

ELEKTROSCHEMA

Projektbeschreibung: Musteranlagen

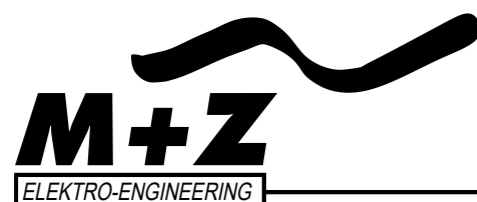
Anlage: Muster_Schema

Objekt: Musteranlage
Musterstrasse
CH-9999 Musterort LUL

Kunde: M+Z Elektro-Engineering GMBH
Grütlistrasse 44 444
Te. 044/288 34 00 55
CH-8022 Zürich ZH ZHZZ

Auftragsnummer:

Zeichnungsnummer:



M+Z Elektro-Engineering GmbH
Winkelstrasse 23B
CH-6022 Grosswangen

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Fax. +41 41 980 65 00

<http://www.mzee.ch/>
info@mzee.ch

| Rev. | Änderung | Datum | Name | Erstellt von | ZUR |
|------|----------|-------|------|----------------|------------|
| | | | | Datum | 02.02.2020 |
| | | | | Nächstes Blatt | 002 |
| | | | | Anzahl Blätter | 82 |
| | | | | Blatt | 001 |

AA_GRUNDBLÄTTER

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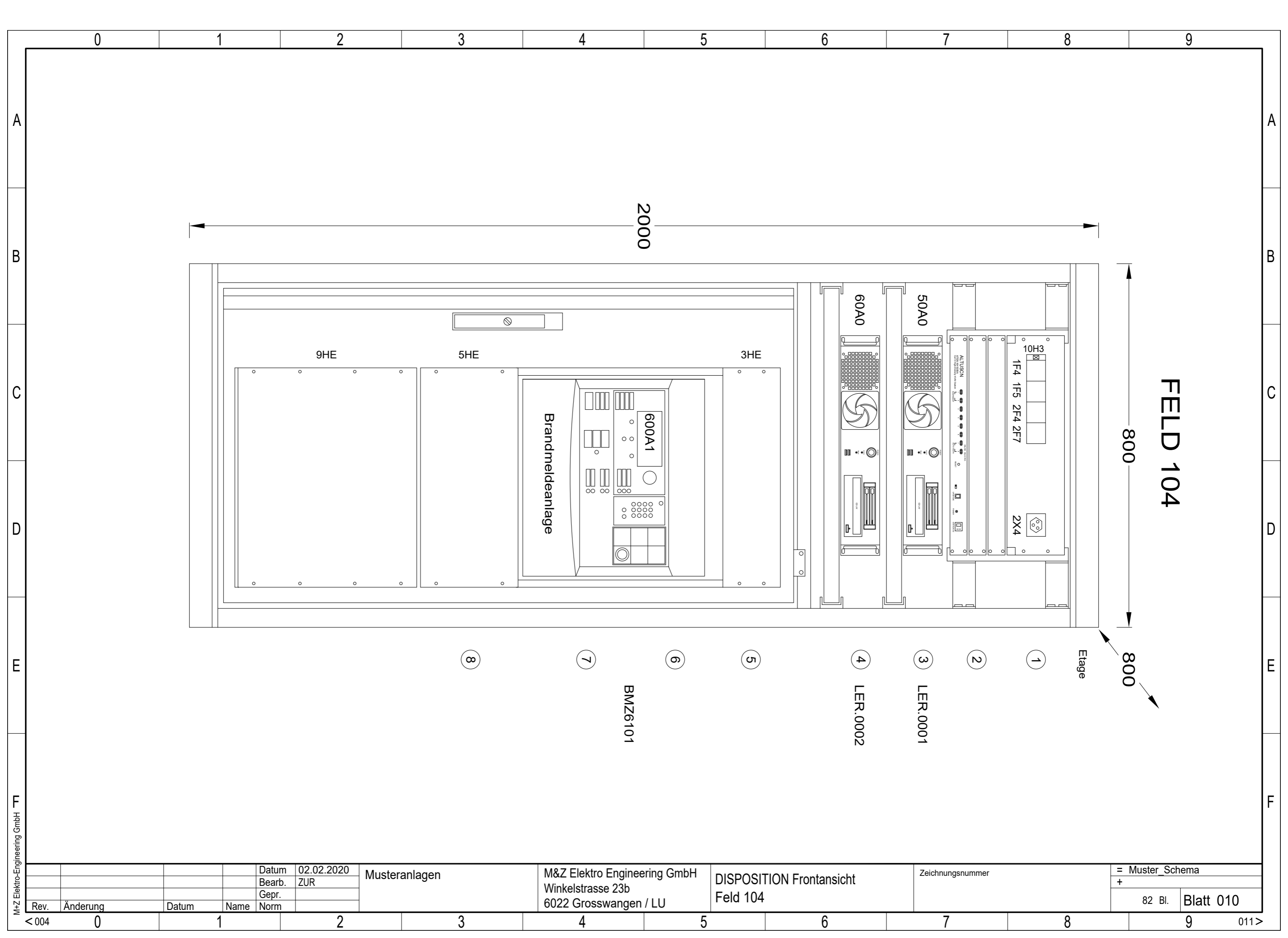
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| Muster_Schema | 001 | | Titelblatt | | | 02.02.2020 | ZUR |
| Muster_Schema | 002 | | Inhaltsverzeichnis | | | 12.11.2020 | ZUR |
| Muster_Schema | 003 | | Inhaltsverzeichnis | | | 12.11.2020 | ZUR |
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| Muster_Schema | 2 | | Einspeisung 230VAC | Steckdose Odorierung | | 02.02.2020 | ZUR |
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| Muster_Schema | 20 | | Blitzlampe u. Horn im Gasraum | Ex-i Zone, SD0001, SD0002 | | 02.02.2020 | ZUR |
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| Muster_Schema | 22 | | Signal von Telefon | MAUL3S-02 | | 02.02.2020 | ZUR |
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| Muster_Schema | 50 | | UST-PC SZM_M1/ Leitrechner1 | LER.0001 / Frontansicht | | 02.02.2020 | ZUR |
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| | | | | Bearb. | Ludwig Zurkirchen | | Winkelstrasse 23b | | | + |
| | | | | Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. |
| | | | | Norm | | | | | | Blatt 002 |

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| Muster_Schema | 290 | | SPS Ex Analog Eingänge 4AE | SPS0001 / Steckplatz 14 | | 02.02.2020 | ZUR |
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| Muster_Schema | 296 | | SPS Analog Eing. Ex EW216-222 | SPS0001/ (Reserve) | | 02.02.2020 | ZUR |
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| Datum | 12.11.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Inhaltsverzeichnis | Zeichnungsnummer | = Muster_Schema | |
| Bearb. | ZUR | | | | | + | |
| Gepr. | | | | | | 82 Bl. | Blatt 003 |
| Rev. | Änderung | Datum | Name | Norm | | | |



M&Z Elektro-Engineering GmbH

| Rev. | Änderung | Datum | Name | Datum | Bearb. | Gepr. | Norm |
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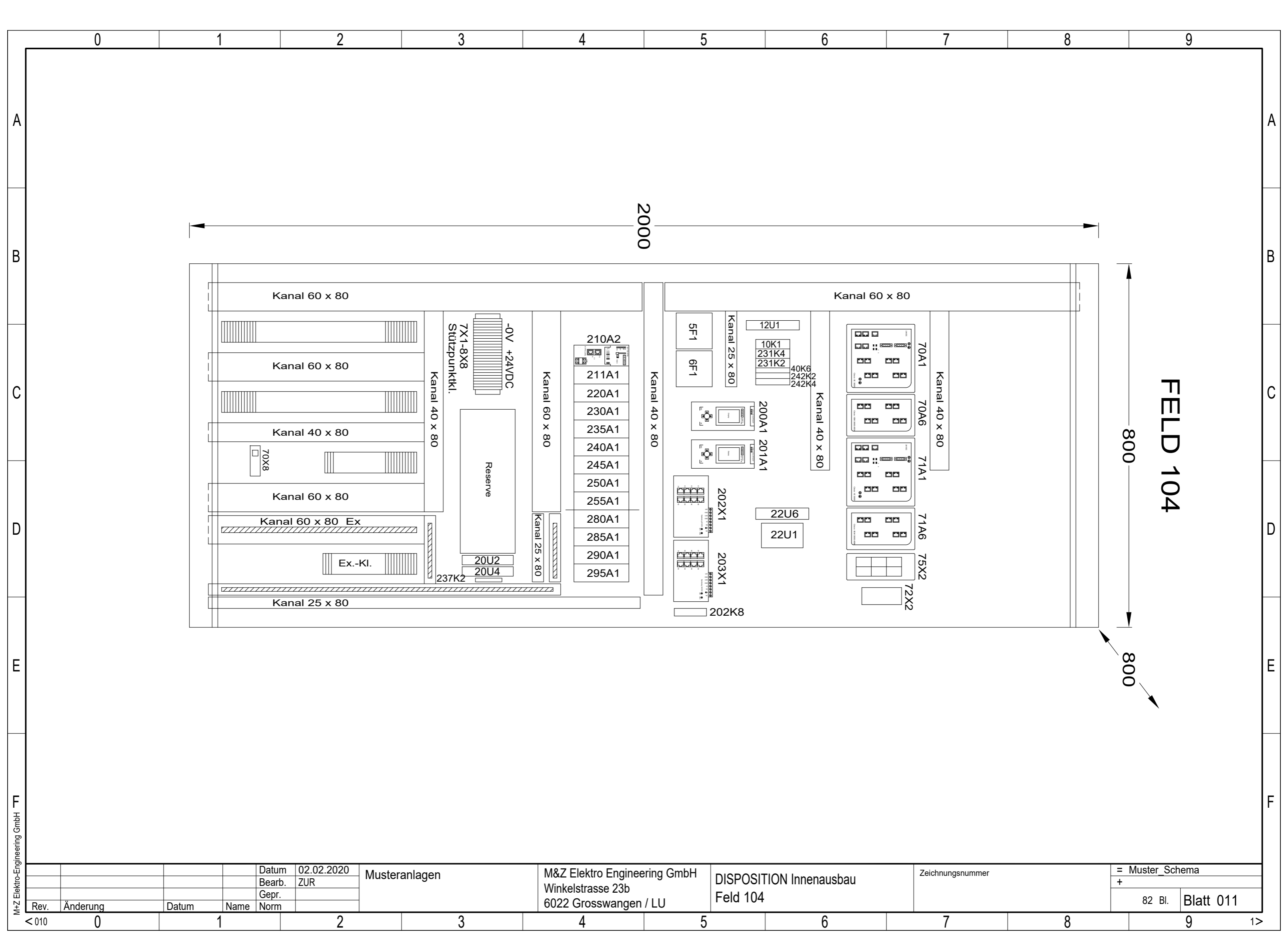
Musteranlagen

M&Z Elektro Engineering GmbH
 Winkelstrasse 23b
 6022 Grosswangen / LU

DISPOSITION Frontansicht
 Feld 104

Zeichnungsnummer

= Muster_Schema
 +
 82 Bl. Blatt 010



2000

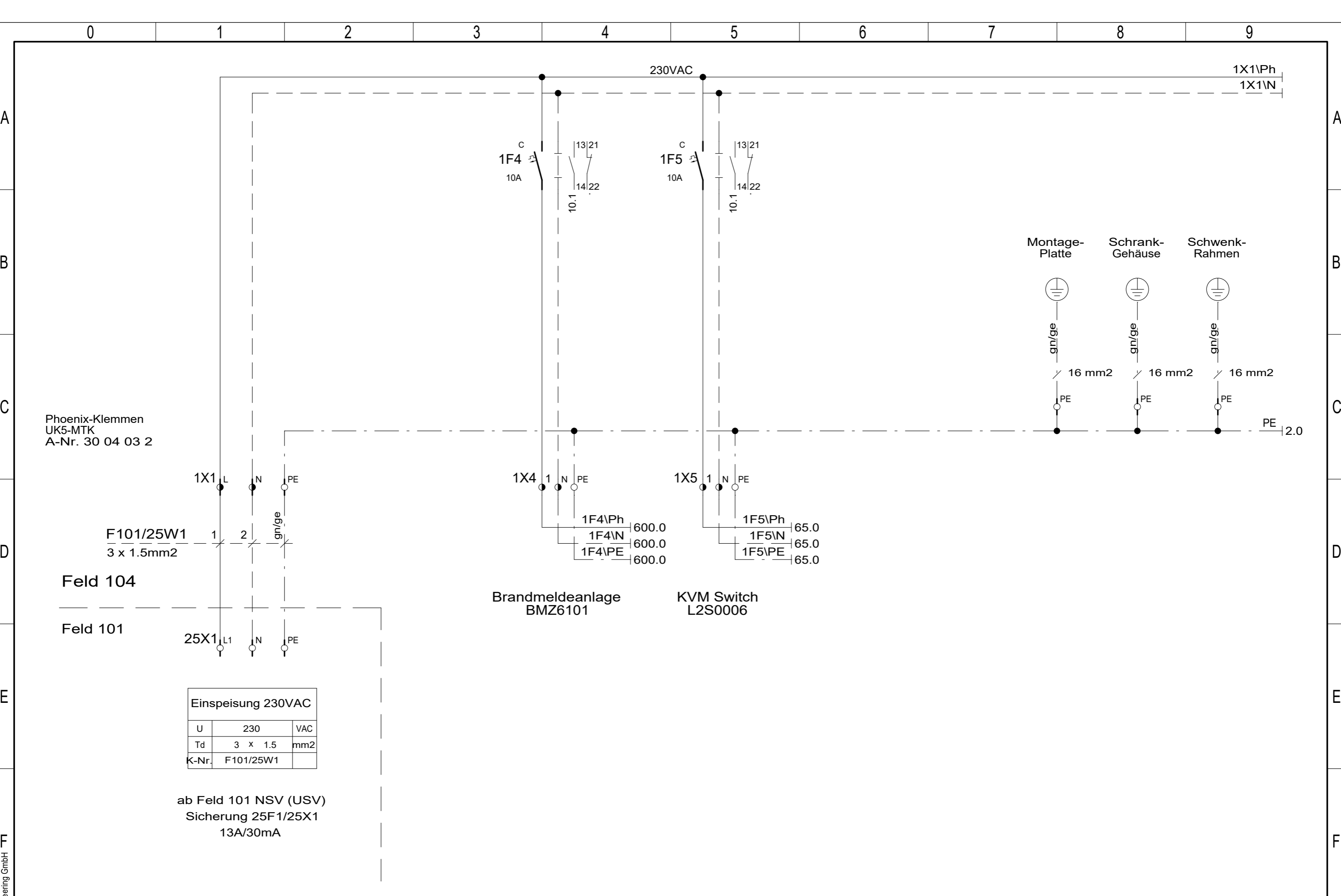
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800

FIELD 104

M&Z Elektro-Engineering GmbH

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| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | DISPOSITION Innenausbau Feld 104 | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + 82 Bl. | Blatt 011 |
| < 010 | 0 | 1 | 2 | 3 | 4 | | | | | 5 | 6 |



Phoenix-Klemmen
UK5-MTK
A-Nr. 30 04 03 2

F101/25W1
3 x 1.5mm2

Feld 104

Feld 101

| Einspeisung 230VAC | | |
|--------------------|-----------|-----|
| U | 230 | VAC |
| Td | 3 x 1.5 | mm2 |
| K-Nr. | F101/25W1 | |

ab Feld 101 NSV (USV)
Sicherung 25F1/25X1
13A/30mA

Brandmeldeanlage
BMZ6101

KVM Switch
L2S0006

Montage-
Platte

Schrank-
Gehäuse

Schwenk-
Rahmen



gn/ge

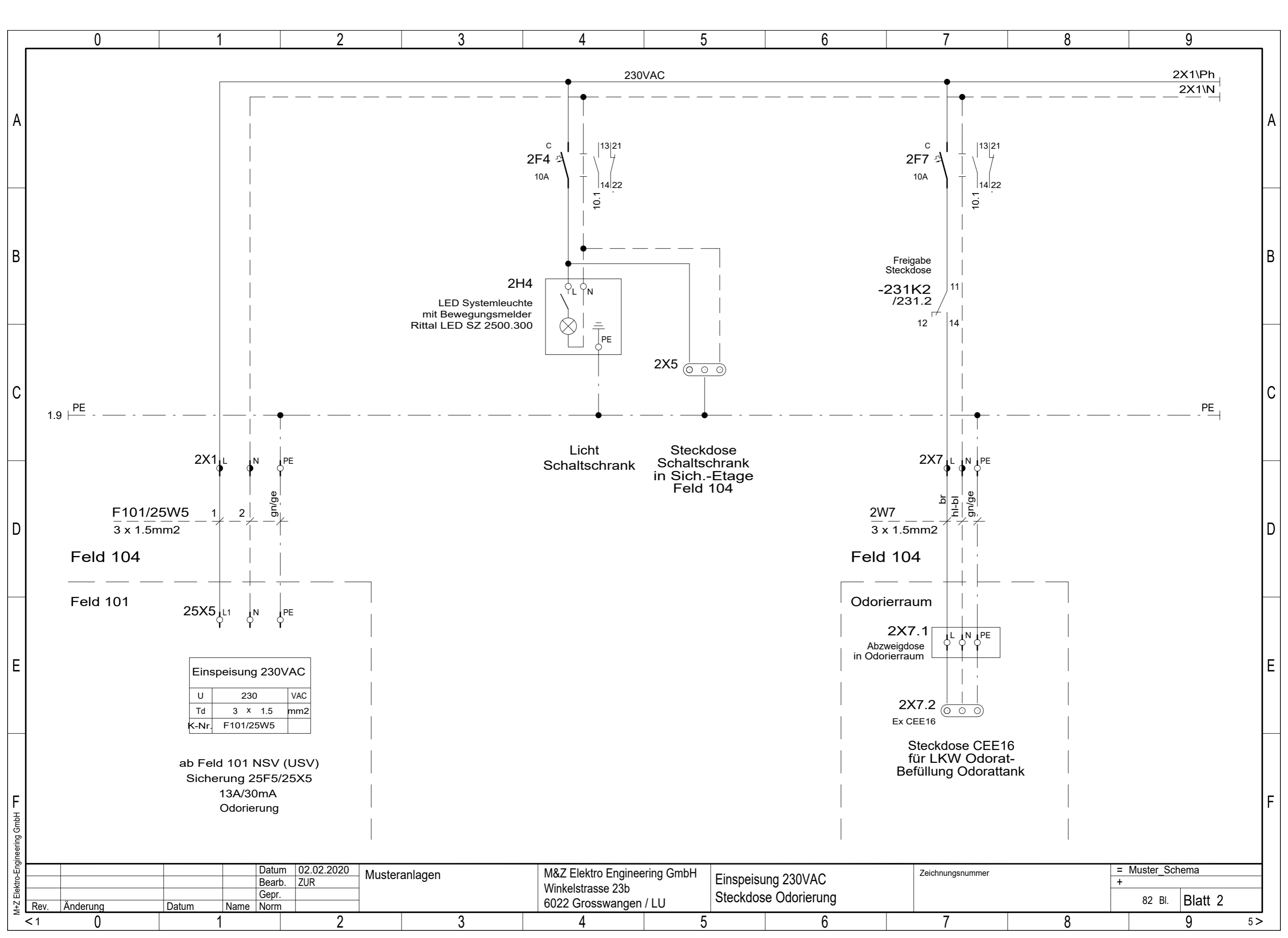
16 mm2



PE 2.0

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
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| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Einspeisung 230VAC/LS Automaten ab Feld 101 NSV | Zeichnungsnummer | = Muster_Schema | |
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| | | | | Gepr. | | | | | | 82 Bl. | Blatt 1 |



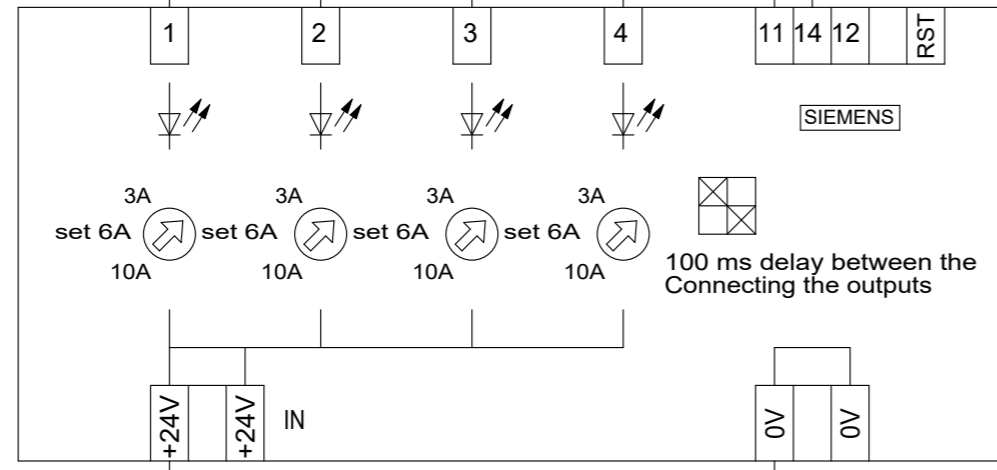
| Einspeisung 230VAC | | |
|--------------------|-----------|-----|
| U | 230 | VAC |
| Td | 3 x 1.5 | mm2 |
| K-Nr. | F101/25W5 | |

ab Feld 101 NSV (USV)
Sicherung 25F5/25X5
13A/30mA
Odorierung

| | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|------------------------------|----------------------|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH | Einspeisung 230VAC | Zeichnungsnummer | = Muster_Schema |
| | | | | Bearb. | ZUR | | Winkelstrasse 23b | Steckdose Odorierung | | + |
| | | | | Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. |
| | | | | Norm | | | | | | Blatt 2 |

SIEMENS
SITOP PSE200U
6EP1961-2BA21

5F1

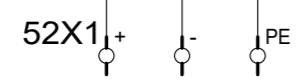


LED
Green: output switched
Red: overload/short circuit
Flashing orange: startin off manually

F101/ 52W1
3 x 2.5mm2

Feld 104

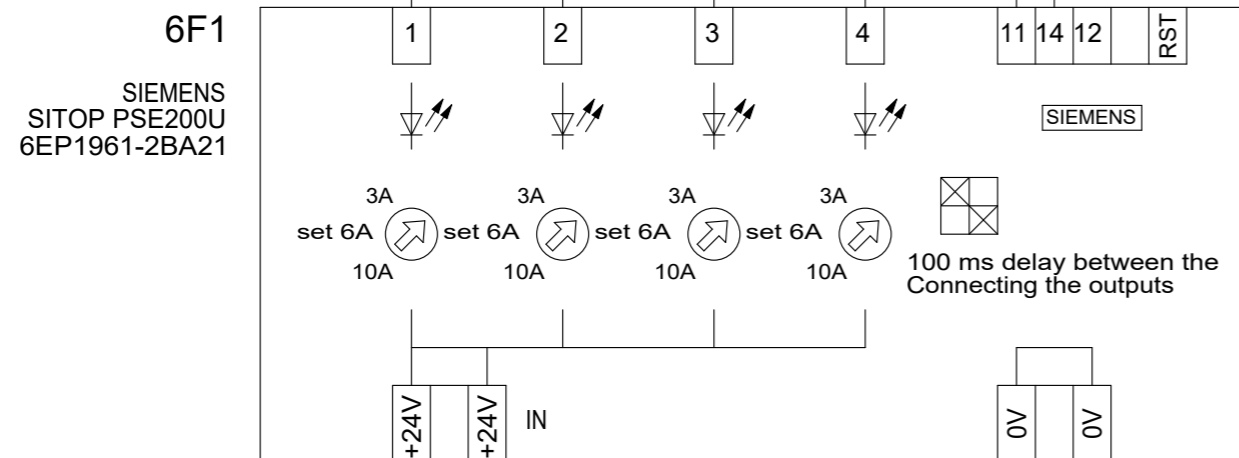
Feld 101



| Einspeisung 24VDC | | |
|-------------------|-----------|-----|
| U | 24 | VDC |
| Td | 3 x 1.5 | mm2 |
| K-Nr. | F101/52W1 | |

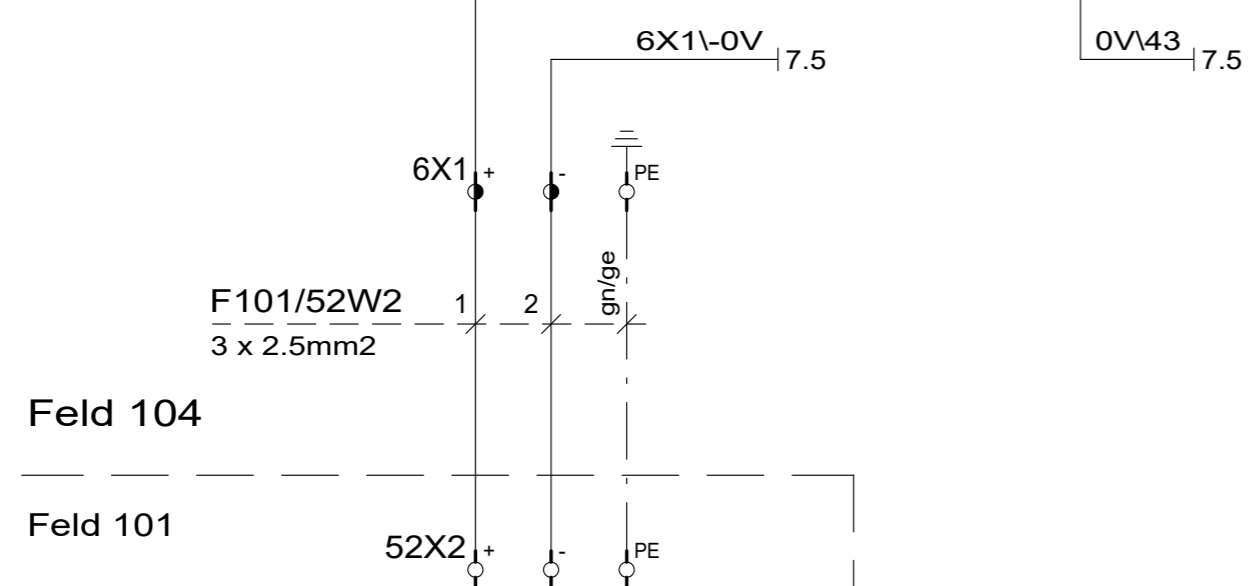
ab Feld 101 NSV
Sicherung 52F1/52X1
16A

| | | | | | | | | | |
|------------------------------|----------|-------|------------|---------------|--|--------------------------------------|------------------|-----------------|---------|
| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Einspeisung 24VDC ab Feld 101 NSV | Zeichnungsnummer | = Muster_Schema | |
| Rev. | Änderung | Datum | Name | | | | | + | |
| | | | | | | | | 82 Bl. | Blatt 5 |



LED
 Green: output switched
 Red: overload/short circuit
 Flashing orange: startin off manually

100 ms delay between the Connecting the outputs



F101/52W2
 3 x 2.5mm²

Feld 104

Feld 101

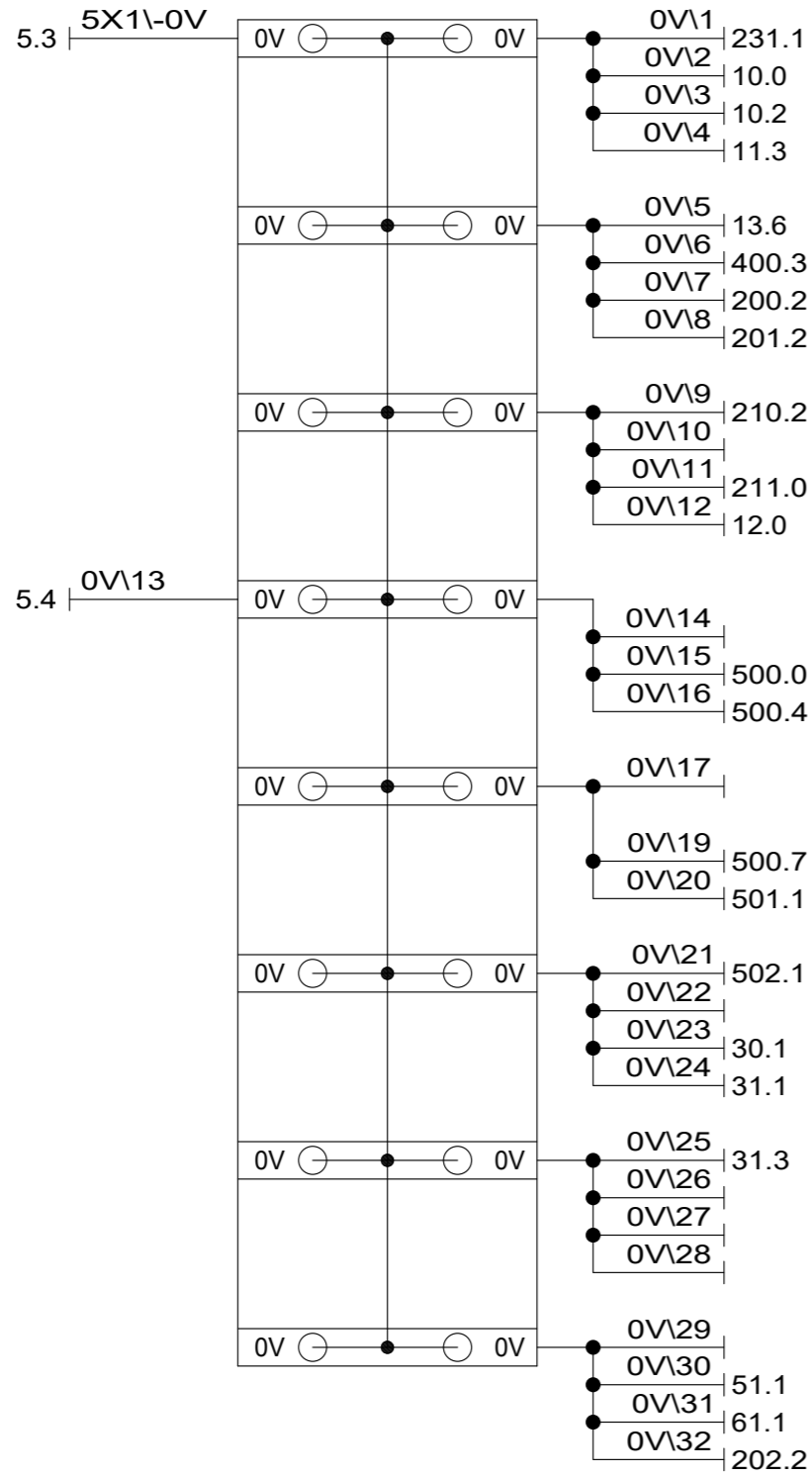
| Einspeisung 24VDC | | |
|-------------------|-----------|-----------------|
| U | 24 | VDC |
| Td | 3 x 1.5 | mm ² |
| K-Nr. | F101/52W2 | |

ab Feld 101 NSV
 Sicherung 52F2/52X2
 16A

| | | | | | | | | | |
|------------------------------|----------|-------|------------|---------------|--|--------------------------------------|------------------|-----------------|---------|
| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Einspeisung 24VDC ab Feld 101 NSV | Zeichnungsnummer | = Muster_Schema | |
| Rev. | Änderung | Datum | Name | | | | | + | |
| 0 | | | | | | | | 82 Bl. | Blatt 6 |

