

mailto:

Phone:

Fax:

Plant designation FMCP Panel

Customer order no. SAP CUSTOMER ORDER NO

Festo order number

Project no. CA_CS.2160550

2.9.4



Customer

Name ROBOTIQ INC.

Plant

Street 966 CHEMIN OLIVIER, SUITE #500

Code postal: / location G7A 2N1 LÉVIS

| | |
|-------------------------|---------------------------------|
| Type of project | Project type |
| Responsible for project | LOP / ZFA |
| Project name | CA_CS2160550-Robotic |
| Created | 28.02.2020 / Technical designer |
| Edit | 15.09.2021 / ca0zfa |
| Approved | / |
| | / |

Number of pages 39

FESTO assumes no warranty and liability for any changes to this documentation made by the customer. The circuit diagrams were created on the EPLAN Electric P8 and EPLAN Fluid CAE systems. Changes may only be made using the CAE systems and the original parameters

Technical notes

Voltage and frequency, as well as the setting points for motor protection and time relays must be checked prior to commissioning.

All terminal screws must be tightened prior to commissioning and during maintenance work.

Keep doors closed at all times, because dust and moisture may cause malfunctioning.

The specified cable cross sections are minimum cross section for copper, without taking into account:

- a.) Cable lengths and the resulting voltage drops. (Permissible voltage drop for motors per VDE 0530 5%* Un)
- b.) Type of cable installation and permissible ambient temperature (Installation type reduction factor %0.%1 / amb. temp.%2° C)

In the event that operating voltages deviate from the assumed values listed above, correspondingly larger cross-sections must be selected..

(e.g. with increased voltage drop, increased ambient temp., unsuitable type of cable installation, high wiring density)

Sizing of cables is the responsibility of the customer

Air supply:

This controller is designed for a state-of-the-art (ISO 8573-A:2010) compressed air network

We require compressed air that is unlubricated, free of residual oil (residual oil from compressors max. 0.1mg/m³ for "HEES fluids, biodegradable oils" or max. 5mg/m³ for mineral oils permissible) and appropriately dried.

A filter should remove solid contamination from the compressed air. (ISO 8573-A:2010)

Class:

7:4:4 --> 40µm Filter

Technical data

Reference designation system =A1+O1

IP-degree of protection IPxx

Environment temperature +5°C - +35°C

Humidity max. 50%

Electric

Supply voltage 100-240 VAC / 50-60Hz

Supply cable 3x1,5mm²

Pneumatics

Max. system pressure xx bar

Operating pressure NA

Air supply Tube mm externally calibrated

Working ports according to circuit diagram

Special feature

No single-core marking

No hose designation

Wire colours used:

Power circuit: Black (BK)

Neutral / Second phase conductor: Red (RD)

Protective conductor: Green/yellow (GNYE)

Control circuit DC (+): Blue (BU)

Control circuit DC (-): White blue (WBU)

Standards used:

C22.1-12 [The Canadian Electrical Code, is a standard published by the Canadian Standards Association pertaining to the installation and maintenance of electrical equipment in Canada.](#)

NFPA 79 [Electrical Standard for Industrial Machinery](#)


Used tube

PUN-H-.....-BL --> Control cabinet

PUN-H-.....-SW --> Control cabinet outside

PUN-H-...-NT --> Condensate drain

PUN-.....-BL --> M5-Series



5300 Explorer Drive , Mississauga, Ontario
Tel: 1-877-GO-FESTO Fax: 1-877-FX-FESTO
CONTROL PANEL

| | |
|-------------------------|-------------------------------|
| Part # / Project # : | CA_CS.2160550 |
| Prod. Order / Serial #: | |
| Year of Mfg.: | 2020 |
| Main Voltage | 100-240 VAC / 50-60Hz FLA 16A |
| Largest Motor: | 3.5A |
| SCCR | 10Ka Control Voltage: 24V DC |
| Panel type: | 1 Enclosure Version : v1.0.0 |

Terminal Block Numbering

TB(X)
(Z) (Y)

X: Terminal Bank number.
Y: Terminal Block number.
Z: Level.

| | | | |
|----------------|------------|--------------------|----------------------|
| Project status | | xxx | |
| Date | 28.02.2020 | Technical designer | |
| Edit by | 16.11.2020 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

ROBOTIQ INC.

FMCP Panel

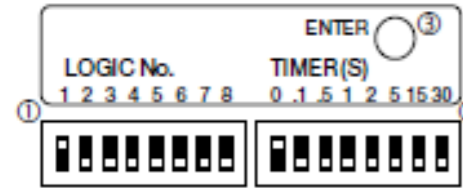


Technical notes

| | | | |
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| | | EN | &MEC |
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| Project no.: | CA_CS.2160550 | + | |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 1 |
| | | Pg. | 8 |

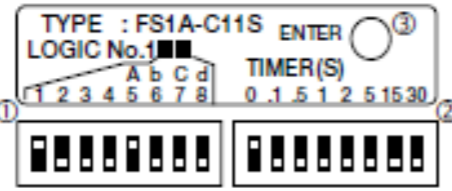
Configuration Switches

• FS1A-C01S



① Logic Switch ② Timer Switch ③ Enter button

• FS1A-C11S



Logic Switch ①

FS1A-C01S

Eight DIP switches are provided for selecting a logic by moving a switch upward. For details, see user's manual "Chapter 5 Logic." Only one logic switch can be selected.

| DIP Switch | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Logic | 001 | 002 | 003 | 004 | 005 | 006 | 007 | 008 |

FS1A-C11S

Eight DIP switches are provided for selecting a logic by moving one or two switch(es) upward. For details, see user's manual "Chapter 5 Logic."

| DIP Switch | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Logic | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 |

| 1 + A | 1 + b | 1 + C | 1 + d | 2 + A | 2 + b | 2 + C | 2 + d |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 11A | 11b | 11C | 11d | 12A | 12b | 12C | 12d |

| 3 + A | 3 + b | 3 + C | 3 + d | 4 + A | 4 + b | 4 + C | 4 + d |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 13A | 13b | 13C | 13d | 14A | 14b | 14C | 14d |

Timer Switch ②

Eight DIP switches are provided for selecting an off-delay timer value, by moving a switch upward. Only one timer switch can be selected.

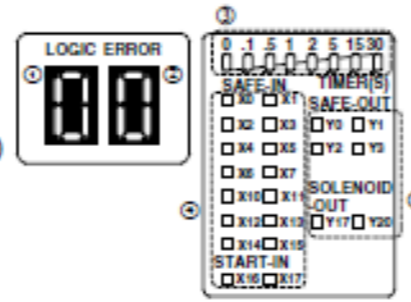
| Switch No. | Timer Value | Description |
|------------|-------------|---|
| 1 | 0 | No off-delay (safety outputs shut down immediately) |
| 2 | .1 | Off-delay timer 0.1s |
| 3 | .5 | Off-delay timer 0.5s |
| 4 | 1 | Off-delay timer 1s |
| 5 | 2 | Off-delay timer 2s |
| 6 | 5 | Off-delay timer 5s |
| 7 | 15 | Off-delay timer 15s |
| 8 | 30 | Off-delay timer 30s |

Enter Button ③

The enter button is used to activate the configuration of logic and timer switches. Error LED will blink for 1 to 5 seconds after pressing the enter button. Releasing the button during blinking activates the setting. The blinking LED becomes ON if the button is pressed for more than 5 seconds, and the setting becomes invalid even after the button is released. For setting the switches and enter button, use the setting tool supplied with the SafetyOne.

LEDs

- ① Logic LED (green)
- ② Error LED (red)
- ③ Timer LED (green)
- ④ Input LED (orange)
- ⑤ Output LED (orange)



• Logic LED ①

| Type | LED | Status | Description | |
|--------------------|------------------------------------|--------|--|------------------------------|
| FS1A-C01S | 1, 2, 3, 4, 5, 6, 7, 8 | ON | The selected logic is in Run or Protection state | |
| | | Blink | The selected logic is in Configuration state | |
| FS1A-C11S | 1, 2, 3, 4, 5, 6, 7, 8, A, b, C, d | ON | The selected logic is in Run or Protection state (Ex. Logic 14A: 4→A→4→A→4→...) | |
| | | Blink | The selected logic is in Configuration state (Ex. Logic 14A: 4→A→OFF→A→4→OFF...) | |
| FS1A-C01S/ C11S | E | Blink | The selected logic has Configuration error (logic not selected, or multiple logics are selected) | |
| | | Random | ON/Blink | Initializing (Initial state) |
| | | OFF | OFF | Error (Stop state) |

• Error LED ②

| Type | LED | Status | Description |
|--------------------------|----------|------------------------------|---|
| FS1A-C01S / FS1A-C11S | 1 | ON | Input monitor error (Protection state) |
| | | ON | Wiring error at safety input or an error in safety input circuits |
| | | ON | Wiring error at start input or an error in start input circuit |
| | | ON | Wiring error at safety output or an error in safety output circuit |
| | | ON | Muting lamp error (disconnection) (FS1A-C01S: logic 4 only) (FS1A-C11S: logic 11d only) |
| | | ON | Power supply error or internal power supply circuit error |
| | | ON | Internal error, power supply error, or internal power supply circuit error |
| | | ON | EMC disturbance |
| | | ON | Configuration procedure is in progress (Configuration state) |
| | | Blink | Configuration is valid (Note) (Configuration state) |
| Random | ON/Blink | Initializing (Initial state) | |
| OFF | OFF | Normal operation (Run state) | |

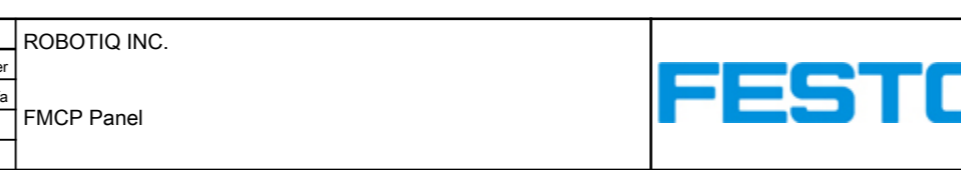
Note: Blinks for 1 to 5 seconds after the enter button is pressed. Releasing the button during blinking activates the setting. The blinking LED becomes ON if the button is pressed for more than 5 seconds, and the setting becomes invalid even after the button is released.

