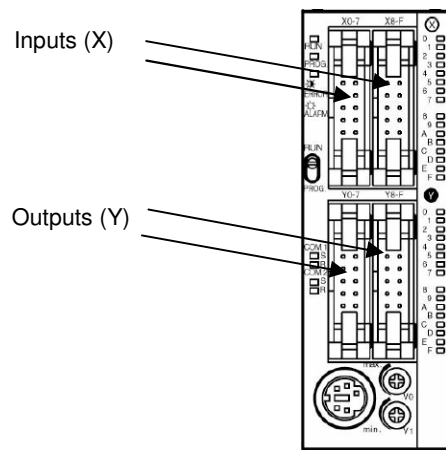## MINAS A4/A5 servo driver to FP series PLC (PNP output type)
1 axis, 50 pin connector, loose wires for I/Os, length x m

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 — CWL

CCWL limit switch — CCWL

to PLC inputs (X)

white	
brown	
green	
yellow	

from PLC outputs (Y)

gray
pink
black
violet
gray-pink
white-green
brown-green
white-yellow
yellow-brown
white-gray

PLC Output (+) +24 VDC — red

PLC Output (-) 0 VDC — blue

PLC Input (COM) 0 VDC — blue

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

CN X4 Pin	Signal
10	BRKOFF-
34	S-RDY-
36	ALM-
38	INP-
1	OPC1
2	OPC2
26	VS-SEL1
27	GAIN
28	DIV1
29	SRV-ON
30	CL
31	A-CLR
32	C-Mode
33	INH
35	S-RDY+
37	ALM+
39	INP+
11	BRKOFF+
4	PULS2
6	SIGN2
7	COM+
8	NOT
9	POT
	FG

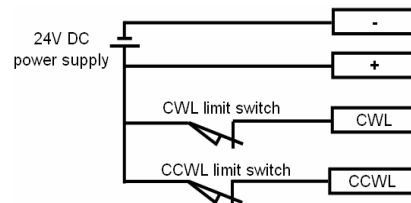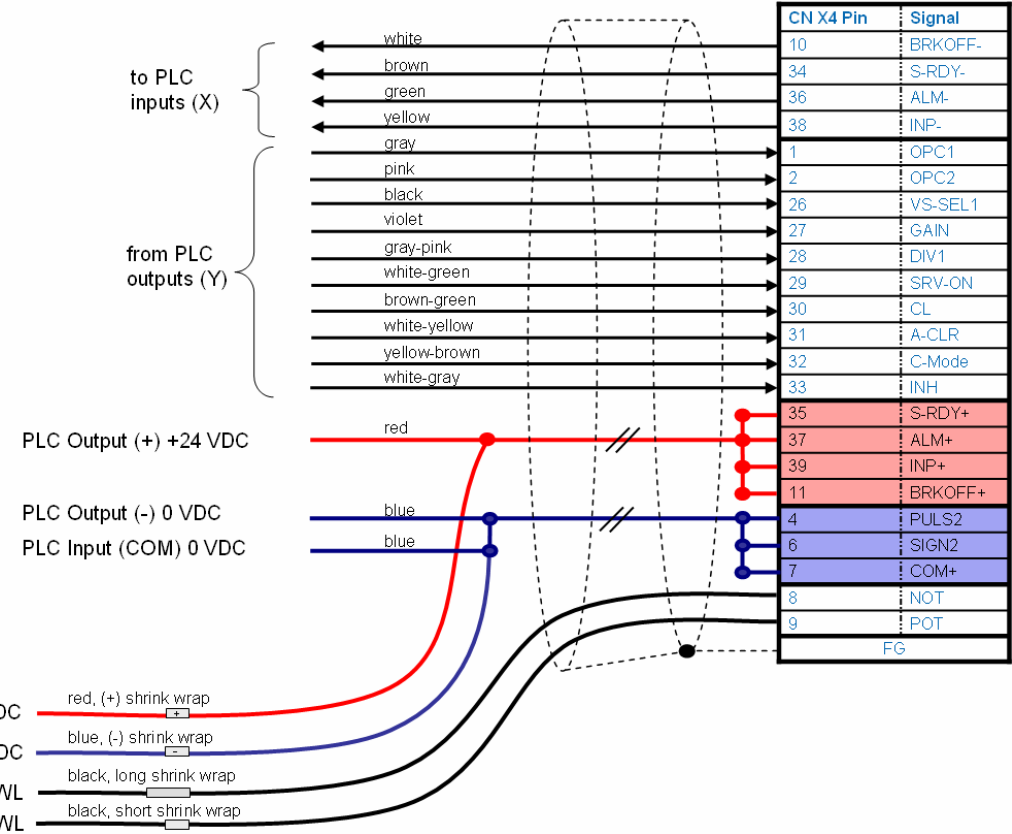### Specification Sheet

