

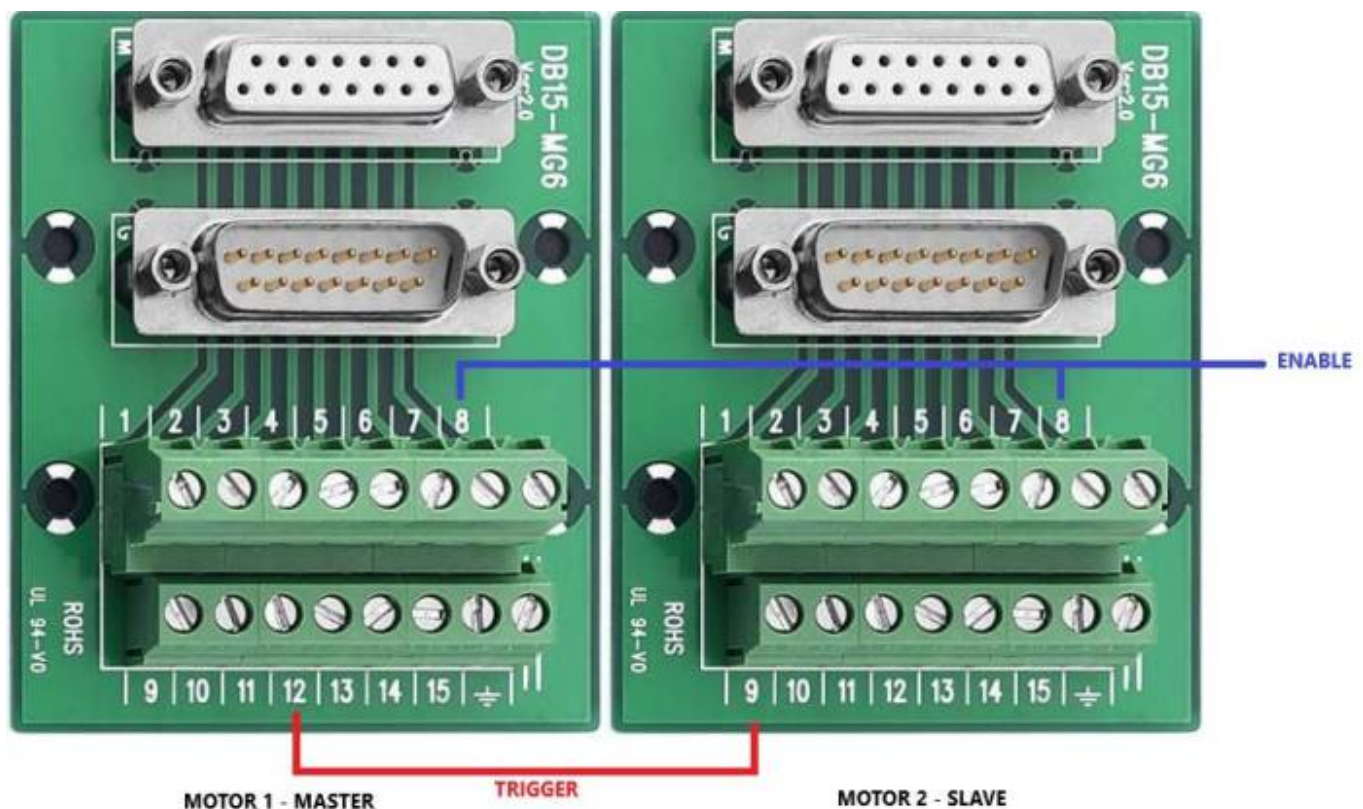
Master and slave mode

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

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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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