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eMail: info@IEF-Werner.de



# Circuit diagram

Customer :  
Plant designation : PA-CONTROL4 4A Var.D  
Project number : 1033743

Type : Variant D  
Manufacturing date : 2002  
Incoming supply : 230V/50Hz/16A  
Feeding : 3x1,5mm<sup>2</sup>  
Fuse protection : 16A  
Control voltage : 24V

Created on : 16.12.02 Highest Page No. : 27  
Project leader : A.Pfeiffer  
Last changed : 29.06.05  
Editor : VOL


Editor		Date	IEF WERNER	Title page	Customer	Drawing-no. IEF	Page no.
Designer:	VOL	16.12.02		PA-CONTROL4 4A Var.D		1033743	1
Modification:	VOL	29.06.05			Final customer	Drawing-no. customer	Pages
Print:		11.01.07					27
System:		Place:					



# Directory

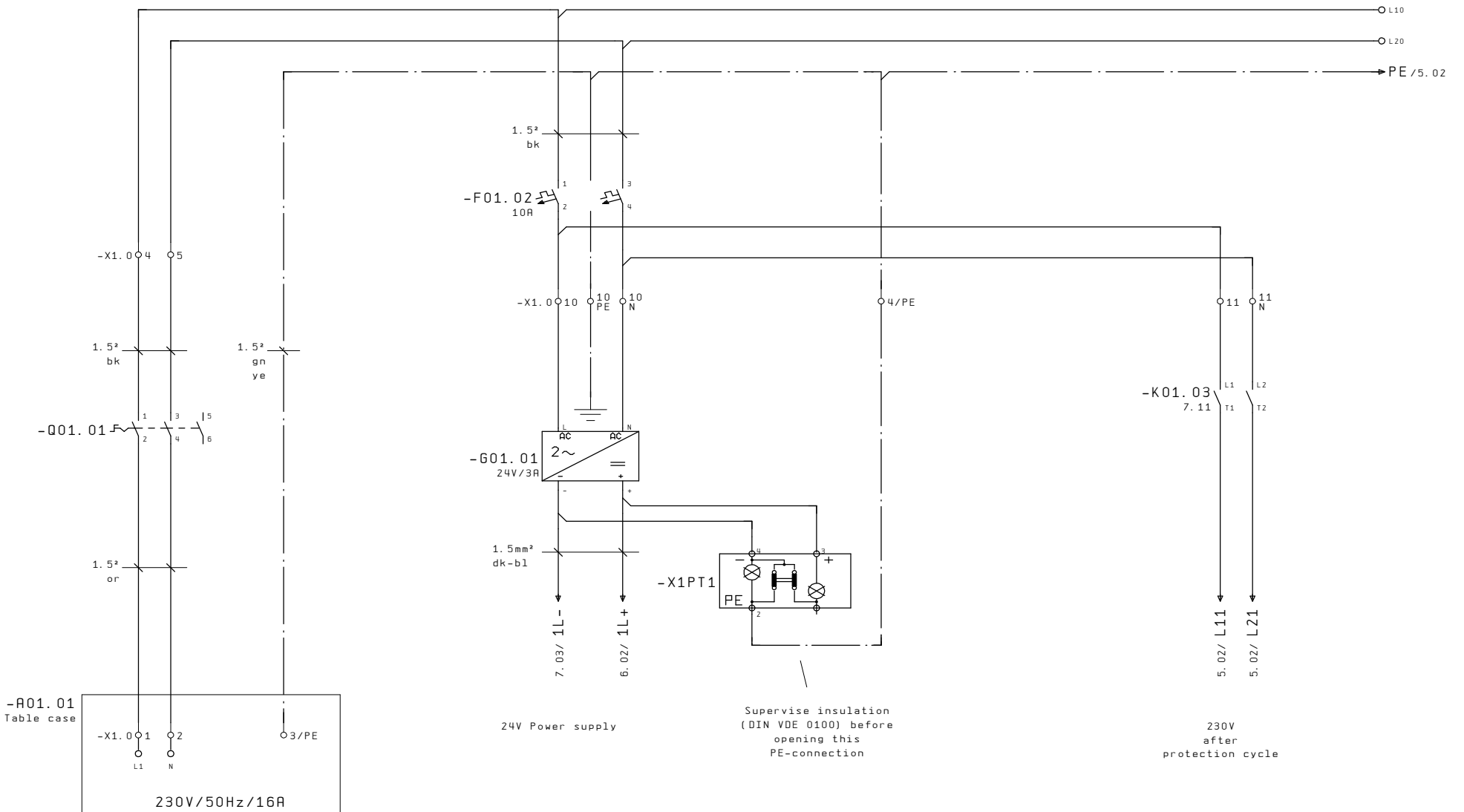
WUPJ0010 24.02.1994

Page	Page description	Additional page field	Date	Editor
1	Title page		29.06.2005	VOL
2	Modification information		29.06.2005	VOL
3	Directory		29.06.2005	VOL
4	Main connection - 24V Power supply		29.06.2005	VOL
5	Power supply connection LV-unit		29.06.2005	VOL
6	Emergency stop + doors		29.06.2005	VOL
7	Protection circle		29.06.2005	VOL
8	PA-CONTROL CPU-Power supply		29.06.2005	VOL
9	PA-CONTROL interface connection		29.06.2005	VOL
10	Power supply PAC I/O-card		29.06.2005	VOL
11	Optional teachterminal		29.06.2005	VOL
12	PAC Inputs I1-I8		29.06.2005	VOL
13	PAC Inputs I9-I16		29.06.2005	VOL
14	PAC Outputs O1-O8		29.06.2005	VOL
15	PAC Outputs O9-O16		29.06.2005	VOL
16	PA-CONTROL limit switch axes 1-4 PLS7		29.06.2005	VOL
17	PLS7 pulse transmitter card axes 1-4		29.06.2005	VOL
18	Power card 1 A1-axis 2 phase stepper motor		29.06.2005	VOL
19	Power card 2 A2-axis 2 phase stepper motor		29.06.2005	VOL
20	Power card 3 A3-axis 2 phase stepper motor		29.06.2005	VOL
21	Power card 4 A4-axis 2 phase stepper motor		29.06.2005	VOL
22	Power card 1 A1-axis 5-phase stepper motor		29.06.2005	VOL
23	Power card 2 A2-axis 5-phase stepper motor		29.06.2005	VOL
24	Power card 3 A3-axis 5-phase stepper motor		29.06.2005	VOL
25	Power card 4 A4-axis 5-phase stepper motor		29.06.2005	VOL
26	Assembly mounting plate		29.06.2005	VOL
27	Assembly control panel		29.06.2005	VOL

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Directory  
PA-CONTROL4 4A Var.D

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Final customer	Drawing-no. customer	Pages
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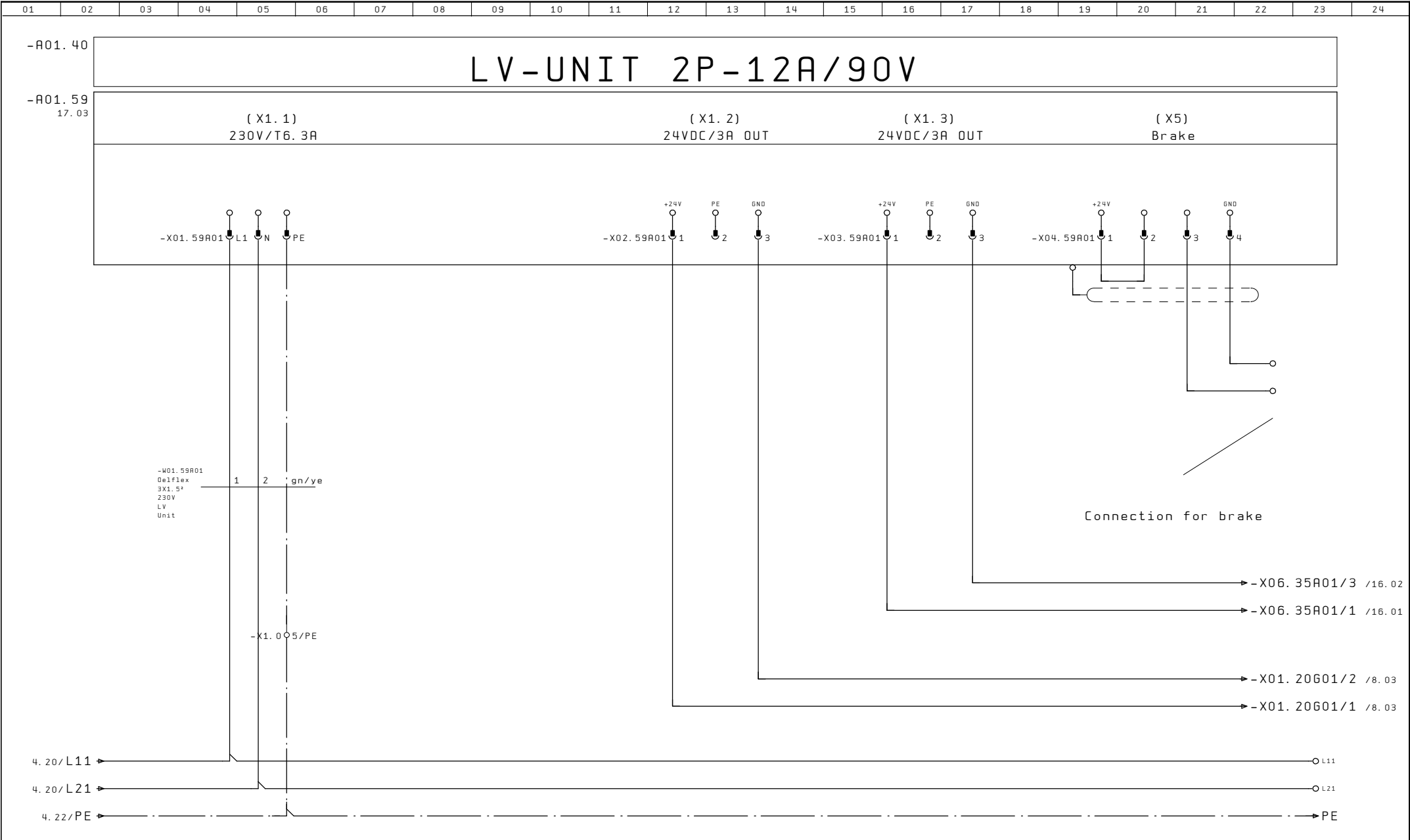
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Designer: VOL	16.12.02	
Modification: VOL	29.06.05	
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System:	Place:	



