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Circuit diagram

Customer :
 Plant designation : PA-CONTROL CPU4-LV servoTEC STEP
 Project number : 1027129

Type : 4 Axes english
 Manufacturing date : 2002
 Incoming supply : 400V/3Ph/50Hz/16A
 Feeding : 5x2,5mm²
 Fuse protection : 16A
 Control voltage : 24V

Created on : 07.10.02 Highest Page No. : 24
 Project leader : Alfred Pfeiffer
 Last changed : 28.06.05
 Editor : VOL

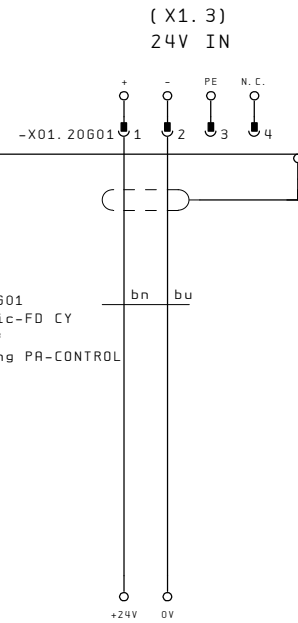
Editor		Date		Title page	Customer	Drawing-no. IEF	Page no.
Designer:	VOL	07.10.02				1027129	1
Modification:	VOL	28.06.05			Final customer	Drawing-no. customer	Pages
Print:		11.01.07					24
System:	Place:			PA-CONTROL CPU4-LV servoTEC STEP			

-R01.20
5.02

PA-CONTROL

-G01.20

NT8



Editor		Date	
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PA-CONTROL CPU-Power supply

Customer

Drawing-no. IEF

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1027129

4

Final customer

Drawing-no. customer

Pages

PA-CONTROL CPU4-LV servoTEC STEP

24

-A01.20
4.02

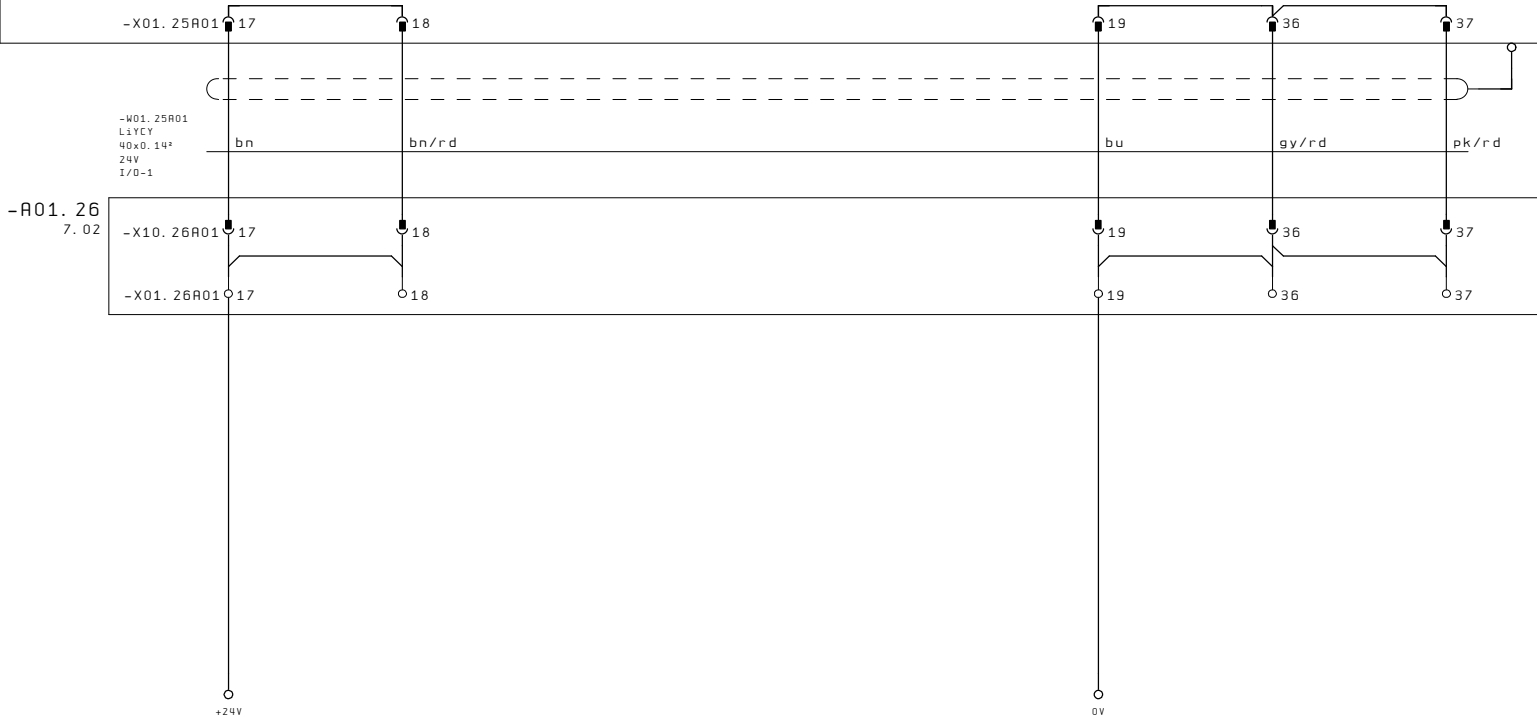
PA-CONTROL


-A01.25
7.02

PAC I/O-card 1

Pin 17: +24V for In-Outputs
Pin 18: +24V for In-Outputs

Pin 19: earth 24v (gnd)
Pin 36: earth 24v (gnd)
Pin 37: earth 24v (gnd)

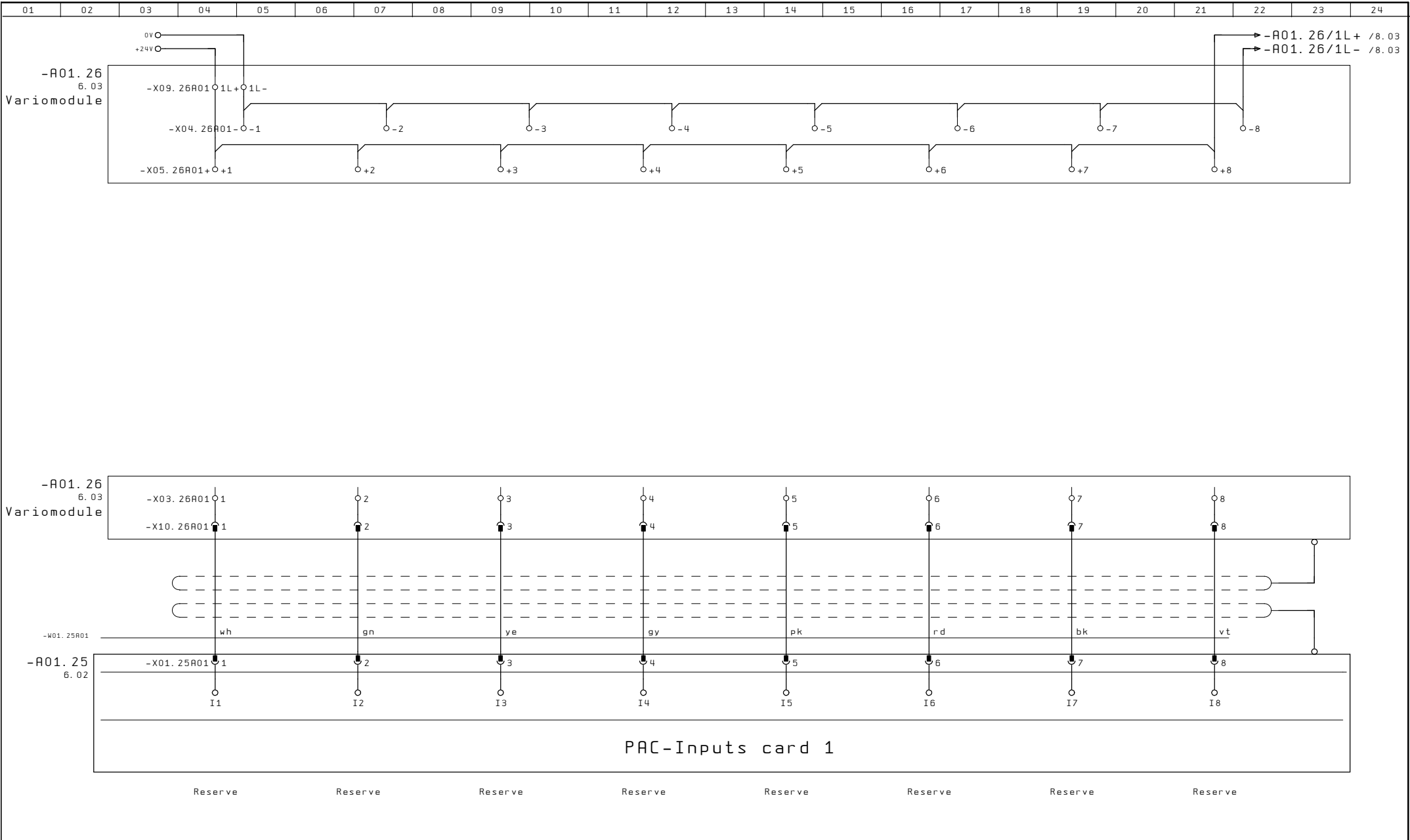


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Power supply PAC
I/O-card

PA-CONTROL CPU4-LV servoTEC STEP

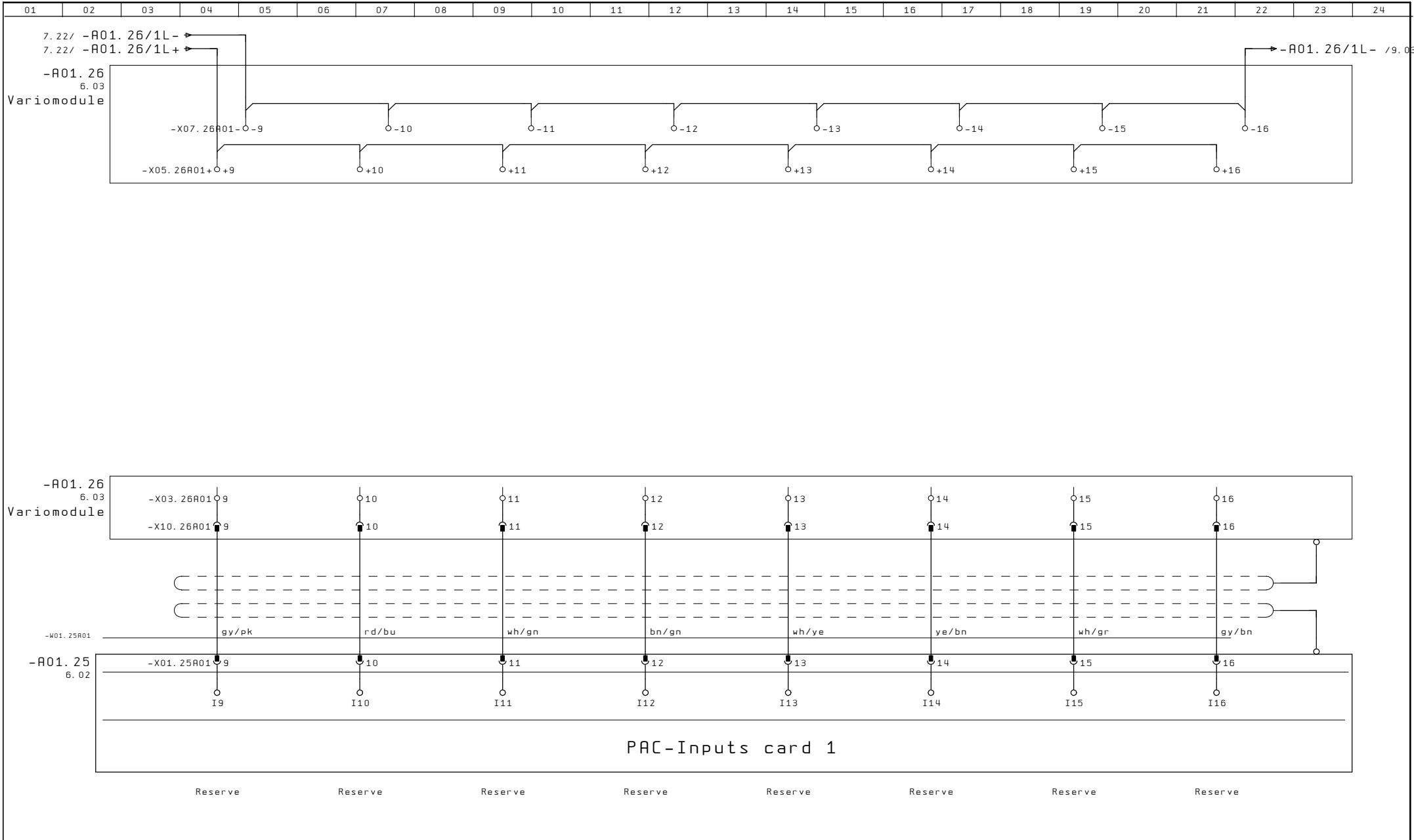
Customer	Drawing-no. IEF	Page no.
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PAC Inputs I1-I8	Customer	Drawing-no. IEF	Page no.
		1027129	7
PA-CONTROL CPU4-LV servoTEC STEP	Final customer	Drawing-no. customer	Pages
			24



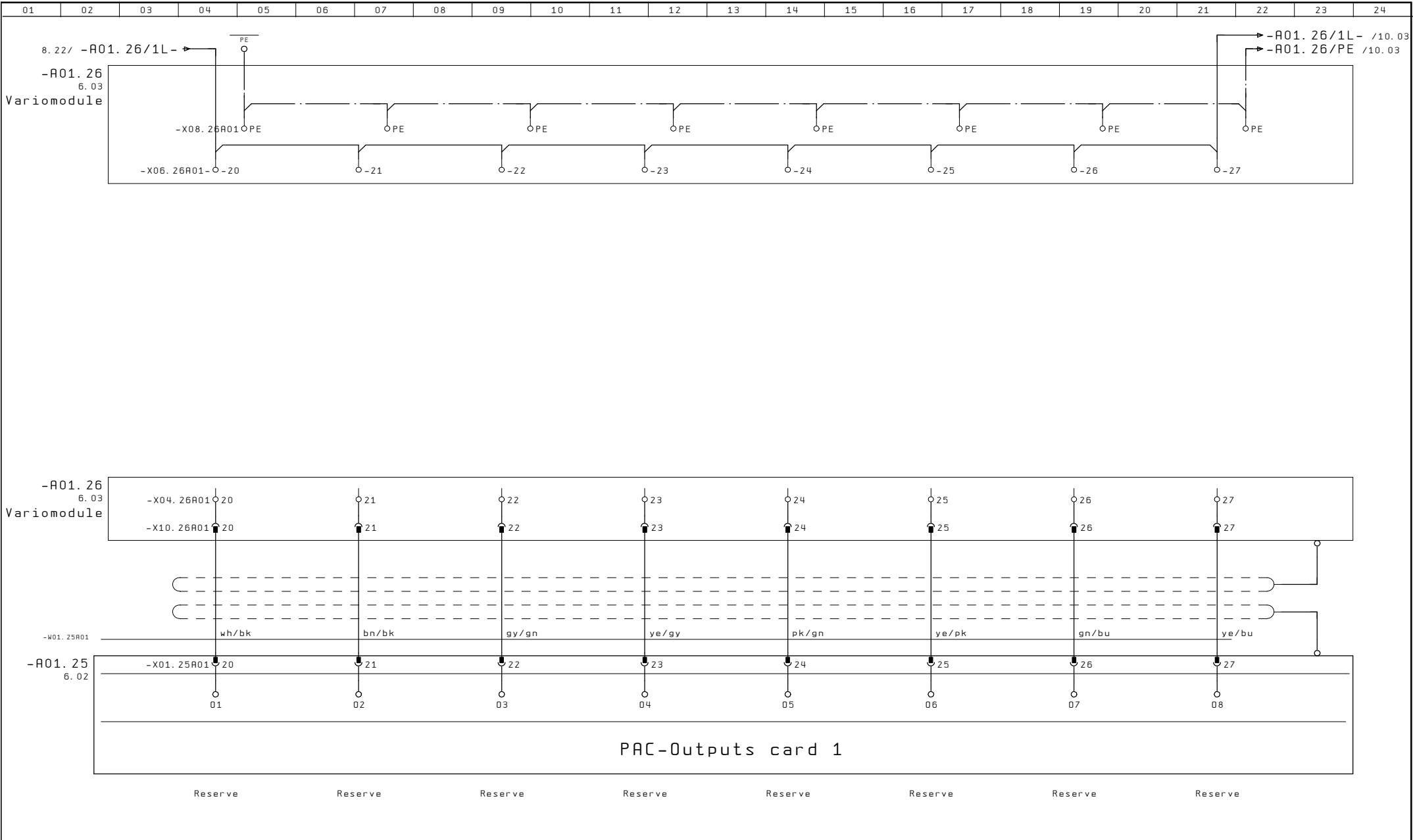
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PAC Inputs
I9-I16

