

This drawing is the property of Festo Didactic SE
Diese Zeichnung ist Eigentum der Festo Didactic SE

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|



Schaltungsunterlagen

Circuit diagrams

Produktname:
productname:

Materialnummer Produkt:
Material number product:

Variante
variant

Stromversorgung:
Power supply unit:

Bemerkung:
remark:

Kunde:
Customer:

letzte Änderung:
last Modification:

Druckdatum:
Print date:

CP Lab 8167762

8167762

ohne Steuerung
without Controller

2025-05-20

2025-05-20



Materialnummer Schaltplan:
Material Number Circuit Diagram:

Revision:
Revision:

V08

&EAB

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| Bearb. | kshc | | | | | PSP / DPJ | | VN | = GL | Transportband | Seite 2 |
| Erst. | kshc | | | | | | | | | | |
| Ze.Nr. | | N: | F: | V: 2025.0.3 | \\festo.net\dfs01\INT\Data\EPLAN\DATA_xx\DE\Projects\Didactic\Products\24 CP-LIV8\8167762_CPLAB_PHASE_2V_V8.elk | | + | | von 26 | | |

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| =GL | &EAB | | 2 | Übersicht overview | | 2025-05-20 | kshc | |
| =GL | &EAB | | 3 | Inhaltsverzeichnis Table of contents | | 2025-05-20 | kshc | |
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| =GL | &EMA1 | | 20 | Klemmenplan =GL+GL-XZ1-X1 Terminal diagram =GL+GL-XZ1-X1 | | 2025-05-20 | kshc | X |
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| =GL | &EMA1 | | 23 | Klemmenplan =GL+GL-XZ1-X6 Terminal diagram =GL+GL-XZ1-X6 | | 2025-05-20 | kshc | X |
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| =GL | &EMA1 | | 25 | Klemmenplan =GL+GL-XZ1-X11 Terminal diagram =GL+GL-XZ1-X11 | | 2025-05-20 | kshc | X |
| =GL | &EMA1 | | 26 | Klemmenplan =GL+GL-XZ1-X13 Terminal diagram =GL+GL-XZ1-X13 | | 2025-05-20 | kshc | X |
| =GL | &EMA1 | | 27 | Klemmenplan =GL+GL-XZ1-X16 Terminal diagram =GL+GL-XZ1-X16 | | 2025-05-20 | kshc | X |
| =GL | &EMA1 | | 28 | Klemmenplan =GL+GL-XZ1-X17 Terminal diagram =GL+GL-XZ1-X17 | | 2025-05-20 | kshc | X |
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| =GL | &EMA1 | | 32 | Klemmenplan =GL+GL-XZ1-X26 Terminal diagram =GL+GL-XZ1-X26 | | 2025-05-20 | kshc | X |

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&EDB

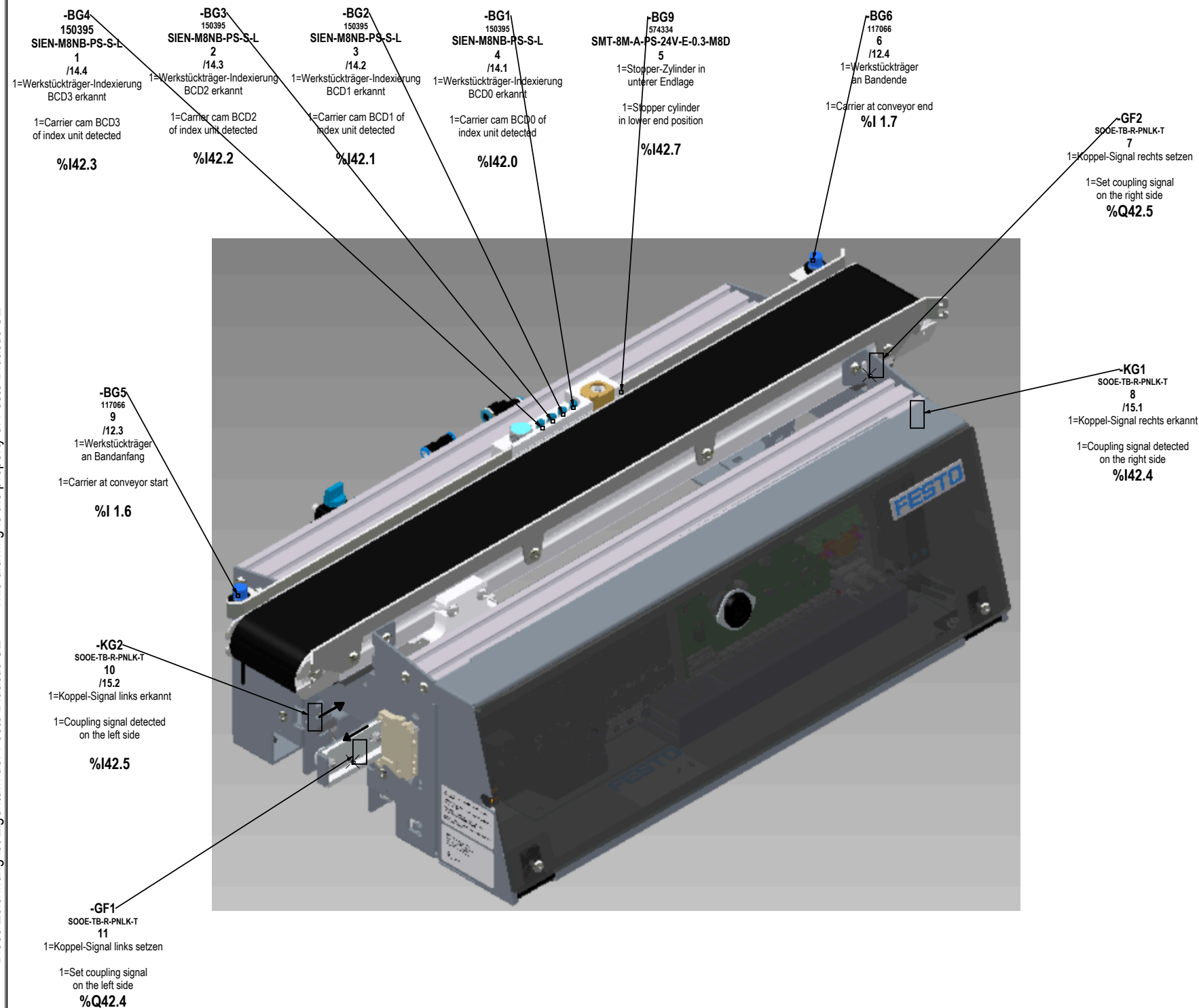
Strukturbeschreibung
Structure description