Main connection - 24V Power supply

PA-CONTROL4 4A Var.D

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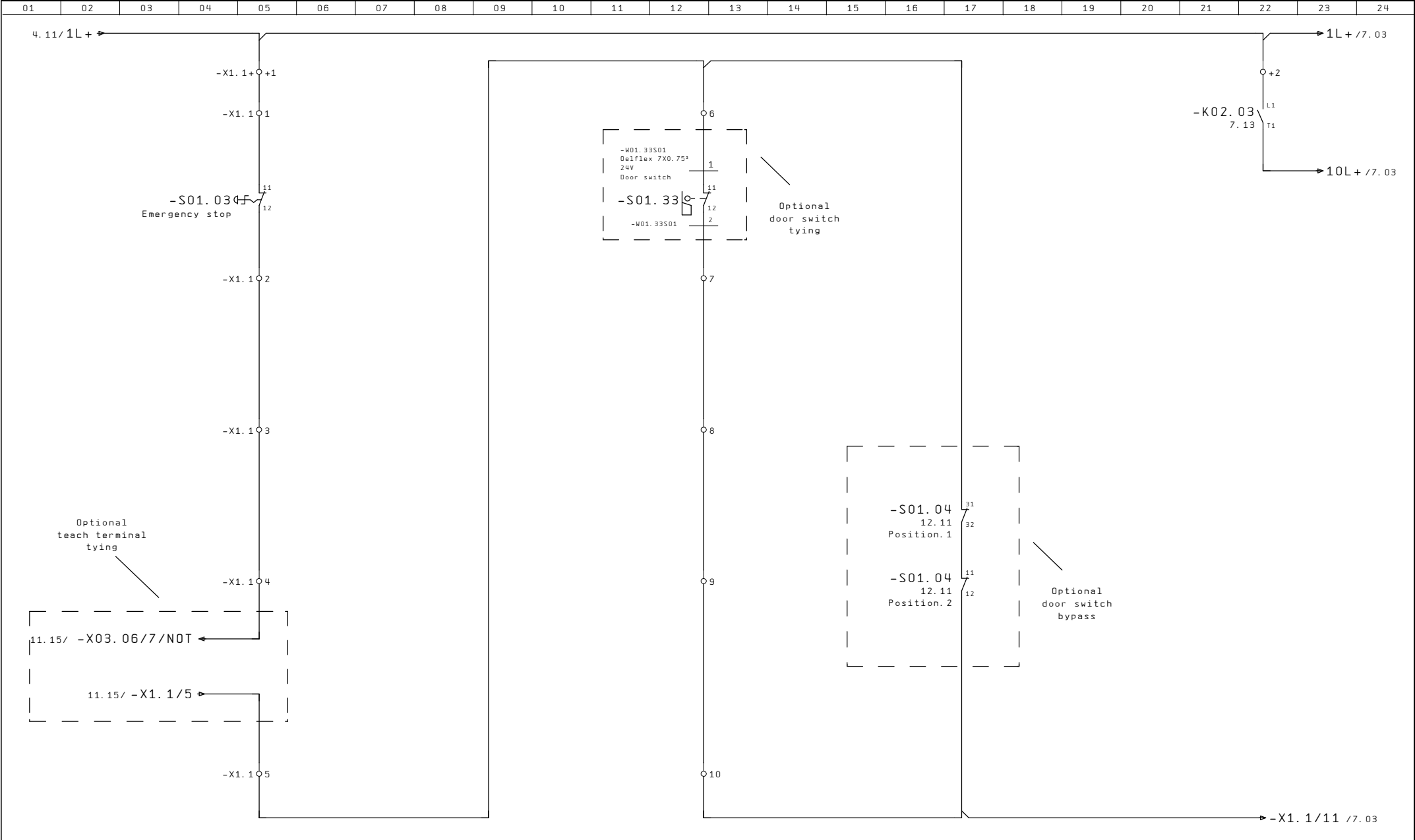


Power supply connection LV-unit

PA-CONTROL4 4A Var.D

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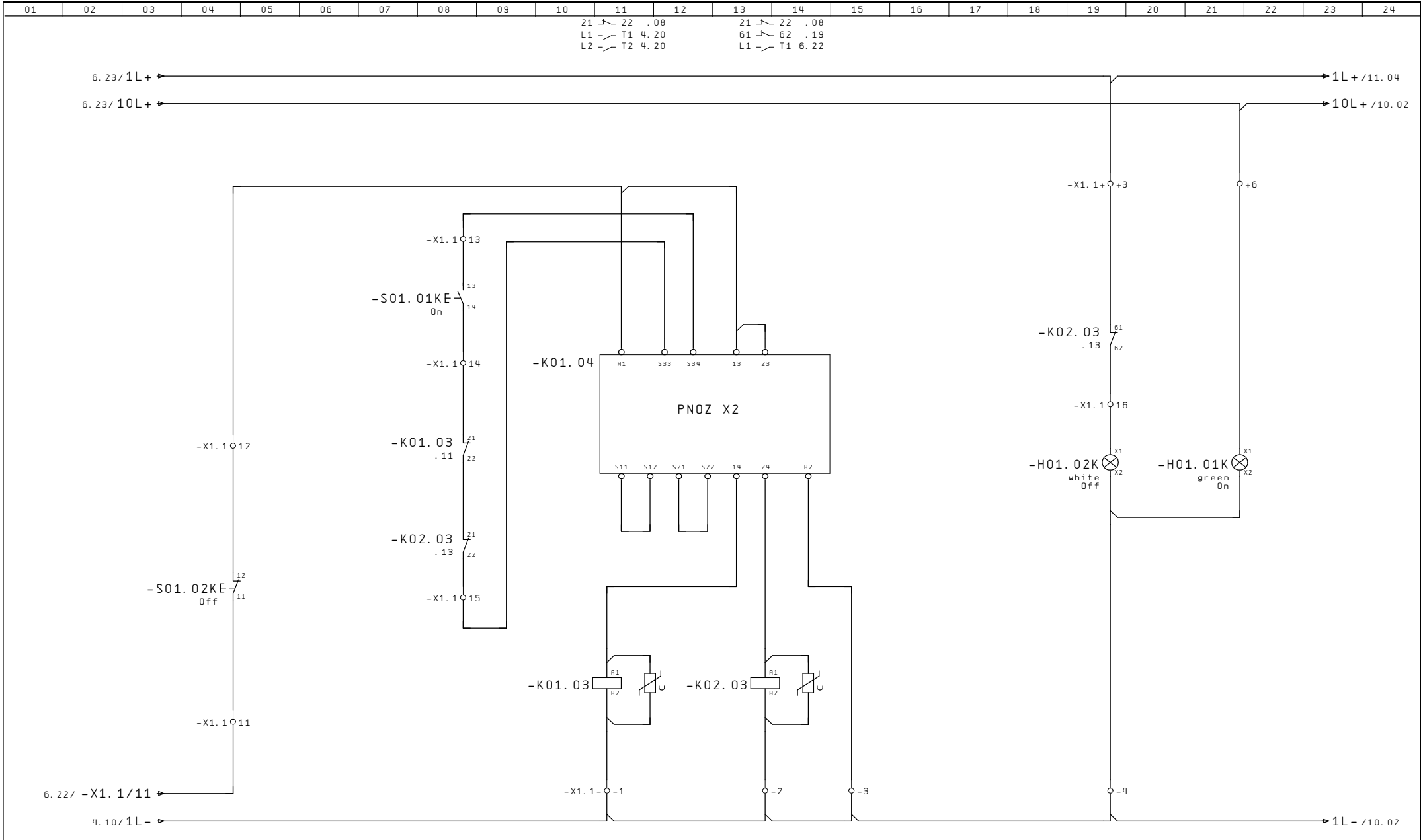
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Print:		11.01.07
System:	Place:	




Emergency stop + doors

PA-CONTROL4 4A Var. D

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Editor	Date	
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Modification: VOL	29.06.05	
Print:	11.01.07	
System:	Place:	

Protection circle

PA-CONTROL4 4A Var. D

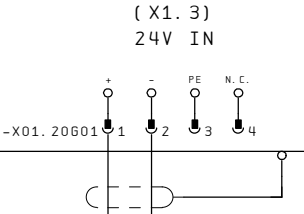
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-R01.20  
9.02

# PA-CONTROL

-G01.20

## NT8



-W01.20601  
Unitronic-FD CY  
3X0.5²  
24V  
PA-CONTROL

bn bu

5.22/ -X01.20601/1 ▶

5.22/ -X01.20601/2 ▶

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Designer:	VOL	16.12.02
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Print:		11.01.07
System:		Place:



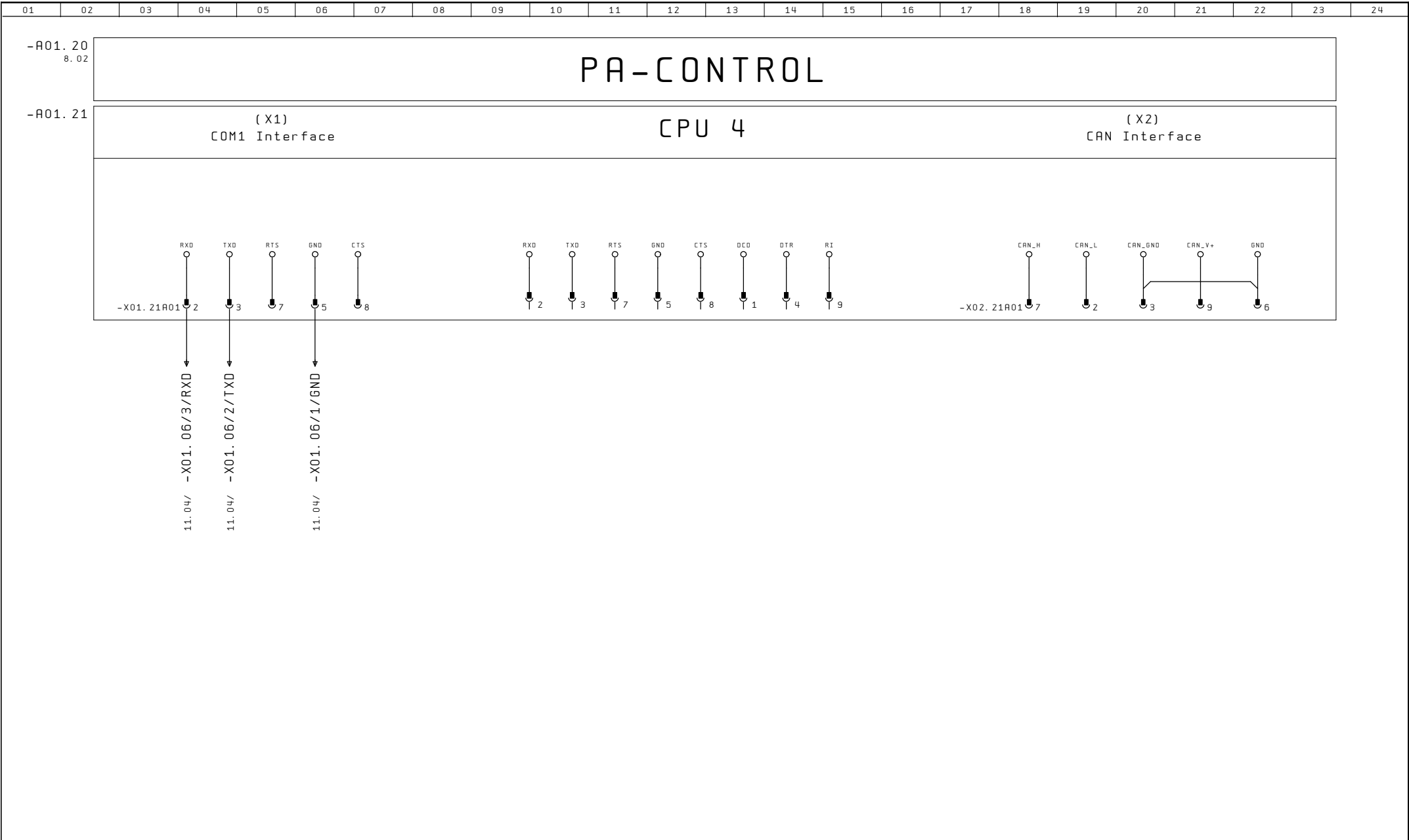
PA-CONTROL CPU-Power supply  
PA-CONTROL4 4A Var.D