Product Number	Description
DV0P0988W-x	Leaflet 1 – Wiring overview

Version	Date	designed by	approved
1.01	05.05.2011	Aicher	Millauer

Remarks:
- This cable is designed for use with PNP output types of FPG, 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 A4 may differ.
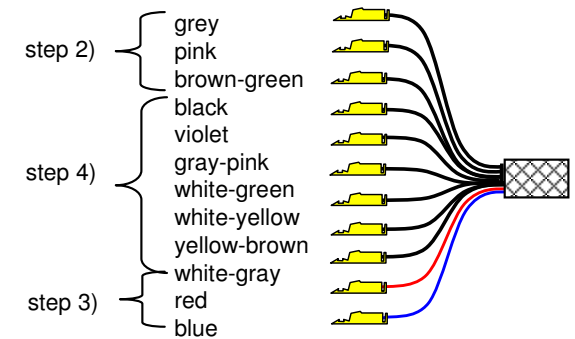- For further information, please refer to the corresponding manuals.

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.

Wiring to PLC input:

step 4) { white, brown, green, yellow
step 3) { blue

Wiring to PLC output:

step 2) { grey, pink, brown-green
step 4) { black, violet, gray-pink, white-green, white-yellow, yellow-brown, white-gray
step 3) { red, blue

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

PLC Type	FPG		FP0R C32				FP0R C16			
Pulse output channel	CH0	CH2	CH0	CH1	CH2	CH3	CH0	CH1	CH2	CH3
Command pulse (CW or Pulse)	Y0	Y3	Y0	Y2	Y4	Y6	Y0	Y2	Y4	Y6*
Command pulse (CCW or Sign)	Y1	Y4	Y1	Y3	Y5	Y7	Y1	Y3	Y5	Y7*
Deviation counter clear output	Y2	Y5	Y8	Y9	YA	YB	Y6*	Y7*	N/A	N/A
Position control trigger input	N/A	N/A	X0	X1	X2	X3	X0	X1	X2	X3
Home input	X2	X5	X4	X5	X6	X7	X4	X5	X6	X7

OPC1 (grey)
OPC2 (pink)
CL (brown-green)

e.g. connection of an external sensor

*) PLC output Y6 and Y7 can be used as pulse output for channel 3 or as deviation counter clear output for channel 0 and 1.

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. AXY52000).

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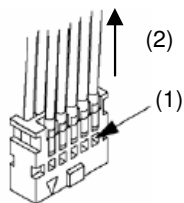
Move the screw driver trough the hole and press the contact of the pin (1). Simultaneous remove the wire (2).

PLC I/O allocation:

The arrow marks the first pin of the connector. For further information, please refer to the corresponding manual.

X0	X1
X2	X3
X4	X5
X6	X7
X8	X9
COM	COM

Y0	Y1
Y2	Y3
Y4	Y5
Y6	Y7
Y8	Y9
(+)	(-)

Specification Sheet

Product Number	Description		
DV0P0988W-x	Leaflet 2 – PLC wiring instruction		
Version	Date	designed by	approved
1.01	05.05.2011	Aicher	Millauer