PA-CONTROL CPU4-LV servoTEC STEP

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Final customer	Drawing-no. customer	Pages
		24

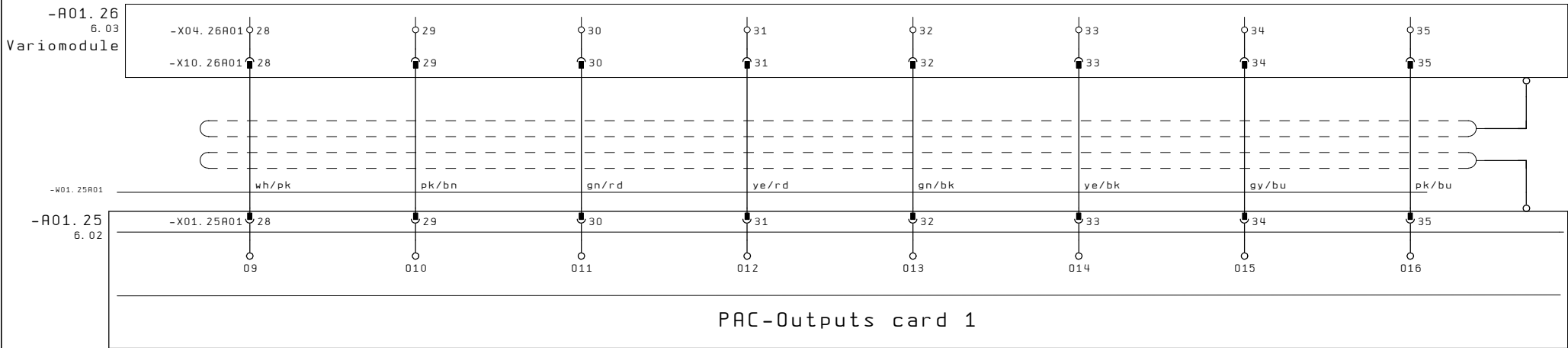
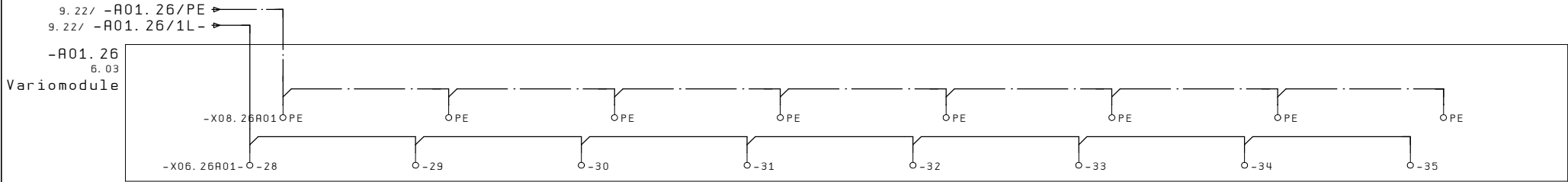


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PAC Outputs 01-08	
PA-CONTROL CPU4-LV servoTEC STEP	

Customer	Drawing-no. IEF	Page no.
	1027129	9
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Reserve Reserve Reserve Reserve Reserve Reserve Reserve Reserve

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PAC Outputs
09-016

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
		24

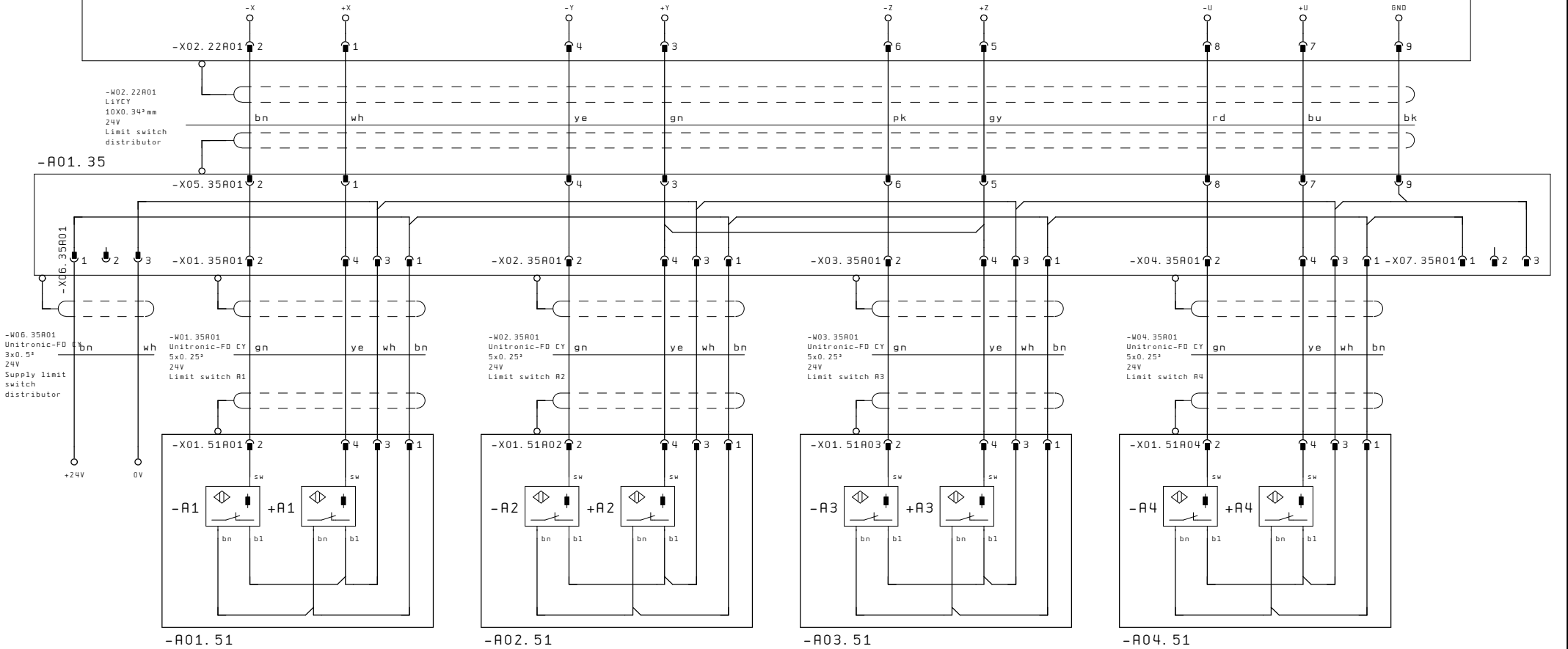
-A01. 20
4. 02

PA-CONTROL

-A01. 22
12. 01

PAC PLS9-card

-X : limit switch	axle 1-	-Z : limit switch	axle 3-
+X : limit switch	axle 1+	+Z : limit switch	axle 3+
-Y : limit switch	axle 2-	-U : limit switch	axle 4-
+Y : limit switch	axle 2+	+U : limit switch	axle 4+



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Limit switch axis
PLS9 axis 1-4