• Timer LED ③

| Type | LED | Status | Description |
|--------------------------|-----|---|---|
| FS1A-C01S / FS1A-C11S | 0 | ON | No off-delay (safety outputs shut down immediately) |
| | | ON | Off-delay timer 0.1s |
| | | ON | Off-delay timer 0.5s |
| | | ON | Off-delay timer 1s |
| | | ON | Off-delay timer 2s |
| | | ON | Off-delay timer 5s |
| | | ON | Off-delay timer 15s |
| | | ON | Off-delay timer 30s |
| | | Blink | Selected timer value (Configuration state) |
| | | Random | ON/Blink |
| All LEDs | OFF | Timer value is not selected or the SafetyOne is in Stop state | |

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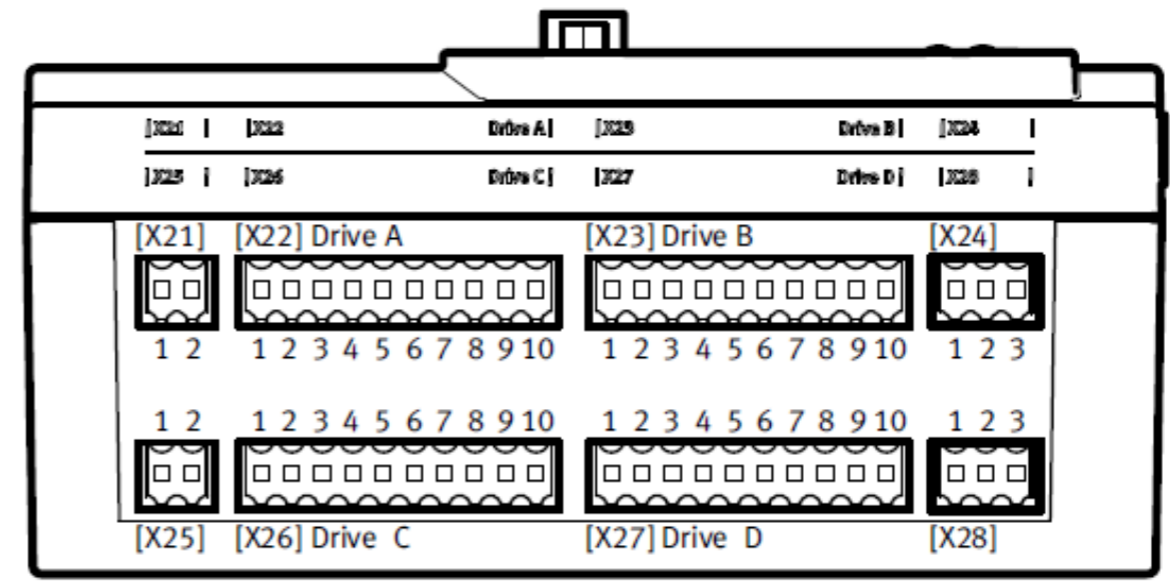
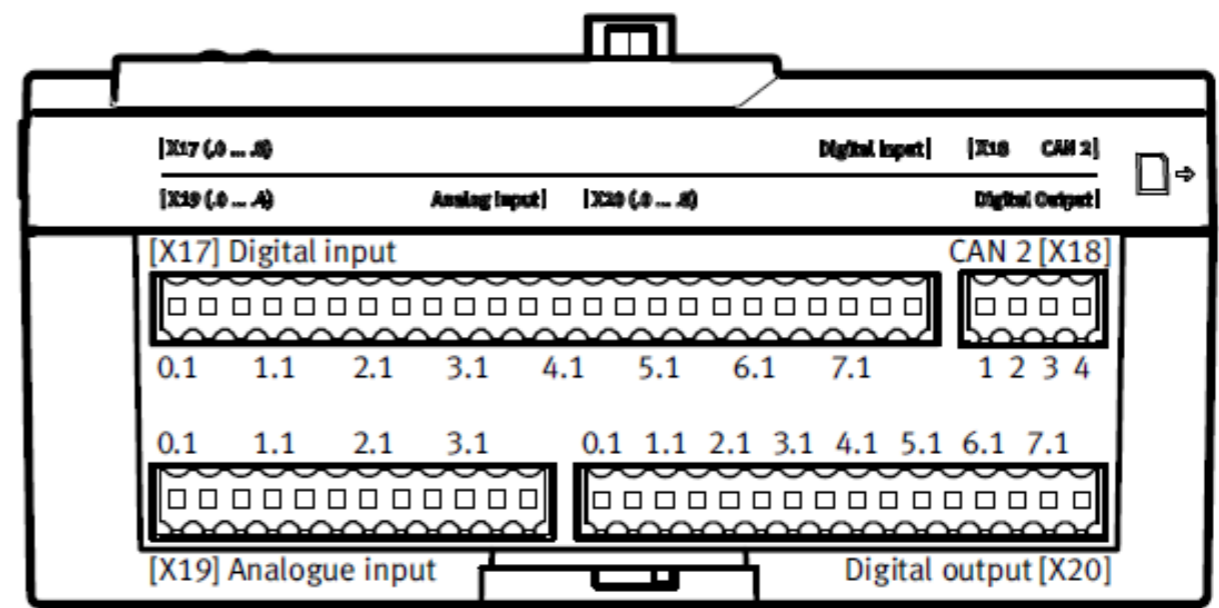
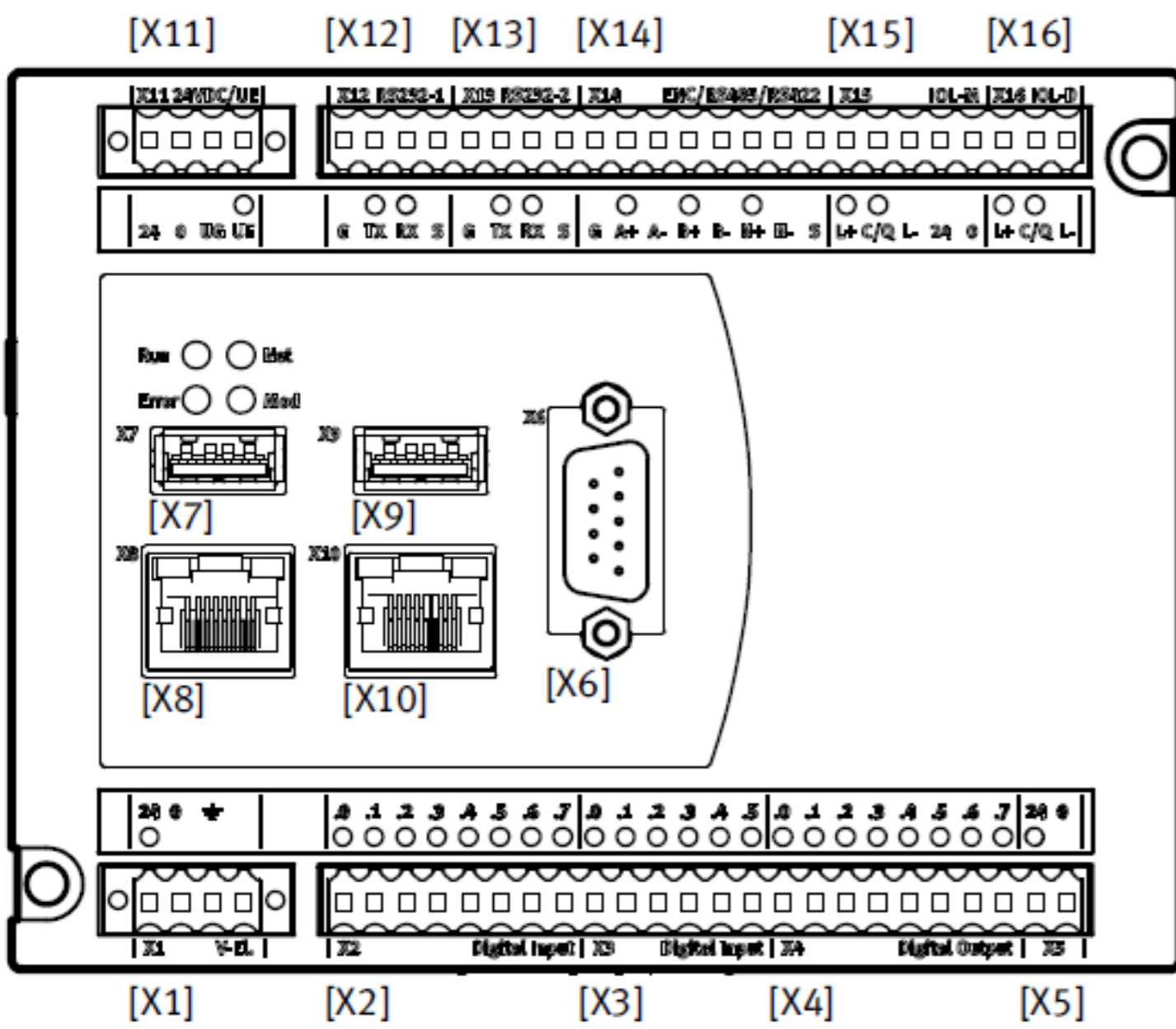
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| Project status | xxx | Date | 28.02.2020 | Technical designer | ROBOTIQ INC. |
| | | Edit by | 13.01.2021 | ca0zfa | |
| | | Appr. | | | FMCP Panel |
| Modification | Date | Name | Standard | DIRECTIVE 2014/35/EU | |



Safety Controller Overview

| | |
|------------------|--------------------------------|
| EN | &MEC |
| Project no.: | CA_CS.2160550 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK |
| Pg. | 2 |
| Pg. | 8 |

15.09.2021



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| Date | 28.02.2020 | Technical designer | |
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| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

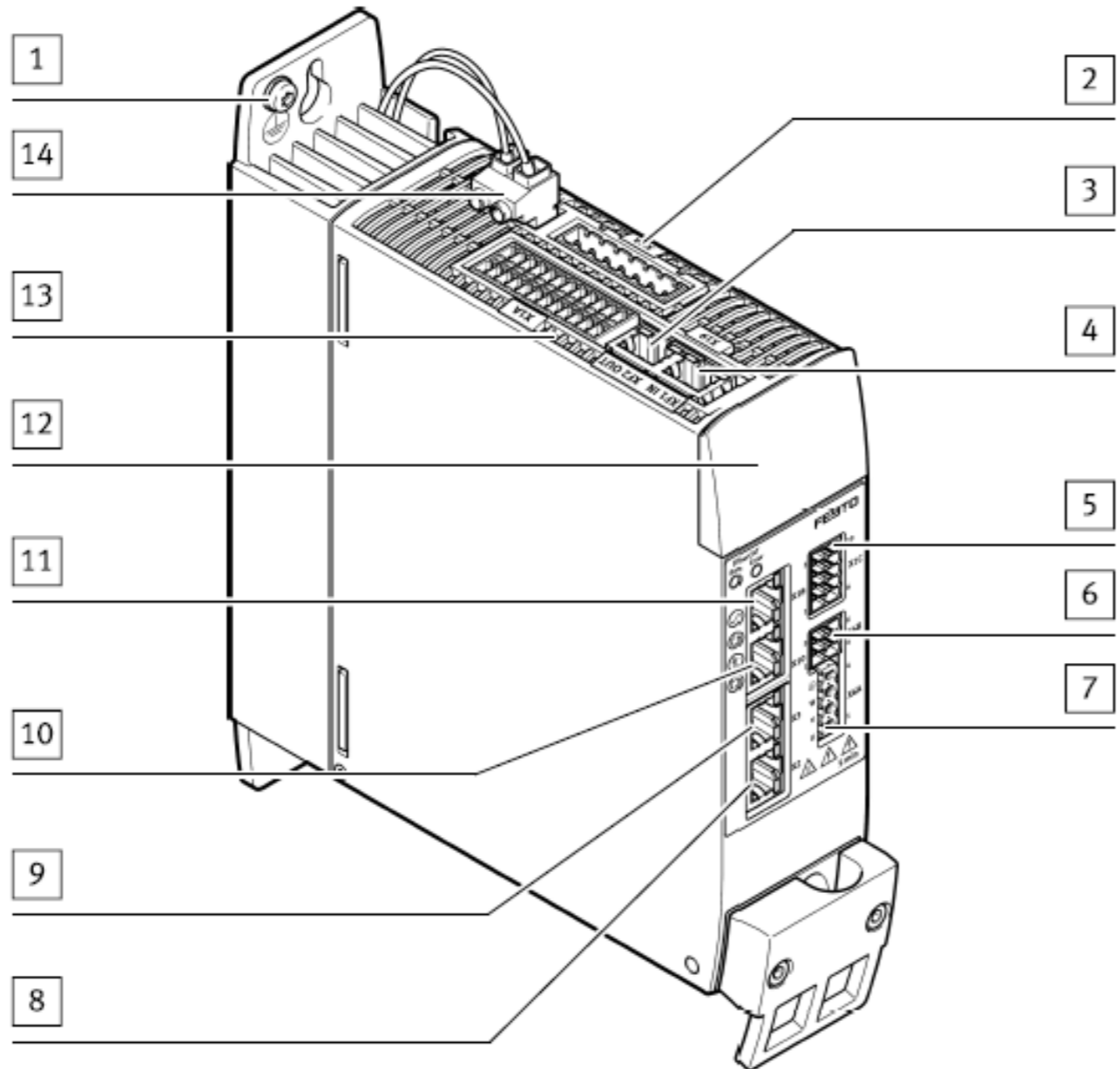
ROBOTIQ INC.
FMCP Panel



CECC Overview

| | |
|------------------|--------------------------------|
| EN | &MEC |
| Project no.: | CA_CS.2160550 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK |
| Pg. | 3 |
| Pg. | 8 |