Transportband conveyor belt

| | | | | | | | | | | | |
|--------|------------|--|----|-------------|---|------------------------|--|-----------|------|---------------|---------|
| Datum | 2025-05-20 | <div><div>Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf</div><div></div><div>Übersicht overview</div></div> | | | | Teilenummer 8167762 | | CP-Module | | | |
| Bearb. | kshc | | | | | PSP / DPJ | | VN | = GL | Transportband | Seite 7 |
| Erst. | kshc | | | | | | | | + GL | Transportband | von 185 |
| Ze.Nr. | | N: | F: | V: 2025.0.3 | \\festo.net\dfs01\INT\Data\EPLAN\DATA_xx\DE\Projects\Didactic\Products\24 CP-LIV8\8167762_CPLAB_PHASE_2V_V8.elk | | | | | | |

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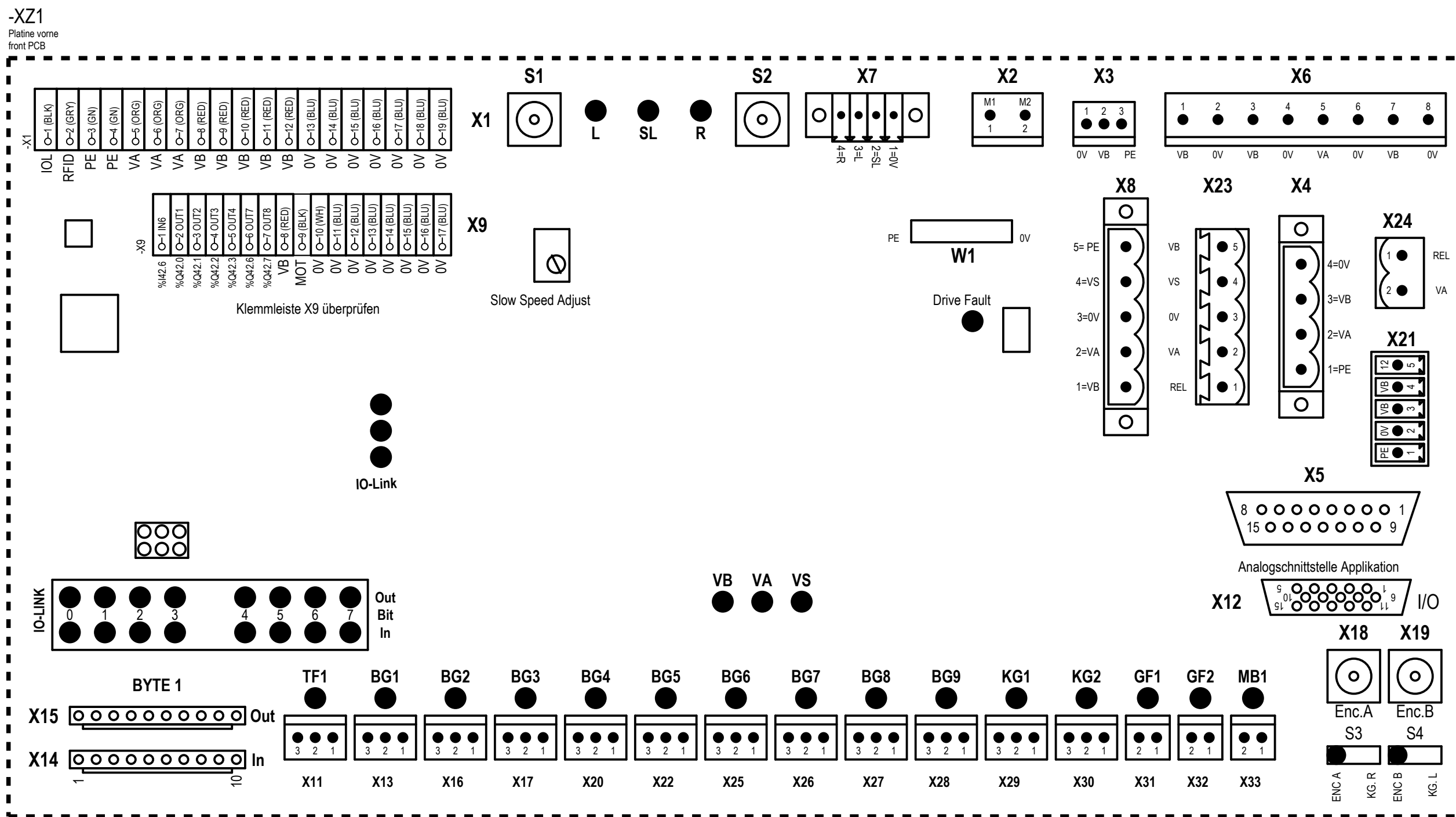


-X1 = Stromversorgung power supply
-X2 = Standardbedienung

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| | | | | | | | | | | | |
|--------|------------|--|----|-------------|---|------------------|-----------------|-------------|--|---------------|--------|
| Datum | 2025-05-20 | <div>Festo Didactic SE</div> <div>Rechbergstraße 3</div> <div>D-73770 Denkendorf</div> | | | | <div>FESTO</div> | Aufbau Assembly | Teilenummer | | CP-Module | |
| Bearb. | kshc | | | | | | | 8167762 | | | |
| Erst. | kshc | | | | | | | PSP / DPJ | | VN | = GL |
| Ze.Nr. | | N: | F: | V: 2025.0.3 | \festo.net\dfs01\INT\Data\EPLAN\DATA_xx\DE\Projects\Didactic\Products\24 CP-LV8\8167762_CPLAB_PHASE_2V_V8.elk | | | + GL | | Transportband | von 14 |