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
		24

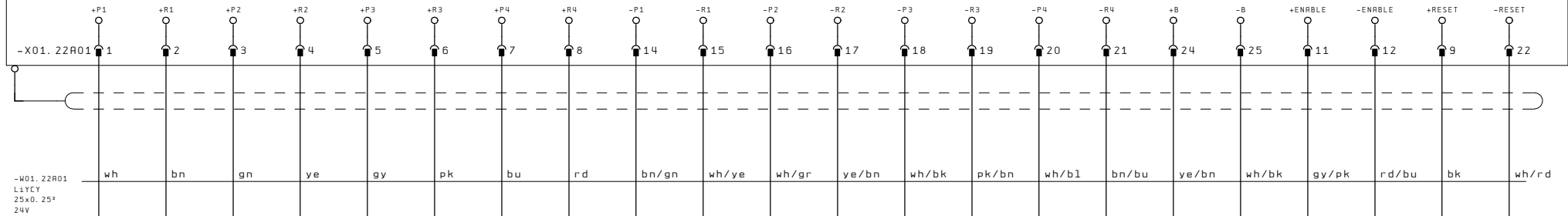
A01. 20
4. 02

PA-CONTROL

A01. 22
11. 02

PAC PLS9-card

P+A1: pulse	A1-axis	P+A3: pulse	A3-axis	P-A1: pulse	A1-axis	P-A3: pulse	A3-axis	+Standby	+Reset
R+A1: direction	A1-axis	R+A3: direction	A3-axis	R-A1: direction	A1-axis	R-A3: direction	A3-axis	-Standby	-Reset
P+A2: pulse	A2-axis	P+A4: pulse	A4-axis	P-A2: pulse	A2-axis	P-A4: pulse	A4-axis	+Enable	
R+A2: direction	A2-axis	R+A4: direction	A4-axis	R-A2: direction	A2-axis	R-A4: direction	A4-axis	-Enable	



A01. 90
15. 02

VER-PULS module



Connection of 1 LV-UNIT possible
(X8-bush)

The jumper has to be removed if a LV-Unit is connected.

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PLS9-axis 1-4	
PA-CONTROL CPU4-LV servoTEC STEP	

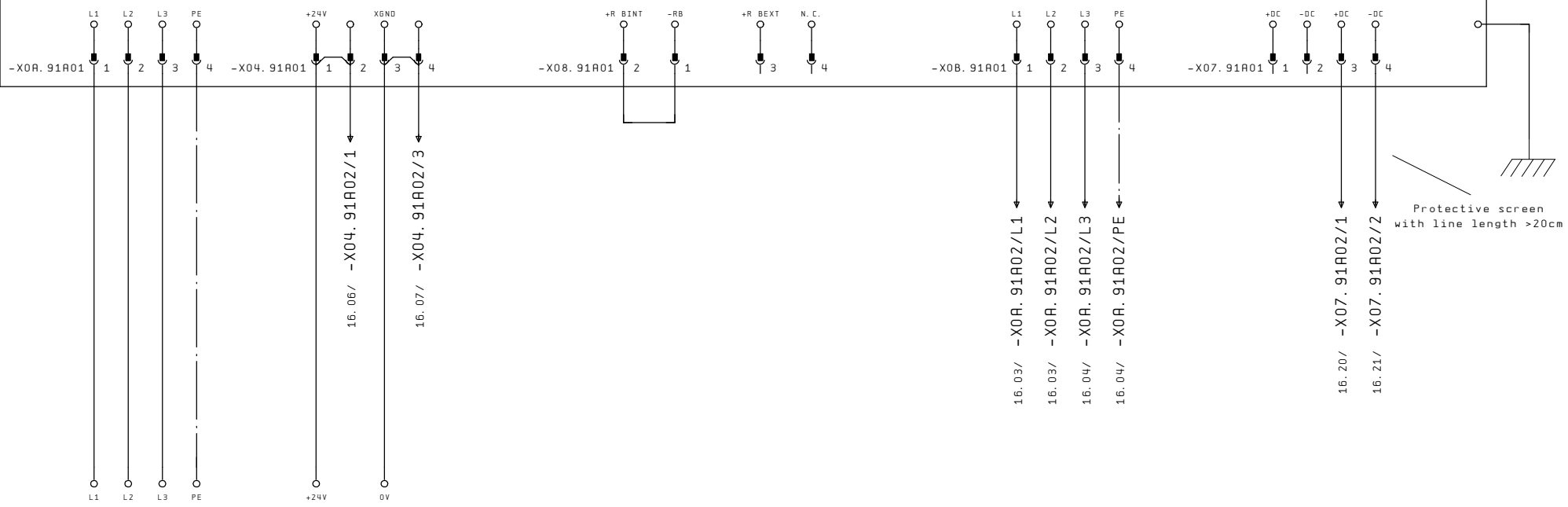
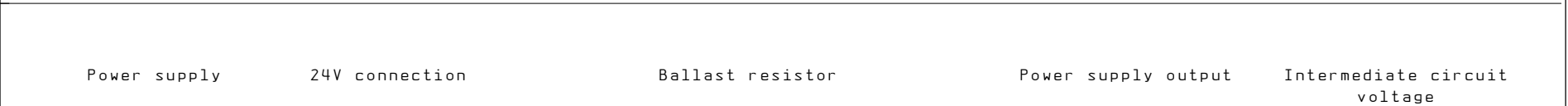
Customer	
Final customer	

Drawing-no. IEF	1027129
Drawing-no. customer	

Page no.	12
Pages	24

-A01.91
14.02


LV-servoTEC



Protective screen
with line length >20cm

Supply voltage servo
amplifier after
protective circuit
400V

Supply voltage servo
amplifier in
front of protective
circuit 24V

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Axis A1 servo amplifier 1
supply voltage

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
		24

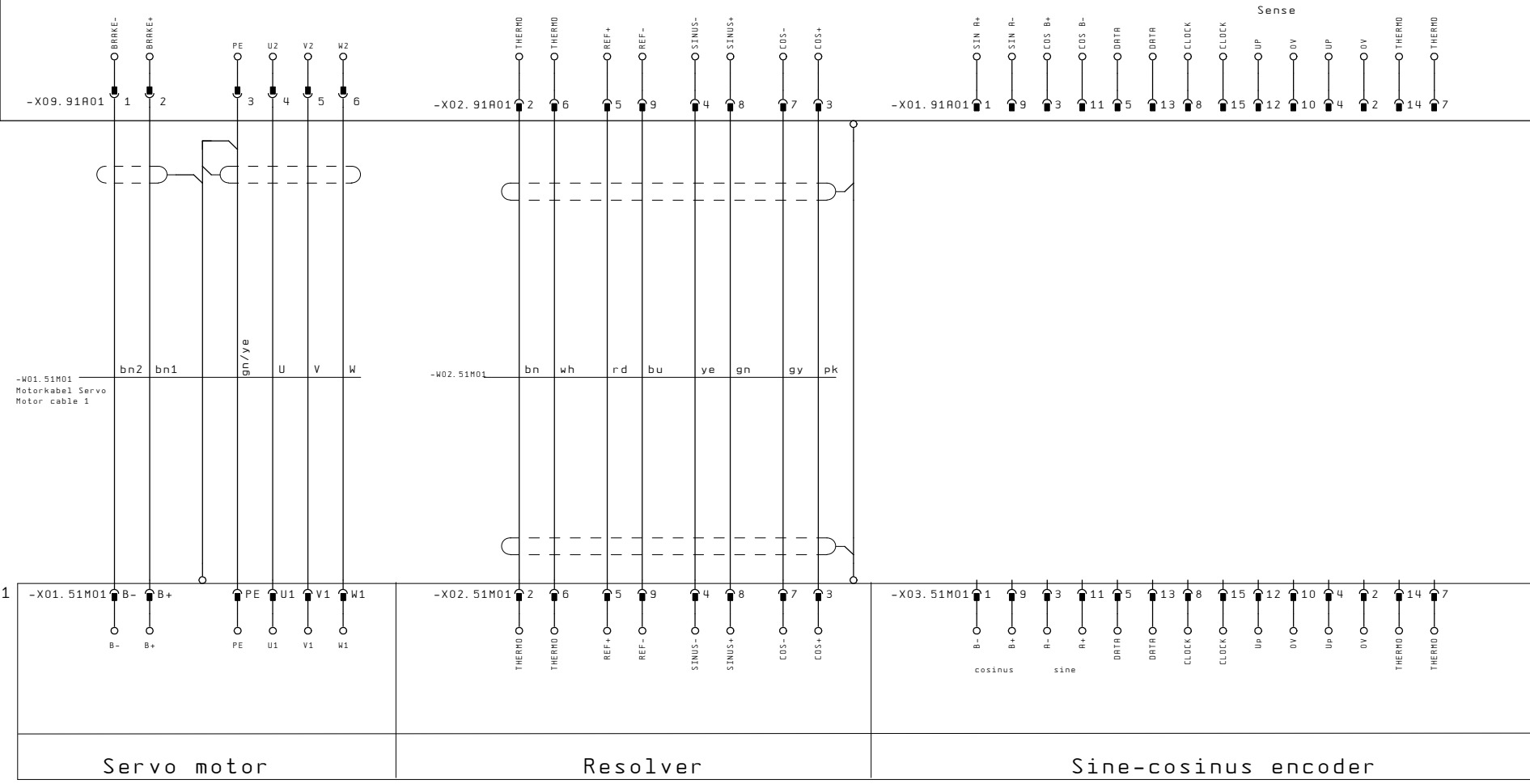
-A01. 91
13.02

LV-servoTEC

Motor connection

Resolver connection

Encoder connection



-W01.51M01
Motorkabel Servo
Motor cable 1


-M01. 51

Servo motor

Resolver

Sine-cosinus encoder

Optional

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Axis A1 servo amplifier 1
motor connection