**Stützpunkt
7X1/-0V**

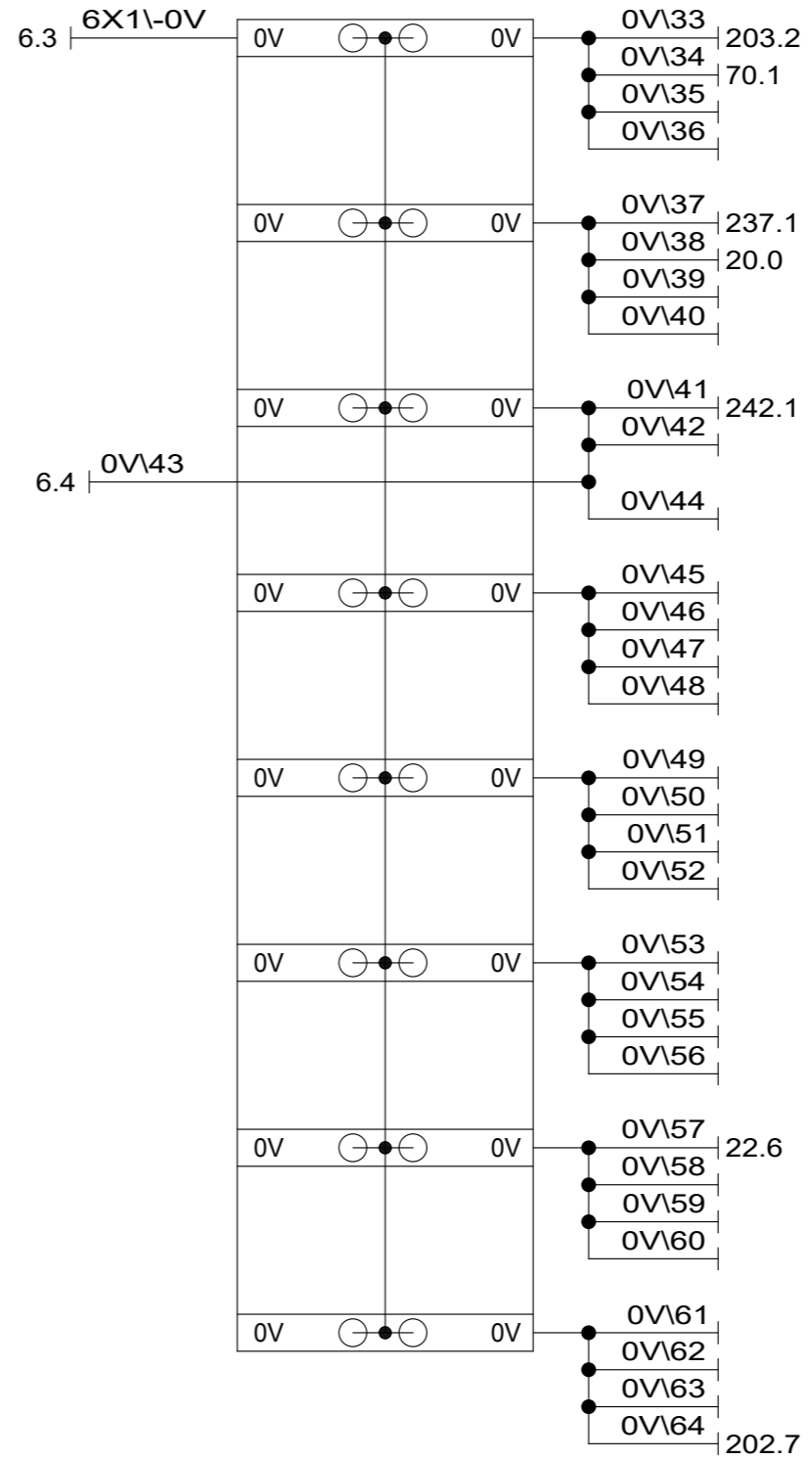
Block untere Reihe
0VDC SPS 0001



0VDC

**Stützpunkt
7X6/-0V**

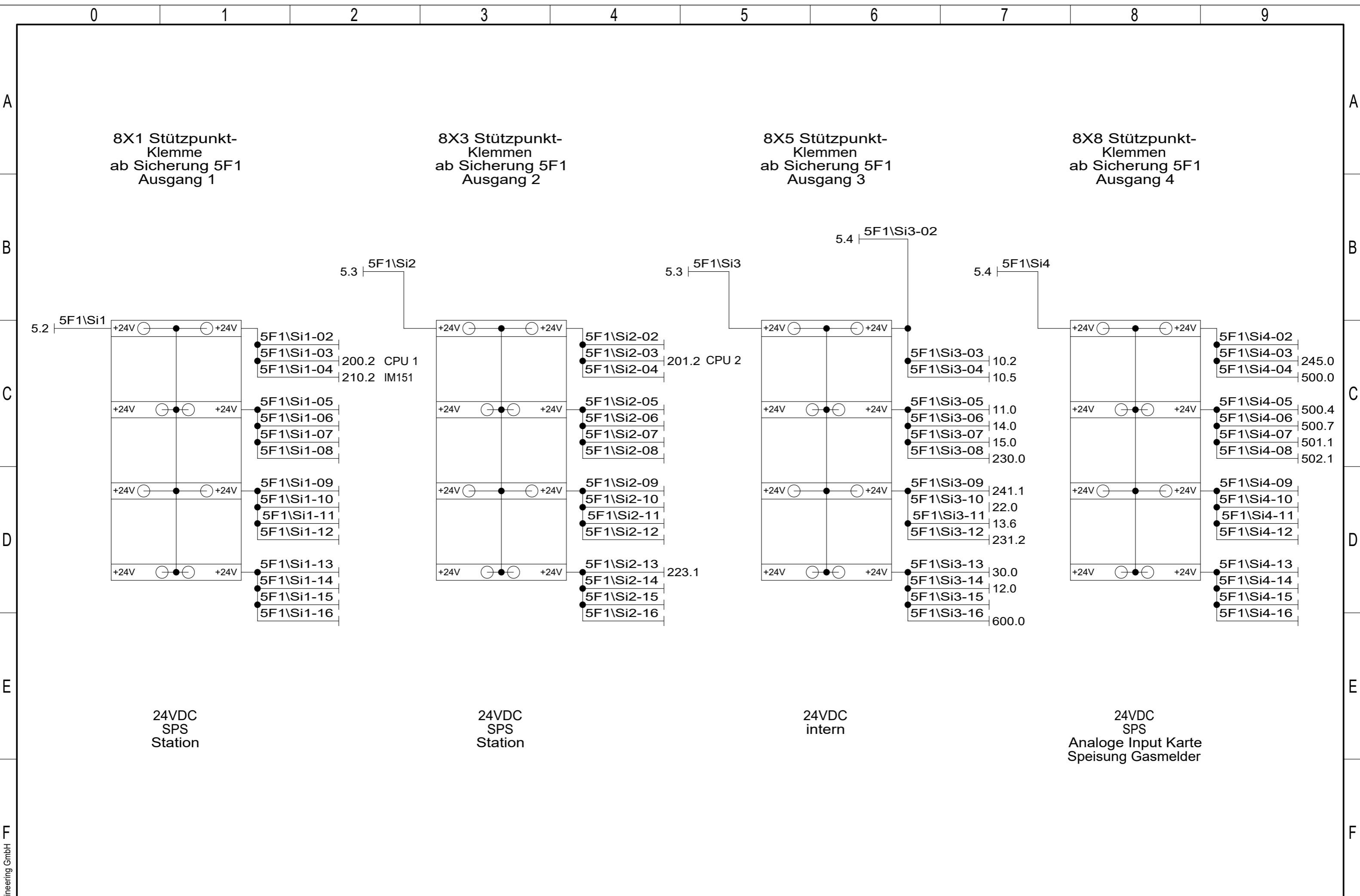
Block obere Reihe
0VDC SPS 0001



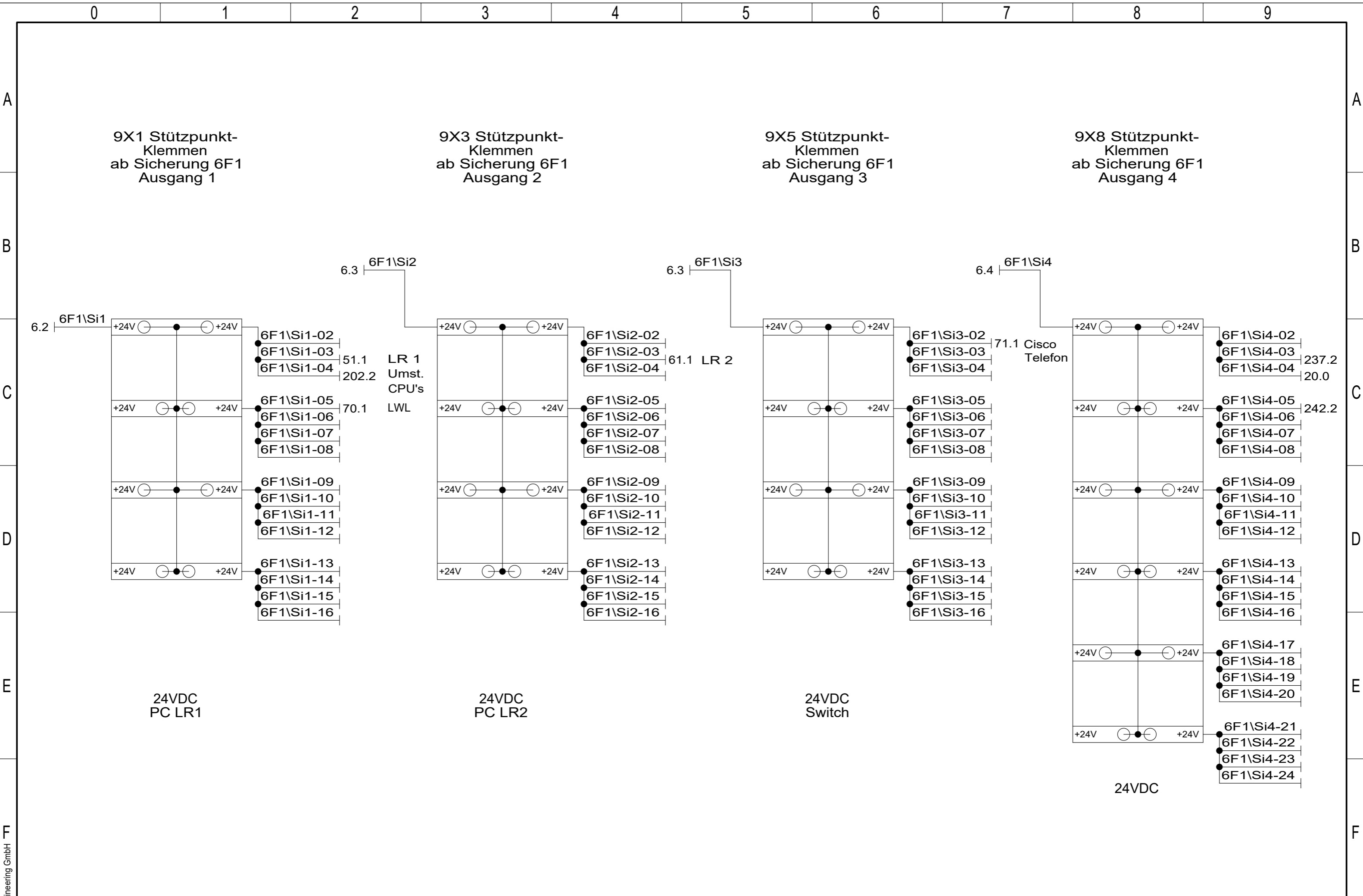
0VDC

Phoenix-Klemmen:
Doppelstockklemmen MBKKB 2.5
Querverbinder FB-150

| | | | | | | | |
|--------|------------|---------------|--|--|------------------|-----------------|---------|
| Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Stützpunkt-Klemmen -0V Klemmen -0V / 1 bis 64 | Zeichnungsnummer | = Muster_Schema | |
| Bearb. | ZUR | | | | | + | |
| Gepr. | | | | | | 82 Bl. | Blatt 7 |
| Rev. | Änderung | Datum | Name | Norm | | | |



| | | | | | | | | | |
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| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Stützpunkt-Klemmen 24VDC SCH1 ab Modul 5F1, SPS-Karten | Zeichnungsnummer | = Muster_Schema | |
| Rev. | Änderung | Datum | Name | | | | | + | |
| | | | | | | | | 82 Bl. | Blatt 8 |



| | | | | | | | | | |
|---------------|----------|--|------|---|--------|------------------|------|----------------------|---------|
| Musteranlagen | | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | | Stützpunkt-Klemmen 24VDC SCH2 ab Modul 6F1, PC, Switch | | Zeichnungsnummer | | = Muster_Schema + | |
| Rev. | Änderung | Datum | Name | Datum | Bearb. | Gepr. | Norm | 82 Bl. | Blatt 9 |
| | | | | 02.02.2020 | ZUR | | | | |

M&Z Elektro-Engineering GmbH

A

B

C

D

E

F

A

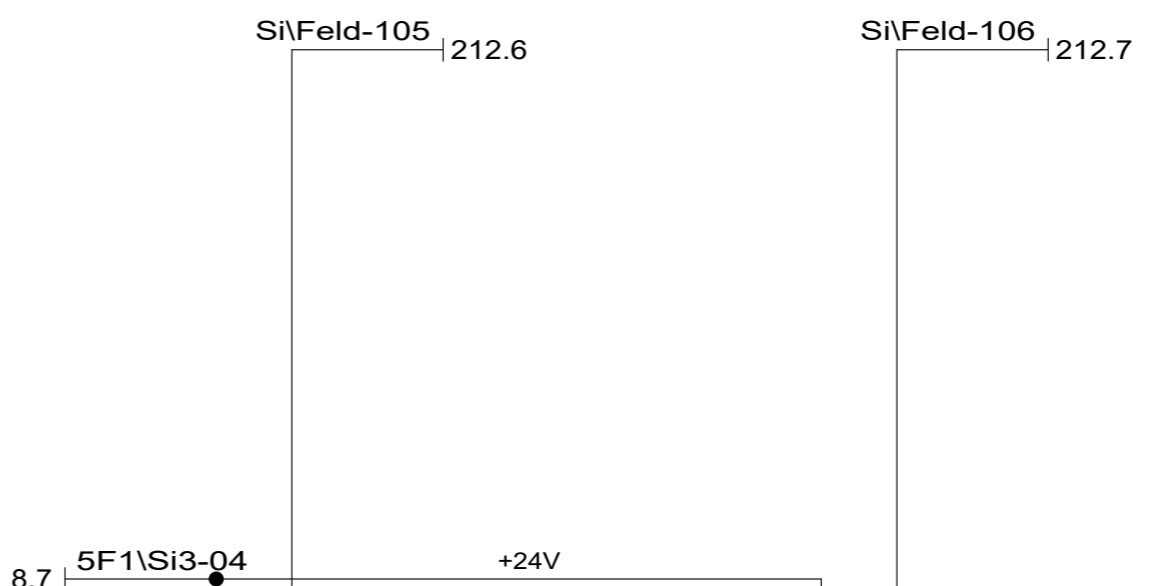
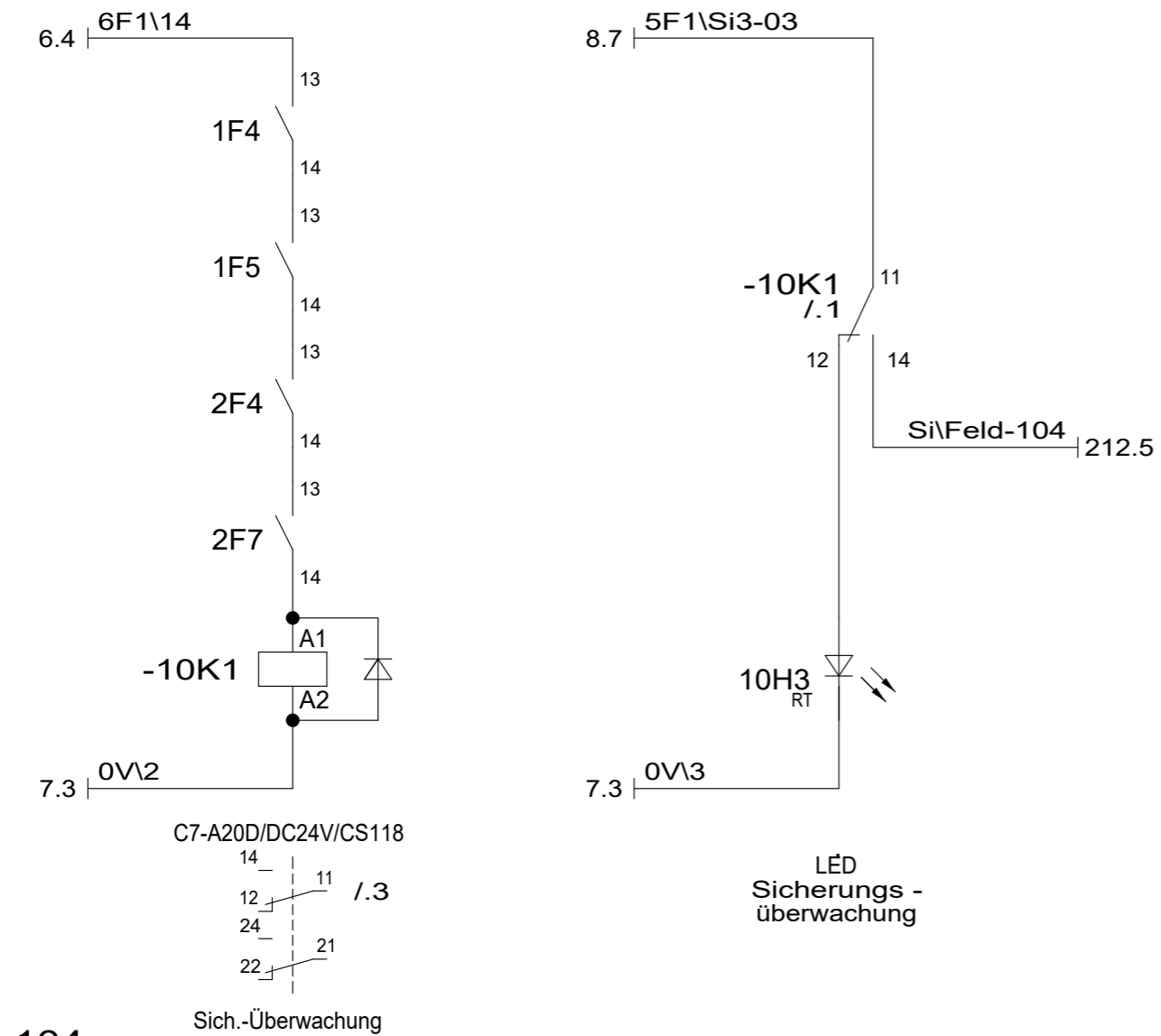
B

C

D

E

F



Feld 104

Feld 104

Feld 105

Feld 106

Feld 105

Feld 106

| Sich.-Überwachung | | |
|-------------------|-------|-----|
| U | 24 | VDC |
| Td | 3 x 1 | mm2 |
| K-Nr. | 10W5 | |

| Sich.-Überwachung | | |
|-------------------|-------|-----|
| U | 24 | VDC |
| Td | 3 x 1 | mm2 |
| K-Nr. | 10W7 | |

| | |
|--------|------------|
| Datum | 02.02.2020 |
| Bearb. | ZUR |
| Gepr. | |
| Rev. | Änderung |
| Datum | Name |

Musteranlagen

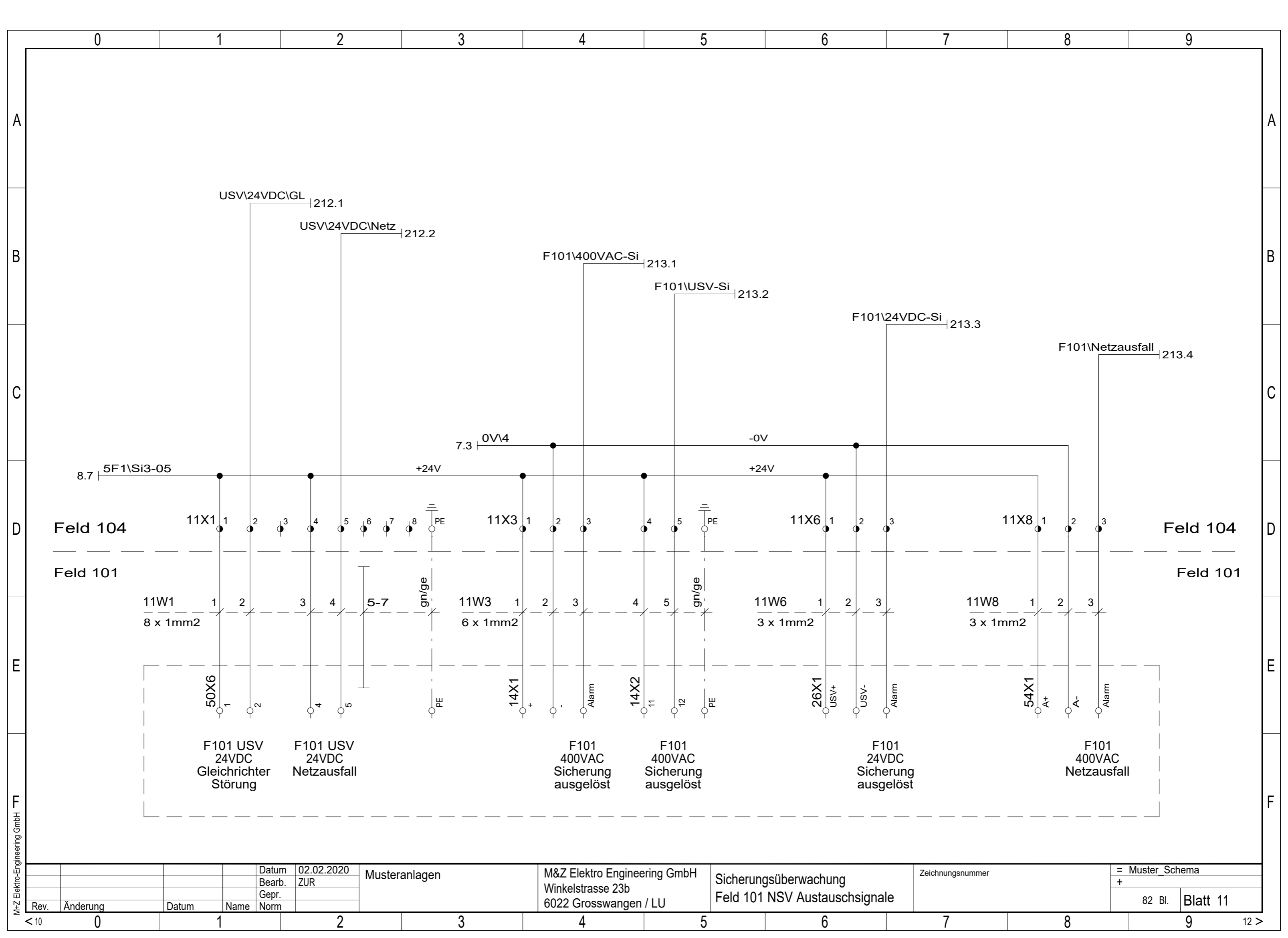
M&Z Elektro Engineering GmbH
 Winkelstrasse 23b
 6022 Grosswangen / LU

Sicherungsüberwachung Meldungen
 nach Feld 104, 105, 106

Zeichnungsnummer

= Muster_Schema

+
 82 Bl. Blatt 10



M&Z Elektro-Engineering GmbH

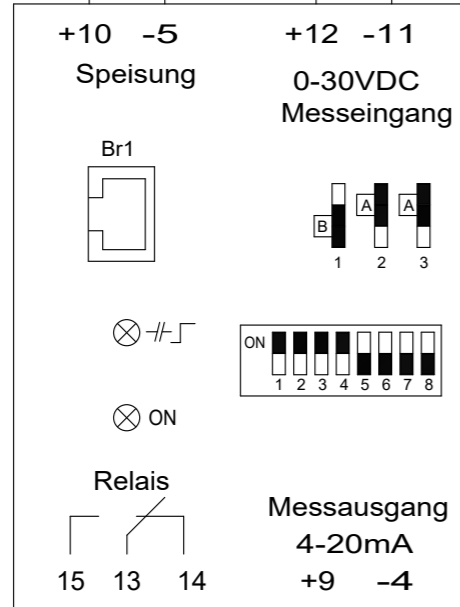
| | |
|--------|------------|
| Datum | 02.02.2020 |
| Bearb. | ZUR |
| Gepr. | |
| Rev. | Änderung |
| Datum | Name |

| | | | | |
|---------------|--|--|------------------|---|
| Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Sicherungsüberwachung Feld 101 NSV Austauschsignale | Zeichnungsnummer | = Muster_Schema + 82 Bl. Blatt 11 |
|---------------|--|--|------------------|---|

8.7 | 5F1\Si3-14 +24V
7.3 | 0V\12 -0V

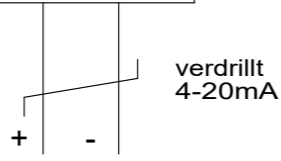
12U1

Camille Bauer
Messumformer
SINEAX V 604



Adressierung

- Jumper nicht gesteckt
- Jumper gesteckt



UNI-F104 | 246.1

Feld 104

Feld 104

Spannung 24VDC
ab Feld 104

M&Z Elektro-Engineering GmbH

| | |
|--------|------------|
| Datum | 02.02.2020 |
| Bearb. | ZUR |
| Gepr. | |
| Rev. | Änderung |
| Datum | Name |
| Norm | |

Musteranlagen

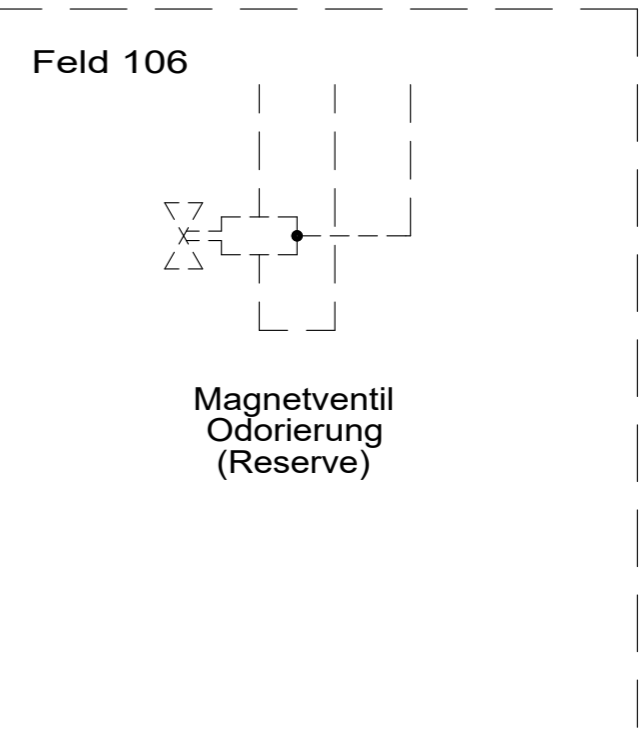
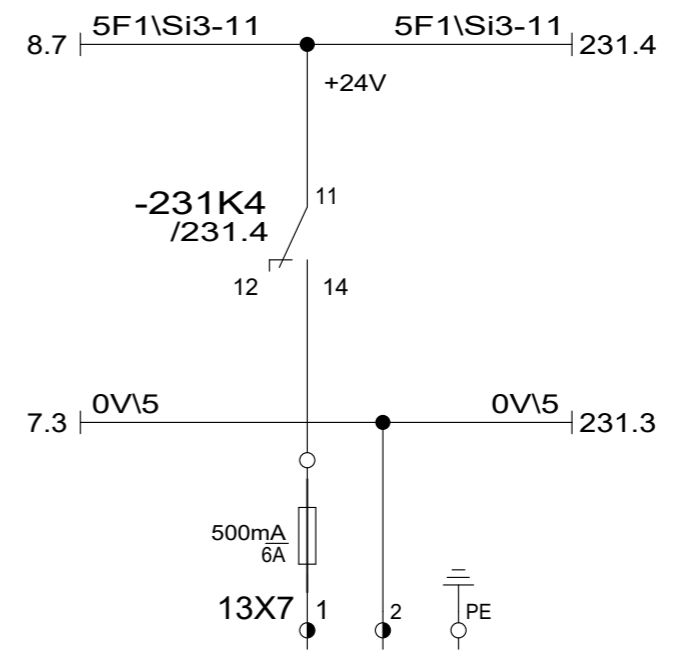
M&Z Elektro Engineering GmbH
Winkelstrasse 23b
6022 Grosswangen / LU

24VDC Spannungsüberwachung
Feld 104 Eingang

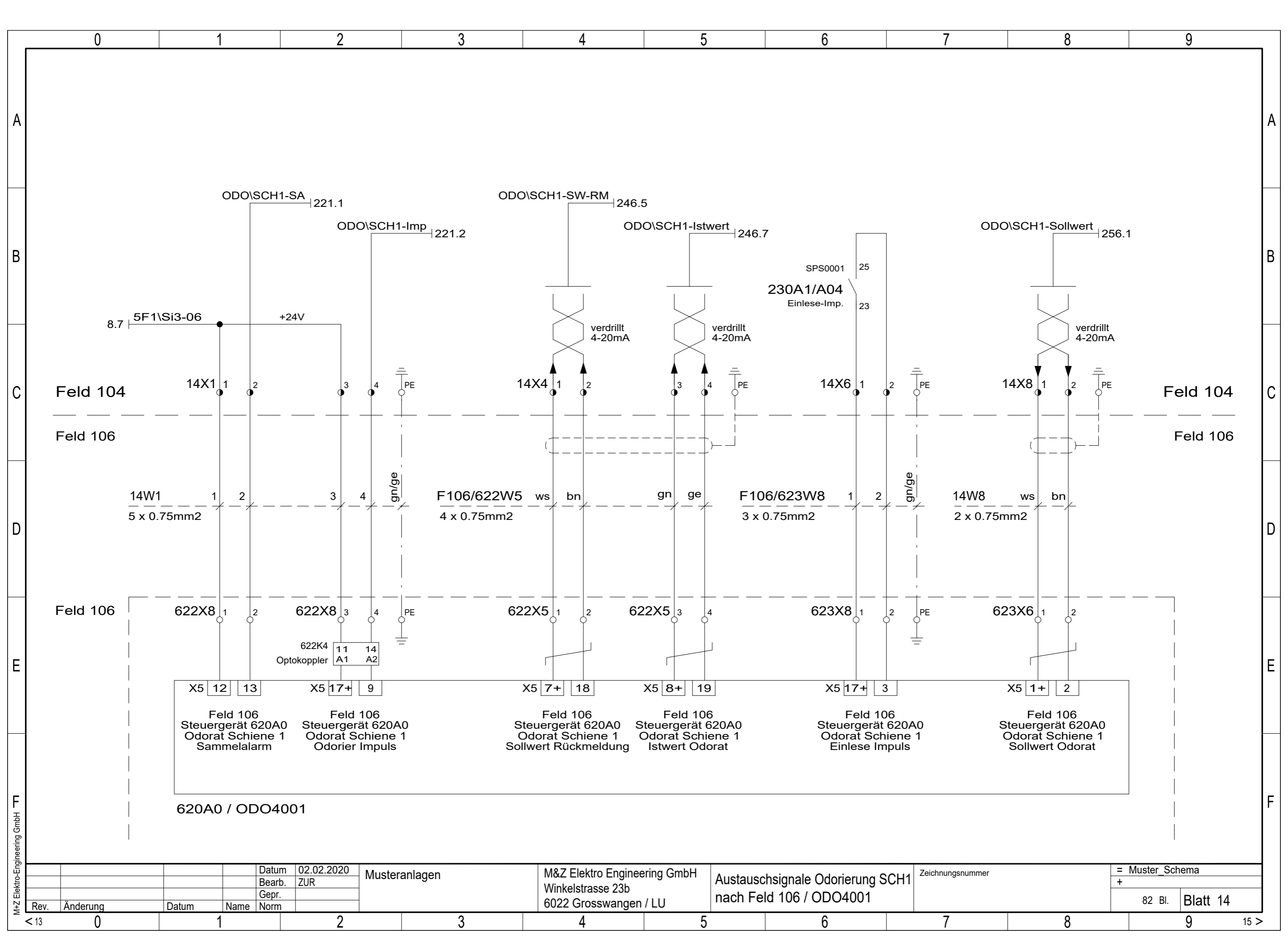
Zeichnungsnummer

= Muster_Schema

+
82 Bl. Blatt 12



| | | | | | | | | | |
|------------------------------|----------|--------|------------|---------------|--|-----------------------------------|------------------|-----------------|----------|
| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Magnetventil Odorierung (Reserve) | Zeichnungsnummer | = Muster_Schema | |
| | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | | | | | 82 Bl. | Blatt 13 |



MfZ Elektro-Engineering GmbH

| | | | | |
|------|----------|-------|------|------|
| Rev. | Änderung | Datum | Name | Norm |
| < 13 | 0 | 1 | | |

| | |
|--------|------------|
| Datum | 02.02.2020 |
| Bearb. | ZUR |
| Gepr. | |
| Norm | |

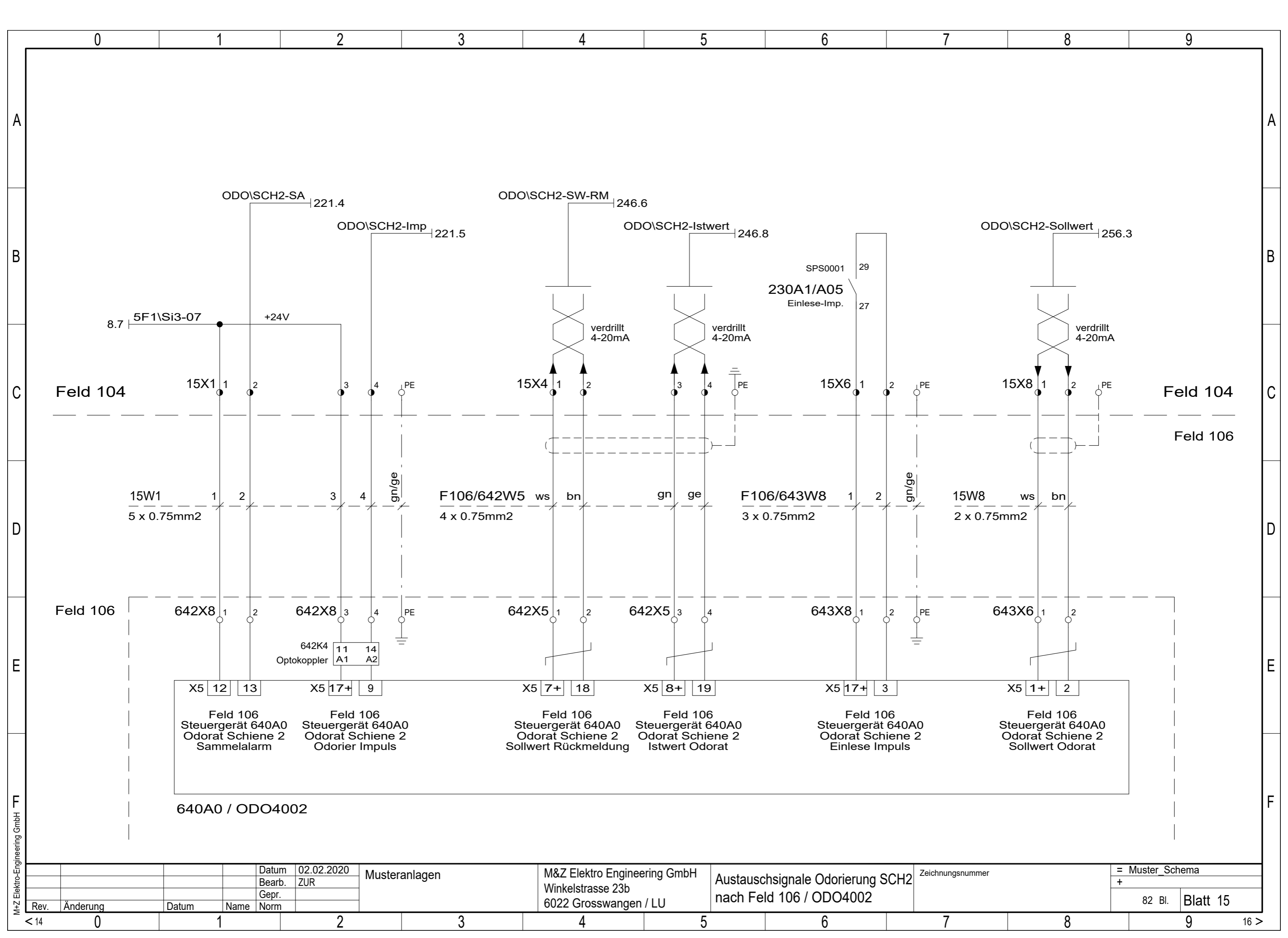
Musteranlagen

M&Z Elektro Engineering GmbH
 Winkelstrasse 23b
 6022 Grosswangen / LU

Austauschsignale Odorierung SCH1
 nach Feld 106 / ODO4001

Zeichnungsnummer

| | |
|-----------------|----------|
| = Muster_Schema | |
| + | |
| 82 Bl. | Blatt 14 |



MfZ Elektro-Engineering GmbH

| | | | | |
|------|----------|-------|------|------|
| Rev. | Änderung | Datum | Name | Norm |
| < 14 | 0 | 1 | 2 | 3 |

| | | | | | | |
|--------|------------|---------------|--|---|------------------|---|
| Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Austauschsignale Odorierung SCH2 nach Feld 106 / ODO4002 | Zeichnungsnummer | = Muster_Schema + 82 Bl. Blatt 15 |
| Bearb. | ZUR | | | | | |
| Gepr. | | | | | | |

0 1 2 3 4 5 6 7 8 9

A

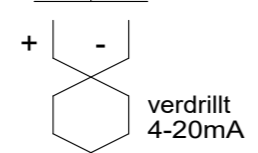
Niveau
 Odorattank
 4-20mA an SPS

A

B

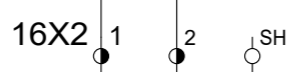
Niveau\OT 246.3

B



C

Feld 104



Feld 104

D

Feld 106

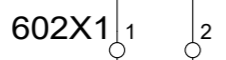
F106/602W1
 2 x 0.75mm2
 ws bn

Feld 106

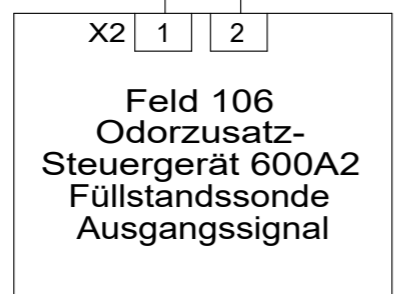
D

E

Feld 106



E



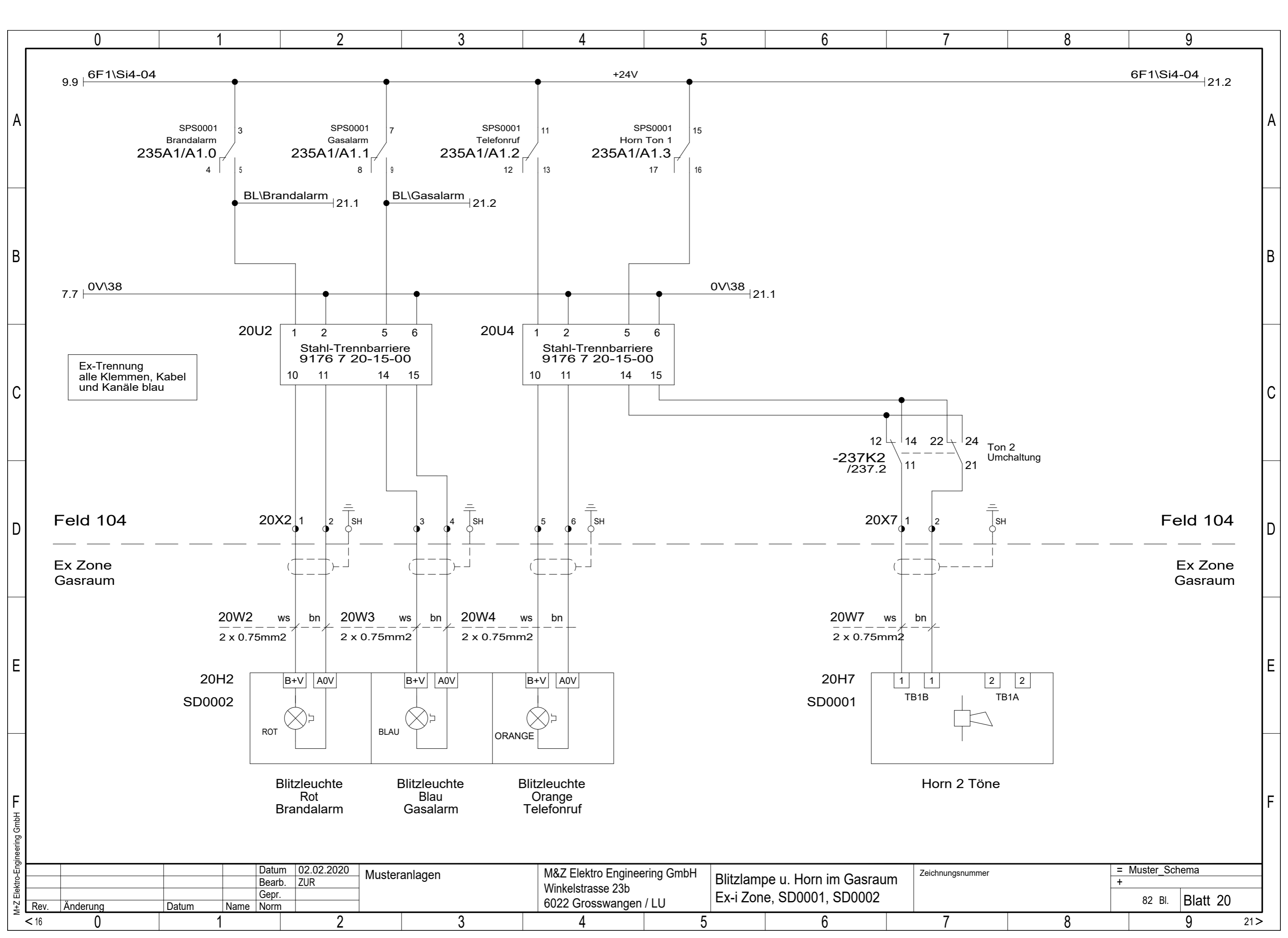
F

ODO4005

F

| | | | | | | | | | |
|------|----------|--------|------------|---------------|--|---|------------------|-----------------|----------|
| | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Füllstandmeldung Odorattank ab Odoratsteuerung ODO4005 | Zeichnungsnummer | = Muster_Schema | |
| | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | | | | | 82 Bl. | Blatt 16 |

