

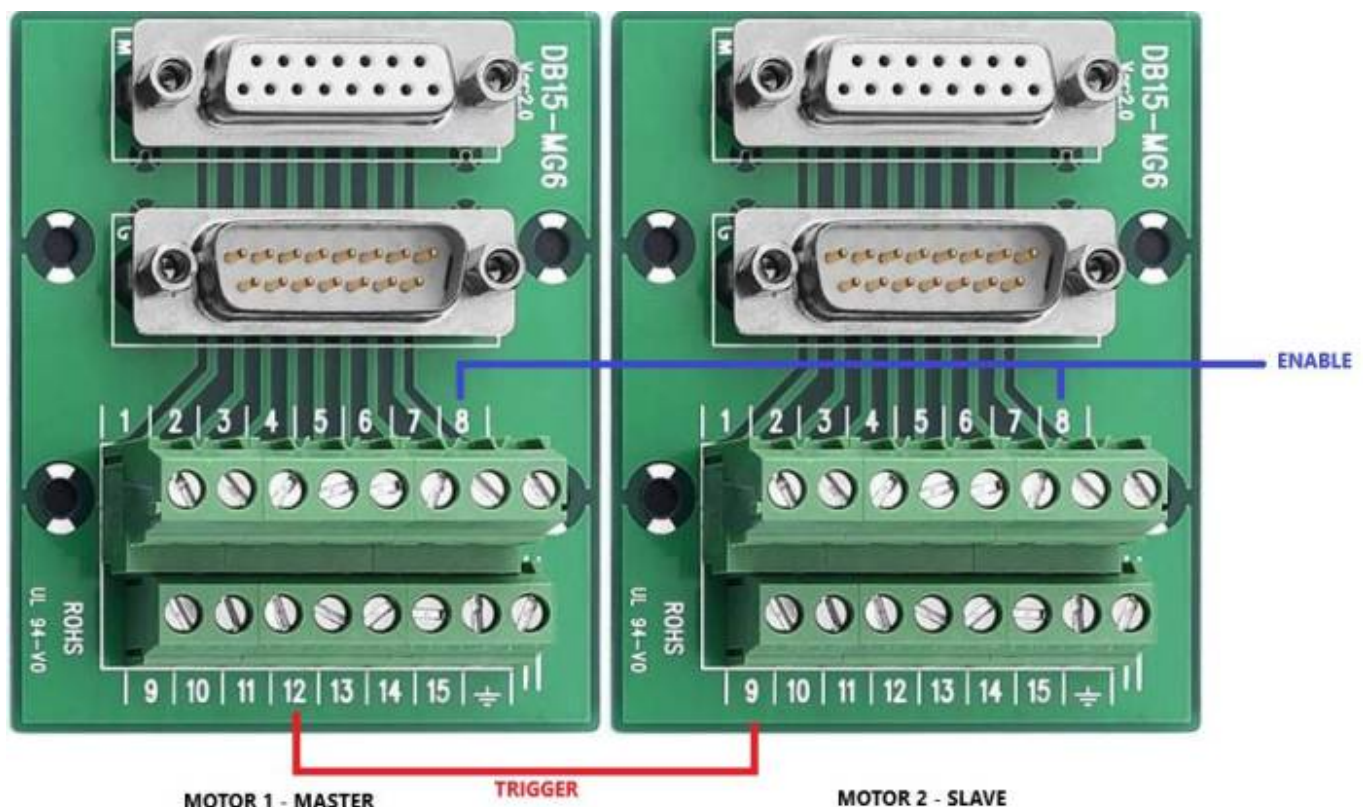
# Master and slave mode

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

Motion controllerController configurationScopeParameterCommunicationDiagnosticExpertParallel MotionSurveillance

Motion Table

MODBUS ADDRESS

Index

Motion type

Position

A  
Acceleration time  
or motion time

B  
Constant speed time

C  
Deceleration time

Waiting

Trigger mode

17930

Triangular

5,000

mm

100

msec

0

msec

100

msec

5

msec

Auto

18041

Triangular

45,000

mm

100

msec

0

msec

100

msec

5

msec

Auto

18152

None

65,000

mm

100

msec

0

msec

0

msec

20

msec

Auto

18263

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18374

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18485

None

41,500

mm

140

msec

0

msec

190

msec

10

msec

DIG IN HIC

18596

None

35,000

mm

140

msec

0

msec

140

msec

10

msec

DIG IN LOI

18707

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18818

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18929

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

Load/Write these data from/to motor

Value changed and not downloaded

Value downloaded / uploaded correctly

Motion mode

17921 Maps - 10 positons pro map

Motion parameter

Evaluate motion profile

Cycle time1156[msec]

Motion per minute52

Duty motion96[%]

Digital input and output Configuration

Digital Output 0

Drive Enable (active low)

Digital Output 1

Drive Fault (active low) OR DIR (Rotolinear)

4098Digital Output 2

Master Synch

4097I/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 seto to In position (2)

Motion controllerController configurationScopeParameterCommunicationDiagnosticExpertParallel MotionSurveillance

Motion Table

MODBUS ADDRESS

Index

Motion type

Position

A  
Acceleration time  
or motion time

B  
Constant speed time

C  
Deceleration time

Waiting

Trigger mode

17930

Triangular

5,000

mm

100

msec

0

msec

100

msec

3

msec

DIG IN falli

18041

Triangular

45,000

mm

100

msec

0

msec

100

msec

3

msec

Auto

18152

None

65,000

mm

100

msec

0

msec

0

msec

20

msec

Auto

18263

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18374

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18485

None

41,500

mm

140

msec

0

msec

190

msec

10

msec

DIG IN HIC

18596

None

35,000

mm

140

msec

0

msec

140

msec

10

msec

DIG IN LOI

18707

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18818

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

18929

None

0,000

mm

0

msec

0

msec

0

msec

0

msec

Load/Write these data from/to motor

Value changed and not downloaded

Value downloaded / uploaded correctly

Motion mode

17921 Maps - 10 positons pro map

Motion parameter

Evaluate motion profile

Cycle time1156[msec]

Motion per minute52

Duty motion96[%]

Digital input and output Configuration

Digital Output 0

Drive Enable (active low)

Digital Output 1

Drive Fault (active low) OR DIR (Rotolinear)

4098Digital Output 2

In Position

4097I/O control

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