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
	1027129	14
Final customer	Drawing-no. customer	Pages
		24

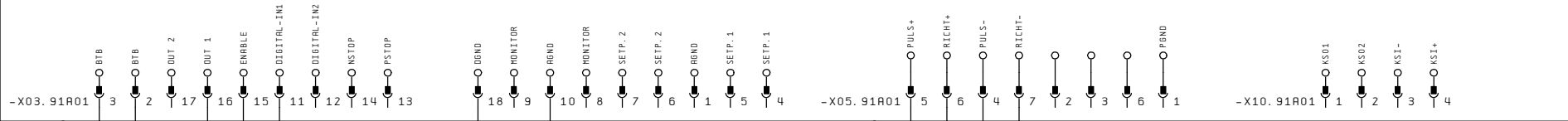
-A01.91
13.02

LV-servoTEC

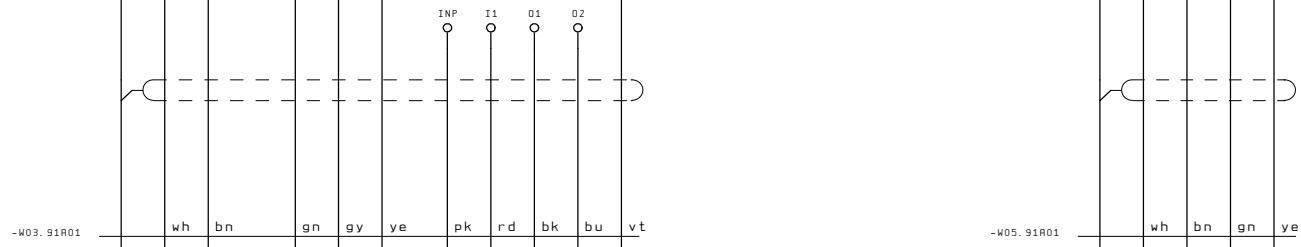
Controlling signals

Interface connection

AS-relay



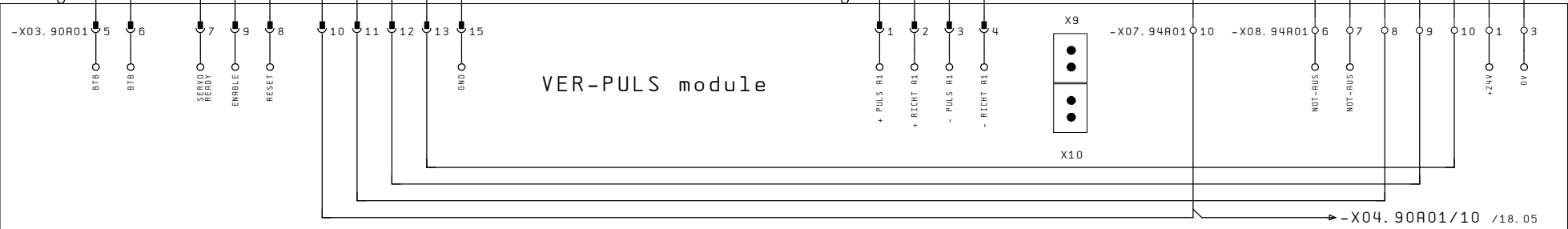
Optional
starting barrier




For integraion
into the Emergency-Stop-Circle
(potential free)

-A01.90
12.01

VER-PULS module



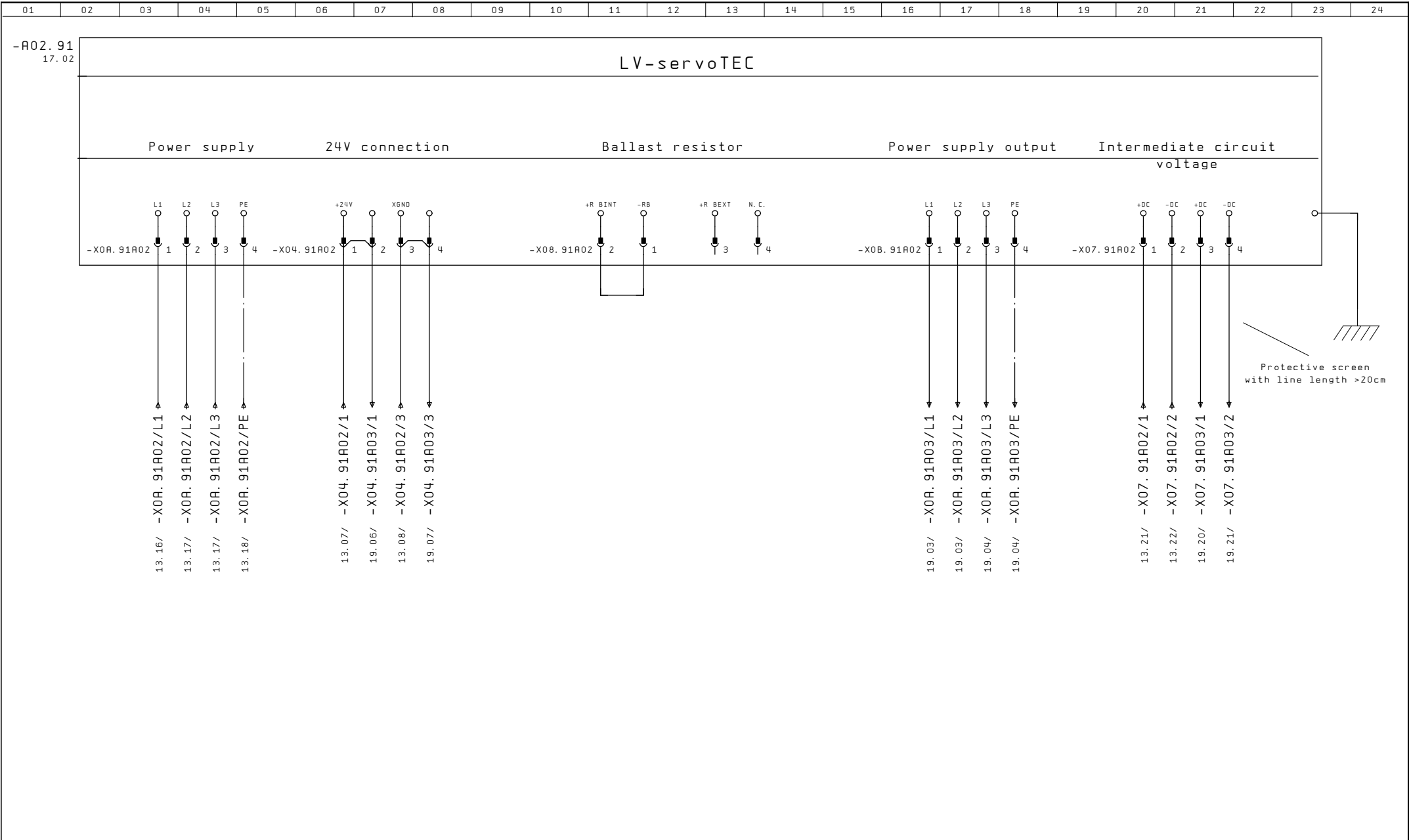
If you use A1-axis, both jumpers on X9/X10 must be removed !