Overview of connection technology



- | | |
|--|---|
| 1 PE connection, housing | 8 [X2] encoder connection 1 |
| 2 [X9A] mains voltage, DC link voltage and logic voltage | 9 [X3] encoder connection 2 |
| 3 [XF2 OUT] RTE interface port 2 | 10 [X10] device synchronisation |
| 4 [XF1 IN] RTE interface port 1 | 11 [X18] standard Ethernet |
| 5 [X1C] inputs/outputs for the axis | 12 [X5] connection for operator unit (behind the blind plate) |
| 6 [X6B] motor auxiliary connection | 13 [X1A] I/O interface |
| 7 [X6A] motor phase connection | 14 [X9B] connection for braking resistor |

Connections of the CMMT-AS-...-3A

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| Date | 28.02.2020 | Technical designer | |
| Edit by | 13.01.2021 | ca0zfa | |
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| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

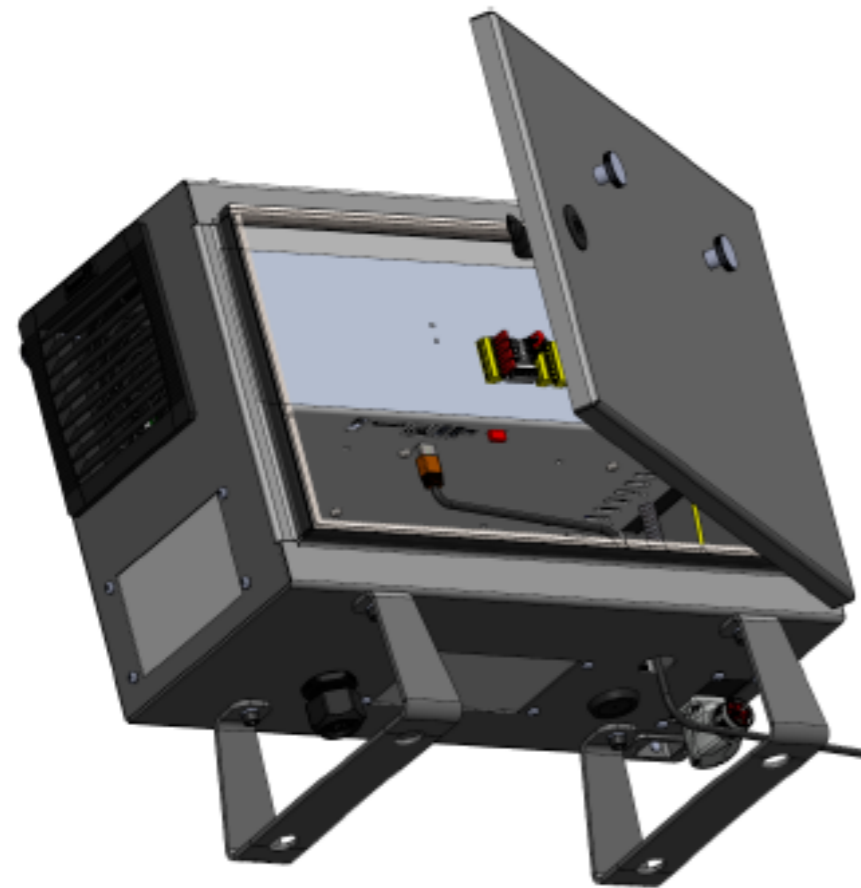
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CMMT-AS Overview

| | |
|------------------|--------------------------------|
| EN | &MEC |
| Project no.: | CA_CS.2160550 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK |
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| Pg. | 8 |

3 5
WIN A3 15.09.2021



DANGER:

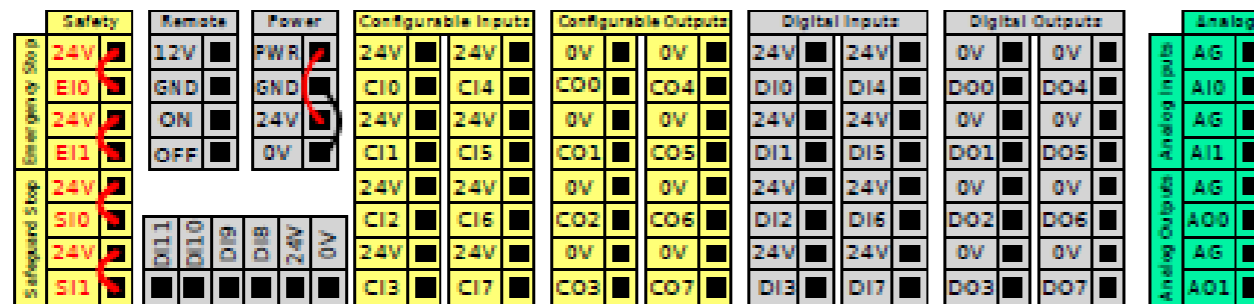
1. Never connect safety signals to a PLC which is not a safety PLC with the correct safety level. Failure to follow this warning could result in serious injury or death as the safety functions could be overridden. It is important to keep safety interface signals separated from the normal I/O interface signals.
2. All safety-related signals are constructed redundantly (two independent channels). Keep the two channels separate so that a single fault cannot lead to loss of the safety function.
3. Some I/Os inside the Control Box can be configured for either normal or safety-related I/O. Read and understand the complete section 5.4.



DANGER:

1. Make sure all equipment not rated for water exposure remain dry. If water is allowed to enter the product, lockout-tagout all power and then contact your local Universal Robots service provider for assistance.
2. Only use the original cables supplied with the robot only. Do not use the robot for applications where the cables are subject to flexing. Contact your local Universal Robots service if longer or flexible cables are needed.
3. Negative connections are referred to as Ground (GND) and are connected to the casing of the robot and the Control Box. All mentioned GND connections are only for powering and signalling. For PE (Protective Earth) use the M6-size screw connections marked with earth symbols inside the Control Box. The grounding conductor shall have at least the current rating of the highest current in the system.
4. Use caution when installing interface cables to the robot I/O. The metal plate in the bottom is intended for interface cables and connectors. Remove the plate before drilling holes. Make sure that all shavings are removed before reinstalling the plate. Remember to use correct gland sizes.

The illustration below shows the layout of electrical interface groups inside the Control Box.



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| | |
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FMCP Panel



UR Panel layout

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| EN | &MEC |
| Project no.: | CA_CS.2160550 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK |
| Pg. | 5 |
| Pg. | 8 |

⚠ WARNING!

Risk of injury from electric shock.

Contact with live parts at the power connections [X6A], [X9A] and [X9B] can result in severe injuries or death.

- Do not pull out power supply plugs while live.
- Before touching, wait at least 5 minutes after switching off the load voltage to allow the intermediate circuit to discharge.

⚠ WARNING!

Risk of injury from electric shock in the event of incomplete insulation at the power connections [X6A], [X9A] and [X9B].

Before operating, plugging in or unplugging the operator unit CDSB or a connector from a hot-plug-capable interface, the following points must be fulfilled:

- The conducting lines at the device are completely insulated.
- The protective earthing (PE) and the shield connection are correctly connected to the device.
- The housing is free of damage.

⚠ WARNING!

Danger of burns through hot escaping gases and hot surfaces.

In case of error, incorrect wiring or incorrect polarity of the connections [X9A], [X9B] and [X6A], internal components can be overloaded. High temperatures can develop and hot gases can be released.

- Have an authorised electrician perform the installation according to the documentation.

⚠ WARNING!

Risk of injury due to overheating and electric shock with faulty live components

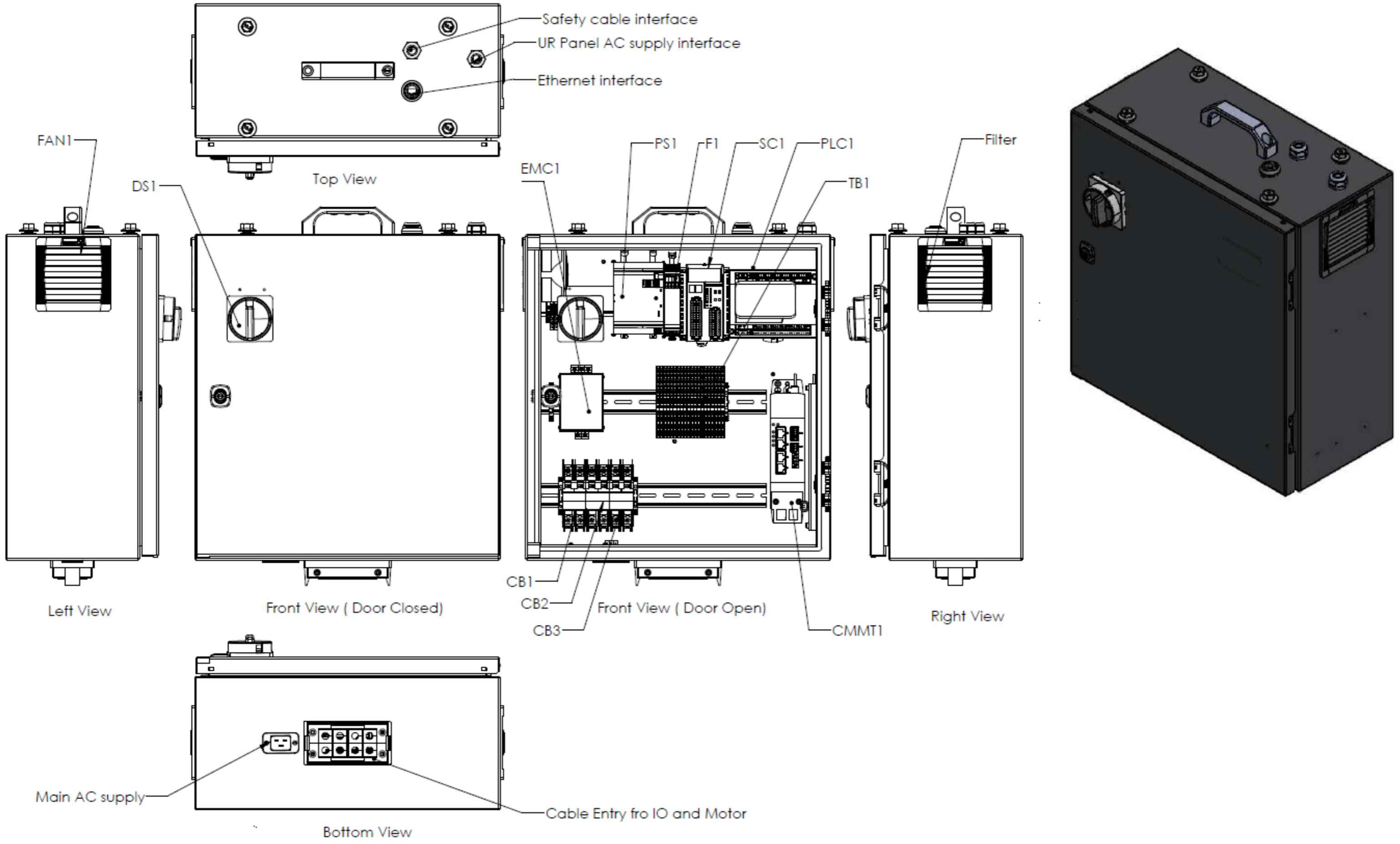
Closing the branch-circuit protective device with faulty live components may cause fire or electric shock.