Customer
Final customer

Drawing-no. IEF
1033743
Drawing-no. customer

Page no.
8
Pages
27





Editor	Date	<p>PA-CONTROL interface connection</p>	Customer	Drawing-no. IEF	Page no.	
Designer: VDL	16.12.02			1033743	9	
Modification: VDL	29.06.05			Final customer	Drawing-no. customer	Pages
Print: 11.01.07						27
System:	Place:	PA-CONTROL4 4A Var.D				

-A01. 20  
9. 02

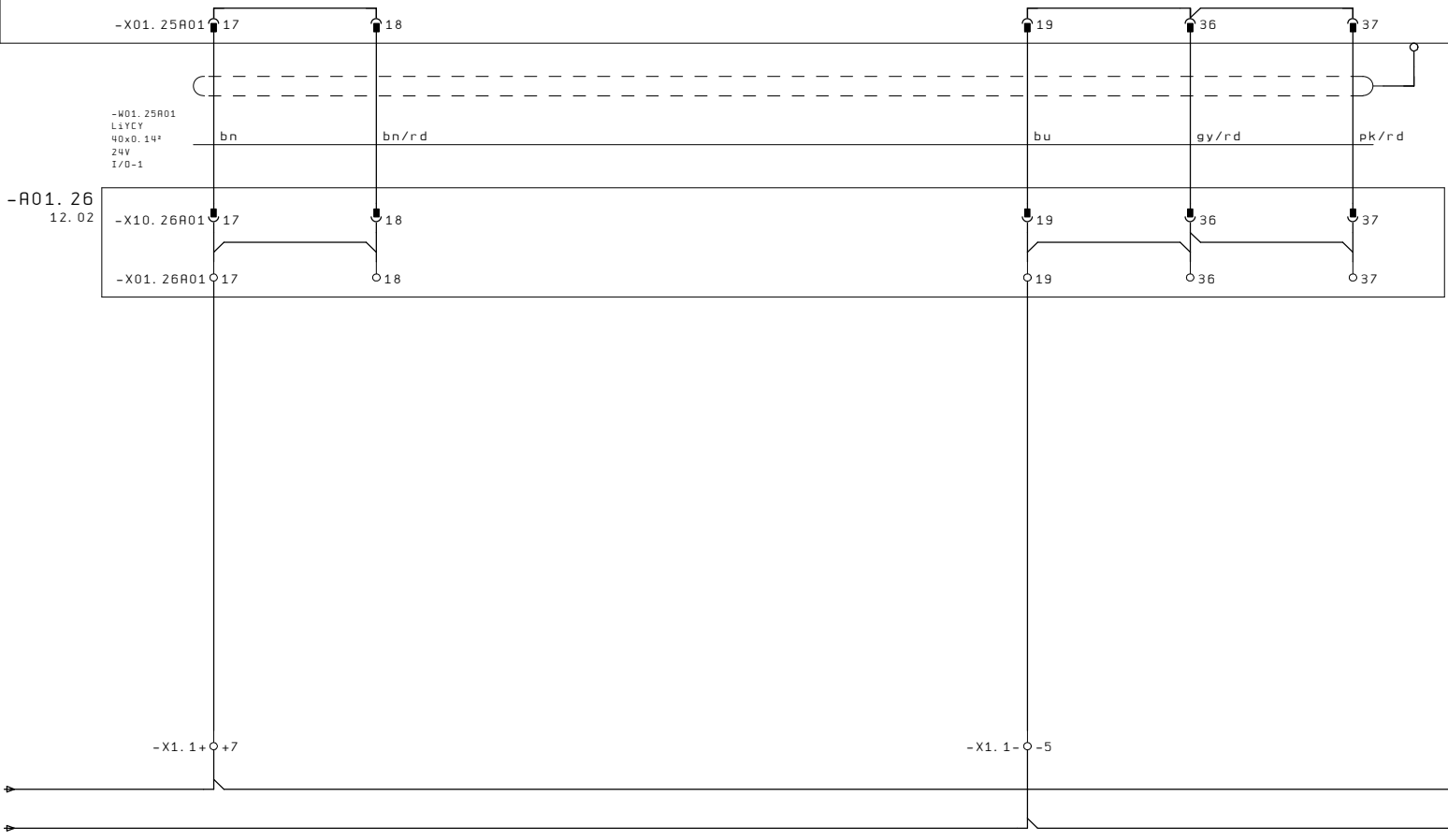
# PA-CONTROL

-A01. 25  
12. 02

## PAC I/O-card 1

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

Pin 19: Mass 24V (GND)  
Pin 36: Mass 24V (GND)  
Pin 37: Mass 24V (GND)



Editor		Date
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System:	Place:	