Editor		Date	
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System:	Place:		

Axis A1 servoTEC amplifier 1
pulse connect PLS 9

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
	1027129	15
Final customer	Drawing-no. customer	Pages
		24



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System:	Place:

Axis A2 servo amplifier 2
supply voltage

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
		24

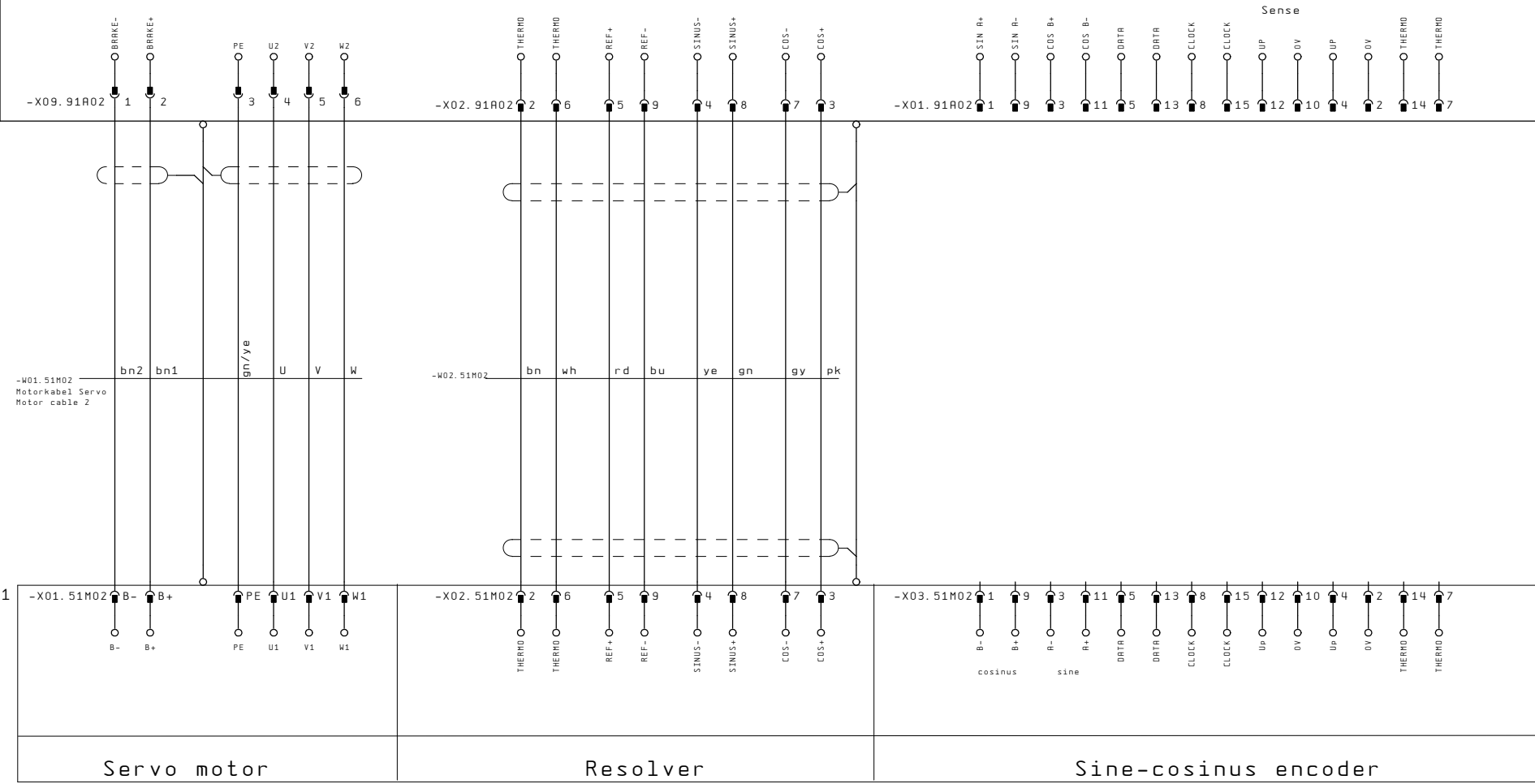
-A02. 91
16. 02

LV-servoTEC

Motor connection

Resolver connection

Encoder connection



-M02. 51

Servo motor

Resolver

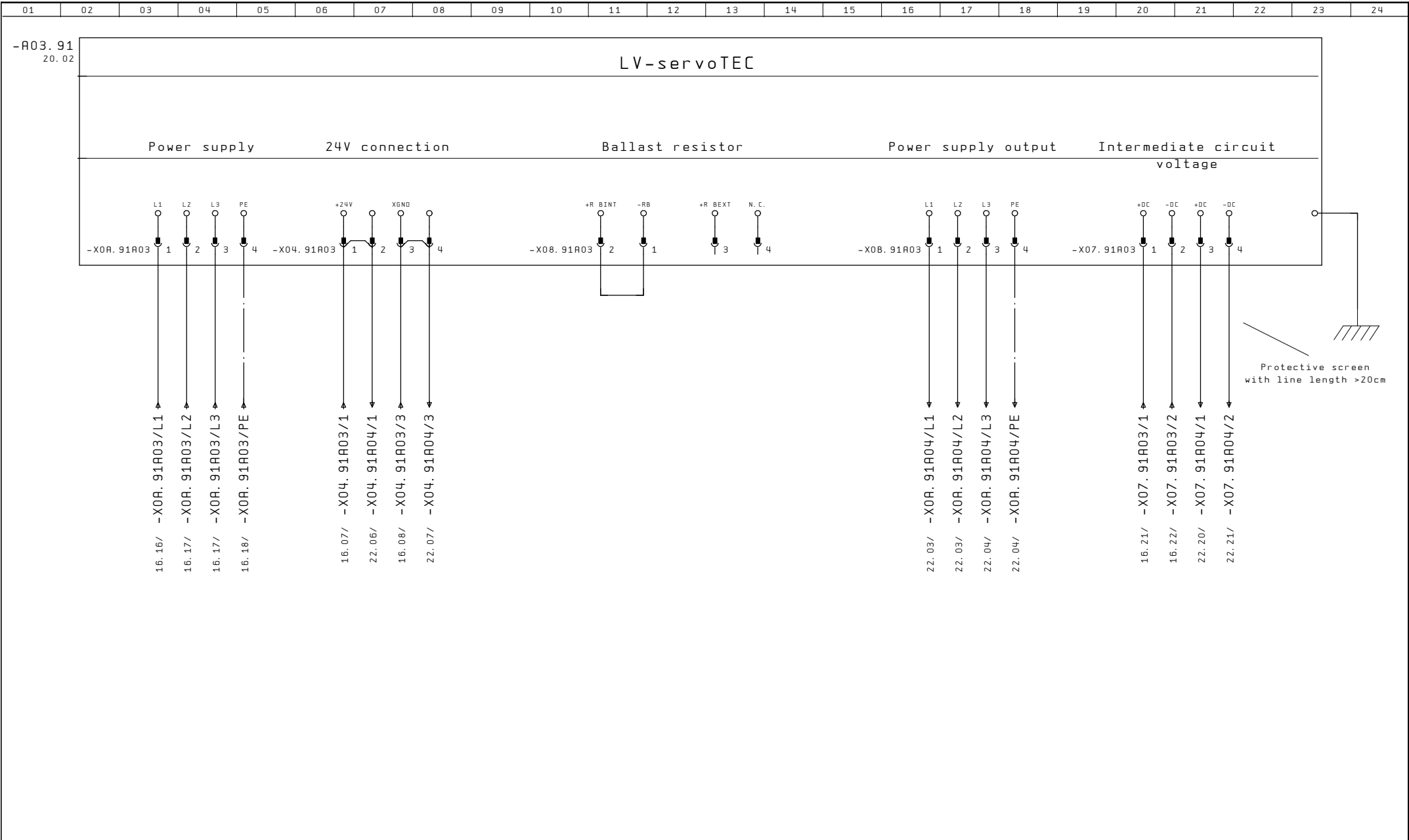
Sine-cosinus encoder

Optional

Editor	Date	
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System:	Place:	

Axis A2 servo amplifier 2
motor connection
PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
	1027129	17
Final customer	Drawing-no. customer	Pages
		24



