Nidec
All for dreams

This App note applies to Unidrive M100-M400

Electronic Pot / Motorized Pot Mode

This application note will demonstrate the drives electronic pot mode. In this mode there will be one switch for the run command then there will be one push button to increase the motors speed and one button to decrease the motors speed. This is an older control scheme that is not used very often any more. One advantage to a scheme like this is it provides an easy way to allow the motors speed to be controlled from multiple locations. This note assumes the motor data has already been entered and the drive is ready to run.

Wiring

Once the drive is in Electronic pot mode terminal 12 will be run forward and terminal 13 is run reverse, both these inputs are looking for a constant +24 Vdc to turn them on. Terminals 5 and 14 will be used to increase or decrease the speed, these inputs are active when +24 Vdc is applied and should be wired to momentary push buttons. Terminal 14 increases speed and terminal 5 will decrease the speed.

Programming

There are a few parameters that can be adjusted to change the performance, these parameters are listed below.

Parameter 09.021

This sets the E Pot mode

0 = Speed reference is set to 0 at power up

1 = Speed reference will be the last value used at power up

2 = Speed reference is 0 at power up and can only be changed when drive is running

3 = Speed reference will be the last value used at power up and can only be changed when drive is running

4 = Speed reference will be 0 at power up and when drive is disabled and can only be changed when drive is running
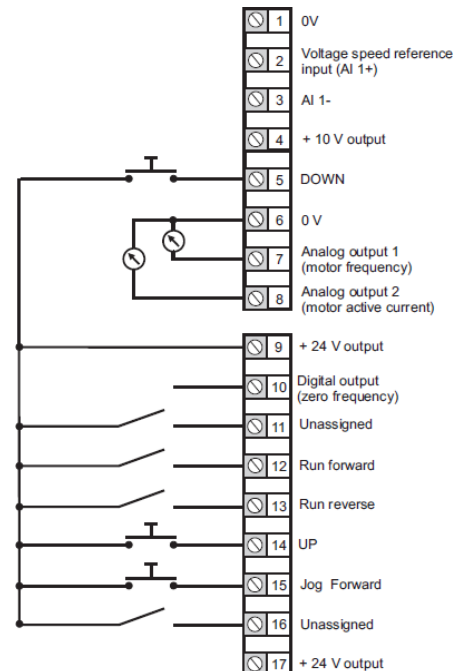
Parameter 09.022

This sets the speed reference to be either Bipolar or Unipolar 0 = unipolar

1 = bipolar

Parameter 09.023

This will change the rate at which the speed reference increases or decreases It is set in seconds/100%

Resources: can be found on our website: www.controltechniques.com
For help contact techsupport.cta@mail.nidec.com, or
call Technical Support at 952-995-8000, 24/7/365

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