M&Z Elektro-Engineering GmbH



Ex-Trennung
alle Klemmen, Kabel
und Kanäle blau

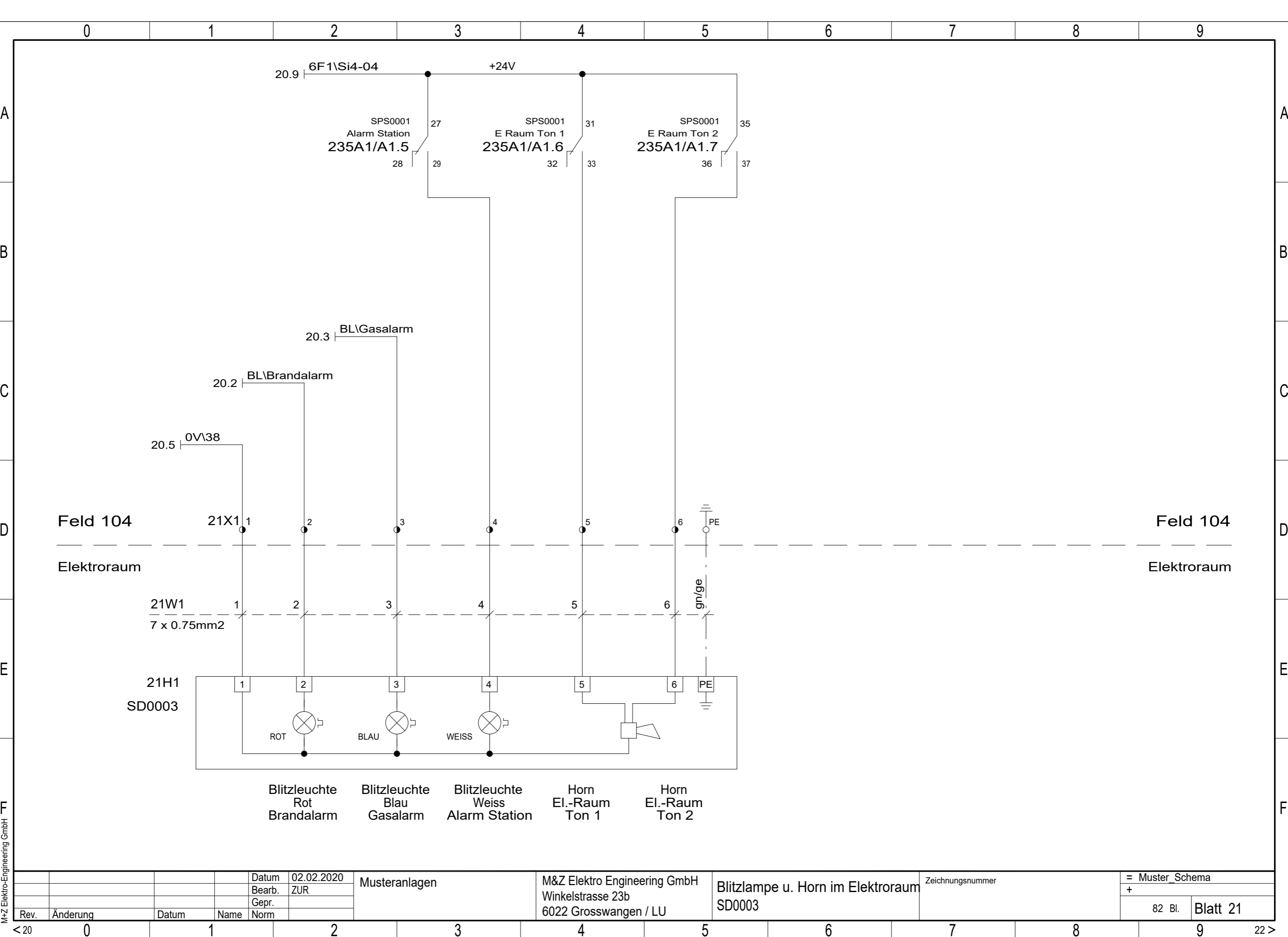
Feld 104
Ex Zone
Gasraum

Feld 104
Ex Zone
Gasraum

| | | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|--|------------------|-----------------|----------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Blitzlampe u. Horn im Gasraum Ex-i Zone, SD0001, SD0002 | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + | |
| | | | | Gepr. | | | | | | 82 Bl. | Blatt 20 |

M&Z Elektro-Engineering GmbH

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M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | | | |
|--------|----------|------------|------|---------------|--|--|--|---|--|------------------|--|-----------------|--|
| Datum | | 02.02.2020 | | Musteranlagen | | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | | Blitzlampe u. Horn im Elektroraum SD0003 | | Zeichnungsnummer | | = Muster_Schema | |
| Bearb. | | ZUR | | | | | | | | 82 Bl. | | Blatt 21 | |
| Gepr. | | | | | | | | | | | | | |
| Rev. | Änderung | Datum | Name | | | | | | | | | | |

A

B

C

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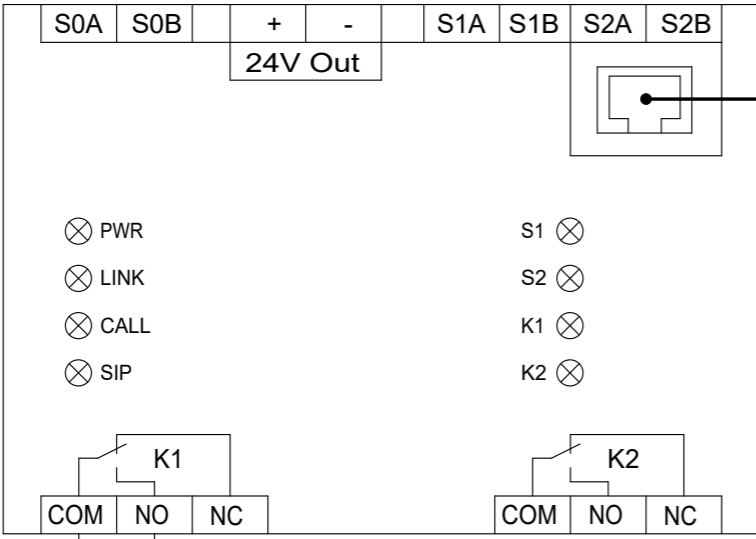
8.7 | 5F1\Si3-10

+24V

7.7 | 0V\57

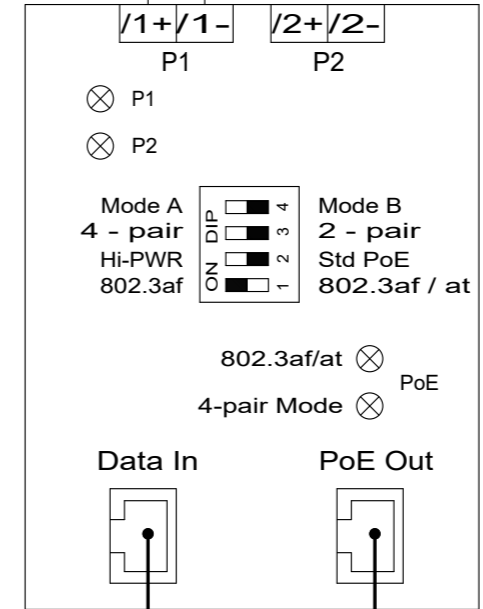
22U1

Baudisch SIP
Relaismodul ECO
Art.Nr 36-0254M



22U6

MOXA
Ethernet High
PoE + Injection
INJ-24AV1.02



Telefonruf | 213.7

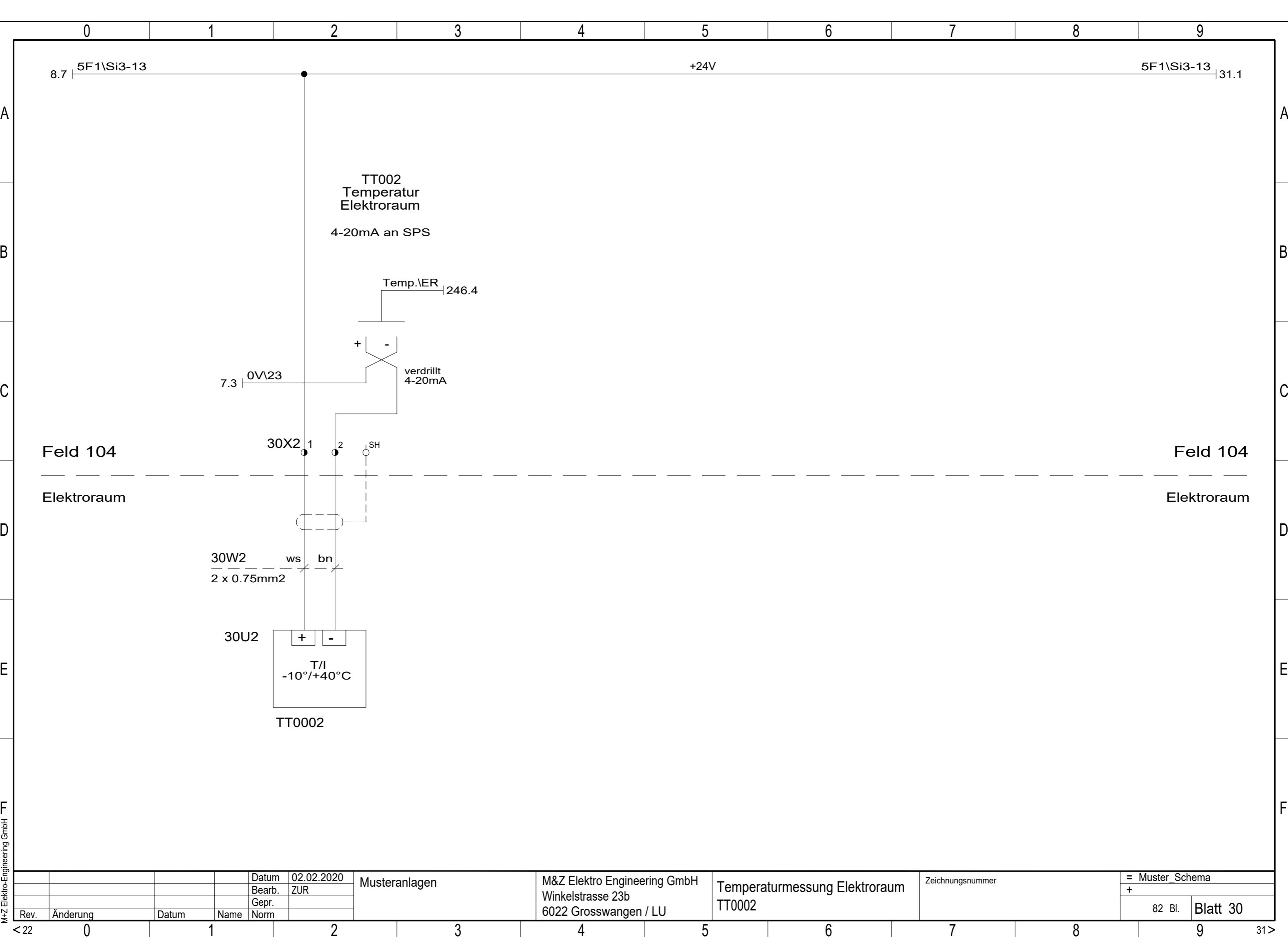
RJ45 Patchkabel

RJ45 Patchkabel

L2S.0002\6

| | | | | | | | | | | | |
|------|----------|-------|------|------|--------|------------|---------------|------------------------------|--------------------|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH | Signal von Telefon | Zeichnungsnummer | = Muster_Schema |
| | | | | | Bearb. | ZUR | | Winkelstrasse 23b | MAUL3S-02 | | + |
| | | | | | Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. |
| | | | | | | | | | | | Blatt 22 |

M&Z Elektro-Engineering GmbH



8.7 | 5F1\Si3-13 | +24V | 5F1\Si3-13 | 31.1

TT002
Temperatur
Elektorraum
4-20mA an SPS

Temp.\ER | 246.4

7.3 | 0V\23

verdrillt
4-20mA

Feld 104

30X2 | 1 | 2 | SH

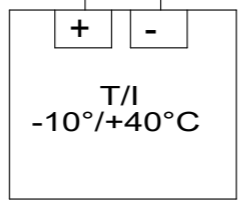
Feld 104

Elektorraum

Elektorraum

30W2
2 x 0.75mm2
ws | bn

30U2



TT0002

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|---|------------------|-----------------|----------|
| | | | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Temperaturmessung Elektorraum TT0002 | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | Gepr. | | | | | | 82 Bl. | Blatt 30 |

0 1 2 3 4 5 6 7 8 9

A

TT003
Temperatur
Aussen
4-20mA an SPS

TT003
Feuchte
Aussen
4-20mA an SPS

A

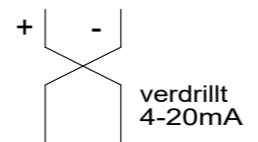
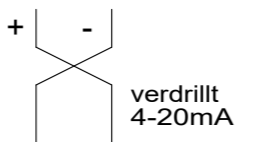
B

Temp.\Aussen 251.7

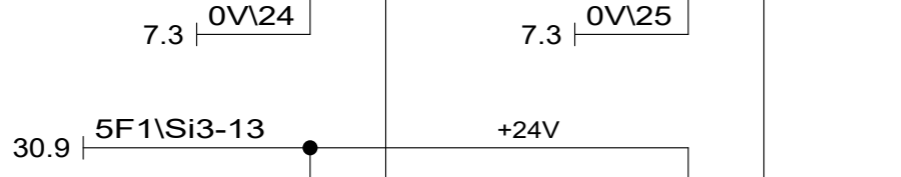
Feuchte\Aussen 251.8

B

Ex-Trennung
alle Klemmen, Kabel
und Kanäle blau



C



C

Feld 104

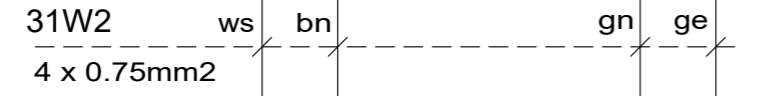
Feld 104

D

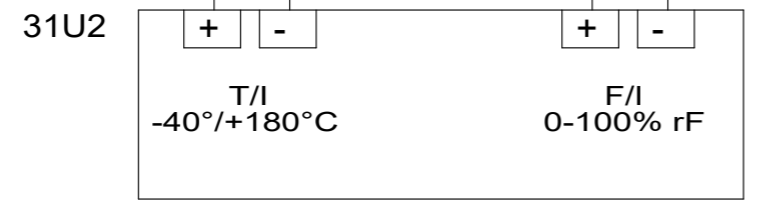
Ex Zone
Aussenbereich

Ex Zone
Aussenbereich

D



E



E

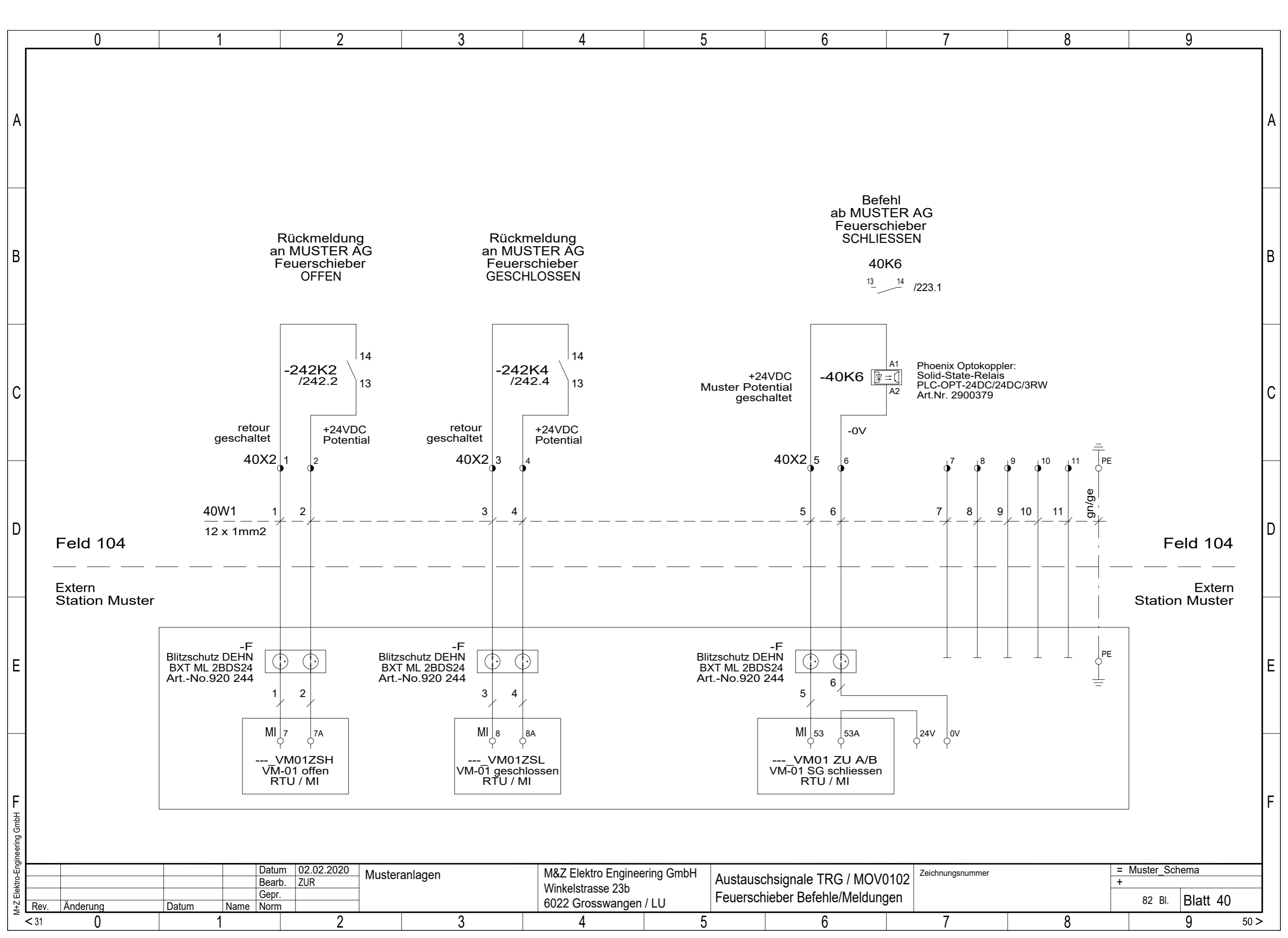
TT003

F

F

| | | | | | | | | | | |
|------|----------|-------|------|-------|------------|---------------|--|---|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Temperatur und Feuchte Aussen TT0003 | Zeichnungsnummer | = Muster_Schema + |
| <30 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 82 Bl. Blatt 31 |

<30 0 1 2 3 4 5 6 7 8 9 40>



Rückmeldung
an MUSTER AG
Feuerschieber
OFFEN

Rückmeldung
an MUSTER AG
Feuerschieber
GESCHLOSSEN

Befehl
ab MUSTER AG
Feuerschieber
SCHLIESSEN

40K6
13 14 /223.1

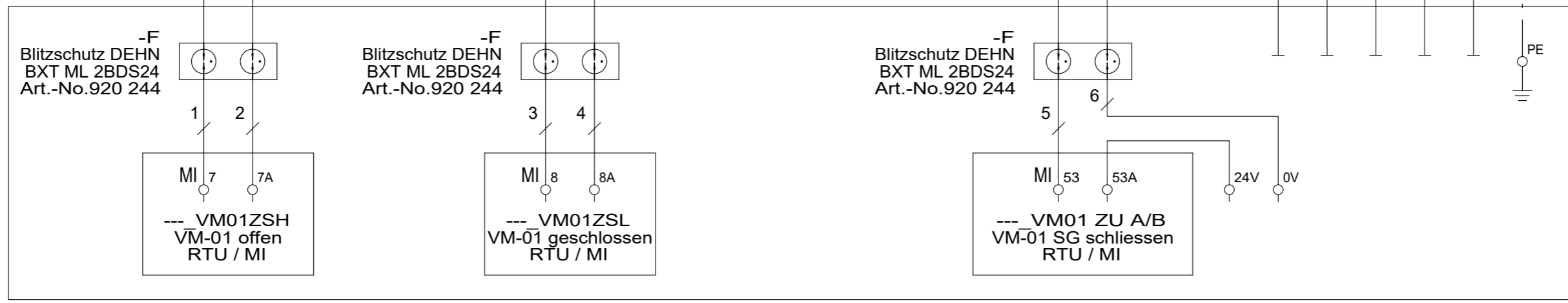
Phoenix Optokoppler:
Solid-State-Relais
PLC-OPT-24DC/24DC/3RW
Art.Nr. 2900379

Feld 104

Feld 104

Extern
Station Muster

Extern
Station Muster



M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|------------------------------|---------------------------------|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH | Austauschsignale TRG / MOV0102 | Zeichnungsnummer | = Muster_Schema |
| | | | | | | ZUR | | Winkelstrasse 23b | Feuerschieber Befehle/Meldungen | | + 82 Bl. Blatt 40 |
| | | | | | | | | 6022 Grosswangen / LU | | | |

0 1 2 3 4 5 6 7 8 9

A

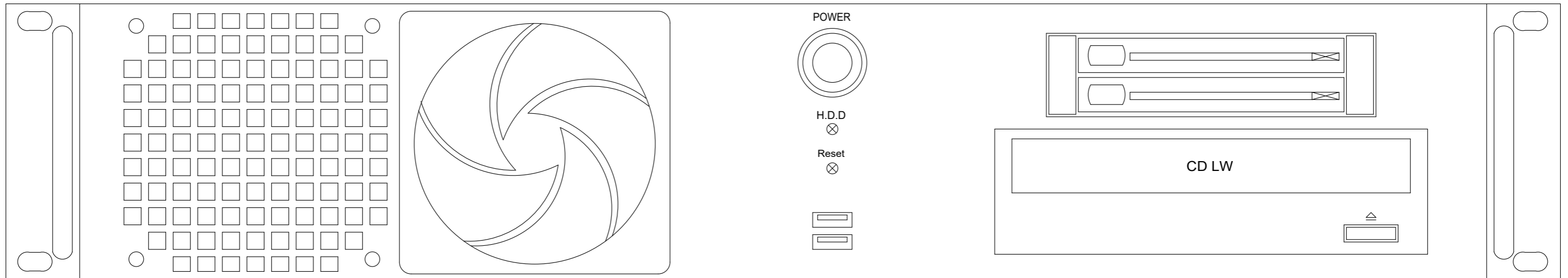
A

B

B

50A0

UST-PC Muster1 / LER.0001



C

C

D

D

E

E

F

F

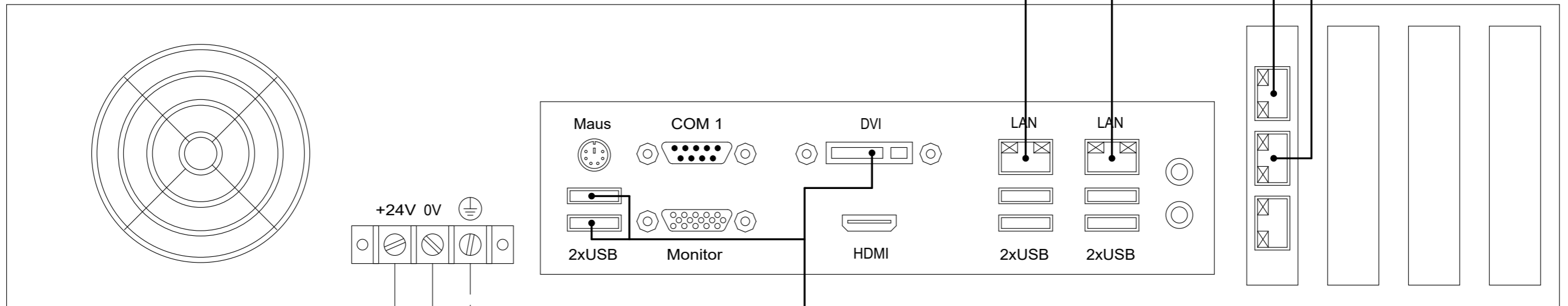
M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|------|--------|------------|---------------|------------------------------|----------------------------------|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH | UST-PC SZM_Muster1/ Leitrechner1 | Zeichnungsnummer | = Muster_Schema |
| | | | | | Bearb. | ZUR | | Winkelstrasse 23b | LER.0001 / Frontansicht | | + |
| | | | | | Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. |
| < 40 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Blatt 50 |

< 40 0 1 2 3 4 5 6 7 8 9 51 >

50A0

USt-PC SZM_M1 / LER.0001 Rückseite



9.2 | 6F1\Si1-03 24 VDC
7.3 | 0V\30

51B5 ATEN PS/2 KVM extender KA7166

RJ45 Patchkabel

LER.0001\KVM 65.4
KVM Switch

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|------------------------------|-----------------------------------|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH | UST-PC SZM_M1/ Leitrechner1 | Zeichnungsnummer | = Muster_Schema |
| | | | | Bearb. | ZUR | | Winkelstrasse 23b | LER.0001 / Rückseite, Beschaltung | | + |
| | | | | Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. Blatt 51 |
| <50 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 60 > |

0 1 2 3 4 5 6 7 8 9

A

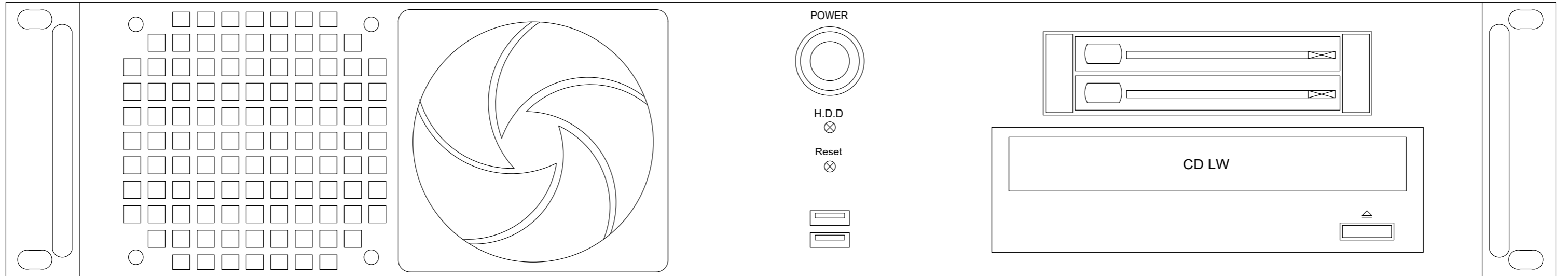
A

B

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60A0

USt-PC SZM_Muster2 / LER.0002



C

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M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|--|------------------|-----------------|----------|
| | | | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | UST-PC SZM_M2/ Leitrechner2 LER.0002 / Frontansicht | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | Gepr. | | | | | | 82 Bl. | Blatt 60 |

< 51 0 1 2 3 4 5 6 7 8 9 61 >

0 1 2 3 4 5 6 7 8 9

A

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D

E

F

A

B

C

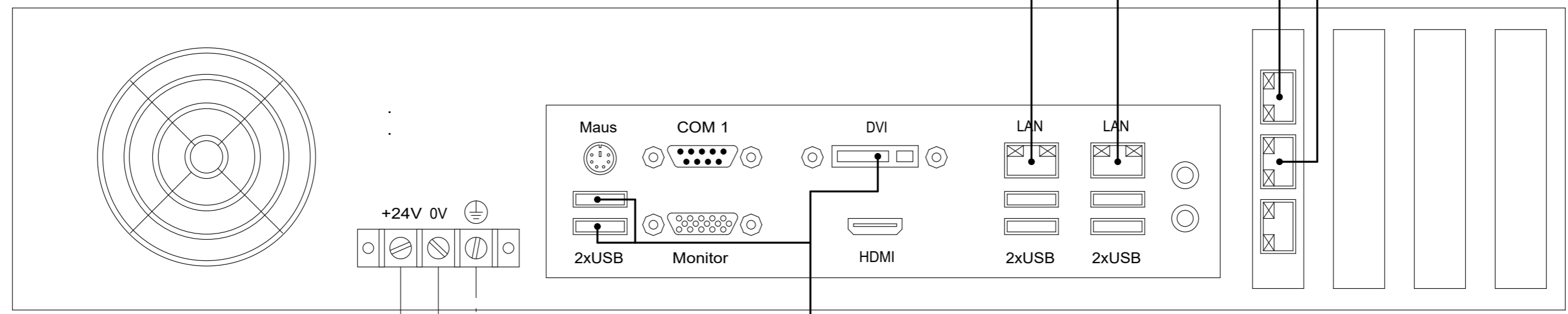
D

E

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60A0

USt-PC SZM_M2 / LER.0002 Rückseite

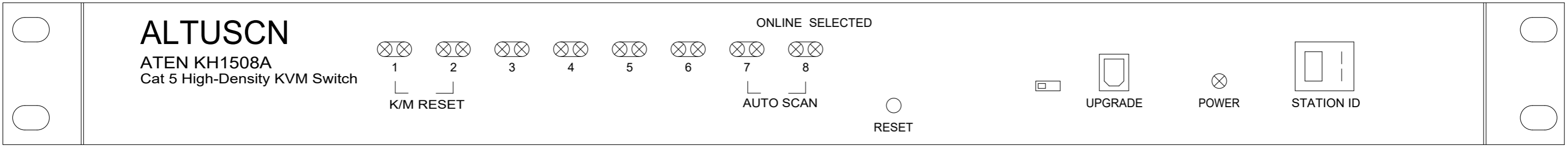


9.4 | 6F1\Si2-03 24 VDC
7.3 | 0V\31

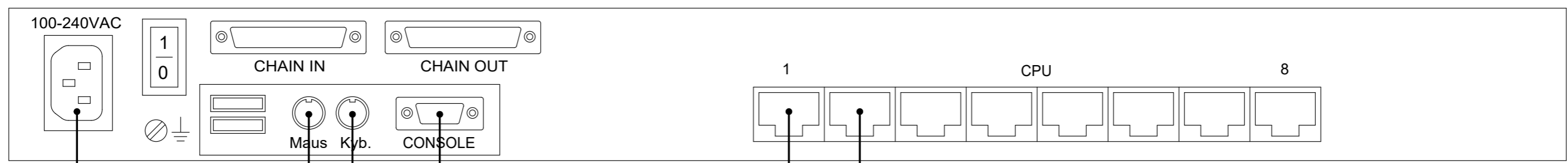
61B5 ATEN PS/2 KVM extender KA7166
RJ45 Patchkabel
LER.0002\KVM 65.4
KVM Switch

ROU.001\2 70.0
ROU.0001
ROU.001\4 70.2
L2S.0001
ROU.002\1 71.0
ROU.0002
ROU.002\3 71.2
L2S.0002

| | | | | | | | | | |
|------------------------------|----------|-------|------------|---------------|--|--|------------------|-------------------|--|
| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | UST-PC SZM_M2/ Leitrechner2 LER.0002 / Rückseite, Beschaltung | Zeichnungsnummer | = Muster_Schema | |
| Rev. | Änderung | Datum | Name | | | | | + 82 Bl. Blatt 61 | |
| 0 | | | | | | | | | |



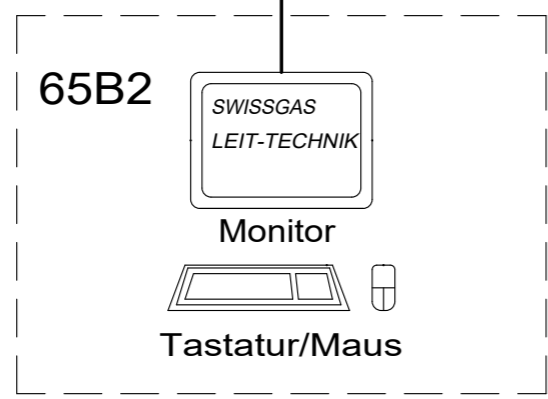
Gerätemass:
43.72 x 16.36 x 4.4 cm
(B x T x H)