- The opening of the branch-circuit protective device may be an indication that a fault current has been interrupted. To reduce the risk of fire or electric shock, current-carrying parts and other components of the controller should be examined and replaced if damaged. If burnout of the current element of an overload relay occurs, the complete overload relay must be replaced.

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|----------------|---------|------------|--------------------|----------------------|--|---|---------------------|------------------|--------------------------------|---|
| Project status | | xxx | | ROBOTIQ INC. | |  | Safety Installation | EN & MEC | | |
| | Date | 28.02.2020 | Technical designer | FMCP Panel | | | | Project no.: | CA_CS.2160550 | = |
| | Edit by | 13.01.2021 | ca0zfa | | | | | Productionorder: | SAP PRODUCTION_ORDER / NETWORK | + |
| Modification | Date | Name | Standard | DIRECTIVE 2014/35/EU | | | | | Pg. 6 | |
| | | | | | | | | | Pg. 8 | |

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| Date | 28.02.2020 | Technical designer | |
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| Modification | Date | Name | Standard |
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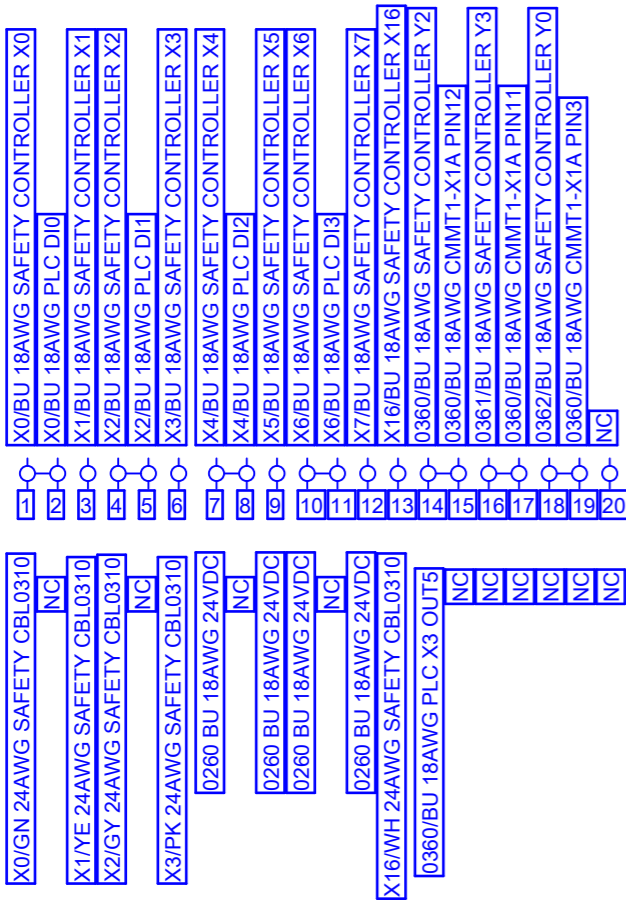
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FMCP Panel



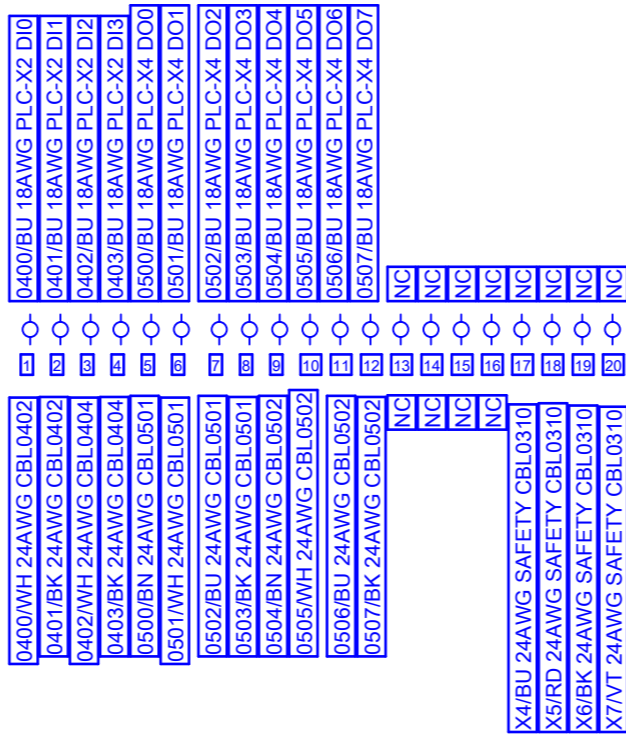
Control Panel Layout

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|------------------|--------------------------------|-----|------|
| | | EN | &MEC |
| Project no.: | CA_CS.2160550 | = | |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | + | |
| | | Pg. | 7 |
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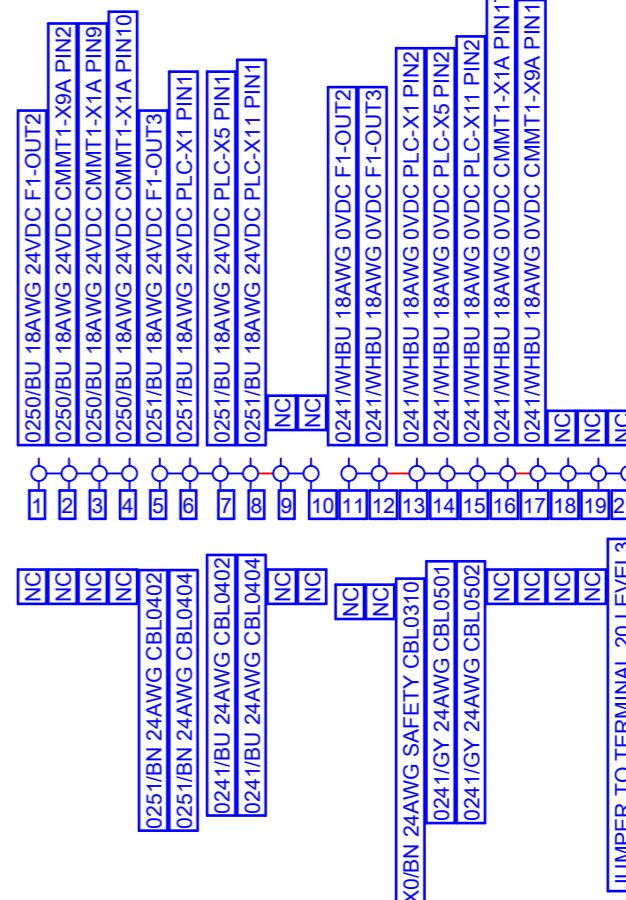
TB1 LEVEL 3



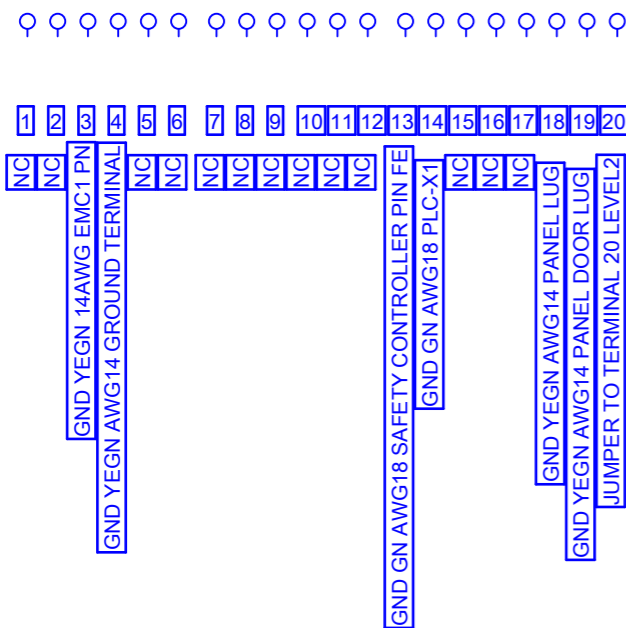
TB1 LEVEL 2



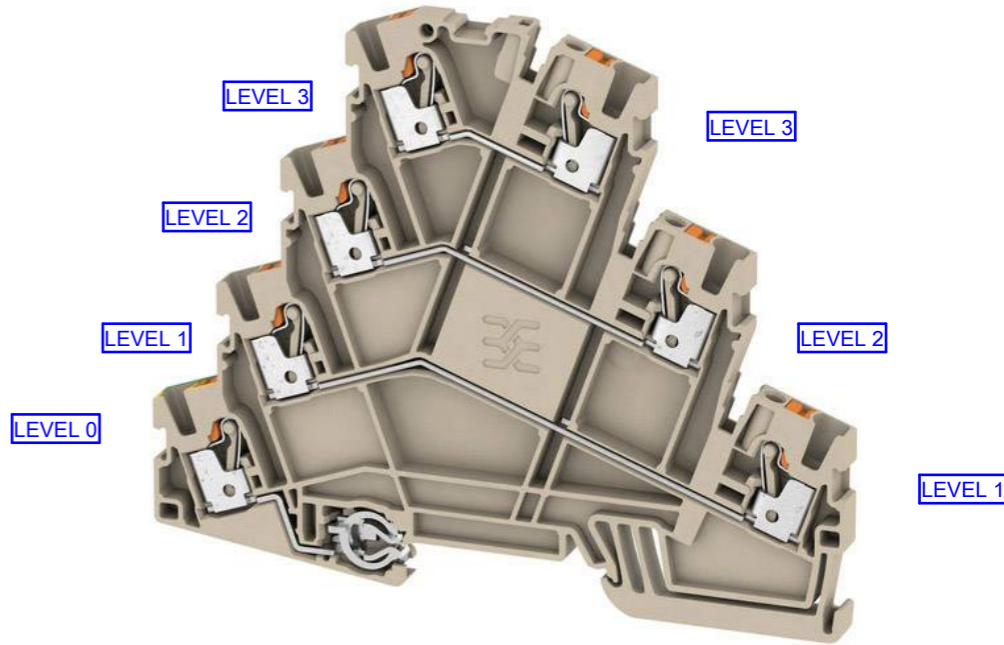
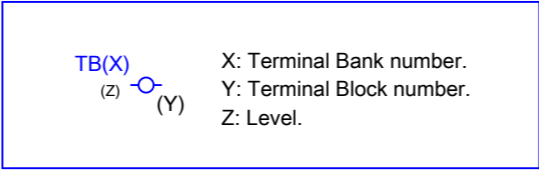
TB1 LEVEL 1



TB1 LEVEL 0



Terminal Block Numbering



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ROBOTIQ INC.
FMCP Panel



Terminal Bank TB1 Summary

| | | | |
|------------------|--------------------------------|-----|------|
| Project no.: | CA_CS.2160550 | EN | &MEC |
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| | | Pg. | 8 |
| | | Pg. | 8 |

&MTB/1

WIN A3 15.09.2021

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&MEC/8

=A1+O1&EFS/1

| | | | | |
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| Project status | | xxx | | |
| | Date | 28.02.2020 | Technical designer | |
| | Edit by | 04.02.2020 | jret | |
| | Appr. | | | |
| Modification | Date | Name | Standard | DIRECTIVE 2014/35/EU |

ROBOTIQ INC.