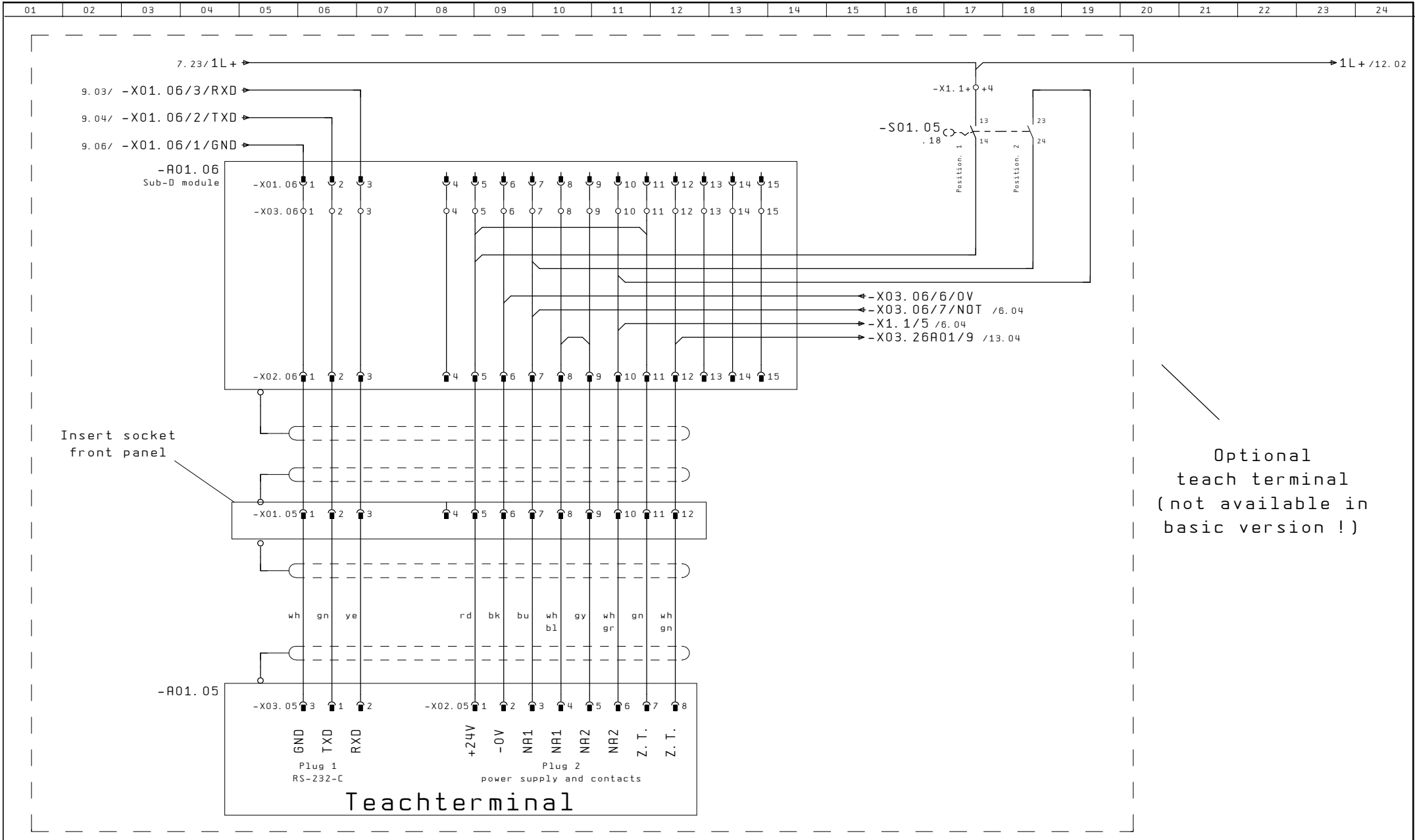


Power supply PAC  
I/O-card  
PA-CONTROL4 4A Var.D

Customer	
Final customer	

Drawing-no. IEF	1033743
Drawing-no. customer	

Page no.	10
Pages	27



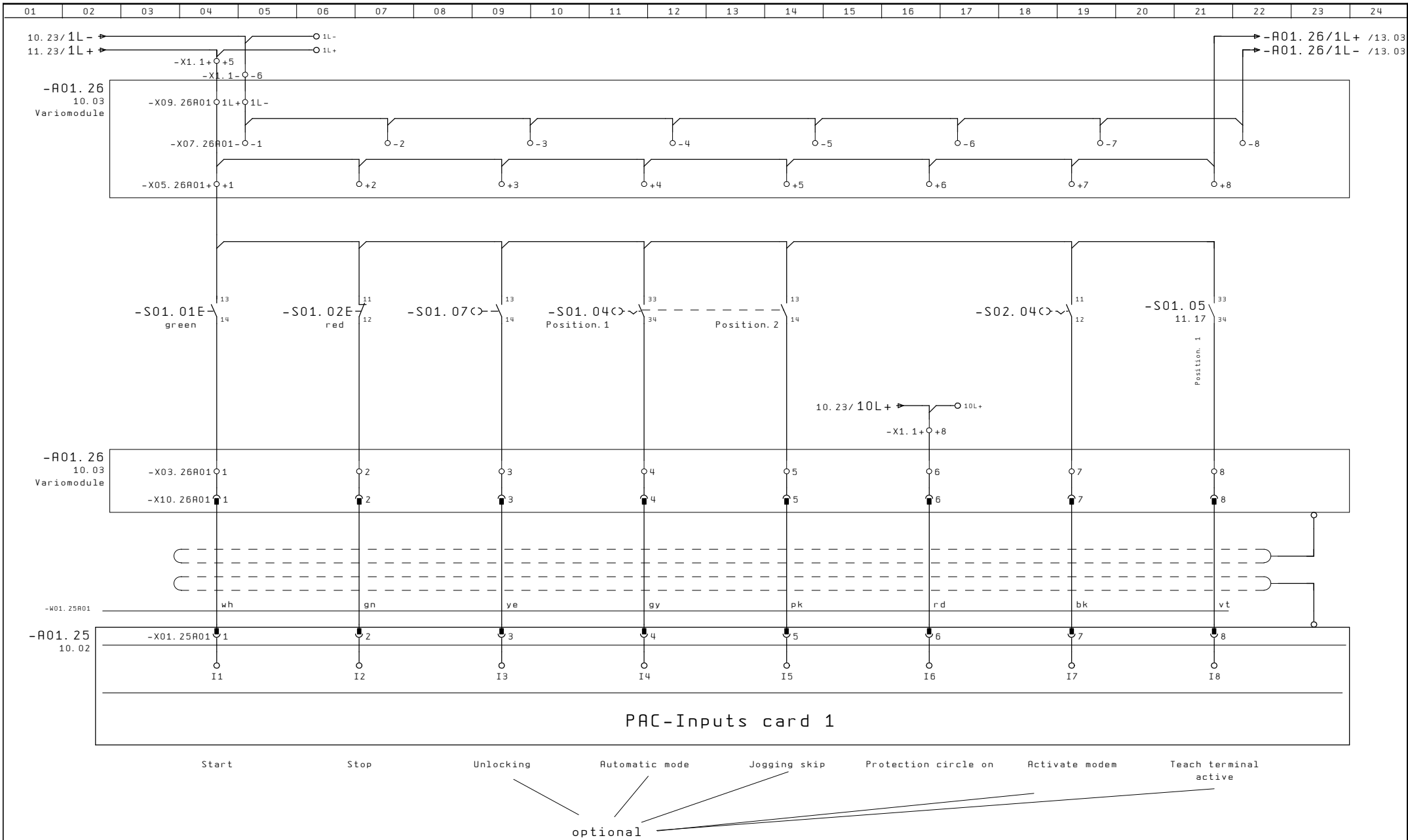
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Print:	11.01.07
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Optional teachterminal

PA-CONTROL4 4A Var.D

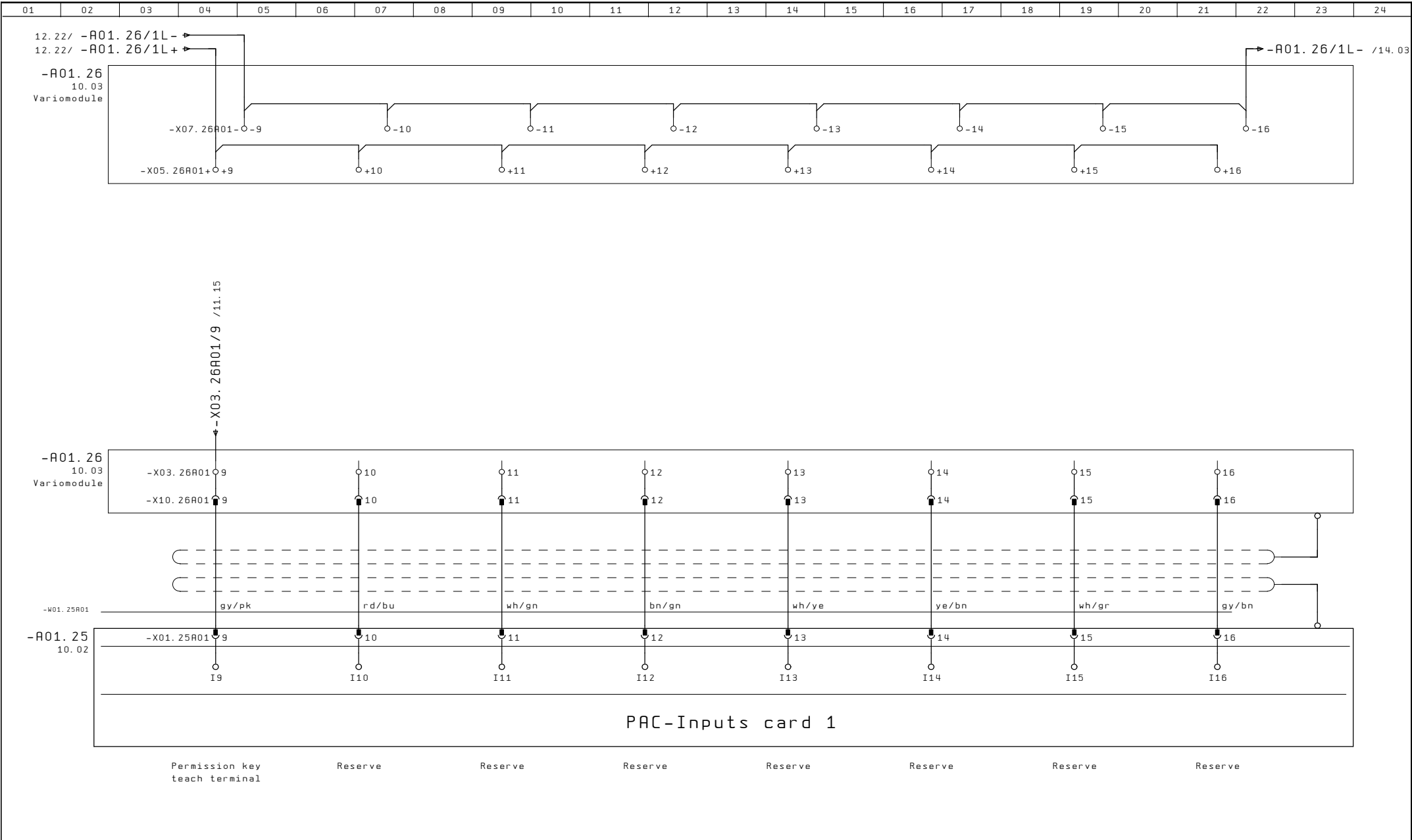
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Final customer	Drawing-no. customer	Pages
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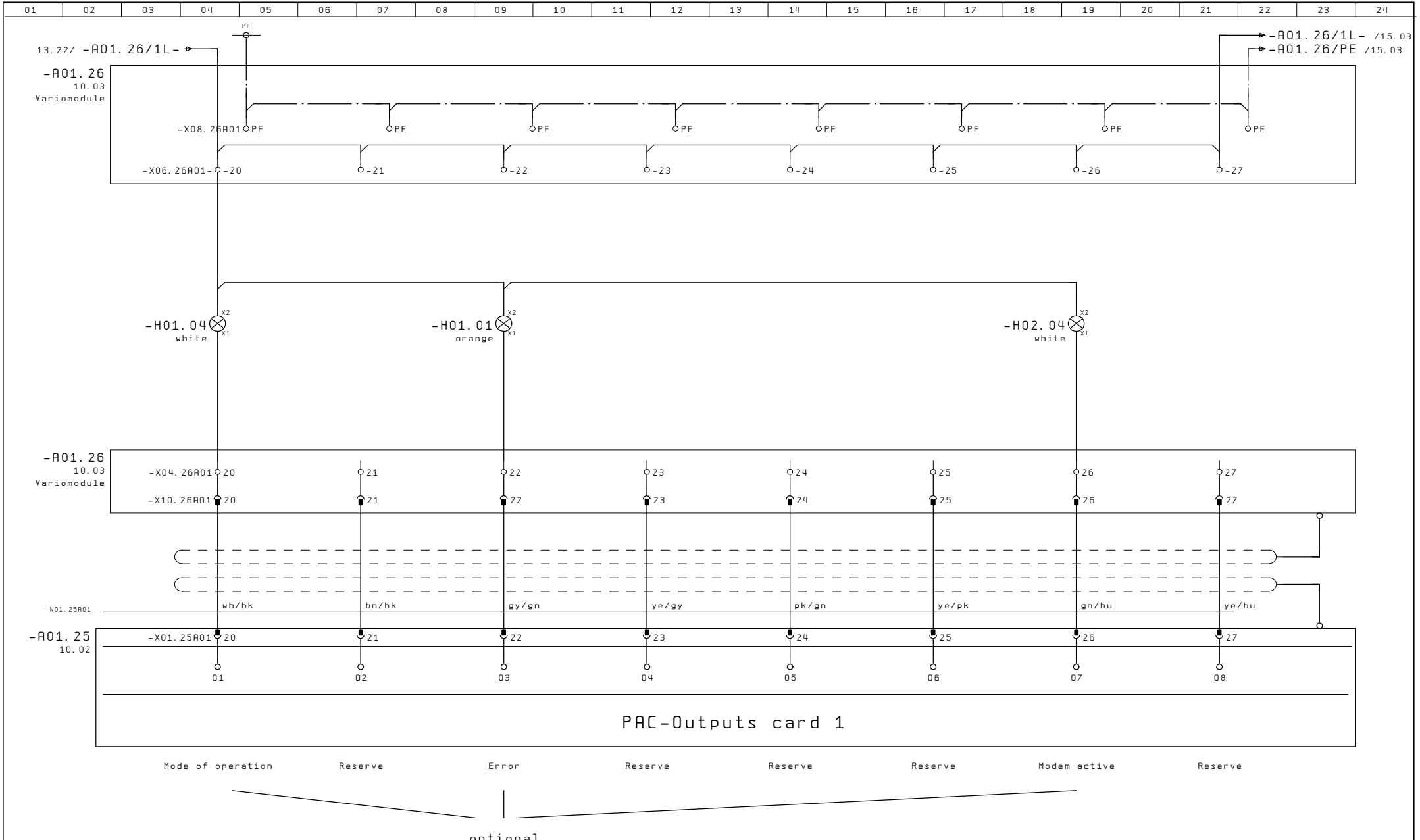
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PA-CONTROL4 4A Var.D	Final customer	Drawing-no. customer	Pages 27