1.5 1F5\Ph
1.5 1F5\N
1.5 1F5\PE
230VAC ab WR

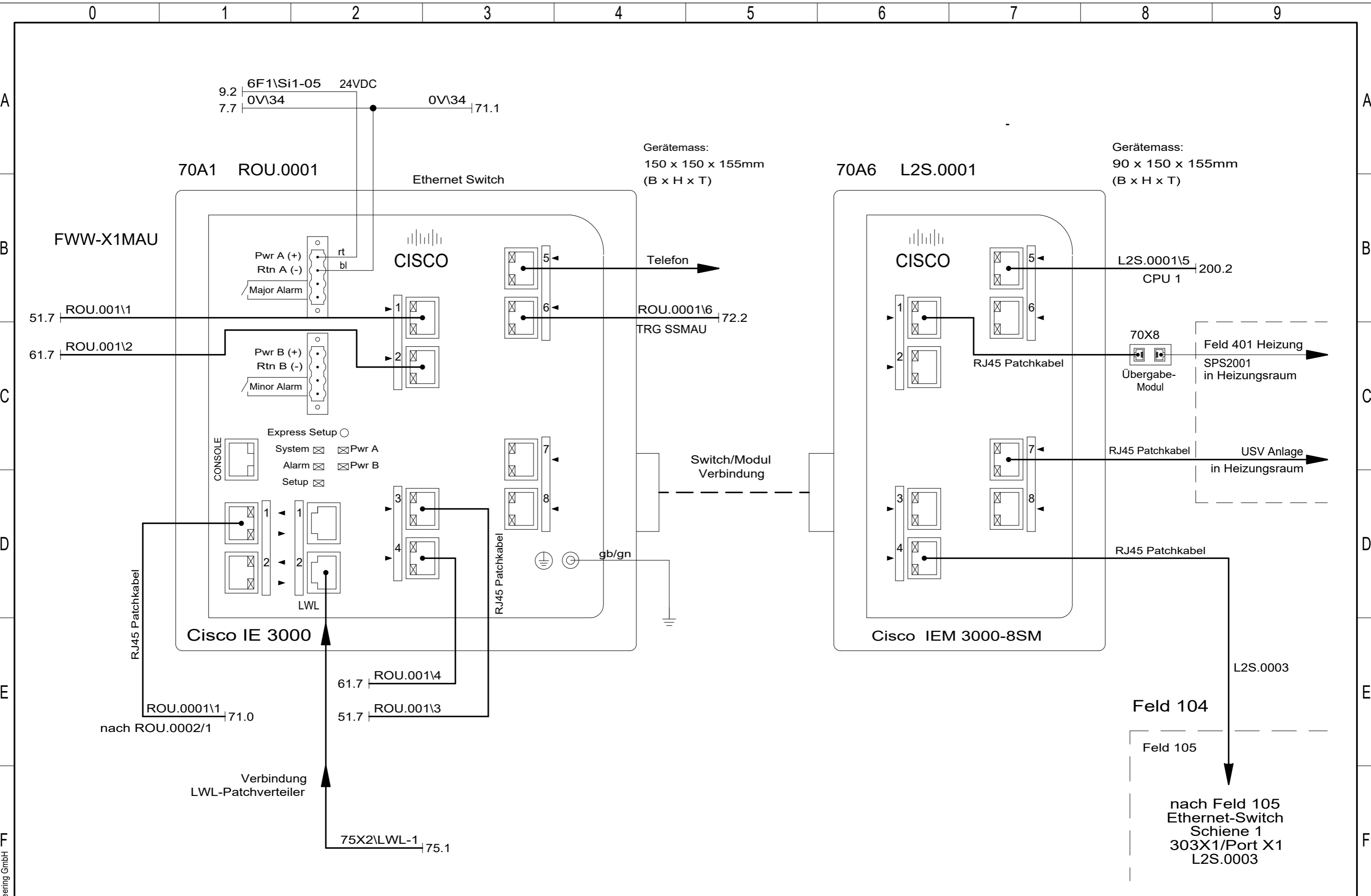
*
Spezialkabel für
Tastatur, Monitor
u. Maus (TMM)

51.6 LER.0001\KVM
61.6 LER.0002\KVM

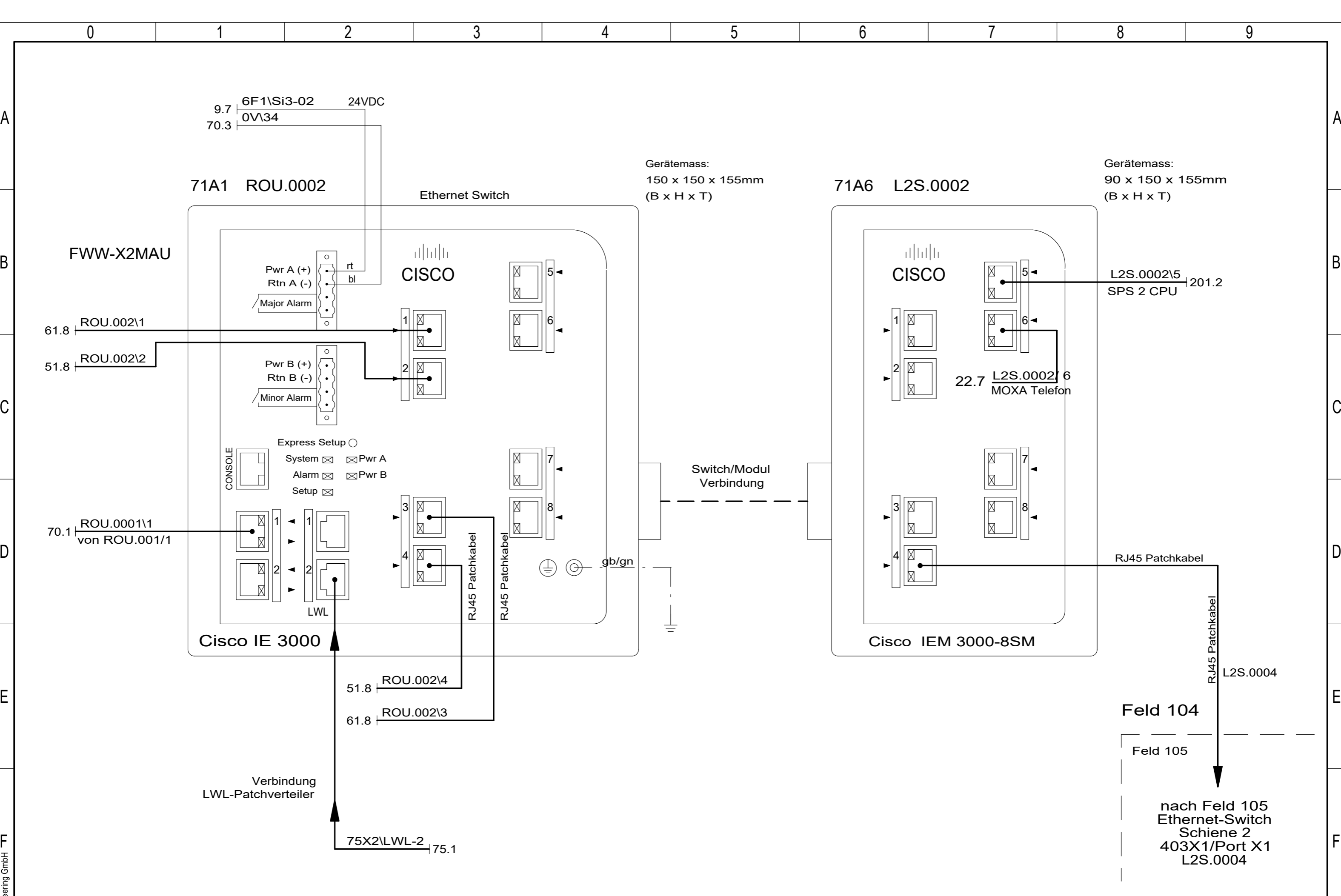


Arbeitsplatz/Bedienpult

| | | | | | | | |
|--------|------------|---------------|--|--|------------------|-----------------|----------|
| Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | KVM Switch, Front-u. Rückseite L2S.0006 KVM | Zeichnungsnummer | = Muster_Schema | |
| Bearb. | ZUR | | | | | + | |
| Gepr. | | | | | | 82 Bl. | Blatt 65 |
| Rev. | Änderung | Datum | Name | Norm | | | |



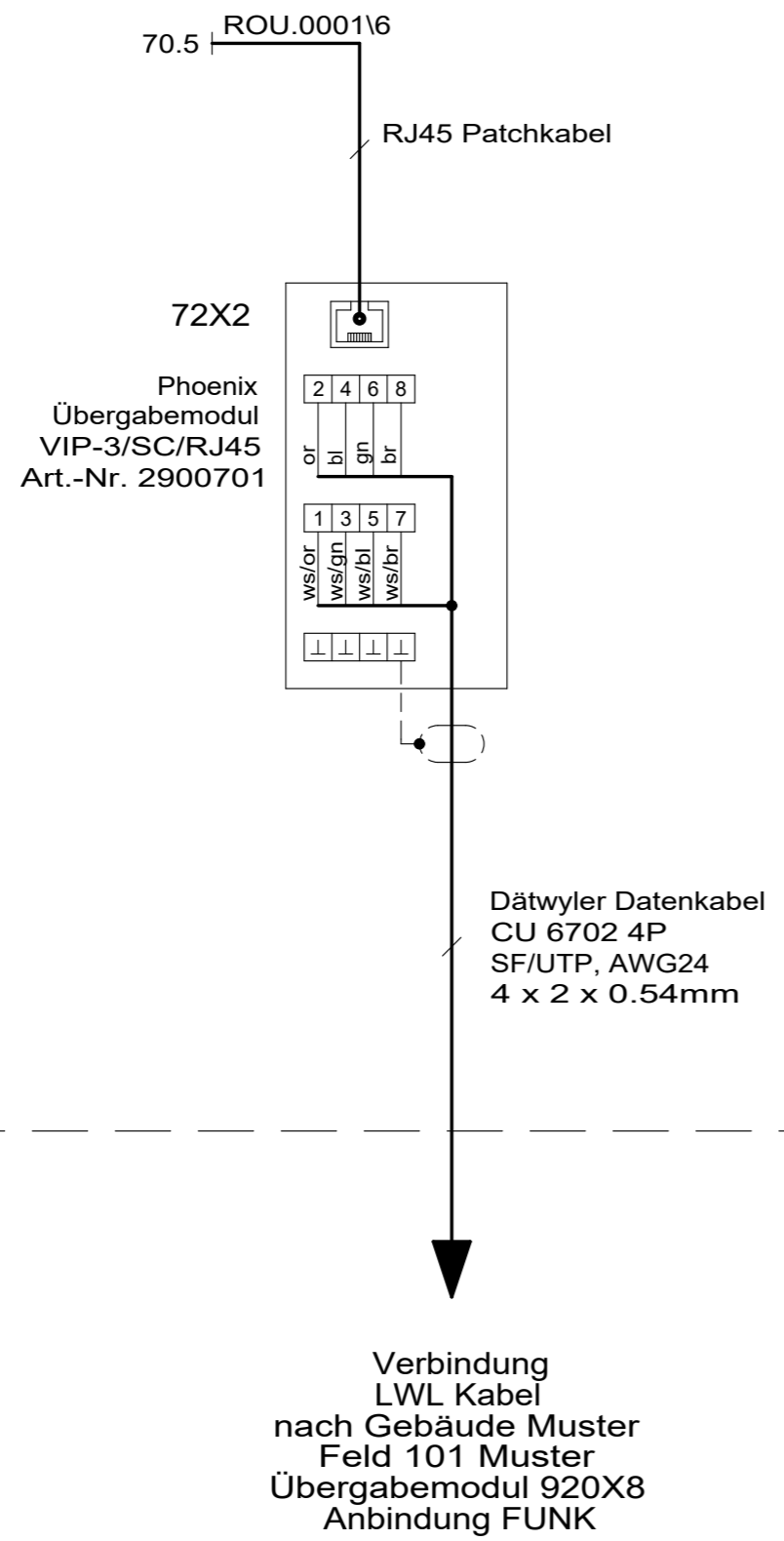
| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|--|------------------|----------------------|--------|----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Ethernet Switch FWW-X1M ROU_0001 / L2S.0001 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 70 |
| <65 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 71> | | |



| | | | | | | | | | | | |
|------------------------------|----------|-------|------------|---------------|--|--|------------------|-------------------|---|---|---|
| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Ethernet Switch FWW-X2M ROU_0002 / L2S.0002 | Zeichnungsnummer | = Muster_Schema | | | |
| Rev. | Änderung | Datum | Name | | | | | + 82 Bl. Blatt 71 | | | |
| <70 | 0 | 1 | 2 | | | | | 3 | 4 | 5 | 6 |

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D
E
F

0 1 2 3 4 5 6 7 8 9



M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|-----------------------|------------------|-----------------|----------|
| | | | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | LWL Verbindung Muster | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | Gepr. | | | | | | 82 Bl. | Blatt 72 |

0 1 2 3 4 5 6 7 8 9

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B

C

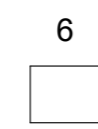
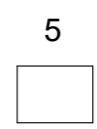
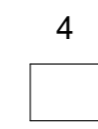
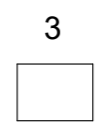
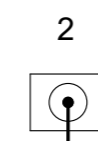
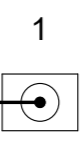
D

E

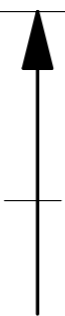
F

75X2

FIBER-PATCH
Anschlusskasten
Lichtleiter



70.3 75X2LWL-1
71.3 75X2LWL-2



Feld 104

Muster Gebäude
Steuerschrank Netzwerk

Zuleitung
LWL Kabel
ab Gebäude
Muster
KEV 3

| | | | | | | | | | | |
|------|----------|-------|--------|------------|---------------|--|-----------------------------|------------------|-----------------|----------|
| | | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | KEV / LWL Verbindung Muster | Zeichnungsnummer | = Muster_Schema | |
| | | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | Gepr. | | | | | 82 Bl. | Blatt 75 |

A

B

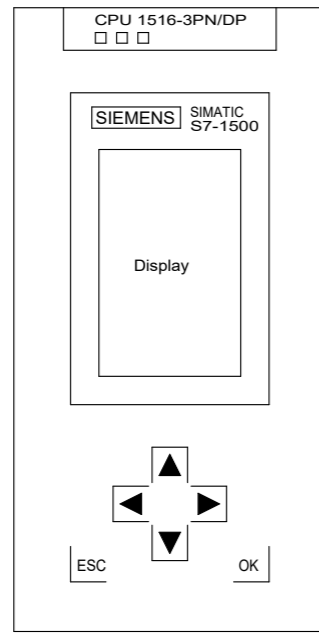
C

D

E

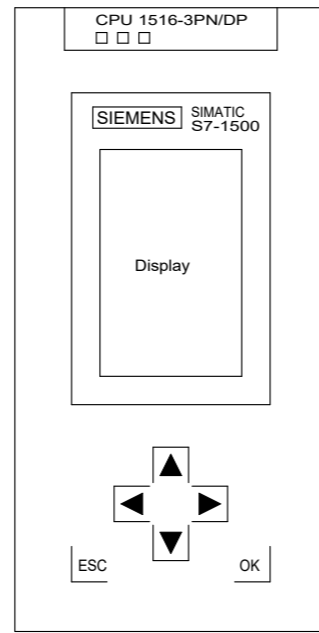
F

200A1



CPU 1516-3PN/DP

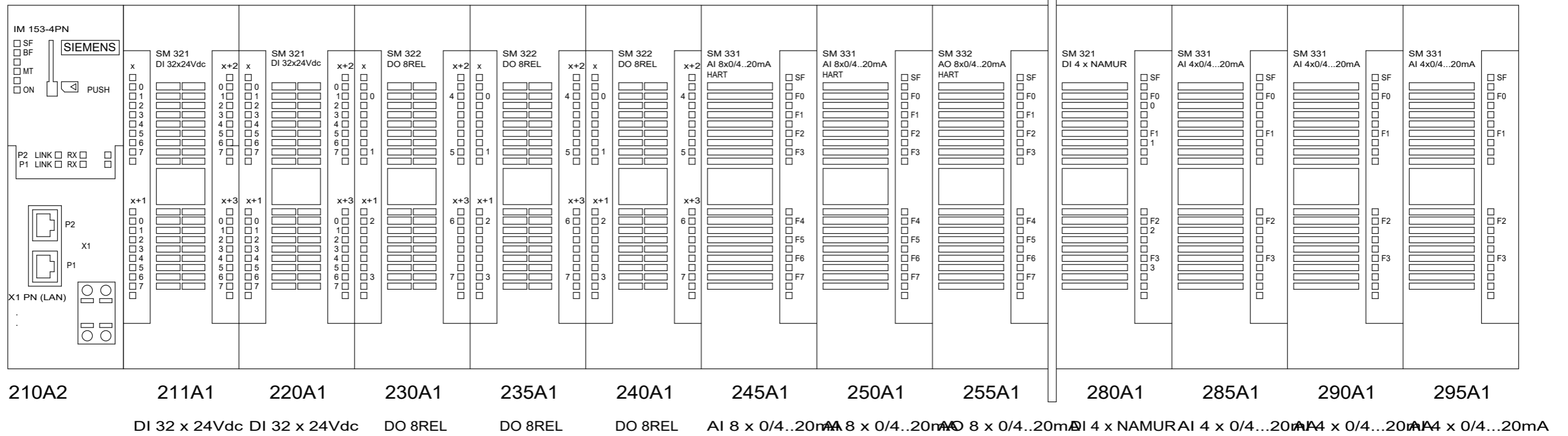
201A1



CPU 1516-3PN/DP

Ex Trennwand

Ex Karten



M&Z Elektro-Engineering GmbH

| | |
|--------|------------|
| Datum | 02.02.2020 |
| Bearb. | ZUR |
| Gepr. | |
| Rev. | Änderung |
| Datum | Name |

Musteranlagen

M&Z Elektro Engineering GmbH
Winkelstrasse 23b
6022 Grosswangen / LU

SPS Siemens S7 Topologie
SPS0001

Zeichnungsnummer

= Muster_Schema

+
82 Bl. Blatt 199

A

B

C

D

E

F

A

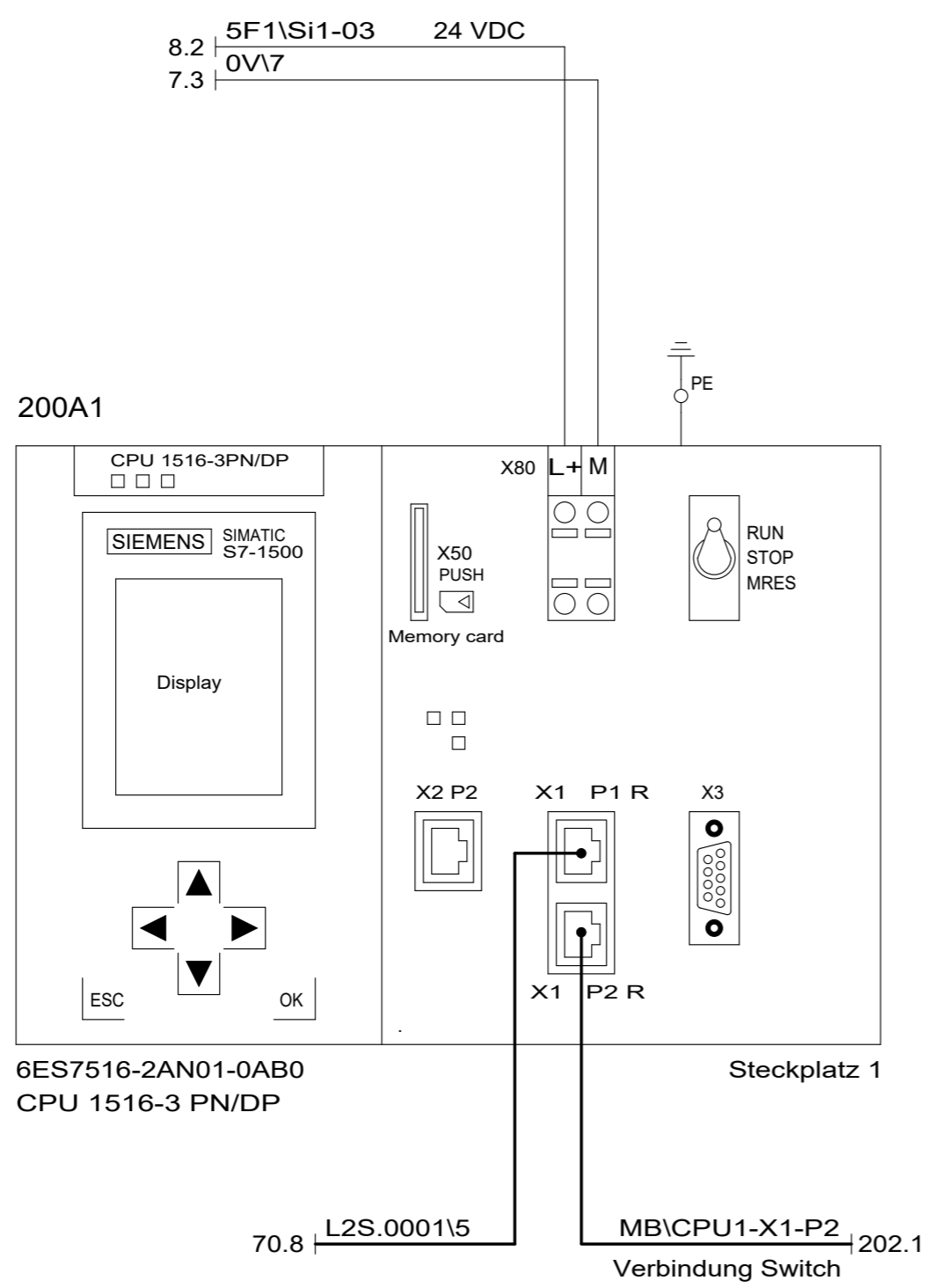
B

C

D

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F



| | | | | | | | | | | | |
|-------|----------|-------|------|--------|------------|---------------|--|--|------------------|-----------------|-----------|
| | | | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Siemens S7 CPU 1516 CPU 1 / Baugruppe | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + | |
| | | | | Gepr. | | | | | | 82 Bl. | Blatt 200 |
| Rev. | Änderung | Datum | Name | Norm | | | | | | | |
| < 199 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 201 > |

A

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D

E

F

A

B

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0

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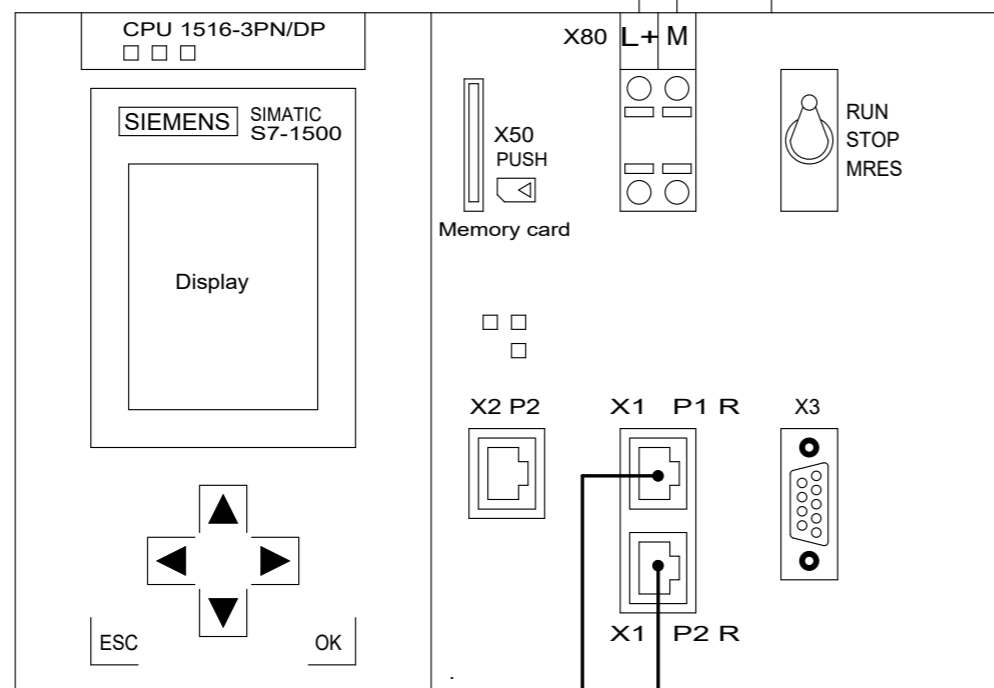
7

8

9

8.4 5F1\Si2-03 24 VDC
7.3 0V\8

201A1



6ES7516-2AN01-0AB0
CPU 1516-3 PN/DP

Steckplatz 1

71.9 L2S.0002\5
MB\CPU2-X1-P2 203.1
Verbindung Switch

M&Z Elektro-Engineering GmbH

| | | | | |
|------|----------|-------|------|------|
| Rev. | Änderung | Datum | Name | Norm |
| <200 | 0 | 1 | | |

Datum 02.02.2020
 Bearb. ZUR
 Gepr.
 Musteranlagen

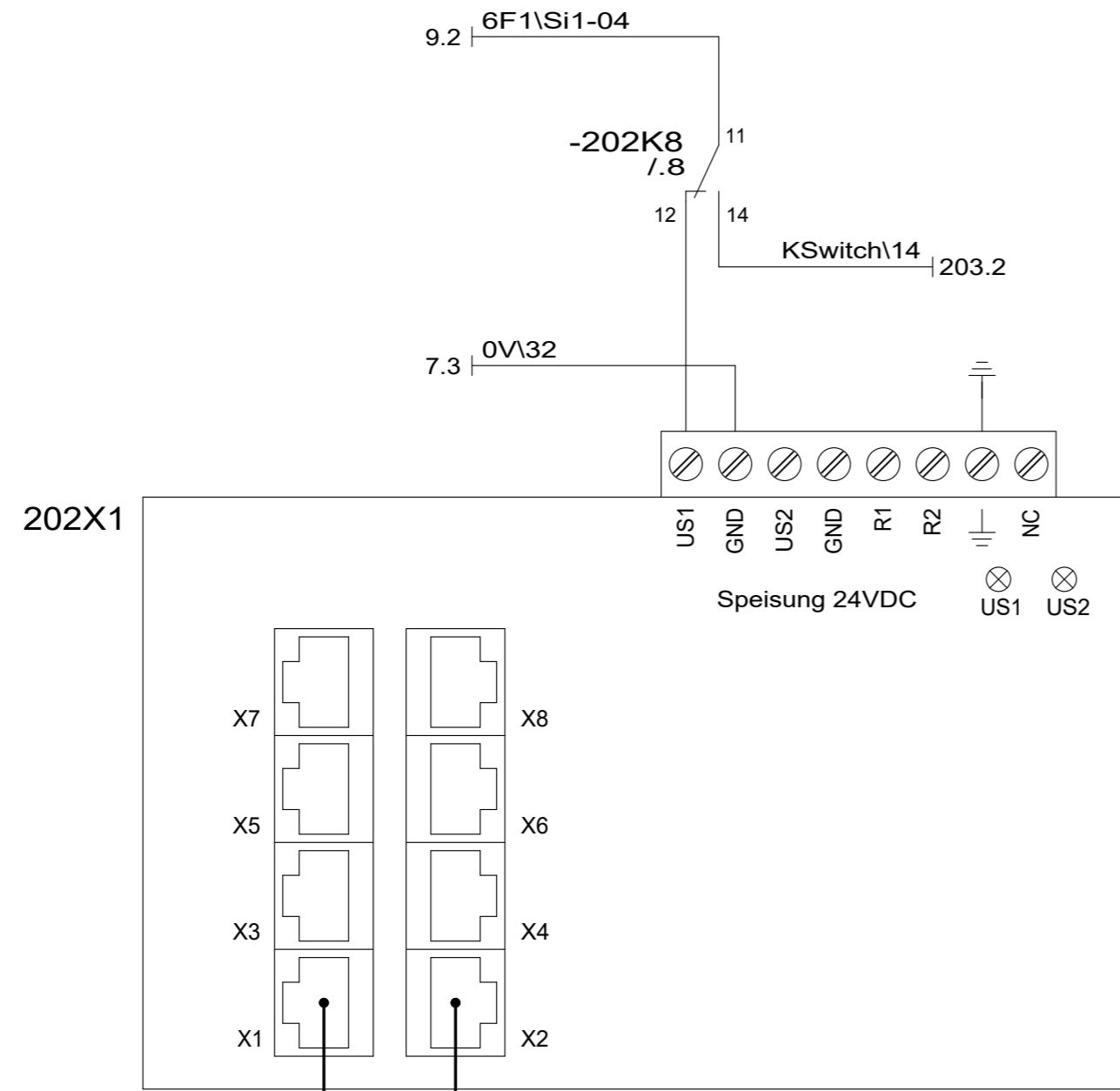
M&Z Elektro Engineering GmbH
 Winkelstrasse 23b
 6022 Grosswangen / LU

SPS Siemens S7 CPU 1516
 CPU 2 / Baugruppe

Zeichnungsnummer

= Muster_Schema
 +
 82 Bl. Blatt 201

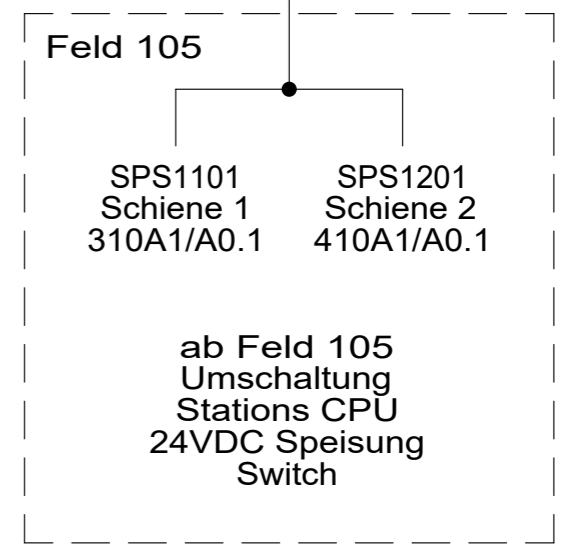
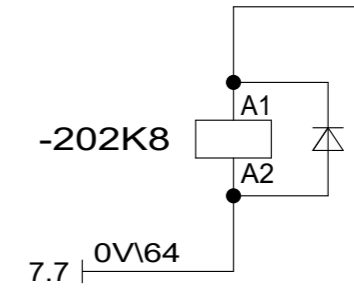
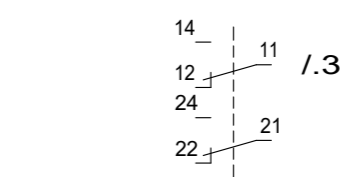
202 >



Ethernet Switch
8 TP-RJ45-Ports
Phoenix Contact
FL SWITCH SF 8TX
A-Nr.2832771

Gerätemass:
135 x 80 (94,3) x 30mm
(B x H x T)

C7-A20D/DC24V / CS118



0 1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

A

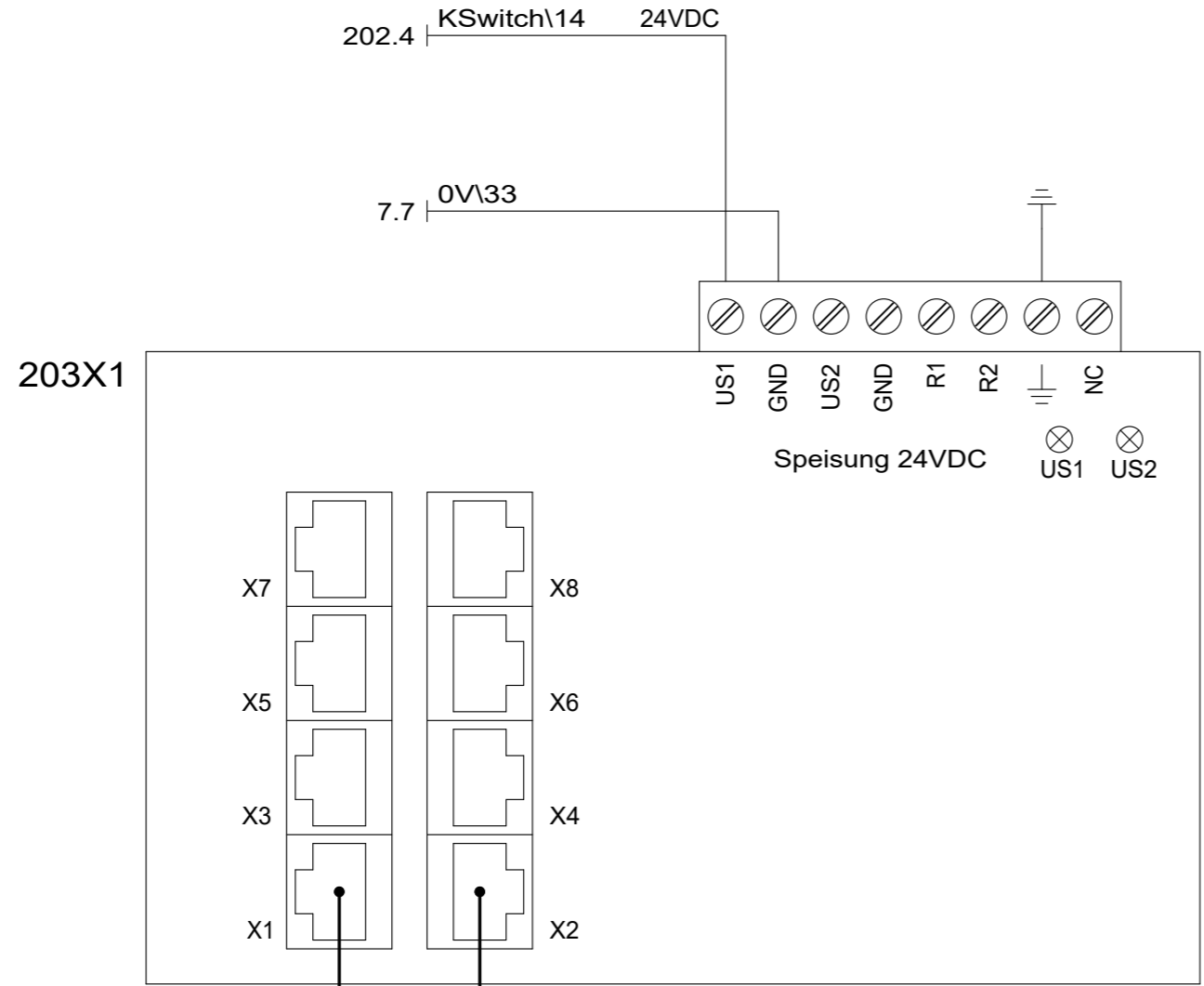
B

C

D

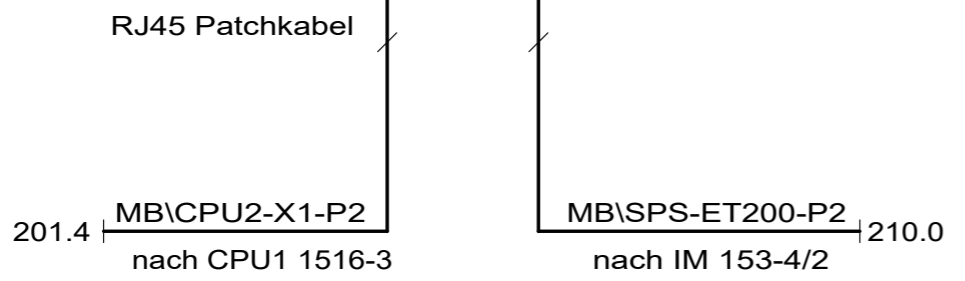
E

F

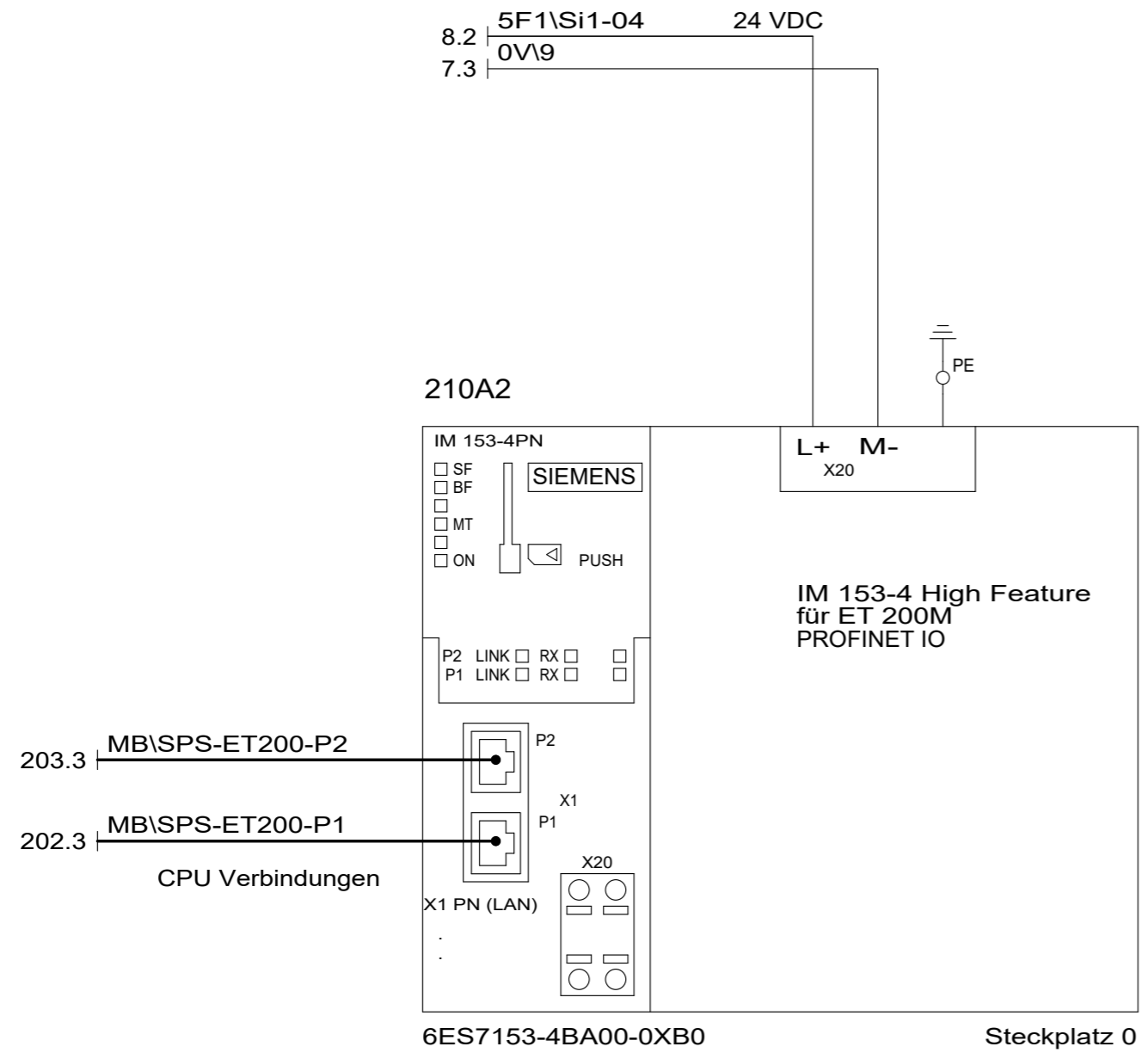


Ethernet Switch
8 TP-RJ45-Ports
Phoenix Contact
FL SWITCH SF 8TX
A-Nr.2832771

Gerätemass:
135 x 80 (94,3) x 30mm
(B x H x T)