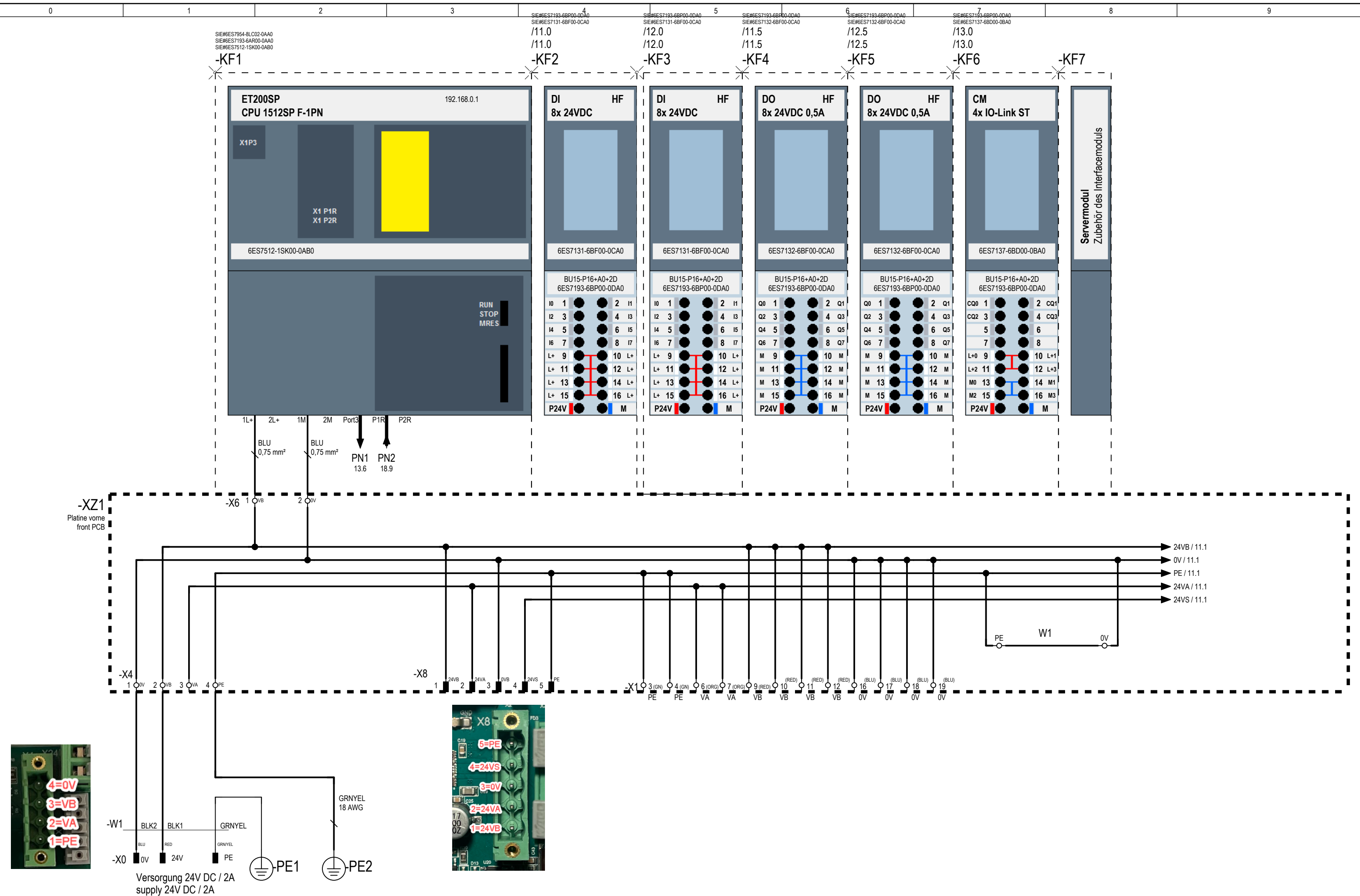
-XZ1-X1 = Klemmen Platine vorne terminals PCB front side

- XZ1-X5 = Analogsignale Applikationsmodul analog signals for application
- XZ1-X7 = Ansteuerung externer Motorregler connection to external Motorcontroller
- XZ1-X8 = 24V Applikationsmodule 24V application modules
- XZ1-X9 = Klemmen Platine vorne terminals PCB front side
- XZ1-X12 = Bedienfeld Grundfunktionen controlpanel basic functions
- XZ1-X14 = Eingangs-Byte 1 Input-Byte 1
- XZ1-X15 = Ausgangs-Byte 1 Output-Byte 1
- XZ1-X18 = Inkrementalgeber BNC-Anschluss 1 incremental encoder BNC-Connect
- XZ1-X19 = Inkrementalgeber BNC-Anschluss 2 incremental encoder BNC-Connect
- XZ1-X21 = HMI Stromversorgung Powersupply HMI
- XZ1-X23 = Not-Halt-Anschluss extern external Emergency-Stop Connector
- XZ1-X24 = Not-Halt-Anschluss extern external Emergency-Stop Connector