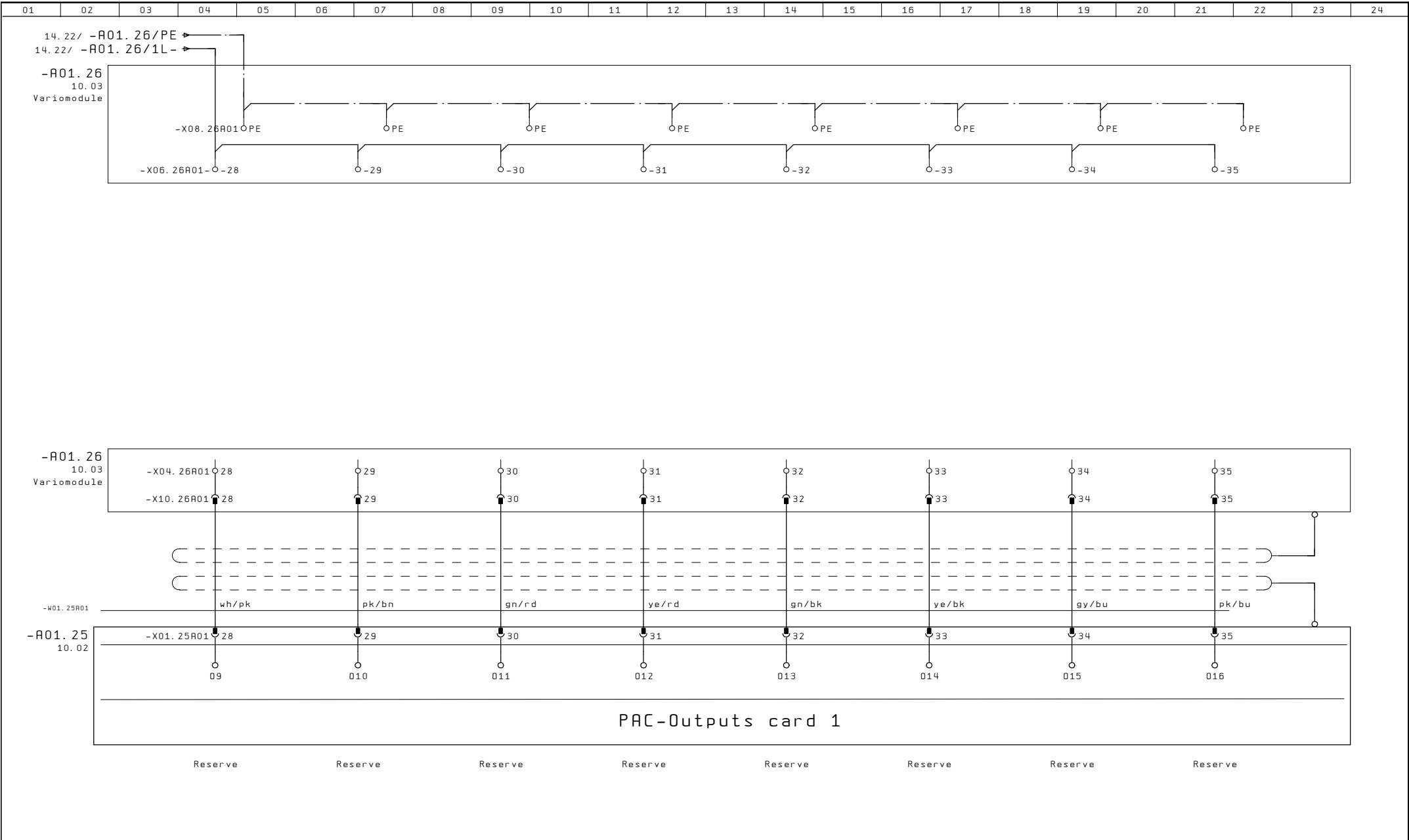
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System:	Place:						27	



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System:	Place:	

PAC Outputs 01-08	Customer
PA-CONTROL4 4A Var.D	Final customer

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Drawing-no. customer	Pages
	27



Editor		Date
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PAC Outputs 09-016	Customer	Drawing-no. IEF	Page no.
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-A01. 20  
10.02

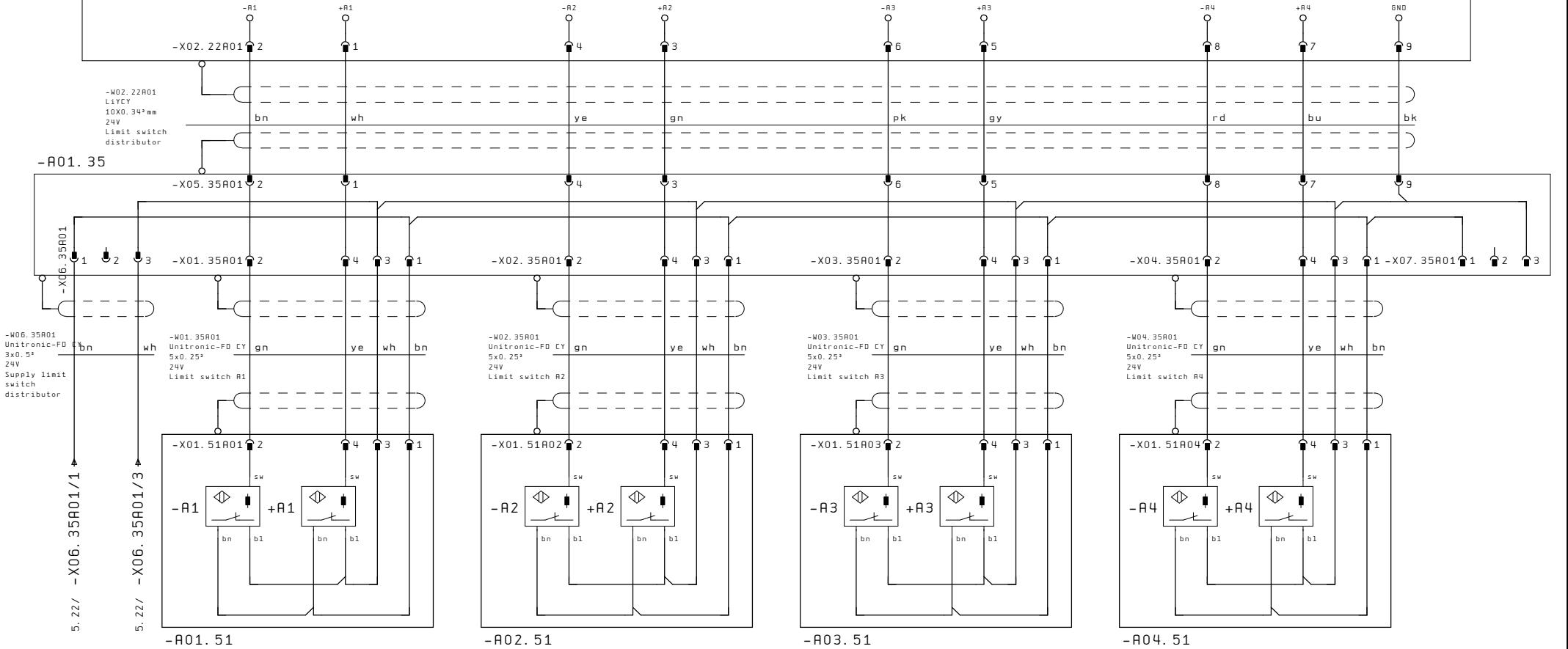
# PA-CONTROL

-A01. 22  
17.02

## PA-CONTROL PLS7 board

-A1 : Limit switch axis 1-  
+A1 : Limit switch axis 1+  
-A2 : Limit switch axis 2-  
+A2 : Limit switch axis 2+

-A3 : Limit switch axis 3-  
+A3 : Limit switch axis 3+  
-A4 : Limit switch axis 4-  
+A4 : Limit switch axis 4+



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PA-CONTROL  
limit switch axes  
1-4 PLS7  
PA-CONTROL4 4A Var.D

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Final customer	Drawing-no. customer	Pages
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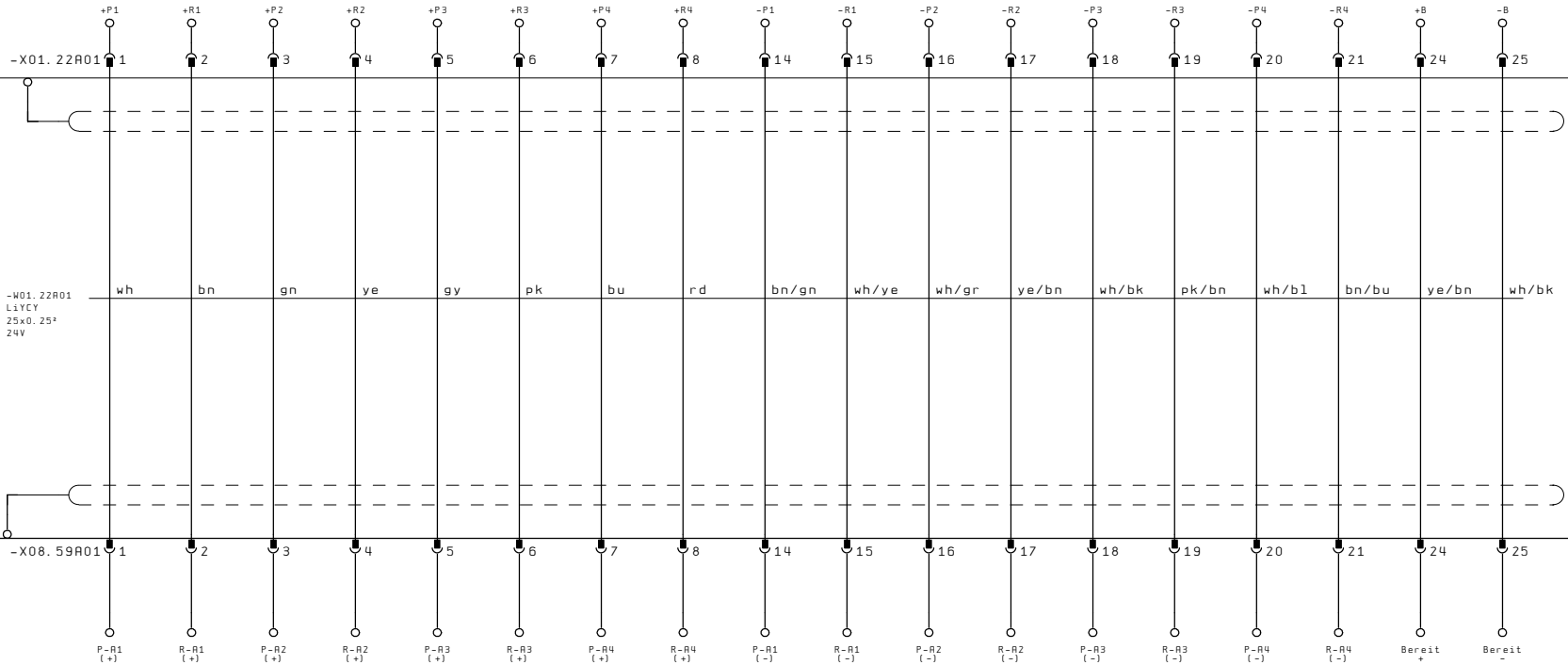
-A01. 20  
16. 02