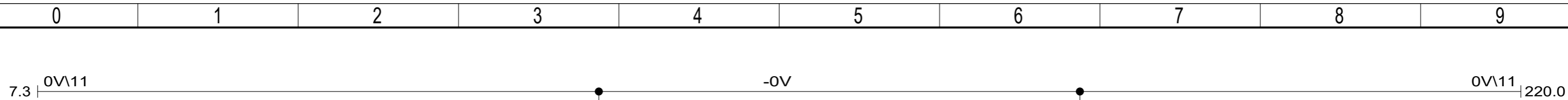


| | | | | | | | | | | | |
|------------------------------|----------|--------|------------|---------------|--|-----------------------------|------------------|-----------------|-----------|---|-------|
| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Ethernet Switch L2S.0008 | Zeichnungsnummer | = Muster_Schema | | | |
| | | Bearb. | ZUR | | | | | + | | | |
| Rev. | Änderung | Datum | Name | | | | | 82 Bl. | Blatt 203 | | |
| < 202 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 210 > |



M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|------|--------|------------|---------------|------------------------------|-------------------------------|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH | SPS Siemens S7-1200 Baugruppe | Zeichnungsnummer | = Muster_Schema |
| | | | | | Bearb. | ZUR | | Winkelstrasse 23b | SPS0001 / Steckplatz 3 | | + |
| | | | | | Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. |
| | | | | | | | | | | | Blatt 210 |



211A1

| | | 20 1M | | 40 2M | | PE |
|---|--|--|---------|--|---------|--|
| SM 321 DI 32x24Vdc x <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> | | x <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> | | x+2 <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> | | x+3 <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| | | 2 E 0.0 | 212.1 / | 22 E 2.0 | 214.1 / | |
| | | 3 E 0.1 | 212.2 / | 23 E 2.1 | 214.2 / | |
| | | 4 E 0.2 | 212.3 / | 24 E 2.2 | 214.3 / | |
| | | 5 E 0.3 | 212.4 / | 25 E 2.3 | 214.4 / | |
| | | 6 E 0.4 | 212.5 / | 26 E 2.4 | 214.5 / | |
| | | 7 E 0.5 | 212.6 / | 27 E 2.5 | 214.6 / | |
| | | 8 E 0.6 | 212.7 / | 28 E 2.6 | 214.7 / | |
| | | 9 E 0.7 | 212.8 / | 29 E 2.7 | 214.8 / | |
| | | | | | | |
| | | 12 E 1.0 | 213.1 / | 32 E 3.0 | 215.1 / | |
| | | 13 E 1.1 | 213.2 / | 33 E 3.1 | 215.2 / | |
| | | 14 E 1.2 | 213.3 / | 34 E 3.2 | 215.3 / | |
| | | 15 E 1.3 | 213.4 / | 35 E 3.3 | 215.4 / | |
| | | 16 E 1.4 | 213.5 / | 36 E 3.4 | 215.5 / | |
| | | 17 E 1.5 | 213.6 / | 37 E 3.5 | 215.6 / | |
| | | 18 E 1.6 | 213.7 / | 38 E 3.6 | 215.7 / | |
| | | 19 E 1.7 | 213.8 / | 39 E 3.7 | 215.8 / | |

6ES7321-1BL00-0AA0

Steckplatz 4

SM 321
DI 32 x 24Vdc

| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|--|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Digitaleinbaugruppe 32DE SPS0001 / Steckplatz 4 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 211 |
|------|----------|-------|------|------|-------|------------|---------------|--|--|------------------|----------------------|--------|-----------|

0 1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

A

B

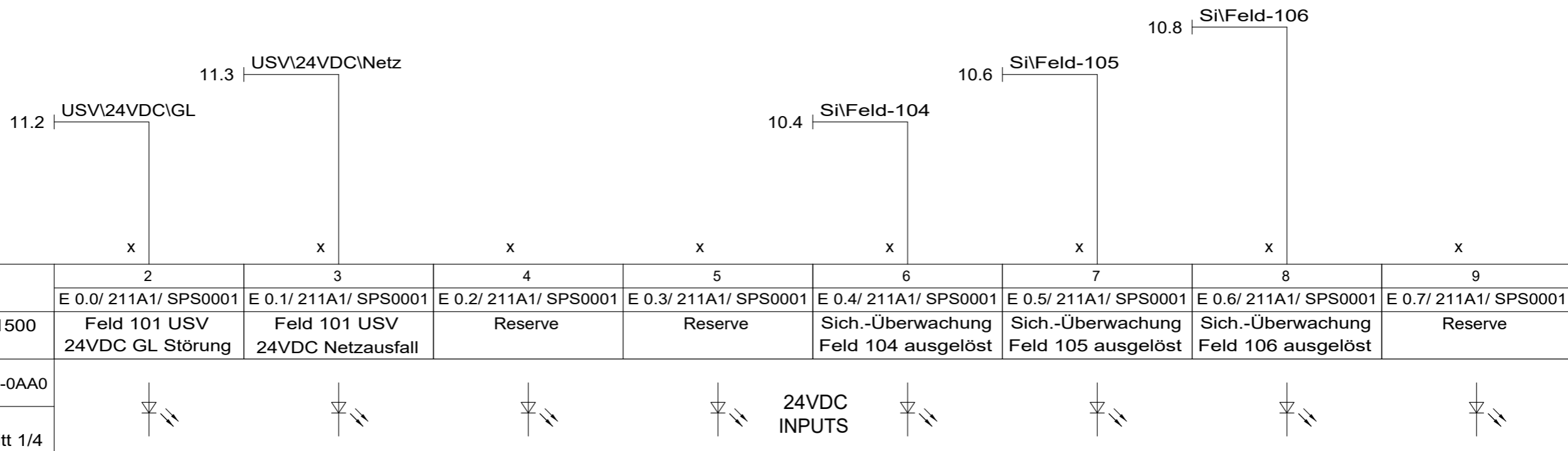
C

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211A1



| | | | | | | | | |
|--------------------------------------|----------------------------------|-----------------------------------|-----------------------|-----------------------|---|---|---|-----------------------|
| M 20 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| E 0.0/ 211A1/ SPS0001 | E 0.1/ 211A1/ SPS0001 | E 0.2/ 211A1/ SPS0001 | E 0.3/ 211A1/ SPS0001 | E 0.4/ 211A1/ SPS0001 | E 0.5/ 211A1/ SPS0001 | E 0.6/ 211A1/ SPS0001 | E 0.7/ 211A1/ SPS0001 | E 0.7/ 211A1/ SPS0001 |
| SIEMENS S7-1500 Karte SM 321 | Feld 101 USV 24VDC GL Störung | Feld 101 USV 24VDC Netzausfall | Reserve | Reserve | Sich.-Überwachung Feld 104 ausgelöst | Sich.-Überwachung Feld 105 ausgelöst | Sich.-Überwachung Feld 106 ausgelöst | Reserve |
| 6ES7 321-1BL00-0AA0 | | | | | 24VDC INPUTS | | | |
| Steckplatz 4 Kartenausschnitt 1/4 | | | | | | | | |

SM 321 DI 32 x 24Vdc

Steckplatz 4 (1/4)

| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig. Eingänge E0.0-E0.7 SPS0001 / Steckplatz 4 (1/4) | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 212 |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|

0 1 2 3 4 5 6 7 8 9

A

A

B

B

C

C

D

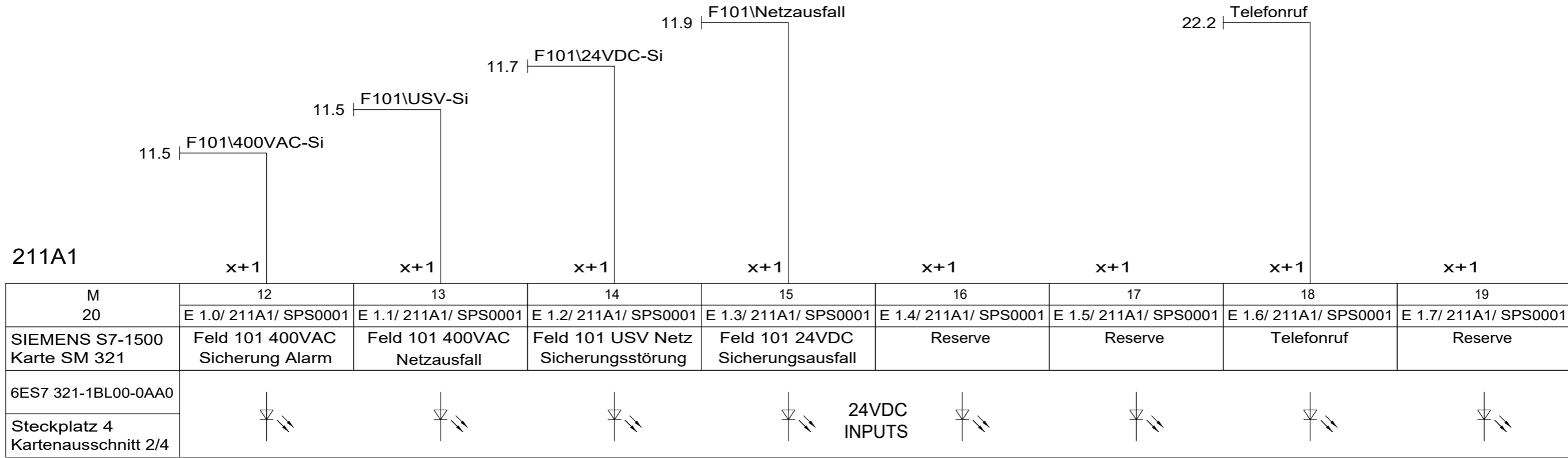
D

E

E

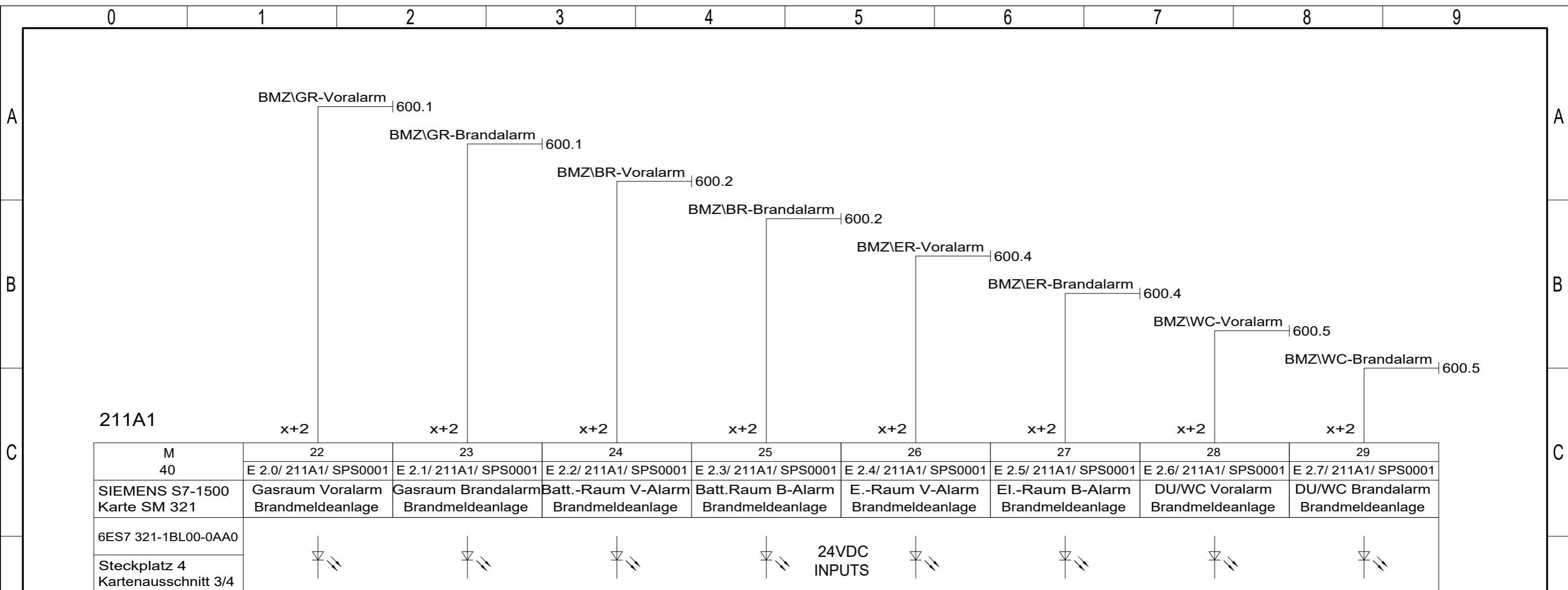
F

F



SM 321 DI 32 x 24Vdc

Steckplatz 4 (2/4)



211A1

| | | | | | | | | |
|--------------------------------------|--------------------------------------|--|--|---------------------------------------|-------------------------------------|--------------------------------------|------------------------------------|--------------------------------------|
| M 40 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| E 2.0/ 211A1/ SPS0001 | E 2.1/ 211A1/ SPS0001 | E 2.2/ 211A1/ SPS0001 | E 2.3/ 211A1/ SPS0001 | E 2.4/ 211A1/ SPS0001 | E 2.5/ 211A1/ SPS0001 | E 2.6/ 211A1/ SPS0001 | E 2.7/ 211A1/ SPS0001 | E 2.7/ 211A1/ SPS0001 |
| SIEMENS S7-1500 Karte SM 321 | Gasraum Voralarm Brandmeldeanlage | Gasraum Brandalarm Brandmeldeanlage | Batt.-Raum V-Alarm Brandmeldeanlage | Batt.Raum B-Alarm Brandmeldeanlage | E.-Raum V-Alarm Brandmeldeanlage | Ei.-Raum B-Alarm Brandmeldeanlage | DU/WC Voralarm Brandmeldeanlage | DU/WC Brandalarm Brandmeldeanlage |
| 6ES7 321-1BL00-0AA0 | | | | | 24VDC INPUTS | | | |
| Steckplatz 4 Kartenausschnitt 3/4 | | | | | | | | |

SM 321 DI 32 x 24Vdc

Steckplatz 4 (3/4)

| | | | | |
|-------|----------|-------|------|------|
| Rev. | Änderung | Datum | Name | Norm |
| < 213 | 0 | 1 | 2 | 3 |

Musteranlagen

M&Z Elektro Engineering GmbH
Winkelstrasse 23b
6022 Grosswangen / LU

SPS Dig. Eingänge E2.0-E2.7
SPS0001 / Steckplatz 4 (3/4)

Zeichnungsnummer

= Muster_Schema

+
82 Bl. Blatt 214

0 1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

A

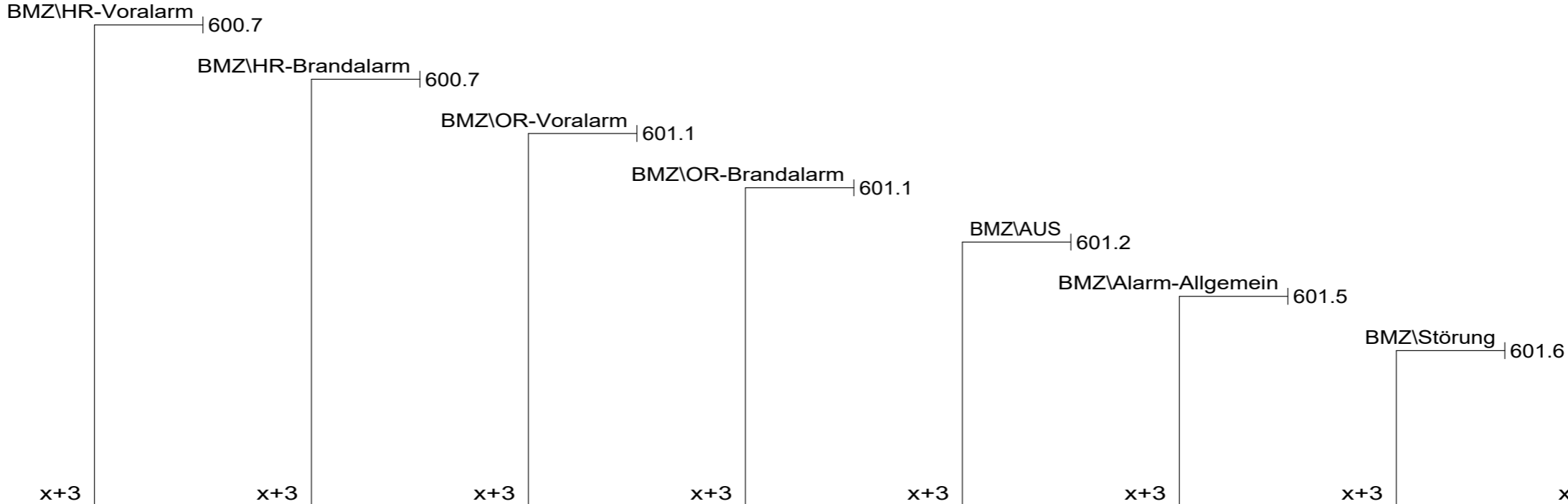
B

C

D

E

F



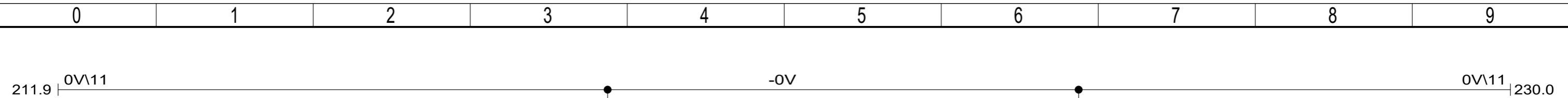
211A1

x+3 x+3 x+3 x+3 x+3 x+3 x+3 x+3

| | | | | | | | | |
|--------------------------------------|--------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|------------------------------------|-------------------------------------|-----------------------------|-----------------------|
| M 40 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| E 3.0/ 211A1/ SPS0001 | E 3.1/ 211A1/ SPS0001 | E 3.2/ 211A1/ SPS0001 | E 3.3/ 211A1/ SPS0001 | E 3.4/ 211A1/ SPS0001 | E 3.5/ 211A1/ SPS0001 | E 3.6/ 211A1/ SPS0001 | E 3.7/ 211A1/ SPS0001 | E 3.7/ 211A1/ SPS0001 |
| SIEMENS S7-1500 Karte SM 321 | Heizung Voralarm Brandmeldeanlage | Heizung B-Alarm Brandmeldeanlage | Odor.-Ra. V-Alarm Brandmeldeanlage | Odor.-Ra. B-Alarm Brandmeldeanlage | Anlageteil AUS Brandmeldeanlage | Alarm Allgemein Brandmeldeanlage | Störung Brandmeldeanlage | Reserve |
| 6ES7 321-1BL00-0AA0 | | | | | 24VDC INPUTS | | | |
| Steckplatz 4 Kartenausschnitt 4/4 | | | | | | | | |

SM 321 DI 32 x 24Vdc

Steckplatz 4 (4/4)



220A1

| | | 20 M | | 40 M | | PE |
|----------------------------|----------------------------|----------|---|----------|---|----|
| SM 321 DI 32x24Vdc | | | | | | |
| x | x+2 | x | | x+2 | | |
| <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 2 E 4.0 | 221.1 / ODO4001 Sammelalarm | 22 E 6.0 | 223.1 / MOV0102 Befehl TRG Feuerschieber schliessen | |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | 3 E 4.1 | 221.2 / ODO4001 Odorierimpuls | 23 E 6.1 | - / - | |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | 4 E 4.2 | 221.3 / - | 24 E 6.2 | - / - | |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | 5 E 4.3 | 221.4 / ODO4002 Sammelalarm | 25 E 6.3 | - / - | |
| <input type="checkbox"/> 4 | <input type="checkbox"/> 4 | 6 E 4.4 | 221.5 / ODO4002 Odorierimpuls | 26 E 6.4 | - / - | |
| <input type="checkbox"/> 5 | <input type="checkbox"/> 5 | 7 E 4.5 | 221.6 / - | 27 E 6.5 | - / - | |
| <input type="checkbox"/> 6 | <input type="checkbox"/> 6 | 8 E 4.6 | 221.7 / - | 28 E 6.6 | - / - | |
| <input type="checkbox"/> 7 | <input type="checkbox"/> 7 | 9 E 4.7 | 221.8 / - | 29 E 6.7 | - / - | |
| | | | | | | |
| x+1 | x+3 | x+1 | | x+3 | | |
| <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 12 E 5.0 | 222.1 / MOV0102 Feuerschieber offen | 32 E 7.0 | 224 / - | |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | 13 E 5.1 | 222.2 / MOV0102 Feuerschieber geschlossen | 33 E 7.1 | - / - | |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | 14 E 5.2 | 222.3 / MOV0102 Feuerschieber Sicherung | 34 E 7.2 | - / - | |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | 15 E 5.3 | 222.4 / MOV0102 Feuerschieber Oelstand | 35 E 7.3 | - / - | |
| <input type="checkbox"/> 4 | <input type="checkbox"/> 4 | 16 E 5.4 | 222.5 / MOV0102 Feuerschieber Laufzeit | 36 E 7.4 | - / - | |
| <input type="checkbox"/> 5 | <input type="checkbox"/> 5 | 17 E 5.5 | 222.6 / MOV0102 Feuerschieber Steuerung Aus | 37 E 7.5 | - / - | |
| <input type="checkbox"/> 6 | <input type="checkbox"/> 6 | 18 E 5.6 | 222.7 / MOV0102 Feuerschieber Fernsteuerung Aus | 38 E 7.6 | - / - | |
| <input type="checkbox"/> 7 | <input type="checkbox"/> 7 | 19 E 5.7 | 222.8 / MOV0102 Feuerschieber Steuerung Ein | 39 E 7.7 | - / - | |

6ES7321-1BL00-0AA0

Steckplatz 5

SM 321
DI 32 x 24Vdc

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | |
|------|----------|-------|------|-------|------------|---------------|--|--|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Digitaleinbaugruppe 32DE SPS0001 / Steckplatz 5 | Zeichnungsnummer | = Muster_Schema + |
| | | | | | ZUR | | | | | 82 Bl. Blatt 220 |

0 1 2 3 4 5 6 7 8 9

A

A

B

B

C

C

D

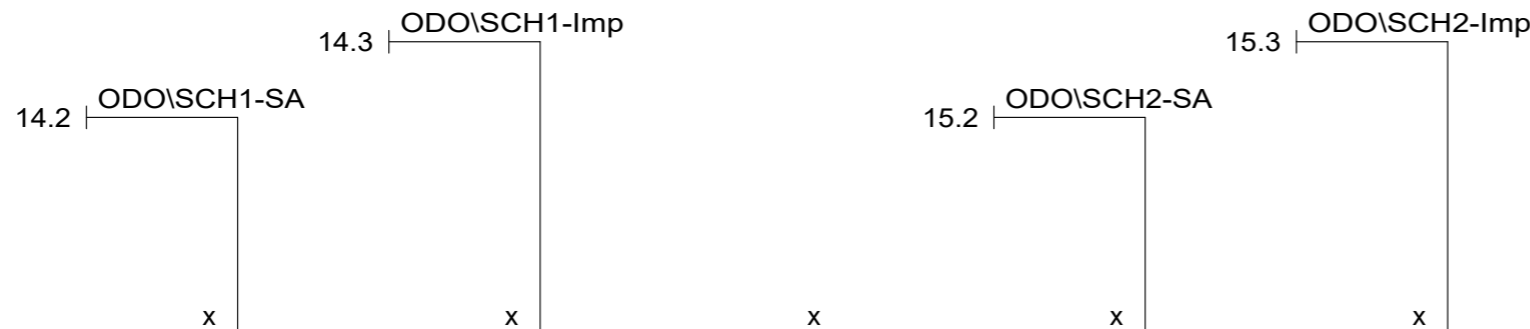
D

E

E

F

F



220A1

| | | | | | | | | |
|--------------------------------------|--------------------------------------|--------------------------------------|-----------------------|--------------------------------------|--------------------------------------|-----------------------|-----------------------|-----------------------|
| M 20 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| E 4.0/ 220A1/ SPS0001 | E 4.1/ 220A1/ SPS0001 | E 4.2/ 220A1/ SPS0001 | E 4.3/ 220A1/ SPS0001 | E 4.4/ 220A1/ SPS0001 | E 4.5/ 220A1/ SPS0001 | E 4.6/ 220A1/ SPS0001 | E 4.7/ 220A1/ SPS0001 | E 4.7/ 220A1/ SPS0001 |
| SIEMENS S7-1500 Karte SM 321 | ODO4001 Sa.-Alarm Odorierung SCH1 | ODO4001 Odor.Imp. Odorierung SCH1 | Reserve | ODO4002 Sa.-Alarm Odorierung SCH2 | ODO4002 Odor.Imp. Odorierung SCH2 | Reserve | Reserve | Reserve |
| 6ES7 321-1BL00-0AA0 | | | | | 24VDC INPUTS | | | |
| Steckplatz 5 Kartenausschnitt 1/4 | | | | | | | | |

SM 321 DI 32 x 24Vdc

Steckplatz 5 (1/4)

| | |
|--------|------------|
| Datum | 02.02.2020 |
| Bearb. | ZUR |
| Gepr. | |
| Rev. | Änderung |
| Datum | Name |
| Norm | |

Musteranlagen

M&Z Elektro Engineering GmbH
Winkelstrasse 23b
6022 Grosswangen / LU

SPS Dig. Eingänge E4.0-E4.7
SPS0001 / Steckplatz 5 (1/4)

Zeichnungsnummer

= Muster_Schema

+
82 Bl. Blatt 221

M&Z Elektro-Engineering GmbH

0 1 2 3 4 5 6 7 8 9

A

B

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A

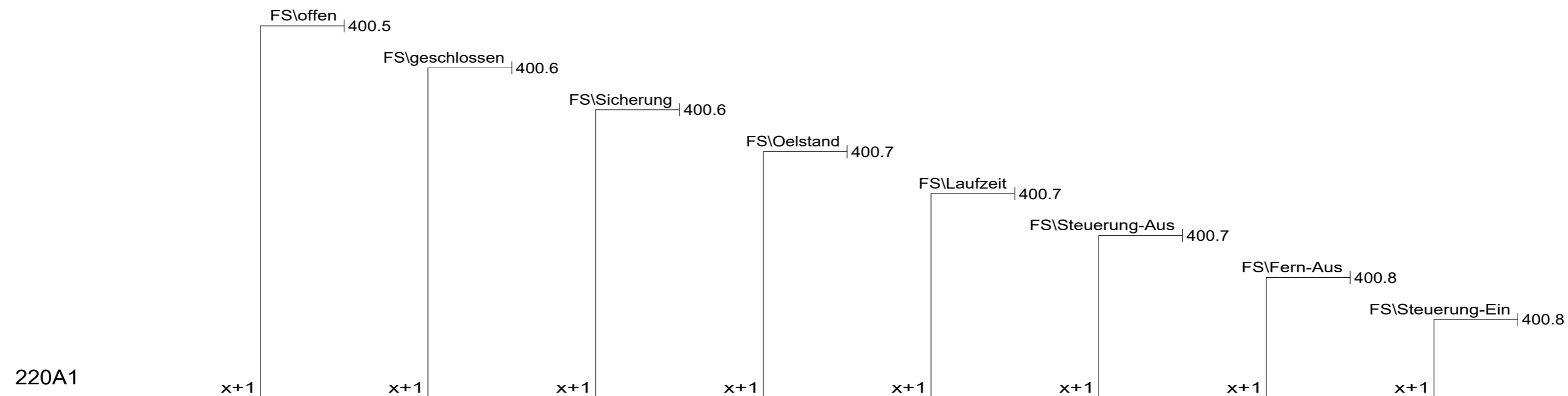
B

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220A1

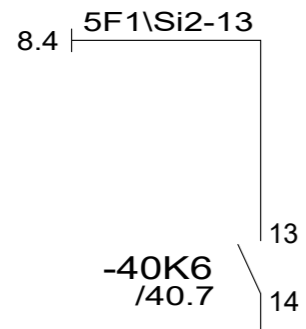
| | | | | | | | | |
|--------------------------------------|----------------------------------|--|--------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|---------------------------------|-----------------------------|
| M 20 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| E 5.0/ 220A1/ SPS0001 | E 5.1/ 220A1/ SPS0001 | E 5.2/ 220A1/ SPS0001 | E 5.3/ 220A1/ SPS0001 | E 5.4/ 220A1/ SPS0001 | E 5.5/ 220A1/ SPS0001 | E 5.6/ 220A1/ SPS0001 | E 5.7/ 220A1/ SPS0001 | |
| SIEMENS S7-1500 Karte SM 321 | MOV0102 Feuer- Schieber offen | MOV0102 Feuer- Schieber geschlossen | MOV0102 Feuer- Schieber Sicherung | MOV0102 Feuer- Schieber Oelstand | MOV0102 Feuer- Schieber Laufzeit | MOV0102 Feuer- Schieber Steu. Aus | MOV0102 FS Fernsteuerung Aus | MOV0102 FS Steuerung Ein |
| 6ES7 321-1BL00-0AA0 | | | | | | | | |
| Steckplatz 5 Kartenausschnitt 2/4 | | | | 24VDC INPUTS | | | | |

SM 321 DI 32 x 24Vdc

Steckplatz 4 (2/4)

| | | | | | | | | | | | | | |
|-------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig. Eingänge E5.0-E5.7 SPS0001 / Steckplatz 5 (2/4) | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 222 |
| < 221 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 223 > | | |

0 1 2 3 4 5 6 7 8 9



220A1

x+2

x+2

x+2

x+2

x+2

x+2

x+2

x+2

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|--------------------------------------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| M 40 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| | E 6.0/ 220A1/ SPS0001 | E 6.1/ 220A1/ SPS0001 | E 6.2/ 220A1/ SPS0001 | E 6.3/ 220A1/ SPS0001 | E 6.4/ 220A1/ SPS0001 | E 6.5/ 220A1/ SPS0001 | E 6.6/ 220A1/ SPS0001 | E 6.7/ 220A1/ SPS0001 |
| SIEMENS S7-1500 Karte SM 321 | Befehl ab TRG FS schliessen | Reserve | Reserve | Reserve | Reserve | Reserve | Reserve | Reserve |
| 6ES7 321-1BL00-0AA0 | | | | | | | | |
| Steckplatz 5 Kartenausschnitt 3/4 | | | | 24VDC INPUTS | | | | |

SM 321 DI 32 x 24Vdc

Steckplatz 5 (3/4)

M&Z Elektro-Engineering GmbH

| | | | | |
|-------|----------|-------|------|------|
| Rev. | Änderung | Datum | Name | Norm |
| < 222 | 0 | 1 | 2 | 3 |

Musteranlagen

M&Z Elektro Engineering GmbH
Winkelstrasse 23b
6022 Grosswangen / LU

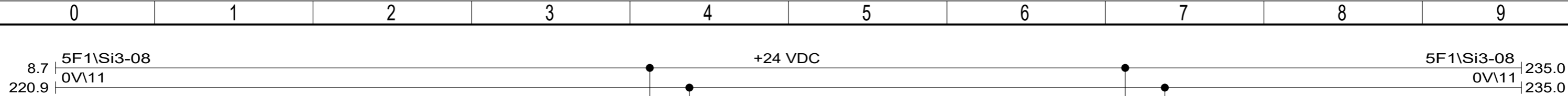
SPS Dig. Eingänge E6.0-E6.7
SPS0001 / Steckplatz 5 (3/4)

Zeichnungsnummer

= Muster_Schema

+
82 Bl. Blatt 223

< 222 0 1 2 3 4 5 6 7 8 9 230 >



230A1

| | | 1 1L+ | 20 1M | 21 2L+ | 40 2M |
|-------------------|--|--|----------|-------------------------|--|
| SM 322 DO 8REL | | 230.4 / +24VDC Speisung | | 230.7 / +24VDC Speisung | |
| 1 | | 231.2 / Steckdose Odorierung befüllen | | 25 A 0.4 | 232.2 / ODO4001 Einlese Impuls Schiene 1 |
| 2 | | 231.4 / Odorierung Magnetventil Befüllung (Res.) | | 29 A 0.5 | 232.4 / ODO4002 Einlese Impuls Schiene 2 |
| 3 | | 231.6 / Reserve | | 33 A 0.6 | 232.6 / Reserve |
| 4 | | 231.8 / Reserve | | 37 A 0.7 | 232.8 / Reserve |
| 5 A 0.0 | | 230.4 / -0VDC Speisung | | 230.7 / -0VDC Speisung | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 A 0.1 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 A 0.2 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 A 0.3 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |

6ES7322-5HF00-0AB0

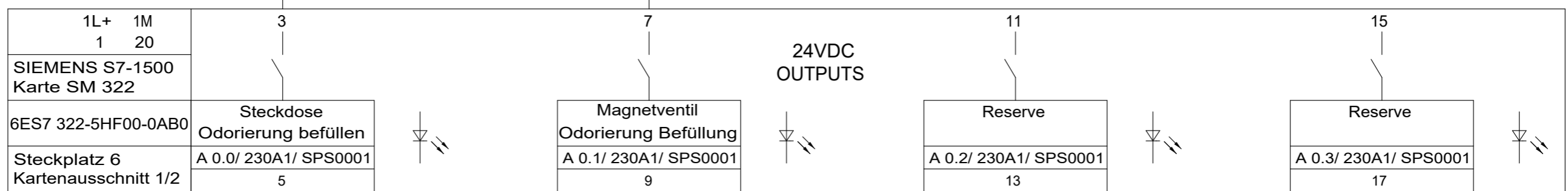
Steckplatz 6

SM 322
DO 8REL

M&Z Elektro-Engineering GmbH

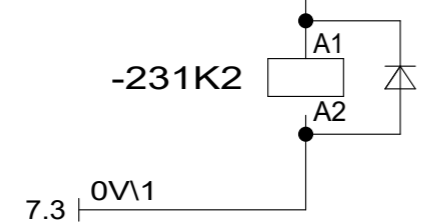
| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Digitaleinbaugruppe DO 8REL SPS0001 / Steckplatz 6 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 230 |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|

230A1

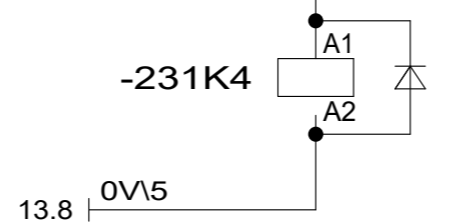


SM 322 DO 8 x Rel.
AC 230 V/5A

Steckplatz 6 (1/2)