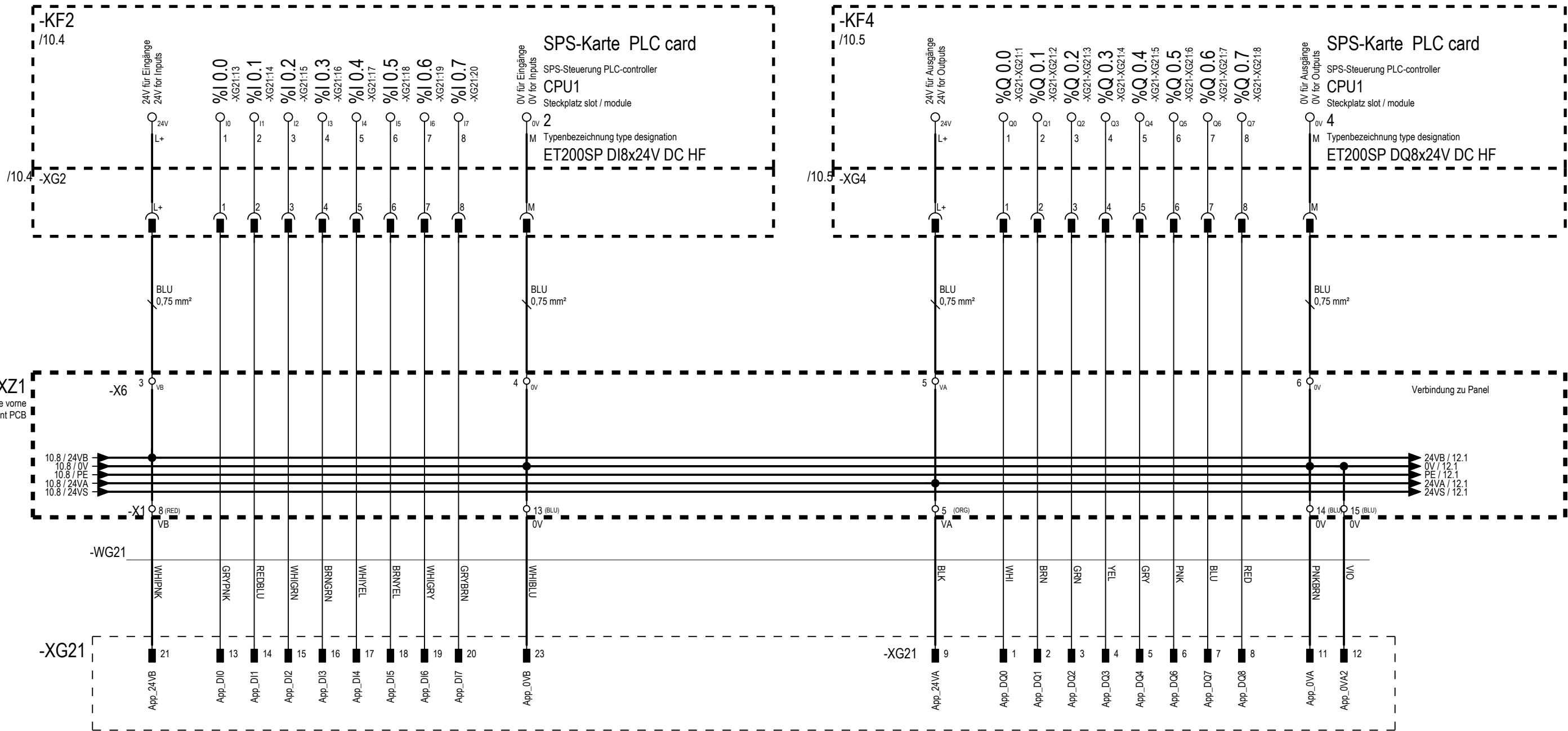
- XZ1-X3 = 24V SWITCH
- XZ1-X6 = 24V PLC
- XZ1-X6 = TF1
- XZ1-X6 = 24V PLC
- XZ1-BG1 = BG1
- XZ1-BG2 = BG2
- XZ1-BG3 = BG3
- XZ1-BG4 = BG4
- XZ1-BG5 = BG5
- XZ1-BG6 = BG6
- XZ1-BG7 = BG7
- XZ1-BG8 = BG8
- XZ1-BG9 = BG9

- XZ1-KG1 = KG1
- XZ1-KG2 = KG2
- XZ1-GF1 = GF1
- XZ1-GF2 = GF2
- XZ1-MB1 = MB1

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Diese Zeichnung ist Eigentum der Festo Didactic SE This drawing is the property of Festo Didactic SE