FMCP Panel

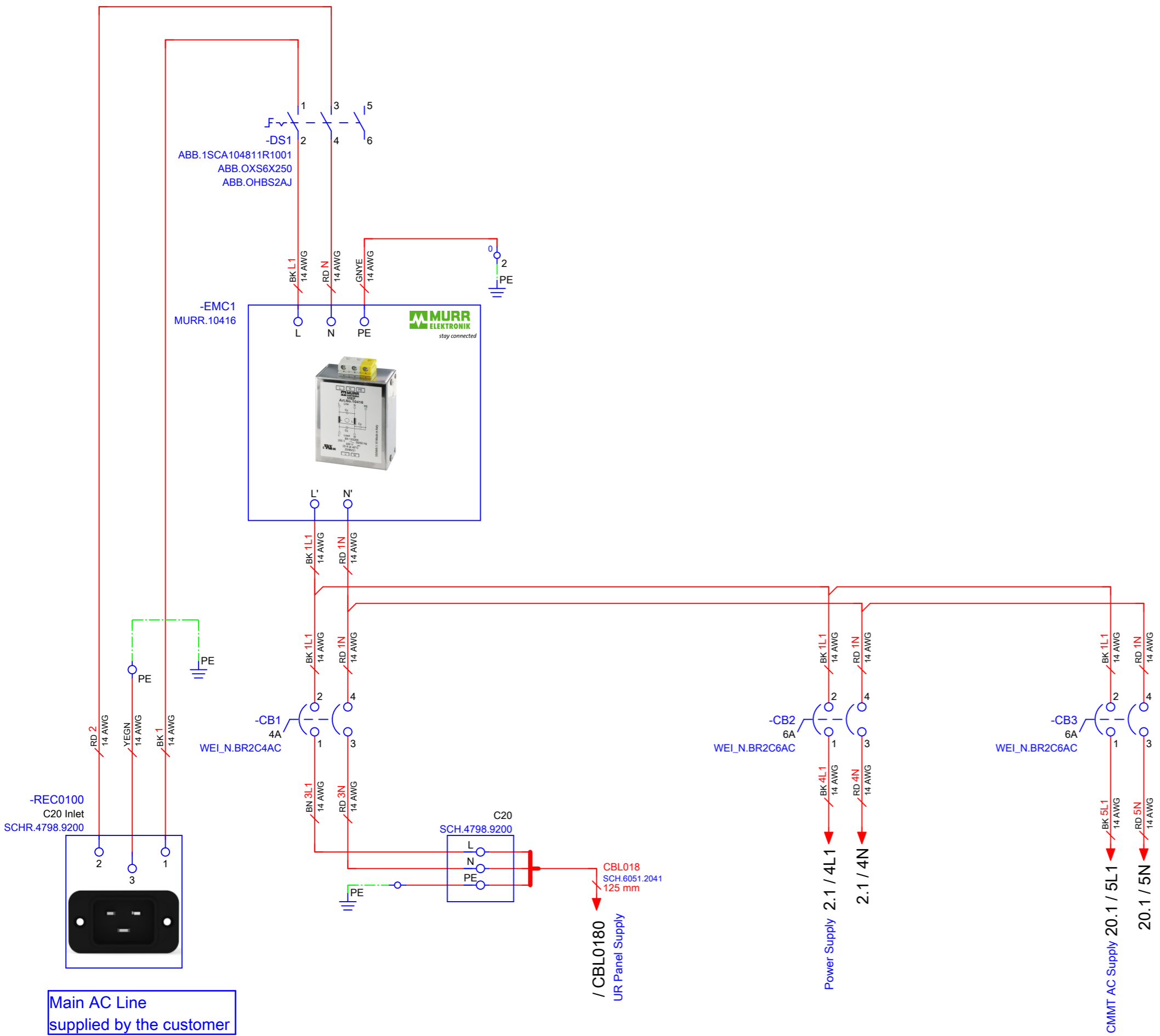


Construction design

| | | | |
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| | | EN | &MTB |
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| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 1 |
| | | Pg. | 1 |

DIN A3 15.09.2021

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Main AC Line
supplied by the customer



- Enclosure's key to be attached at the handle.
- Put all three AC breakers at ON position

==&MTB/1

| | | | |
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| Modification | Date | Name | Standard |
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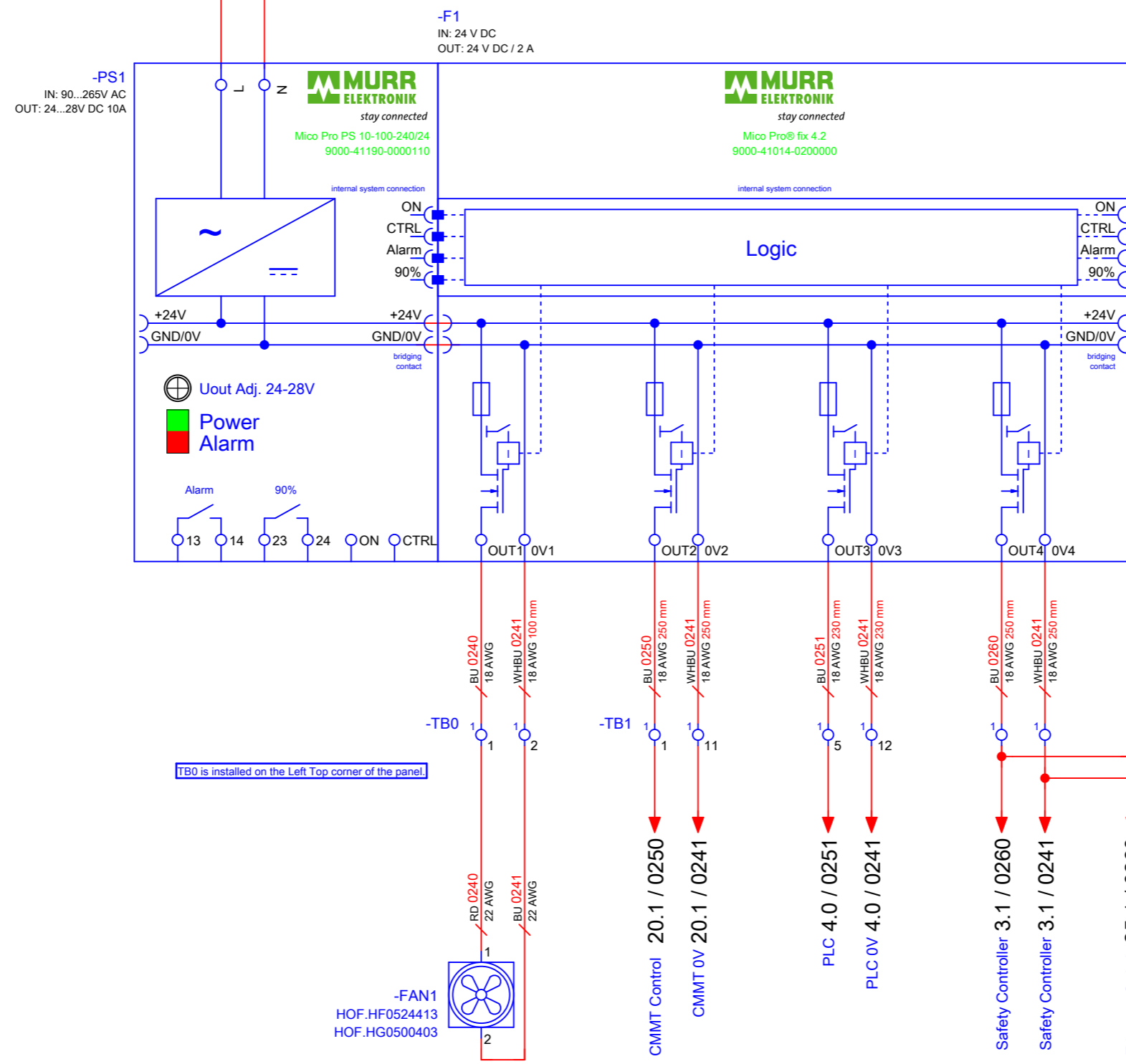
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FMCP Panel



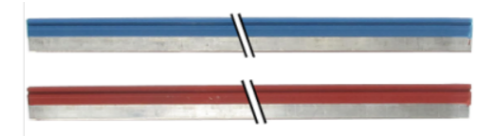
AC Voltage Supply

| | | | |
|--------------------------------|--|------|------|
| Project no.: | | EN | &EFS |
| CA_CS.2160550 | | = | A1 |
| Productionorder: | | + 01 | |
| SAP PRODUCTION_ORDER / NETWORK | | Pg. | 1 |
| | | Pg. | 25 |

Power Supply 1.4 / 4L1
1.5 / 4N



Note : Use a 100 mm Mico Pro endless plug-in link Blue (0VDC) and Red (24VDC) to connect between the Power supply and the fuse modules .



TB0 is installed on the Left Top corner of the panel

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FMCP Panel



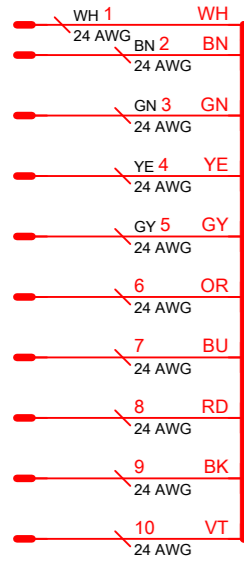
DC Voltage Supply

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| EN | &EFS |
| Project no.: | CA_CS.2160550 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK |
| Pg. | 2 |
| Pg. | 25 |

Safety Controller 2.6 / 0260

0V 2.6 / 0241

-SC1
/3.8
IDEC.FS1A-C115



Ferrules Termination

X0 Status 4.7 / X0

X2 Status 4.7 / X2

X4 Status 4.8 / X4

X6 Status 4.8 / X6



Safety Controller DIP Switch configuration next page (3.1)

| | | | | | | | | | |
|----------------|------------|--------------------|----------|----------------------|--|------------------------------|--|--------------------------------|--|
| Project status | | xxx | | ROBOTIQ INC. | | Safety Controller Connection | | EN &EFS | |
| Date | 28.02.2020 | Technical designer | | FMCP Panel | | Project no.: | | CA_CS.2160550 | |
| Edit by | 15.09.2021 | ca0zfa | | | | Productionorder: | | SAP PRODUCTION_ORDER / NETWORK | |
| Appr. | | | | | | | | Pg. 3 | |
| Modification | Date | Name | Standard | DIRECTIVE 2014/35/EU | | | | Pg. 25 | |