C7-A20D/DC24V+CS118
/2.7
Freigabe Steckdose für LKW Ablad Befüllung Odorattank



C7-A20D/DC24V+CS118
/13.7
Odorierung Magnetventil Befüllung (Reserve)

0 1 2 3 4 5 6 7 8 9

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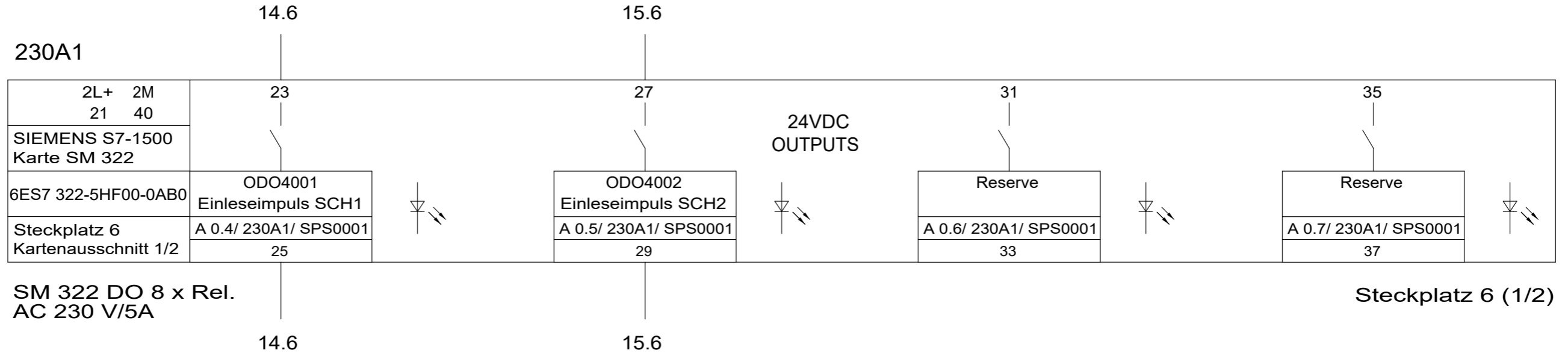
D

E

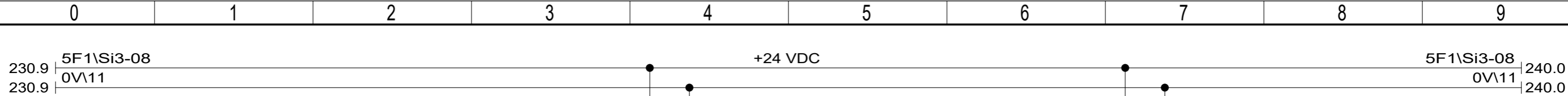
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F



| | | | | | | | | | | | | | |
|-------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig. Ausgänge A0.4-A0.7 SPS0001 / Steckplatz 6 (2/2) | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 232 |
| < 231 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 235 > | | |



235A1

| | | | | | | | |
|-------------------|--|--|--|---|--|--|---|
| SM 322 DO 8REL | | x <input type="checkbox"/> 0 <input type="checkbox"/> 1 x+1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | x+2 <input type="checkbox"/> 4 <input type="checkbox"/> 5 x+3 <input type="checkbox"/> 6 <input type="checkbox"/> 7 | 1 2 3 4 5 A 1.0 6 7 8 9 A 1.1 10 11 12 13 A 1.2 14 15 16 17 A 1.3 18 19 20 | 235.4 / +24VDC Speisung 236.2 / Blitzleuchte Gasraum Rot Brandalarm 236.4 / Blitzleuchte Gasraum Blau Gasalarm 236.6 / Blitzleuchte Gasraum Orange Telefonruf 236.8 / Horn Gasraum Ton 1 235.4 / -0VDC Speisung | 21 22 23 24 25 A 1.4 26 27 28 29 A 1.5 30 31 32 33 A 1.6 34 35 36 37 A 1.7 38 39 40 | 235.7 / +24VDC Speisung 237.2 / Horn Gasraum Ton 2 Umschaltung 237.4 / Meldelampe Elektroraum Alarm Station 237.6 / Alarm Elektroraum Ton 1 237.8 / Alarm Elektroraum Ton 2 235.7 / -0VDC Speisung |
|-------------------|--|--|--|---|--|--|---|

6ES7322-5HF00-0AB0

Steckplatz 7

SM 322
DO 8REL

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Digitaleinbaugruppe DO 8REL SPS0001 / Steckplatz 7 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 235 |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|

0 1 2 3 4 5 6 7 8 9

A

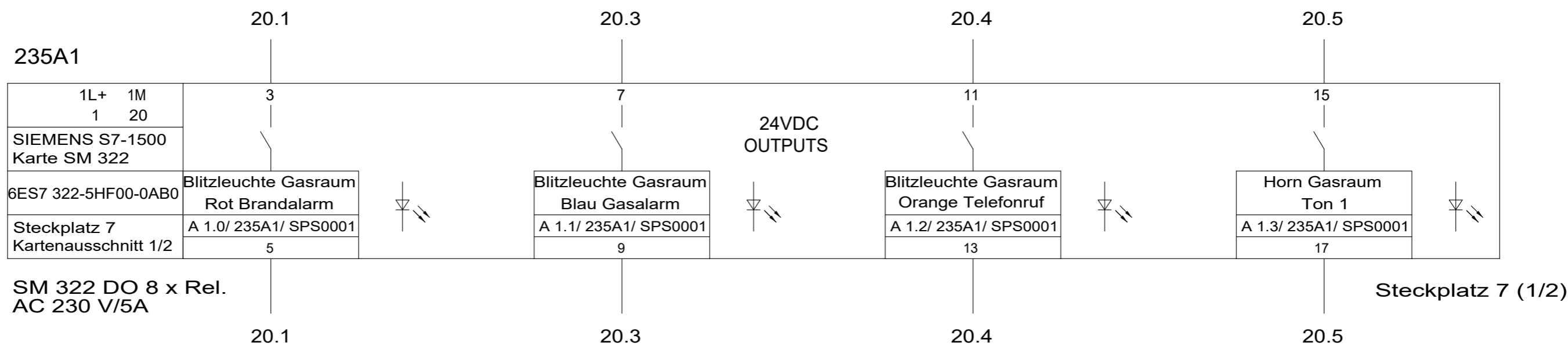
B

C

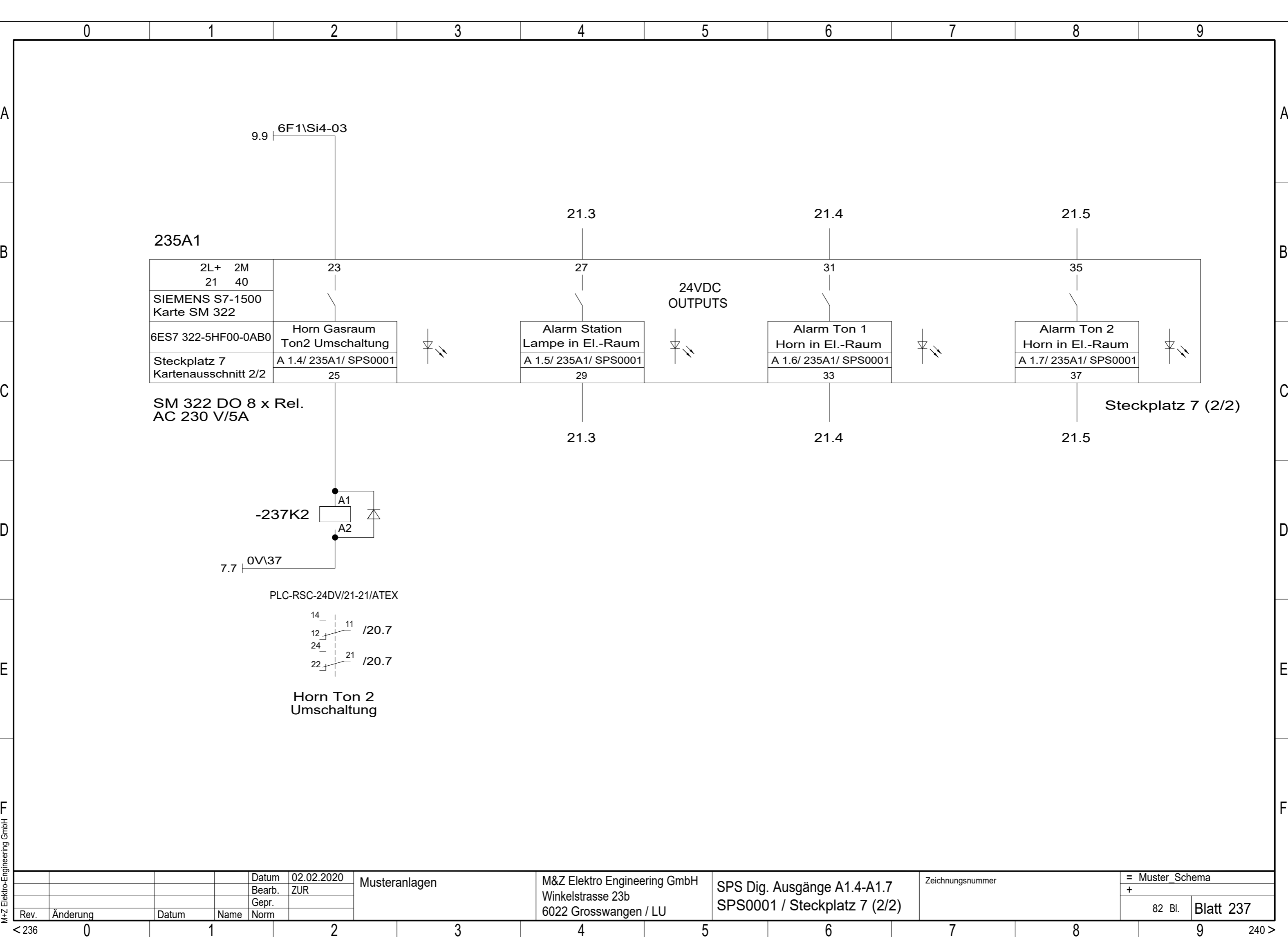
D

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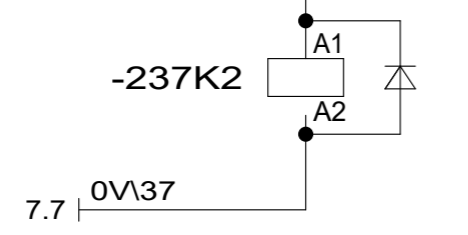
| | | | | | | | | | | | | | |
|-------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig. Ausgänge A1.0-A1.3 SPS0001 / Steckplatz 7 (1/2) | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 236 |
| < 235 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 237 > | | |



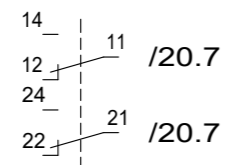
| | | | | |
|--------------------------------------|----------------------------------|------------------------------------|---------------------------------|---------------------------------|
| 2L+ 2M 21 40 | 23 | 27 | 31 | 35 |
| SIEMENS S7-1500 Karte SM 322 | Horn Gasraum Ton2 Umschaltung | Alarm Station Lampe in El.-Raum | Alarm Ton 1 Horn in El.-Raum | Alarm Ton 2 Horn in El.-Raum |
| 6ES7 322-5HF00-0AB0 | A 1.4/ 235A1/ SPS0001 | A 1.5/ 235A1/ SPS0001 | A 1.6/ 235A1/ SPS0001 | A 1.7/ 235A1/ SPS0001 |
| Steckplatz 7 Kartenausschnitt 2/2 | 25 | 29 | 33 | 37 |

SM 322 DO 8 x Rel.
AC 230 V/5A

Steckplatz 7 (2/2)



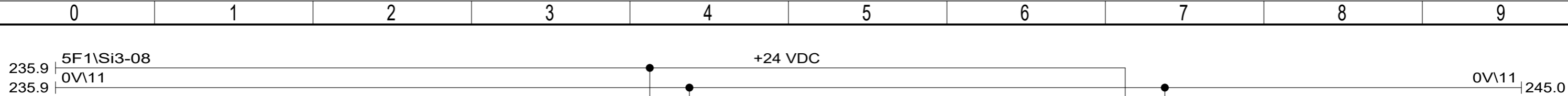
PLC-RSC-24DV/21-21/ATEX



Horn Ton 2
Umschaltung

M&Z Elektro-Engineering GmbH

| | | | | | | | |
|--------|------------|---------------|--|---|------------------|-----------------|-----------|
| Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig. Ausgänge A1.4-A1.7 SPS0001 / Steckplatz 7 (2/2) | Zeichnungsnummer | = Muster_Schema | |
| Bearb. | ZUR | | | | | + | |
| Gepr. | | | | | | 82 Bl. | Blatt 237 |
| Rev. | Änderung | Datum | Name | Norm | | | |



240A1

| | | 1 1L+ | 20 1M | 21 2L+ | 40 2M |
|-------------------|--------------------------|-------------------------|--|-------------------------|---|
| SM 322 DO 8REL | | 240.4 / +24VDC Speisung | | 240.7 / +24VDC Speisung | |
| x | <input type="checkbox"/> | 1 | | 21 | |
| | <input type="checkbox"/> | 2 | | 22 | |
| 0 | <input type="checkbox"/> | 3 | | 23 | |
| | <input type="checkbox"/> | 4 | | 24 | |
| | <input type="checkbox"/> | 5 A 2.0 | 241.2 / MOV0102 Feuerschieber öffnen | 25 A 2.4 | 242.2 / MOV0102 RM an TRG Feuerschieber offen |
| | <input type="checkbox"/> | 6 | | 26 | |
| 1 | <input type="checkbox"/> | 7 | | 27 | |
| | <input type="checkbox"/> | 8 | | 28 | |
| | <input type="checkbox"/> | 9 A 2.1 | 241.4 / MOV0102 Feuerschieber schliessen | 29 A 2.5 | 242.4 / MOV0102 RM an TRG Feuerschie. geschlossen |
| | <input type="checkbox"/> | 10 | | 30 | |
| x+1 | <input type="checkbox"/> | 11 | | 31 | |
| | <input type="checkbox"/> | 12 | | 32 | |
| 2 | <input type="checkbox"/> | 13 A 2.2 | 241.6 / - | 33 A 2.6 | 242.6 / - |
| | <input type="checkbox"/> | 14 | | 34 | |
| | <input type="checkbox"/> | 15 | | 35 | |
| 3 | <input type="checkbox"/> | 16 | | 36 | |
| | <input type="checkbox"/> | 17 A 2.3 | 241.8 / - | 37 A 2.7 | 242.8 / - |
| | <input type="checkbox"/> | 18 | | 38 | |
| | <input type="checkbox"/> | 19 | | 39 | |
| | <input type="checkbox"/> | 20 | 240.4 / -0VDC Speisung | 40 | 240.7 / -0VDC Speisung |

6ES7322-5HF00-0AB0

Steckplatz 8

SM 322
DO 8REL

| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Digitaleinbaugruppe DO 8REL SPS0001 / Steckplatz 8 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 240 |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|

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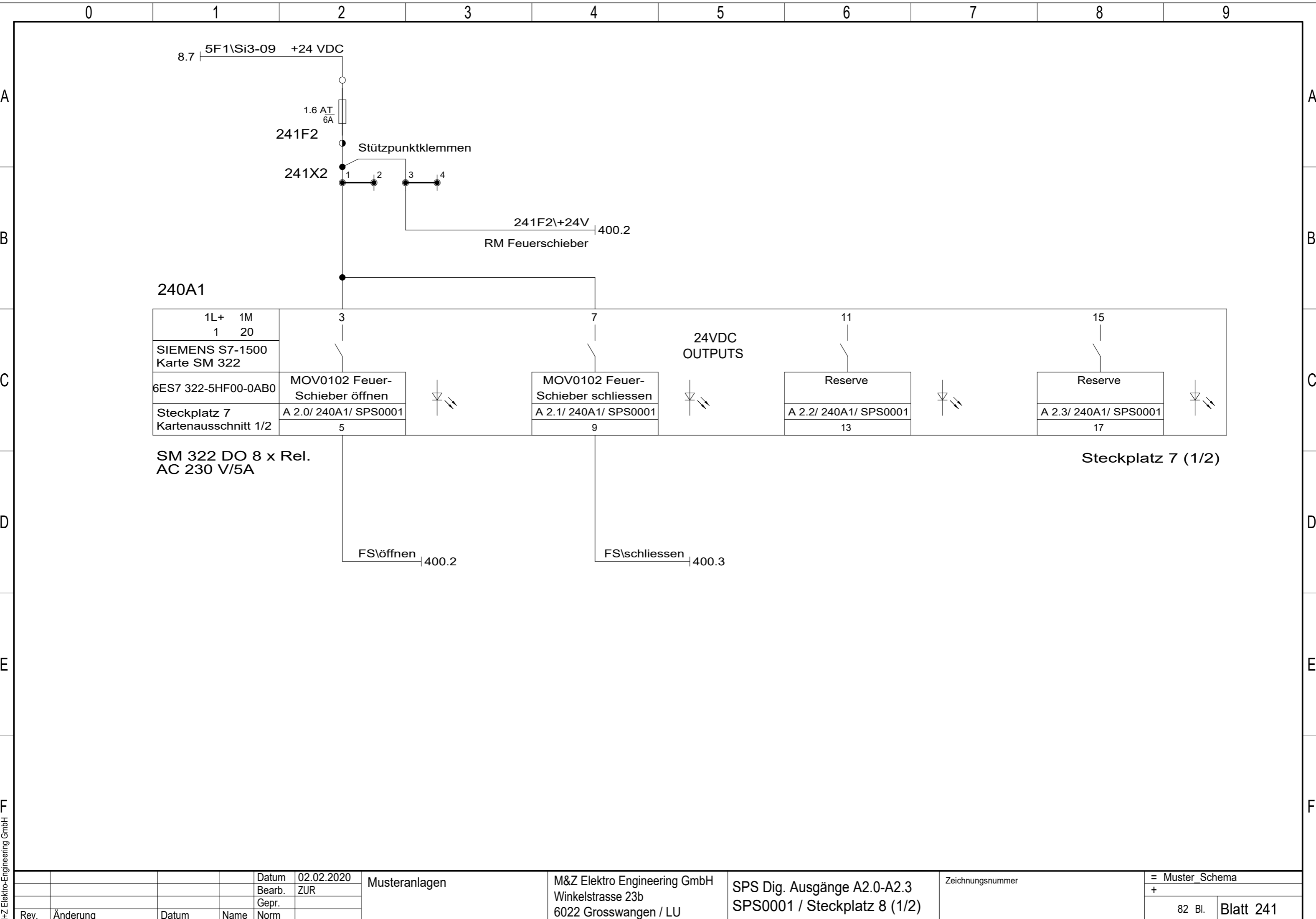
B

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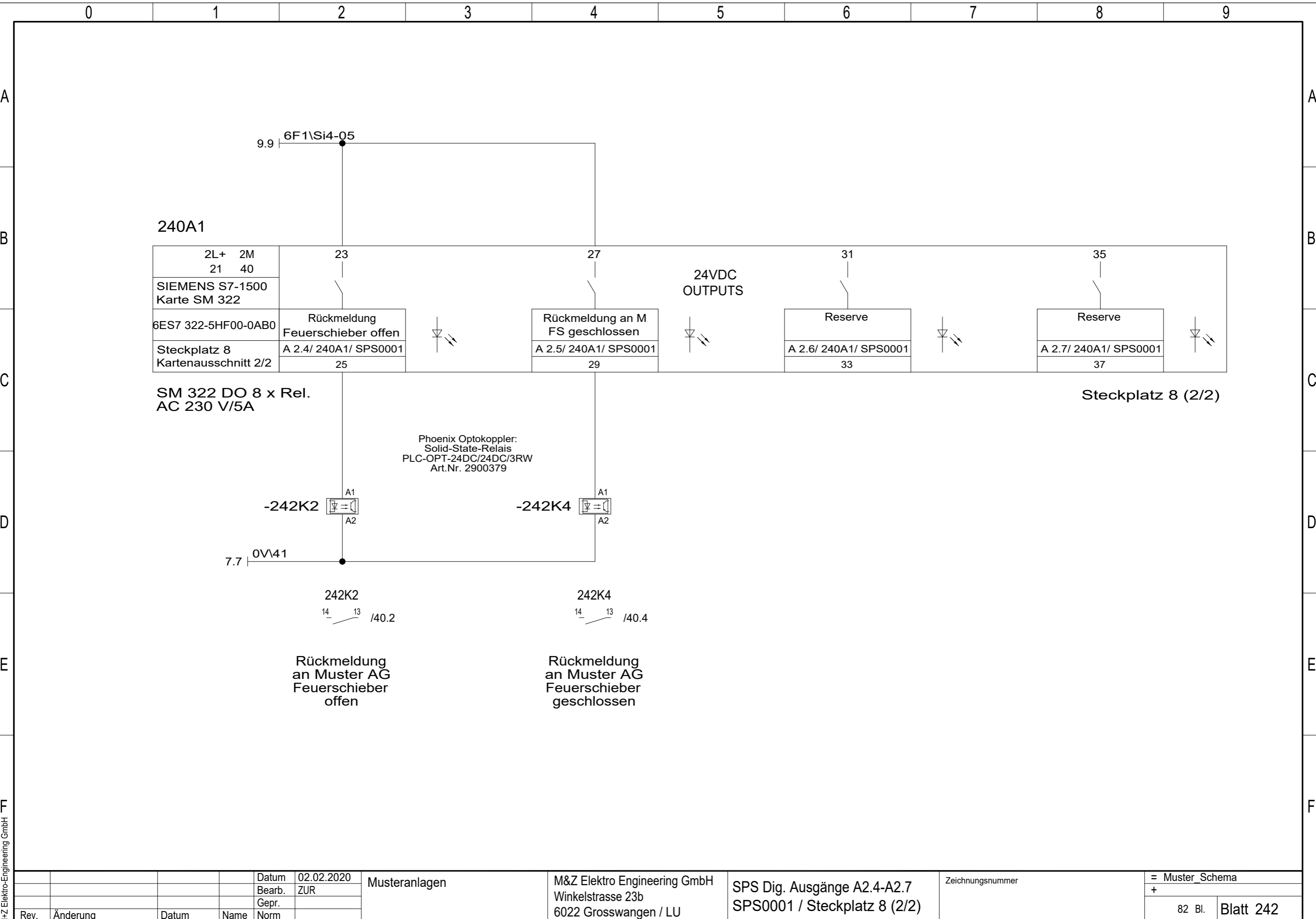
E

F



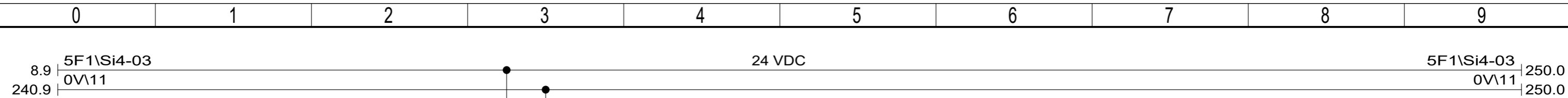
M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|---|------------------|-----------------|-----------|
| | | | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig. Ausgänge A2.0-A2.3 SPS0001 / Steckplatz 8 (1/2) | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | Gepr. | | | | | | 82 Bl. | Blatt 241 |



M&Z Elektro-Engineering GmbH

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|------|----------|-------|------|--------|------------|---------------|--|---|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig. Ausgänge A2.4-A2.7 SPS0001 / Steckplatz 8 (2/2) | Zeichnungsnummer | = Muster_Schema |
| | | | | Bearb. | ZUR | | | | | + |
| | | | | Gepr. | | | | | | 82 Bl. |
| | | | | Norm | | | | | | Blatt 242 |



245A1

| | | 1 | 20 | 10 | 11 |
|---|----|-------------------------|--|----|----|
| | | L+ | M | M | M |
| SM 331 AI 8x0/4..20mA HART <input type="checkbox"/> SF <input type="checkbox"/> F0 <input type="checkbox"/> F1 <input type="checkbox"/> F2 <input type="checkbox"/> F3 <input type="checkbox"/> F4 <input type="checkbox"/> F5 <input type="checkbox"/> F6 <input type="checkbox"/> F7 | 1 | 245.3 / +24VDC Speisung | | | |
| | 2 | CH0 | 246.1 / Spannung 24VDC in Feld 104 | | |
| | 3 | EW120 | | | |
| | 4 | CH1 | 246.2 / Strom 24VDC ab USV | | |
| | 5 | EW122 | | | |
| | 6 | CH2 | 246.3 / ODO4005 Niveau Odorattank | | |
| | 7 | EW124 | | | |
| | 8 | CH3 | 246.4 / TT0002 Temperatur Elektroraum | | |
| | 9 | EW126 | | | |
| | 10 | | | | |
| | 11 | | | | |
| | 12 | CH4 | 246.5 / ODO4001 Sollwert Rückmeldung Schiene 1 | | |
| | 13 | EW128 | | | |
| | 14 | CH5 | 246.6 / ODO4002 Sollwert Rückmeldung Schiene 2 | | |
| | 15 | EW130 | | | |
| | 16 | CH6 | 246.7 / ODO4001 Istwert Rückmeldung Schiene 1 | | |
| | 17 | EW132 | | | |
| | 18 | CH7 | 246.8 / ODO4002 Istwert Rückmeldung Schiene 2 | | |
| | 19 | EW134 | | | |
| | 20 | | 245.3 / -0VDC Speisung | | |

6ES7331-7TF01-0AB0

Steckplatz 9

SM 331
AI 8 x 0/4..20mA HART

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|--|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Analogeingabebaugruppe 8AE SPS0001 / Steckplatz 9 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 245 |
|------|----------|-------|------|------|-------|------------|---------------|--|--|------------------|----------------------|--------|-----------|

0 1 2 3 4 5 6 7 8 9

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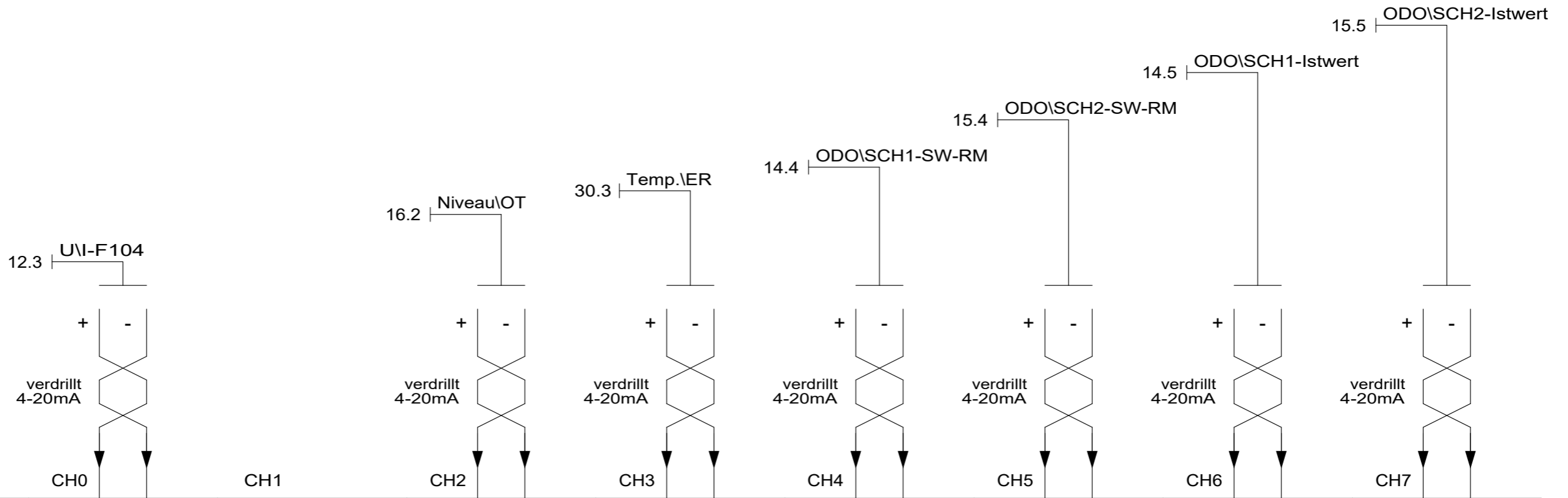
B

C

D

E

F



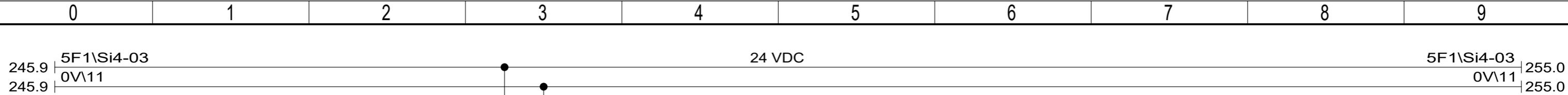
245A1

| | | | | | | | | | |
|------------------------------|---------|----------------------------|-----------------------|---------------------------|-------------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| L+ 1 | M 20 | AI 2+ 3- | AI 4+ 5- | AI 6+ 7- | AI 8+ 9- | AI 12+ 13- | AI 14+ 15- | AI 16+ 17- | AI 18+ 19- |
| | | EW120/ 245A1/ SPS0001 | EW122/ 245A1/ SPS0001 | EW124/ 245A1/ SPS0001 | EW126/ 245A1/ SPS0001 | EW128/ 245A1/ SPS0001 | EW130/ 245A1/ SPS0001 | EW132/ 245A1/ SPS0001 | EW134/ 245A1/ SPS0001 |
| SIEMENS S7-1500 Karte SM 331 | | Spannung 24VDC in Feld 104 | Reserve | ODO4005 Niveau Oderattank | TT0002 Temperatur Elektroraum | ODO4001 Sollwert Rückmel. Schiene1 | ODO4002 Sollwert Rückmel. Schiene2 | ODO4001 Istwert Rückmel. Schiene1 | ODO4002 Istwert Rückmel. Schiene2 |
| 6ES7 331-7TF01-0AB0 | | | | | | | | | |
| Steckplatz 9 | | | | | | | | | |

SM 331 AI 8 x 0/4..20mA HART

Steckplatz 9

| | | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|---|------------------|----------------------|------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Analoge Eing. EW120-EW134 SPS0001 / Steckplatz 9 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. Blatt 246 |
| | | | | Bearb. | ZUR | | | | | | |
| | | | | Gepr. | | | | | | | |



250A1

| | | 1 | 20 | 10 | 11 |
|---|----|----------------|----------------|-------------|-------------|
| | | L+ | M | M | M |
| SM 331 AI 8x0/4..20mA HART <input type="checkbox"/> SF <input type="checkbox"/> F0 <input type="checkbox"/> F1 <input type="checkbox"/> F2 <input type="checkbox"/> F3 <input type="checkbox"/> F4 <input type="checkbox"/> F5 <input type="checkbox"/> F6 <input type="checkbox"/> F7 | 1 | 250.3 / +24VDC | Speisung | | |
| | 2 | CH0 | 251.1 / GM6201 | Gasmelder 1 | Gasraum |
| | 3 | EW136 | | | |
| | 4 | CH1 | 251.2 / GM6202 | Gasmelder 2 | Gasraum |
| | 5 | EW138 | | | |
| | 6 | CH2 | 251.3 / - | | |
| | 7 | EW140 | | | |
| | 8 | CH3 | 251.4 / GM6203 | Gasmelder 3 | Gasraum |
| | 9 | EW142 | | | |
| | 10 | | | | |
| | 11 | | | | |
| | 12 | CH4 | 251.5 / GM6204 | Gasmelder | Heizung |
| | 13 | EW144 | | | |
| | 14 | CH5 | 251.6 / GM6205 | Gasmelder | Odorierraum |
| | 15 | EW146 | | | |
| | 16 | CH6 | 251.7 / TT0003 | Temperatur | Aussen |
| | 17 | EW148 | | | |
| | 18 | CH7 | 251.8 / TT0003 | Feuchte | Aussen |
| | 19 | EW150 | | | |
| | 20 | | 250.3 / -0VDC | Speisung | |

6ES7331-7TF01-0AB0

Steckplatz 10

SM 331
AI 8 x 0/4..20mA HART

| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Analogeingabebaugruppe 8AE SPS0001 / Steckplatz 10 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 250 |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|

0 1 2 3 4 5 6 7 8 9

A

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A

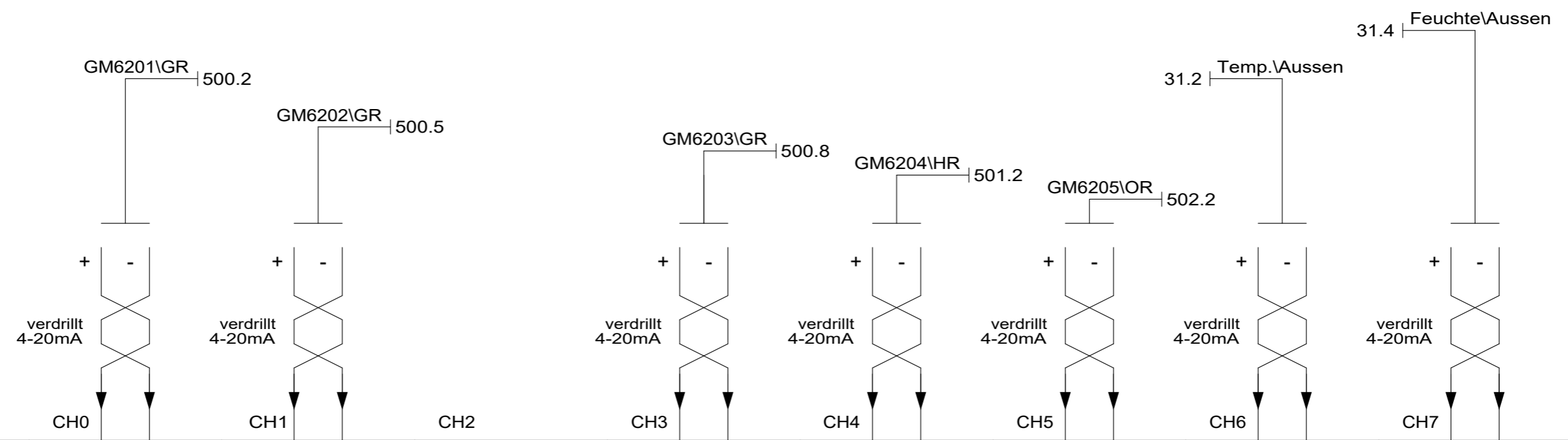
B

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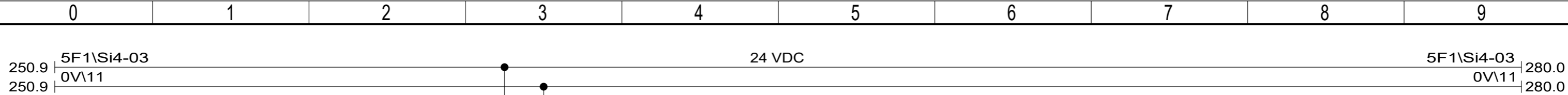
250A1

| | | | | | | | | | |
|------------------------------|---------|---------------------------|---------------------------|-----------------------|---------------------------|--------------------------|---------------------------|--------------------------|-----------------------|
| L+ 1 | M 20 | AI 2+ 3- | AI 4+ 5- | AI 6+ 7- | AI 8+ 9- | AI 12+ 13- | AI 14+ 15- | AI 16+ 17- | AI 18+ 19- |
| | | EW136/ 250A1/ SPS0001 | EW138/ 250A1/ SPS0001 | EW140/ 250A1/ SPS0001 | EW142/ 250A1/ SPS0001 | EW144/ 250A1/ SPS0001 | EW146/ 250A1/ SPS0001 | EW148/ 250A1/ SPS0001 | EW150/ 250A1/ SPS0001 |
| SIEMENS S7-1500 Karte SM 331 | | GM6201 Gasmelder1 Gasraum | GM6202 Gasmelder2 Gasraum | Reserve | GM6203 Gasmelder3 Gasraum | GM6204 Gasmelder Heizung | GM6205 Gasmelder Odorraum | TT0003 Temperatur Aussen | TT0003 Feuchte Aussen |
| 6ES7 331-7TF01-0AB0 | | | | | | | | | |
| Steckplatz 10 | | | | | | | | | |