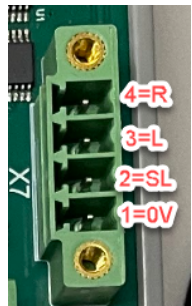


Applikation Schnittstelle Application interface

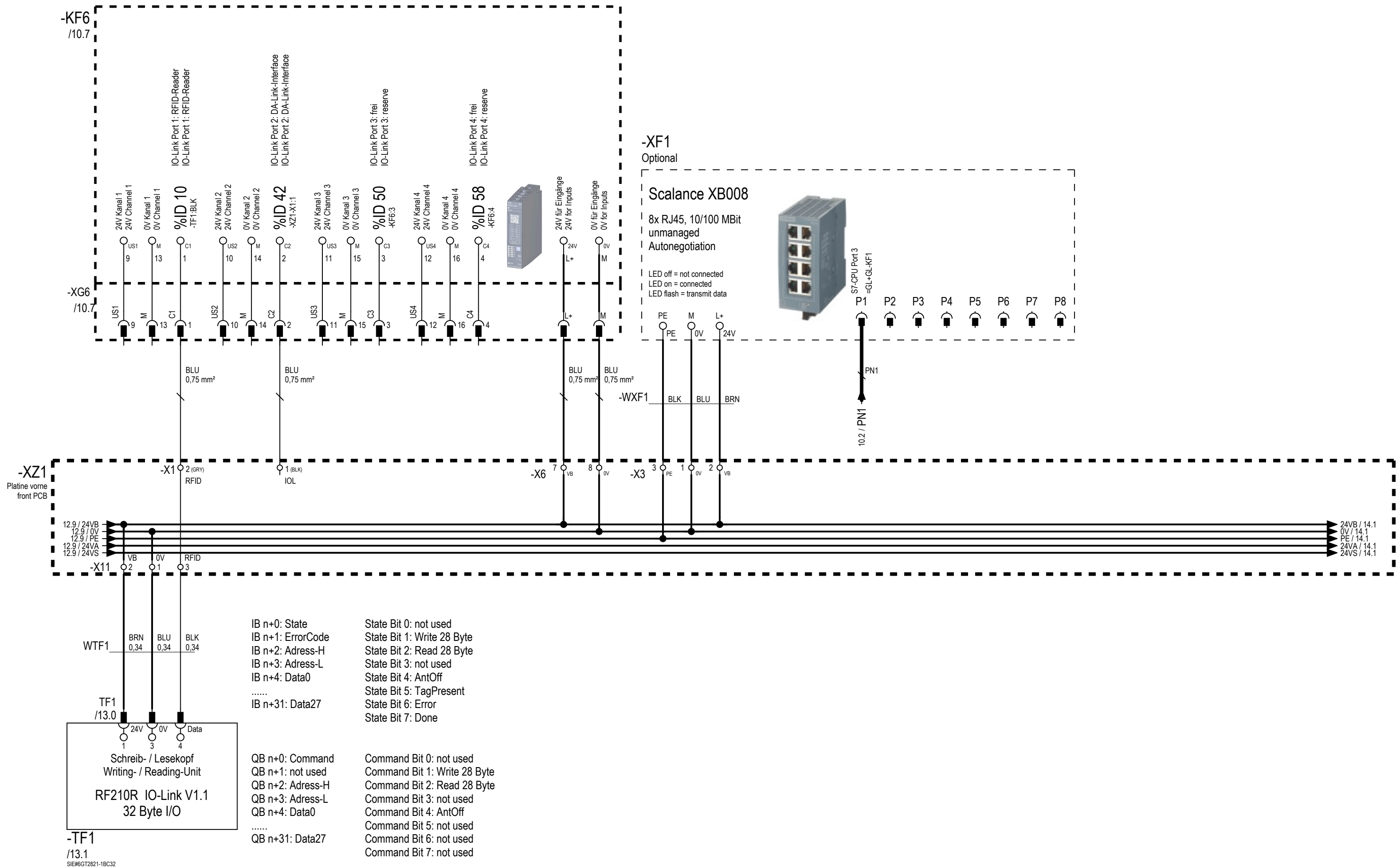
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| | | | | | | | | | | | |
|--------|------------|--|--|--|--|---|------------------------|--|-----------|--|--|
| Datum | 2025-05-20 | Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf | | |  | Applikation - Byte 0 application - Byte 0 | Teilenummer 8167762 | | CP-Module | | |
| Bearb. | kshc | | | | | | PSP / DPJ VN | | | | |
| Erst. | kshc | N: F: V: 2025.0.3 \\festo.net\dfs01\INT\Data\EPLAN\DATA_xx\DE\Projects\Didactic\Products\24 CP-LV8\8167762_CPLAB_PHASE_2V_V8.elk | | | | | = GL Transportband | | Seite 11 | | |
| Ze.Nr. | | | | | | | + GL Transportband | | von 14 | | |




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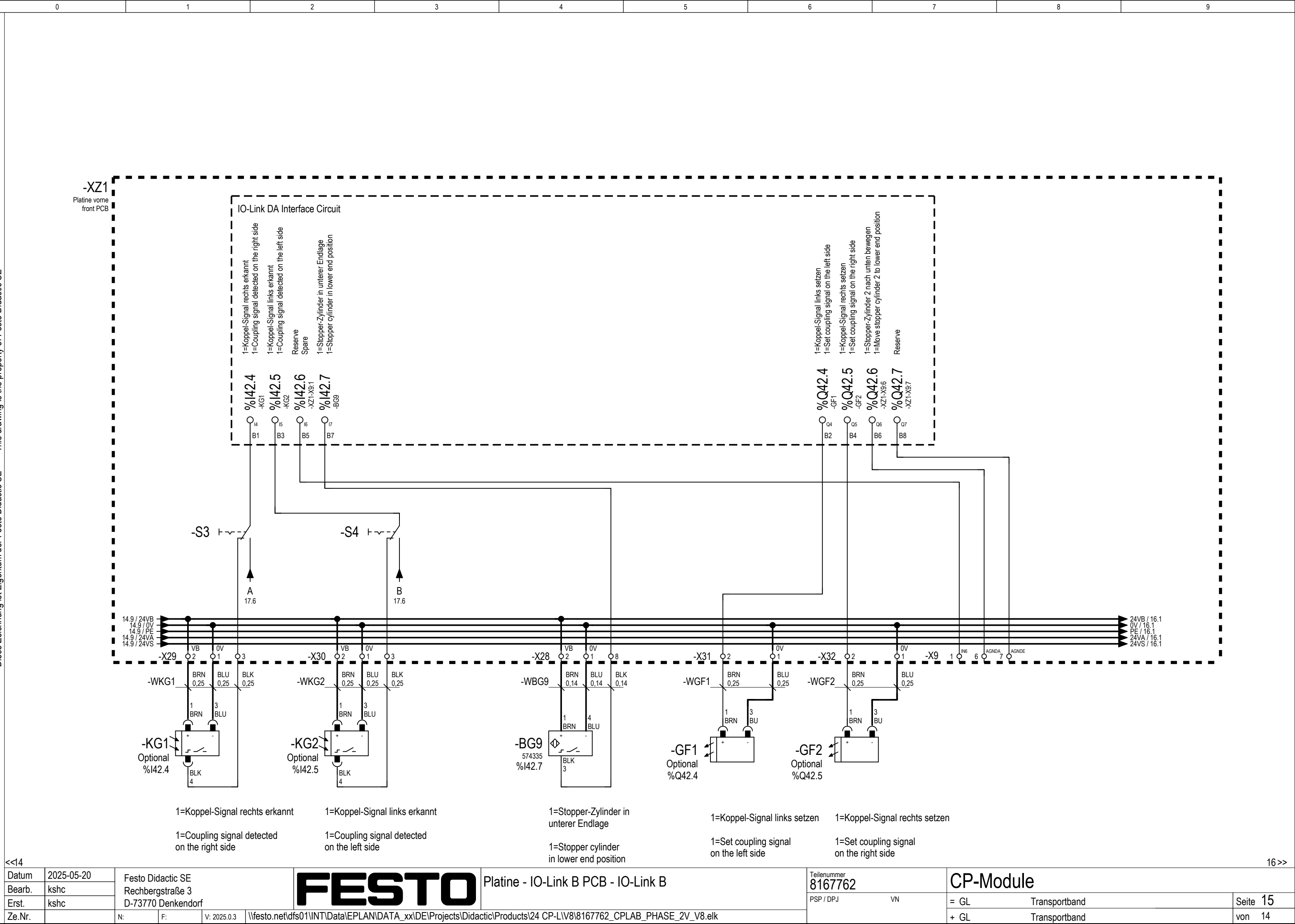
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14>>