WIN A3 15.09.2021

FS1A-C11S Logic 11A

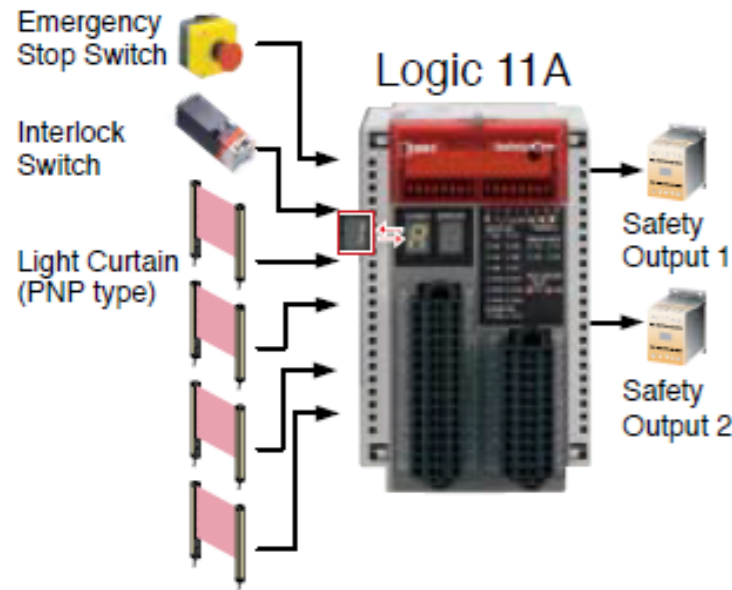
The logic for apparatus with openings

Output Line: 2
2 dual safety outputs of
different operations

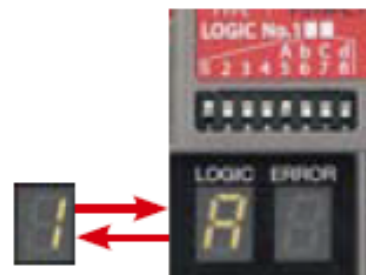
Category
4

Logic 11A is used for safeguarding measures of machine tools and robots, which use safety equipment such as light curtains with dual solid state outputs. Safety outputs are dual channel outputs. Two dual channel direct opening inputs and four dual channel safety inputs can be connected. Safety output 2 has an off-delay timer.

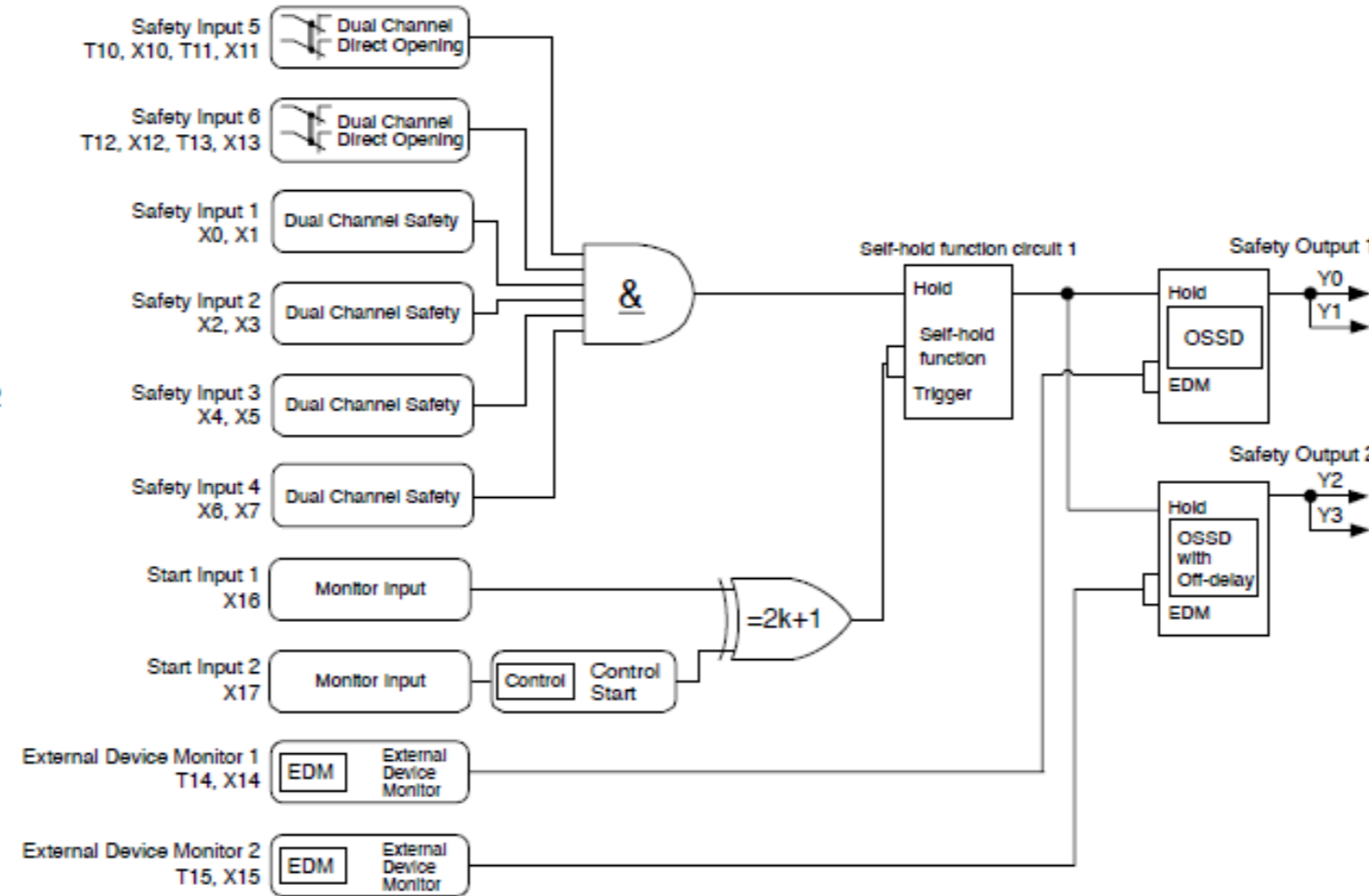
• Wiring Example



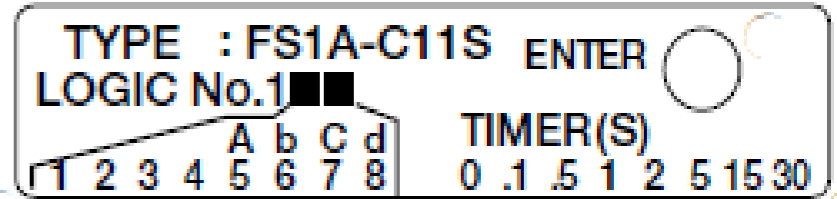
• DIP Switch and LED Display



• Logic Chart



DIP Switch Setting :



Logic : Switch No.1+A Up
Timer : Timer value 0.5s Switch No.3 Up

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| Project status | xxx | | |
| Date | 28.02.2020 | Technical designer | |
| Edit by | 13.01.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

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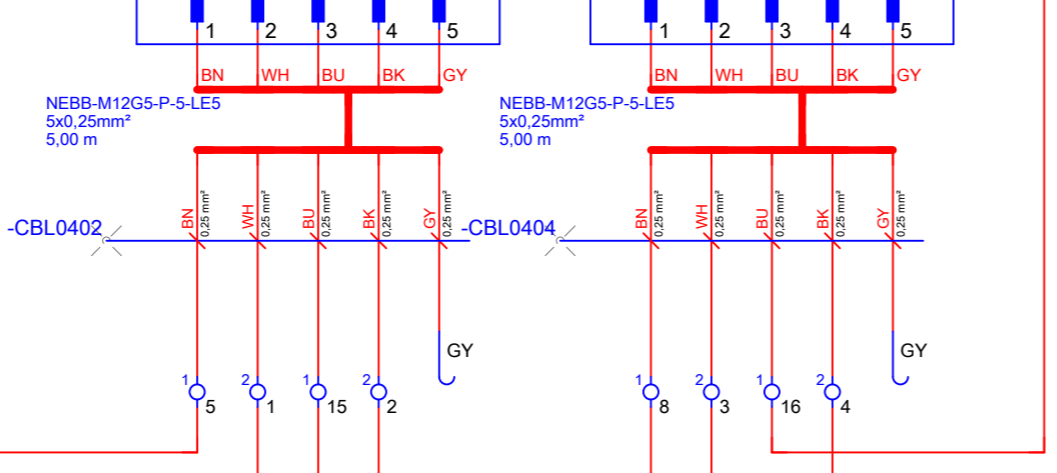
Safety Controller Configuration

| | | | |
|------------------|--------------------------------|-----|------|
| Project no.: | CA_CS.2160550 | EN | &EFS |
| | | = | A1 |
| | | + | O1 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 3.1 |
| | | Pg. | 25 |

PLC 2.5 / 0251 → 0251 / 5.9 PLC
 0V 2.6 / 0241 → 0241 / 5.0 CMMT 0V

Cables will be fed throught the cable entry at the bottom of the panel

Left Side Pallet Sensors Right Side Pallet Sensors

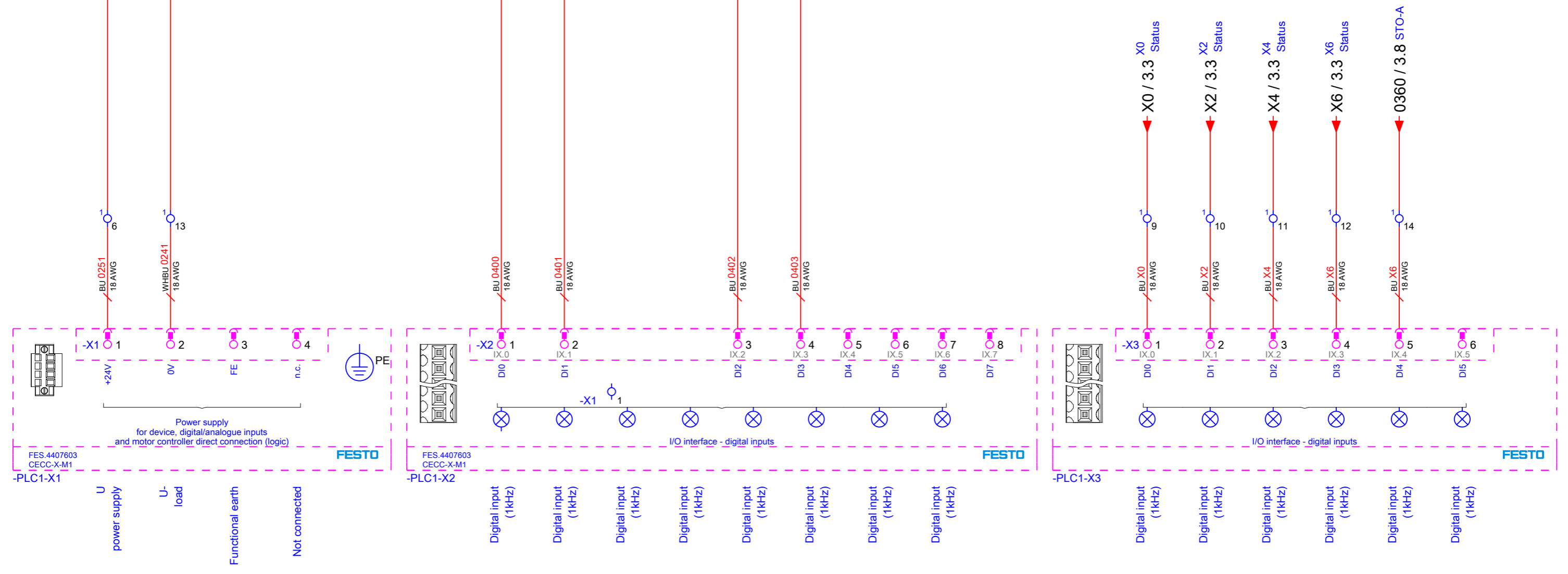


Important before shipping the panel, make sure :