# PA-CONTROL

-A01. 22  
16. 02

## PAC PLS7-card

P+A1: pulse	A1-axis	P+A3: pulse	A3-axis	P-A1: pulse	A1-axis	P-A3: pulse	A3-axis	+Stand-by
R+A1: direction	A1-axis	R+A3: direction	A3-axis	R-A1: direction	A1-axis	R-A3: direction	A3-axis	-Standby
P+A2: pulse	A2-axis	P+A4: pulse	A4-axis	P-A2: pulse	A2-axis	P-A4: pulse	A4-axis	
R+A2: direction	A2-axis	R+A4: direction	A4-axis	R-A2: direction	A2-axis	R-A4: direction	A4-axis	



-A01. 59  
5. 02

## LV-UNIT

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PLS7  
pulse transmitter  
card axes 1-4  
PA-CONTROL4 4A Var.D

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Final customer	Drawing-no. customer	Pages
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-R01.59  
5.02

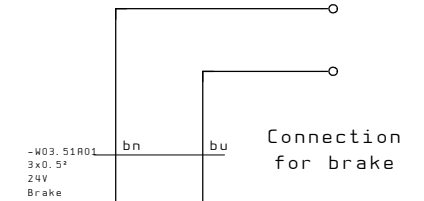
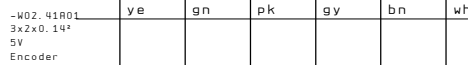
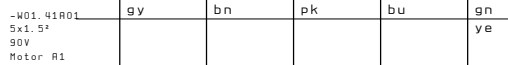
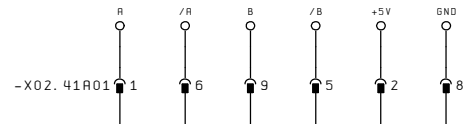
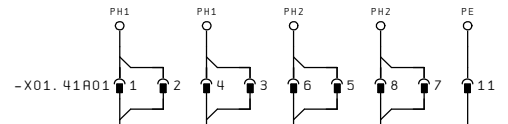
# LV-UNIT

-R01.41

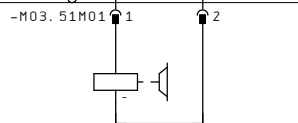
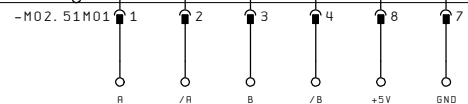
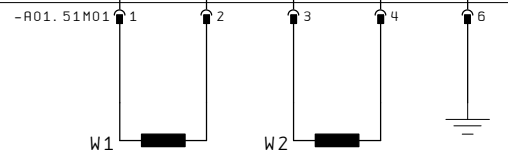
## Power card 1

(X2) Motor

(X4) ENC



-M01.51



Motor

Rotation monitoring

Brake

optional

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Power card 1  
A1-axis 2  
phase stepper motor  
PA-CONTROL4 4A Var.D

Customer	
Final customer	

Drawing-no. IEF	Page no.
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Drawing-no. customer	Pages
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-R01.59  
5.02

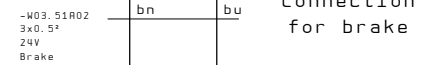
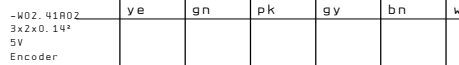
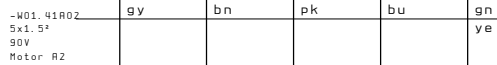
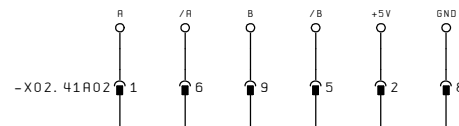
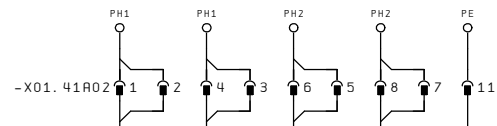
# LV-UNIT

-R02.41

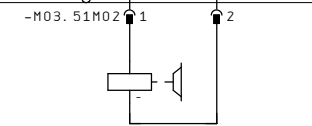
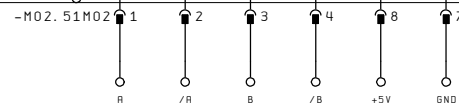
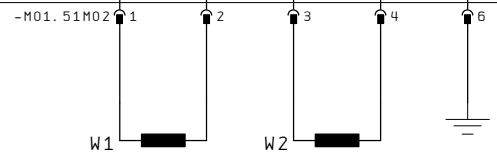
## Power card 2

(X2) Motor

(X4) ENC



-M01.52



Motor

Rotation monitoring

Brake

optional

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Power card 2  
A2-axis 2  
phase stepper motor  
PA-CONTROL4 4A Var.D

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
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-R01.59  
5.02

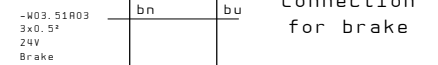
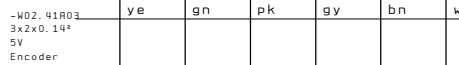
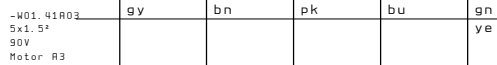
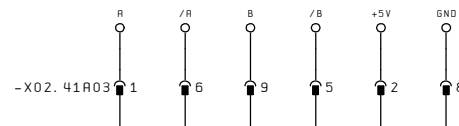
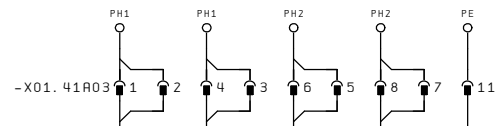
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-R03.41

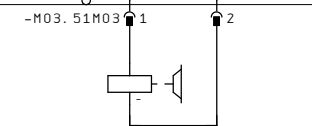
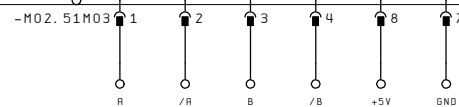
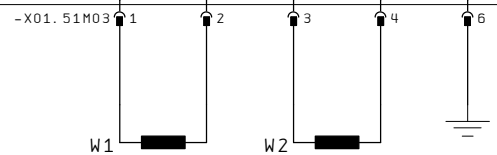
## Power card 3