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System:	Place:	



Axis A3 servo amplifier 3
supply voltage

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
		24

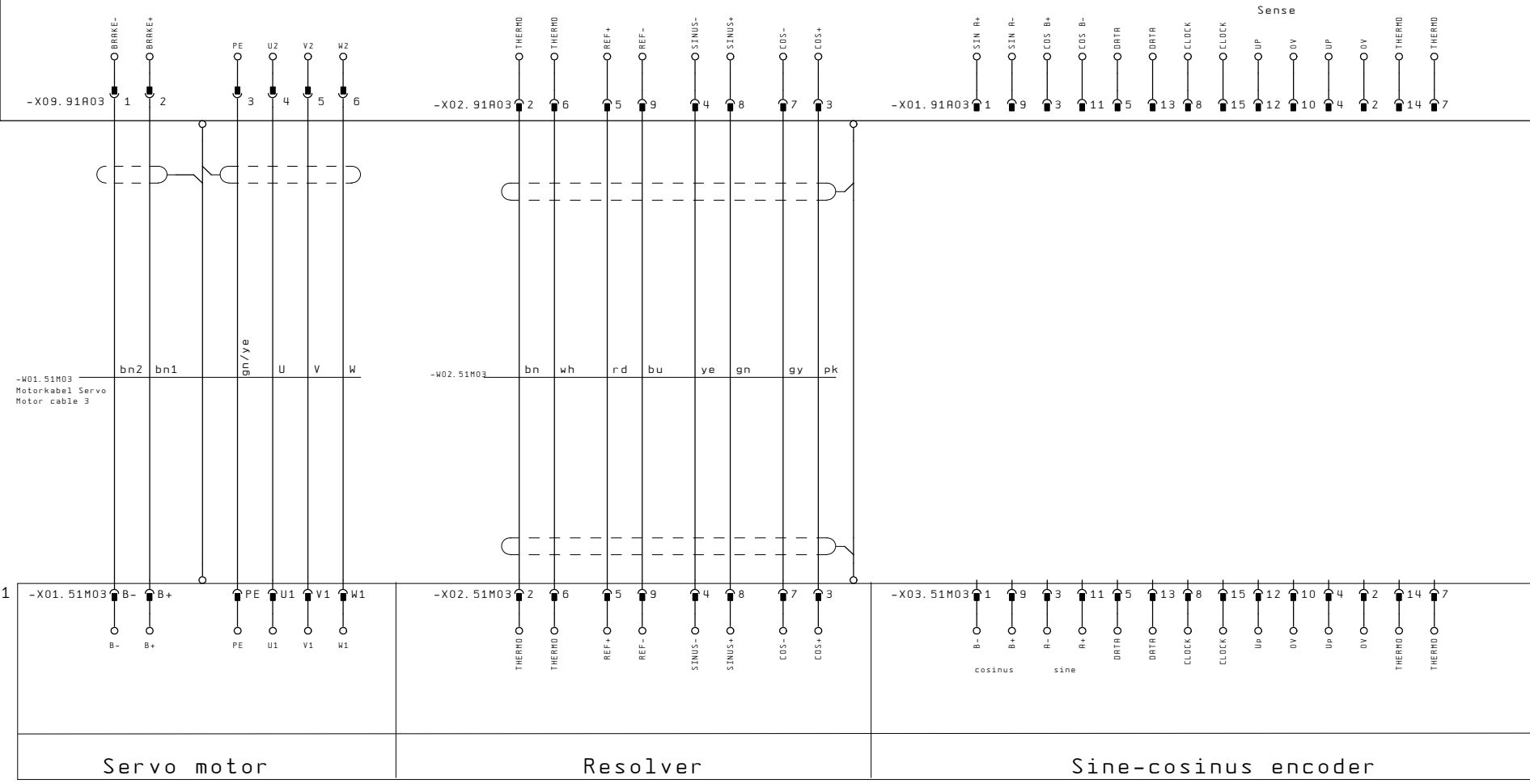
-A03. 91
19. 02

LV-servoTEC

Motor connection

Resolver connection

Encoder connection

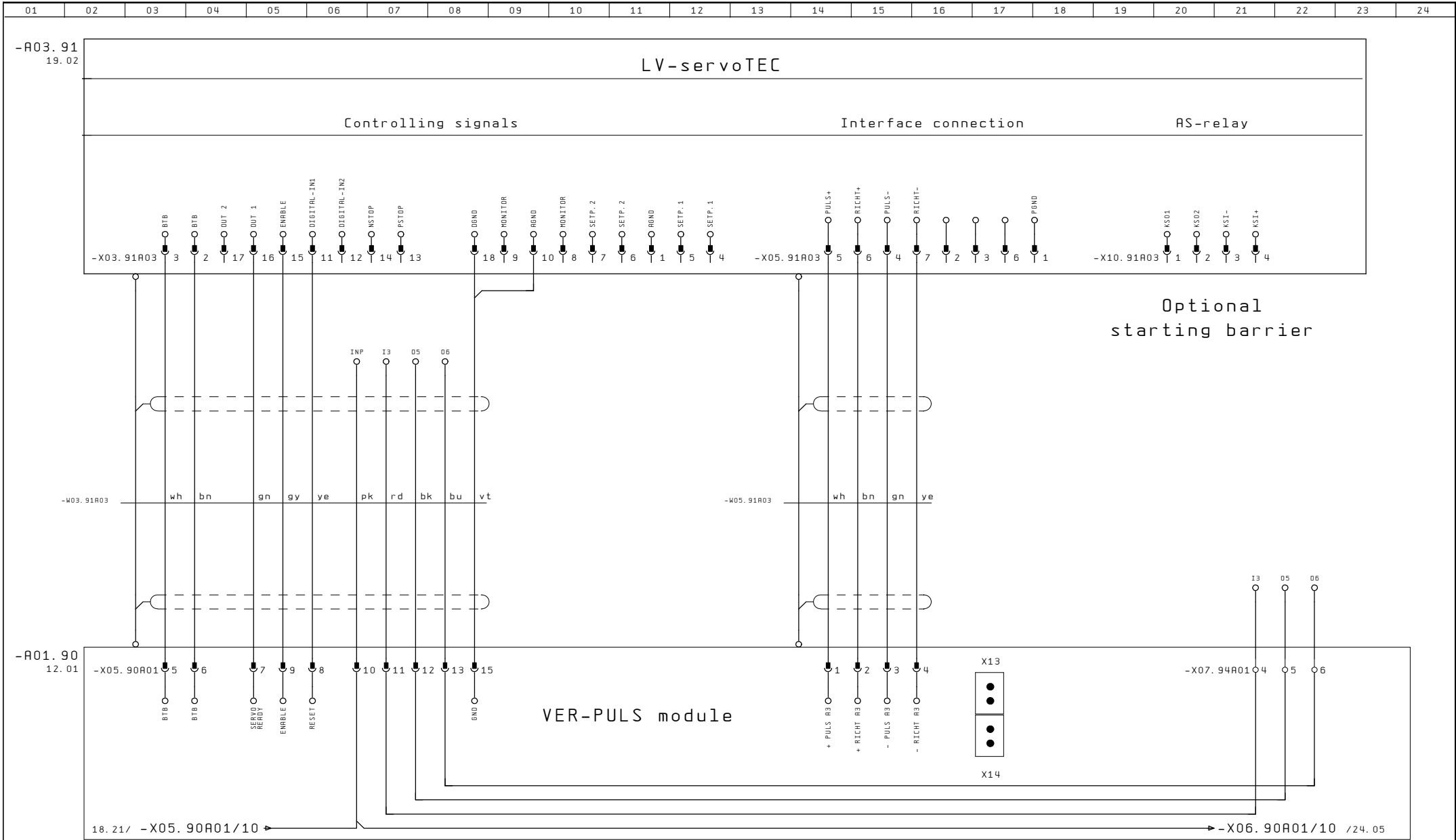


Editor	Date	
Designer: VOL	07.10.02	
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System:	Place:	

Axis A3 servo amplifier 3
motor connection

PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
	1027129	20
Final customer	Drawing-no. customer	Pages
		24