- Update PLC firmware to version 3.6.1-756dd0bc7c28M.20190426.16939.
- Configure IP Address of the CECC-X-M1 to be 172.17.101.10



- Grey wires are not used and should be removed.
- Shorten pallet sensors M12 cable (CBL0402, CBL0404) from 2.5m to 1.3m
- The outside part of the cables need to be labelled as "Left Side Pallet Sensor" and "Right Side Pallet Sensor" as shown above



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| Edit by | 18.01.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
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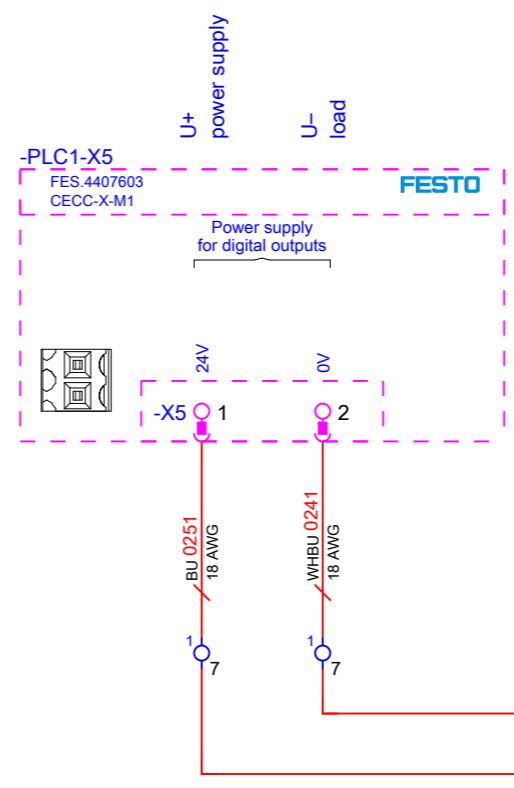
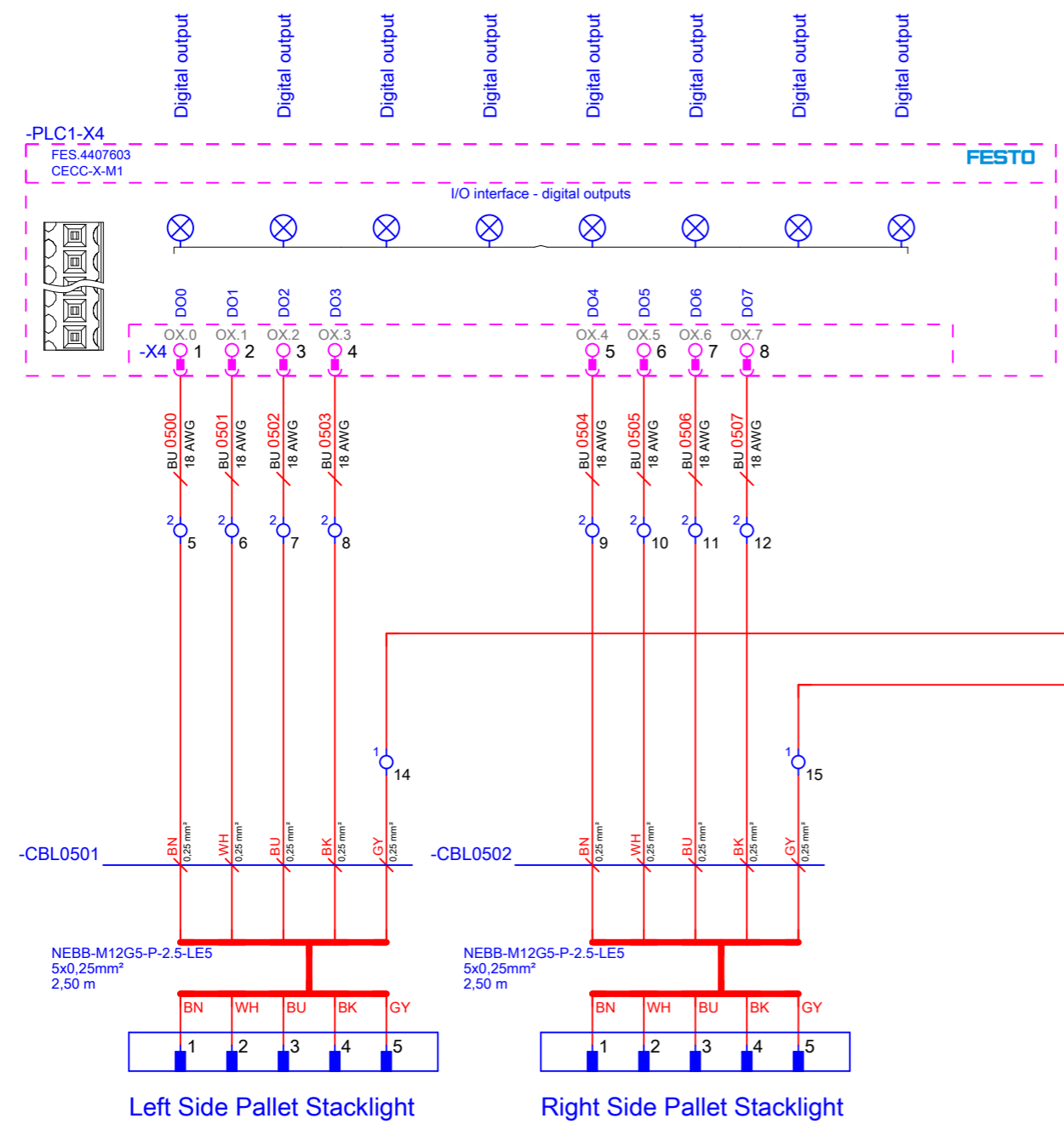
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PLC1 Connection : X1,X2,X3

| | | | |
|------------------|--------------------------------|-----|------|
| Project no.: | CA_CS.2160550 | EN | &EFS |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | = | A1 |
| | | + | O1 |
| | | Pg. | 4 |
| | | Pg. | 25 |

PLC 7.1 / 0251 → 0251 / 4.9 PLC
 OV 4.9 / 0241 → 0241 / 7.1 CMMT OV



Cables will be fed throught the cable entry at the bottom of the panel



- The outside part of the cables need to be labelled as "Left Side Pallet Stacklight " and "Right Side Pallet Stacklight" as shown above

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|--------------------|----------------------|
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| Technical designer | |
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| ca0zfa | |
| Appr. | |
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| Name | |
| Standard | DIRECTIVE 2014/35/EU |

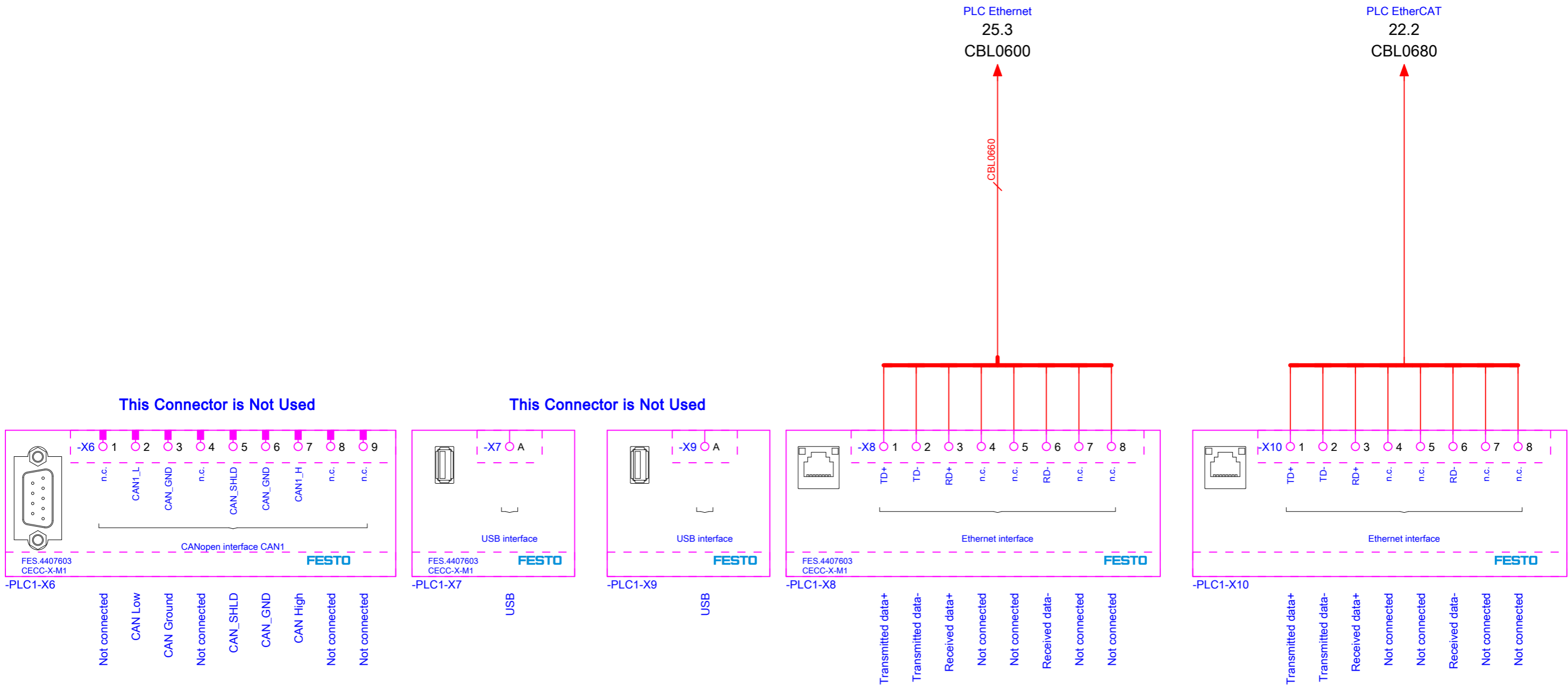
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 FMCP Panel



PLC1 Connection : X4,X5

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|------------------|--------------------------------|
| EN | &EFS |
| Project no.: | CA_CS.2160550 |
| | = A1 |
| | + O1 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK |
| Pg. | 5 |
| Pg. | 25 |

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| Date | 28.02.2020 |
| Technical designer | |
| Edit by | 18.01.2021 |
| ca0zfa | |
| Appr. | |
| Modification | Date |
| Name | Standard |
| DIRECTIVE 2014/35/EU | |

