Leaflet 1 – Wiring overview

MINAS A5/A6 servo driver to FP series PLC (PNP output type)
1 axis, 50 pin connector, loose wires for I/Os, length x m

Wiring to the PLC (e.g.):

- Inputs (X)
- Outputs (Y)

Please refer to the next page for detailed wiring information to the PLC.

Wiring to the power supply and limit switches:

- 24V DC power supply
- CWL limit switch
- CDWL limit switch
- CWL
- CDWL

+24 VDC
0 VDC
red, (+) shrink wrap
blue, (-) shrink wrap
black, long shrink wrap
black, short shrink wrap

PLC Output (+) +24 VDC
PLC Output (-) 0 VDC
PLC Input (COM) 0 VDC

CN X4 Pin | Signal (in bold essential)
---|---
10 | BRKOFF (External break release output)
34 | S-RDY+ (Servo-Ready output)
36 | ALM+ (Servo-Alarm output)
38 | INP+ (Positioning complete output)
1 | OPC1 [PULS1] (Command pulse input A)
2 | OPC2 [SIGN1] (Command pulse input A)
20 | VS-SEL1 (Damping control switching input)
27 | GAN (Gain switching input)
29 | DIV1 (Electronic gear switching input 1)
29 | SRV-ON (Servo-ON input)
30 | CL (Deviation counter clear input)
31 | A-CLR (Alarm clear input)
32 | C-Mode (Control mode switching input)
33 | INP+ (Command pulse inhibition input)
35 | S-RTY+ (Servo-Ready output)
37 | ALM+ (Servo-Alarm output)
39 | INP+ (Positioning complete output)
11 | BRKOFF+ (External break release output)
4 | PULS2 (Command pulse input A)
6 | SIGNS (Command pulse input A)
7 | COMP (Common for signals)
8 | NOT (Positive direction over-travel inhibition input)
9 | POT (Positive direction over-travel inhibition input)

Remarks:
- This cable is designed for use with PNP output types of FP0H, FP0R or a comparable PLC.
- If you use limit switches, please refer to the corresponding manuals for further information.
- If you do not use limit switches, please insulate the connection wires to avoid trouble.
- If you do not use a signal which is supported by the cable please insulate the pin on the cable.
- The wiring example refers to MINAS A5. Connector number and signal names for MINAS A6 may differ.
- For further information, please refer to the corresponding manuals.

Specification Sheet

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>DV0P0988WP-x</td>
<td>Leaflet 1 – Wiring overview</td>
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<table>
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<tr>
<th>Version</th>
<th>Date</th>
<th>designed by</th>
<th>approved</th>
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<tbody>
<tr>
<td>0.90</td>
<td>10.08.2018</td>
<td>Kunath</td>
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<td>1.00</td>
<td>29.11.2018</td>
<td>Hotz</td>
<td>Kunath</td>
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Leaflet 2 – PLC wiring instruction

PLC wiring instruction:
1. Select your PLC type and select the pulse output channel of your PLC which should be used to control the axis. Each I/O cable can control one axis with one channel.
2. Connect the wires OPC1 (grey), OPC2 (pink) and CL (brown-green) to the related PLC output, depending on the PLC type and pulse output channel (see table).
3. Connect the power supply wires (blue and red) to the (+), (-) and COM pin of the PLC (ensure the power supply of every used I/O module).
4. Connect the free wires of the I/O cable but regard the following points
   - Do not connect to an I/O of the PLC which should be used to control another axis
   - Do not connect to an input of the PLC which should be used to connect an external device. (e.g. Position control trigger input, Home input)
5. Insulate not used pins.

If there is a wiring mistake:
To remove a contact from the MIL-connector use a small screw driver or the pressure connection tool (part. no. AXY52000FP).

Move the screw driver trough the hole and press the contact of the pin (1). Simultaneous remove the wire (2).

PLC I/O allocation table (for pulse output functions)

<table>
<thead>
<tr>
<th>PLC Type</th>
<th>FPOR C32</th>
<th>FP0HC32</th>
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<tbody>
<tr>
<td>Pulse output channel</td>
<td>CH0</td>
<td>CH1</td>
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<tr>
<td>Command pulse (CW or Pulse)</td>
<td>Y0</td>
<td>Y2</td>
</tr>
<tr>
<td>Command pulse (CCW or Sign)</td>
<td>Y1</td>
<td>Y3</td>
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<tr>
<td>Deviation counter clear output</td>
<td>Y8</td>
<td>Y9</td>
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<tr>
<td>Position control trigger input</td>
<td>X0</td>
<td>X1</td>
</tr>
<tr>
<td>Home input</td>
<td>X4</td>
<td>X5</td>
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Wiring to PLC input:

Wiring to PLC output:

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