

Step&Dir Controller

№100840



The device is constructed on the base of modern microcontroller and it is destined for controlling of driver for unipolar or bipolar stepper motor with controlling signals STEP and DIR.

Specifications of Step&Dir Controller

Four ranges of output frequency:

- from 0.2 Hz ÷ 200 Hz
- from 2 Hz ÷ 2 000 Hz
- from 15 Hz ÷ 20 000 Hz
- from 30 Hz ÷ 200 000 Hz

Buttons for determination of the spin direction

Switch direction button

Start/Stop button

Terminal for final positions sensor

Adjusting the speed of rotation of the motor

Mode on manual and cycle move of the motor within limits determined by the sensors

LED indication for reached limit of move

LED indication for powered supply

Powered supply voltage AC/DC 7.5-15V

Size: 82mm x 30mm

Suitable for assembling in a box for a DIN runner – Z-103

Description

- controlling of driver for unipolar or bipolar stepper motor with controlling signals STEP and DIR
- output relay which is powered on in lighted on red LED D4 (R) (only unidirectional rotation of the motor)
- buttons for rotation on the left, on the right, switching the direction, start/stop and selection of mode
- potentiometer P1 for adjusting the speed of rotation
- terminal J1 – power supply voltage AC/DC 7.5-15V
- terminal J2 – output to driver
- terminal J3 – buttons and/or final interrupters
- terminal J4 – normally open and normally closed terminal of relay
- jumper JP1 – selection of power mode

Indication

- red LED D4 (R) – direction of rotation of the motor: right or clockwise
- green LED D3 (L) – direction of rotation of the motor: left or counter clockwise
- yellow LED D2 (Scope) – the output frequency range: number of fast flashes next to a continuous pause
- red LED D1 (PWR) – stable and stabilized voltage 5V

Play mode

Single mode (without jumper JP1):

- move starts or stops by button START/STOP
- the buttons or the final interrupters (LEFT or RIGHT) stop the move of the stepper motor
- by a pushed button (activ final interrupter), the move can be reloaded only in reverse direction of the final interrupter by pushing on button START/STOP
- switching by button DIR, if the buttons are not pushed or the final interrupters

LEFT and RIGHT are not activated

Cycle mode (put jumper JP1):

- move starts or stops by button START/STOP
- the buttons or the final interrupters (LEFT or RIGHT) automatically switch the rotation of the stepper motor
- switching by button DIR, if the buttons are not pushed or the final interrupters

LEFT and RIGHT are not activated

Programming

It is necessary the buttons and/or the final interrupters DO NOT be activated and the device to be on Stop mode.

Push the button Scope (the pause between pushes to not be more than a second):

- once for mode 1 (0.2 ÷ 200Hz) – a flashing and a pause
- twice for mode 2 (2 ÷ 2000Hz) – two flashings and a pause
- three times for mode 3 (15 ÷ 20 000Hz) – three flashings and a pause
- four times for mode 4 (30 ÷ 200 000Hz) – four flashings and a pause

It is waiting for a second.

The selected range is indicated by LED D2 (Scope).

Example Scheme of Connecting of the Device