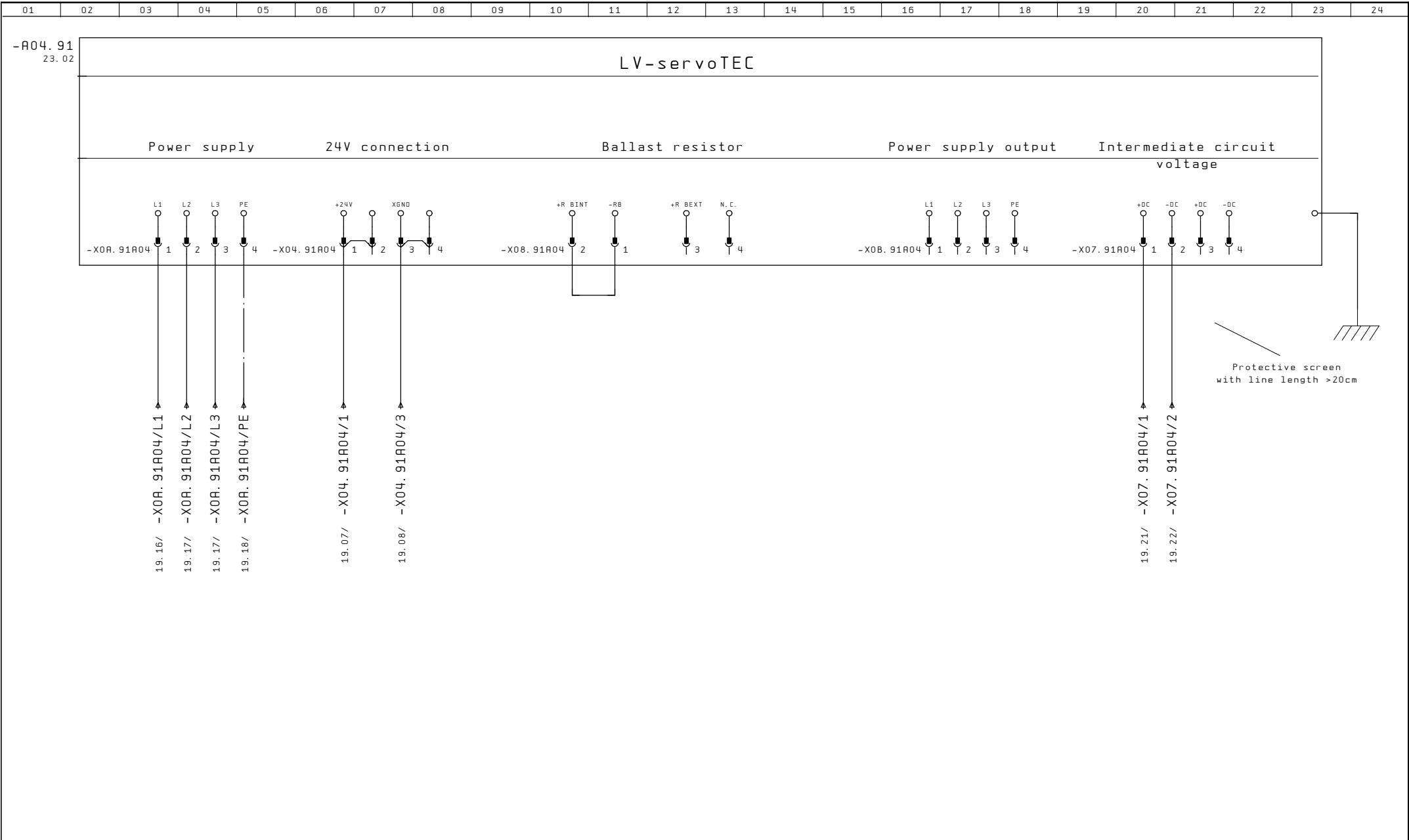
If you use A3-axis, both jumpers on X13/X14 must be removed !

Editor	Date
Designer: VOL	07.10.02
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System:	Place:



Axis A3 servoTEC amplifier 3
pulse connect PLS9
PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
		24



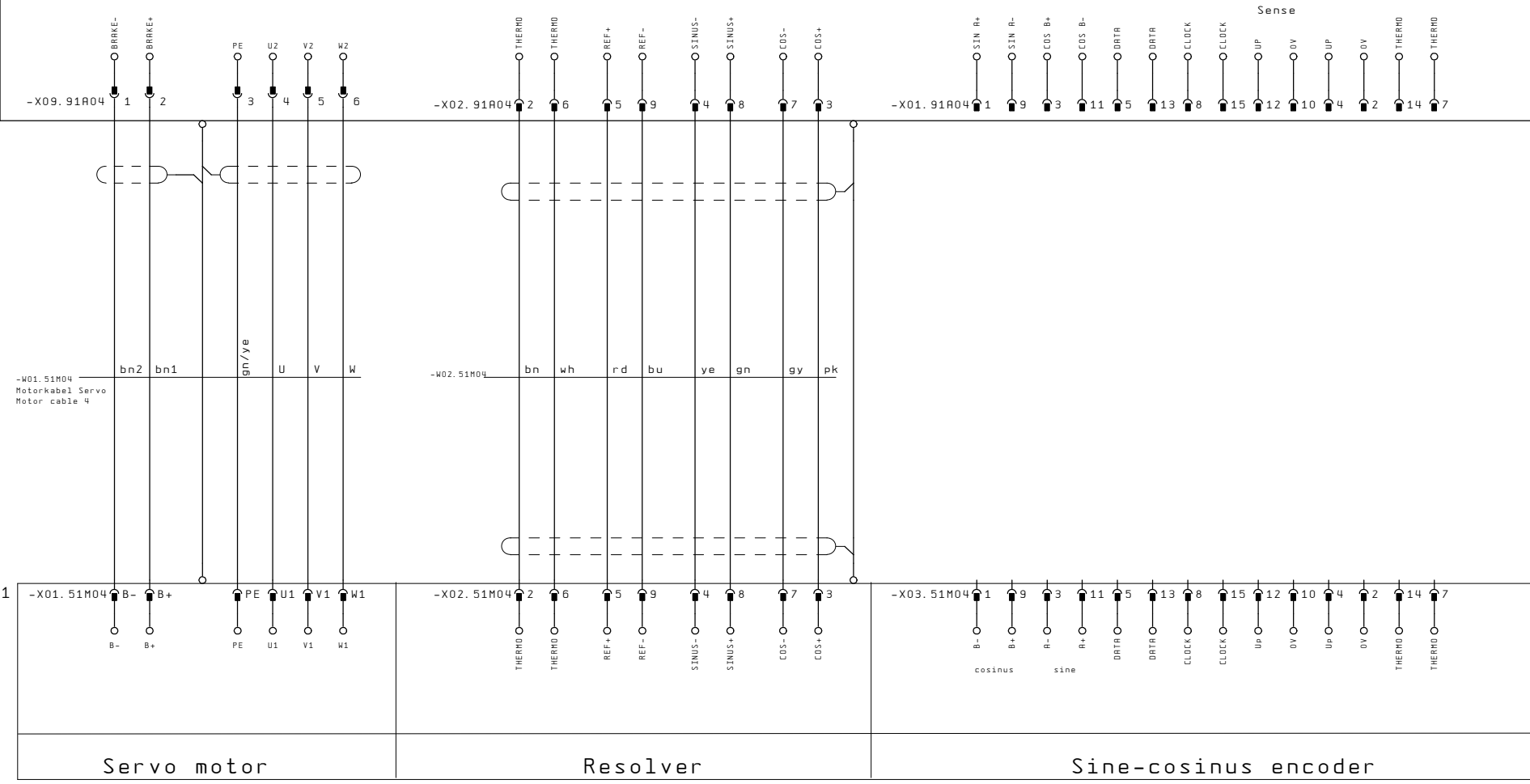
-A04. 91
22. 02

LV-servoTEC

Motor connection

Resolver connection

Encoder connection



-M04. 51

Servo motor

Resolver

Sine-cosinus encoder

Optional

Editor	Date	
Designer: VOL	07.10.02	
Modification: VOL	28.06.05	
Print:	11.01.07	
System:	Place:	

Axis A4 servo amplifier 4
motor connection
PA-CONTROL CPU4-LV servoTEC STEP

Customer	Drawing-no. IEF	Page no.
	1027129	23
Final customer	Drawing-no. customer	Pages
		24