(X2) Motor

(X4) ENC



-M01.53



Motor

Rotation monitoring

Brake

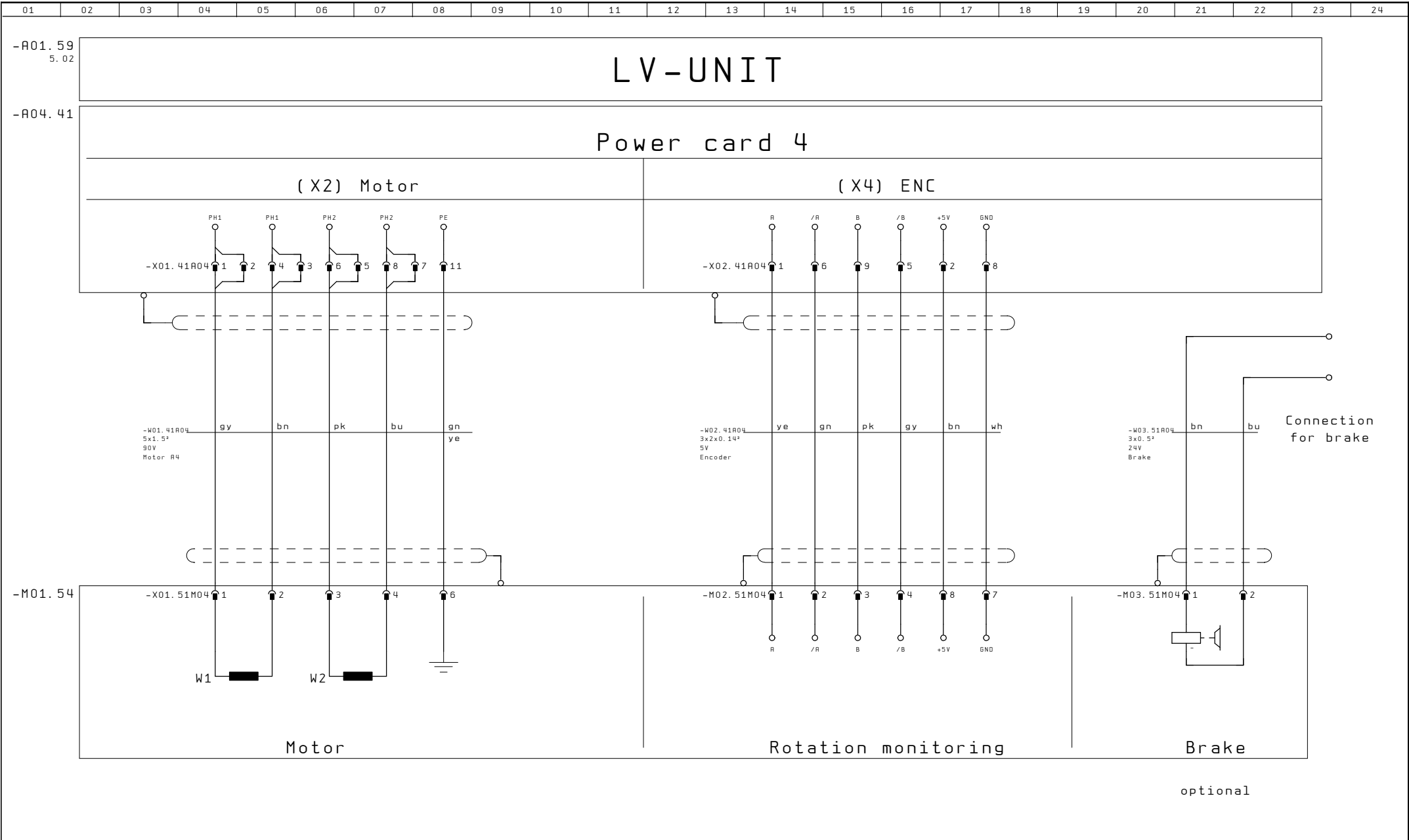
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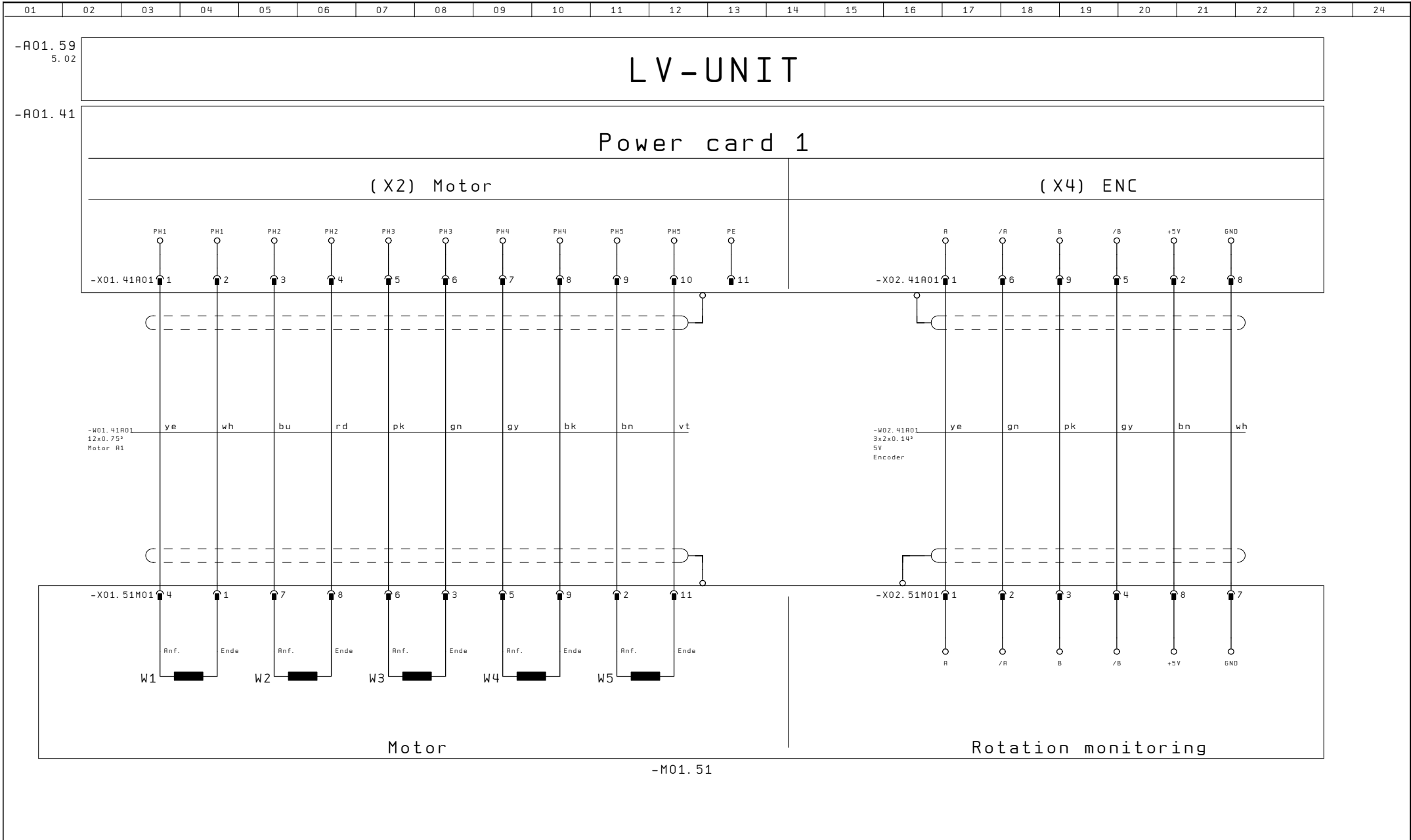
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Power card 3  
A3-axis 2  
phase stepper motor  
PA-CONTROL4 4A Var.D

Customer	Drawing-no. IEF	Page no.
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Editor	Date	<p style="font-weight: bold; font-size: 1.2em;">PA-CONTROL4 4A Var.D</p>	Customer	Drawing-no. IEF	Page no.
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-R01. 59  
5. 02

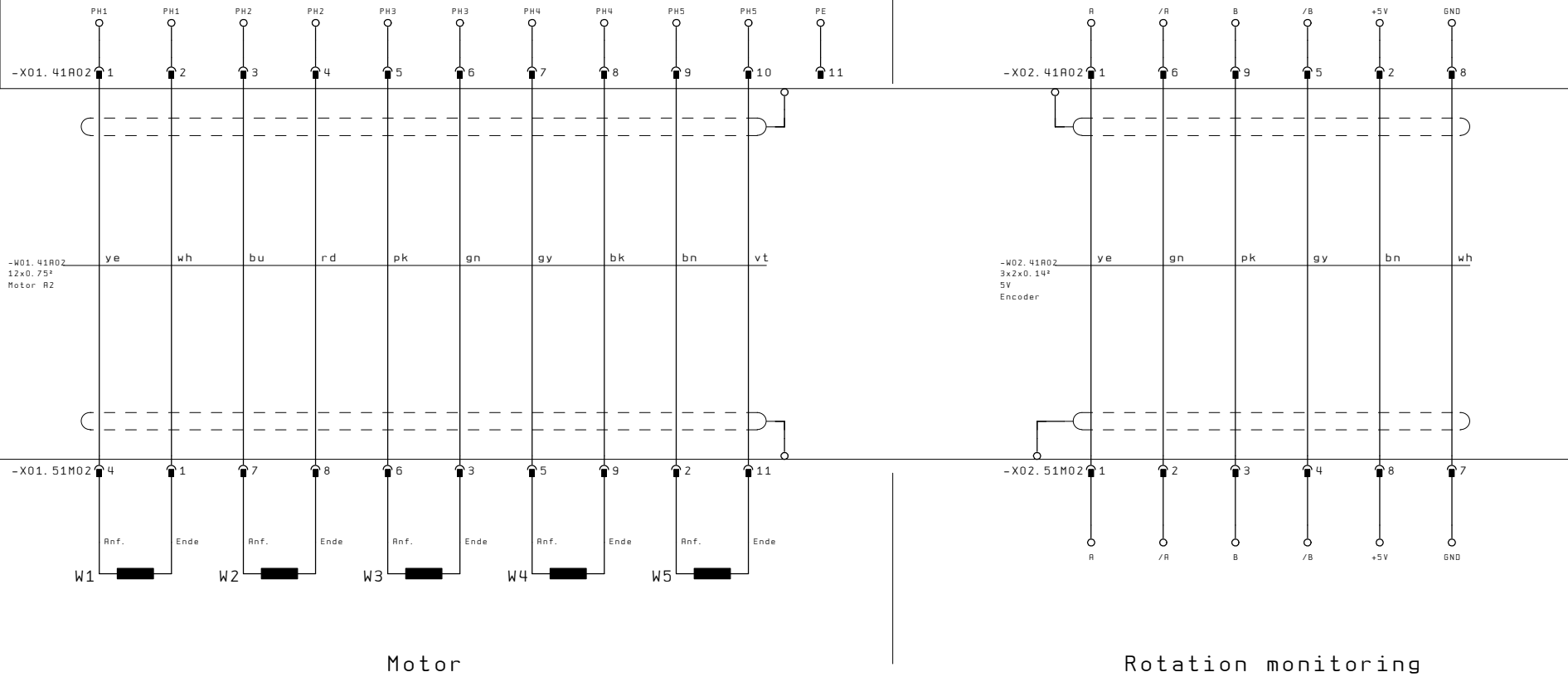
# LV-UNIT

-R02. 41

## Power card 2

( X2 ) Motor

( X4 ) ENC




-W01. 41R02  
12x0. 75"  
Motor R2

-W02. 41R02  
3x2x0. 14"  
5V  
Encoder

Motor

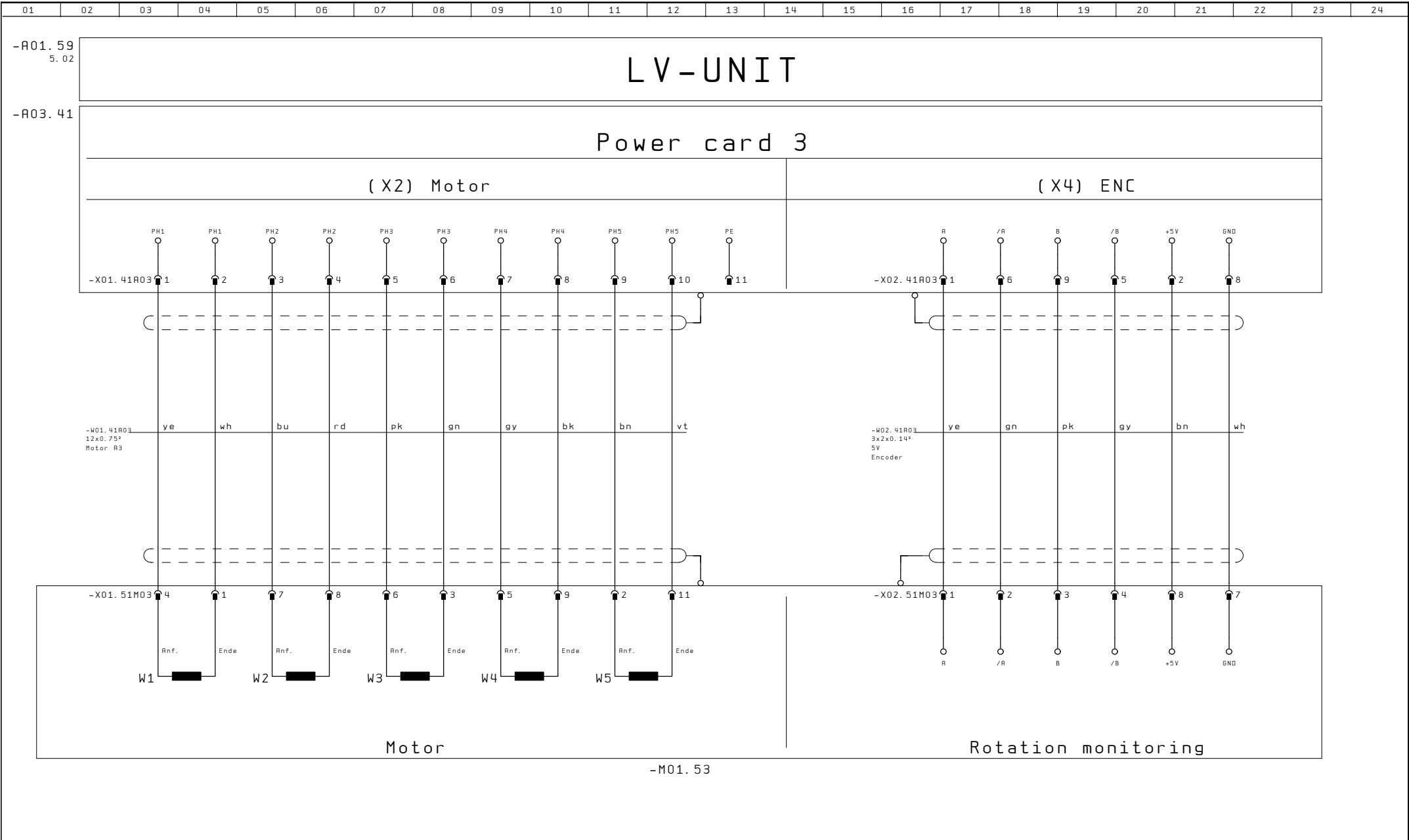
Rotation monitoring

-M01. 52

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Modification:	VOL	29.06.05	
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System:	Place:		

