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Phone.	Phone.
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Project name	CDI_EN_1078982_PA-CONTROL_Smart_LV-servoTEC_S2_302_305
Drawing number	1078982
Type	
	E.Grieshaber
Creator	Andreas Meßmer
Created on	2008
Version	V0.01
Edit date	06.03.2009
by (short name)	Messmer
Number of pages	106

Power supply	400 V AC / 3Ph / 50Hz
Input lead	5x2,5mm²
Rated current	???A
	3x16A gl
Control voltage	24 V

Structure identifier overview

F24_001

Full designation	labeling	Structure description	Full designation	labeling	Structure description
=ALG	Anlage	General data			
=302	Anlage	LV servoTEC_S2_302			
=305	Anlage	LV servoTEC_S2_305			
+ALG	Einbauort	General project data			
+CC1	Einbauort	Switch cabinet 1			
+CP1	Einbauort	Operation panel			
+MW	Einbauort	General machine wiring			

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Page	Page description	supplementary page field	Date	Edited by	X
=ALG+ALG/1	Cover page		09.12.2008	Messmer	X
=ALG+ALG/2	Structure identifier overview		09.12.2008	Messmer	
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=ALG+ALG/3.a	Table of contents : =302+CC1/28 - =305+CC1/10		09.12.2008	Messmer	
=ALG+ALG/3.b	Table of contents : =305+CC1/11 - =305+CC1/43		09.12.2008	Messmer	
=ALG+ALG/3.c	Table of contents : =305+CC1/44 - =305+CC1/50		09.12.2008	Messmer	
=302+CC1/1	Power supply		09.12.2008	Messmer	
=302+CC1/2	PE-arrangement		09.12.2008	Messmer	
=302+CC1/3	Arrangement 400V		09.12.2008	Messmer	
=302+CC1/4	Service-outlet / 24V Power supply		18.11.2008	Messmer	
=302+CC1/5	Supply voltage LV servoTEC		18.11.2008	Messmer	
=302+CC1/6	Fuse protection 24V		18.11.2008	Messmer	
=302+CC1/7	Protective circuit Signal ON		18.11.2008	Messmer	
=302+CC1/8	Emergency stop chain		18.11.2008	Messmer	
=302+CC1/9	Safety module Emergency stop		01.12.2008	Messmer	
=302+CC1/10	Door cycle chain		18.11.2008	Messmer	
=302+CC1/11	Safety module protective door circuit chain		18.11.2008	Messmer	
=302+CC1/12	Safety module door protective circuit adjust mode button / acceptance button		18.11.2008	Messmer	
=302+CC1/13	PA-CONTROL smart Overview		01.12.2008	Messmer	X
=302+CC1/14	PA-CONTROL smart Voltage supply		18.11.2008	Messmer	X
=302+CC1/15	PA-CONTROL smart PANEL / DIAG		18.11.2008	Messmer	X
=302+CC1/16	PA-CONTROL smart Rotation monitoring / CAN Bus		09.12.2008	Messmer	X
=302+CC1/17	PA-CONTROL smart Inputs overview I1-I12		09.12.2008	Messmer	X
=302+CC1/18	PA-CONTROL smart Outputs overview O1-O8		09.12.2008	Messmer	X
=302+CC1/19	PA-CONTROL smart I1-I8		01.12.2008	Messmer	
=302+CC1/20	PA-CONTROL smart I9-I12		01.12.2008	Messmer	
=302+CC1/21	PA-CONTROL smart O1-O8		01.12.2008	Messmer	
=302+CC1/22	Beckhoff BK5120 bus connection		18.11.2008	Messmer	
=302+CC1/23	Overview Beckhoff bus connection		18.11.2008	Messmer	X
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=302+CC1/25	Inputs overview I1053-1056		09.12.2008	Messmer	X
=302+CC1/26	Outputs overview O1025-1048		01.12.2008	Messmer	X
=302+CC1/27	Beckhoff BK5120 Supply voltage		18.11.2008	Messmer	

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Page	Page description	supplementary page field	Date	Edited by	X
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=302+CC1/31	Inputs connection I1048-1055		09.12.2008	Messmer	
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=302+CC1/33	Outputs connection O1033-1040		01.12.2008	Messmer	
=302+CC1/34	Supply clamp		18.11.2008	Messmer	
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=302+CC1/37	A1 LV servoTEC_S2_302 Overview		18.11.2008	Messmer	X
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=302+CC1/48	A2 LV servoTEC S2 Motor connection		18.11.2008	Messmer	
=302+CC1/49	A2 LV servoTEC S2 Axis limit switch		17.11.2008	Messmer	
=302+CC1/50	Spare clamps		14.11.2008	Messmer	
=305+CC1/1	Power supply		09.12.2008	Messmer	
=305+CC1/2	PE-arrangement		09.12.2008	Messmer	
=305+CC1/3	Arrangement 400V		09.12.2008	Messmer	
=305+CC1/4	Service-outlet / 24V Power supply		18.11.2008	Messmer	
=305+CC1/5	Supply voltage LV servoTEC		18.11.2008	Messmer	
=305+CC1/6	Fuse protection 24V		18.11.2008	Messmer	
=305+CC1/7	Protective circuit Signal ON		18.11.2008	Messmer	
=305+CC1/8	Emergency stop chain		18.11.2008	Messmer	
=305+CC1/9	Safety module Emergency stop		01.12.2008	Messmer	
=305+CC1/10	Door cycle chain		18.11.2008	Messmer	

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=305+CC1/12	Safety module door protective circuit adjust mode button / acceptance button		18.11.2008	Messmer	
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=305+CC1/31	Inputs connection I1048-1055		09.12.2008	Messmer	
=305+CC1/32	Outputs connection O1025-1032		09.12.2008	Messmer	
=305+CC1/33	Outputs connection O1033-1040		01.12.2008	Messmer	
=305+CC1/34	Supply clamp		18.11.2008	Messmer	
=305+CC1/35	Outputs connection O1041-1048		09.12.2008	Messmer	
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=305+CC1/37	A1 LV servoTEC_S2_305 Overview		18.11.2008	Messmer	X
=305+CC1/38	A1 LV servoTEC S2 Supply voltage		04.12.2008	Messmer	
=305+CC1/39	A1 LV servoTEC S2 Incremental encoder		18.11.2008	Messmer	
=305+CC1/40	A1 LV servoTEC S2 CAN / RS232		18.11.2008	Messmer	
=305+CC1/41	A1 LV servoTEC S2 Motor connection		18.11.2008	Messmer	
=305+CC1/42	A1 LV servoTEC S2 Axis limit switch		18.11.2008	Messmer	
=305+CC1/43	A2 LV servoTEC S2 IO-adapter		18.11.2008	Messmer	X

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=305+CC1/47	A2 LV servoTEC S2 CAN / RS232		18.11.2008	Messmer	
=305+CC1/48	A2 LV servoTEC S2 Motor connection		18.11.2008	Messmer	
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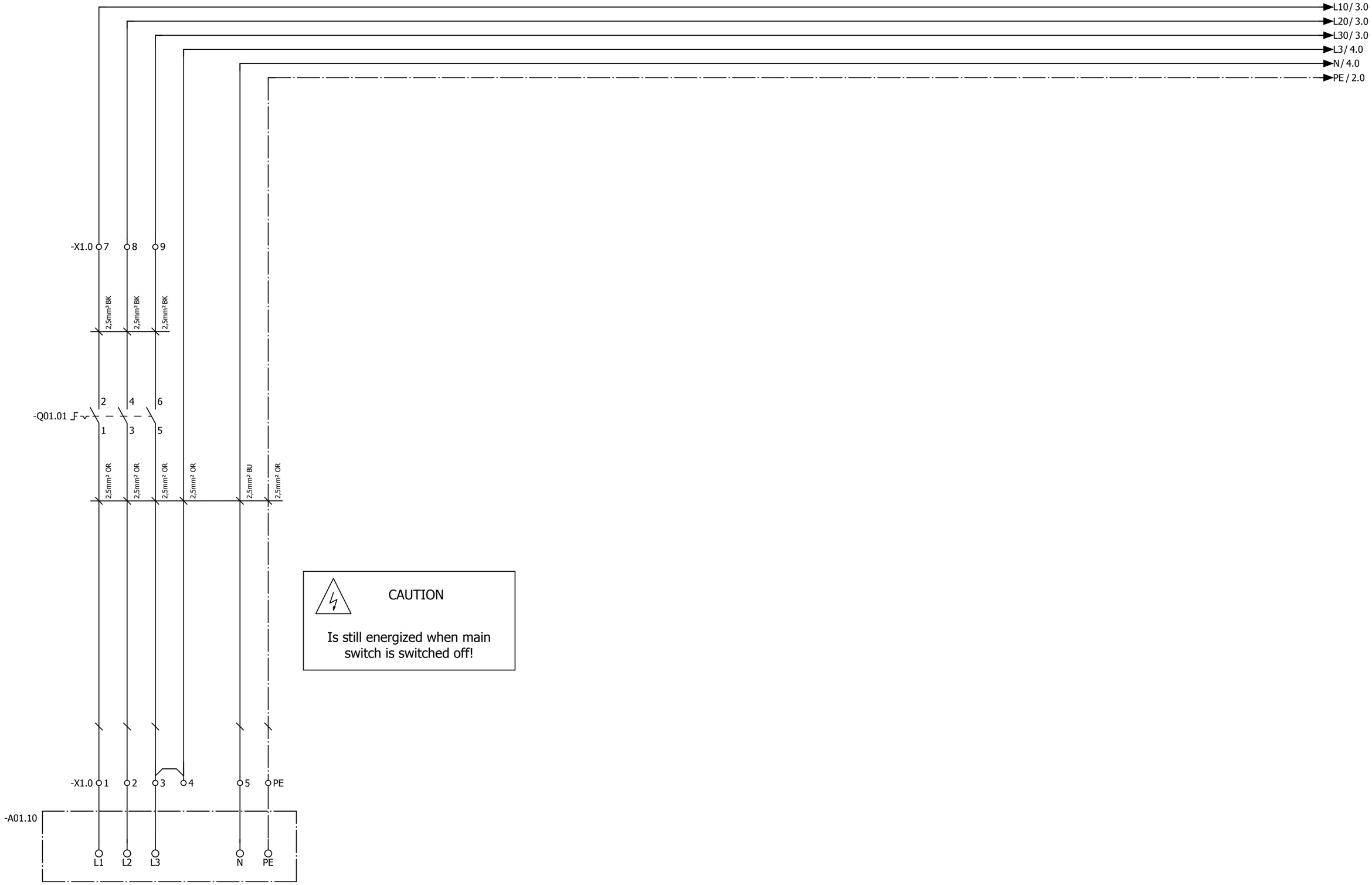
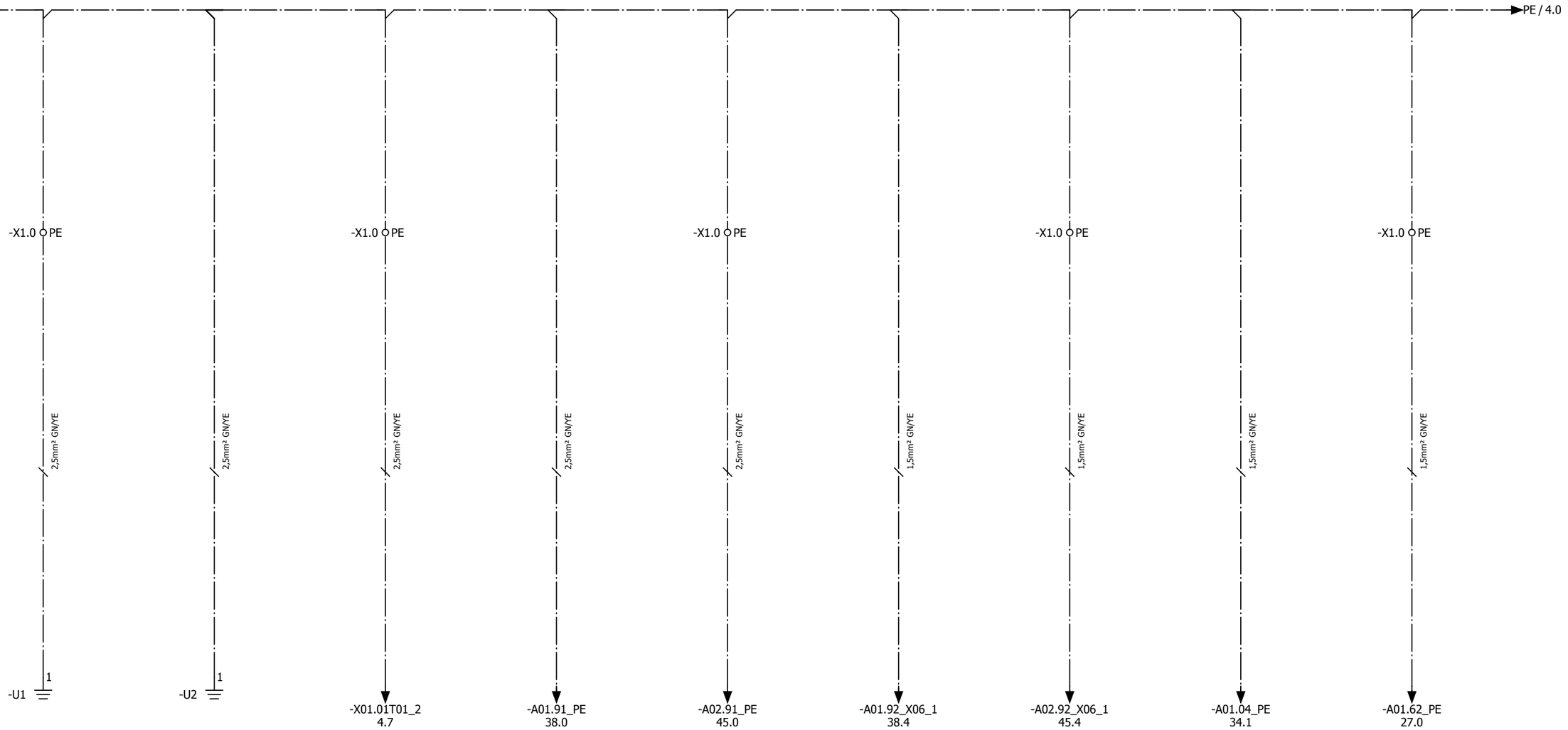
=305+CC1/50	Spare clamps		18.11.2008	Messmer	



CAUTION

Is still energized when main switch is switched off!

			Date	03.02.2009		Power supply	= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 1
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106



Mounting plate 1	Switch cabinet housing	PE module 24V	A1 LV servoTEC	A2 LV servoTEC	A1 LV servoTEC I/O-Module	A2 LVservoTEC I/O-Module	Supply clamp	Bus coupler

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PE-arrangement	= 302
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 2
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

1.9 / -L10
1.9 / -L20
1.9 / -L30

L10 / 4.0
L20 / 4.0
L30 / 4.0

2,5mm² BK
2,5mm² BK
2,5mm² BK

-F03.91
C13A
1 3 5
2 4 6

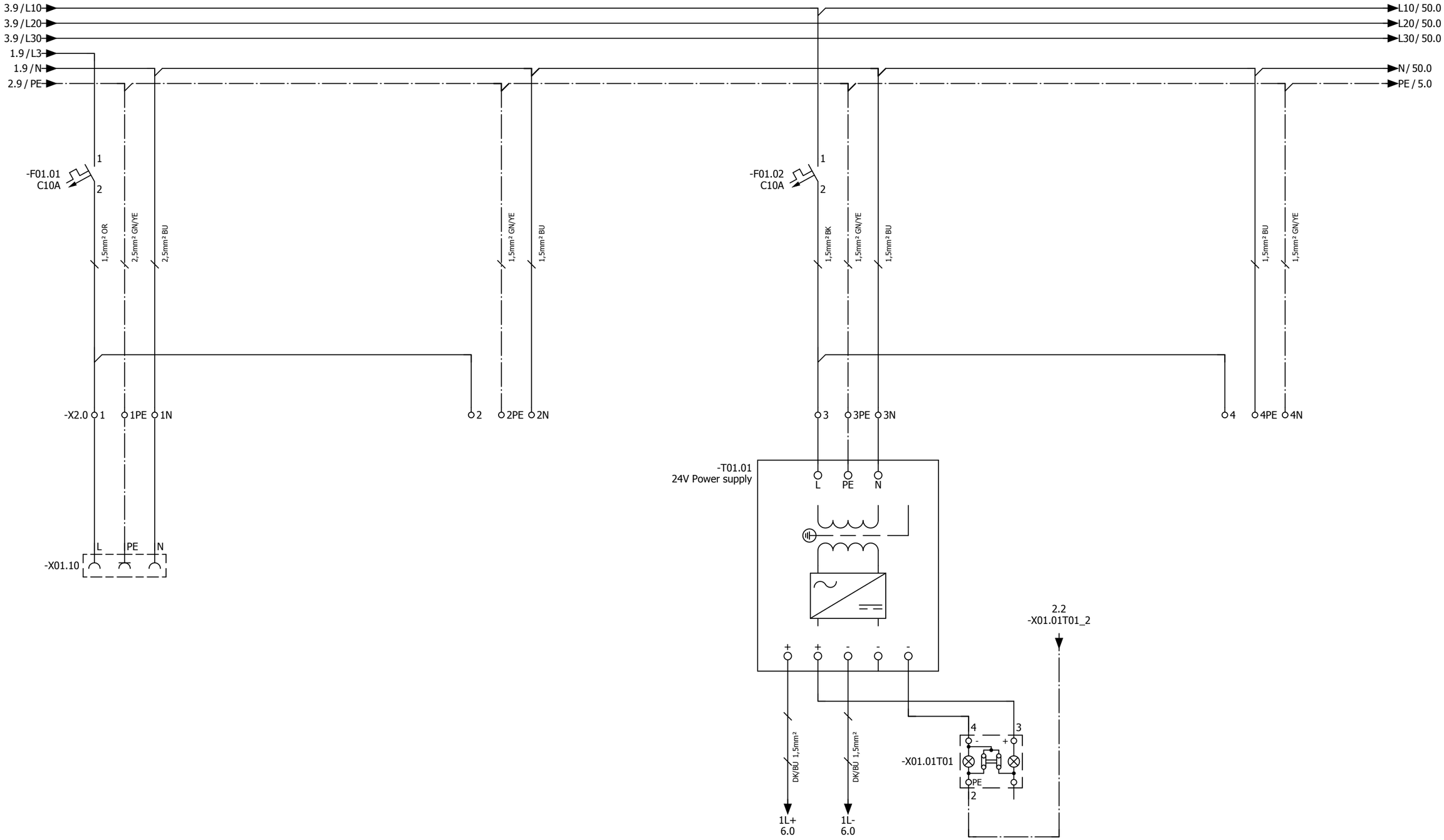
-Q01.04K01
/9.7
1 3 5
2 4 6

-Q02.04K01
/9.7
1 3 5
2 4 6

5.0 / -L12
5.0 / -L22
5.0 / -L32

400V
Switch off after
emergency
stop situation time-delayed

			Date	03.02.2009		Arrangement 400V	= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 3
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106



Service-outlet
Switch cabinet

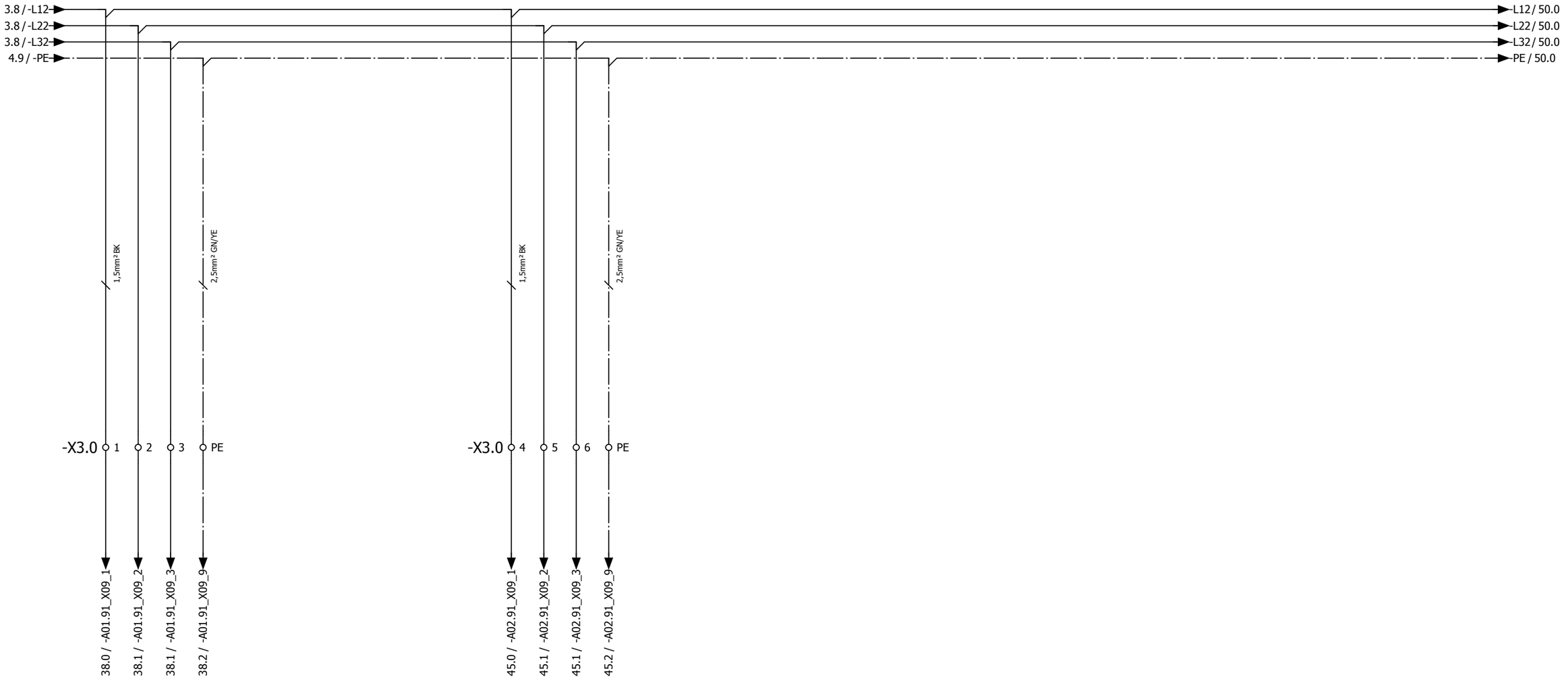
Spare

24V Power supply

Earthed disconnect terminal

Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	Service-outlet / 24V Power supply	= 302
			Ed. by	Messmer			+ CC1
			Appr				1078982 Page 4
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by		Pg 106



Supply voltage
LV servoTEC 1

Supply voltage
LV servoTEC 2

4 6

			Date	03.02.2009		Supply voltage LV servoTEC		= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page	5
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg	106

4.5 / 1L+ → DK/BU 2,5mm²

1L+ / 50.0 ← DK/BU 2,5mm²

MICO 4.6 Power control

-F01.00

+24V

13 / 14 /30.4

+24V

+24V ○—○ +24V

-F01.04 2A

-F02.04 6A

-F01.05 4A

-F01.06 4A

0V ○—○ 0V

GND | 1 | 2 | 3 | 4 | GND

0,75mm² DK/BU

-Q01.04K03 /12.5 53 / 54

-Q02.04K03 /12.6 53 / 54

Clamp 1-8 → -L01.04+ 9.0

Clamp 9-13 → -L02.04+ 7.0

Clamp 14-19 → -L01.05+ 7.0

Clamp 20-21 → -L01.06+ 7.0

MICO 4.10 Power control

-F02.00

+24V

+24V

13 / 14 /30.4

+24V

-F01.07 4A

-F01.08 4A

-F01.91 6A

-F02.91 8A

GND | 1 | 2 | 3 | 4 | GND

0,75mm² DK/BU

-Q03.04K03 /12.7 1 / 2

-Q04.04K03 /12.8 1 / 2

-Q01.04K02 /11.7 53 / 54

-Q02.04K02 /11.7 53 / 54

-Q01.04K02 /11.7 73 / 74

-Q02.04K02 /11.7 73 / 74

Clamp 22-25 → -L01.07+ 50.0

Clamp 26-29 → -L01.08+ 50.0

Clamp 30-35 → -L01.91+ 38.0

Clamp 36-49 → -L02.91+ 38.0

-X1.1 ○ -1

4.5 / -1L- → -1L- / 7.0

24V Emergency stop	24V General supply	24V Inputs	24V Outputs category A adjust mode without acceptance button	24V Outputs category B adjust mode only with acceptance button	24V Outputs category C adjust mode only with protective doors closed	24V Switch off after emergency stop, door open, time-delayed	24V Supply LVservoTEC

5 7

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Fuse protection 24V	= 302
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 6
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

6.2 / L02.04+
6.4 / L01.06+
6.3 / L01.05+

L02.04+ / 14.0
-L01.06+ / 38.0
L01.05+ / 27.0

-X1.1 +19
-X1.1 +20
-X1.1 +9
-X1.1 +10
-X1.1 +14
-X1.1 +15

+CP1-W01.11A01
KAWEFLEX 3130
18x0,75
/7.0
/8.1
/8.1
/9.2
/9.2
/12.1

+CP1
-A01.11
/28.0

+CP1
-P01.03K01
/9.2
gn

X1
X2

+CP1-W01.11A01
KAWEFLEX 3130
18x0,75

-X1.1 -2
-X1.1 -3
-X1.1 -4
-X1.1 -5

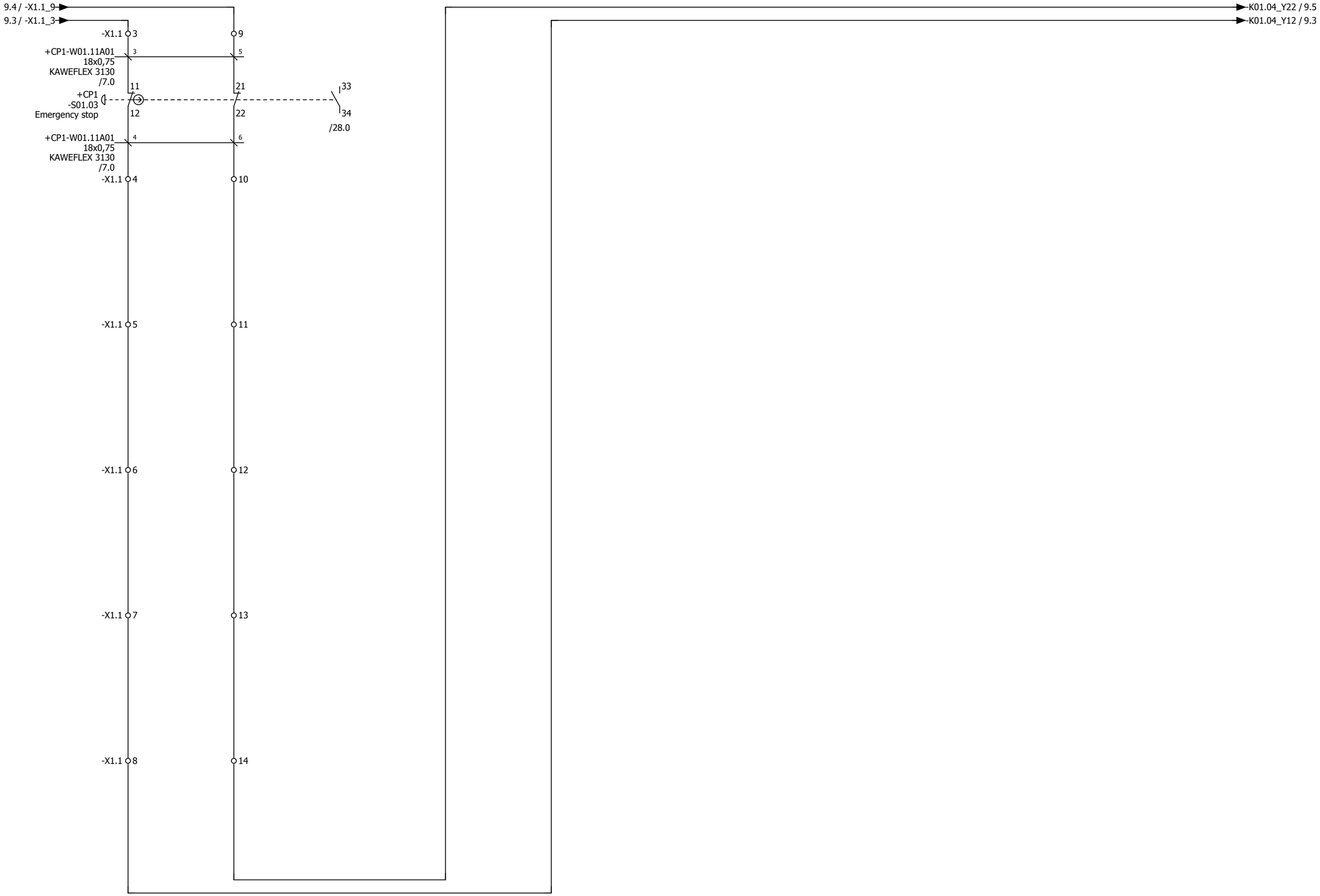
6.9 / 1L-

1L- / 9.0

Protection
cycle ON

6 8

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Protective circuit Signal ON	= 302
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 7
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106



			Date	03.02.2009			= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 8
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

Emergency stop chain

6.1 / -L01.04+

-X1.1 +1

-X1.1 +2

L01.04+ / 11.0

+CP1-W01.11A01 7
18x0,75
KAWEFLEX 3130
/7.0

-Q02.04K01 -Q01.04K01 /9.7
21
22
21
22

+CP1
-S01.03K01
ON
13
14
X1
X2
/7.1

+CP1-W01.11A01 8
18x0,75
KAWEFLEX 3130
/7.0

-X1.1 1

-X1.1 2

8.0
-X1.1_3

8.9
-K01.04_Y12

8.0
-X1.1_9

8.9
-K01.04_Y22

-K01.04
3TK2828-2BB41

A1(+) Y33 Y34 Y10 Y11 Y12 Y21 Y22 13 23 47 57 31

SIEMENS

1,5 2,1 1,2 0,6 2,7 0,05 3,0s

13 14 23 24 47 48 57 58 31 32

A2(-) PE 14 24 48 58 32

12.1 / -K03.04_1

30.0 / -A04.02_1E1

-Q01.04K01 A1 A2 -R01.04K01 x1 U x2

-Q02.04K01 A1 A2 -R02.04K01 x1 U x2

-X1.1 -6

-X1.1 -7

7.9 / -1L-

-1L- / 11.0

1 2 /3.8
3 4 /3.8
5 6 /3.8
21 22 /9.1

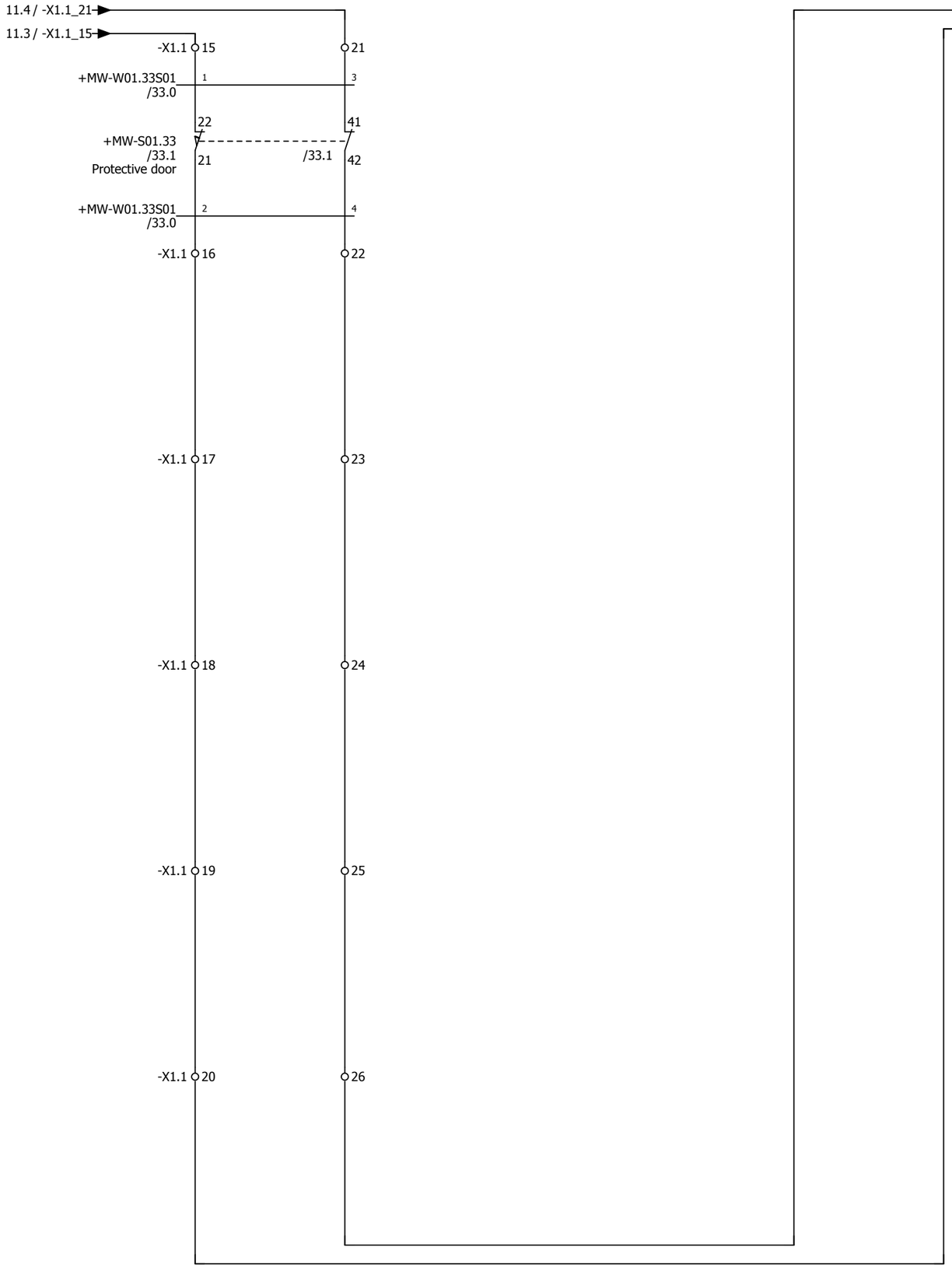
1 2 /3.8
3 4 /3.8
5 6 /3.8
21 22 /9.1

Safety module time-delayed
emergency-stop

8

10

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		= 302	
			Ed. by	Messmer		Safety module Emergency stop	+ CC1	
			Appr				1078982	Page 9
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106



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			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 10
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

9.9 / -L01.04+

L01.04+ / 12.0

-X1.1 +3

-Q01.04K02 /11.7
21
22

-Q02.04K02 /11.7
21
22

-A01.91_X03_5
38.9

45.9
-K02.04_Y34

10.0
-X1.1_15

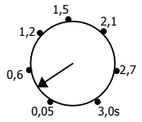
10.9
-K02.04_Y12

10.0
-X1.1_21

10.9
-K02.04_Y22

-K02.04
3TK2828-2BB41

A1(+) Y33 Y34 Y10 Y11 Y12 Y21 Y22 13 23 47 57 31



13
14
/12.3

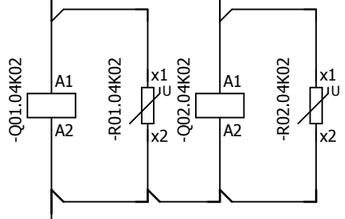
23
24
/12.4

47
48

57
58

31
32

A2(-) PE 14 24 48 58 32



-X1.1 -8

9.9 / -1L

-1L- / 12.0

Safety module
protective door circuit chain

1	2		1	2
3	4		3	4
5	6		5	6
21	22 /11.2		21	22 /11.2
53	54 /6.6		53	54 /6.6
61	62		61	62
73	74 /6.7		73	74 /6.7
83	84		83	84

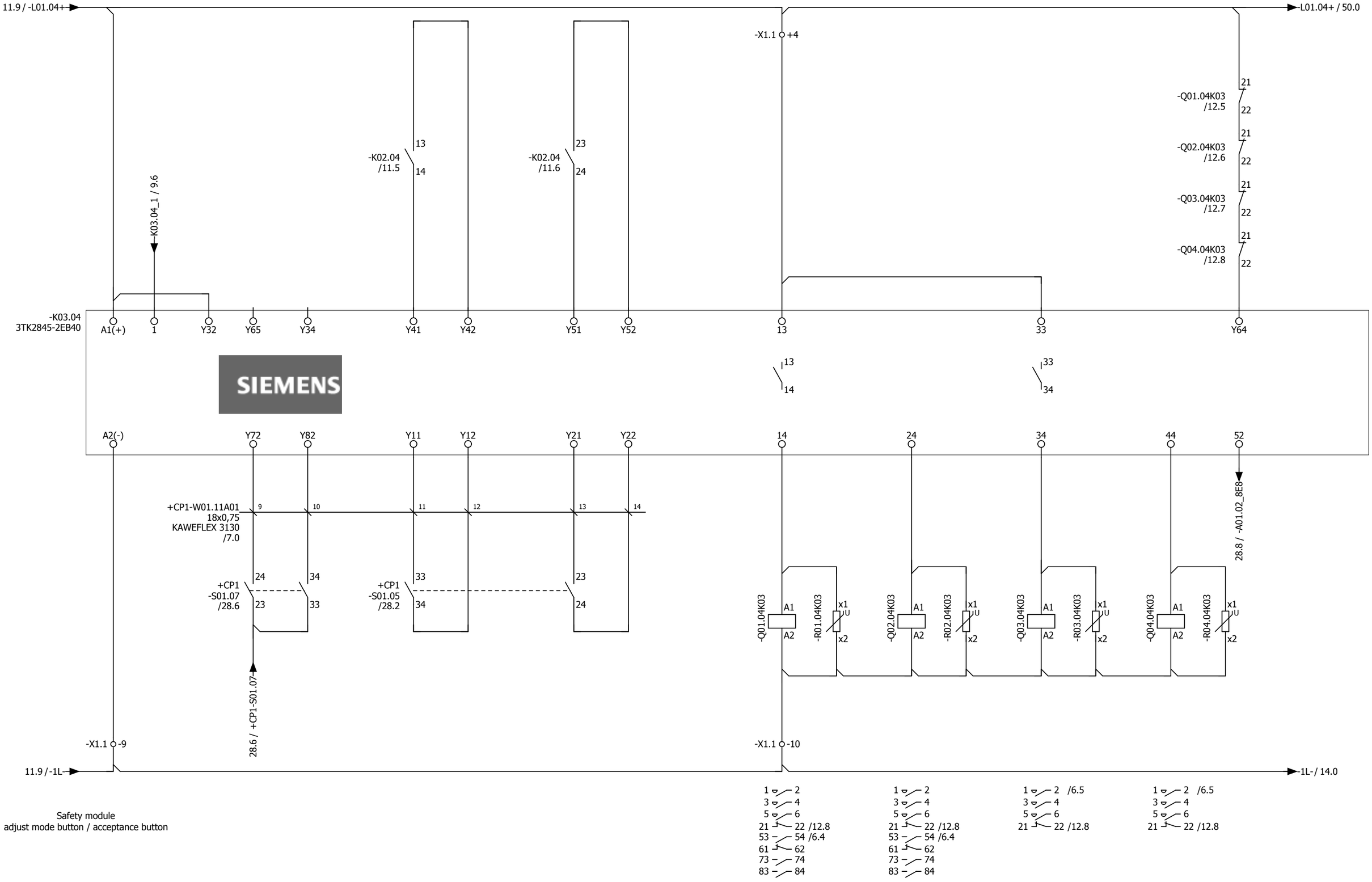
10

12

			Date	03.02.2009			= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 11
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

Safety module
protective door circuit chain



Safety module
adjust mode button / acceptance button

11

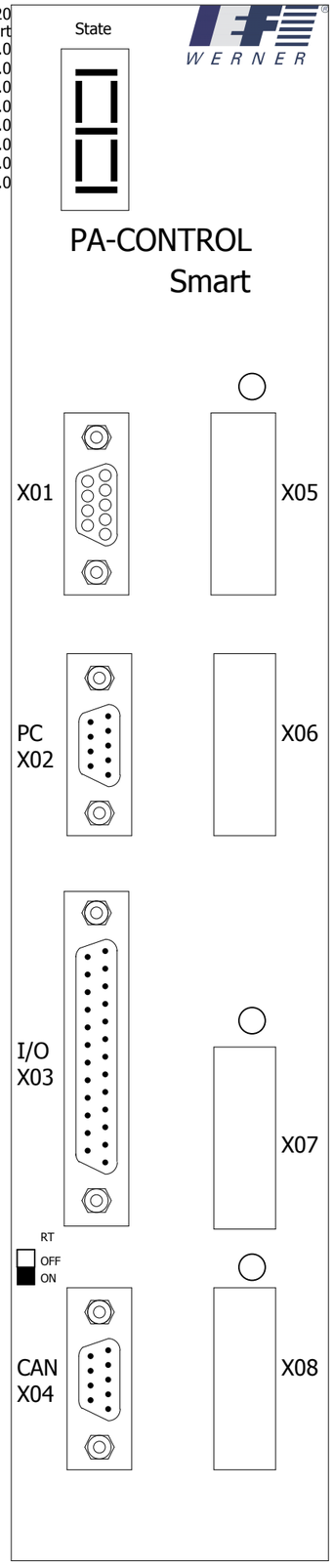
13

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	
			Ed. by	Messmer		
			Appr			
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by

Safety module door
protective circuit adjust mode button / acceptance button

= 302
+ CC1
1078982
Page 12
Pg 106

-A01.20
PA-CONTROL smart
/19.0
/20.0
/21.0
/14.0
/15.0
/16.0
/17.0
/18.0

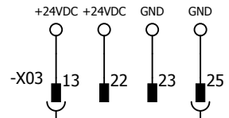


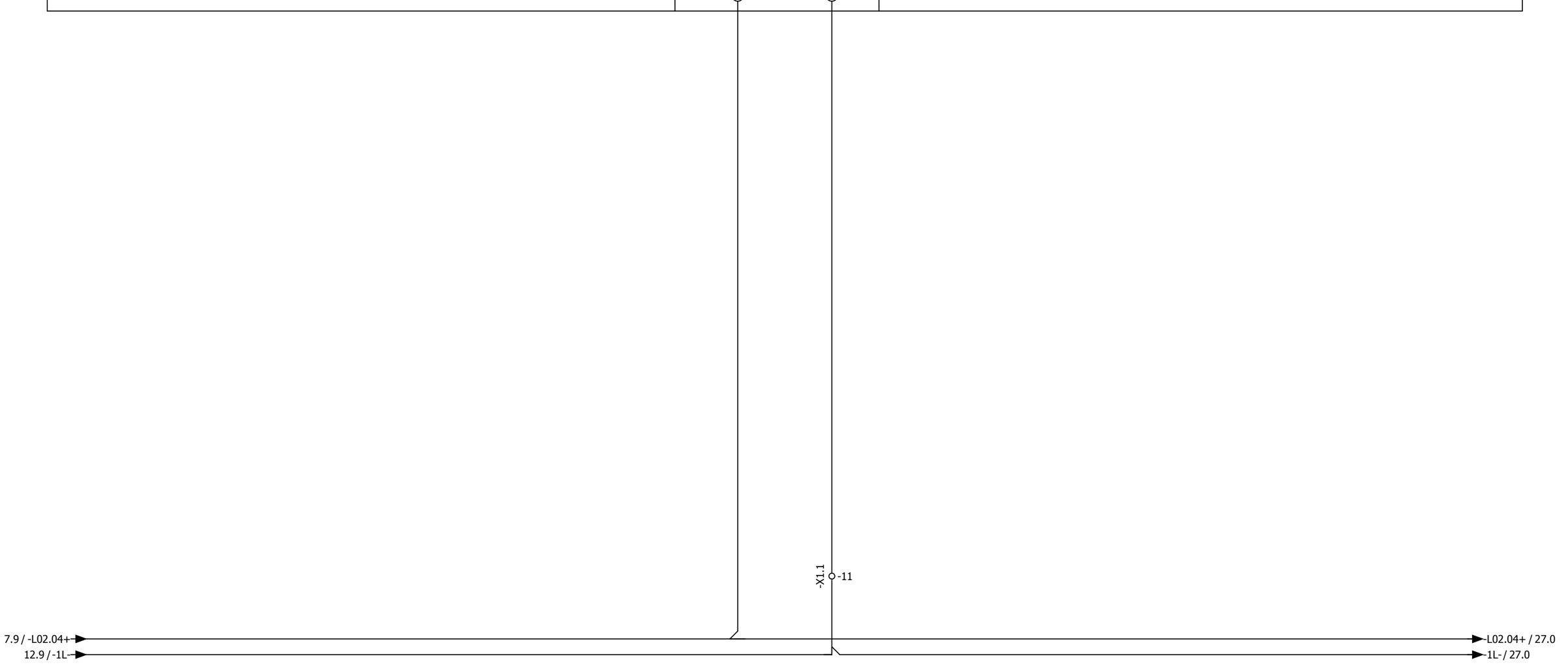
			Date	06.03.2009		PA-CONTROL smart Overview		= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 13
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

-A01.20
/13.2

PA-CONTROL smart

Supply Voltage



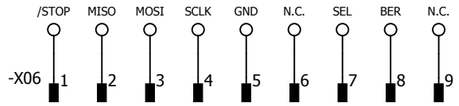


			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart Voltage supply	= 302	
			Ed. by	Messmer				+ CC1	
			Appr				1078982	Page	14
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg	106

-A01.20
/13.2

PA-CONTROL smart

KONSOLE

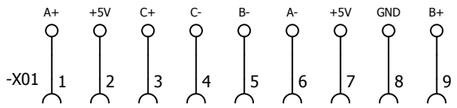


DIAG

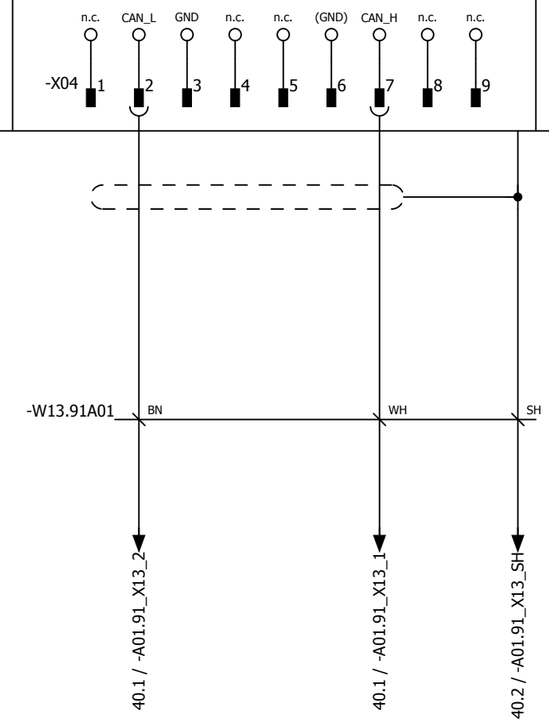
			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart PANEL / DIAG	= 302
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 15
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

PA-CONTROL smart

Counter interface



CAN Bus



			Date	04.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart counter interface / CAN Bus	= 302
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 16
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

0	1	2	3	4	5	6	7	8	9

-A01.20
/13.2
PA-CONTROL smart

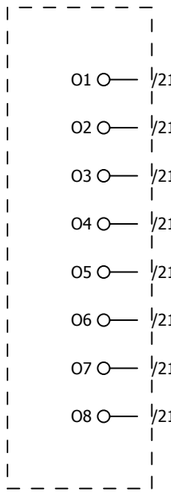
I1	/19.0	-A01.20-X03:1	Spare
I2	/19.2	-A01.20-X03:2	Spare
I3	/19.3	-A01.20-X03:3	Spare
I4	/19.4	-A01.20-X03:4	Spare
I5	/19.5	-A01.20-X03:5	Spare
I6	/19.6	-A01.20-X03:6	Spare
I7	/19.7	-A01.20-X03:7	Spare
I8	/19.8	-A01.20-X03:8	Spare
I9	/20.0	-A01.20-X03:9	Spare
I10	/20.2	-A01.20-X03:10	Spare
I11	/20.3	-A01.20-X03:11	Spare
I12	/20.4	-A01.20-X03:12	Spare

16 18

			Date	03.02.2009		PA-CONTROL smart Inputs overview I1-I12		= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page	17
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by			Pg	106

0	1	2	3	4	5	6	7	8	9

-A01.20
/13.2
PA-CONTROL smart



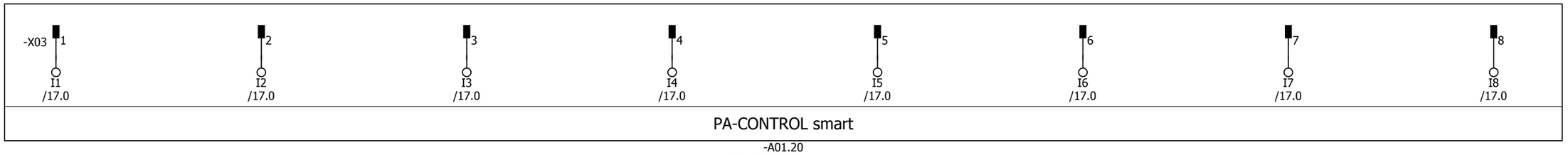
O1	/21.0	-A01.20-X03:14	Spare
O2	/21.2	-A01.20-X03:15	Spare
O3	/21.3	-A01.20-X03:16	Spare
O4	/21.4	-A01.20-X03:17	Spare
O5	/21.5	-A01.20-X03:18	Spare
O6	/21.6	-A01.20-X03:19	Spare
O7	/21.7	-A01.20-X03:20	Spare
O8	/21.8	-A01.20-X03:21	Spare

17

19

			Date	03.02.2009		PA-CONTROL smart Outputs overview O1-O8		= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page	18
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg	106

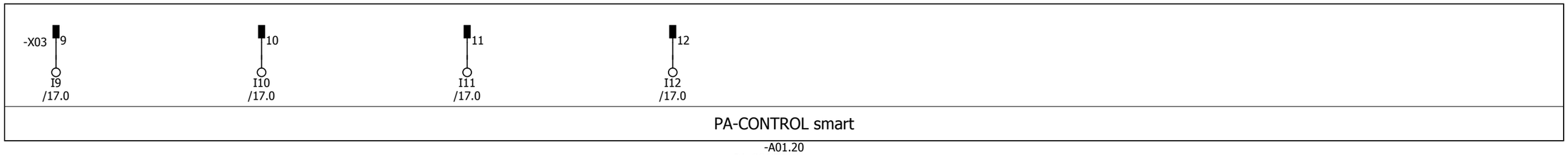
0	1	2	3	4	5	6	7	8	9



Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart I1-I8	= 302	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 19
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

0	1	2	3	4	5	6	7	8	9



-A01.20
PA-CONTROL smart
/13.2

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart I9-I12	= 302	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 20
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

/13.2
PA-CONTROL smart
-A01.20

PA-CONTROL smart

/18.0 O1	/18.0 O2	/18.0 O3	/18.0 O4	/18.0 O5	/18.0 O6	/18.0 O7	/18.0 O8
-X03 14	15	16	17	18	19	20	21
Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart O1-O8	= 302
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 21
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

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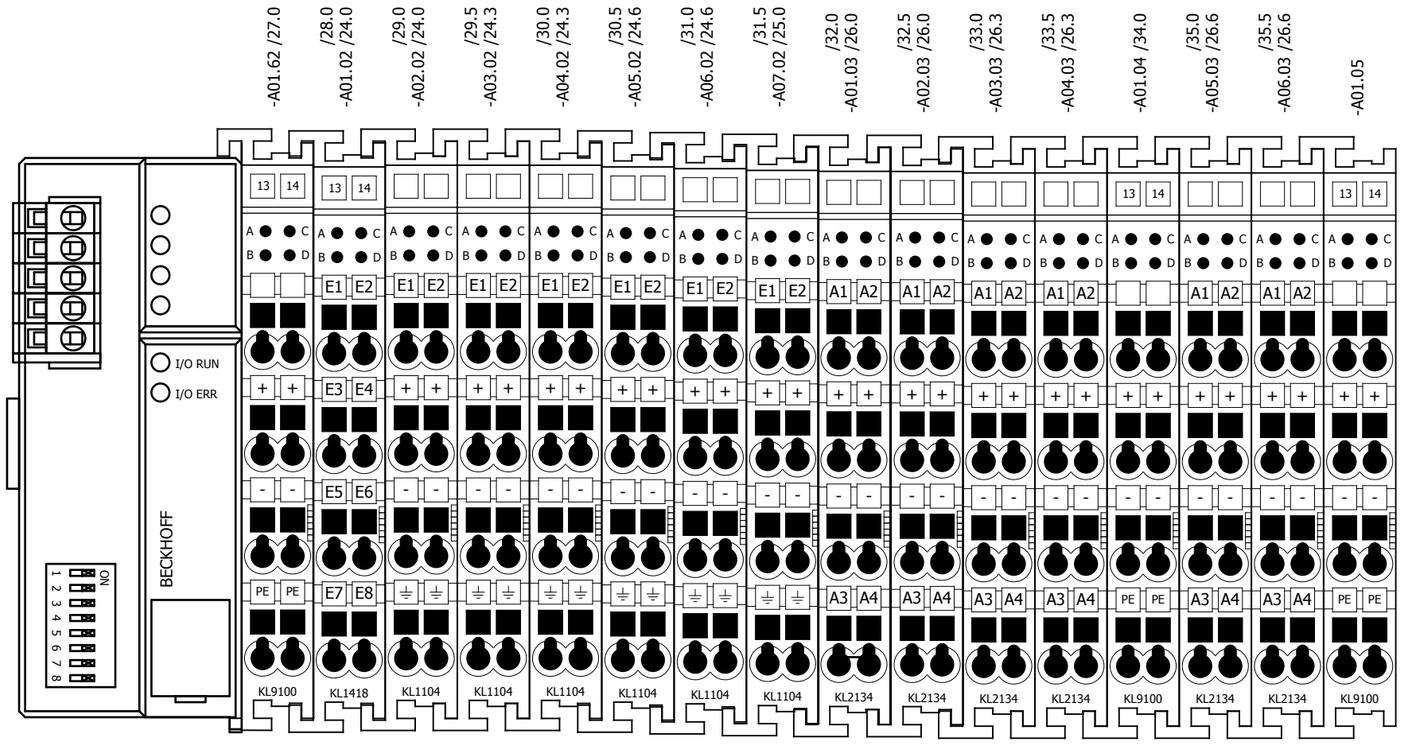
			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Beckhoff BK5120 bus connection		= 302
			Ed. by	Messmer					+ CC1
			Appr					1078982	Page 22
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106



			Date	03.02.2009				= 302
			Ed. by	Messmer				+ CC1
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX	Overview Beckhoff bus connection		Page 23
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	1078982	Pg 106

0	1	2	3	4	5	6	7	8	9

-A01.02
/28.0

I1025	IN 1E1	/28.0	+CP1-S01.03	Emergency halt pressed operator panel	
I1026	IN 5E2	/28.2	+CP1-S01.05	Confirmation button	
I1027	IN 2E3	/28.3	+CP1-S01.04	Automatic Mode (I)	
I1028	IN 6E4	/28.4	+CP1-S01.04	Adjust mode (0)	
I1029	IN 3E5	/28.5	+CP1-S01.04	Step Mode (II)	
I1030	IN 7E6	/28.6	+CP1-S01.07	Bridge protective doors	
I1031	IN 4E7	/28.7		Spare	
I1032	IN 8E8	/28.8	-K03.04:52	Safety module adjust mode-/acceptance button	

-A02.02
/29.0
KL1104

I1033	1E1	/29.0	+MW-S01.33	Protective door open	
	2+	/29.1		Protective door open	
	3-	/29.1		Protective door open	
I1034	5E2	/29.2		Spare	
I1035	4E3	/29.3		Spare	
	6+	/29.3		Spare	
	7-	/29.4		Spare	
I1036	8E4	/29.4		Spare	

-A03.02
/29.5
KL1104

I1037	1E1	/29.5		Spare	
	2+	/29.5		Spare	
	3-	/29.6		Spare	
I1038	5E2	/29.6		Spare	
I1039	4E3	/29.8		Spare	
	6+	/29.8		Spare	
	7-	/29.8		Spare	
I1040	8E4	/29.9		Spare	

-A04.02
/30.0
KL1104

I1041	IN 1E1	/30.0	-K01.04:24	Safety module emergency-stop ON	
	DC24V 2+	/30.1		Safety module emergency-stop ON	
	M 3-	/30.1		Safety module emergency-stop ON	
I1042	IN 5E2	/30.2		Spare	
I1043	IN 4E3	/30.3	-F02.00	Spare	
	DC24V 6+	/30.3		Spare	
	M 7-	/30.4		Spare	
I1044	IN 8E4	/30.4	-F01.00	Fuse protection 24V I.O.	

-A05.02
/30.5
KL1104

I1045	IN 1E1	/30.5	+HGE-S01.10	Spare	
	DC24V 2+	/30.5		Spare	
	M 3-	/30.6		Spare	
I1046	IN 5E2	/30.6	+HGA-S01.10	Spare	
I1047	IN 4E3	/30.8	+TIS-S01.10	Spare	
	DC24V 6+	/30.8		Spare	
	M 7-	/30.8		Spare	
I1048	IN 8E4	/30.9	+TIS-S02.10	Spare	

-A06.02
/31.0
KL1104

I1049	IN 1E1	/31.0		Spare	
	DC24V 2+	/31.1		Spare	
	M 3-	/31.1		Spare	
I1050	IN 5E2	/31.2		Spare	
I1051	IN 4E3	/31.3		Spare	
	DC24V 6+	/31.3		Spare	
	M 7-	/31.4		Spare	
I1052	IN 8E4	/31.4		Spare	

			Date	03.02.2009				= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 24
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

WERNER

Inputs overview
I1025-1052

0	1	2	3	4	5	6	7	8	9

-A07.02
/31.5

IN 1E1 I1053	/31.5	+PWE-S01.10	Spare
DC24V 2+	/31.5		Spare
M 3-	/31.6		Spare
IN 5E2 I1054	/31.6	+PWA-S01.10	Spare
IN 4E3 I1055	/31.8		Spare
DC24V 6+	/31.8		Spare
M 7-	/31.8		Spare
IN 8E4 I1056	/31.9		Spare

			Date	03.02.2009		Inputs overview I1053-1056		= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 25
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

0	1	2	3	4	5	6	7	8	9

-A01.03
/32.0

O1025 OUT 1A1	/32.0	-H01.00	Operation Mode (Signal lights)	
DC24V 2+	/32.1		Operation Mode (Signal lights)	
M 3-	/32.1		Operation Mode (Signal lights)	
O1026 OUT 5A2	/32.2	-H02.00	Level (Signal lights)	
O1027 OUT 4A3	/32.3	-H03.00	Error (Signal lights)	
DC24V 6+	/32.3		Error (Signal lights)	
M 7-	/32.4		Error (Signal lights)	
O1028 OUT 8A4	/32.4		Spare	

-A02.03
/32.5

O1029 OUT 1A1	/32.5		Spare	
DC24V 2+	/32.5		Spare	
M 3-	/32.6		Spare	
O1030 OUT 5A2	/32.6		Spare	
O1031 OUT 4A3	/32.8		Spare	
DC24V 6+	/32.8		Spare	
M 7-	/32.8		Spare	
O1032 OUT 8A4	/32.9		Spare	

-A03.03
/33.0

O1033 OUT 1A1	/33.0	+MW-S01.33	Close Protective door	
DC24V 2+	/33.1		Close Protective door	
M 3-	/33.1		Close Protective door	
O1034 OUT 5A2	/33.2		Spare	
O1035 OUT 4A3	/33.3		Spare	
DC24V 6+	/33.3		Spare	
M 7-	/33.4		Spare	
O1036 OUT 8A4	/33.4		Spare	

-A04.03
/33.5

O1037 OUT 1A1	/33.5		Spare	
DC24V 2+	/33.5		Spare	
M 3-	/33.6		Spare	
O1038 OUT 5A2	/33.6		Spare	
O1039 OUT 4A3	/33.8		Spare	
DC24V 6+	/33.8		Spare	
M 7-	/33.8		Spare	
O1040 OUT 8A4	/33.9		Spare	

-A05.03
/35.0

O1041 OUT 1A1	/35.0		Spare	
DC24V 2+	/35.1		Spare	
M 3-	/35.1		Spare	
O1042 OUT 5A2	/35.2		Spare	
O1043 OUT 4A3	/35.3		Spare	
DC24V 6+	/35.3		Spare	
M 7-	/35.4		Spare	
O1044 OUT 8A4	/35.4		Spare	

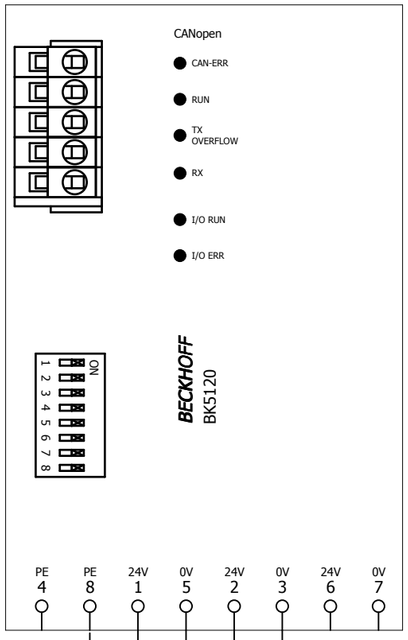
-A06.03
/35.5

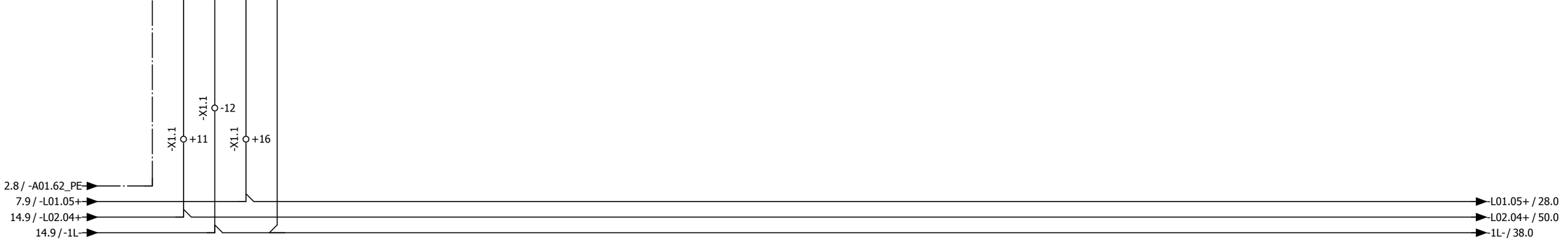
O1045 OUT 1A1	/35.5		Spare	
DC24V 2+	/35.5		Spare	
M 3-	/35.6		Spare	
O1046 OUT 5A2	/35.6		Spare	
O1047 OUT 4A3	/35.8		Spare	
DC24V 6+	/35.8		Spare	
M 7-	/35.8		Spare	
O1048 OUT 8A4	/35.9		Spare	

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Outputs overview O1025-1048	= 302	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 26
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

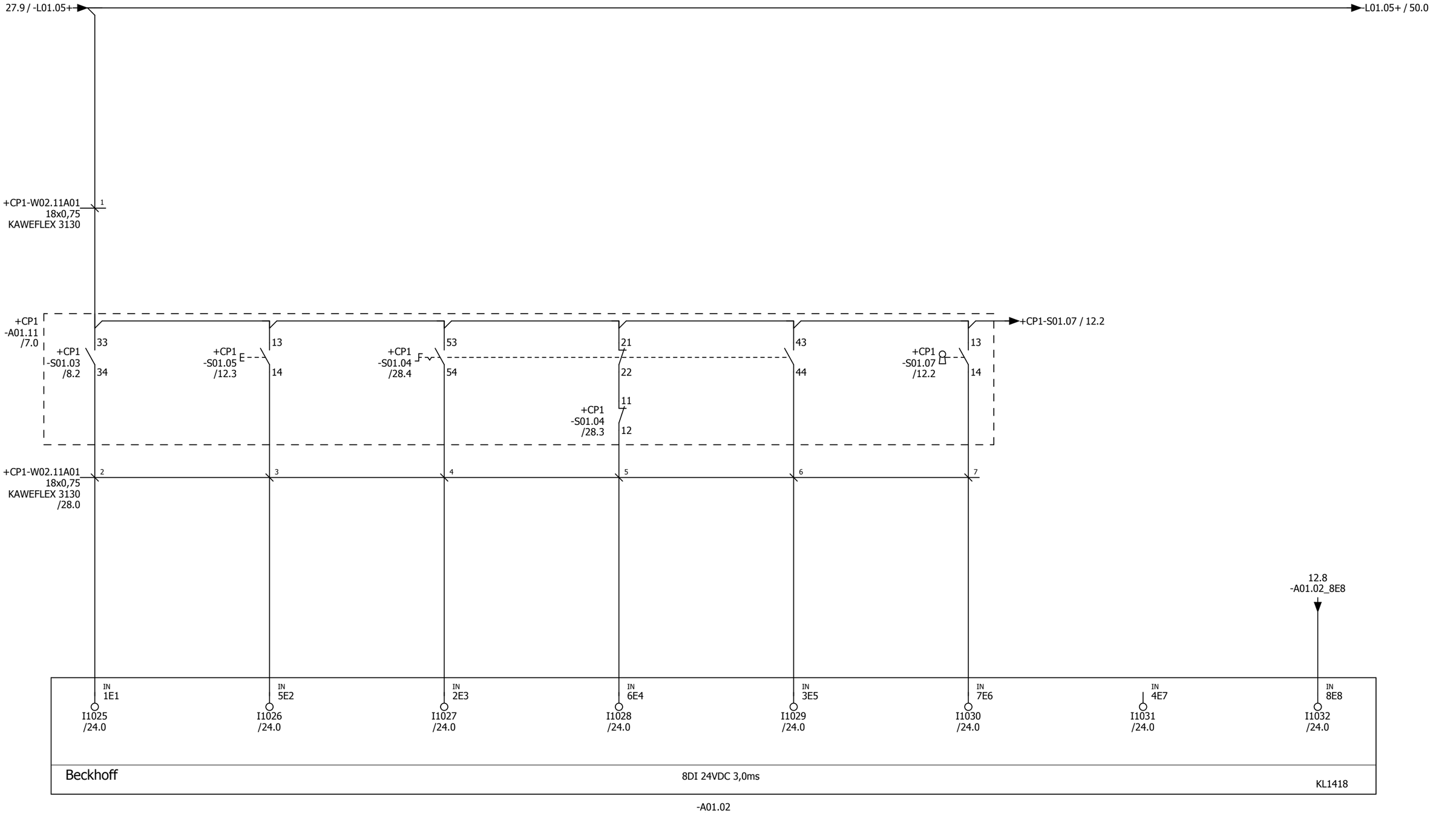
0	1	2	3	4	5	6	7	8	9

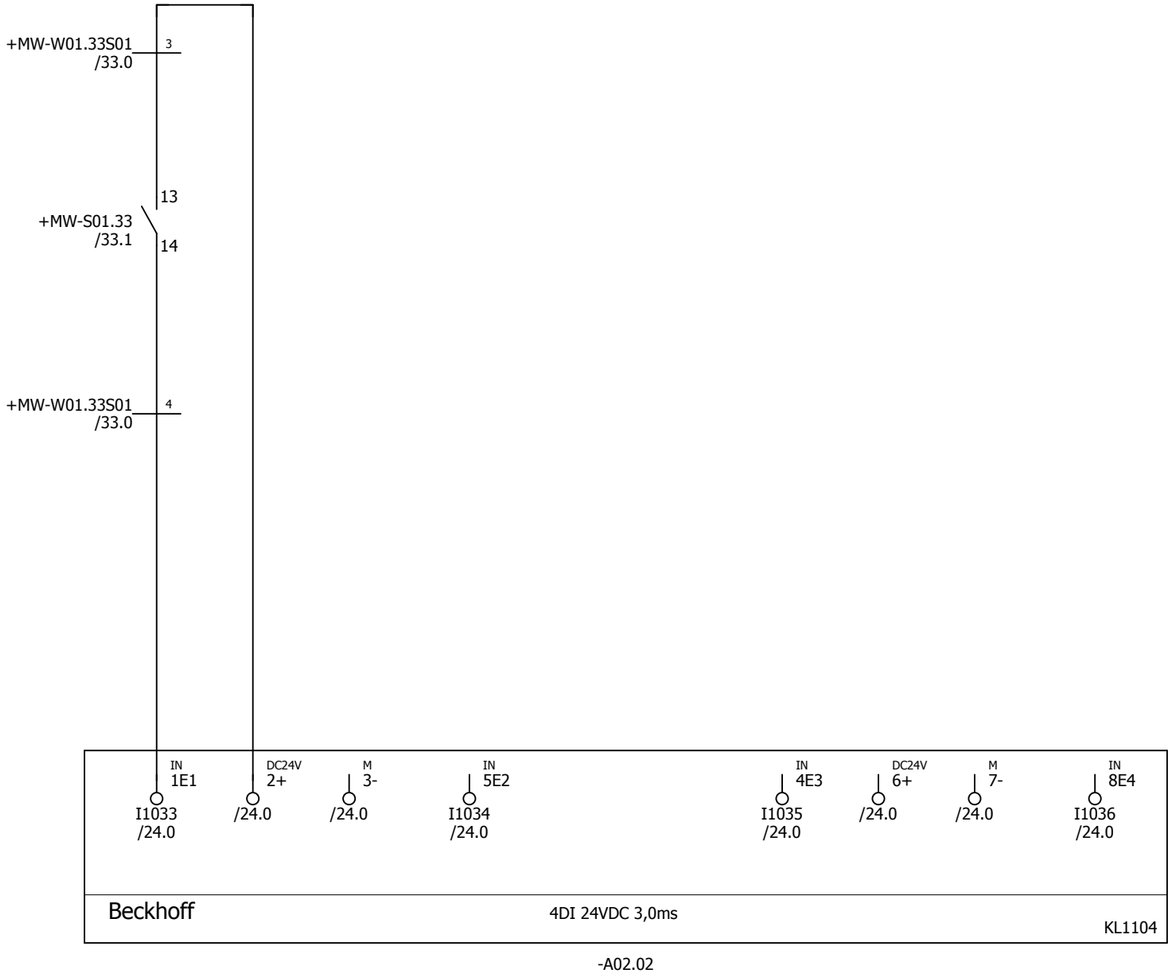
-A01.62
/22.0
/23.1



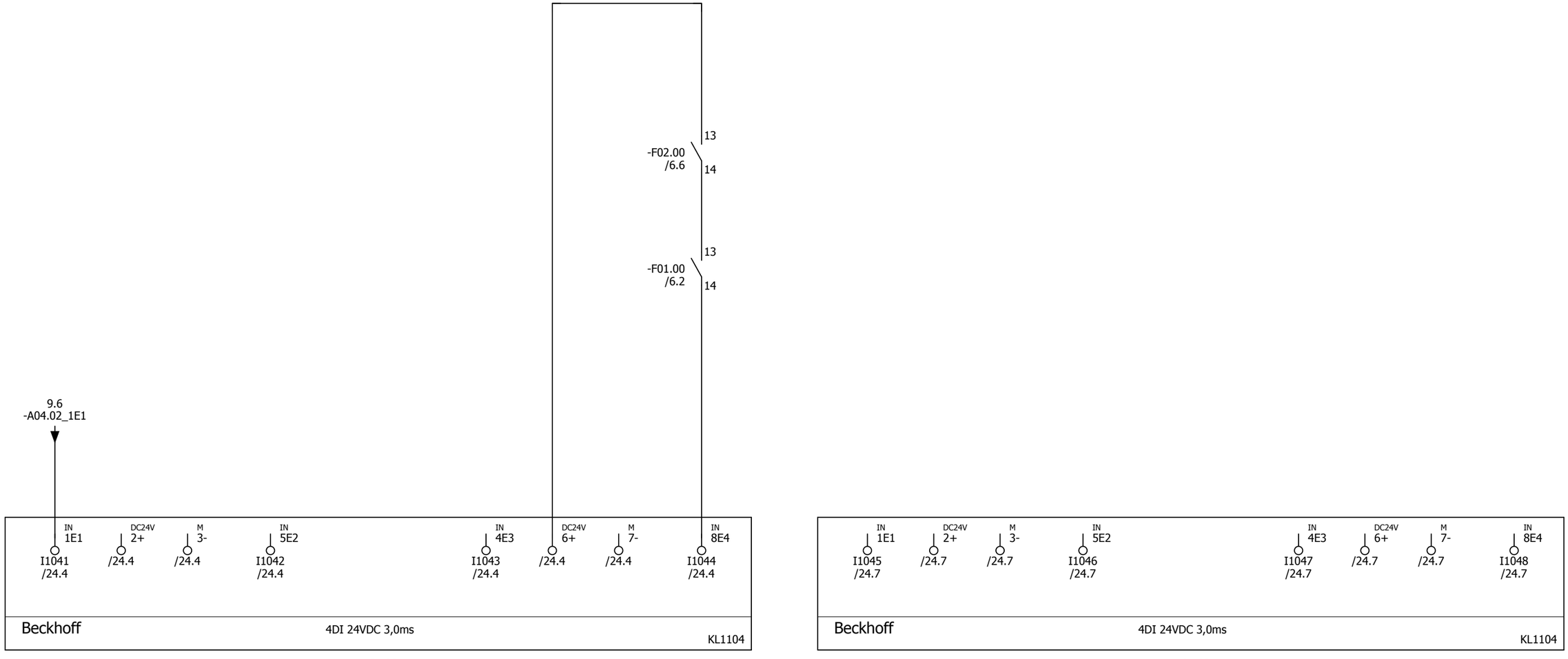


			Date	03.02.2009				= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 27
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	WERNER	Beckhoff BK5120 Supply voltage	Pg 106


27.9 / -L01.05+
L01.05+ / 50.0
+CP1-W02.11A01
18x0,75
KAWEFLEX 3130
1
+CP1
-A01.11
/7.0
+CP1-S01.07 / 12.2
+CP1
-S01.03
/8.2
33
34
+CP1
-S01.05
/12.3
E
13
14
+CP1
-S01.04
/28.4
F
53
54
21
22
+CP1
-S01.04
/28.3
11
12
43
44
+CP1
-S01.07
/12.2
13
14
+CP1-W02.11A01
18x0,75
KAWEFLEX 3130
/28.0
2
3
4
5
6
7
12.8
-A01.02_8E8
IN
1E1
I1025
/24.0
IN
5E2
I1026
/24.0
IN
2E3
I1027
/24.0
IN
6E4
I1028
/24.0
IN
3E5
I1029
/24.0
IN
7E6
I1030
/24.0
IN
4E7
I1031
/24.0
IN
8E8
I1032
/24.0
Beckhoff
8DI 24VDC 3,0ms
KL1418
-A01.02
/23.1
/24.0
Emergency
halt pressed
operator panel
Confirmation
button
Automatic Mode (I)
Adjust mode (0)
Step Mode
(II)
Bridge protective
doors
Spare
Safety module
adjust
mode-/acceptance button



			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		= 302	
			Ed. by	Messmer		Inputs connection I1032-1039	+ CC1	
			Appr				1078982	Page 29
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106



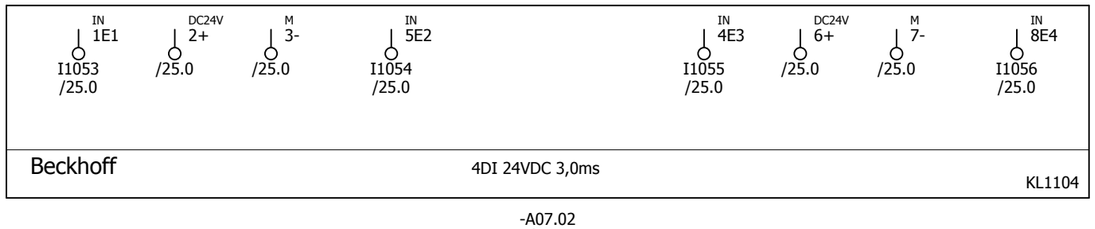
Safety module emergency-stop ON | Spare | Spare | Fuse protection 24V I.O. | Spare | Spare | Spare | Spare

			Date	03.02.2009		Inputs connection I1040-1047	= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 30
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

0	1	2	3	4	5	6	7	8	9

-A06.02
/23.3
/24.6

Spare | Spare | Spare | Spare



-A07.02
/23.3
/25.0

Spare | Spare | Spare | Spare

30

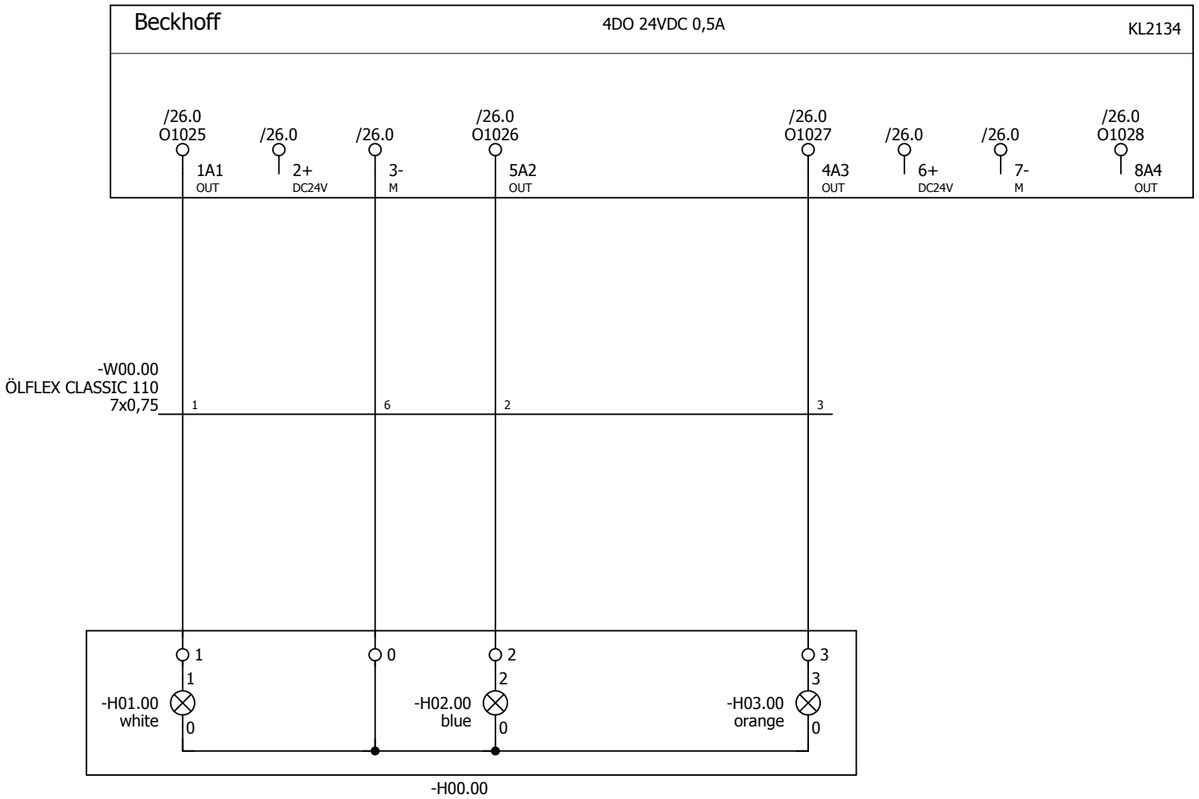
32

			Date	03.02.2009				= 302	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 31
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

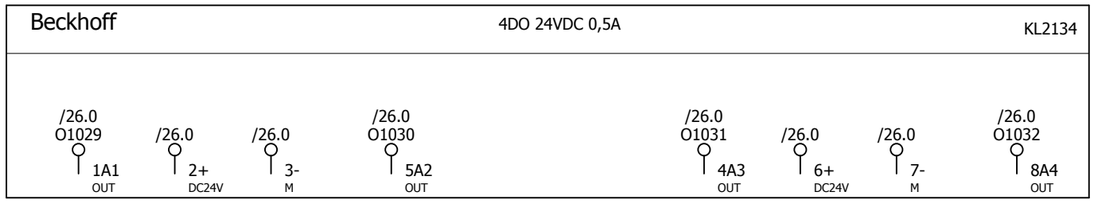
WERNER

Inputs connection
I1048-1055

/23.3
/26.0
-A01.03



/23.4
/26.0
-A02.03



Operation Mode (Signal lights)	Level (Signal lights)	Error (Signal lights)	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		= 302
			Ed. by	Messmer		Outputs connection O1025-1032	+ CC1
			Appr				1078982 Page 32
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	Pg 106

/23.4
/26.3
-A03.03

Beckhoff 4DO 24VDC 0,5A KL2134

/26.4 O1033	/26.4	/26.4	/26.4 O1034	/26.4 O1035	/26.4	/26.4	/26.4 O1036
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

/23.4
/26.3
-A04.03

Beckhoff 4DO 24VDC 0,5A KL2134

/26.4 O1037	/26.4	/26.4	/26.4 O1038	/26.4 O1039	/26.4	/26.4	/26.4 O1040
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

+MW-W01.33S01 7
12x0,75
ÖLFLEX CLASSIC 110

+MW-S01.33

11	22	42	51	71	13	63
12	21	41	52	72	14	64

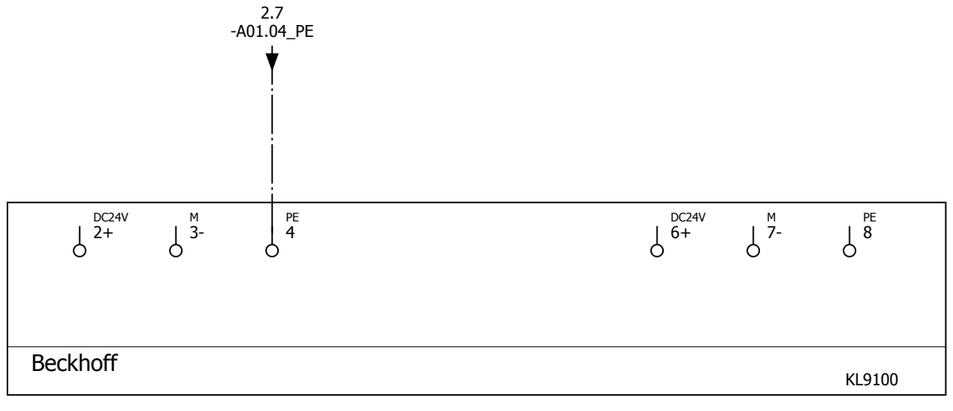
/10.1 /10.2 /29.0

+MW-W01.33S01 8
12x0,75
ÖLFLEX CLASSIC 110
/33.0

Close Protective door	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009			Outputs connection O1033-1040		= 302	
			Ed. by	Messmer					+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page	33
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg	106

0	1	2	3	4	5	6	7	8	9



-A01.04
/23.4

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Supply clamp	= 302	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 34
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

/23.5
/26.6
-A05.03

Beckhoff — 4DO 24VDC 0,5A — KL2134

/26.7 O1041	/26.7	/26.7	/26.7 O1042	/26.7 O1043	/26.7	/26.7	/26.7 O1044
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

/23.5
/26.6
-A06.03

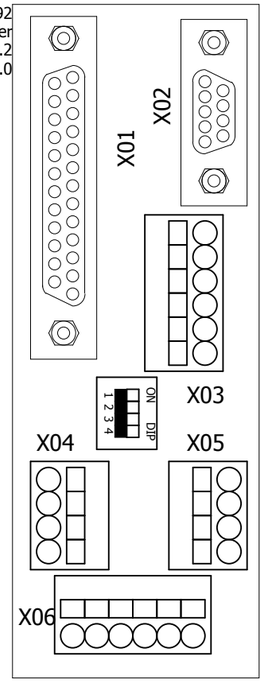
Beckhoff — 4DO 24VDC 0,5A — KL2134

/26.7 O1045	/26.7	/26.7	/26.7 O1046	/26.7 O1047	/26.7	/26.7	/26.7 O1048
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Outputs connection O1041-1048	= 302	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 35
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

-A01.92
LV servoTEC S2 IO-adapter
/38.2
/42.0



Offset-address			
	0		8
	1		9
	2		10
	3		11
	4		12
	5		13
	6		14
	7		15

Fieldbus	Base address (is set withS2 Commander)
CAN Open	Base Node number
Profibus	Slave-address
SERCOS	Drive-address

Bus address calculation: Bus-address = Base address + Offset-address

front

-A01.91
LV servoTEC_S2_302
/37.4
/37.7
/39.0
/40.0
/38.0
/41.0

RESET
READY
CAN ON
STATE

(X3) SAFE STANDSTILL
24V
REL
0V
ERR
NC1
NC2

(X5) RS232/COM

(X4) CAN

TECH 1 TECH 2

-A01.32
/40.0
Rx
ON
OFF
X13
X14

LV servoTEC S2

on top

-A01.91
LV servoTEC_S2_302
/37.2

X9
L1
L2
L3
ZK+
Zk-
BR-EXT
BR-CH
BR-INT
PE
+24V
GND24

(X11) OUT

(X10) IN

(X1) I/O

below

-A01.91
LV servoTEC_S2_302
/37.2

(X2B) ENCODER

(X2A) RESOLVER

X6
BR-
BR+
PE
-MTdig
+MTdig
PE
W
V
U

			Date	04.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	
			Ed. by	Messmer		
			Appr			
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by

A1 LV servoTEC_S2_302
Overview

= 302
+ CC1
1078982
Page 37
Pg 106

-A01.91
/37.2

LV servoTEC S2

Supply voltage [X09]

Schutzerdung

-X09: L (1) | L2 (2) | L3 (3) | ZK+ (4) | ZK- (5) | BR-EXT (6) | BR-CH (7) | BR-INT (8) | PE (9) | +24V (10) | GND24V (11)

2.3 / -A01.91_PE
5.1 / -A01.91_X09_1
5.1 / -A01.91_X09_2
5.1 / -A01.91_X09_3
5.1 / -A01.91_X09_9

I/O-communication [X01]

-X01: AGND (1) | AGND (14) | AINO (2) | #AINO (15) | AIN1 (3) | AIN2 (16) | +VREF (4) | AMON0 (17) | AMON1 (5) | +24V (18) | GND24 (6) | DIN0 (19) | DIN1 (7) | DIN2 (20) | DIN3 (8) | Power supply Release DIN4 (21) | Regulator Release DIN5 (9) | END. NEG. DIN6 (22) | END. POS. DIN7 (10) | REF. DIN8 (23) | DIN9 (11) | READY DOUT0 (24) | DOUT1 (12) | DOUT2 (25) | DOUT3 (13)

-W01.92A01: VT 0,14 | BK 0,14 | GY 0,14 | BN 0,14 | WH 0,14 | RD 0,14 | WH BK 0,14 | RD 0,14 | WH BN 0,14 | OG 0,14 | WH RD 0,14 | YE 0,14 | WH OG 0,14 | GN 0,14 | WH YE 0,14 | BU 0,14

-A01.92
/36.2

-X01: 1 | 14 | 2 | 15 | 3 | 16 | 4 | 17 | 5 | 18 | 6 | 19 | 7 | 20 | 8 | 21 | 9 | 22 | 10 | 23 | 11 | 24 | 12 | 25 | 13

n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | +24V | GND24 | DIN0 | DIN1 | DIN2 | DIN3 | DIN4 | DIN5 | DIN6 | DIN7 | DIN8 | DIN9 | DOUT0 | DOUT1 | DOUT2 | DOUT3

I/O-communication

Safe Standstill [X03]

-X03: 24V (1) | REL (2) | 0V (3) | ERR (4) | NC1 (5) | NC2 (6)

11.2 / -A01.91_X03_5
45.9 / -A02.91_X03_5

LV servoTEC S2 IO-Adapter

Supply / release IN

-X04: +24V (+) | GND (0) | Endstufen Freigabe (EF) | Regler Freigabe (RF)

I/O

-X06: PE | DIN9 (I9) | DOUT0 (O0) | DOUT1 (O1) | DOUT2 (O2) | DOUT3 (O3)

2.5 / -A01.92_X06_1

Supply / release OUT

-X05: Regulator Release (RF) | Power supply Release (EF) | GND (0) | +24V (+)

45.3 / -A02.92_X04_4
45.3 / -A02.92_X04_3
45.3 / -A02.92_X04_2
45.3 / -A02.92_X04_1

-X1.1 +36
-X1.1 +37
-X1.1 +30
-X1.1 +21
-X1.1 -13
-X1.1 +31

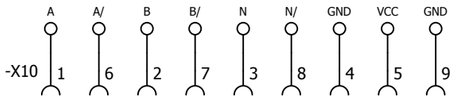
7.9 / -L01.06+ → L01.06+ / 50.0
6.7 / -L01.91+ → L01.91+ / 45.0
6.8 / -L02.91+ → L02.91+ / 45.0
27.9 / -1L → 1L- / 45.0

			Date	03.02.2009		A1 LV servoTEC S2 Supply voltage	= 302
			Ed. by	Messmer	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		+ CC1
			Appr			1078982	Page 38
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by		Pg 106

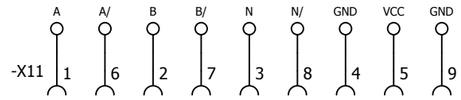
-A01.91
/37.2

LV servoTEC S2

Incremental encoder Input [X10]



Incremental encoder Output [X11]



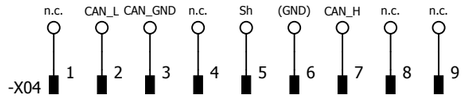
			Date	03.02.2009		A1 LV servoTEC S2 Incremental encoder	= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 39
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by			Pg 106

-A01.91
/37.2

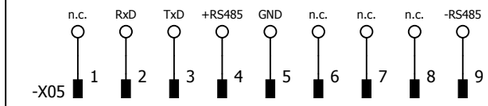
LV servoTEC S2

Bus address DP:17

CAN [X04]



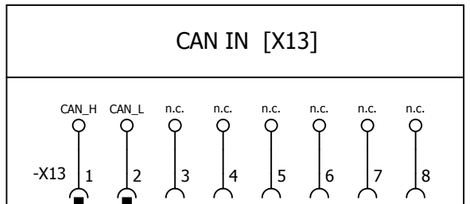
RS232/COM [X05]



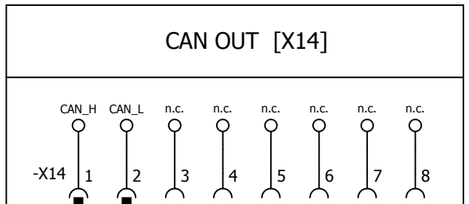
-A01.91-A01.32
/37.2

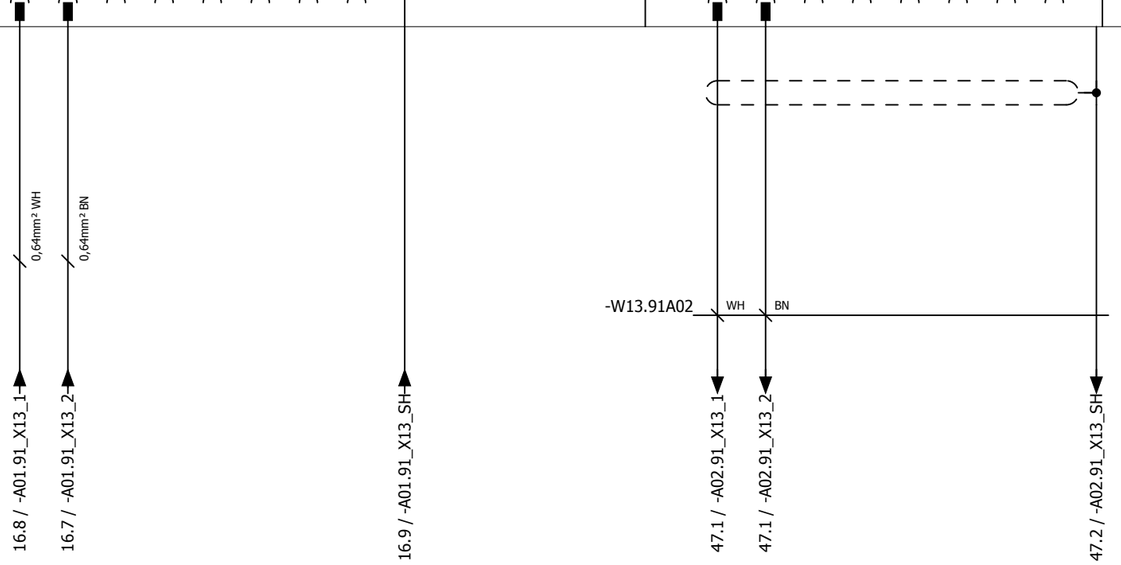
Terminating resistor

CAN IN [X13]



CAN OUT [X14]





			Date	03.02.2009		A1 LV servoTEC S2 CAN / RS232	= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 40
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A01.91
/37.2

LV servoTEC S2

Motor connection [X06]

-X06: PE 6 | U2 9 | V2 8 | W2 7 | BR- 1 | BR+ 2 | -MTdig 4 | +Mtdig 5 | PE 3

PE

SH1

SH

-W01.51M01 /41.0 9 m

-W01.51M01: GNYE U | V | W | BN2 | BN1

-M01.51

-X01: PE PE | U U | V V | W W | B B | A A

Motor

Resolver connection [X02A]

-X02A: Mt+ 5 | Mt- 8 | R1 4 | R2 9 | SINUS- 6 | SINUS+ 1 | COS- 7 | COS+ 2 | AGND 3

Encoder connection [X02B]

-X02B: #COS 7 | COS 14 | #SIN 8 | SIN 15 | DATA 12 | #DATA 5 | SCLK 13 | #SCLK 6 | U_SENS+ 9 | U_SENS- 2 | US 10 | GND 3 | MT+ 1 | n.c. 11 | n.c. 4

SH

-W02.51M01 /41.6

-W02.51M01: WH 0,25 | BN 0,25 | GN 0,25 | YE 0,25 | GY 0,25 | PK 0,25 | BU 0,25 | RD 0,25 | BK 0,25 | VT 0,25 | GYPK 0,25 | RDBU 0,25 | WHGN 0,25 | BNGN 0,25

-X02: 9 COS B+ | 1 COS B- | 11 SIN A+ | 3 SIN A- | 13 #DATA | 5 DATA | 15 #CLOCK | 8 CLOCK | 10 0V | 12 Up | 2 0V | 4 Up | 7 Thermo | 14 Thermo

Sinus-Cosinus Encoder

40

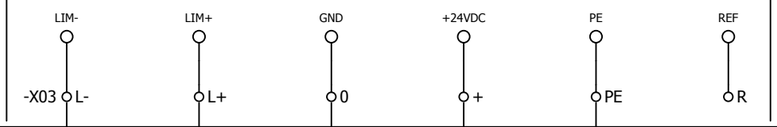
42

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		A1 LV servoTEC S2 Motor connection	= 302 + CC1
			Ed. by	Messmer				
			Appr				1078982	Page 41
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

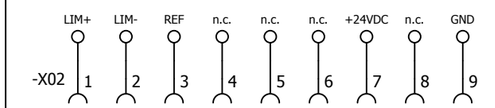
-A01.92
/36.2

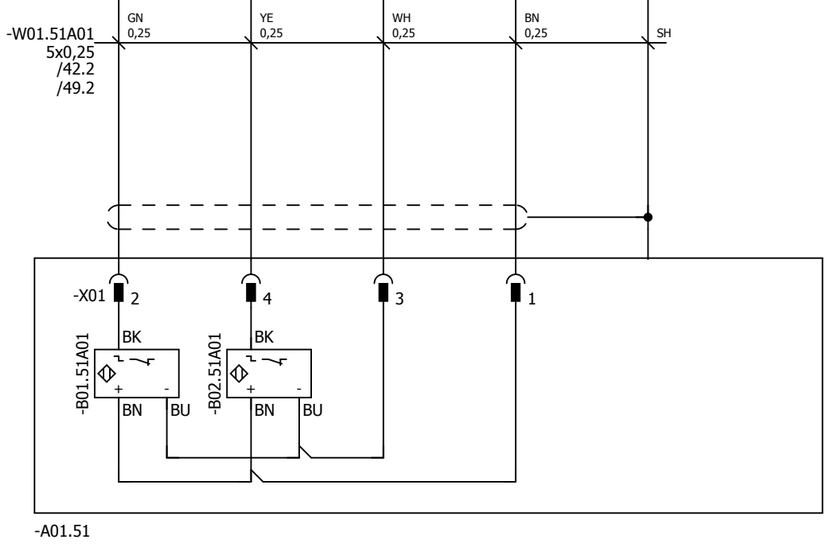
LV servoTEC S2 IO-Adapter

Limit switch [X03]



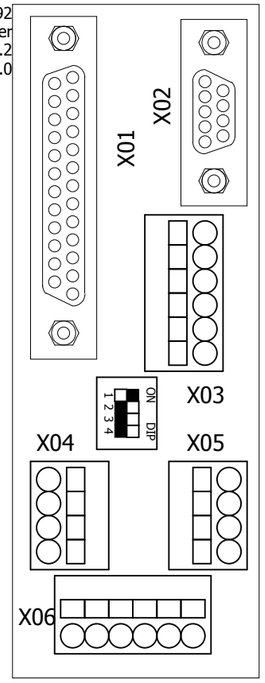
Limit switch [X02]





			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		A1 LV servoTEC S2 Axis limit switch	= 302 + CC1
			Ed. by	Messmer				
			Appr				1078982	Page 42
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A02.92
LV servoTEC S2 IO-adapter
/45.2
/49.0



Offset-address			
	0		8
	1		9
	2		10
	3		11
	4		12
	5		13
	6		14
	7		15

Fieldbus	Base address (is set withS2 Commander)
CAN Open	Base Node number
Profibus	Slave-address
SERCOS	Drive-address

Bus address calculation: Bus-address = Base address + Offset-address

front

-A02.91
LV servoTEC_S2_302
/44.4
/44.7
/46.0
/47.0
/45.0
/48.0

RESET
READY
CAN ON

STATE

(X3) SAFE STANDSTILL
24V
REL
0V
ERR
NC1
NC2

(X5) RS232/COM

(X4) CAN

TECH 1 TECH 2

-A01.32
/47.0
Rx
ON
OFF

X13

X14

LV servoTEC S2

on top

-A02.91
LV servoTEC_S2_302
/44.2

X9
L1
L2
L3
ZK+
Zk-
BR-EXT
BR-CH
BR-INT
PE
+24V
GND24

(X11) OUT

(X10) IN

(X1) I/O

below

-A02.91
LV servoTEC_S2_302
/44.2

(X2B) ENCODER

(X2A) RESOLVER

X6
BR-
BR+
PE
-MTdig
+MTdig
PE
W
V
U

			Date	04.02.2009			= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX	A2 LV servoTEC_S2_302 Overview	1078982	Page 44
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A02.91
/44.2

LV servoTEC S2

Supply voltage [X09]

Schutzerdung

-X09: L 1 | L2 2 | L3 3 | ZK+ 4 | ZK- 5 | BR-EXT 6 | BR-CH 7 | BR-INT 8 | PE 9 | +24V 10 | GND24V 11

2.4 / -A02.91_PE
5.3 / -A02.91_X09_1
5.3 / -A02.91_X09_2
5.3 / -A02.91_X09_3
5.4 / -A02.91_X09_9

I/O-communication [X01]

-X01: AGND 1 | AGND 14 | AINO 2 | #AINO 15 | AIN1 3 | AIN2 16 | +VREF 4 | AMON0 17 | AMON1 5 | +24V 18 | GND24 6 | DIN0 19 | DIN1 7 | DIN2 20 | DIN3 8 | Power supply Release DIN4 21 | Regulator Release DIN5 9 | END. NEG. DIN6 22 | END. POS. DIN7 10 | REF. DIN8 23 | DIN9 11 | READY DOUT0 24 | DOUT1 12 | DOUT2 25 | DOUT3 13

-W01.92A02: VT 0,14 | BK 0,14 | GY 0,14 | BN 0,14 | WH 0,14 | RD 0,14 | WH BK 0,14 | RD 0,14 | WH BN 0,14 | OG 0,14 | WH RD 0,14 | YE 0,14 | WH OG 0,14 | GN 0,14 | WH YE 0,14 | BU 0,14

-A02.92
/43.2

-X01: 1 | 14 | 2 | 15 | 3 | 16 | 4 | 17 | 5 | 18 | 6 | 19 | 7 | 20 | 8 | 21 | 9 | 22 | 10 | 23 | 11 | 24 | 12 | 25 | 13

n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | +24V | GND24 | DIN0 | DIN1 | DIN2 | DIN3 | DIN4 | DIN5 | DIN6 | DIN7 | DIN8 | DIN9 | DOUT0 | DOUT1 | DOUT2 | DOUT3

I/O-communication

Safe Standstill [X03]

-X03: 24V 1 | REL 2 | 0V 3 | ERR 4 | NC1 5 | NC2 6

38.9 / -A02.91_X03_5
11.2 / -K02.04_Y34

LV servoTEC S2 IO-Adapter

Supply / release IN

-X04: +24V + | GND 0 | Endstufen Freigabe EF | Regler Freigabe RF

38.7 / -A02.92_X04_1
38.7 / -A02.92_X04_2
38.7 / -A02.92_X04_3
38.6 / -A02.92_X04_4

I/O

-X06: PE PE | DIN9 I9 | DOUT0 O0 | DOUT1 O1 | DOUT2 O2 | DOUT3 O3

2.6 / -A02.92_X06_1

Supply / release OUT

-X05: Regulator Release RF | Power supply Release EF | GND 0 | +24V +

-X1.1 +38
-X1.1 -14

38.9 / -L01.91+
38.9 / -L02.91+
38.9 / -1L-

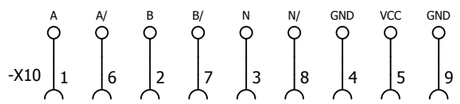
-L01.91+ / 50.0
-L02.91+ / 50.0
-1L- / 50.0

			Date	03.02.2009		A2 LV servoTEC S2 Supply voltage	= 302
			Ed. by	Messmer			+ CC1
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982 Page 45
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	Pg 106

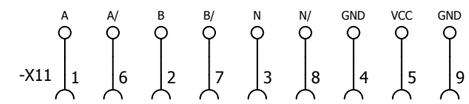
-A02.91
/44.2

LV servoTEC S2

Incremental encoder Input [X10]



Incremental encoder Output [X11]



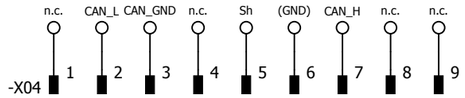
			Date	03.02.2009		A2 LV servoTEC S2 Incremental encoder	= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 46
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A02.91
/44.2

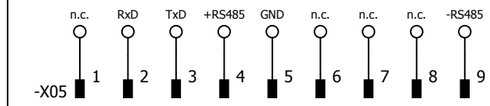
LV servoTEC S2

Bus address:2

CAN [X04]



RS232/COM [X05]

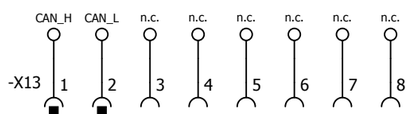


-A02.91-A01.32
/44.2

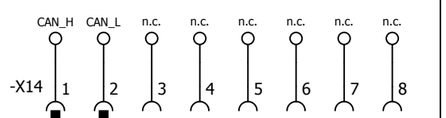
Terminating resistor

ON
OFF

CAN IN [X13]



CAN OUT [X14]



0,64mm² WH

0,64mm² BN

40.3 / -A02.91_X13_1

40.4 / -A02.91_X13_2

40.5 / -A02.91_X13_SH

-W01.62A01 WH BN

22.1 / -A01.62_X01_2

22.1 / -A01.62_X01_4

22.1 / -A01.62_X01_3

			Date	03.02.2009		A2 LV servoTEC S2 CAN / RS232	= 302
			Ed. by	Messmer			+ CC1
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982 Page 47
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	Pg 106

-A02.91
/44.2

LV servoTEC S2

Motor connection [X06]

-X06: PE 6 | U2 9 | V2 8 | W2 7 | BR- 1 | BR+ 2 | -MTdig 4 | +Mtdig 5 | PE 3

PE

SH1

SH

-W01.51M02 /48.0 9 m

-W01.51M02: GNYE | U | V | W | BN2 | BN1

Resolver connection [X02A]

-X02A: Mt+ 5 | Mt- 8 | R1 4 | R2 9 | SINUS- 6 | SINUS+ 1 | COS- 7 | COS+ 2 | AGND 3

SH

SH5

SH6

SH2

SH3

SH4

-W02.51M02 /48.3

-W02.51M02: BN | WH | RD | BU | YE | GN | GY | PK

Encoder connection [X02B]

-X02B: #COS 7 | COS 14 | #SIN 8 | SIN 15 | DATA 12 | #DATA 5 | SCLK 13 | #SCLK 6 | U_SENS+ 9 | U_SENS- 2 | US 10 | GND 3 | MT+ 1 | n.c. 11 | n.c. 4

-M02.51

-X01: PE | U | V | W | B | A

-X02: 2 THERMO | 6 THERMO | 5 REF+ | 9 REF- | 4 SINUS- | 8 SINUS+ | 7 COS- | 3 COS+

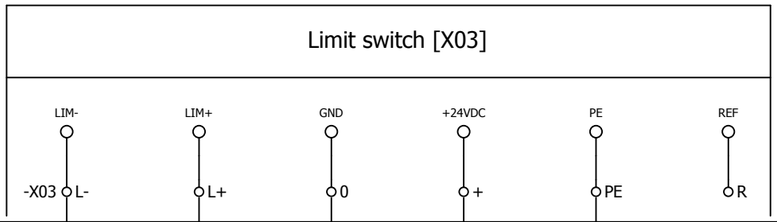
Motor

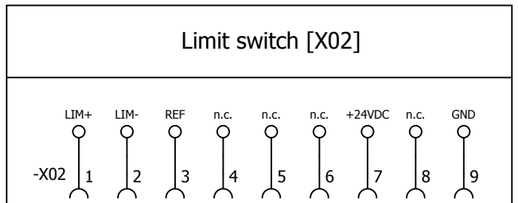
Resolver

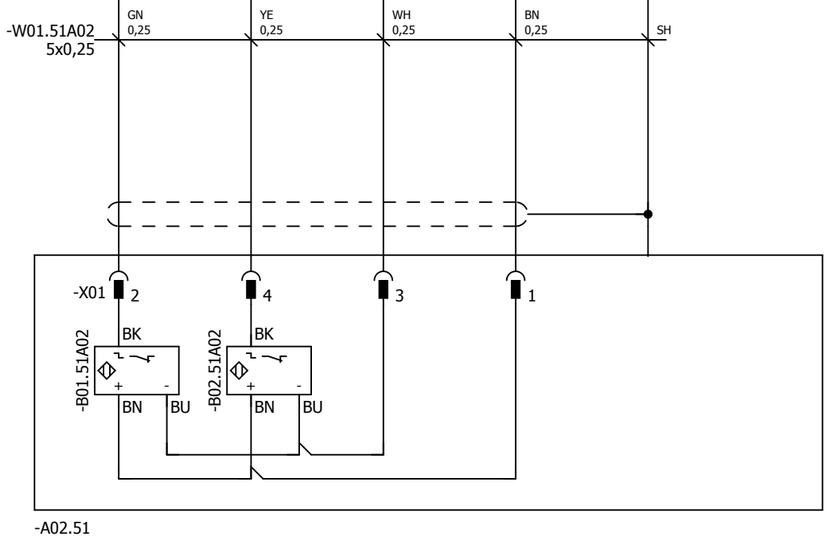
			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	A2 LV servoTEC S2 Motor connection	= 302 + CC1
			Ed. by	Messmer			
			Appr				1078982 Page 48
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by		Pg 106

-A02.92
/43.2

LV servoTEC S2 IO-Adapter

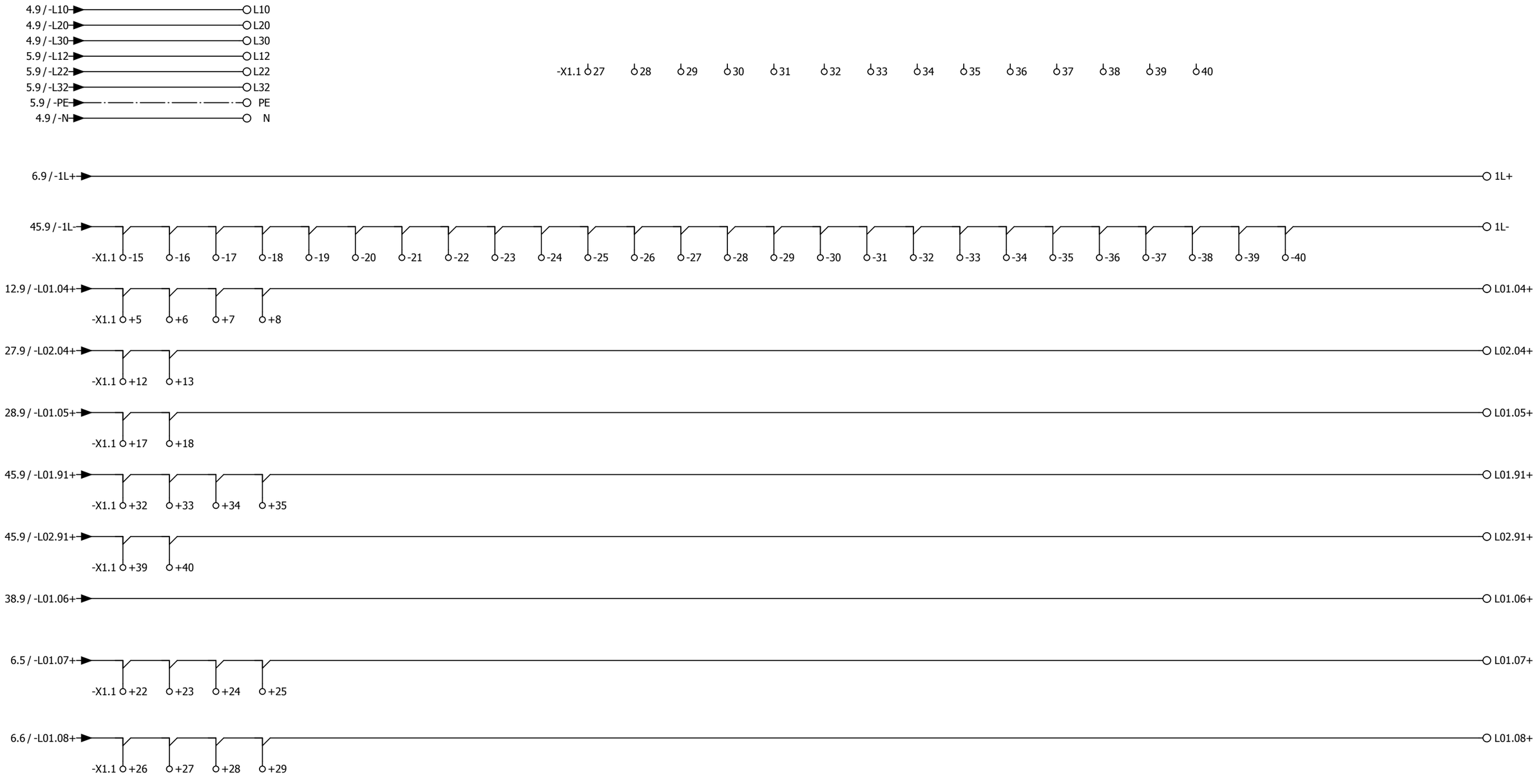






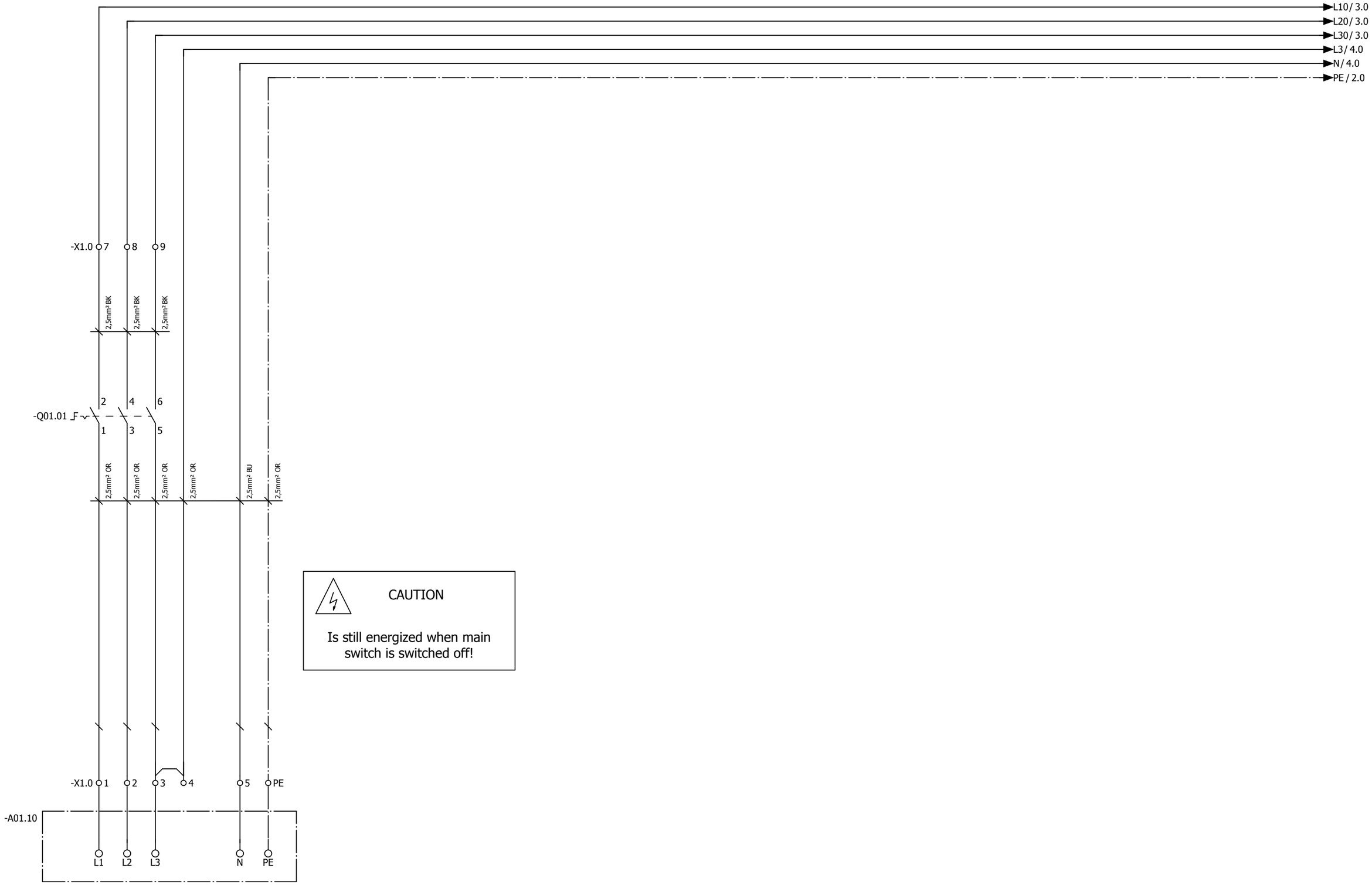
-A02.51

			Date	03.02.2009		A2 LV servoTEC S2 Axis limit switch	= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 49
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106



			Date	03.02.2009			= 302	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 50
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

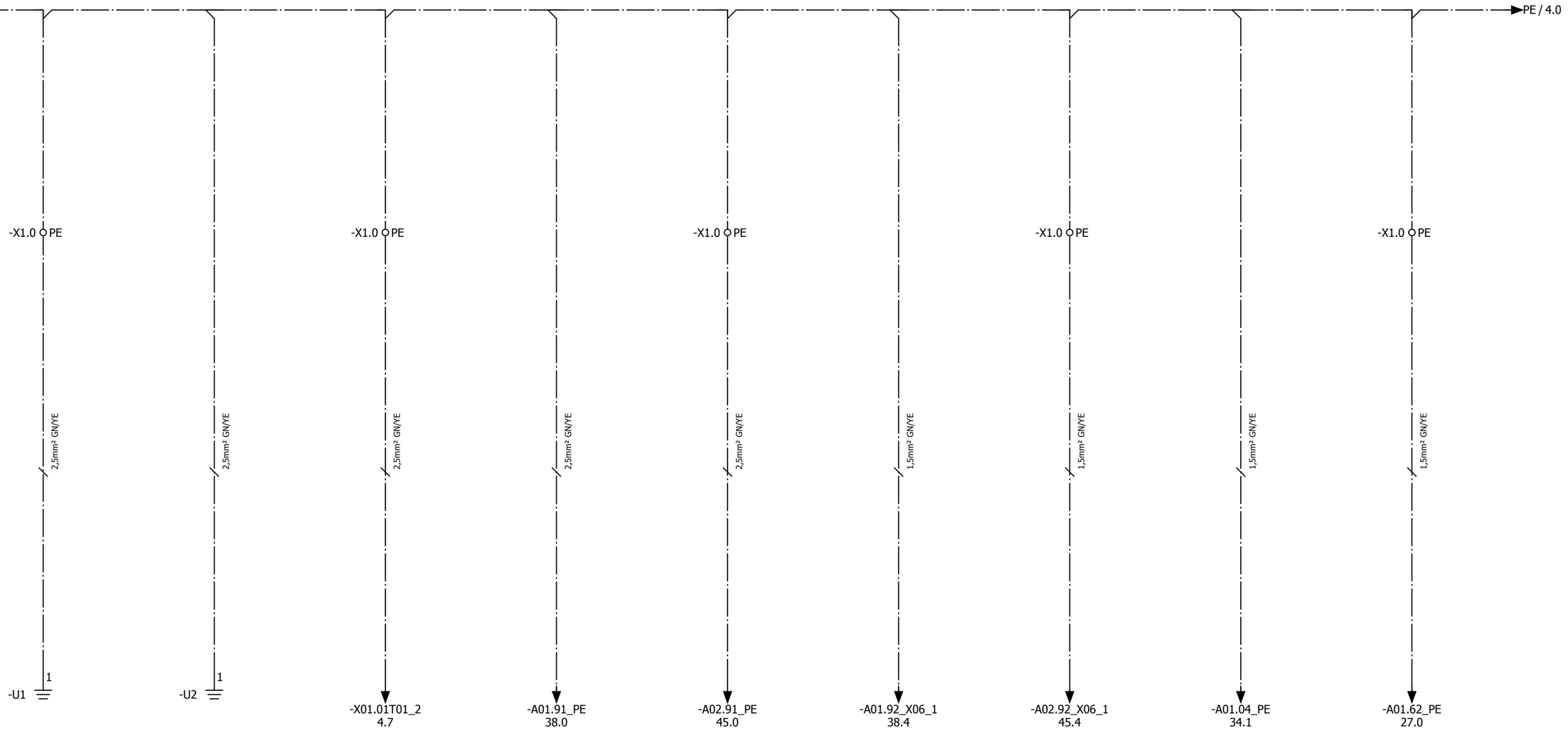
WERNER Spare clamps



CAUTION

Is still energized when main switch is switched off!

			Date	03.02.2009		Power supply	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 1
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106



Mounting plate 1	Switch cabinet housing	PE module 24V	A1 LV servoTEC	A2 LV servoTEC	A1 LV servoTEC I/O-Module	A2 LVservoTEC I/O-Module	Supply clamp	Bus coupler

			Date	03.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 2
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER PE-arrangement

1.9 / -L10
1.9 / -L20
1.9 / -L30

L10 / 4.0
L20 / 4.0
L30 / 4.0

2,5mm² BK
2,5mm² BK
2,5mm² BK

-F03.91
C13A
1 3 5
2 4 6

-Q01.04K01
/9.7
1 3 5
2 4 6

-Q02.04K01
/9.7
1 3 5
2 4 6

5.0 / -L12
5.0 / -L22
5.0 / -L32

400V
Switch off after
emergency
stop situation time-delayed

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		= 305	
			Ed. by	Messmer		Arrangement 400V	+ CC1	
			Appr				1078982	Page 3
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

3.9 / L10
3.9 / L20
3.9 / L30
1.9 / L3
1.9 / N
2.9 / PE

L10 / 50.0
L20 / 50.0
L30 / 50.0
N / 50.0
PE / 5.0

-F01.01
C10A
1
2

1,5mm² OR
2,5mm² GN/YE
2,5mm² BU
1,5mm² GN/YE
1,5mm² BU

-X2.0 1 1PE 1N 2 2PE 2N

L PE N
-X01.10

-F01.02
C10A
1
2

1,5mm² BK
1,5mm² GN/YE
1,5mm² BU
1,5mm² BU
1,5mm² GN/YE

3 3PE 3N 4 4PE 4N

-T01.01
24V Power supply
L PE N
+ + - - -

DK/BU 1,5mm²
DK/BU 1,5mm²

1L+ 6.0
1L- 6.0

2.2
-X01.01T01_2

-X01.01T01
4 - 3 +
PE
2

Service-outlet
Switch cabinet

Spare

24V Power supply

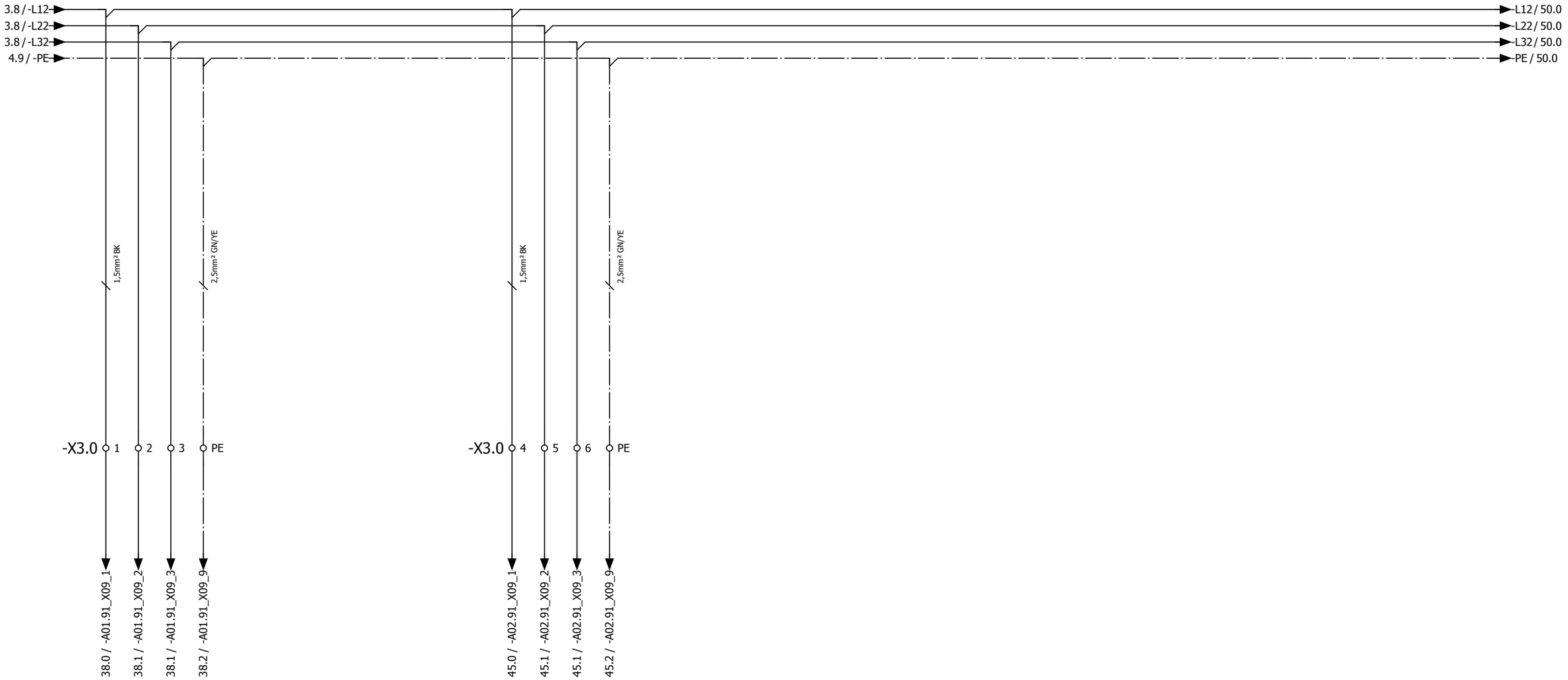
Earthed disconnect terminal

Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	
			Ed. by	Messmer		
			Appr			
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by

WERNER
Service-outlet / 24V Power supply

= 305
+ CC1
1078982
Page 4
Pg 106



Supply voltage
LV servoTEC 1

Supply voltage
LV servoTEC 2

			Date	03.02.2009		Supply voltage LV servoTEC	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 5
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by			Pg 106

4.5 / 1L+ → DK/BU 2,5mm²

1L+ / 50.0 ← DK/BU 2,5mm²

MICO 4.6 Power control

-F01.00

+24V

13 / 14 /30.4

+24V

+24V ○—○ +24V

-F01.04 2A

-F02.04 6A

-F01.05 4A

-F01.06 4A

0V ○—○ 0V

GND | 1 | 2 | 3 | 4 | GND

0,75mm² DK/BU

-Q01.04K03 /12.5 53 / 54

-Q02.04K03 /12.6 53 / 54

Clamp 1-8 → -L01.04+ 9.0

Clamp 9-13 → -L02.04+ 7.0

Clamp 14-19 → -L01.05+ 7.0

Clamp 20-21 → -L01.06+ 7.0

MICO 4.10 Power control

-F02.00

+24V

+24V

13 / 14 /30.4

+24V

-F01.07 4A

-F01.08 4A

-F01.91 6A

-F02.91 8A

GND | 1 | 2 | 3 | 4 | GND

0,75mm² DK/BU

-Q03.04K03 /12.7 1 / 2

-Q04.04K03 /12.8 1 / 2

-Q01.04K02 /11.7 53 / 54

-Q02.04K02 /11.7 53 / 54

-Q01.04K02 /11.7 73 / 74

-Q02.04K02 /11.7 73 / 74

Clamp 22-25 → -L01.07+ 50.0

Clamp 26-29 → -L01.08+ 50.0

Clamp 30-35 → -L01.91+ 38.0

Clamp 36-49 → -L02.91+ 38.0

-X1.1 ○ -1

4.5 / -1L- → -1L- / 7.0

24V Emergency stop	24V General supply	24V Inputs	24V Outputs category A adjust mode without acceptance button	24V Outputs category B adjust mode only with acceptance button	24V Outputs category C adjust mode only with protective doors closed	24V Switch off after emergency stop, door open, time-delayed	24V Supply LVservoTEC

5 7

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Fuse protection 24V	= 305
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 6
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

6.2 / L02.04+
6.4 / L01.06+
6.3 / L01.05+

L02.04+ / 14.0
-L01.06+ / 38.0
L01.05+ / 27.0

-X1.1 +19
-X1.1 +20
-X1.1 +9
-X1.1 +10
-X1.1 +14
-X1.1 +15

+CP1-W01.11A01
KAWEFLEX 3130
18x0,75 1
/7.0
/8.1
/8.1
/9.2
/9.2
/12.1

+CP1
-A01.11
/28.0

+CP1
-P01.03K01
/9.2
gn

X1
X2

+CP1-W01.11A01
KAWEFLEX 3130
18x0,75 2

-X1.1 -2
-X1.1 -3
-X1.1 -4
-X1.1 -5

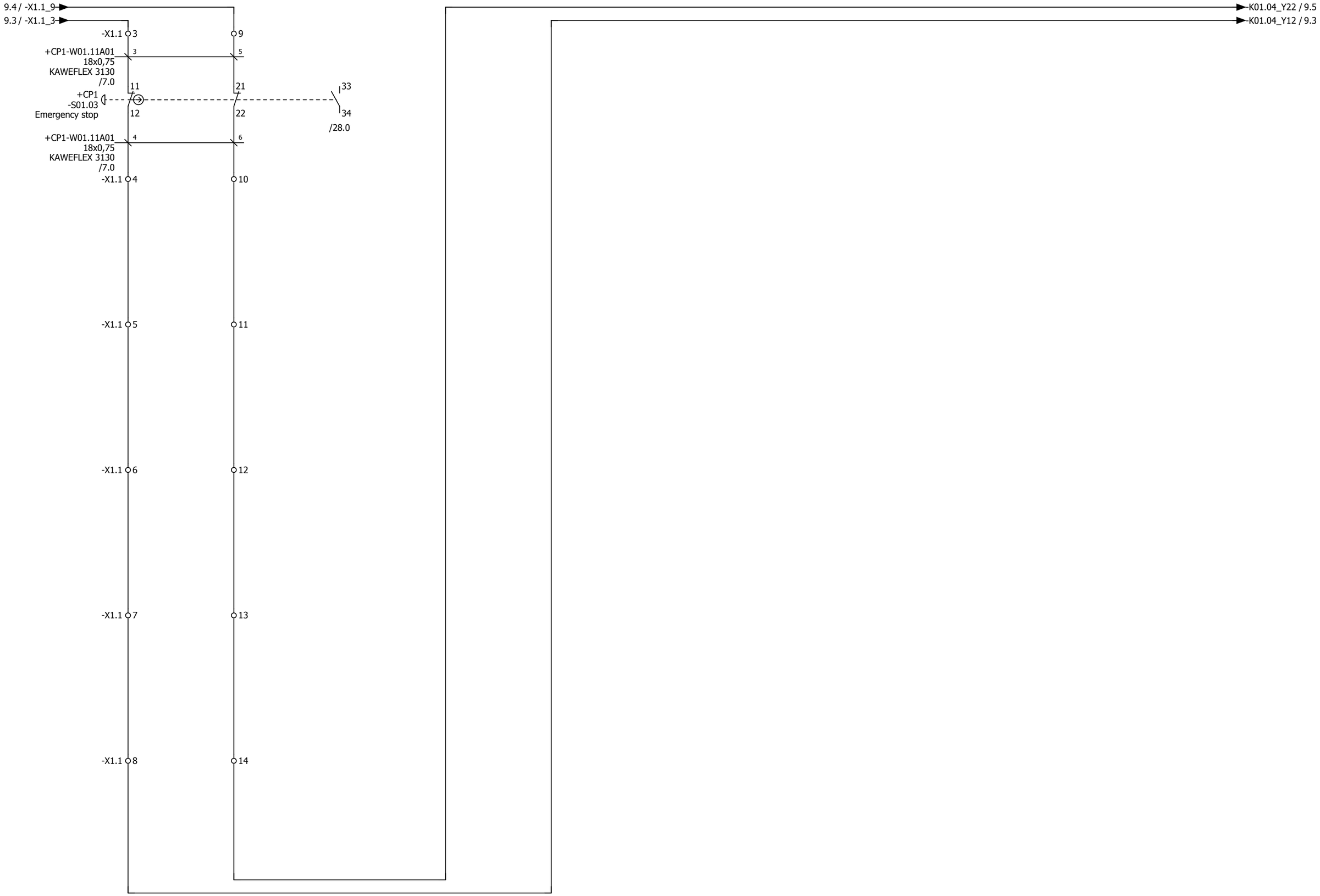
6.9 / 1L-

1L- / 9.0

Protection
cycle ON

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Protective circuit Signal ON	= 305
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 7
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER



			Date	03.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 8
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

Emergency stop chain

6.1 / -L01.04+

L01.04+ / 11.0

-X1.1 +1

-X1.1 +2

+CP1-W01.11A01 7
18x0,75
KAWEFLEX 3130
/7.0

-Q02.04K01 -Q01.04K01 /9.7

21
22
21
22

+CP1
-S01.03K01
ON

13
14

X1
X2

/7.1

+CP1-W01.11A01 8
18x0,75
KAWEFLEX 3130
/7.0

-X1.1 1

-X1.1 2

8.0
-X1.1_3

8.9
-K01.04_Y12

8.0
-X1.1_9

8.9
-K01.04_Y22

-K01.04
3TK2828-2BB41

A1(+) Y33 Y34 Y10 Y11 Y12 Y21 Y22 13 23 47 57 31

SIEMENS

1,5 2,1 1,2 0,6 2,7 0,05 3,0s

13 14 23 24 47 48 57 58 31 32

A2(-) PE 14 24 48 58 32

12.1 / -K03.04_1

30.0 / -A04.02_1E1

-Q01.04K01 A1 A2 -R01.04K01 x1 U x2

-Q02.04K01 A1 A2 -R02.04K01 x1 U x2

-X1.1 -6

-X1.1 -7

7.9 / -1L-

-1L- / 11.0

1 2 /3.8
3 4 /3.8
5 6 /3.8
21 22 /9.1

1 2 /3.8
3 4 /3.8
5 6 /3.8
21 22 /9.1

Safety module time-delayed
emergency-stop

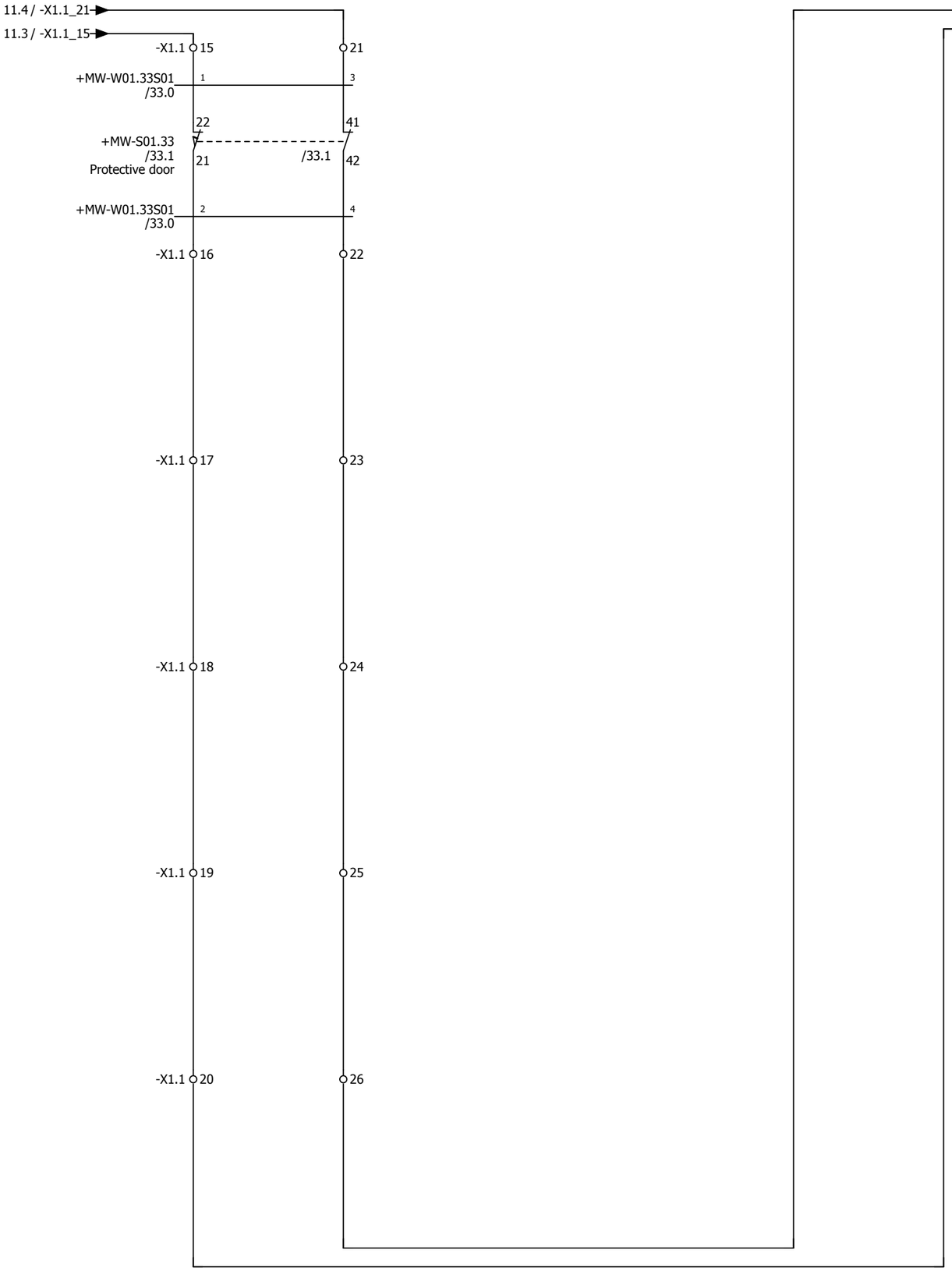
8

10

			Date	03.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 9
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

Safety module
Emergency stop



			Date	03.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 10
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER Door cycle chain

9.9 / -L01.04+

L01.04+ / 12.0

-X1.1 +3

-Q01.04K02 /11.7
21
22

-Q02.04K02 /11.7
21
22

-A01.91_X03_5
38.9

45.9
-K02.04_Y34

10.0
-X1.1_15

10.9
-K02.04_Y12

10.0
-X1.1_21

10.9
-K02.04_Y22

-K02.04
3TK2828-2BB41

A1(+) Y33 Y34 Y10 Y11 Y12 Y21 Y22 13 23 47 57 31

SIEMENS

1,5 2,1 1,2 0,6 2,7 0,05 3,0s

13 14 /12.3

23 24 /12.4

47 48

57 58

31 32

A2(-) PE 14 24 48 58 32

-Q01.04K02 A1 A2 -R01.04K02 x1 U x2

-Q02.04K02 A1 A2 -R02.04K02 x1 U x2

-X1.1 -8

9.9 / -1L-

-1L- / 12.0

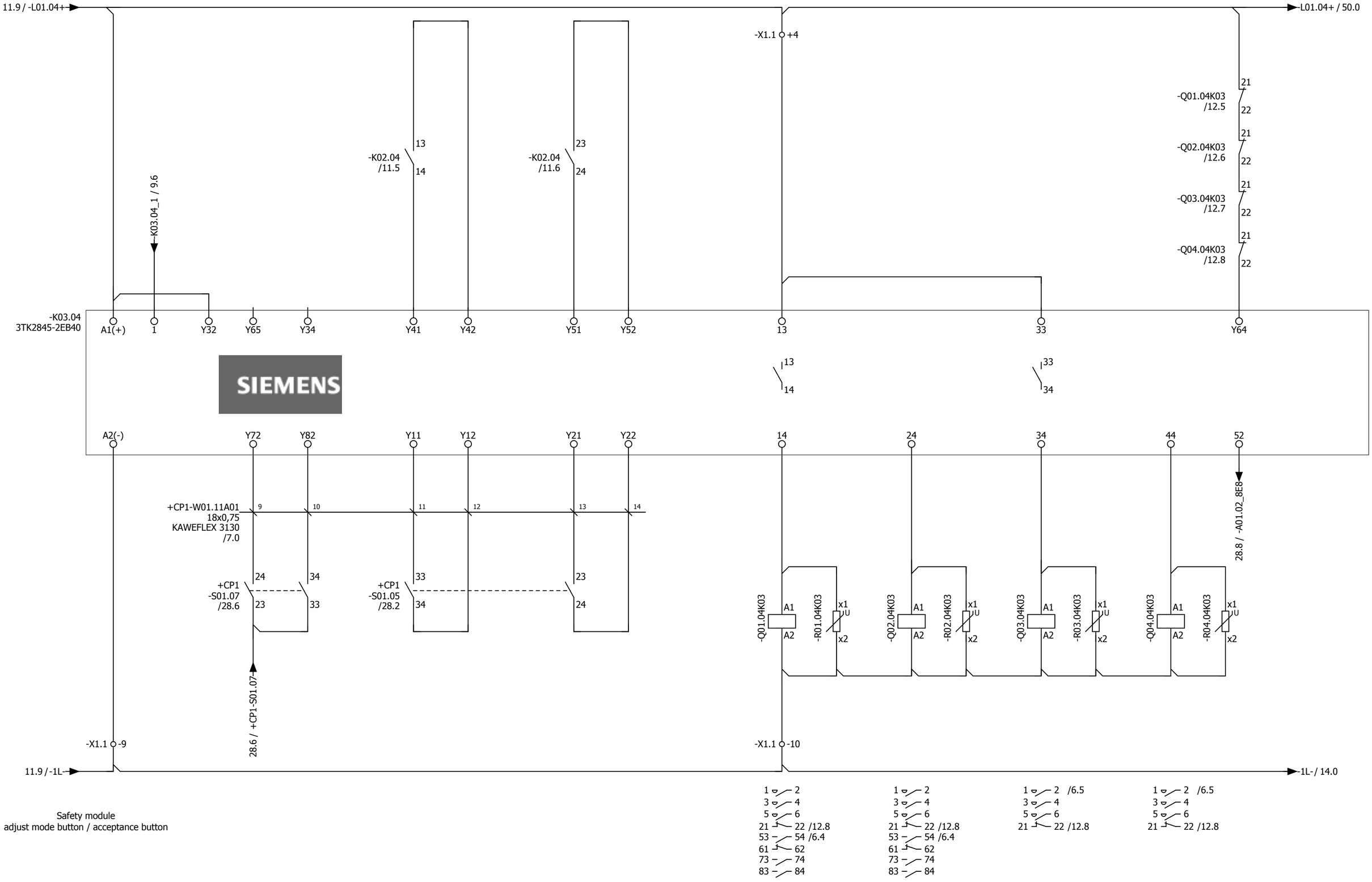
Safety module
protective door circuit chain

1	2	
3	4	
5	6	
21	22	/11.2
53	54	/6.6
61	62	
73	74	/6.7
83	84	

1	2	
3	4	
5	6	
21	22	/11.2
53	54	/6.6
61	62	
73	74	/6.7
83	84	

10

12



Safety module
adjust mode button / acceptance button

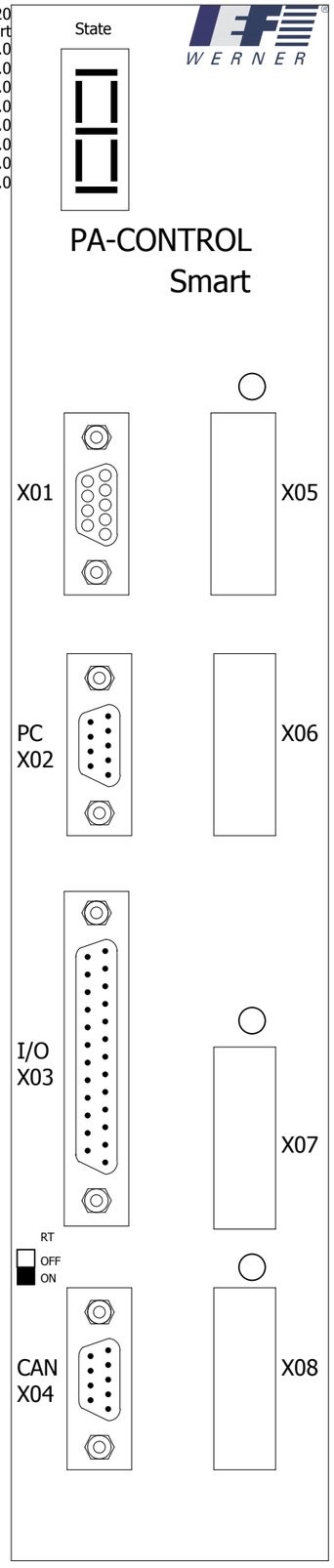
11

13

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	WERNER	Safety module door protective circuit adjust mode button / acceptance button
			Ed. by	Messmer			= 305 + CC1
			Appr				1078982 Page 12 Pg 106
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	

0	1	2	3	4	5	6	7	8	9

-A01.20
PA-CONTROL smart
/19.0
/20.0
/21.0
/14.0
/15.0
/16.0
/17.0
/18.0

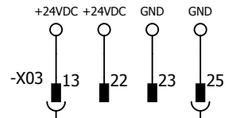


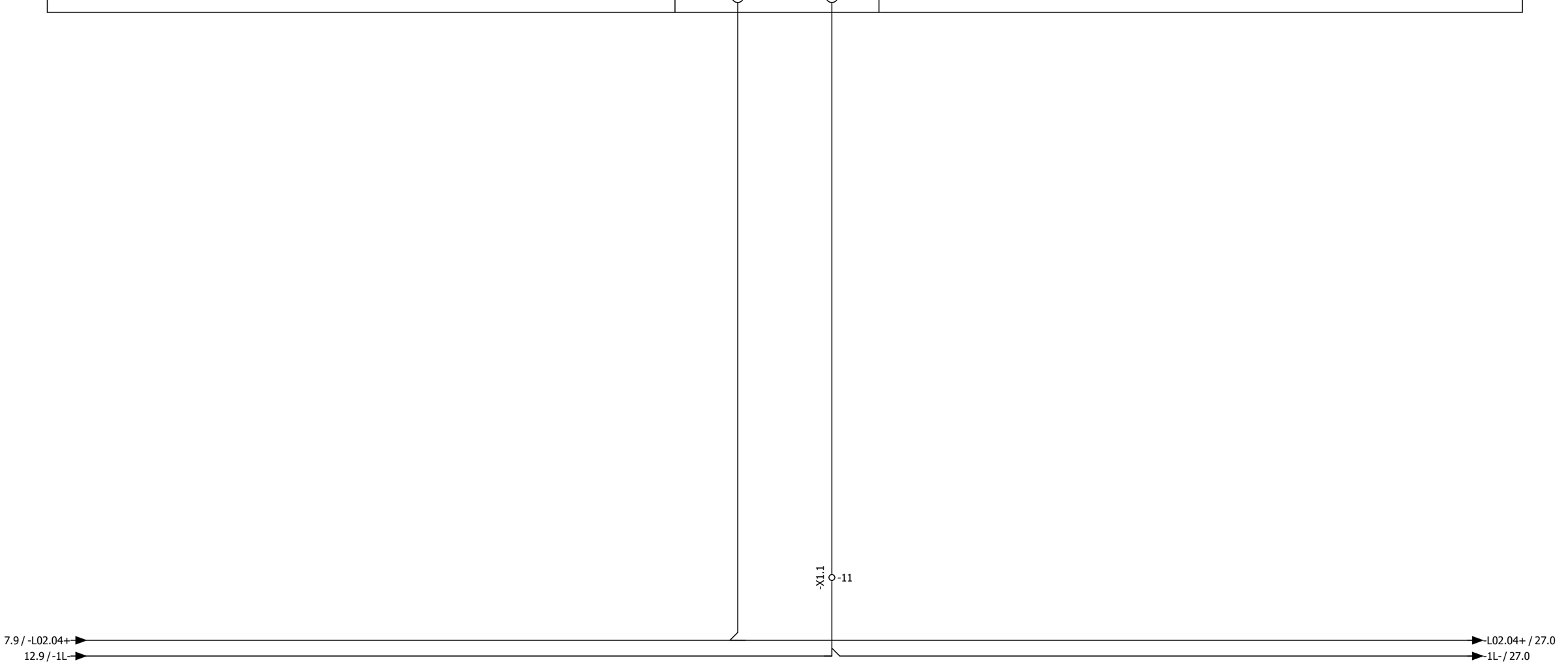
			Date	06.03.2009		PA-CONTROL smart Overview		= 305	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 13
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

-A01.20
/13.2

PA-CONTROL smart

Supply Voltage





			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart Voltage supply	= 305	
			Ed. by	Messmer				+ CC1	
			Appr				1078982	Page	14
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg	106

-A01.20
/13.2

PA-CONTROL smart

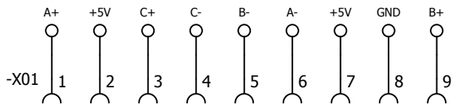
KONSOLE

DIAG

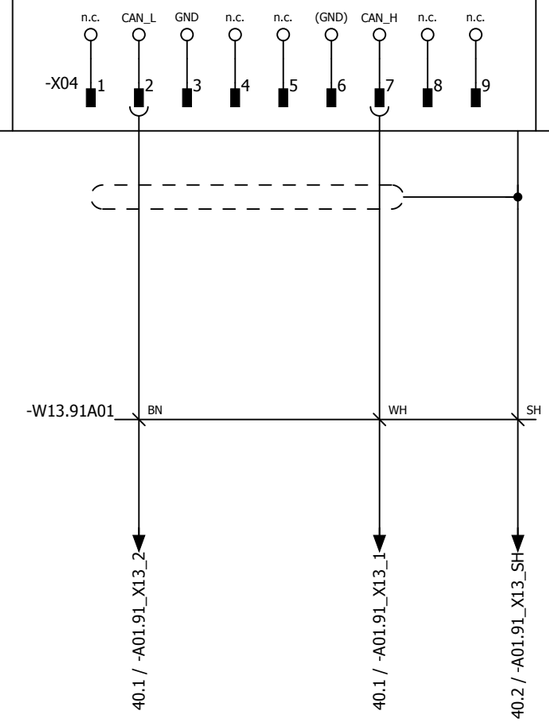
			Date	03.02.2009		PA-CONTROL smart PANEL / DIAG	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 15
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

PA-CONTROL smart

Counter interface



CAN Bus



			Date	04.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart counter interface / CAN Bus	= 305
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 16
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

0	1	2	3	4	5	6	7	8	9

-A01.20
/13.2
PA-CONTROL smart

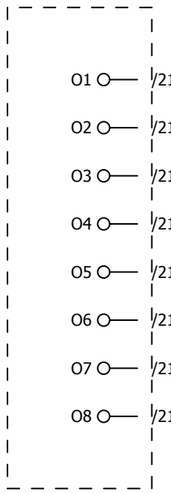
I1	/19.0	-A01.20-X03:1	Spare
I2	/19.2	-A01.20-X03:2	Spare
I3	/19.3	-A01.20-X03:3	Spare
I4	/19.4	-A01.20-X03:4	Spare
I5	/19.5	-A01.20-X03:5	Spare
I6	/19.6	-A01.20-X03:6	Spare
I7	/19.7	-A01.20-X03:7	Spare
I8	/19.8	-A01.20-X03:8	Spare
I9	/20.0	-A01.20-X03:9	Spare
I10	/20.2	-A01.20-X03:10	Spare
I11	/20.3	-A01.20-X03:11	Spare
I12	/20.4	-A01.20-X03:12	Spare

16 18

			Date	03.02.2009		PA-CONTROL smart Inputs overview I1-I12		= 305	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page	17
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg	106

0	1	2	3	4	5	6	7	8	9

-A01.20
/13.2
PA-CONTROL smart



O1	/21.0	-A01.20-X03:14	Spare
O2	/21.2	-A01.20-X03:15	Spare
O3	/21.3	-A01.20-X03:16	Spare
O4	/21.4	-A01.20-X03:17	Spare
O5	/21.5	-A01.20-X03:18	Spare
O6	/21.6	-A01.20-X03:19	Spare
O7	/21.7	-A01.20-X03:20	Spare
O8	/21.8	-A01.20-X03:21	Spare

17

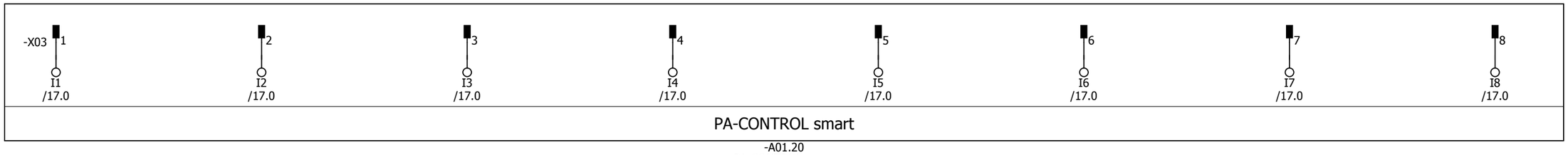
19

			Date	03.02.2009				= 305	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 18
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

WERNER

PA-CONTROL smart
Outputs overview
O1-O8

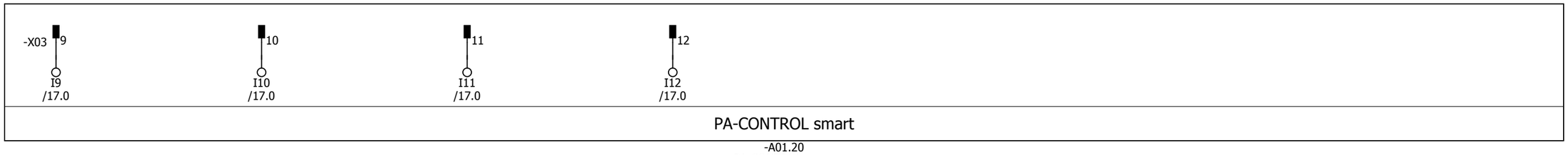
0	1	2	3	4	5	6	7	8	9



Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart I1-I8	= 305	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 19
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

0	1	2	3	4	5	6	7	8	9



Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare		

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart I9-I12	= 305	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 20
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

/13.2
PA-CONTROL smart
-A01.20

PA-CONTROL smart

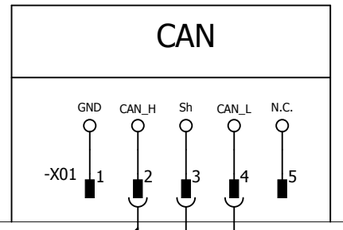
/18.0 O1	/18.0 O2	/18.0 O3	/18.0 O4	/18.0 O5	/18.0 O6	/18.0 O7	/18.0 O8
-X03 14	15	16	17	18	19	20	21
Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare

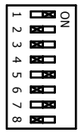
			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		PA-CONTROL smart O1-O8	= 305
			Ed. by	Messmer				+ CC1
			Appr				1078982	Page 21
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A01.62
/27.0

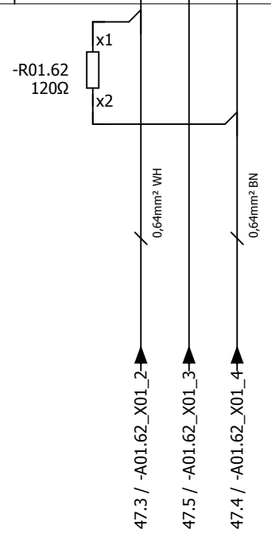
BK5120

Bus address:17

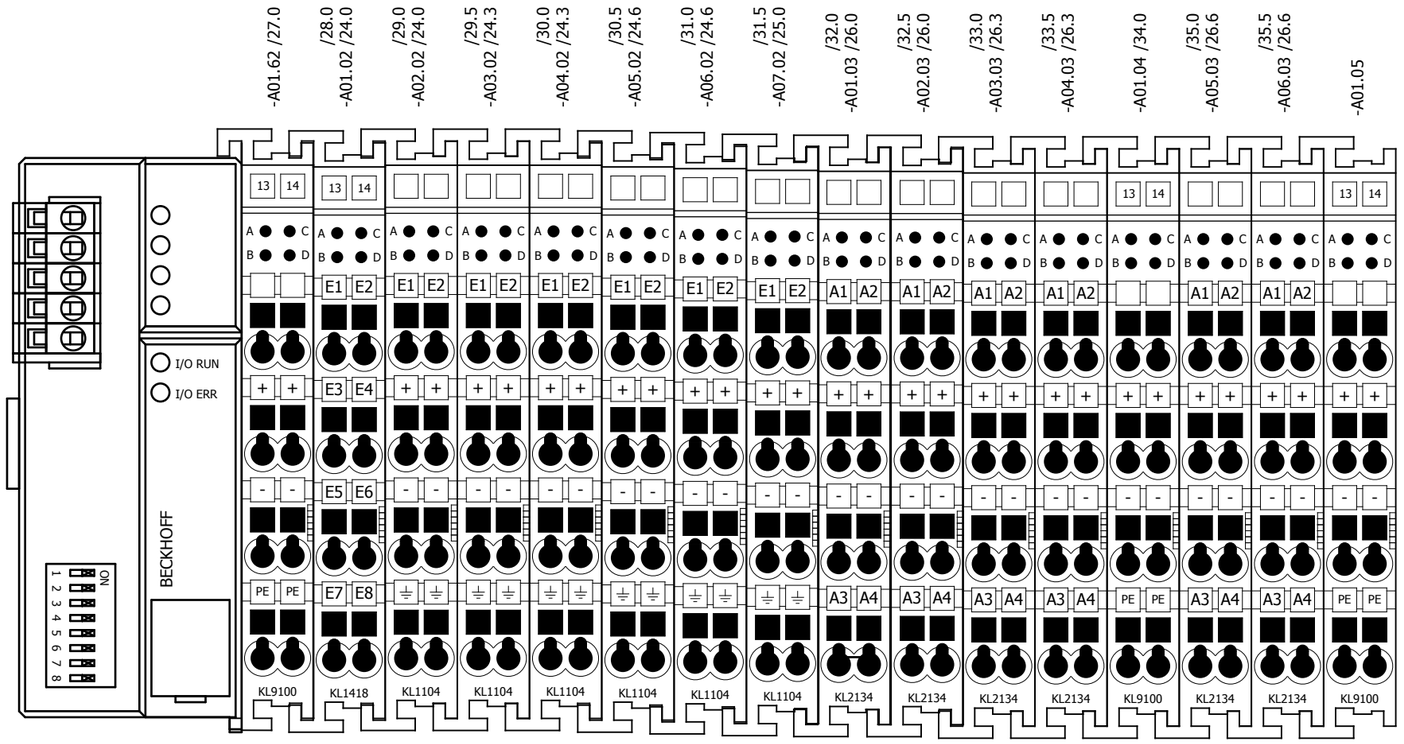




Baud rate 500kB



			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Beckhoff BK5120 bus connection	= 305	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 22
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106



			Date	03.02.2009				= 305
			Ed. by	Messmer				+ CC1
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX	Overview Beckhoff bus connection	1078982	Page 23
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

0	1	2	3	4	5	6	7	8	9

-A01.02
/28.0

I1025 IN 1E1	/28.0	+CP1-S01.03	Emergency halt pressed operator panel		
I1026 IN 5E2	/28.2	+CP1-S01.05	Confirmation button		
I1027 IN 2E3	/28.3	+CP1-S01.04	Automatic Mode (I)		
I1028 IN 6E4	/28.4	+CP1-S01.04	Adjust mode (0)		
I1029 IN 3E5	/28.5	+CP1-S01.04	Step Mode (II)		
I1030 IN 7E6	/28.6	+CP1-S01.07	Bridge protective doors		
I1031 IN 4E7	/28.7		Spare		
I1032 IN 8E8	/28.8	-K03.04:52	Safety module adjust mode-/acceptance button		

-A02.02
/29.0
KL1104

I1033 1E1	/29.0	+MW-S01.33	Protective door open		
2+	/29.1		Protective door open		
3-	/29.1		Protective door open		
I1034 5E2	/29.2		Spare		
I1035 4E3	/29.3		Spare		
6+	/29.3		Spare		
7-	/29.4		Spare		
I1036 8E4	/29.4		Spare		

-A03.02
/29.5
KL1104

I1037 1E1	/29.5		Spare		
2+	/29.5		Spare		
3-	/29.6		Spare		
I1038 5E2	/29.6		Spare		
I1039 4E3	/29.8		Spare		
6+	/29.8		Spare		
7-	/29.8		Spare		
I1040 8E4	/29.9		Spare		

-A04.02
/30.0
KL1104

I1041 IN 1E1	/30.0	-K01.04:24	Safety module emergency-stop ON		
DC24V 2+	/30.1		Safety module emergency-stop ON		
M 3-	/30.1		Safety module emergency-stop ON		
I1042 IN 5E2	/30.2		Spare		
I1043 IN 4E3	/30.3	-F02.00	Spare		
DC24V 6+	/30.3		Spare		
M 7-	/30.4		Spare		
I1044 IN 8E4	/30.4	-F01.00	Fuse protection 24V I.O.		

-A05.02
/30.5
KL1104

I1045 IN 1E1	/30.5	+HGE-S01.10	Spare		
DC24V 2+	/30.5		Spare		
M 3-	/30.6		Spare		
I1046 IN 5E2	/30.6	+HGA-S01.10	Spare		
I1047 IN 4E3	/30.8	+TIS-S01.10	Spare		
DC24V 6+	/30.8		Spare		
M 7-	/30.8		Spare		
I1048 IN 8E4	/30.9	+TIS-S02.10	Spare		

-A06.02
/31.0
KL1104

I1049 IN 1E1	/31.0		Spare		
DC24V 2+	/31.1		Spare		
M 3-	/31.1		Spare		
I1050 IN 5E2	/31.2		Spare		
I1051 IN 4E3	/31.3		Spare		
DC24V 6+	/31.3		Spare		
M 7-	/31.4		Spare		
I1052 IN 8E4	/31.4		Spare		

			Date	03.02.2009		Inputs overview I1025-1052	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 24
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

0	1	2	3	4	5	6	7	8	9

-A07.02
/31.5

IN 1E1 I1053	/31.5	+PWE-S01.10	Spare
DC24V 2+	/31.5		Spare
M 3-	/31.6		Spare
IN 5E2 I1054	/31.6	+PWA-S01.10	Spare
IN 4E3 I1055	/31.8		Spare
DC24V 6+	/31.8		Spare
M 7-	/31.8		Spare
IN 8E4 I1056	/31.9		Spare

			Date	03.02.2009		Inputs overview I1053-1056		= 305	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page	25
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg	106

0	1	2	3	4	5	6	7	8	9

-A01.03
/32.0

OUT O1025 1A1	/32.0	-H01.00	Operation Mode (Signal lights)	
DC24V 2+	/32.1		Operation Mode (Signal lights)	
M 3-	/32.1		Operation Mode (Signal lights)	
OUT O1026 5A2	/32.2	-H02.00	Level (Signal lights)	
OUT O1027 4A3	/32.3	-H03.00	Error (Signal lights)	
DC24V 6+	/32.3		Error (Signal lights)	
M 7-	/32.4		Error (Signal lights)	
OUT O1028 8A4	/32.4		Spare	

-A02.03
/32.5

OUT O1029 1A1	/32.5		Spare	
DC24V 2+	/32.5		Spare	
M 3-	/32.6		Spare	
OUT O1030 5A2	/32.6		Spare	
OUT O1031 4A3	/32.8		Spare	
DC24V 6+	/32.8		Spare	
M 7-	/32.8		Spare	
OUT O1032 8A4	/32.9		Spare	

-A03.03
/33.0

OUT O1033 1A1	/33.0	+MW-S01.33	Close Protective door	
DC24V 2+	/33.1		Close Protective door	
M 3-	/33.1		Close Protective door	
OUT O1034 5A2	/33.2		Spare	
OUT O1035 4A3	/33.3		Spare	
DC24V 6+	/33.3		Spare	
M 7-	/33.4		Spare	
OUT O1036 8A4	/33.4		Spare	

-A04.03
/33.5

OUT O1037 1A1	/33.5		Spare	
DC24V 2+	/33.5		Spare	
M 3-	/33.6		Spare	
OUT O1038 5A2	/33.6		Spare	
OUT O1039 4A3	/33.8		Spare	
DC24V 6+	/33.8		Spare	
M 7-	/33.8		Spare	
OUT O1040 8A4	/33.9		Spare	

-A05.03
/35.0

OUT O1041 1A1	/35.0		Spare	
DC24V 2+	/35.1		Spare	
M 3-	/35.1		Spare	
OUT O1042 5A2	/35.2		Spare	
OUT O1043 4A3	/35.3		Spare	
DC24V 6+	/35.3		Spare	
M 7-	/35.4		Spare	
OUT O1044 8A4	/35.4		Spare	

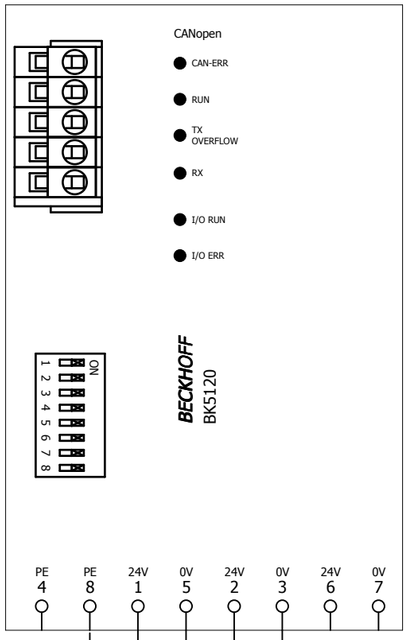
-A06.03
/35.5

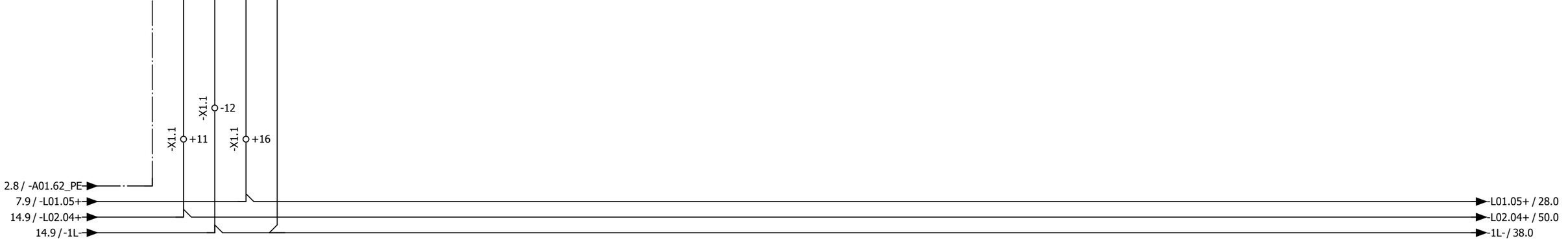
OUT O1045 1A1	/35.5		Spare	
DC24V 2+	/35.5		Spare	
M 3-	/35.6		Spare	
OUT O1046 5A2	/35.6		Spare	
OUT O1047 4A3	/35.8		Spare	
DC24V 6+	/35.8		Spare	
M 7-	/35.8		Spare	
OUT O1048 8A4	/35.9		Spare	

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		= 305	
			Ed. by	Messmer		Outputs overview O1025-1048	+ CC1	
			Appr				1078982	Page 26
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

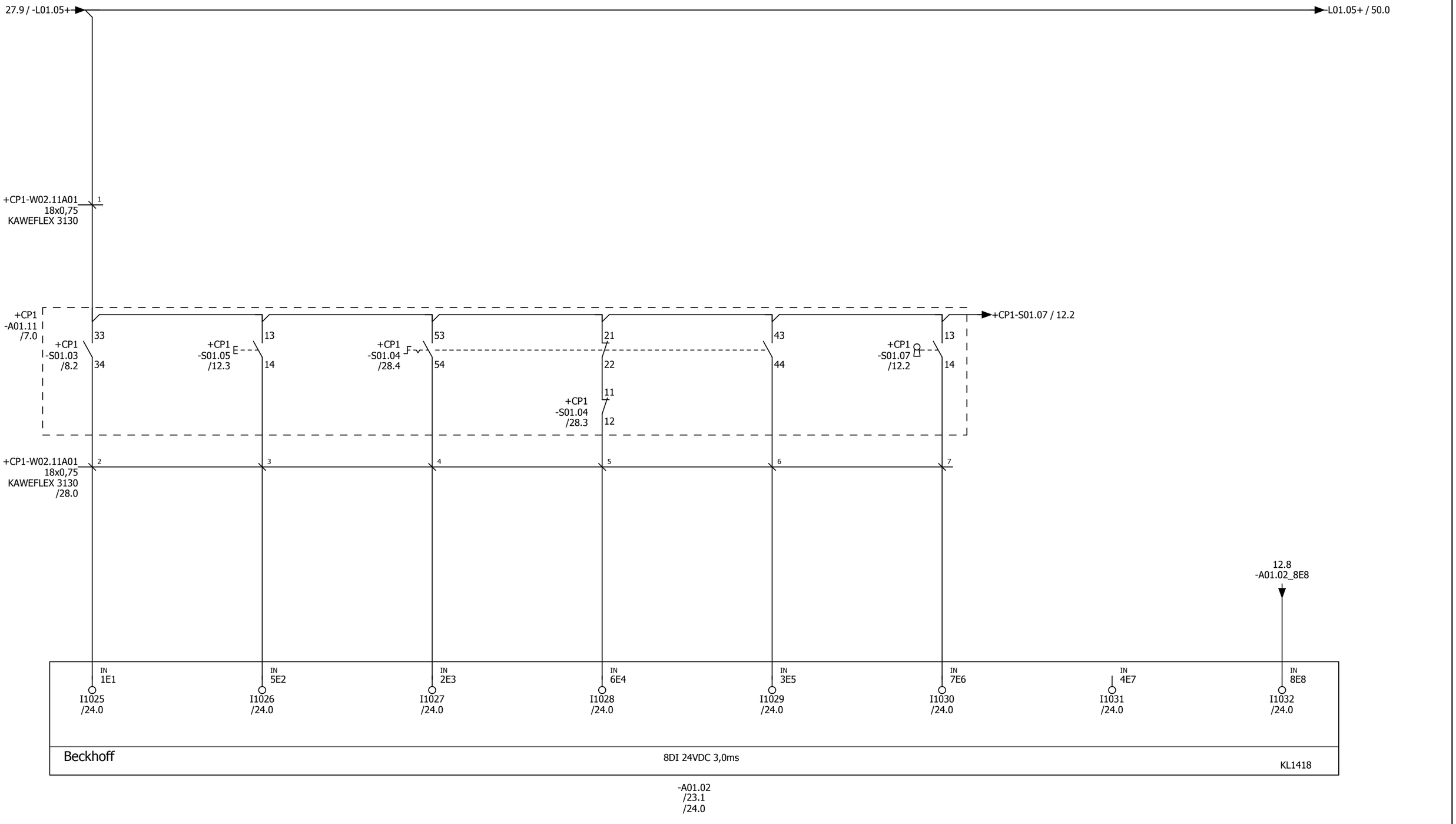
0	1	2	3	4	5	6	7	8	9

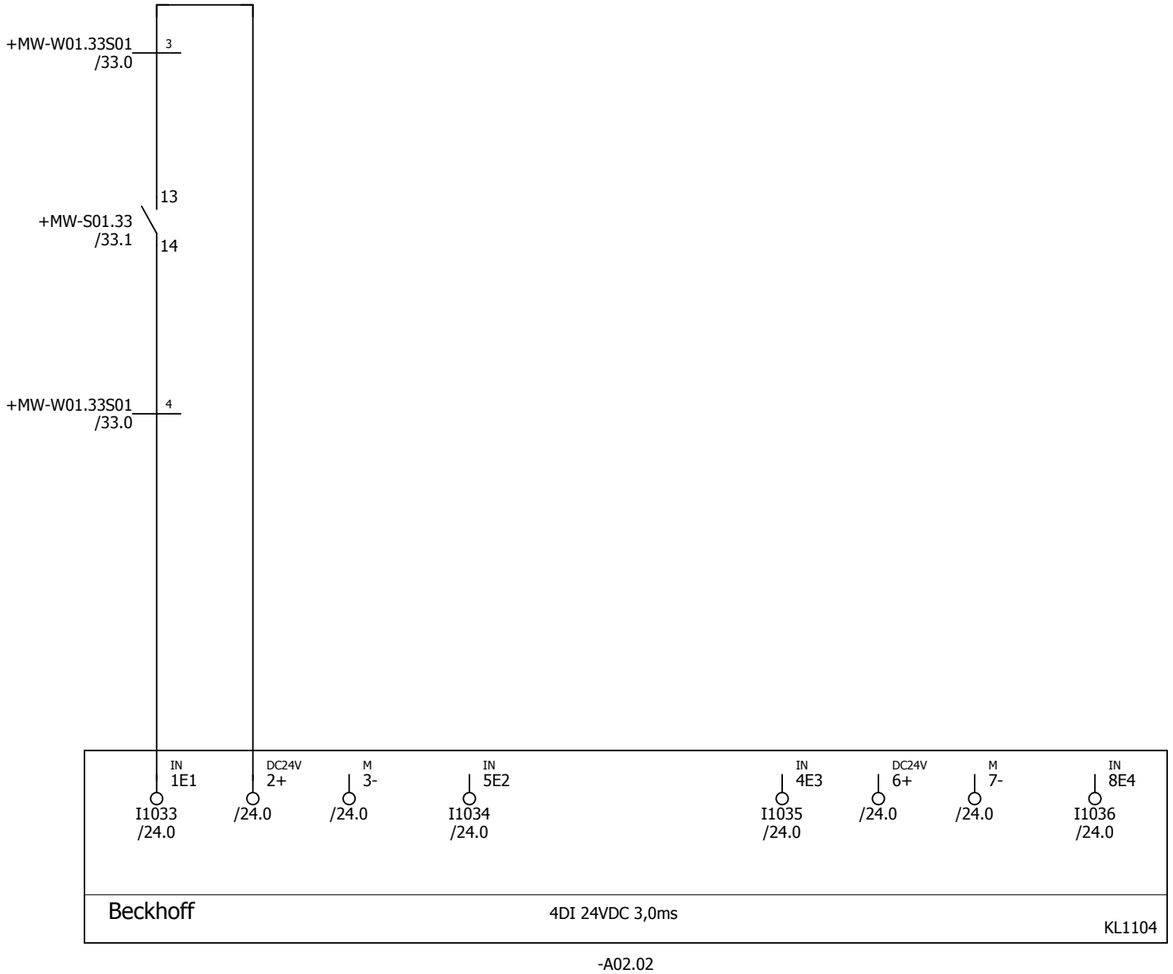
-A01.62
/22.0
/23.1





			Date	03.02.2009				= 305	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 27
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	WERNER Beckhoff BK5120 Supply voltage		Pg 106

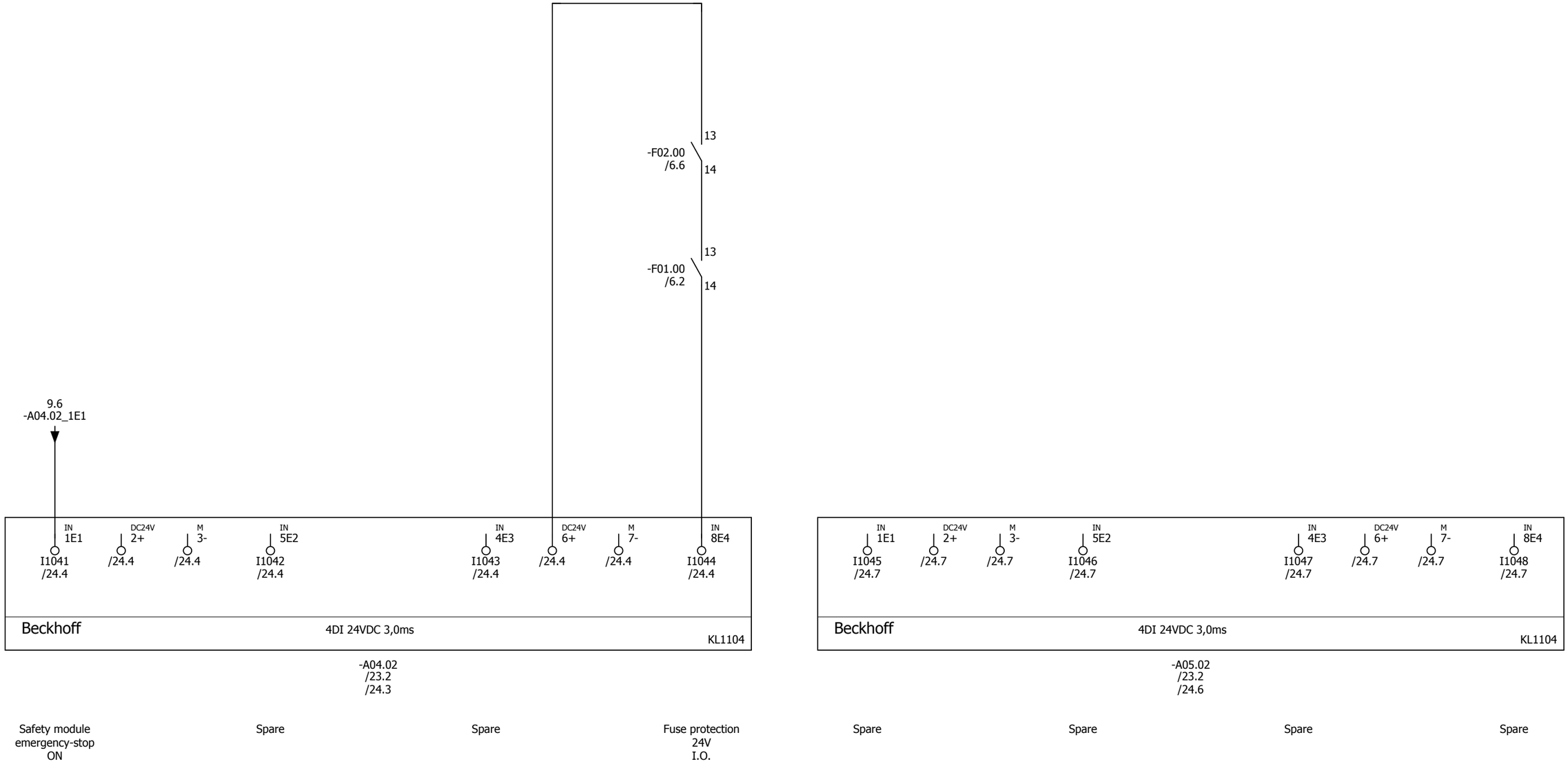

27.9 / -L01.05+
L01.05+ / 50.0
+CP1-W02.11A01
18x0,75
KAWEFLEX 3130
1
+CP1
-A01.11
/7.0
+CP1-S01.07 / 12.2
+CP1
-S01.03
/8.2
33
34
+CP1
-S01.05
/12.3
E
13
14
+CP1
-S01.04
/28.4
F
53
54
+CP1
-S01.04
/28.3
21
22
11
12
43
44
+CP1
-S01.07
/12.2
13
14
+CP1-W02.11A01
18x0,75
KAWEFLEX 3130
/28.0
2
3
4
5
6
7
12.8
-A01.02_8E8
IN
1E1
I1025
/24.0
IN
5E2
I1026
/24.0
IN
2E3
I1027
/24.0
IN
6E4
I1028
/24.0
IN
3E5
I1029
/24.0
IN
7E6
I1030
/24.0
IN
4E7
I1031
/24.0
IN
8E8
I1032
/24.0
Beckhoff
8DI 24VDC 3,0ms
KL1418
-A01.02
/23.1
/24.0
Emergency
halt pressed
operator panel
Confirmation
button
Automatic Mode (I)
Adjust mode (0)
Step Mode
(II)
Bridge protective
doors
Spare
Safety module
adjust
mode-/acceptance button



			Date	03.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 29
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

Inputs connection
I1032-1039



			Date	03.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX	Inputs connection I1040-1047	1078982	Page 30
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

0	1	2	3	4	5	6	7	8	9

-A06.02
/23.3
/24.6

Spare | Spare | Spare | Spare

-A07.02
/23.3
/25.0

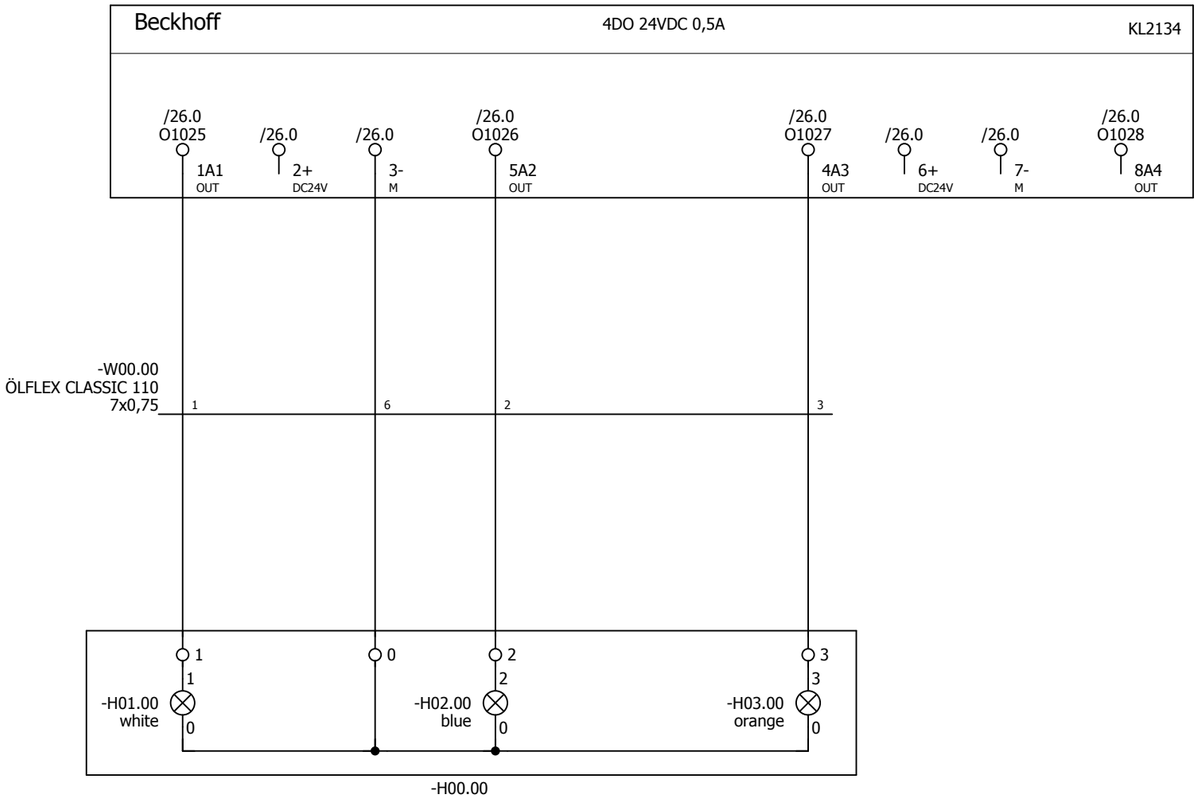
Spare | Spare | Spare | Spare

			Date	03.02.2009				= 305	
			Ed. by	Messmer				+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 31
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

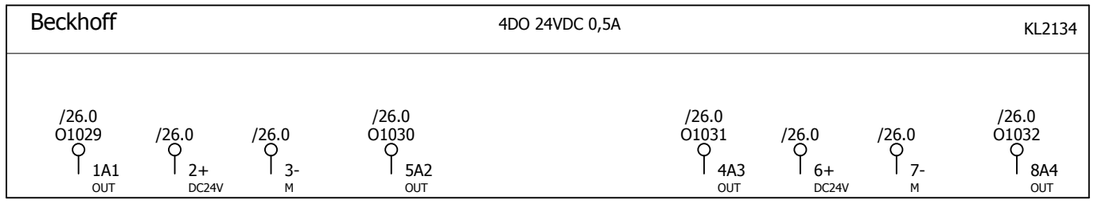
WERNER

Inputs connection
I1048-1055

/23.3
/26.0
-A01.03



/23.4
/26.0
-A02.03



Operation Mode (Signal lights)	Level (Signal lights)	Error (Signal lights)	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 32
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

WERNER

Outputs connection
O1025-1032

/23.4
/26.3
-A03.03

Beckhoff 4DO 24VDC 0,5A KL2134

/26.4 O1033	/26.4	/26.4	/26.4 O1034	/26.4 O1035	/26.4	/26.4	/26.4 O1036
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

/23.4
/26.3
-A04.03

Beckhoff 4DO 24VDC 0,5A KL2134

/26.4 O1037	/26.4	/26.4	/26.4 O1038	/26.4 O1039	/26.4	/26.4	/26.4 O1040
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

+MW-W01.33S01 7
12x0,75
ÖLFLEX CLASSIC 110

+MW-S01.33

11	22	42	51	71	13	63
12	21	41	52	72	14	64

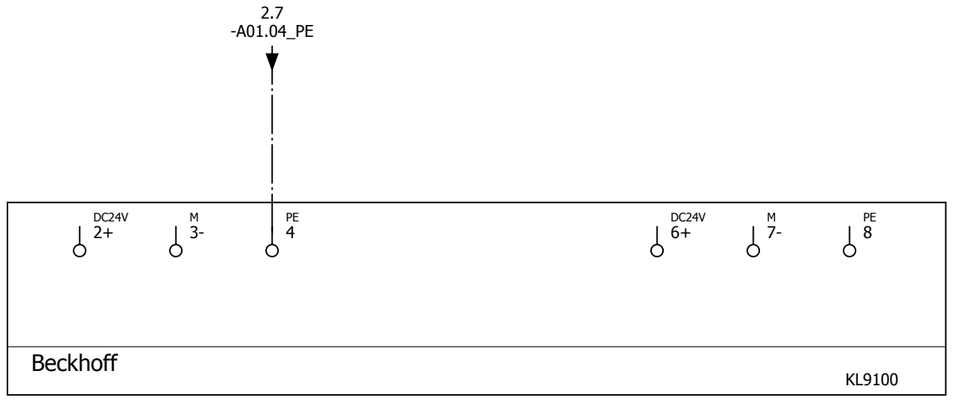
/10.1 /10.2 /29.0

+MW-W01.33S01 8
12x0,75
ÖLFLEX CLASSIC 110
/33.0

Close Protective door	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009			Outputs connection O1033-1040		= 305
			Ed. by	Messmer					+ CC1
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX			1078982	Page 33
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

0	1	2	3	4	5	6	7	8	9



-A01.04
/23.4

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Supply clamp	= 305	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 34
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

/23.5
/26.6
-A05.03

Beckhoff — 4DO 24VDC 0,5A — KL2134

/26.7 O1041	/26.7	/26.7	/26.7 O1042	/26.7 O1043	/26.7	/26.7	/26.7 O1044
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

/23.5
/26.6
-A06.03

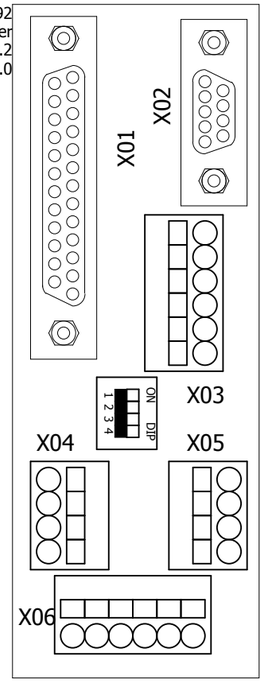
Beckhoff — 4DO 24VDC 0,5A — KL2134

/26.7 O1045	/26.7	/26.7	/26.7 O1046	/26.7 O1047	/26.7	/26.7	/26.7 O1048
1A1 OUT	2+ DC24V	3- M	5A2 OUT	4A3 OUT	6+ DC24V	7- M	8A4 OUT

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		Outputs connection O1041-1048	= 305	
			Ed. by	Messmer				+ CC1	
			Appr					1078982	Page 35
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by			Pg 106

-A01.92
LV servoTEC S2 IO-adapter
/38.2
/42.0



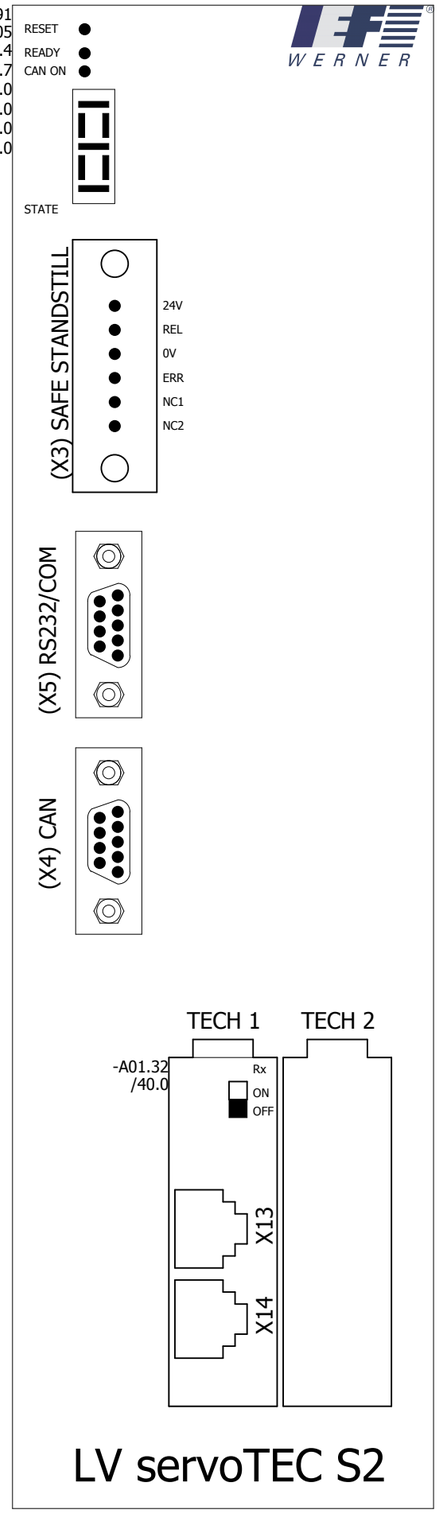
Offset-address			
	0		8
	1		9
	2		10
	3		11
	4		12
	5		13
	6		14
	7		15

Fieldbus	Base address (is set withS2 Commander)
CAN Open	Base Node number
Profibus	Slave-address
SERCOS	Drive-address

Bus address calculation: Bus-address = Base address + Offset-address

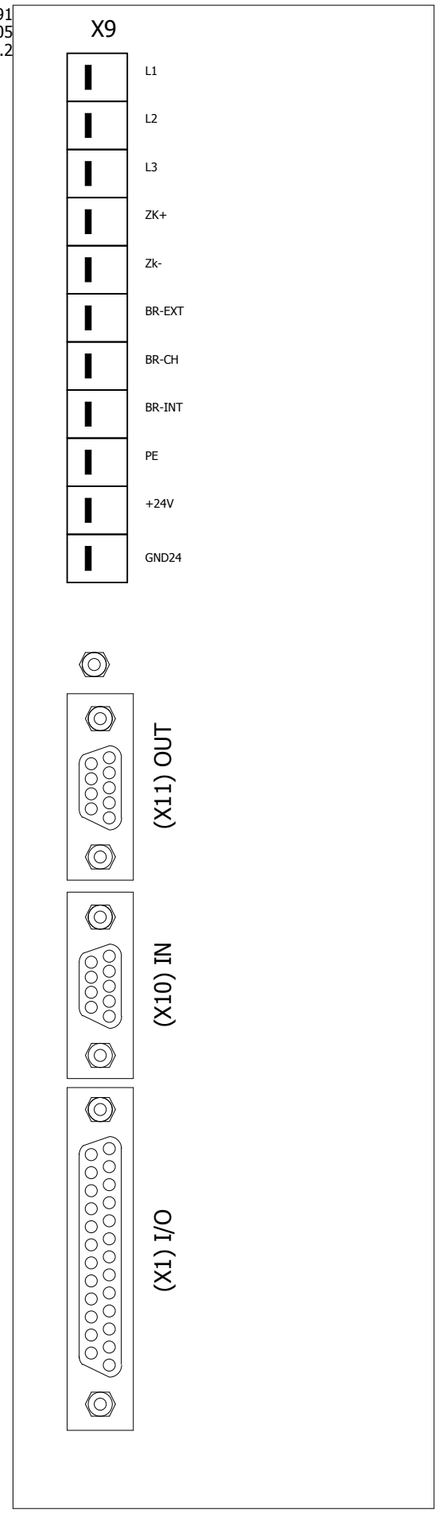
front

-A01.91
LV servoTEC_S2_305
/37.4
/37.7
/39.0
/40.0
/38.0
/41.0



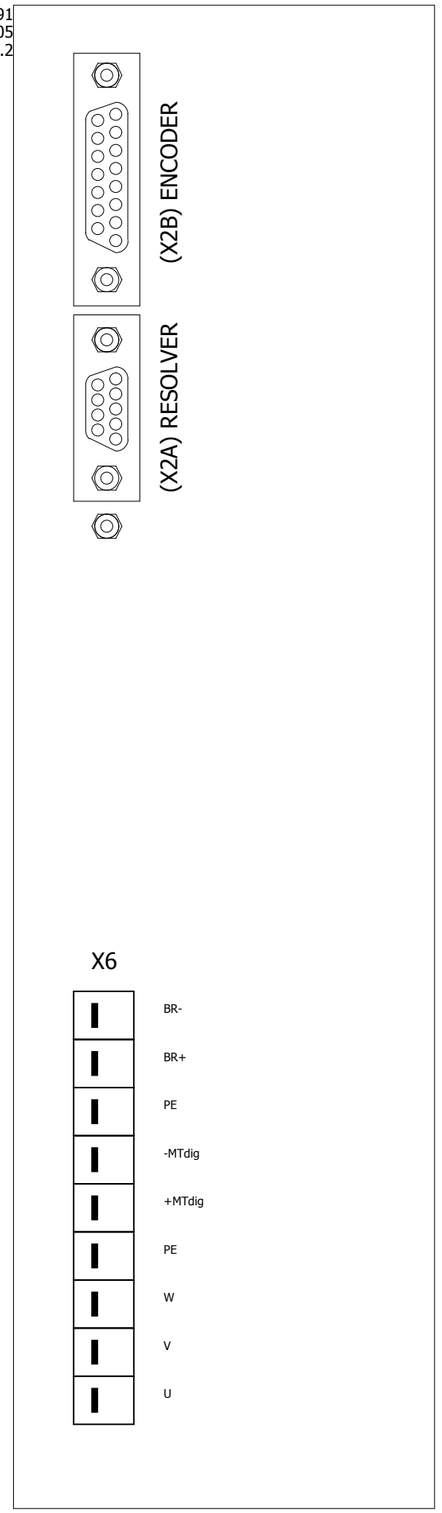
on top

-A01.91
LV servoTEC_S2_305
/37.2



below

-A01.91
LV servoTEC_S2_305
/37.2



			Date	04.02.2009		A1 LV servoTEC_S2_305 Overview	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 37
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A01.91
/37.2

LV servoTEC S2

Supply voltage [X09]

Schutzerdung

-X09: L (1) | L2 (2) | L3 (3) | ZK+ (4) | ZK- (5) | BR-EXT (6) | BR-CH (7) | BR-INT (8) | PE (9) | +24V (10) | GND24V (11)

2.3 / -A01.91_PE
5.1 / -A01.91_X09_1
5.1 / -A01.91_X09_2
5.1 / -A01.91_X09_3
5.1 / -A01.91_X09_9

I/O-communication [X01]

-X01: AGND (1) | AGND (14) | AINO (2) | #AINO (15) | AIN1 (3) | AIN2 (16) | +VREF (4) | AMON0 (17) | AMON1 (5) | +24V (18) | GND24 (6) | DIN0 (19) | DIN1 (7) | DIN2 (20) | DIN3 (8) | Power supply Release DIN4 (21) | Regulator Release DIN5 (9) | END. NEG. DIN6 (22) | END. POS. DIN7 (10) | REF. DIN8 (23) | DIN9 (11) | READY DOUT0 (24) | DOUT1 (12) | DOUT2 (25) | DOUT3 (13)

-W01.92A01: VT 0,14 | BK 0,14 | GY 0,14 | BN 0,14 | WH 0,14 | RD 0,14 | WH BK 0,14 | RD 0,14 | WH BN 0,14 | OG 0,14 | WH RD 0,14 | YE 0,14 | WH OG 0,14 | GN 0,14 | WH YE 0,14 | BU 0,14

-A01.92
/36.2

-X01: 1 | 14 | 2 | 15 | 3 | 16 | 4 | 17 | 5 | 18 | 6 | 19 | 7 | 20 | 8 | 21 | 9 | 22 | 10 | 23 | 11 | 24 | 12 | 25 | 13

n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | +24V | GND24 | DIN0 | DIN1 | DIN2 | DIN3 | DIN4 | DIN5 | DIN6 | DIN7 | DIN8 | DIN9 | DOUT0 | DOUT1 | DOUT2 | DOUT3

I/O-communication

Safe Standstill [X03]

-X03: 24V (1) | REL (2) | 0V (3) | ERR (4) | NC1 (5) | NC2 (6)

11.2 / -A01.91_X03_5
45.9 / -A02.91_X03_5

LV servoTEC S2 IO-Adapter

Supply / release IN

-X04: +24V (+) | GND (0) | Endstufen Freigabe (EF) | Regler Freigabe (RF)

I/O

-X06: PE | DIN9 (I9) | DOUT0 (O0) | DOUT1 (O1) | DOUT2 (O2) | DOUT3 (O3)

2.5 / -A01.92_X06_1

Supply / release OUT

-X05: Regulator Release (RF) | Power supply Release (EF) | GND (0) | +24V (+)

45.3 / -A02.92_X04_4
45.3 / -A02.92_X04_3
45.3 / -A02.92_X04_2
45.3 / -A02.92_X04_1

-X1.1 +36
-X1.1 +37
-X1.1 +30
-X1.1 +21
-X1.1 -13
-X1.1 +31

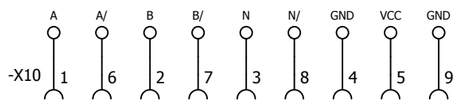
7.9 / -L01.06+ → L01.06+ / 50.0
6.7 / -L01.91+ → L01.91+ / 45.0
6.8 / -L02.91+ → L02.91+ / 45.0
27.9 / -1L → 1L- / 45.0

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	A1 LV servoTEC S2 Supply voltage	= 305
			Ed. by	Messmer			+ CC1
			Appr			1078982	Page 38
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by		Pg 106

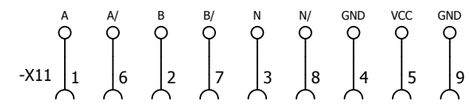
-A01.91
/37.2

LV servoTEC S2

Incremental encoder Input [X10]



Incremental encoder Output [X11]



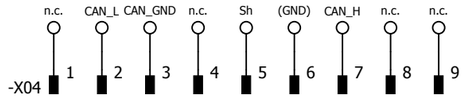
			Date	03.02.2009		A1 LV servoTEC S2 Incremental encoder	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 39
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A01.91
/37.2

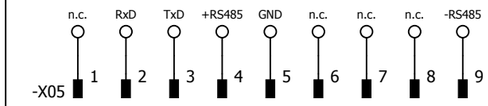
LV servoTEC S2

Bus address DP:17

CAN [X04]



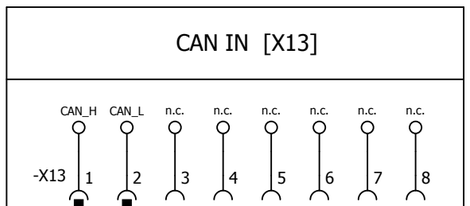
RS232/COM [X05]



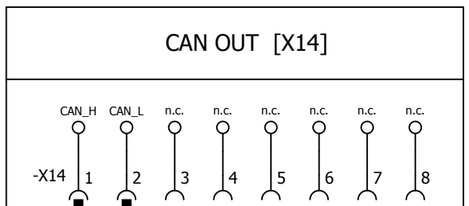
-A01.91-A01.32
/37.2

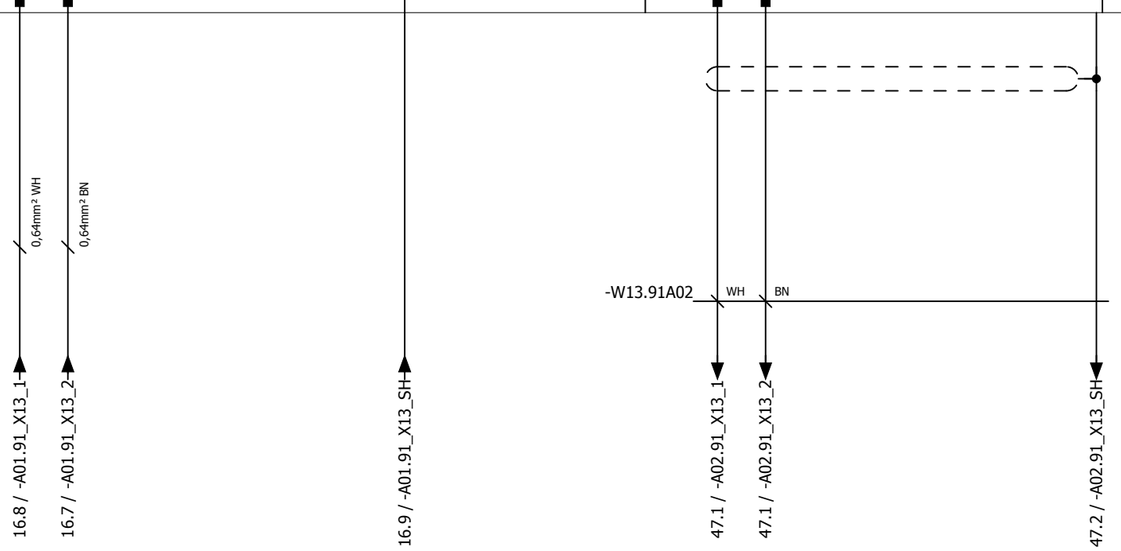
Terminating resistor

CAN IN [X13]



CAN OUT [X14]





			Date	03.02.2009		A1 LV servoTEC S2 CAN / RS232	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 40
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A01.91
/37.2

LV servoTEC S2

Motor connection [X06]

-X06: PE 6 | U2 9 | V2 8 | W2 7 | BR- 1 | BR+ 2 | -MTdig 4 | +Mtdig 5 | PE 3

PE

SH1

SH

-W01.51M01 /41.0 9 m

-W01.51M01: GNYE U | V | W | BN2 | BN1

-M01.51

-X01: PE PE | U U | V V | W W | B B | A A

Motor

Resolver connection [X02A]

-X02A: Mt+ 5 | Mt- 8 | R1 4 | R2 9 | SINUS- 6 | SINUS+ 1 | COS- 7 | COS+ 2 | AGND 3

Encoder connection [X02B]

-X02B: #COS 7 | COS 14 | #SIN 8 | SIN 15 | DATA 12 | #DATA 5 | SCLK 13 | #SCLK 6 | U_SENS+ 9 | U_SENS- 2 | US 10 | GND 3 | MT+ 1 | n.c. 11 | n.c. 4

SH

-W02.51M01 /41.6

-W02.51M01: WH 0,25 | BN 0,25 | GN 0,25 | YE 0,25 | GY 0,25 | PK 0,25 | BU 0,25 | RD 0,25 | BK 0,25 | VT 0,25 | GYPK 0,25 | RDBU 0,25 | WHGN 0,25 | BNGN 0,25

-X02: 9 COS B+ | 1 COS B- | 11 SIN A+ | 3 SIN A- | 13 #DATA | 5 DATA | 15 #CLOCK | 8 CLOCK | 10 0V | 12 Up | 2 0V | 4 Up | 7 Thermo | 14 Thermo

Sinus-Cosinus Encoder

40

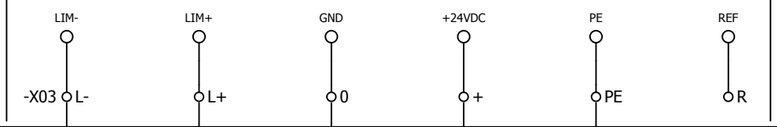
42

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		A1 LV servoTEC S2 Motor connection	= 305 + CC1
			Ed. by	Messmer				
			Appr				1078982	Page 41
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

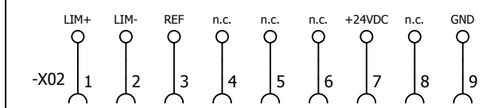
-A01.92
/36.2

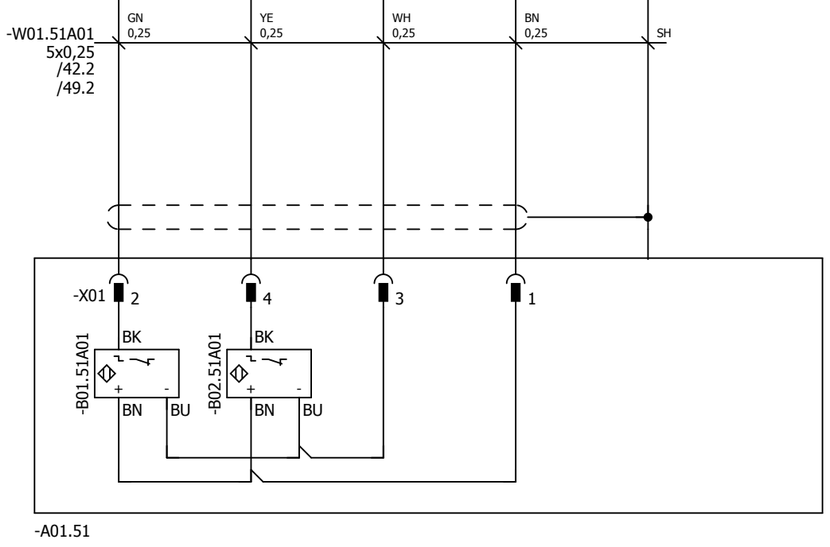
LV servoTEC S2 IO-Adapter

Limit switch [X03]



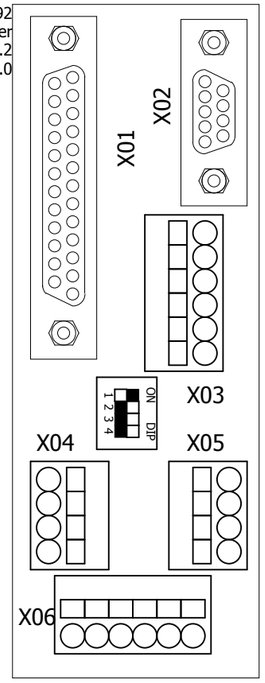
Limit switch [X02]





			Date	03.02.2009		A1 LV servoTEC S2 Axis limit switch		= 305
			Ed. by	Messmer				+ CC1
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 42
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A02.92
LV servoTEC S2 IO-adapter
/45.2
/49.0



Offset-address			
	0		8
	1		9
	2		10
	3		11
	4		12
	5		13
	6		14
	7		15

Fieldbus	Base address (is set withS2 Commander)
CAN Open	Base Node number
Profibus	Slave-address
SERCOS	Drive-address

Bus address calculation: Bus-address = Base address + Offset-address

front

-A02.91
LV servoTEC_S2_305
/44.4
/44.7
/46.0
/47.0
/45.0
/48.0

RESET
READY
CAN ON

STATE

(X3) SAFE STANDSTILL
24V
REL
0V
ERR
NC1
NC2

(X5) RS232/COM

(X4) CAN

TECH 1 TECH 2

-A01.32
/47.0
Rx
ON
OFF

X13

X14

LV servoTEC S2

on top

-A02.91
LV servoTEC_S2_305
/44.2

X9
L1
L2
L3
ZK+
Zk-
BR-EXT
BR-CH
BR-INT
PE
+24V
GND24

(X11) OUT

(X10) IN

(X1) I/O

below

-A02.91
LV servoTEC_S2_305
/44.2

(X2B) ENCODER

(X2A) RESOLVER

X6
BR-
BR+
PE
-MTdig
+MTdig
PE
W
V
U

			Date	04.02.2009			= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX	A2 LV servoTEC_S2_305 Overview	1078982	Page 44
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106

-A02.91
/44.2

LV servoTEC S2

Supply voltage [X09]

Schutzerdung

-X09: L 1 | L2 2 | L3 3 | ZK+ 4 | ZK- 5 | BR-EXT 6 | BR-CH 7 | BR-INT 8 | PE 9 | +24V 10 | GND24V 11

2.4 / -A02.91_PE
5.3 / -A02.91_X09_1
5.3 / -A02.91_X09_2
5.3 / -A02.91_X09_3
5.4 / -A02.91_X09_9

I/O-communication [X01]

-X01: AGND 1 | AGND 14 | AINO 2 | #AINO 15 | AIN1 3 | AIN2 16 | +VREF 4 | AMON0 17 | AMON1 5 | +24V 18 | GND24 6 | DIN0 19 | DIN1 7 | DIN2 20 | DIN3 8 | Power supply Release DIN4 21 | Regulator Release DIN5 9 | END. NEG. DIN6 22 | END. POS. DIN7 10 | REF. DIN8 23 | DIN9 11 | READY DOUT0 24 | DOUT1 12 | DOUT2 25 | DOUT3 13

-W01.92A02: VT 0,14 | BK 0,14 | GY 0,14 | BN 0,14 | WH 0,14 | RD 0,14 | WH BK 0,14 | RD 0,14 | WH BN 0,14 | OG 0,14 | WH RD 0,14 | YE 0,14 | WH OG 0,14 | GN 0,14 | WH YE 0,14 | BU 0,14

-A02.92
/43.2

-X01: 1 | 14 | 2 | 15 | 3 | 16 | 4 | 17 | 5 | 18 | 6 | 19 | 7 | 20 | 8 | 21 | 9 | 22 | 10 | 23 | 11 | 24 | 12 | 25 | 13

n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | n.c. | +24V | GND24 | DIN0 | DIN1 | DIN2 | DIN3 | DIN4 | DIN5 | DIN6 | DIN7 | DIN8 | DIN9 | DOUT0 | DOUT1 | DOUT2 | DOUT3

I/O-communication

Safe Standstill [X03]

-X03: 24V 1 | REL 2 | 0V 3 | ERR 4 | NC1 5 | NC2 6

38.9 / -A02.91_X03_5
11.2 / -K02.04_Y34

LV servoTEC S2 IO-Adapter

Supply / release IN

-X04: +24V + | GND 0 | Endstufen Freigabe EF | Regler Freigabe RF

38.7 / -A02.92_X04_1
38.7 / -A02.92_X04_2
38.7 / -A02.92_X04_3
38.6 / -A02.92_X04_4

I/O

-X06: PE PE | DIN9 I9 | DOUT0 O0 | DOUT1 O1 | DOUT2 O2 | DOUT3 O3

2.6 / -A02.92_X06_1

Supply / release OUT

-X05: Regulator Release RF | Power supply Release EF | GND 0 | +24V +

-X1.1 +38
-X1.1 -14

38.9 / -L01.91+
38.9 / -L02.91+
38.9 / -1L-

-L01.91+ / 50.0
-L02.91+ / 50.0
-1L- / 50.0

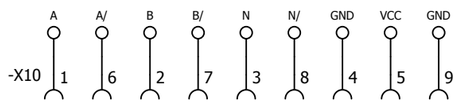
			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		A2 LV servoTEC S2 Supply voltage
			Ed. by	Messmer			
			Appr				
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	

= 305
+ CC1
1078982
Page 45
Pg 106

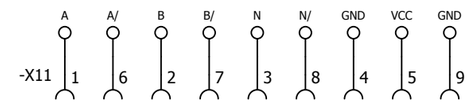
-A02.91
/44.2

LV servoTEC S2

Incremental encoder Input [X10]



Incremental encoder Output [X11]



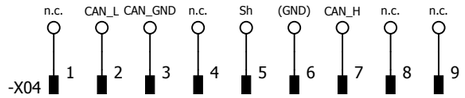
			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX		A2 LV servoTEC S2 Incremental encoder	= 305	
			Ed. by	Messmer				+ CC1	
			Appr				1078982	Page	46
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg	106

-A02.91
/44.2

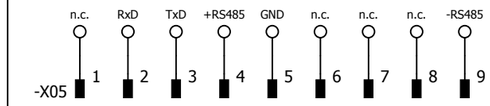
LV servoTEC S2

Bus address:2

CAN [X04]



RS232/COM [X05]

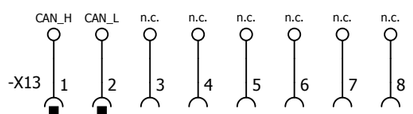


-A02.91-A01.32
/44.2

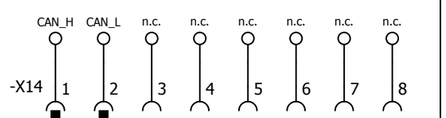
Terminating resistor

ON
OFF

CAN IN [X13]



CAN OUT [X14]



0,64mm² WH

0,64mm² BN

40.3 / -A02.91_X13_1

40.4 / -A02.91_X13_2

40.5 / -A02.91_X13_SH

-W01.62A01 WH BN

22.1 / -A01.62_X01_2

22.1 / -A01.62_X01_4

22.1 / -A01.62_X01_3

			Date	03.02.2009		A2 LV servoTEC S2 CAN / RS232	= 305
			Ed. by	Messmer			+ CC1
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982 Page 47
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by	Pg 106

-A02.91
/44.2

LV servoTEC S2

Motor connection [X06]

-X06: PE 6 | U2 9 | V2 8 | W2 7 | BR- 1 | BR+ 2 | -MTdig 4 | +Mtdig 5 | PE 3

PE

SH1

SH

-W01.51M02 /48.0 9 m

-W01.51M02: GNYE | U | V | W | BN2 | BN1

Resolver connection [X02A]

-X02A: Mt+ 5 | Mt- 8 | R1 4 | R2 9 | SINUS- 6 | SINUS+ 1 | COS- 7 | COS+ 2 | AGND 3

SH | SH5 | SH6 | SH2 | SH3 | SH4

-W02.51M02 /48.3

-W02.51M02: BN | WH | RD | BU | YE | GN | GY | PK

Encoder connection [X02B]

-X02B: #COS 7 | COS 14 | #SIN 8 | SIN 15 | DATA 12 | #DATA 5 | SCLK 13 | #SCLK 6 | U_SENS+ 9 | U_SENS- 2 | US 10 | GND 3 | MT+ 1 | n.c. 11 | n.c. 4

-M02.51

-X01: PE | U | V | W | B | A

-X02: 2 THERMO | 6 THERMO | 5 REF+ | 9 REF- | 4 SINUS- | 8 SINUS+ | 7 COS- | 3 COS+

Motor

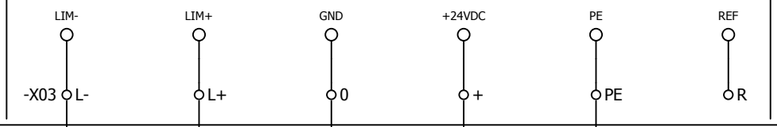
Resolver

			Date	03.02.2009	PA-CONTROL4_Smart_LV servoTEC_S2_3XX	A2 LV servoTEC S2 Motor connection	= 305 + CC1
			Ed. by	Messmer			
			Appr			1078982	Page 48
Modification	Date	Name	Version	V0.01	Replacement for / Replaced by		Pg 106

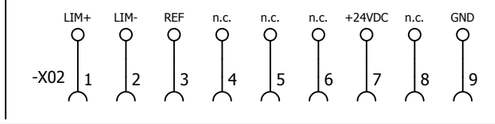
-A02.92
/43.2

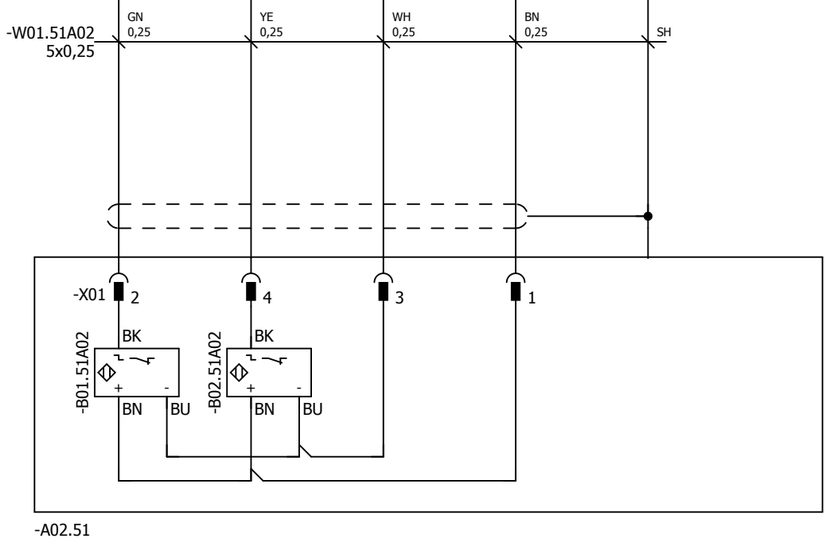
LV servoTEC S2 IO-Adapter

Limit switch [X03]



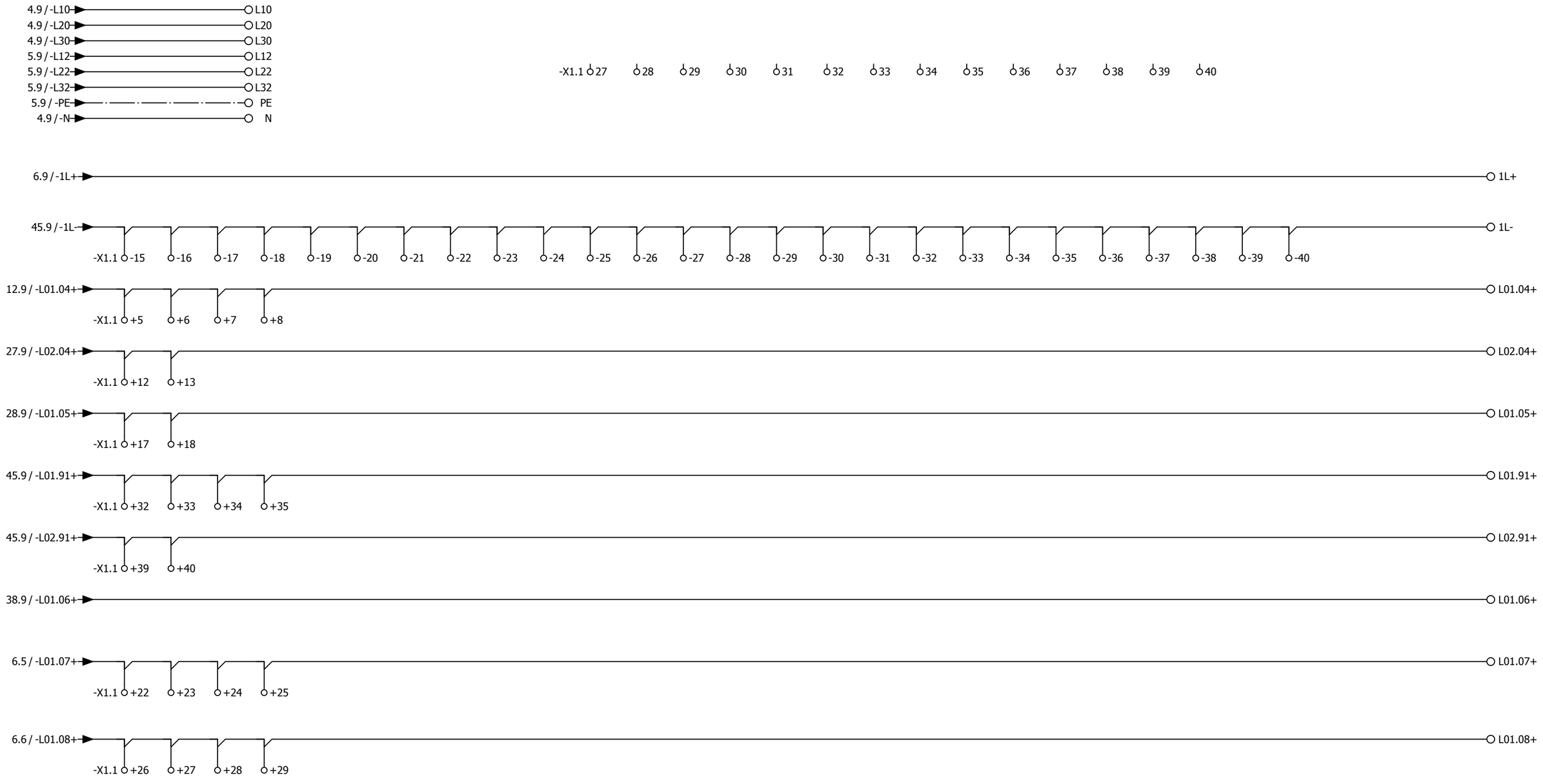
Limit switch [X02]





-A02.51

			Date	03.02.2009		A2 LV servoTEC S2 Axis limit switch	= 305	
			Ed. by	Messmer			+ CC1	
			Appr		PA-CONTROL4_Smart_LV servoTEC_S2_3XX		1078982	Page 49
Modification	Date	Name	Version	V0.01	Replacement for	Replaced by		Pg 106


4.9 / -L10
L10
4.9 / -L20
L20
4.9 / -L30
L30
5.9 / -L12
L12
5.9 / -L22
L22
5.9 / -L32
L32
5.9 / -PE
PE
4.9 / -N
N
-X1.1 27 28 29 30 31 32 33 34 35 36 37 38 39 40
6.9 / -1L+
1L+
45.9 / -1L-
1L-
-X1.1 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24 -25 -26 -27 -28 -29 -30 -31 -32 -33 -34 -35 -36 -37 -38 -39 -40
12.9 / -L01.04+
L01.04+
-X1.1 +5 +6 +7 +8
27.9 / -L02.04+
L02.04+
-X1.1 +12 +13
28.9 / -L01.05+
L01.05+
-X1.1 +17 +18
45.9 / -L01.91+
L01.91+
-X1.1 +32 +33 +34 +35
45.9 / -L02.91+
L02.91+
-X1.1 +39 +40
38.9 / -L01.06+
L01.06+
6.5 / -L01.07+
L01.07+
-X1.1 +22 +23 +24 +25
6.6 / -L01.08+
L01.08+
-X1.1 +26 +27 +28 +29