| | | | | | | | | | | | |
|--------|------------|---|----|-------------|---|--|---|-------------|-----------|---------------|--------|
| Datum | 2025-05-20 | Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf | | | |  | Platine - IO-Link & Ethernet PCB - IO-Link & Ethernet | Teilenummer | CP-Module | | |
| Bearb. | kshc | | | | | | | 8167762 | | | |
| Erst. | kshc | | | | | | | PSP / DPJ | | | |
| Ze.Nr. | | N: | F: | V: 2025.0.3 | \\festo.net\dfs01\INT\Data\EPLAN\DATA_xx\IDE\Projects\Didactic\Products\24 CP-LV8\8167762_CPLAB_PHASE_2V_V8.elk | | | | + GL | Transportband | von 14 |



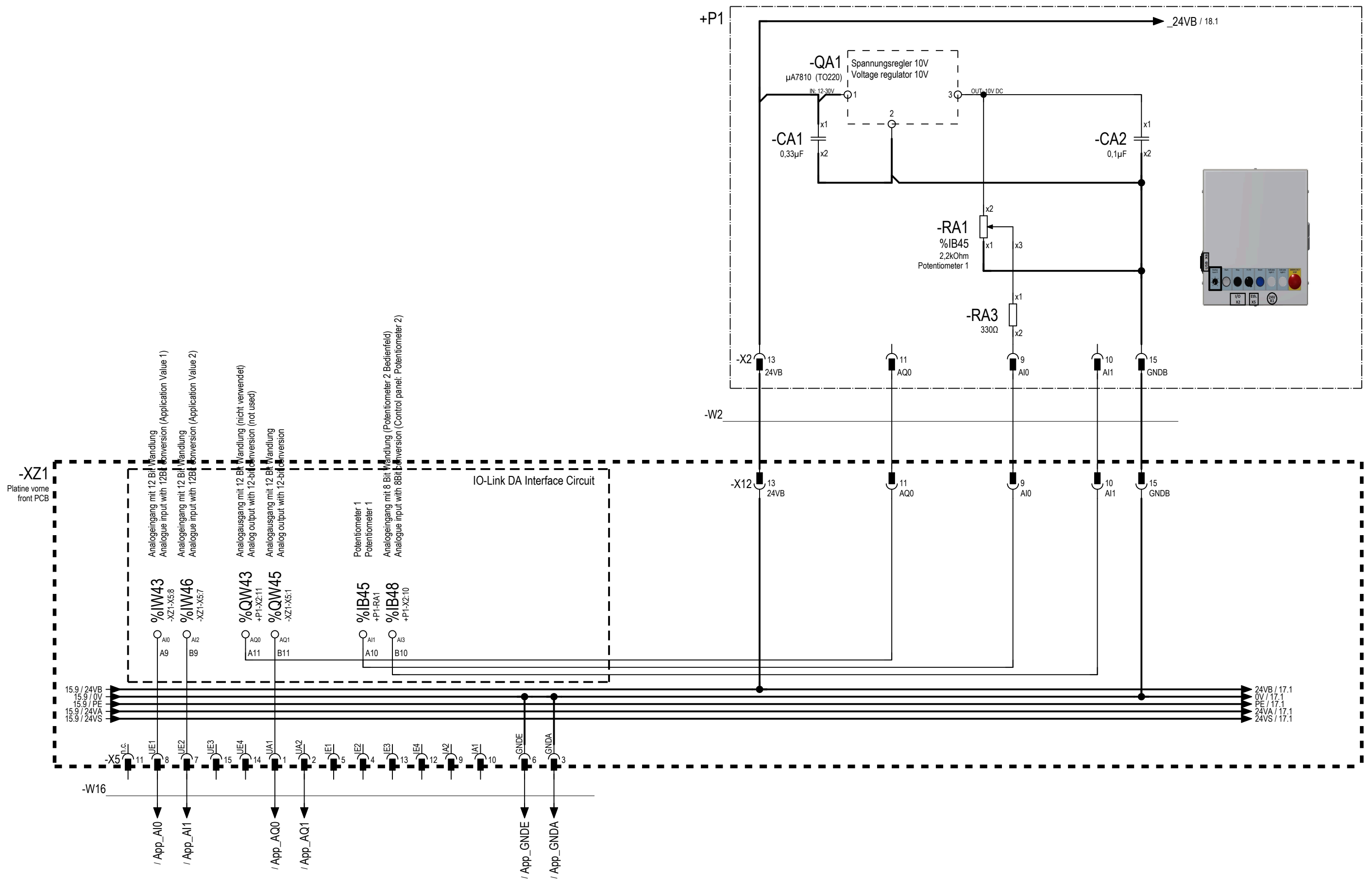
Diese Zeichnung ist Eigentum der Festo Didactic SE
This drawing is the property of Festo Didactic SE



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|--------|------------|---|----|-------------|---|---|------------------------|--|-----------|------|---------------|----------|
| Datum | 2025-05-20 | Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf | | | | <div><div>FESTO</div><div>Platine - IO-Link B PCB - IO-Link B</div></div> | Teilenummer 8167762 | | CP-Module | | | |
| Bearb. | kshc | | | | | | PSP / DPJ | | VN | = GL | Transportband | Seite 15 |
| Erst. | kshc | | | | | | | | | + GL | Transportband | von 14 |
| Ze.Nr. | | N: | F: | V: 2025.0.3 | \\festo.net\dfs01\INT\Data\EPLAN\DATA_xx\DE\Projects\Didactic\Products\24 CP-L\V8\8167762_CPLAB_PHASE_2V_V8.elk | | | | | | | |

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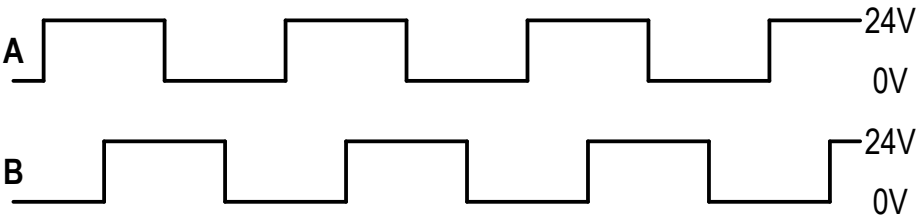


Applikation Schnittstelle

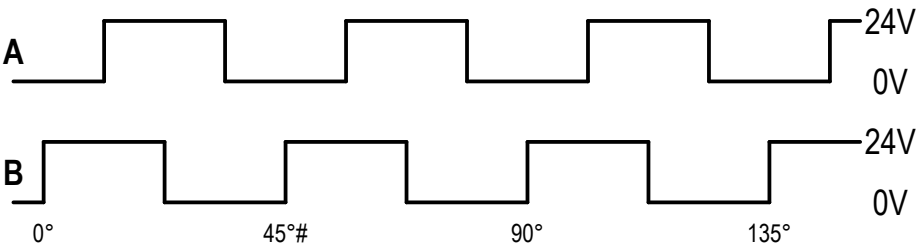
Application interface

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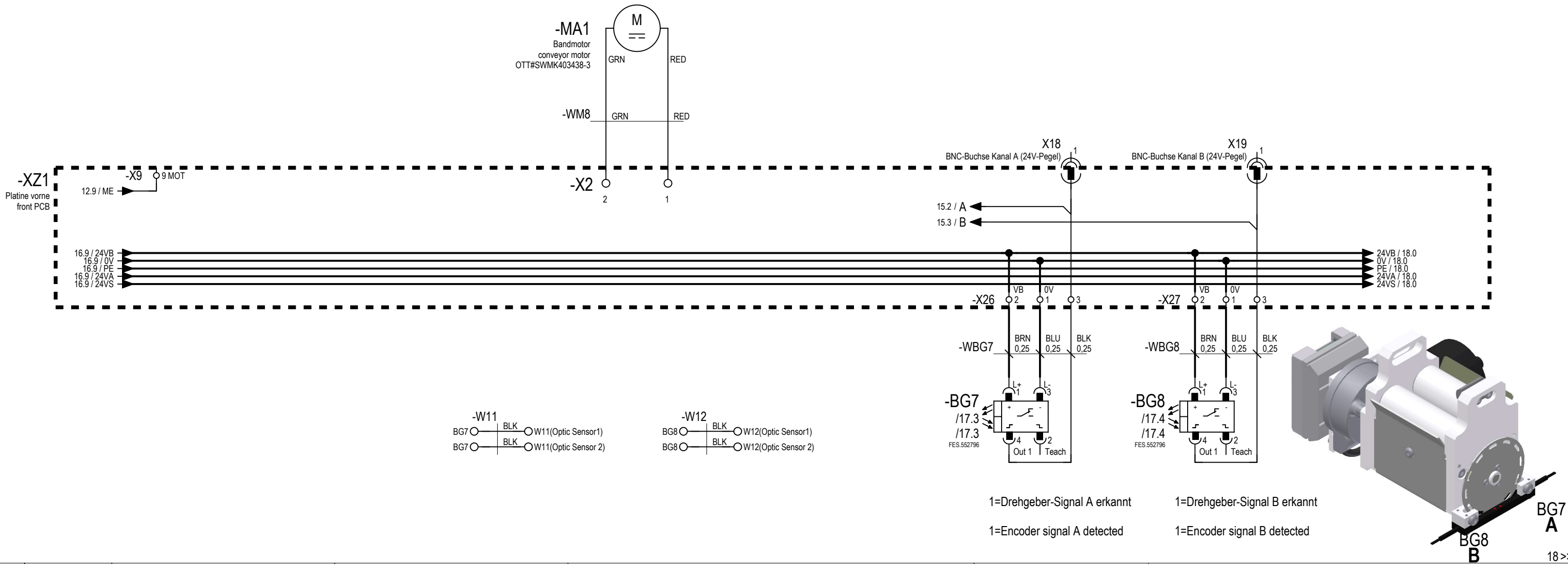
Bandantrieb Rechtslauf
transport direction to right



Bandantrieb Linkslauf
transport direction to left



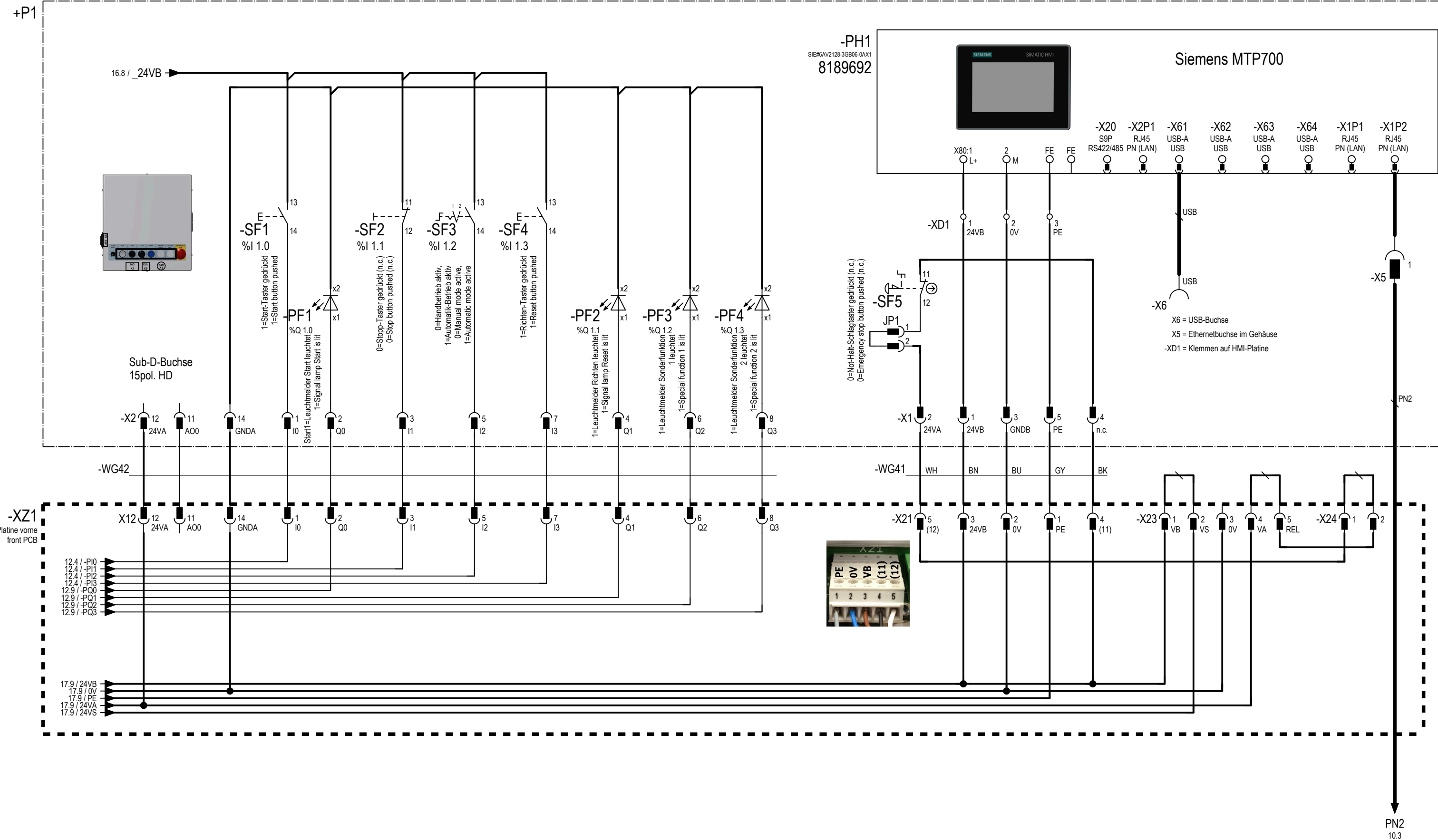
1 Umdrehung = 8 Impulse je Kanal = 30mm * π = 94,2 mm
1 rotation = 8 pulses/channel = 30mm * π = 94,2 mm



1=Drehgeber-Signal A erkannt
1=Drehgeber-Signal B erkannt
1=Encoder signal A detected
1=Encoder signal B detected

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|--------|------------|---|----|-------------|--|--|------------------------|--|---------------|--|----------|
| Datum | 2025-05-20 | Festo Didactic SE Rechbergstraße 3 D-73770 Denkendorf | | | FESTO | Platine - Motor + Inkrementalgeber PCB - motor + encoder | Teilenummer 8167762 | | CP-Module | | |
| Bearb. | kshc | | | | | | PSP / DPJ VN | | | | |
| Erst. | kshc | | | | | | = GL | | Transportband | | Seite 17 |
| Ze.Nr. | | N: | F: | V: 2025.0.3 | \\festo.net\dfs01\INT\Data\EPLAN\DATA_xx\DE\Projects\Didactic\Products\24 CP-LV8\8167762_CPLAB_PHASE_2V_V8.elk | | + GL | | Transportband | | von 14 |



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&EMA1

Klemmenplan
Terminal diagram

Klemmenplan Terminal diagram

[illegible]

Klemmenplan Terminal diagram

[illegible]

Klemmenplan Terminal diagram

[illegible]

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Klemmenplan

Terminal diagram

| Funktionstext function text | | | | | | | | | Kabelname Cable name | Leiste Strip =GL+GL-XZ1-X22 | | | | | | | | | | Kabelname Cable name | | | | Seite/Pfad |
|--------------------------------|--|--|--|--|--|--|--|--|-------------------------|--------------------------------|-------------------------------|---------------------------------------|-----------------|------------------------------|-----------------|----------------|-------------------------------|---------------------------------------|-------------------------------|-------------------------|------|--|--|------------|
| | | | | | | | | | Typ | Type | Anschluss Connection point | Zielbezeichnung Target designation | Artikel part | Klemmen-Nr. Terminals-No. | Brücken Jmp. | Etage level | Geräteanschl. Device conn. | Zielbezeichnung Target designation | Anschluss Connection point | Typ | Type | | | |
| -BG5 | | | | | | | | | | | BLK | -BG5 | | 3 | ▪ | 3 | %I 1.6 | -XZ1-X14 | 7 | | | | | EFS/12.3 |
| | | | | | | | | | | | BRN | -BG5 | | 2 | ▪ | 2 | | -XZ1-X6 | 3 | | | | | EFS/12.3 |
| | | | | | | | | | | | BLU | -BG5 | | 1 | ▪ | 1 | | -XZ1-X1 | 15 | | | | | EFS/12.3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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Klemmenplan

Terminal diagram

| Funktionstext function text | | | | | | | | | Kabelname Cable name | Leiste Strip =GL+GL-XZ1-X25 | | | | | | | | | | Kabelname Cable name | | | | Seite/Pfad |
|--------------------------------|--|--|--|--|--|--|--|--|-------------------------|--------------------------------|-------------------------------|---------------------------------------|-----------------|------------------------------|-----------------|----------------|-------------------------------|---------------------------------------|-------------------------------|-------------------------|------|--|--|------------|
| | | | | | | | | | Typ | Type | Anschluss Connection point | Zielbezeichnung Target designation | Artikel part | Klemmen-Nr. Terminals-No. | Brücken Jmp. | Etage level | Geräteanschl. Device conn. | Zielbezeichnung Target designation | Anschluss Connection point | Typ | Type | | | |
| -BG6 | | | | | | | | | | | BLK | -BG6 | | 3 | ▪ | 3 | %I 1.7 | -XZ1-X14 | 8 | | | | | EFS/12.4 |
| | | | | | | | | | | | BRN | -BG6 | | 2 | ▪ | 2 | | -XZ1-X22 | 2 | | | | | EFS/12.4 |
| | | | | | | | | | | | BLU | -BG6 | | 1 | ▪ | 1 | | -XZ1-X22 | 1 | | | | | EFS/12.4 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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Klemmenplan Terminal diagram

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