Power card 2  
R2-axis 5-phase  
stepper motor  
PA-CONTROL4 4A Var.D

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
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Editor	Date	<p>Power card 3 A3-axis 5-phase stepper motor</p> <p>PA-CONTROL4 4A Var.D</p>	Customer	Drawing-no. IEF	Page no.
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-A01.59  
5.02

# LV-UNIT

-A04.41

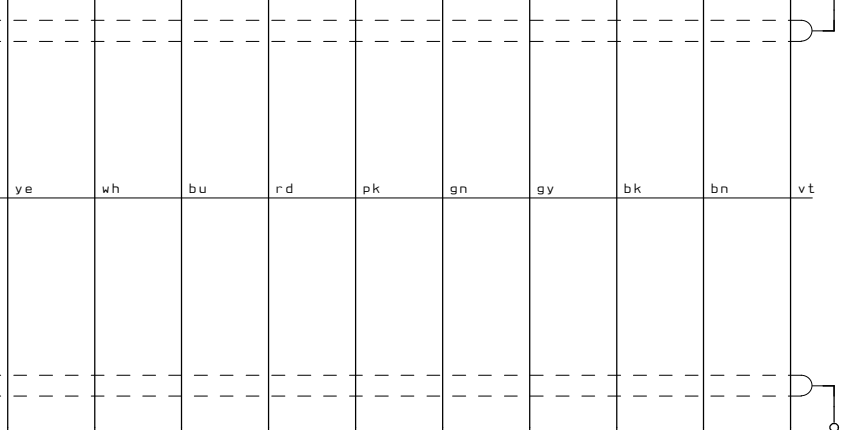
## Power card 4

(X2) Motor

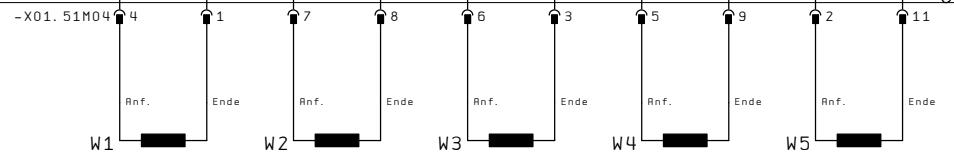
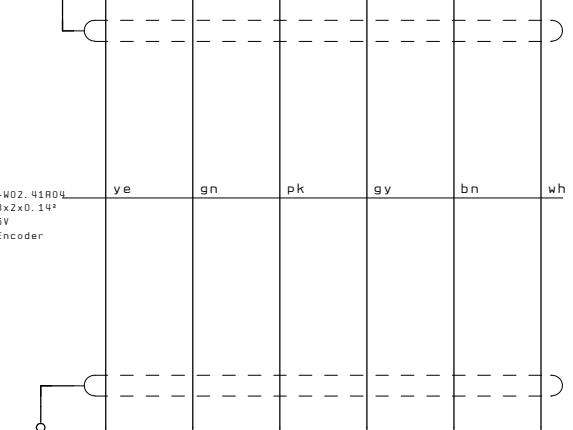
(X4) ENC



-W01.41R04  
12x0.75²  
Motor R4




-W02.41R04  
3x2x0.14²  
5V  
Encoder



Motor

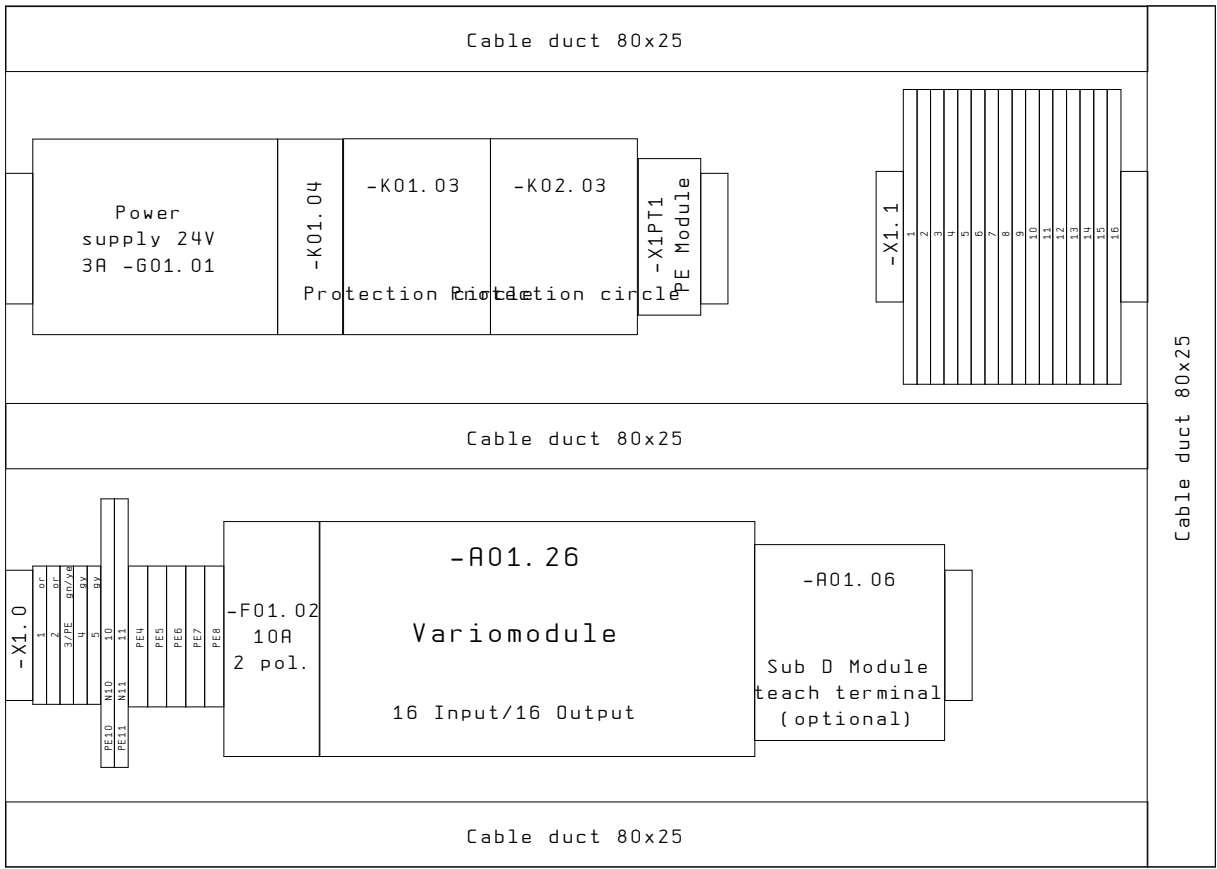
Rotation monitoring

-M01.54

Editor		Date	
Designer:	VOL	16.12.02	
Modification:	VOL	29.06.05	
Print:		11.01.07	
System:	Place:		

Power card 4  
R4-axis 5-phase  
stepper motor  
PA-CONTROL4 4A Var.D

Customer	Drawing-no. IEF	Page no.
	1033743	25
Final customer	Drawing-no. customer	Pages
		27



Editor		Date	
Designer:	VOL	16.12.02	
Modification:	VOL	29.06.05	
Print:		11.01.07	
System:	Place:		



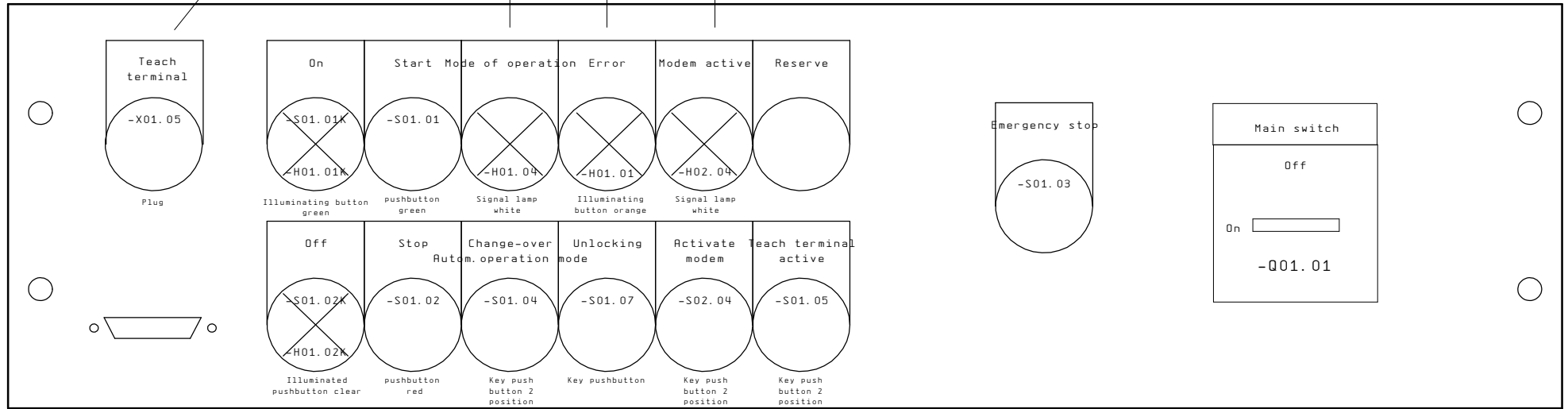
Assembly mounting plate	
PA-CONTROL4 4A Var.D	

Customer	
Final customer	

Drawing-no. IEF	1033743
Drawing-no. customer	

Page no.	26
Pages	27

Optionally in  
basic version with blind plug



Optionally in  
basic version with blind plug

Editor		Date
Designer:	VDL	16.12.02
Modification:	VDL	29.06.05
Print:		11.01.07
System:	Place:	



Assembly control panel

PA-CONTROL4 4A Var.D

Customer	Drawing-no. IEF	Page no.
	1033743	27
Final customer	Drawing-no. customer	Pages
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