	190 msec	10 msec	DIG IN HIC		
1859 6	None	35,000 mm	140 msec	0 msec	140 msec	10 msec	DIG IN LO1		
1870 7	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1881 8	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		
1892 9	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto		

**Motion mode**  
 1792 1 Maps - 10 positions pro map

**Motion parameter**  

Evaluate motion profile

Cycle time
1156 [msec]

Motion per minute
52

Duty motion
96 [%]

**Digital input and output Configuration**

Drive Enable (active low)
Digital Output 0

Drive Fault (active low) OR DIR (Rotolinear)
Digital Output 1

4098
Digital Output 2

In Position
(2)

Digital Output 0

Digital Output 1

Digital Output 2

In Position

I/O control

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