SM 331 AI 8 x 0/4..20mA HART

Steckplatz 10

| | | | | | | | | | | |
|------------------|----------|-------|------|--------|------------|---------------|--|--|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Analoge Eing. EW136-EW150 SPS0001 / Steckplatz 10 | Zeichnungsnummer | = Muster_Schema + |
| | | | | Bearb. | ZUR | | | | | |
| | | | | Gepr. | | | | | | |
| 82 Bl. Blatt 251 | | | | | | | | | | |



255A1

| | | 1 | 20 | |
|---|----|---------|--|------------------------------------|
| | | L+ | M | |
| SM 332 AO 8x0/4..20mA HART <input type="checkbox"/> SF <input type="checkbox"/> F0 <input type="checkbox"/> F1 <input type="checkbox"/> F2 <input type="checkbox"/> F3 <input type="checkbox"/> F4 <input type="checkbox"/> F5 <input type="checkbox"/> F6 <input type="checkbox"/> F7 | 1 | 255.3 / | +24VDC Speisung | |
| | 2 | CH0 | 256.1 / ODO4001 Sollwert Vorgabe Schiene 1 | |
| | 3 | AW152 | | |
| | 4 | CH1 | 256.2 / | - |
| | 5 | AW154 | | |
| | 6 | CH2 | 256.3 / | ODO4002 Sollwert Vorgabe Schiene 2 |
| | 7 | AW156 | | |
| | 8 | CH3 | 256.4 / | - |
| | 9 | AW158 | | |
| | 12 | CH4 | 256.5 / | - |
| | 13 | AW160 | | |
| | 14 | CH5 | 256.6 / | - |
| | 15 | AW162 | | |
| | 16 | CH6 | 256.7 / | - |
| | 17 | AW164 | | |
| | 18 | CH7 | 256.8 / | - |
| | 19 | AW166 | | |
| | 20 | | 255.3 / | -0VDC Speisung |

6ES7332-8TF01-0AB0

Steckplatz 11

SM 332
 AO 8 x 0/4..20mA HART

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Analogausgabebaugruppe 8AO SPS0001 / Steckplatz 11 | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 255 |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|

0 1 2 3 4 5 6 7 8 9

A

A

B

B

255A1

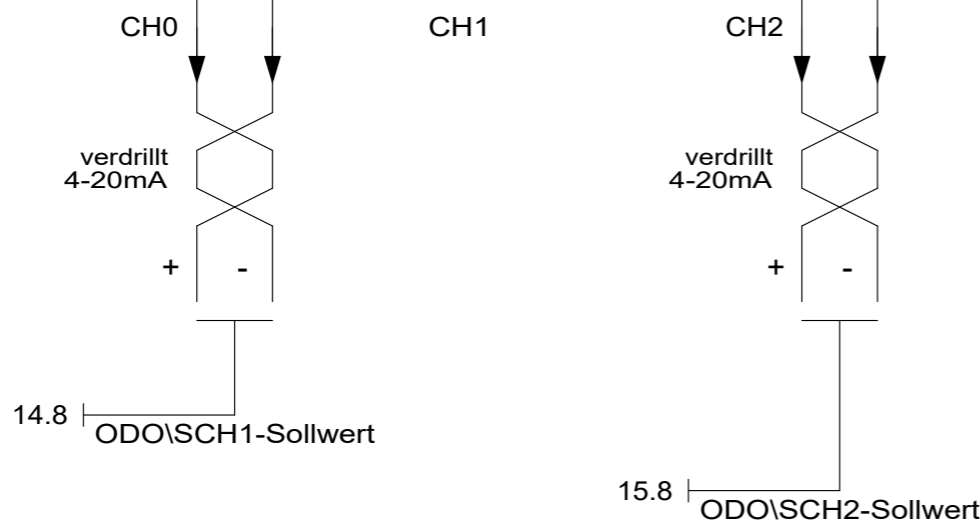
SM 332 AO 8 x 0/4..20mA HART

Steckplatz 11

| | | | | | | | | |
|---------------------------------|---------------------------------------|-----------------------|---------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| L+ 1 | M 20 | | | | | | | |
| SIEMENS S7-1500 Karte SM 332 | | 0/4..20mA OUTPUT | | | | | | |
| 6ES7 332-8TF01-0AB0 | ODO4001 Sollwert Vorgabe Schiene 1 | Reserve | ODO4001 Sollwert Vorgabe Schiene 2 | Reserve | Reserve | Reserve | Reserve | Reserve |
| Steckplatz 11 | EW152/ 255A1/ SPS0001 | EW154/ 255A1/ SPS0001 | EW156/ 255A1/ SPS0001 | EW158/ 255A1/ SPS0001 | EW160/ 255A1/ SPS0001 | EW162/ 255A1/ SPS0001 | EW164/ 255A1/ SPS0001 | EW166/ 255A1/ SPS0001 |
| | AO 2+ 3- | AO 4+ 5- | AO 6+ 7- | AO 8+ 9- | AO 12+13- | AO 14+15- | AO 16+17- | AO 18+19- |

C

C



D

D

E

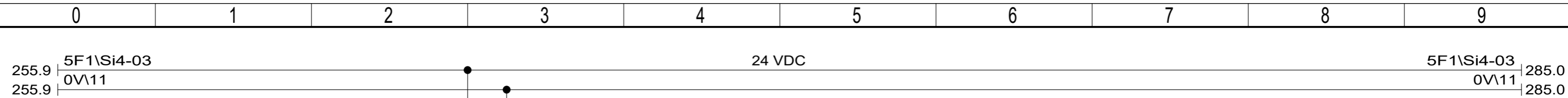
E

F

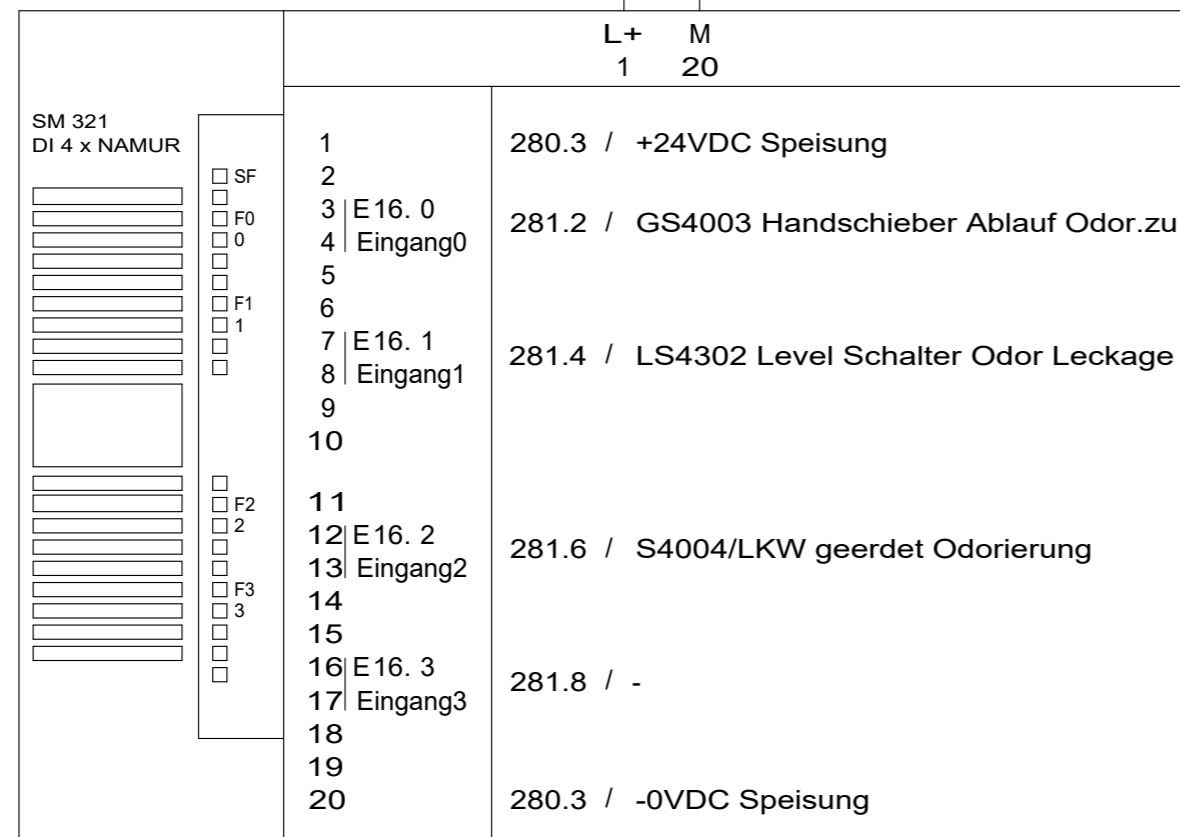
F

| | | | | | | | | | | |
|-------|----------|-------|------|-------|------------|---------------|--|--|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Analoge Ausg. AW152-AW166 SPS0001 / Steckplatz 11 | Zeichnungsnummer | = Muster_Schema + |
| < 255 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 82 Bl. Blatt 256 |

< 255 0 1 2 3 4 5 6 7 8 9 280 >



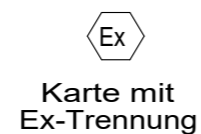
280A1



6ES7331-7TF01-0AB0

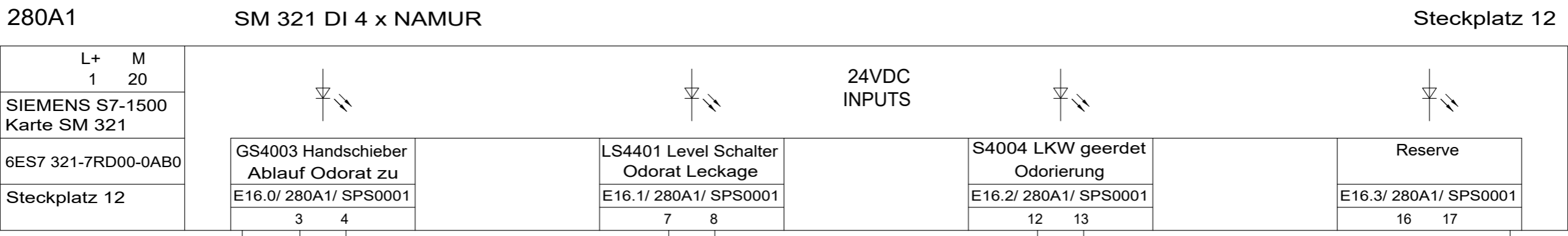
Steckplatz 12

SM 321
DI 4 x NAMUR



M&Z Elektro-Engineering GmbH

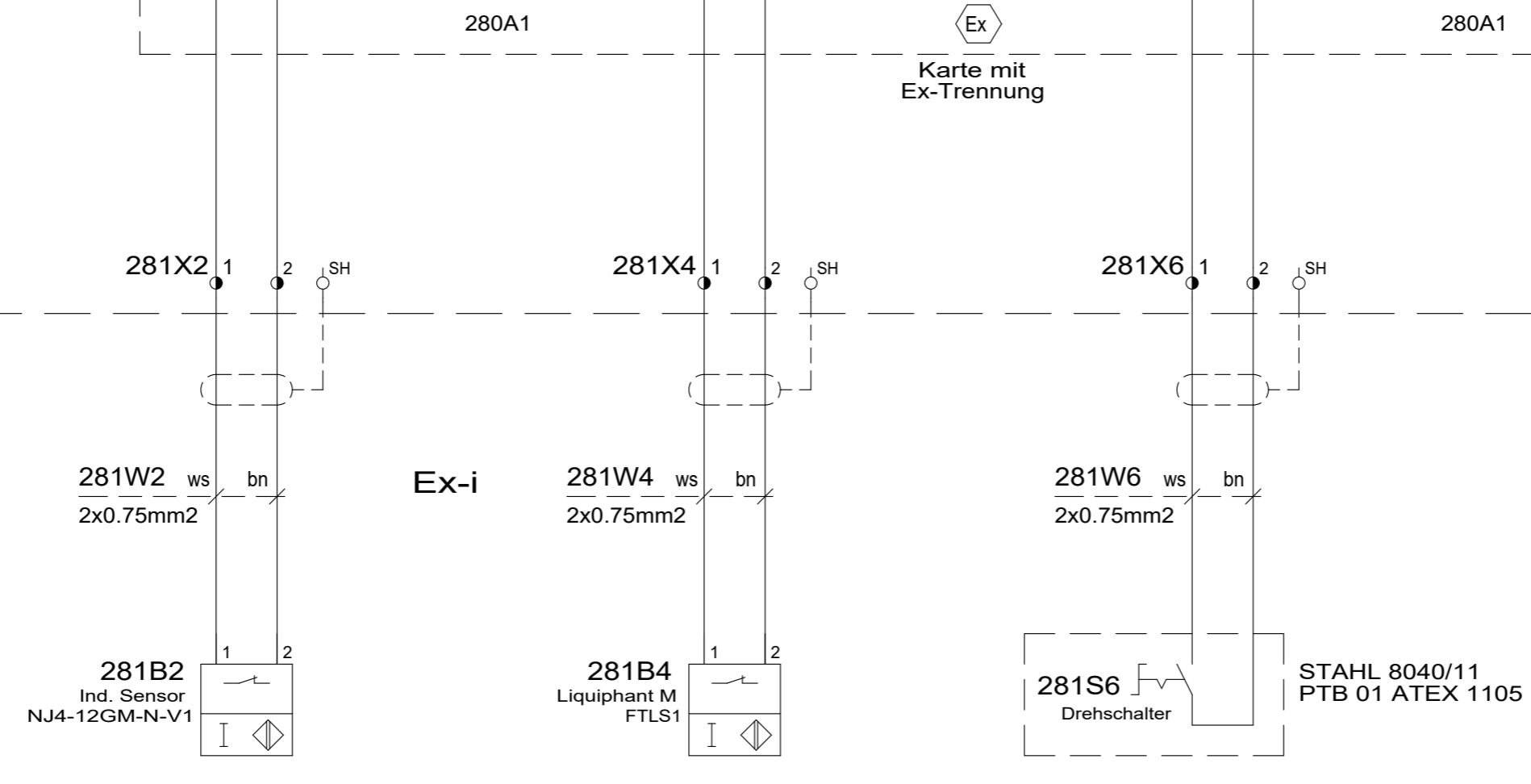
| | | | | | | | | | | |
|-------|----------|-------|------|-------|------------|---------------|--|--|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Ex Dig. Eingabebaugr. 4DE SPS0001 / Steckplatz 12 NAMUR | Zeichnungsnummer | = Muster_Schema + |
| < 256 | 0 | 1 | | 2 | | | | | | 82 Bl. Blatt 280 |



Ex-Trennung
alle Klemmen, Kabel
und Kanäle blau

Feld 104

Ex Zone
Odorraum/Schacht
aussen



| Initia. Handschieber | | |
|----------------------|----------|-----|
| U | 24 | VDC |
| abge. | 2 x 0.75 | mm2 |
| K-Nr. | 281W2 | |

Ablauf Odorat zu
GS4003

| Initiator Level | | |
|-----------------|----------|-----|
| U | 24 | VDC |
| abge. | 2 x 0.75 | mm2 |
| K-Nr. | 281W4 | |

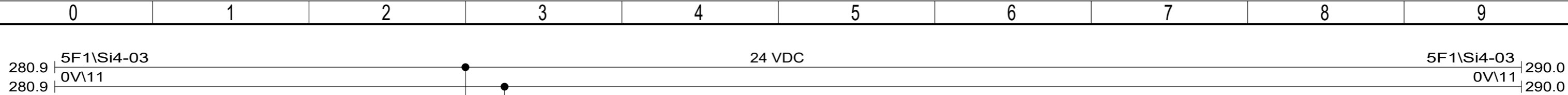
Schalter Odorat
Leckage
LS4401

| Schalter LKW geerdet | | |
|----------------------|----------|-----|
| U | 24 | VDC |
| abge. | 2 x 0.75 | mm2 |
| K-Nr. | 281W6 | |

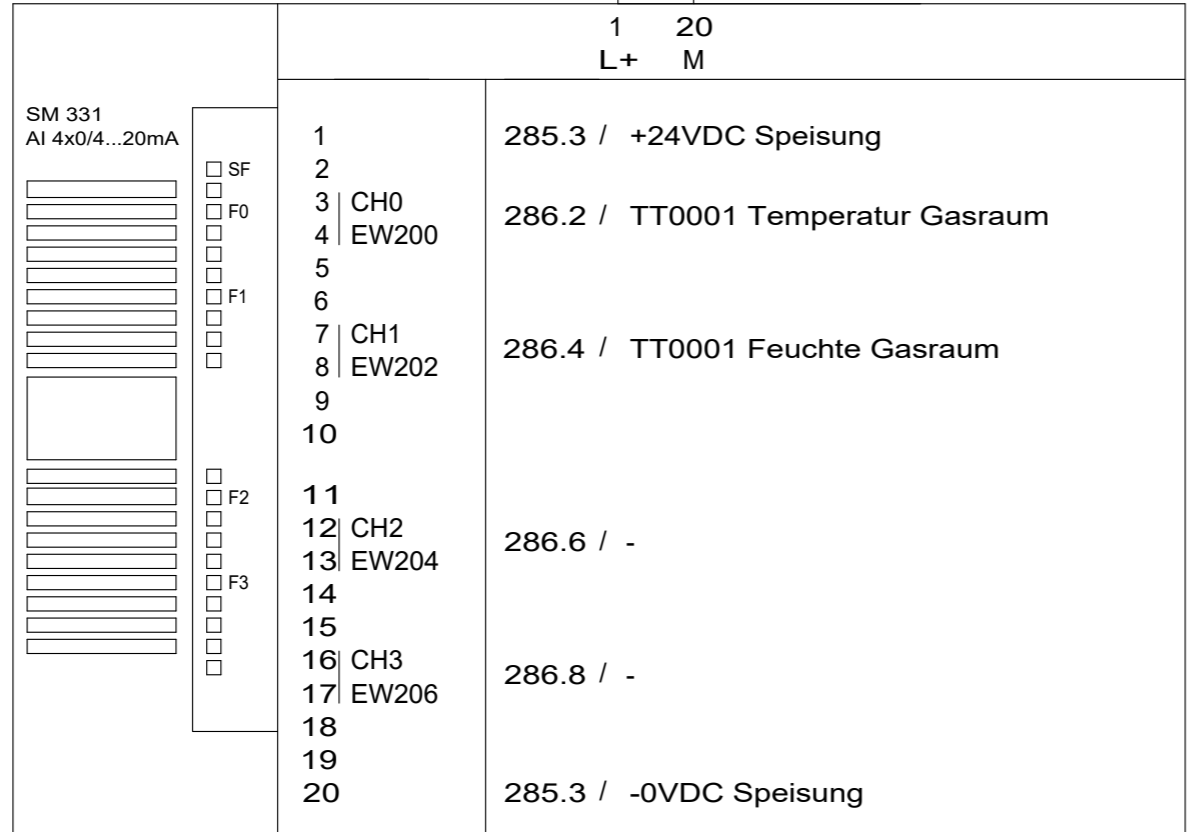
Odorierung
S4004

STAHL 8040/11
PTB 01 ATEX 1105

| | | | | | | | | | | |
|-------|----------|-------|------|-------|------------|---------------|--|---|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Dig.Eingänge Ex E16.0-E16.3 SPS0001/ GS4003,LS4302,S4004 | Zeichnungsnummer | = Muster_Schema + |
| < 280 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 82 Bl. Blatt 281 |



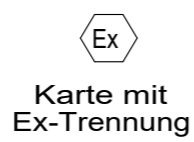
285A1



6ES7331-7RD00-0AB0

Steckplatz 13

SM 331
AI 4 x 0/4...20mA



M&Z Elektro-Engineering GmbH

| | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|---|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Ex Analog Eingänge 4AE SPS0001 / Steckplatz 13 | Zeichnungsnummer | = Muster_Schema |
| | | | | Bearb. | ZUR | | | | | + |
| | | | | Gepr. | | | | | | 82 Bl. |

285A1

SM 331 AI 4 x 0/4...20mA

Steckplatz 13

| | |
|------------------------------|----|
| L+ | M |
| 1 | 20 |
| SIEMENS S7-1500 Karte SM 331 | |
| 6ES7 331-7RD00-0AB0 | |
| Steckplatz 13 | |

| | |
|---------------------------|---|
| TT0001 Temperatur Gasraum | |
| EW200/ 285A1/ SPS0001 | |
| 3 | 4 |

| | |
|------------------------|---|
| TT0001 Feuchte Gasraum | |
| EW202/ 285A1/ SPS0001 | |
| 7 | 8 |

| | |
|-----------------------|----|
| Reserve | |
| EW204/ 285A1/ SPS0001 | |
| 12 | 13 |

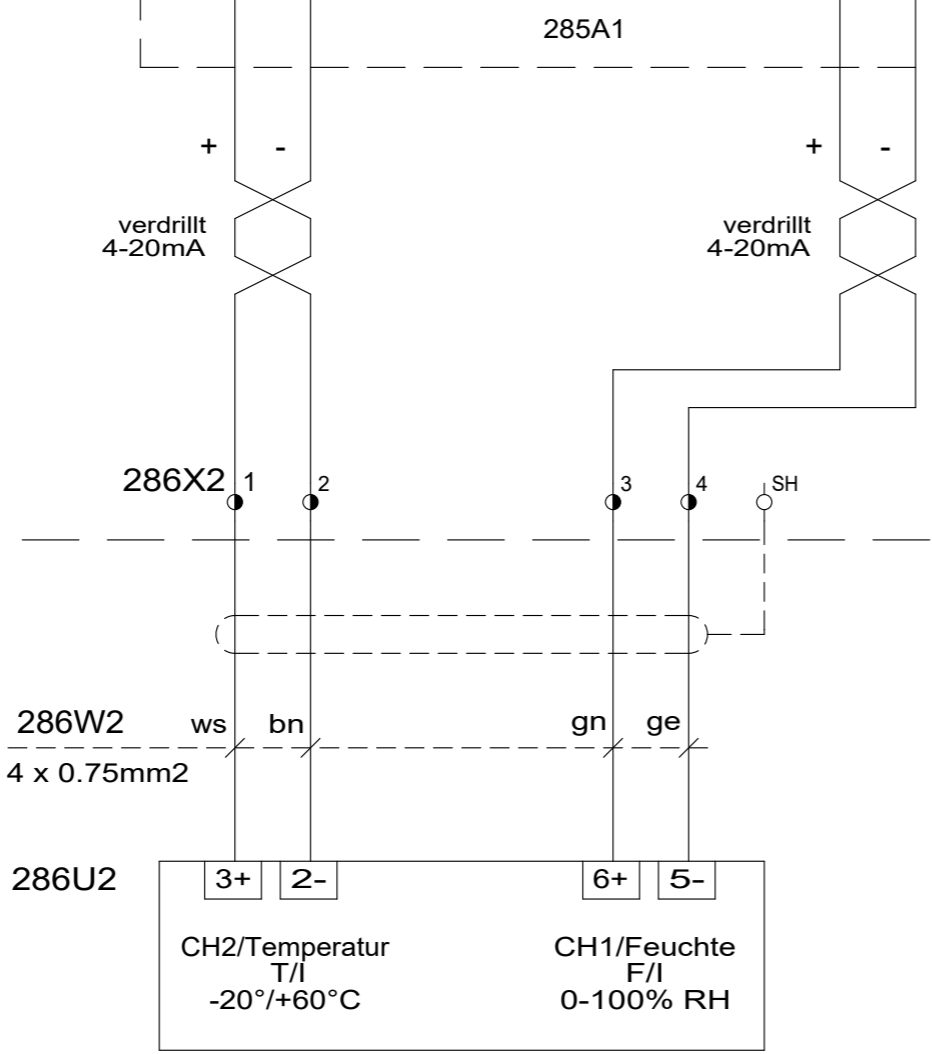
| | |
|-----------------------|----|
| Reserve | |
| EW206/ 285A1/ SPS0001 | |
| 16 | 17 |

Ex-Trennung alle Klemmen, Kabel und Kanäle blau

Ex Karte mit Ex-Trennung HART verträglich

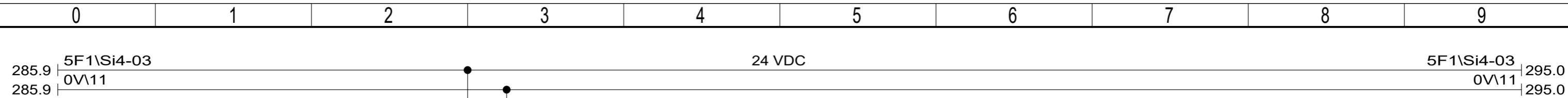
Feld 104

Ex Zone Gasraum

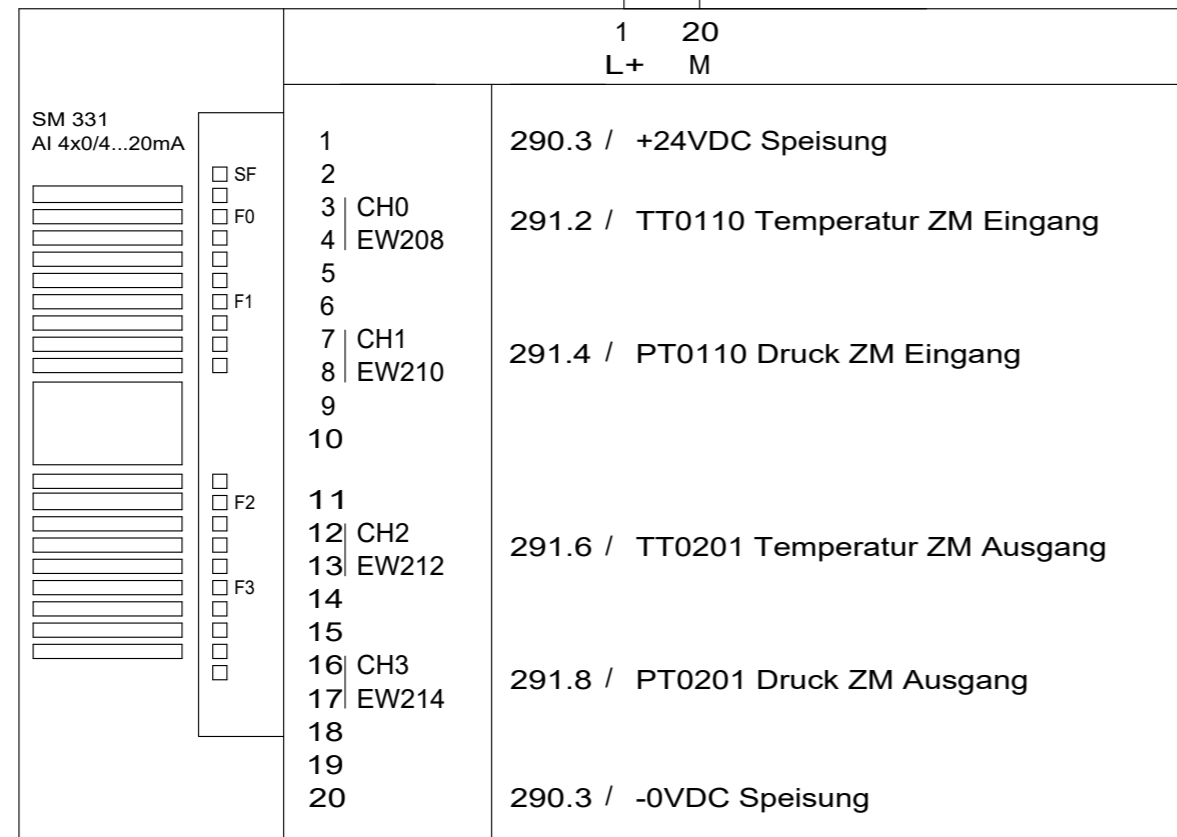


| Temp. und Feuchte | | |
|-------------------|----------|-----|
| I | 4 - 20 | mA |
| abge. | 4 x 0.75 | mm2 |
| K-Nr. | 286W2 | |

Gasraum TT0001



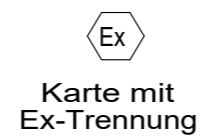
290A1



6ES7331-7RD00-0AB0

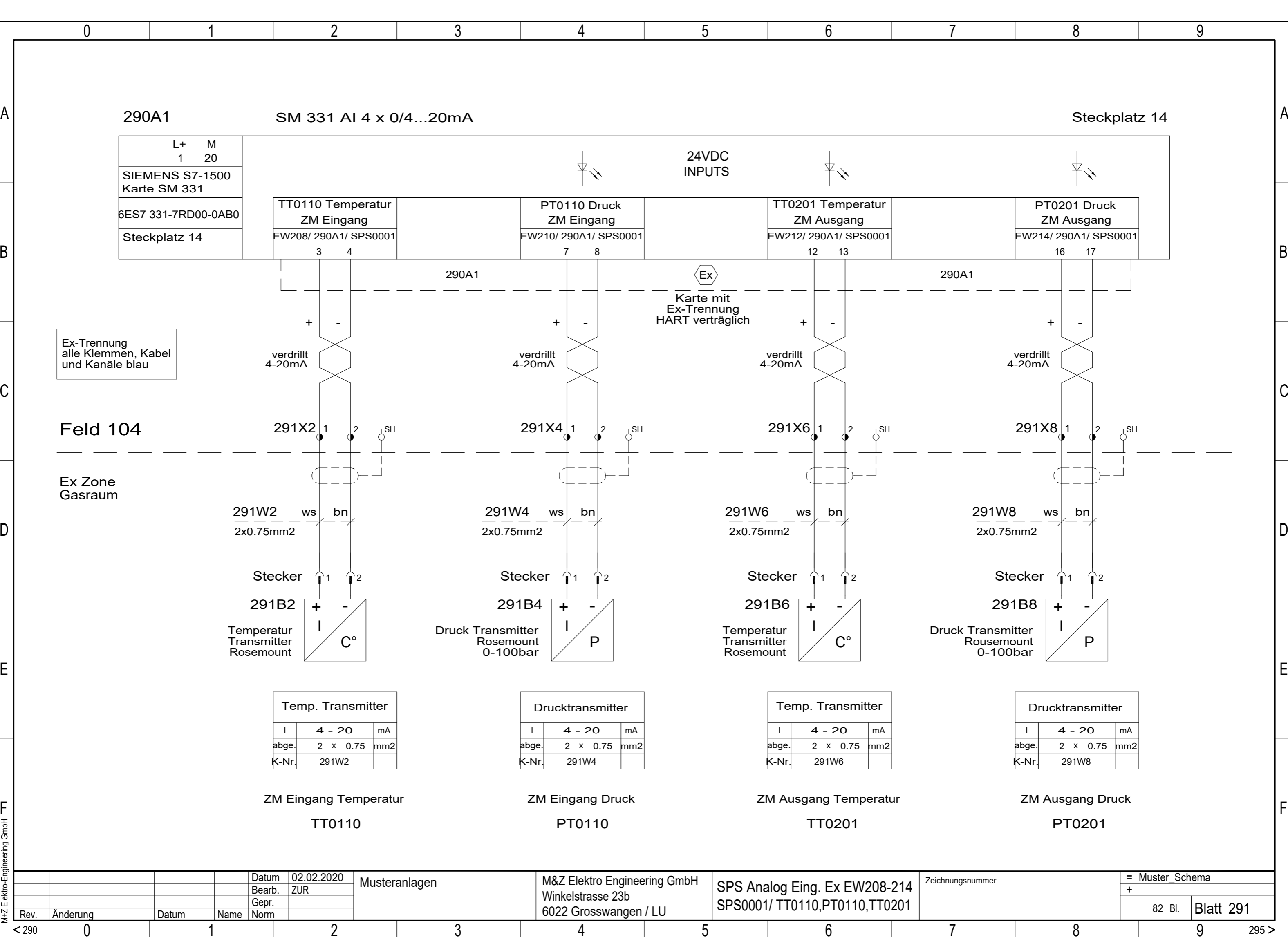
Steckplatz 14

SM 331
AI 4 x 0/4...20mA



M&Z Elektro-Engineering GmbH

| | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|---|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Ex Analog Eingänge 4AE SPS0001 / Steckplatz 14 | Zeichnungsnummer | = Muster_Schema |
| | | | | Bearb. | ZUR | | | | | + |
| | | | | Gepr. | | | | | | 82 Bl. |

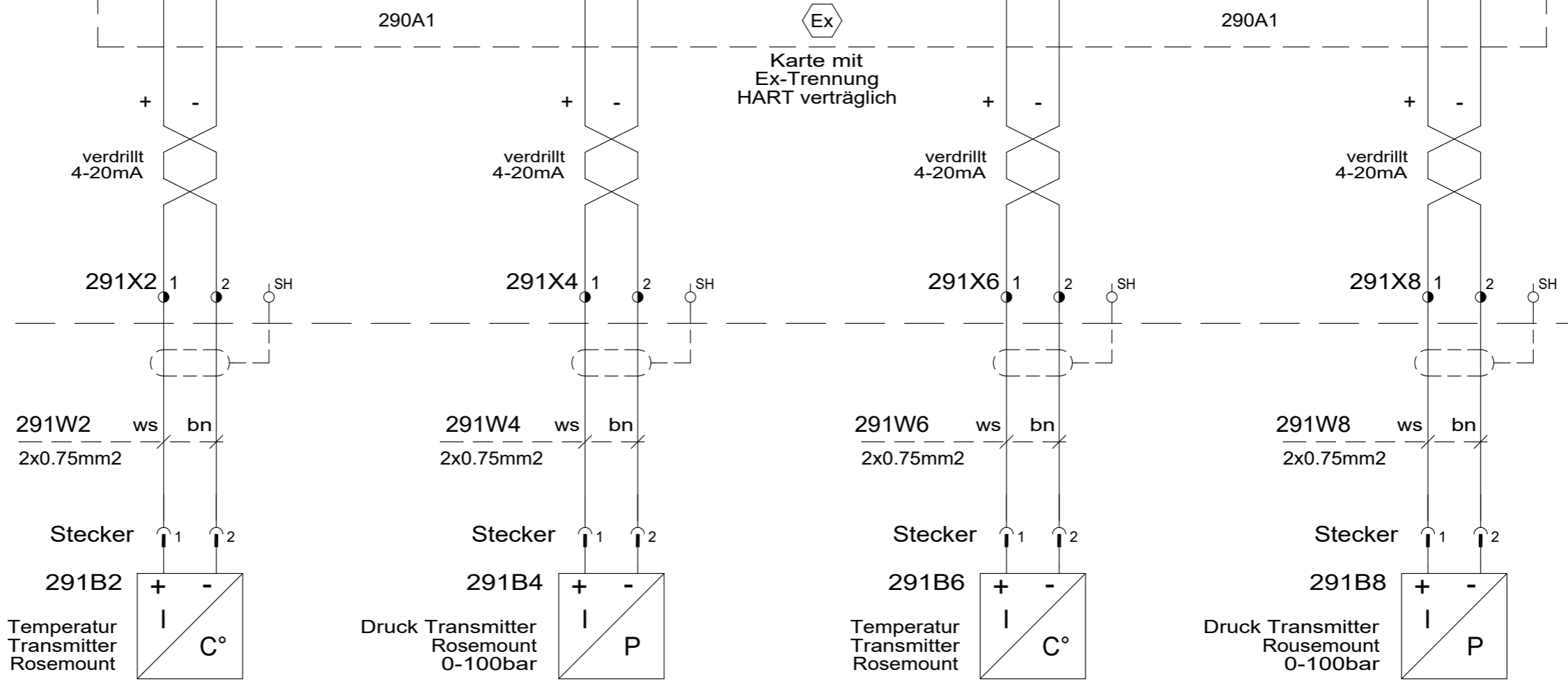


Ex-Trennung
alle Klemmen, Kabel
und Kanäle blau

Feld 104

Ex Zone
Gasraum

| | | | | | | | | | | | | | | | |
|---------------------------------|----|---------------------------------|--|-----|--|----------------------------|--|-------|--|---------------------------------|--|--|--|----------------------------|--|
| 290A1 | | SM 331 AI 4 x 0/4...20mA | | | | | | | | Steckplatz 14 | | | | | |
| L+ | M | 24VDC INPUTS | | | | | | | | | | | | | |
| 1 | 20 | | | | | | | | | | | | | | |
| SIEMENS S7-1500 Karte SM 331 | | TT0110 Temperatur ZM Eingang | | | | PT0110 Druck ZM Eingang | | | | TT0201 Temperatur ZM Ausgang | | | | PT0201 Druck ZM Ausgang | |
| 6ES7 331-7RD00-0AB0 | | EW208/ 290A1/ SPS0001 | | | | EW210/ 290A1/ SPS0001 | | | | EW212/ 290A1/ SPS0001 | | | | EW214/ 290A1/ SPS0001 | |
| Steckplatz 14 | | 3 4 | | 7 8 | | 12 13 | | 16 17 | | | | | | | |



| Temp. Transmitter | | |
|-------------------|----------|-----|
| I | 4 - 20 | mA |
| abge. | 2 x 0.75 | mm2 |
| K-Nr. | 291W2 | |

| Drucktransmitter | | |
|------------------|----------|-----|
| I | 4 - 20 | mA |
| abge. | 2 x 0.75 | mm2 |
| K-Nr. | 291W4 | |

| Temp. Transmitter | | |
|-------------------|----------|-----|
| I | 4 - 20 | mA |
| abge. | 2 x 0.75 | mm2 |
| K-Nr. | 291W6 | |

| Drucktransmitter | | |
|------------------|----------|-----|
| I | 4 - 20 | mA |
| abge. | 2 x 0.75 | mm2 |
| K-Nr. | 291W8 | |

ZM Eingang Temperatur
TT0110

ZM Eingang Druck
PT0110

ZM Ausgang Temperatur
TT0201

ZM Ausgang Druck
PT0201

| | | | | | | | | | | | | |
|------------------------------|----------|--------|------------|---------------|---|------------------------------|-------------------------------|---|------------------|---|-----------------|-----------|
| M&Z Elektro-Engineering GmbH | | Datum | 02.02.2020 | Musteranlagen | | M&Z Elektro Engineering GmbH | SPS Analog Eing. Ex EW208-214 | | Zeichnungsnummer | | = Muster_Schema | |
| | | Bearb. | ZUR | | | Winkelstrasse 23b | SPS0001/ TT0110,PT0110,TT0201 | | | | + | |
| Rev. | Änderung | Datum | Name | | | 6022 Grosswangen / LU | | | | | 82 Bl. | Blatt 291 |
| < 290 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 295 > | |

0 1 2 3 4 5 6 7 8 9

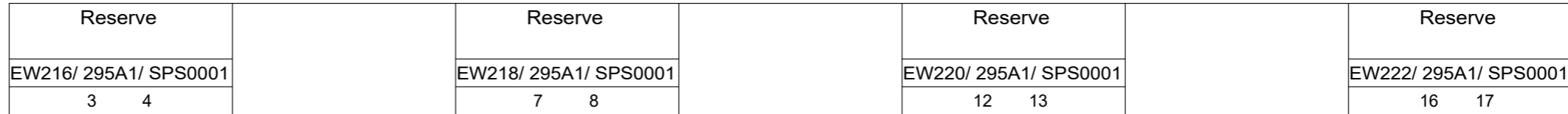
A

295A1

SM 331 AI 4 x 0/4...20mA

Steckplatz 15

| | |
|---------------------------------|----|
| L+ | M |
| 1 | 20 |
| SIEMENS S7-1500 Karte SM 331 | |
| 6ES7 331-7RD00-0AB0 | |
| Steckplatz 15 | |



Ex
Karte mit
Ex-Trennung
HART verträglich

Ex-Trennung
alle Klemmen, Kabel
und Kanäle blau

Feld 104

A

B

C

D

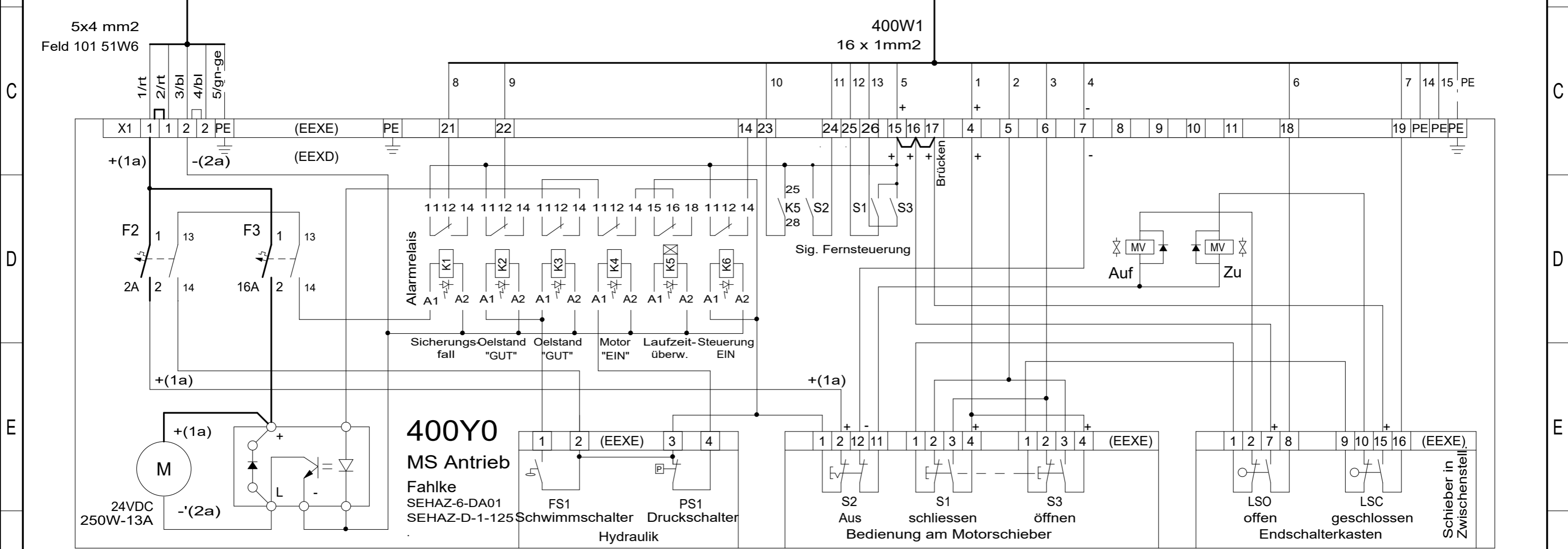
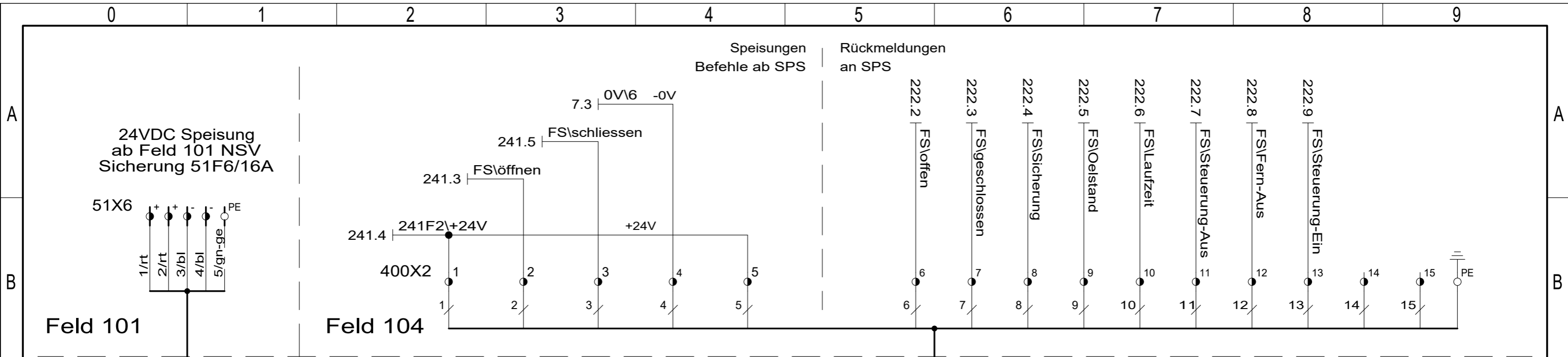
E

F

F

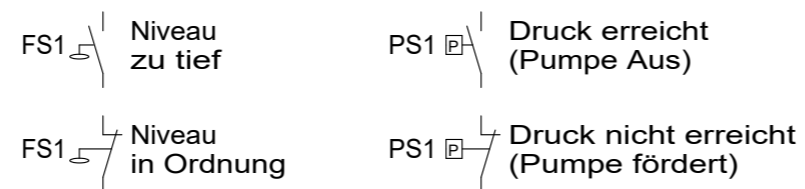
| | | | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SPS Analog Eing. Ex EW216-222 SPS0001/ (Reserve) | Zeichnungsnummer | = Muster_Schema + | 82 Bl. | Blatt 296 |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|----------------------|--------|-----------|

< 295 0 1 2 3 4 5 6 7 8 9 400 >



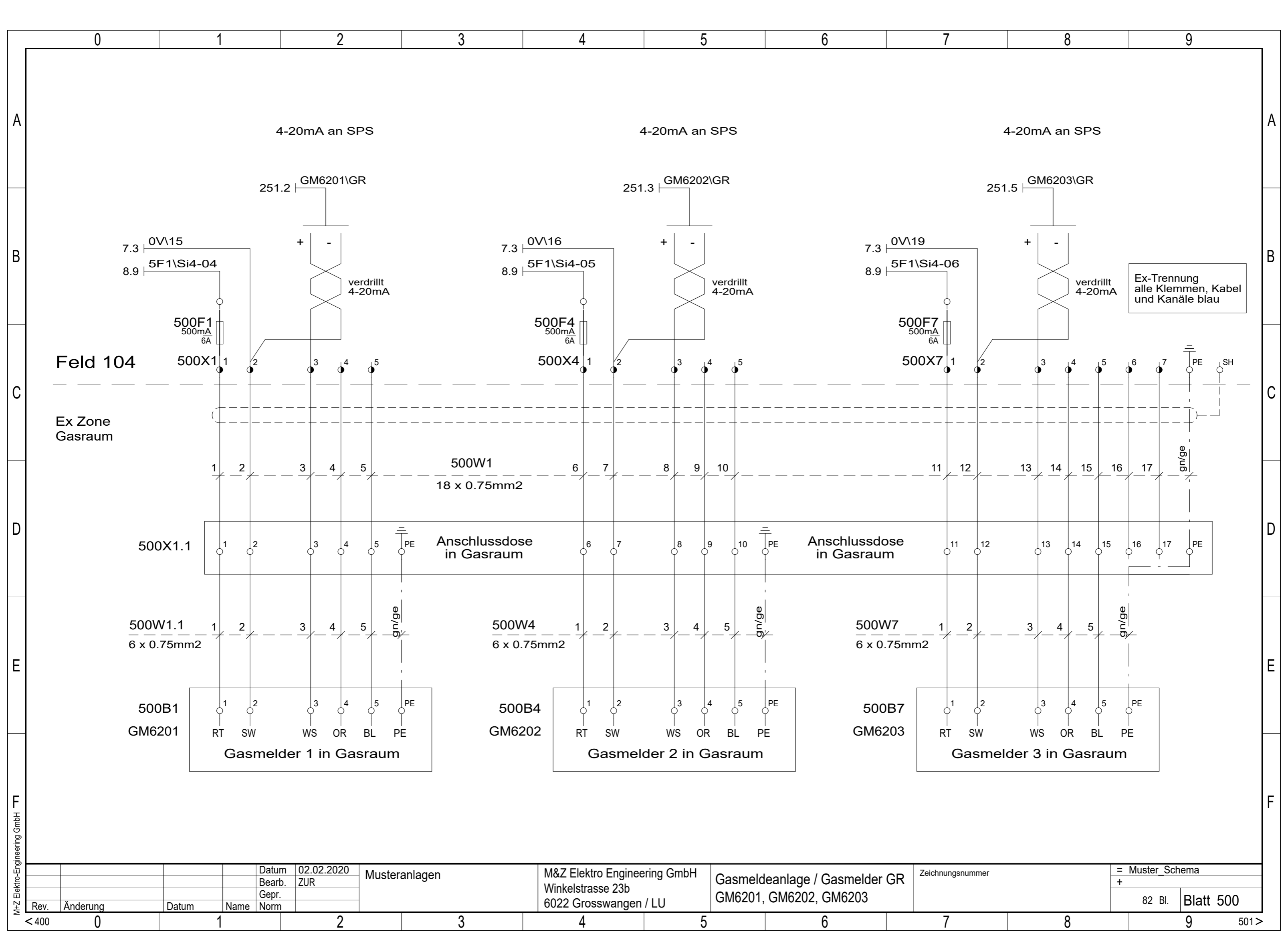
Extern Motorschieber

Feuerschieber Eingang MOV0102



M&Z Elektro-Engineering GmbH

| | | | | | | |
|--------|------------|---------------|------------------------------|-----------------------|------------------|------------------|
| Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH | Feuerschieber Eingang | Zeichnungsnummer | = Muster_Schema |
| Bearb. | ZUR | | Winkelstrasse 23b | MOV0102 | | + |
| Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. Blatt 400 |
| Rev. | Änderung | Datum | Name | | | |



0 1 2 3 4 5 6 7 8 9

A

B

C

D

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F

A

B

C

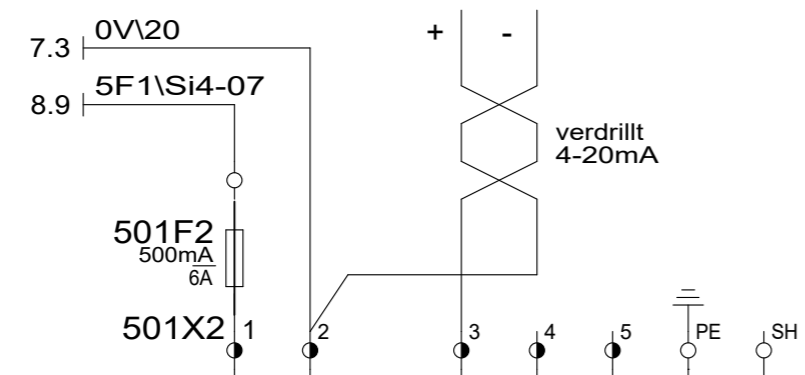
D

E

F

4-20mA an SPS

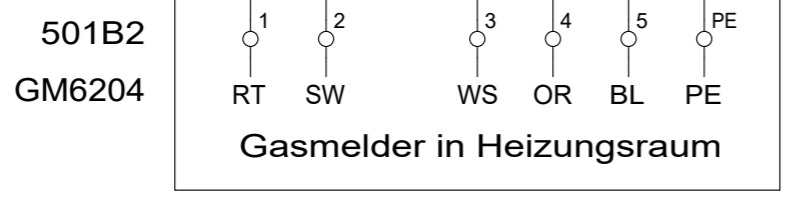
251.6 GM6204\HR



Feld 104

Ex Zone
Heizungsraum

501W2
6 x 0.75mm2



| Gasmelder HR | | |
|--------------|----------|-----|
| U | 24 | VDC |
| Ex. | 6 x 0.75 | mm2 |
| K-Nr. | 501W2 | |

GM6204
Gasmelder Heizungsraum

| | | | | | | | | | | | |
|------|----------|-------|------|------|-------|------------|---------------|--|---|------------------|------------------|
| Rev. | Änderung | Datum | Name | Norm | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Gasmeldeanlage GM6204 Gasmelder Heizungsraum | Zeichnungsnummer | = Muster_Schema |
| | | | | | | ZUR | | | | | + |
| | | | | | | | | | | | 82 Bl. Blatt 501 |

0 1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

A

B

C

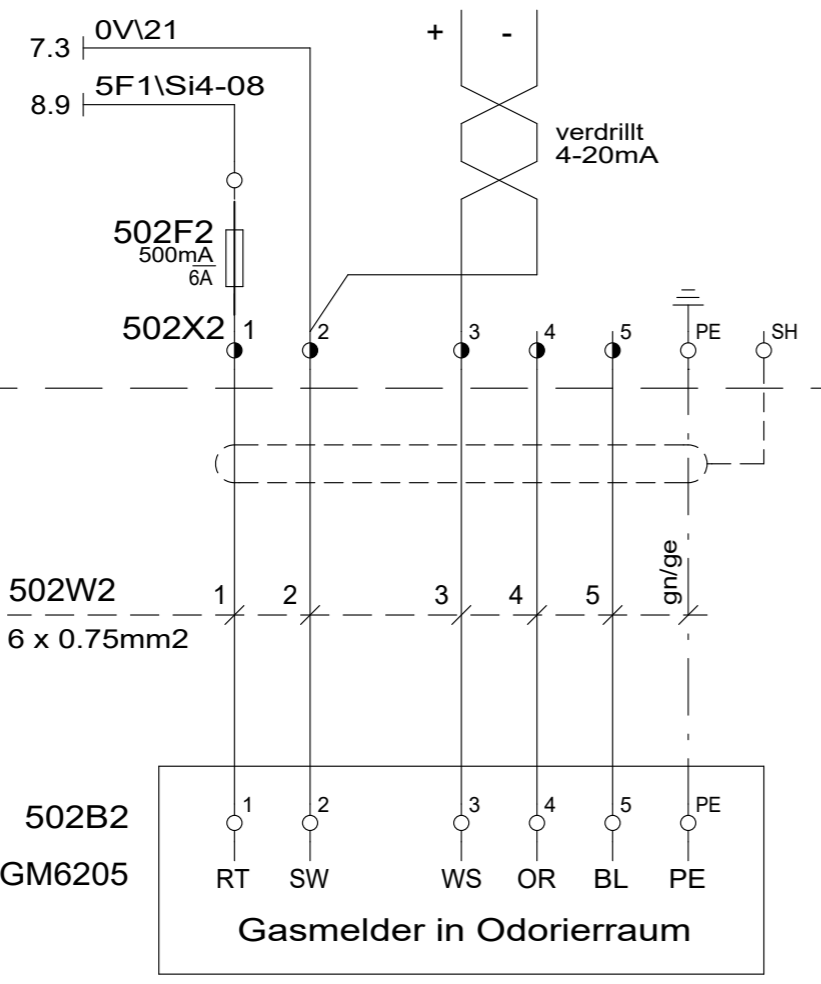
D

E

F

4-20mA an SPS

251.7 GM6205\OR

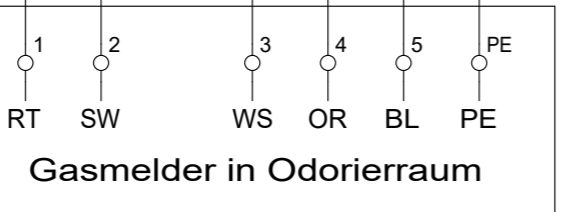


Feld 104

Ex Zone
Odorierraum

502W2
6 x 0.75mm2

502B2
GM6205



Gasmelder in Odorierraum

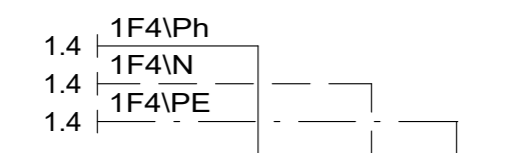
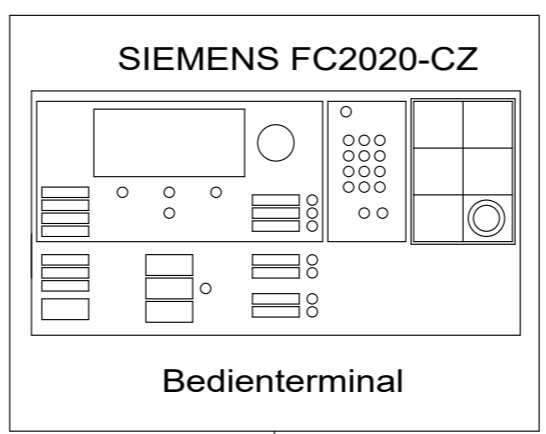
| Gasmelder OR | | |
|--------------|----------|-----|
| U | 24 | VDC |
| Ex. | 6 x 0.75 | mm2 |
| K-Nr. | 502W2 | |

GM6205
Gasmelder Odorierraum

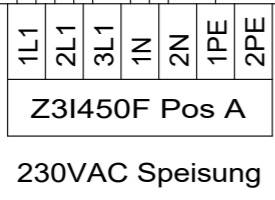
| | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|--|------------------|-----------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Gasmeldeanlage GM6205 Gasmelder Odorierraum | Zeichnungsnummer | = Muster_Schema |
| | | | | Bearb. | ZUR | | | | | + |
| | | | | Gepr. | | | | | | 82 Bl. |
| | | | | Norm | | | | | | Blatt 502 |

0 1 2 3 4 5 6 7 8 9

A



600A1

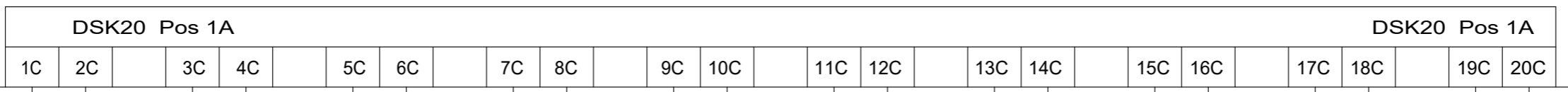


Brandmeldeanlage SIEMENS FC2020-CZ
Zentrale (siehe Schema SIEMENS)

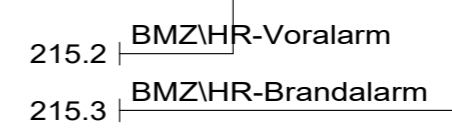
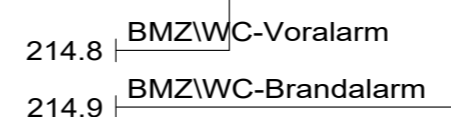
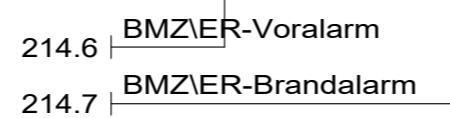
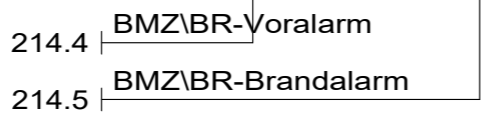
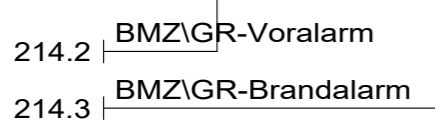
Muster Anlage-Nr. ?

Blatt 601

| | | | | | | | | | |
|---------------------|-----------------------|--------------------------|----------------------------|-------------------------|---------------------------|-----------------------|-------------------------|---------------------|-----------------------|
| Gasraum Voralarm | Gasraum Brandalarm | Batterieraum Voralarm | Batterieraum Brandalarm | Elektroraum Voralarm | Elektroraum Brandalarm | WC/Dusche Voralarm | WC/Dusche Brandalarm | Heizung Voralarm | Heizung Brandalarm |
|---------------------|-----------------------|--------------------------|----------------------------|-------------------------|---------------------------|-----------------------|-------------------------|---------------------|-----------------------|



600X1/DSK20

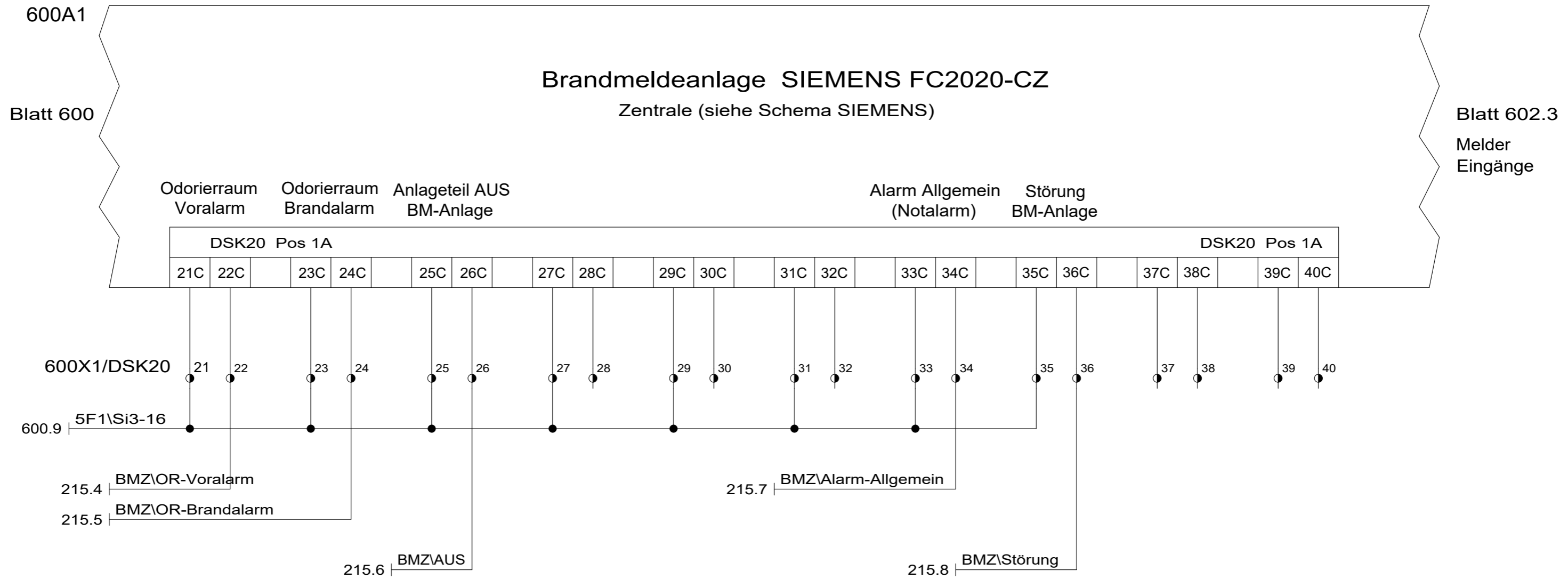


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|-------|----------|-------|------|-------|------------|---------------|--|---|------------------|----------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Gasmeldeanlage BMZ6101 Belegung / Aufschaltung | Zeichnungsnummer | = Muster_Schema + |
| < 502 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 82 Bl. Blatt 600 |

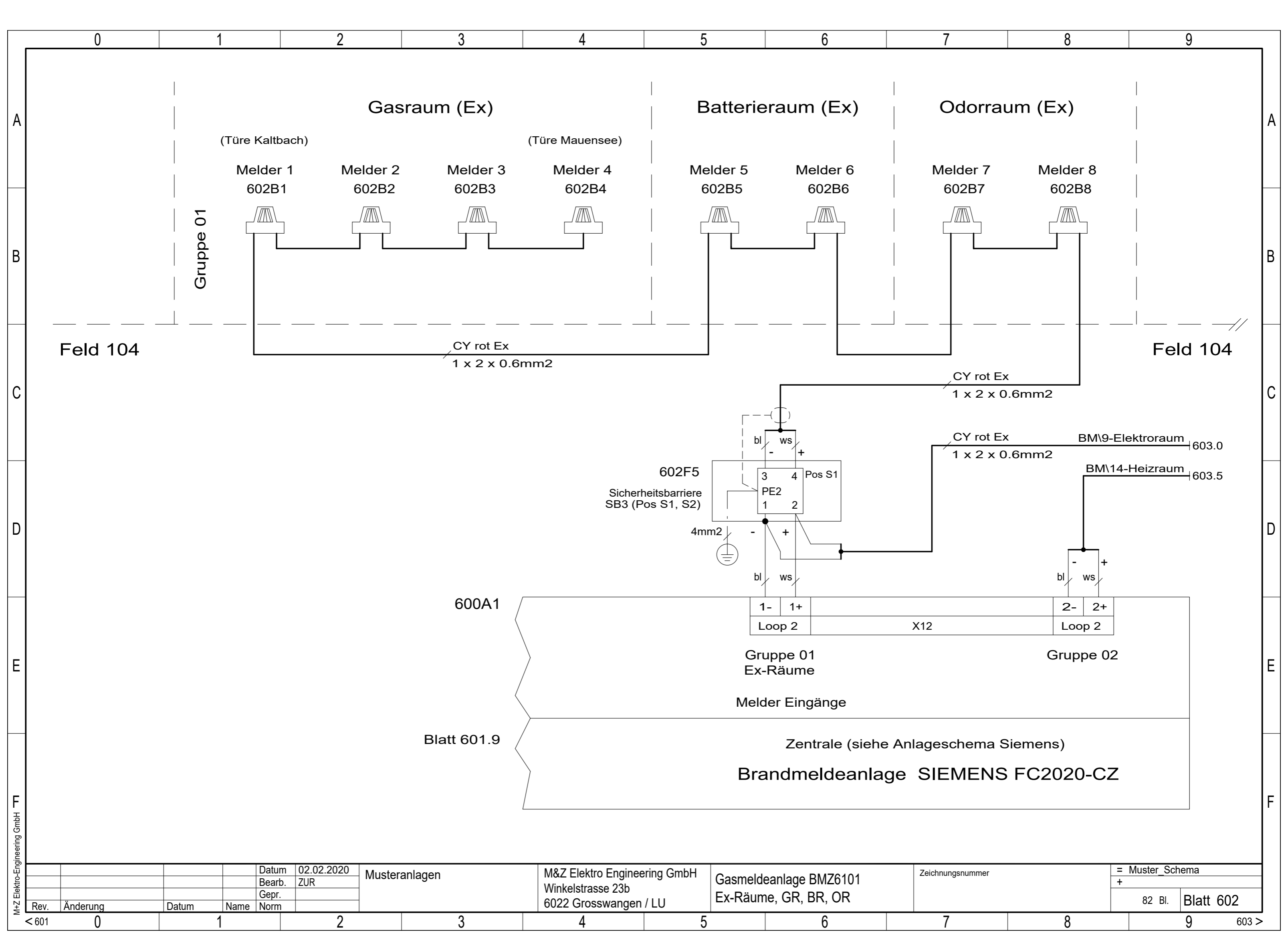
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Muster Anlage-Nr.7?



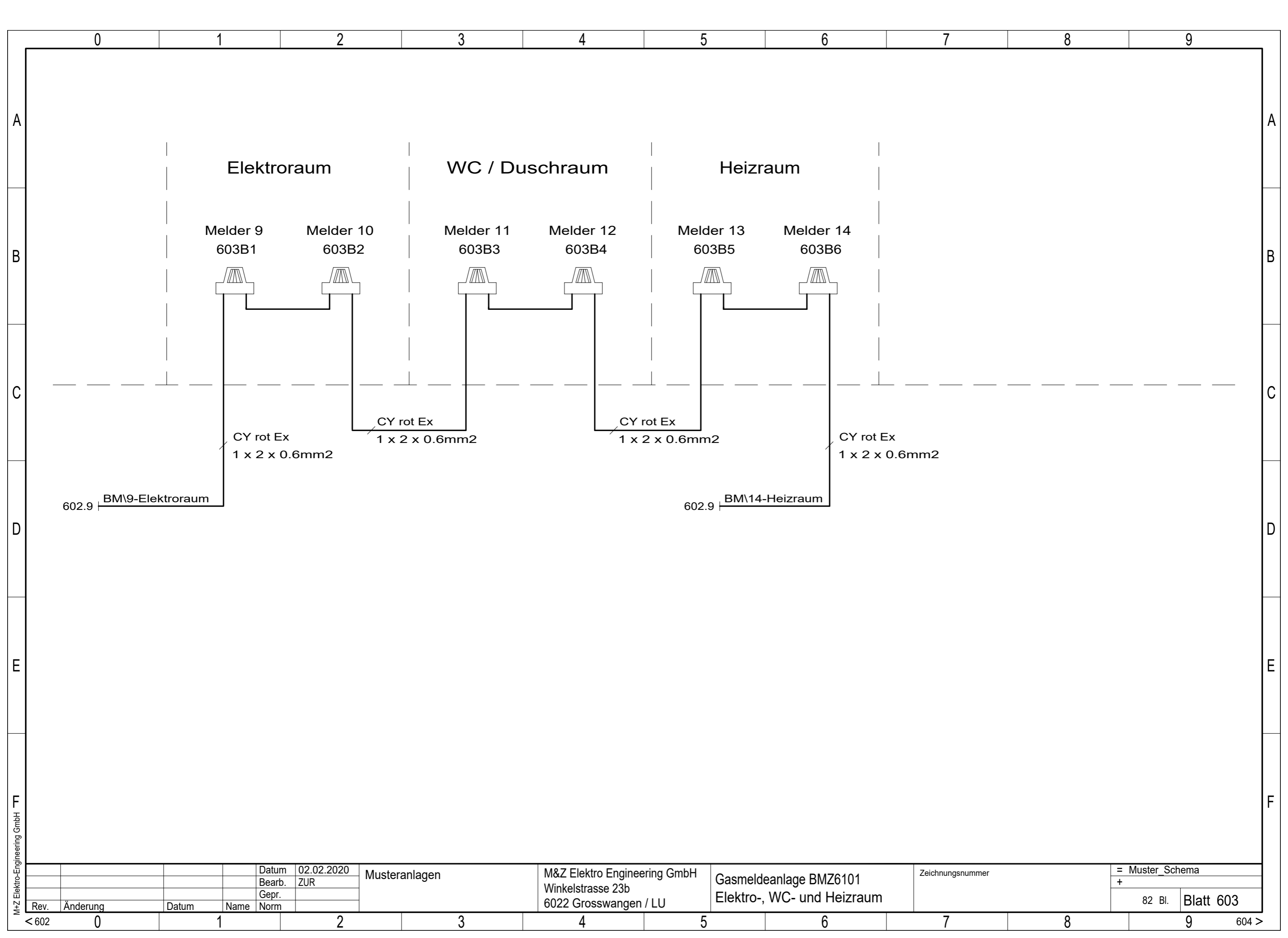
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|------|----------|-------|------|--------|------------|---------------|--|---|------------------|----------------------|------------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Gasmeldeanlage BMZ6101 Belegung / Aufschaltung | Zeichnungsnummer | = Muster_Schema + | 82 Bl. Blatt 601 |
| | | | | Bearb. | ZUR | | | | | | |
| | | | | Gepr. | | | | | | | |

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| | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|------------------------------|------------------------|------------------|-----------------|
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| | | | | Bearb. | ZUR | | Winkelstrasse 23b | Ex-Räume, GR, BR, OR | | + |
| | | | | Gepr. | | | 6022 Grosswangen / LU | | | 82 Bl. |
| | | | | Norm | | | | | | Blatt 602 |



Elektroraum

WC / Duschaum

Heizraum

Melder 9
603B1

Melder 10
603B2

Melder 11
603B3

Melder 12
603B4

Melder 13
603B5

Melder 14
603B6

CY rot Ex
1 x 2 x 0.6mm2

CY rot Ex
1 x 2 x 0.6mm2

CY rot Ex
1 x 2 x 0.6mm2

CY rot Ex
1 x 2 x 0.6mm2

602.9 BM\19-Elektorraum

602.9 BM\14-Heizraum

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| | | | | | |
|------|----------|-------|------|--------|------------|
| Rev. | Änderung | Datum | Name | Datum | 02.02.2020 |
| | | | | Bearb. | ZUR |
| | | | | Gepr. | |
| | | | | Norm | |

| | | | | |
|---------------|--|--|------------------|-----------------------|
| Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | Gasmeldeanlage BMZ6101 Elektro-, WC- und Heizraum | Zeichnungsnummer | = Muster_Schema |
| | | | | + 82 Bl. Blatt 603 |

SCHEMA - ENDE

M&Z Elektro-Engineering GmbH

| | | | | | | | | | | | |
|------|----------|-------|------|--------|------------|---------------|--|---------------|------------------|-----------------|-----------|
| | | | | Datum | 02.02.2020 | Musteranlagen | M&Z Elektro Engineering GmbH Winkelstrasse 23b 6022 Grosswangen / LU | SCHEMA - ENDE | Zeichnungsnummer | = Muster_Schema | |
| | | | | Bearb. | ZUR | | | | | + | |
| Rev. | Änderung | Datum | Name | Gepr. | | | | | | 82 Bl. | Blatt 604 |