CSMIO IP-S

ADDITION TO DOCUMENTATION

Machine tool precise homing on INDEX

using ***DELTA Electronics ASDA-A2*** *and* ***ASDA-B2 drives***

and ***CSMIO/IP-S motion controller***

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1. General

For the most precise CNC machines homing, when using servomotors – we have possibility to use encoder's INDEX signal.

CSMIO/IP-S Ethernet motion controller has that homing function. In DELTA servodrives – a signal (*OCZ – Encoder Z pulse open collector Output*) is led out to the CN1 signal connector. Open collector output type (Max Spec. 30V 100mA)

DELTA ASDA-A2 – pin nr. 48

DELTA ASDA-B2 – pin nr. 44

2. Connection:

Homing sensor signal should be connected to CSMIO/IP-S controller, to any input *[0 – 31].* In Mach3 program options: *„Config –> Ports & Pins -> Input Signals -> Home" set the port* (no. 10) and enter chosen input number.

DELTA servodrive signal (*OCZ*) connect to inputs: *[8 – 15]* or *[24 – 31] of GND pins* [e.g.: pin 6; input 8(-)], and pin 18 that corresponds to it – connect to +24V. In CSMIO plugin *„INDEX Homing"* options – set *ENABLE* and chose the number of connected input.

+24V power GND must be connected to DELTA drive GND:

DELAT ASDA-A2 – pin nr 13 ;

DELTA ASDA-B2 – pin nr 19

3. Drives configuration

For proper working it is necessary to rearrange DELTA drives default settings. Number of pulses of drives' output encoder - should be shifted to a lower value to ensure adequate INDEX signal pulse length. *P1-46* parameter set by default on 2500 pulses - set on 500 pulses per rev or less. This change has no influence on servodrives working precision because their internal procedures work on encoder's full accuracy anyway.

Please find below connection principle for homing on INDEX using ASDA-A2 and ASDA-B2 servodrives by DELTA Electronics: