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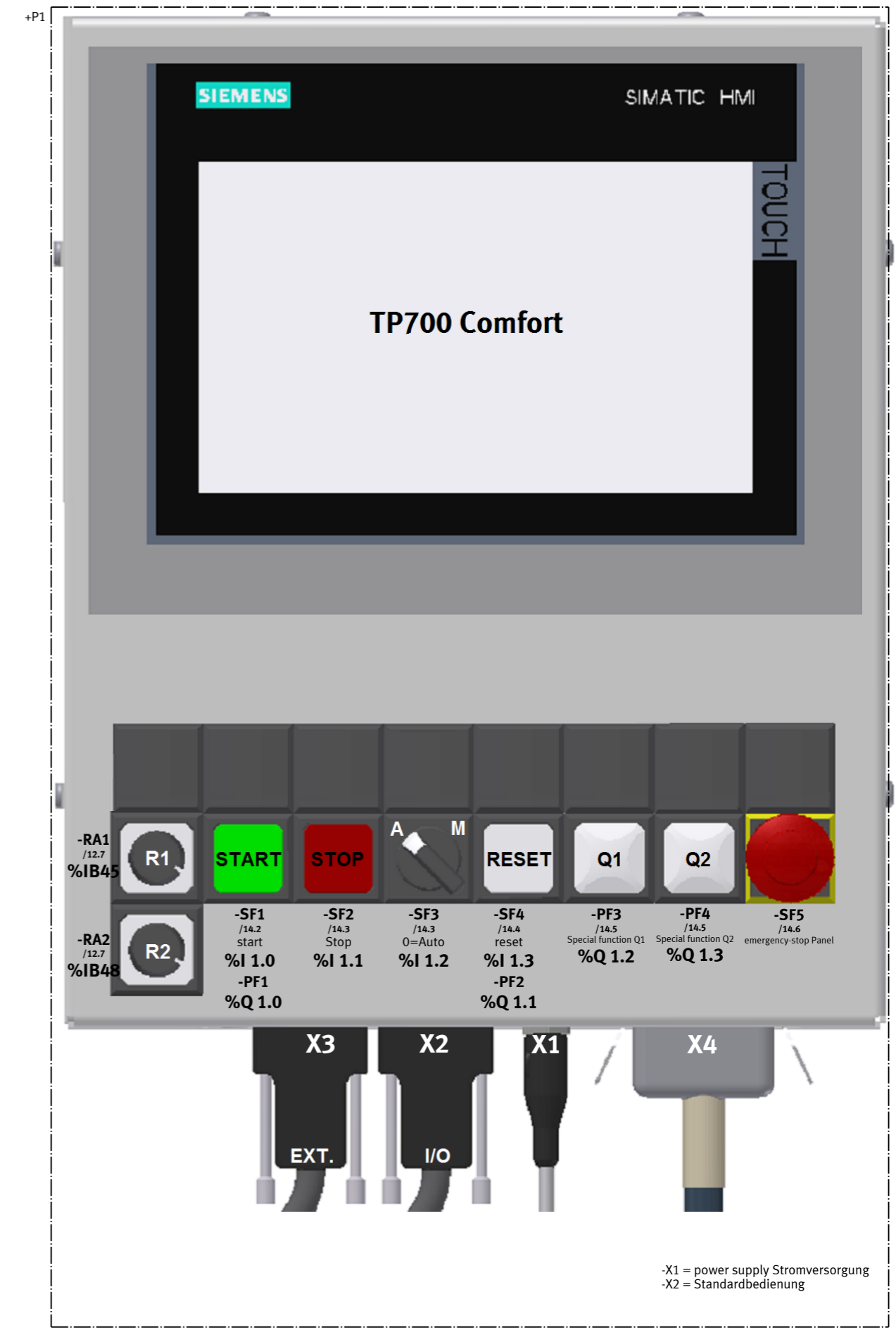
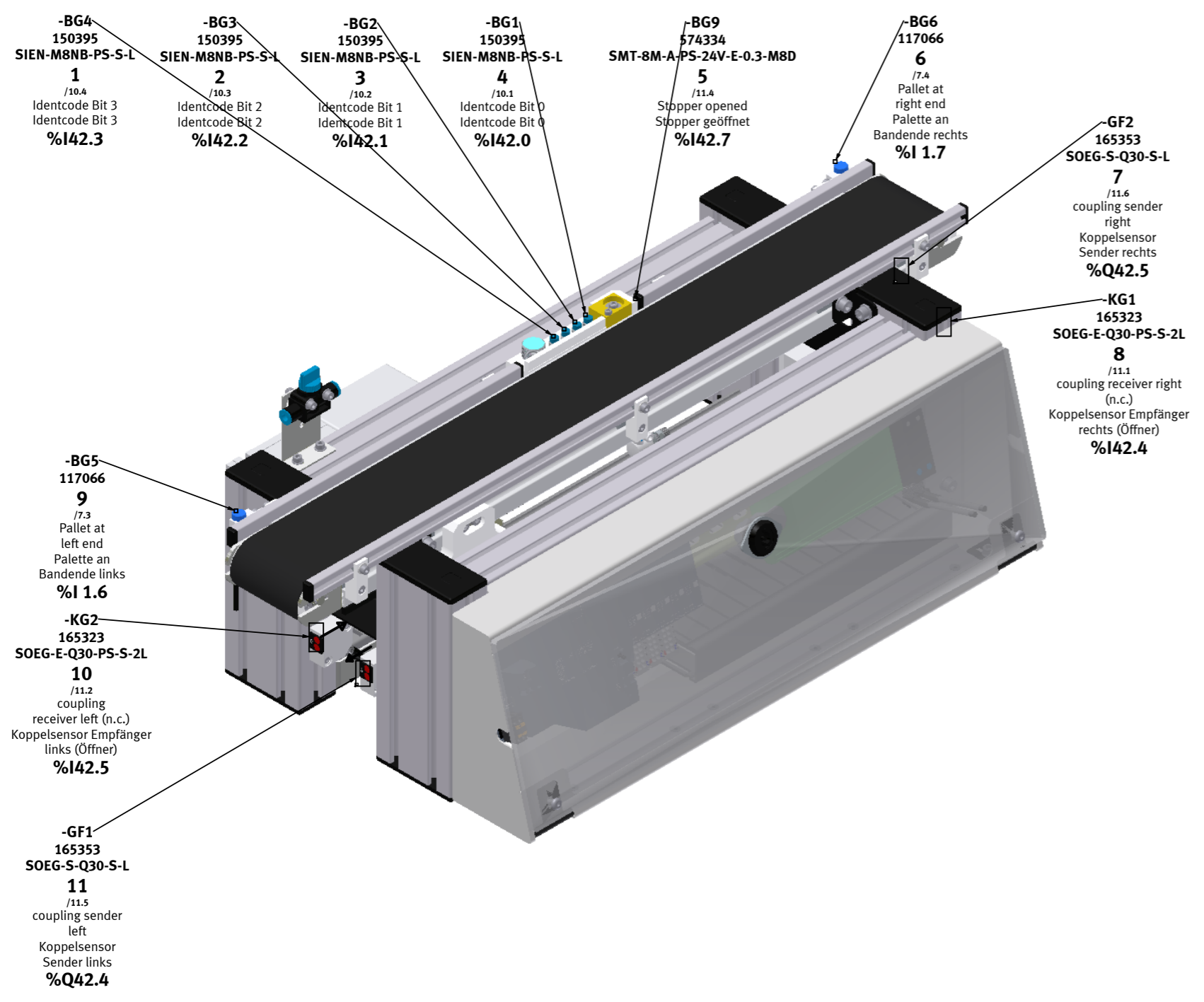
Circuit diagrams Schaltungsunterlagen

designation: CP Lab
 Bezeichnung: CP Lab
 Customer:
 Kunde:
 Plant identifier G CP Lab
 Anlagenkennzeichen
 remark: V5 (PCB 2017-03)
 Bemerkung:
 last Modification: 04.02.2019
 letzte Änderung:
 Print date: 04.02.2019
 Druckdatum:
 Path: \\festo.net\DFS01\INT\Data\EPLAN\DATA_27\DE\Projects\Didactic\SC products\24 CP-Lab\V
 Pfad: 5\CP Lab V5 2019-02-04.elk

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Date	04.02.2019	Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf		Title page/cover sheet		S-Nr.		
Ed. by.	espe			Titel- / Deckblatt		PSP / DPJ	VN	
Drw.No	N:			F:FDMD06DE	EPL0VZFG7M	\\festo.net\DFS01\INT\Data\EPLAN\DATA_27\DE\Projects\Didactic\SC products\24 CP-Lab V5 2019-02-04.elk	= G	CP Lab
						+ G1	Conveyor	of 273

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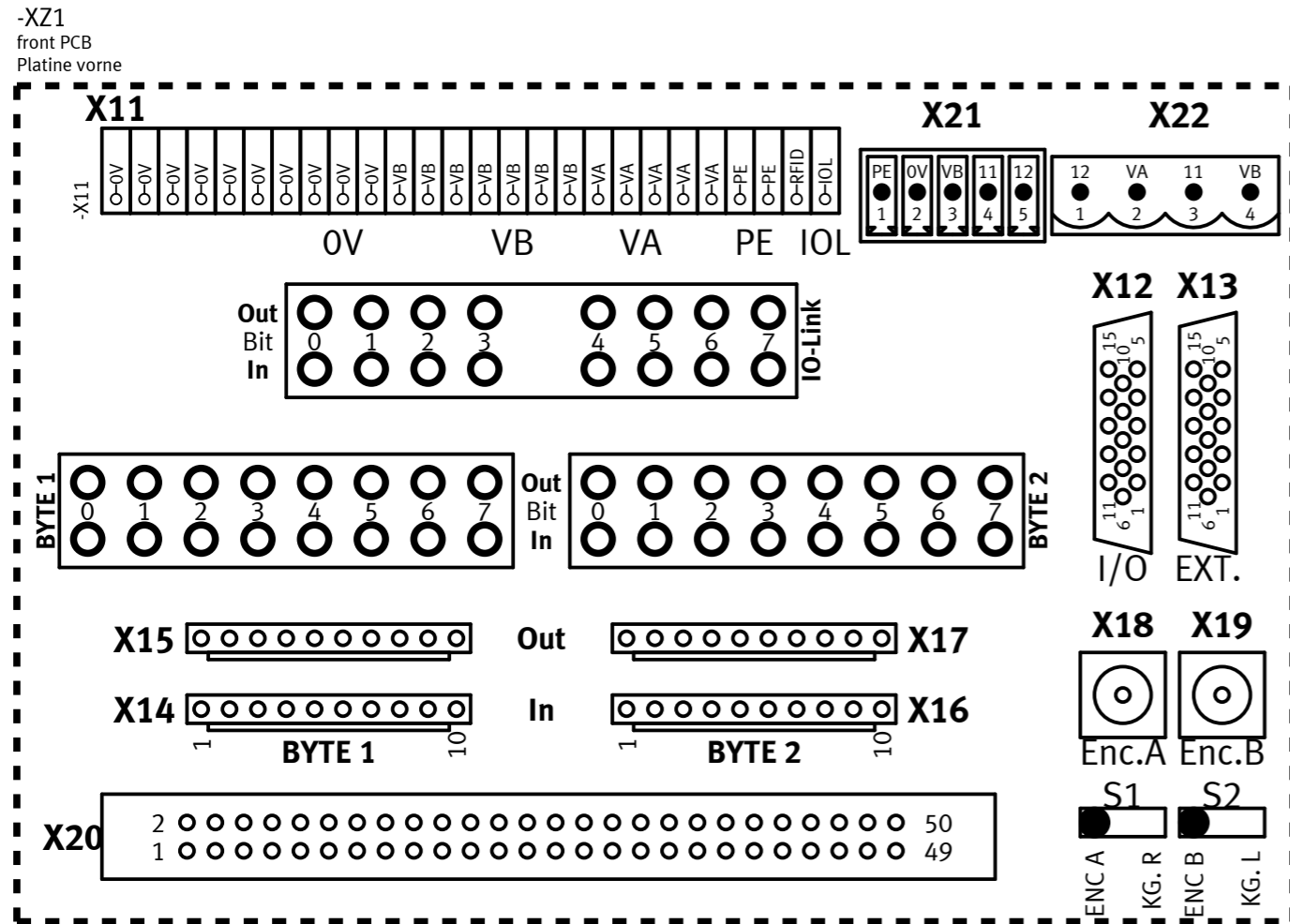
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FESTO Assembly Aufbau

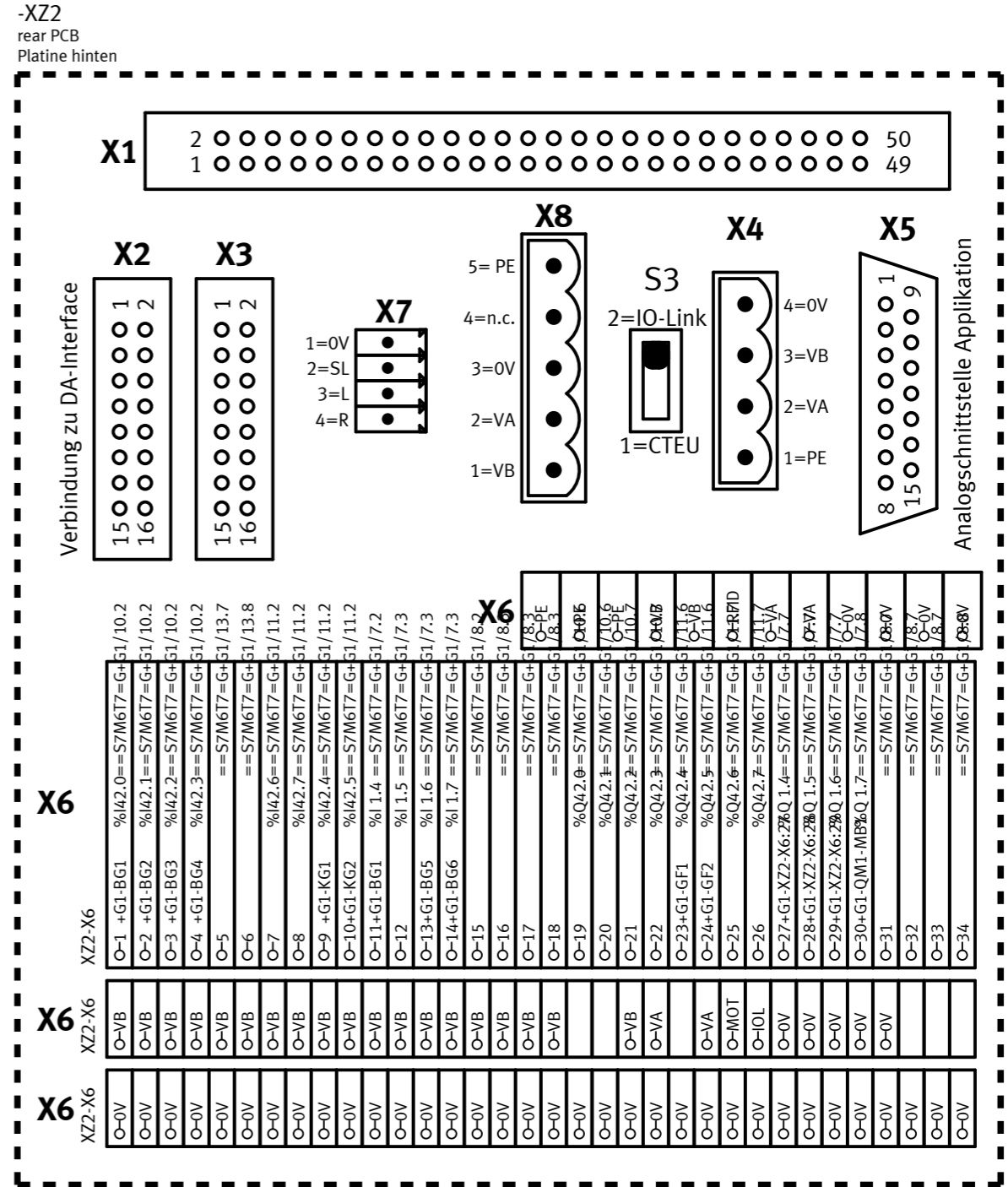
\\Festo.net\DFS01\INT\DATA\EPLAN\DATA_27\DEV\Projects\Didactic\SC products\24 CB\ZAB\VS\CP Lab V5 2019-02-04.elk

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PSP / DPJ	VN	= G	CP Lab
		+ G1	Conveyor
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V3
PCB's Rev 2017-03
Platinen Rev 2017-03



- XZ1-X11 = terminals PCB front side Klemmen Platine vorne
- XZ1-X12 = controlpanel basic functions Bedienfeld Grundfunktionen
- XZ1-X13 = controlpanel additional buttons Bedienfeld Zusatztasten
- XZ1-X14 = Input-Byte 1 Eingangs-Byte 1
- XZ1-X15 = Output-Byte 1 Ausgangs-Byte 1
- XZ1-X16 = Input-Byte 2 Eingangs-Byte 2
- XZ1-X17 = Output-Byte 2 Ausgangs-Byte 2
- XZ1-X18 = incremental encoder BNC-Connector 1 Inkrementalgeber BNC-Anschluss 1
- XZ1-X19 = incremental encoder BNC-Connector 2 Inkrementalgeber BNC-Anschluss 2
- XZ1-X21 = Powersupply HMI HMI Stromversorgung
- XZ1-X22 = external Emergency-Stop Connector Not-Halt-Anschluss extern



- XZ2-X2 = connection 1 to DA-Interface Verbindung 1 zu DA-Interface
- XZ2-X3 = connection 2 to DA-Interface Verbindung 2 zu DA-Interface
- XZ2-X4 = power supply Stromversorgung
- XZ2-X5 = analog signals for application Analogsignale Applikationsmodul
- XZ2-X6 = terminals PCB rear side Klemmen Platine hinten
- XZ2-X8 = 24V application modules 24V Applikationsmodule

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SIE#6ES7954-8LC02-0AA0
SIE#6ES7193-6AR00-0AA0
SIE#6ES7512-1SK00-0AB0
-KF1

SIE#6ES7193-6BP00-0DA0
SIE#6ES7131-6BF00-0CA0
/6.0
-KF2

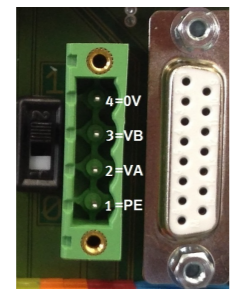
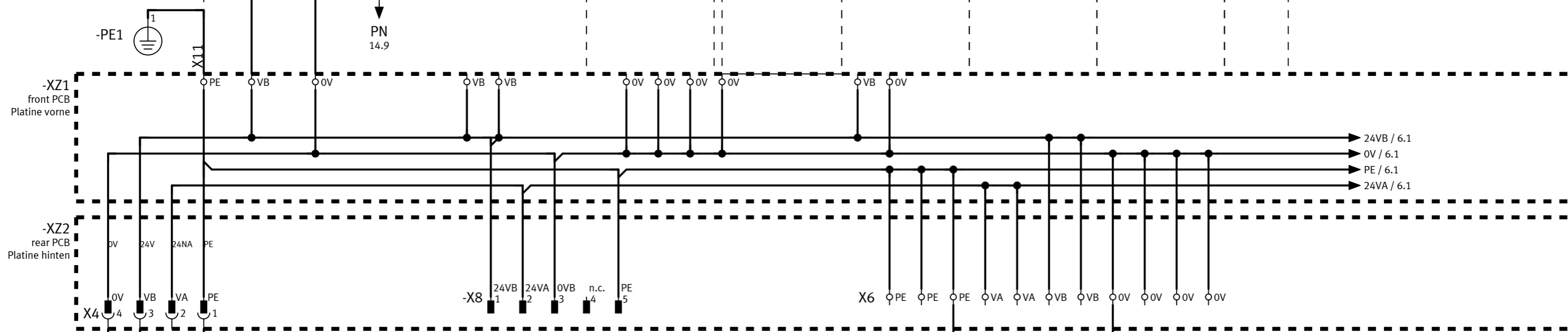
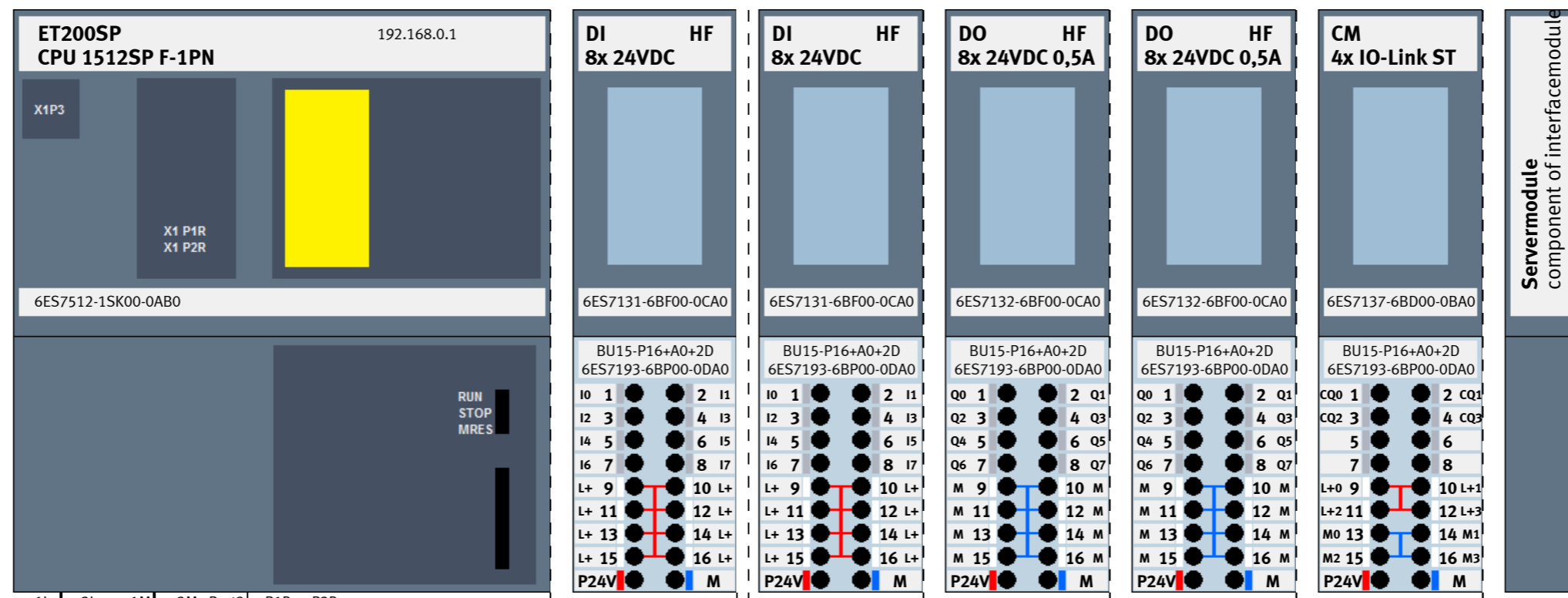
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-KF5

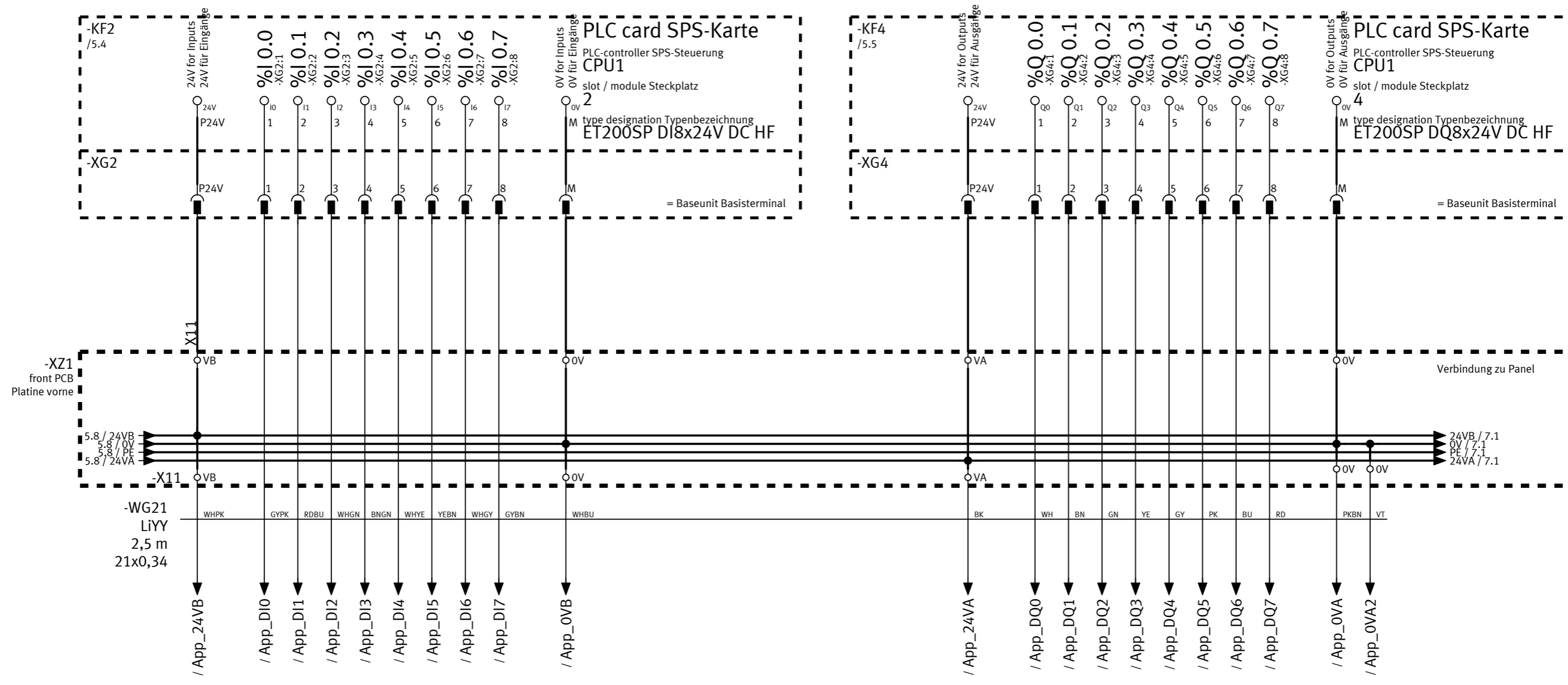
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/9.0
-KF6

-KF7



-X0 0V 24V PE
supply 24V DC / 2A
Versorgung 24V DC / 2A

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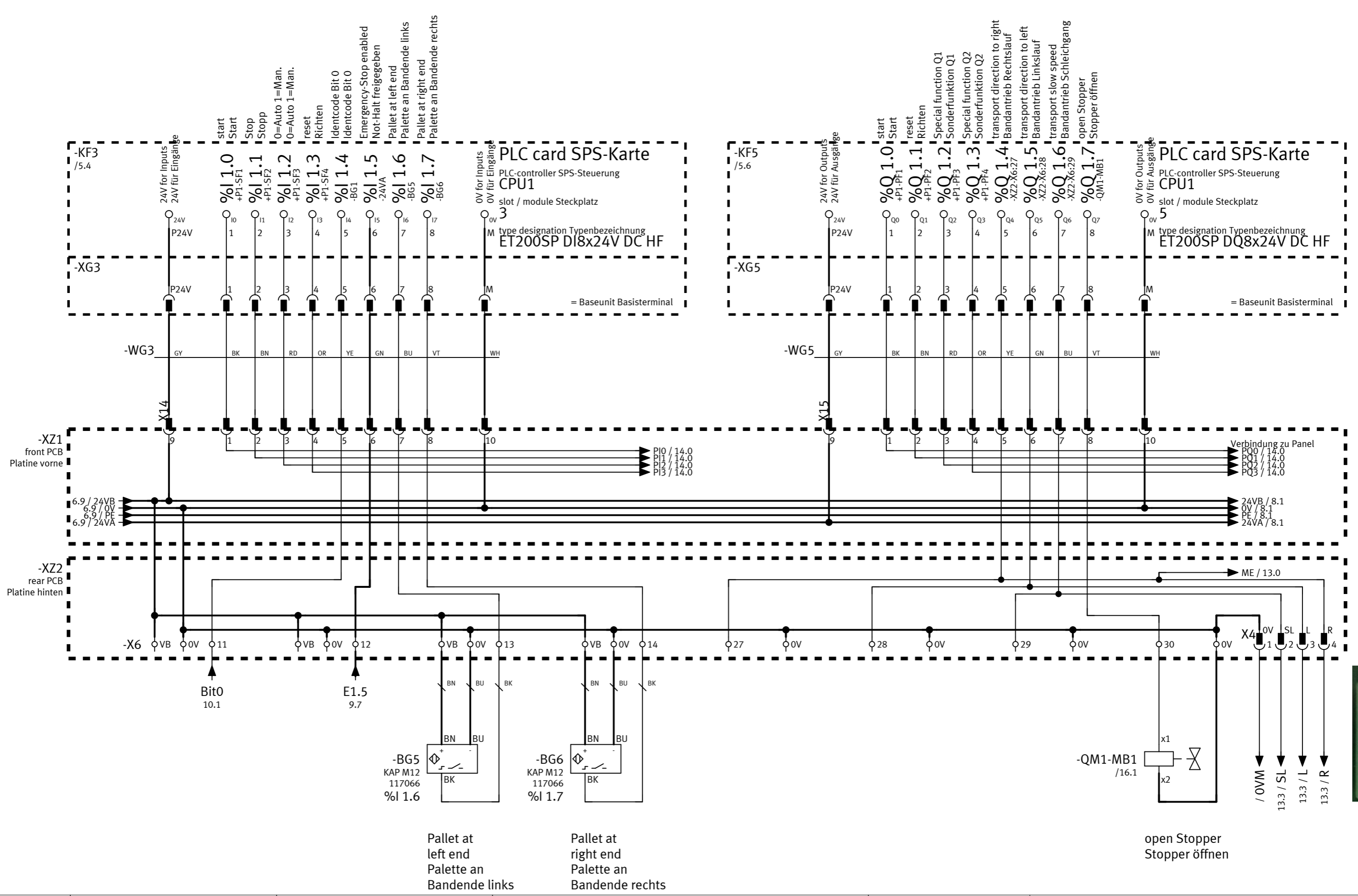
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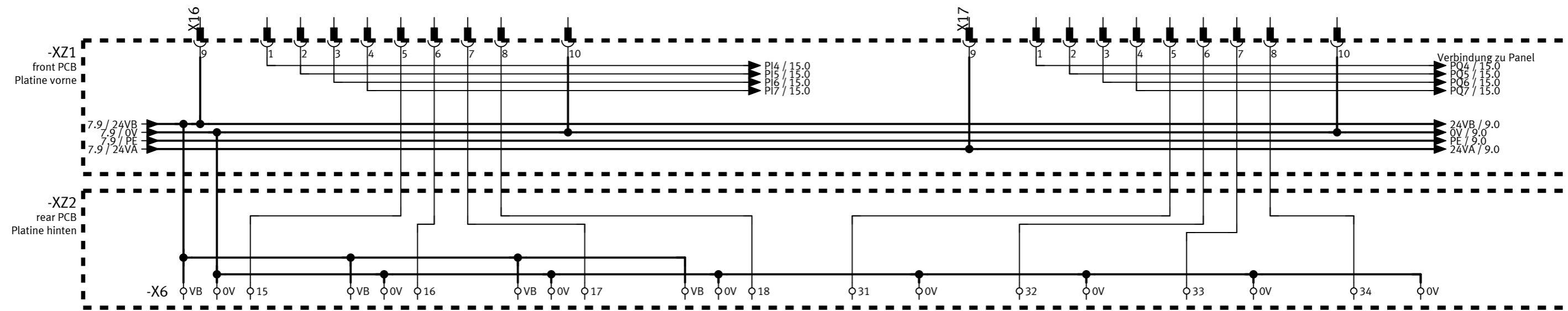
application - Byte 0
 Applikation - Byte 0

S-Nr.			
PSP / DPJ	VN	= G	CP Lab
		+ G1	Conveyor
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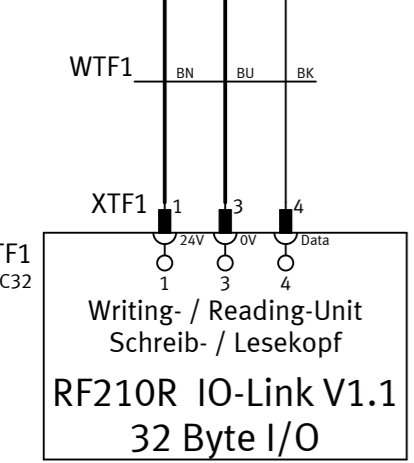
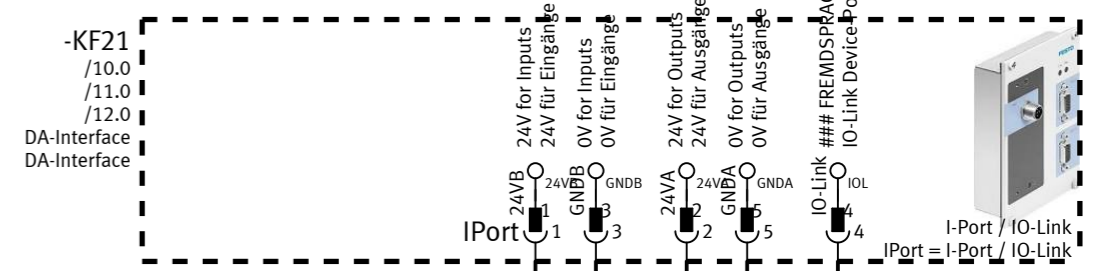
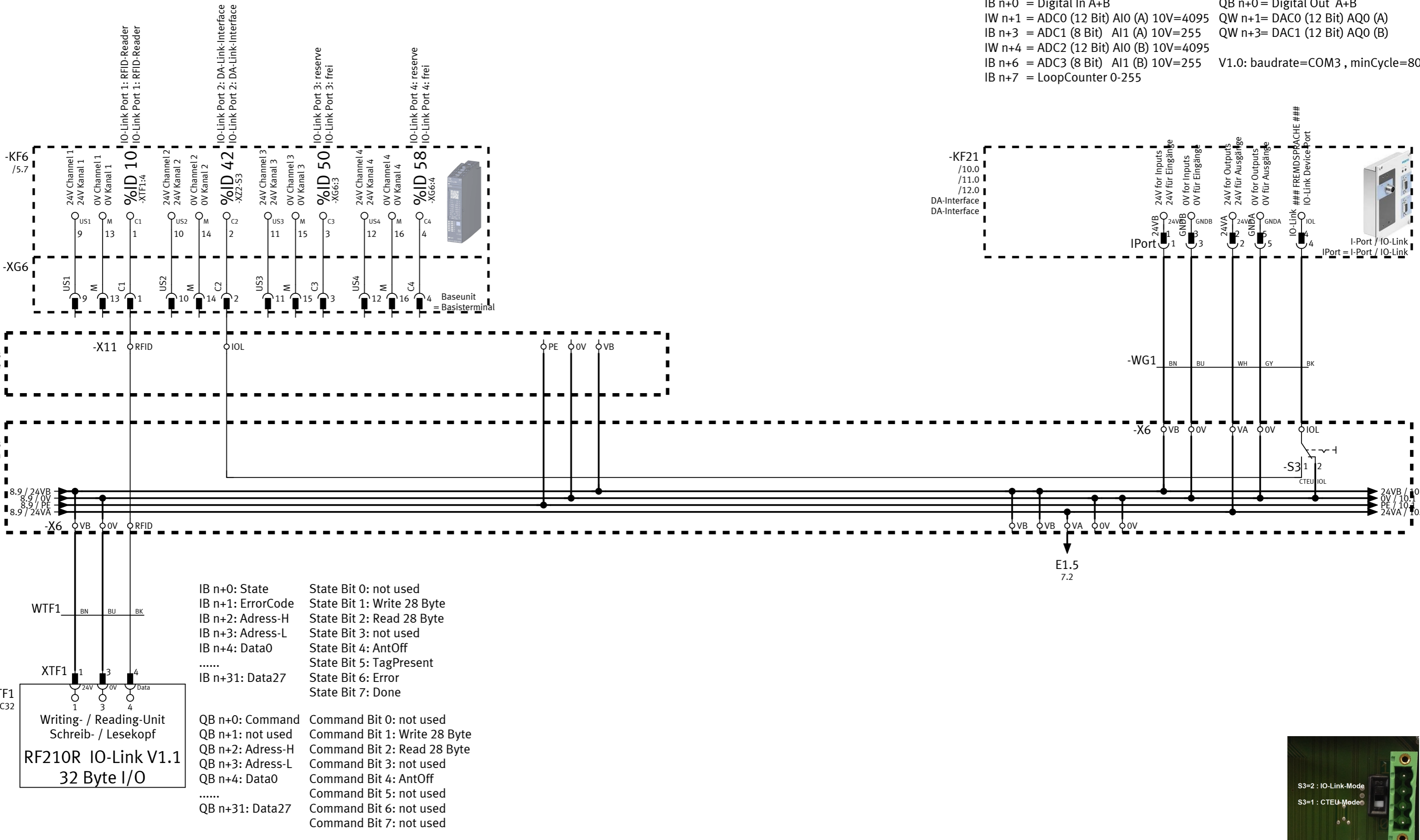
Date	04.02.2019	Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf	FESTO	PCB - Byte 2 Platine - Byte 2	S-Nr.				
Ed. by.	espe				PSP / DPJ	VN	= G	CP Lab	Page 8
Drw.No.							+ G1	Conveyor	of 273
Cre.	espe	N:	F:	EPL0VZFG7M	\\Festo.net\DFS01\INT\Data\EPLAN\DATA_27\DEV\Projects\Didactic\SC products\24 CP Lab V5 2019-02-04.elk				

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PS Status of the operating voltage supply (power system)
 X1,X2 Status of the internal communication ("I-Port Device 1" / "I-Port Device 2")
 NF Network status/network failure (Network Failure)
 TP1,TP2 Connection status ("Link1" / "Link2")

IB n+0 = Digital In A+B
 IW n+1 = ADC0 (12 Bit) AI0 (A) 10V=4095
 IB n+3 = ADC1 (8 Bit) AI1 (A) 10V=255
 IW n+4 = ADC2 (12 Bit) AI0 (B) 10V=4095
 IB n+6 = ADC3 (8 Bit) AI1 (B) 10V=255
 IB n+7 = LoopCounter 0-255

QB n+0 = Digital Out A+B
 QW n+1 = DAC0 (12 Bit) AQ0 (A)
 QW n+3 = DAC1 (12 Bit) AQ0 (B)
 V1.0: baudrate=COM3, minCycle=800



IB n+0: State
 IB n+1: ErrorCode
 IB n+2: Adress-H
 IB n+3: Adress-L
 IB n+4: Data0

 IB n+31: Data27

State Bit 0: not used
 State Bit 1: Write 28 Byte
 State Bit 2: Read 28 Byte
 State Bit 3: not used
 State Bit 4: AntOff
 State Bit 5: TagPresent
 State Bit 6: Error
 State Bit 7: Done

QB n+0: Command
 QB n+1: not used
 QB n+2: Adress-H
 QB n+3: Adress-L
 QB n+4: Data0

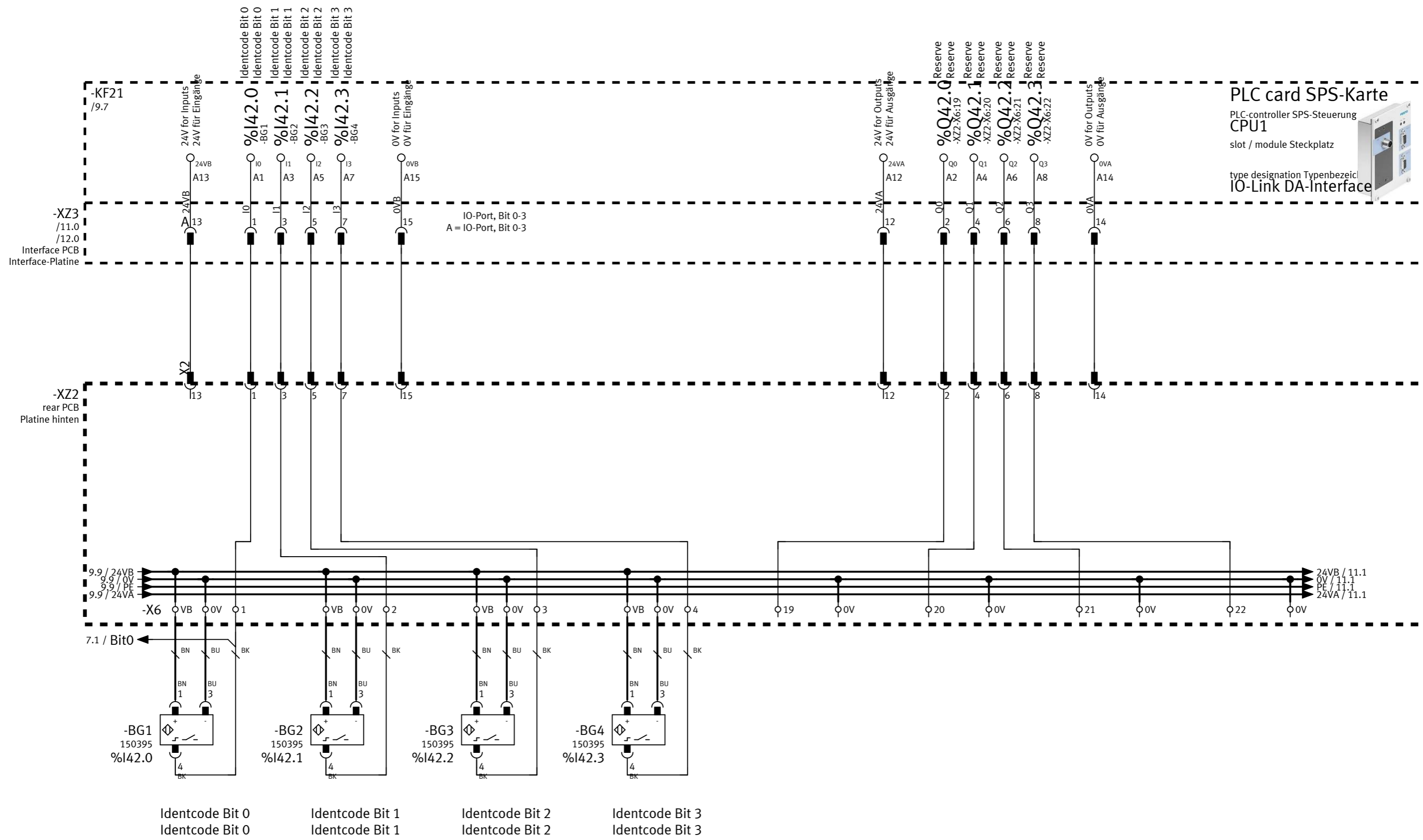
 QB n+31: Data27

Command Bit 0: not used
 Command Bit 1: Write 28 Byte
 Command Bit 2: Read 28 Byte
 Command Bit 3: not used
 Command Bit 4: AntOff
 Command Bit 5: not used
 Command Bit 6: not used
 Command Bit 7: not used

<<8 -XTF1 = RFID-Connector RFID-Anschluss



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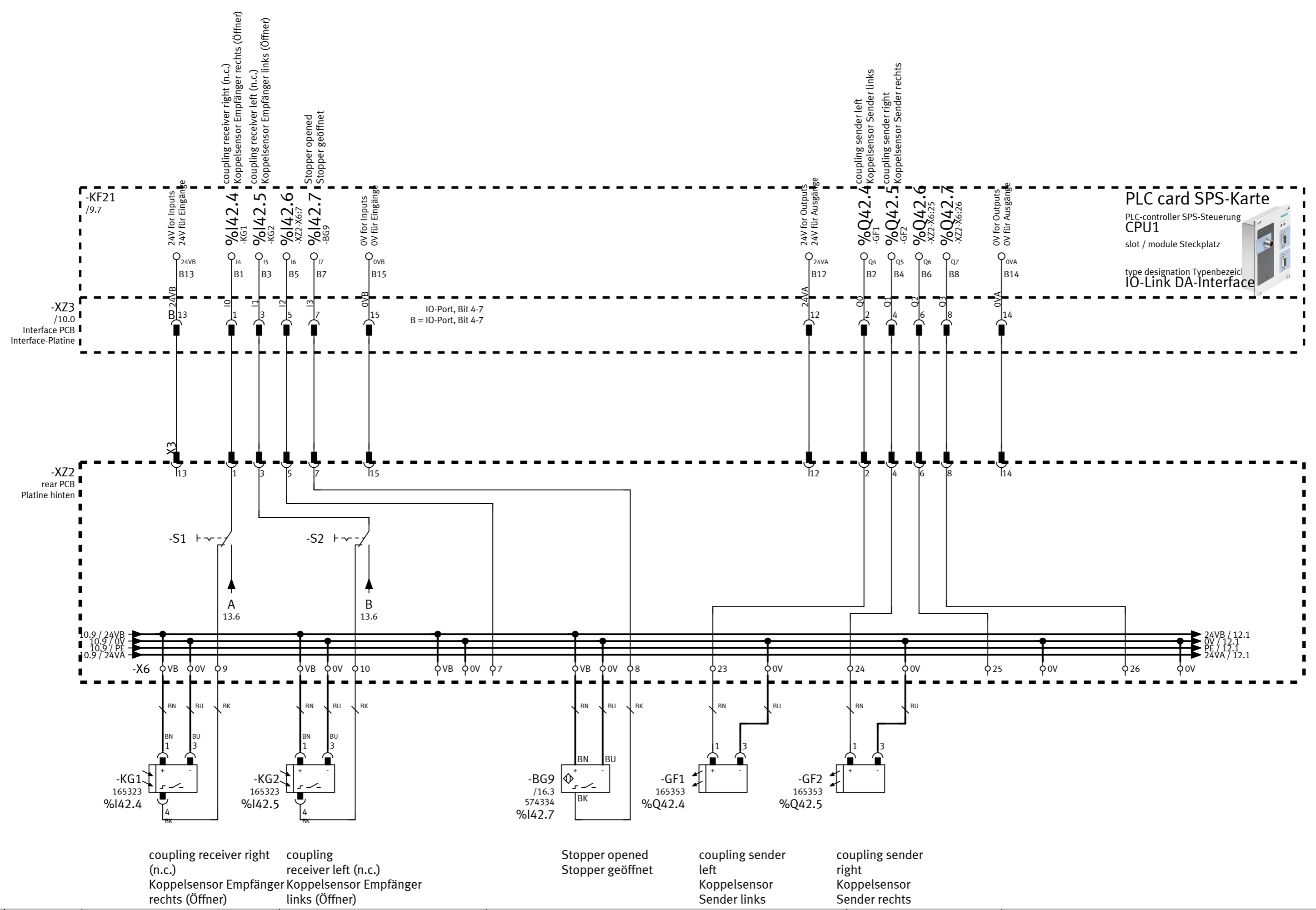


PCB - IO-Link A
 Platine - IO-Link A

S-Nr.	
PSP / DPJ	VN

= G	CP Lab	Page 10
+ G1	Conveyor	of 273

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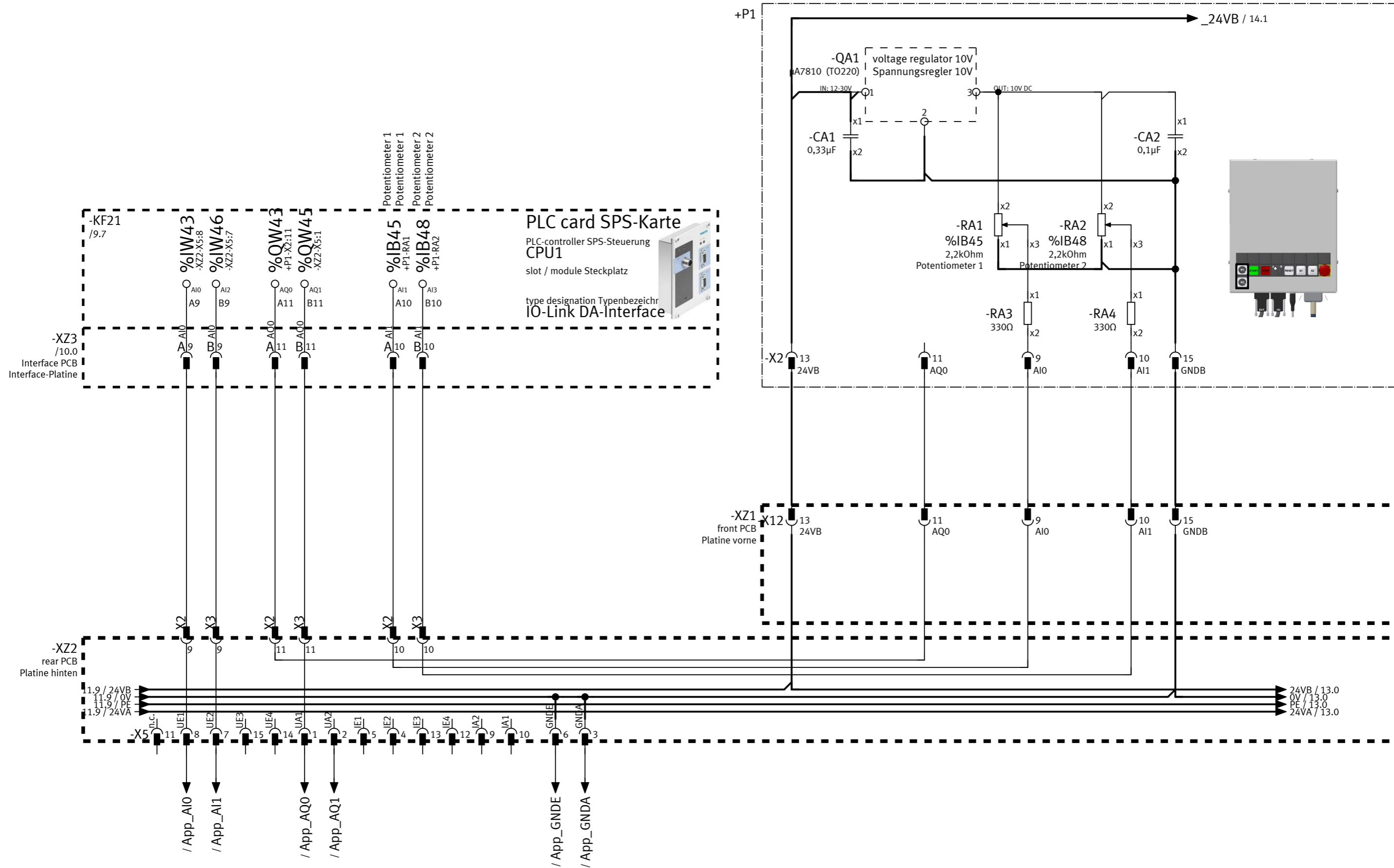


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Date	04.02.2019	Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf	FESTO	PCB - IO-Link B Platine - IO-Link B	S-Nr.				
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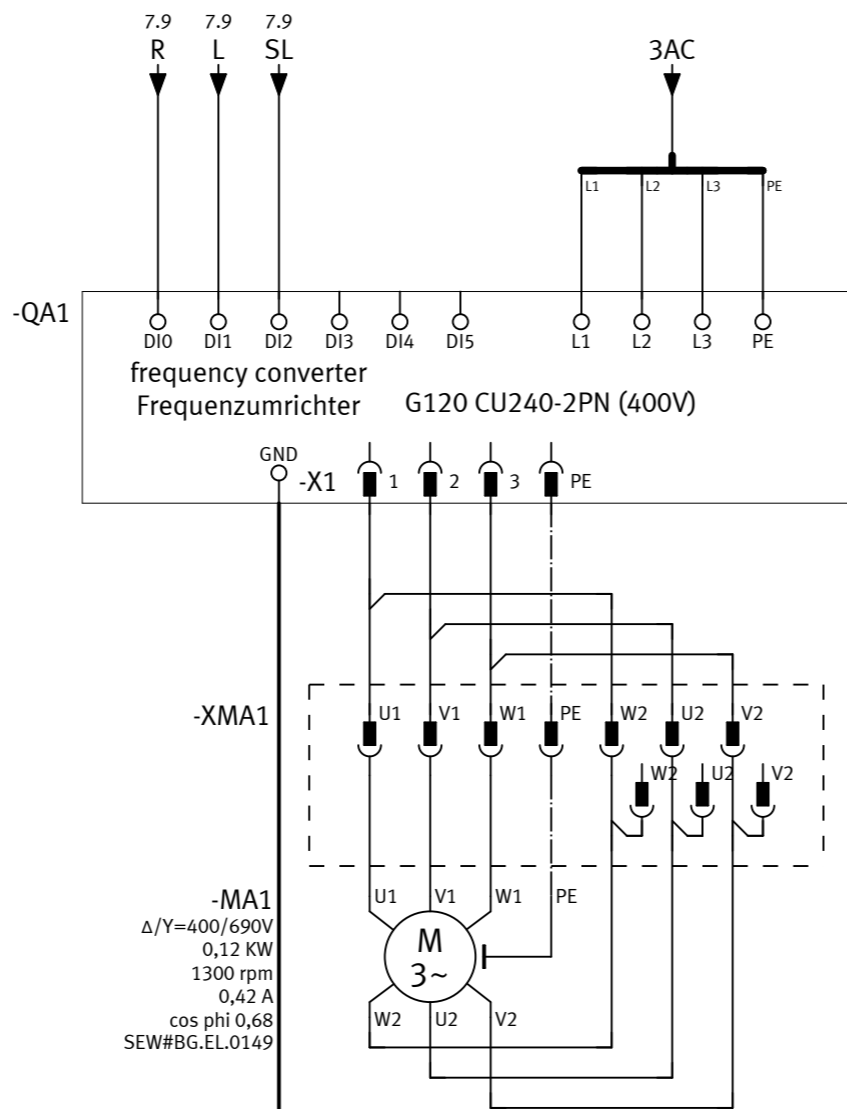
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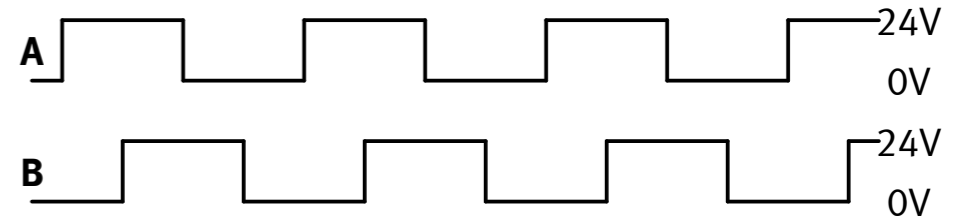
PCB - IO-Link analog
 Platine - IO-Link Analog

S-Nr.				
PSP / DPJ	VN	= G	CP Lab	Page 12
		+ G1	Conveyor	of 273

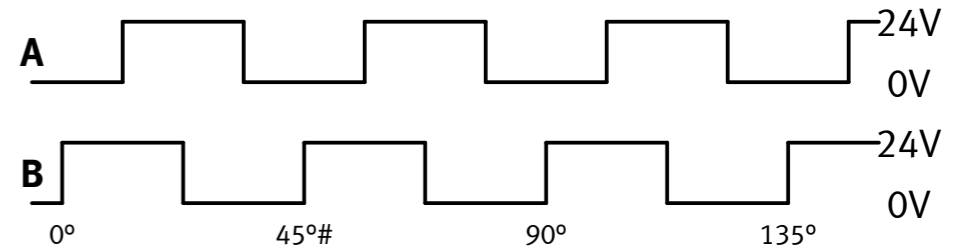
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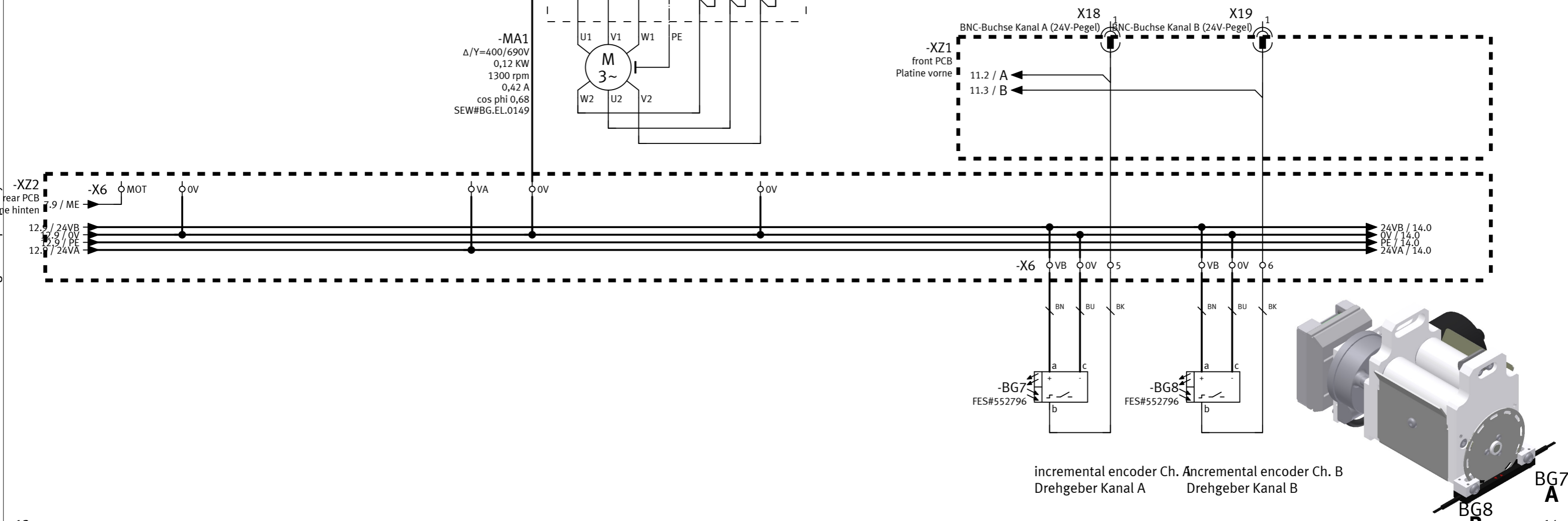
transport direction to right
Bandantrieb Rechtslauf



transport direction to left
Bandantrieb Linkslauf



1 rotation = 8 pulses/channel = 30mm * π = 94,2 mm
1 Umdrehung = 8 Impulse je Kanal = 30mm * π = 94,2 mm



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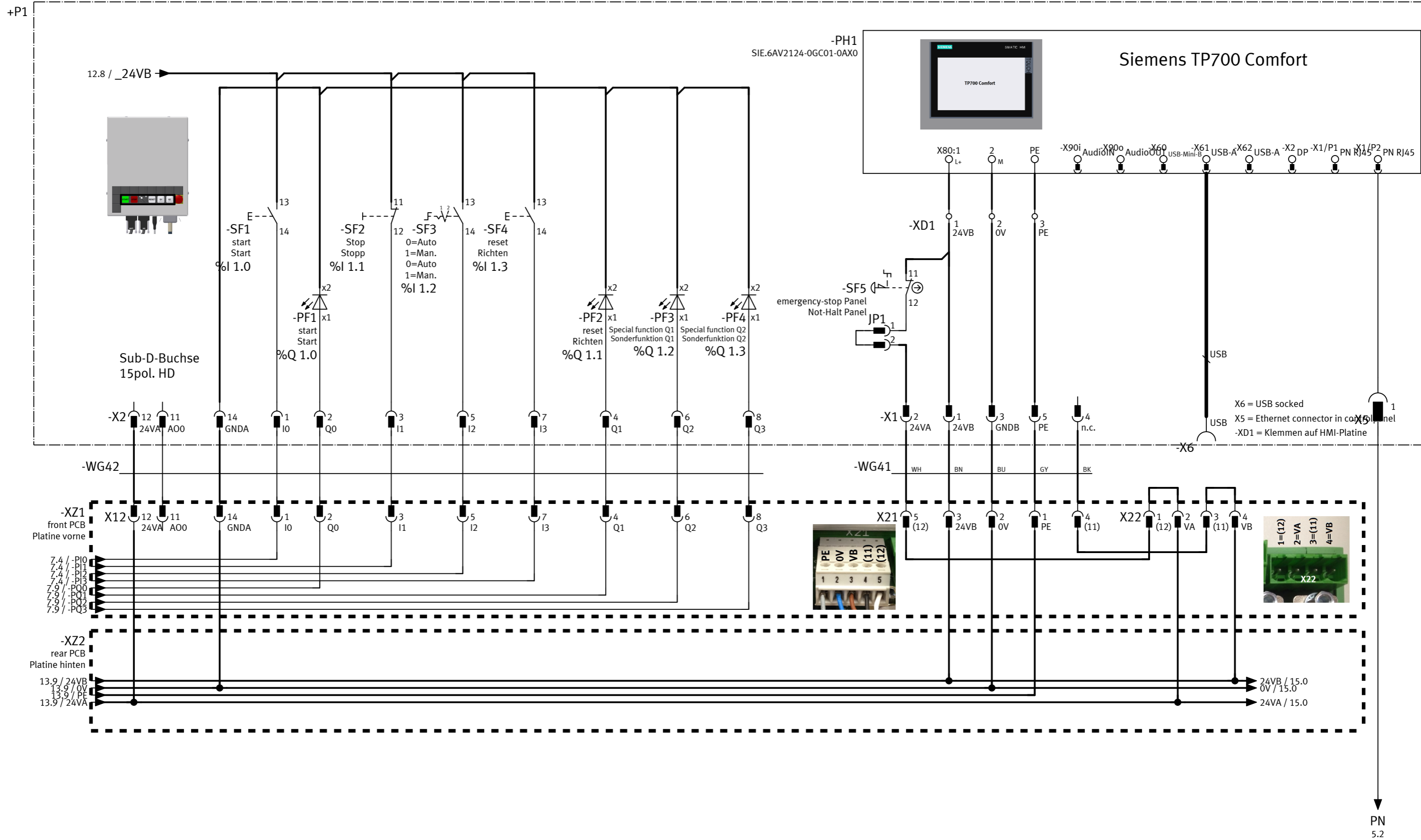
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FESTO PCB - motor + encoder
Platine - Motor + Inkrementalgeber

S-Nr.			
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		+ G1	Conveyor
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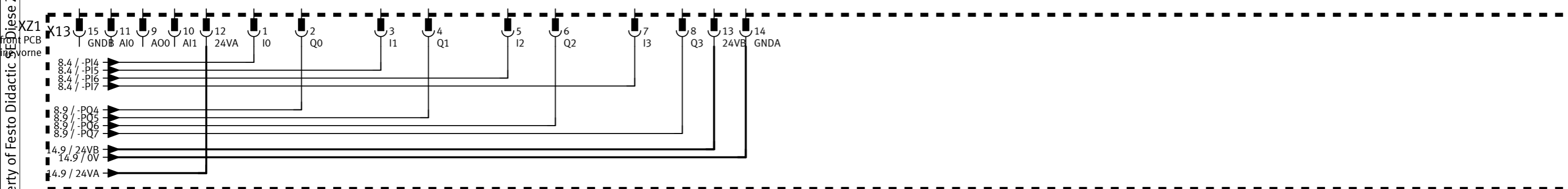


controlpanel basic functions & touchpanel
Bedienfeld Grundfunktionen & Touchpanel

S-Nr.	
PSP / DPJ	VN

= G	CP Lab	Page 14
+ G1	Conveyor	of 273

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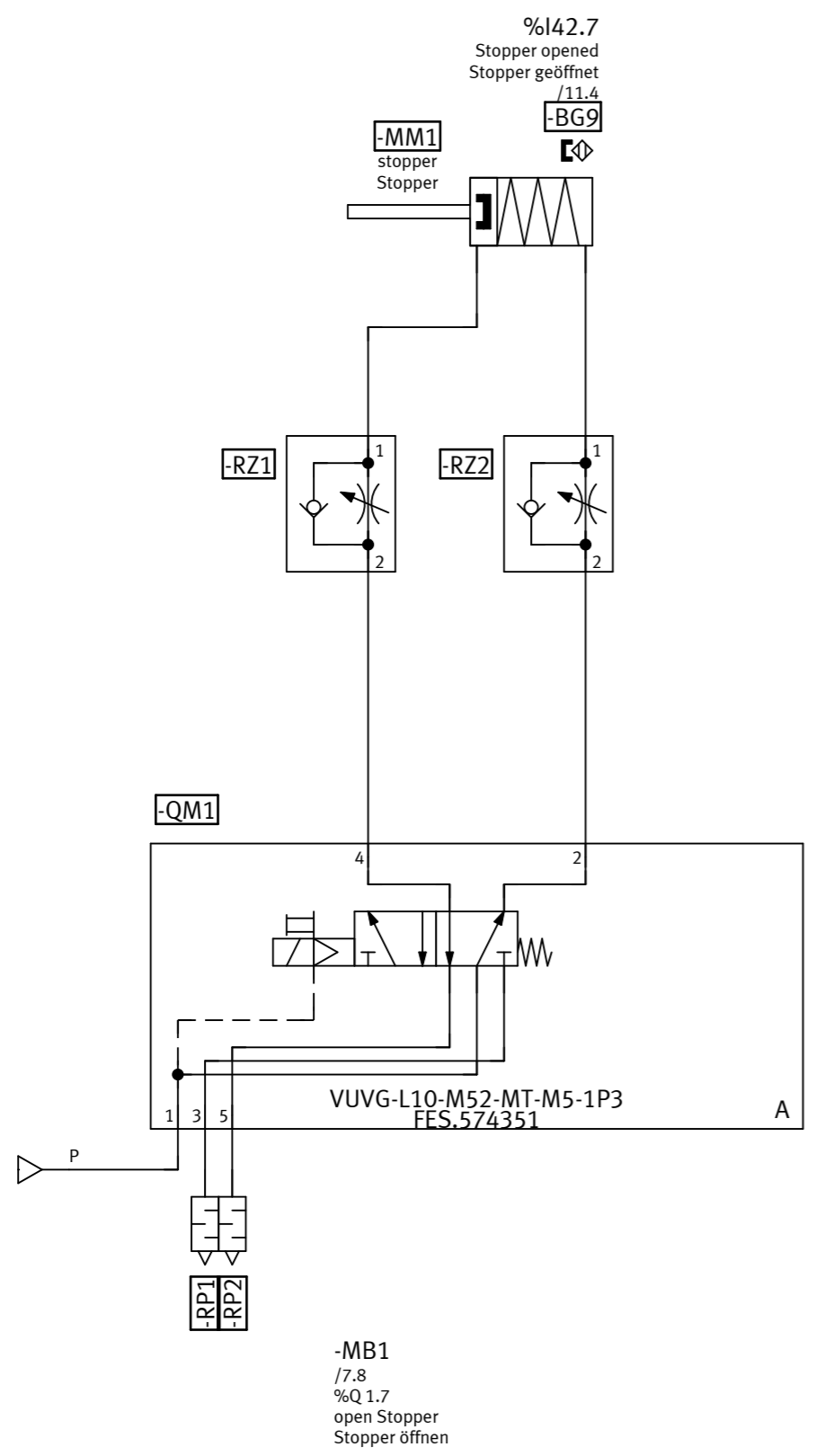


controlpanel options
 Bedienfeld Optionen

S-Nr.	
PSP / DPJ	VN

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N:	
F:	



pneumatic schematic
Pneumatikplan

S-Nr.	
PSP / DPJ	VN

= G	CP Lab	Page 16
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