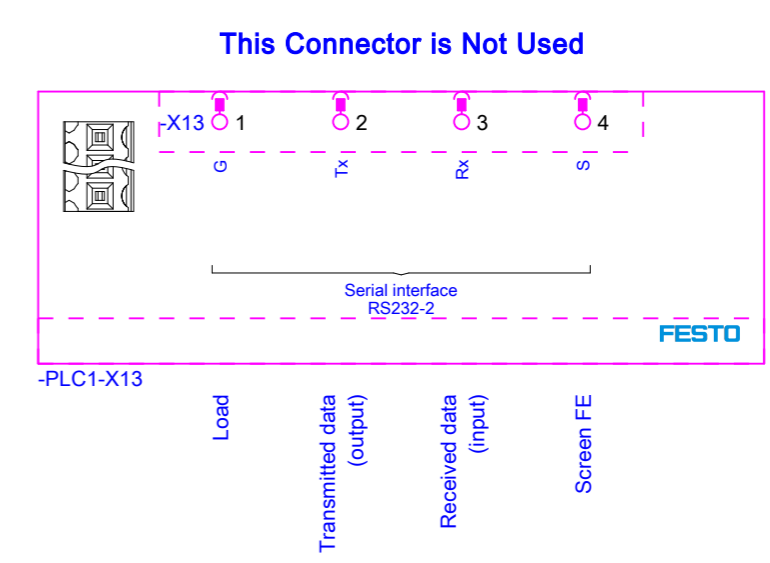
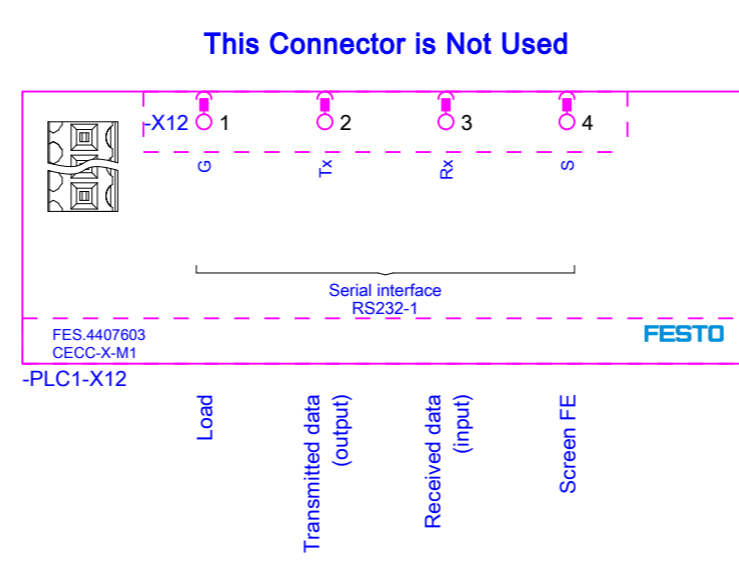
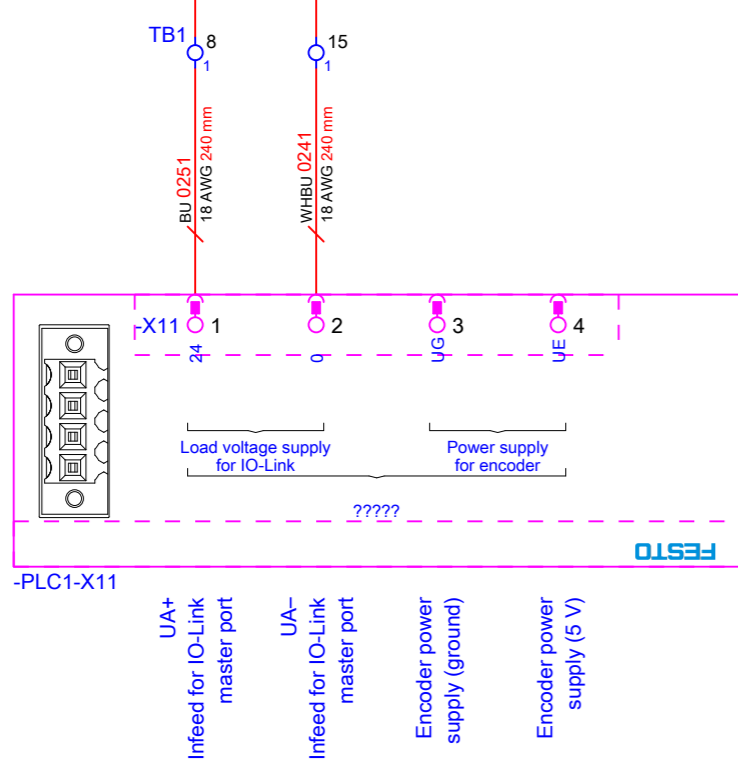
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PLC1 Connection : X6,X7,X8,X9,X10

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|------------------|--------------------------------|-----|------|
| Project no.: | CA_CS.2160550 | EN | &EFS |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | = | A1 |
| | | + | O1 |
| | | Pg. | 6 |
| | | Pg. | 25 |

PLC 5.0 / 0251
 0V 5.9 / 0241



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| Date | 28.02.2020 | Technical designer | |
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| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

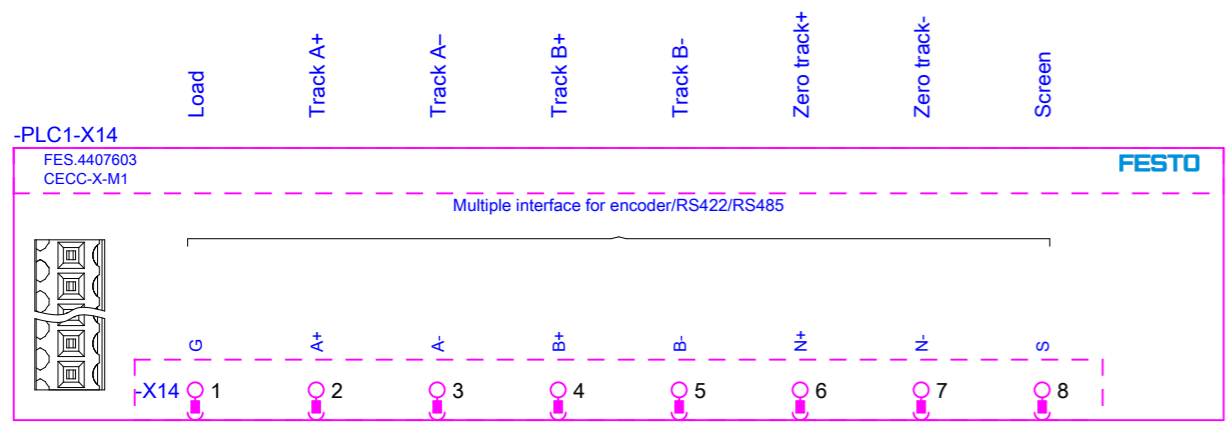
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 FMCP Panel



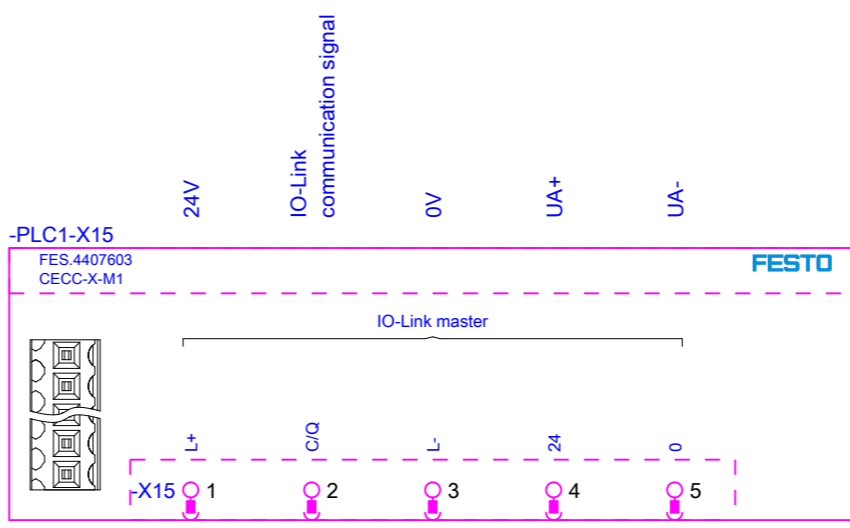
PLC1 Connection : X11,X12,X13

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| | | Pg. | 7 |
| | | Pg. | 25 |

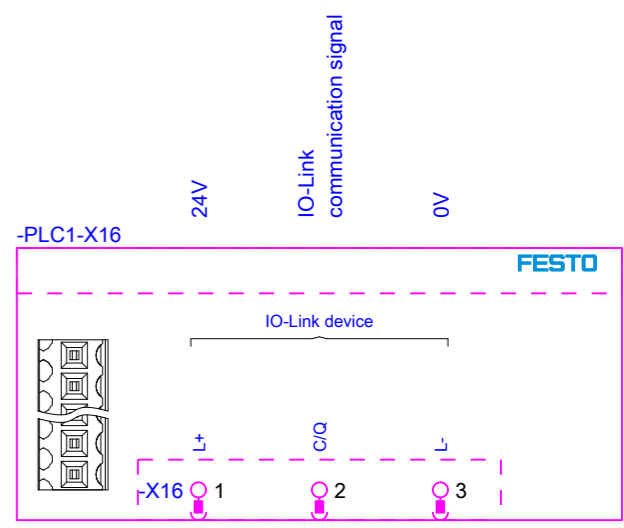
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| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

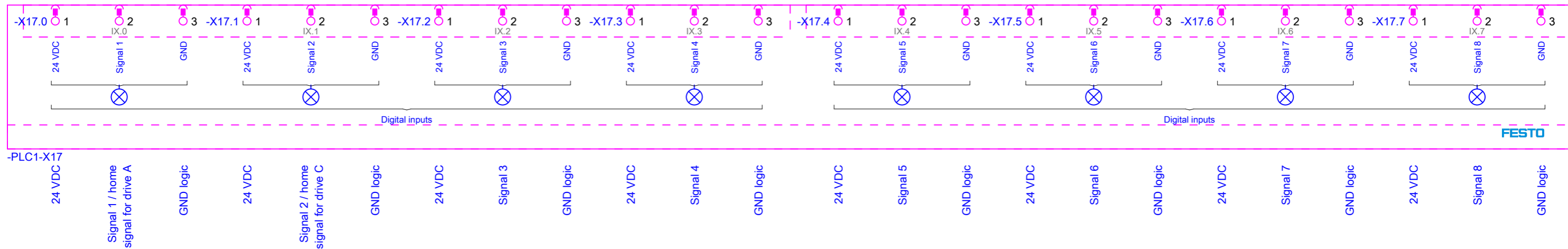
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PLC1 Connection : X14,X15,X16

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| Project no.: | | EN | &EFS |
| CA_CS.2160550 | | = | A1 |
| Productionorder: | | + | O1 |
| SAP PRODUCTION_ORDER / NETWORK | | | Pg. 8 |
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| Appr. | | | |
| Modification | Date | Name | Standard |
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FMCP Panel

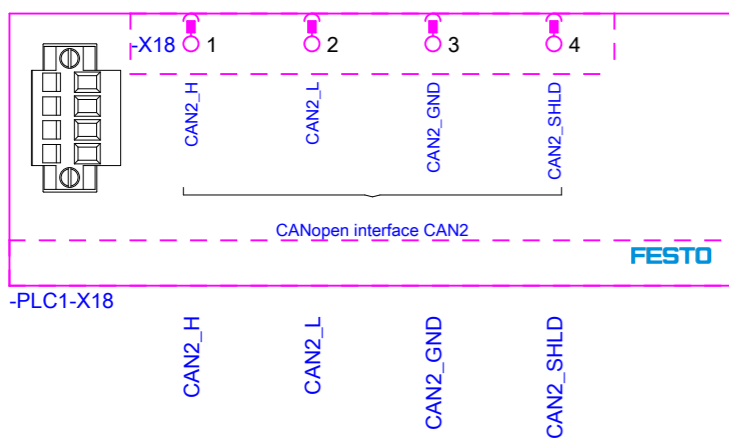


PLC1 Connection : X17

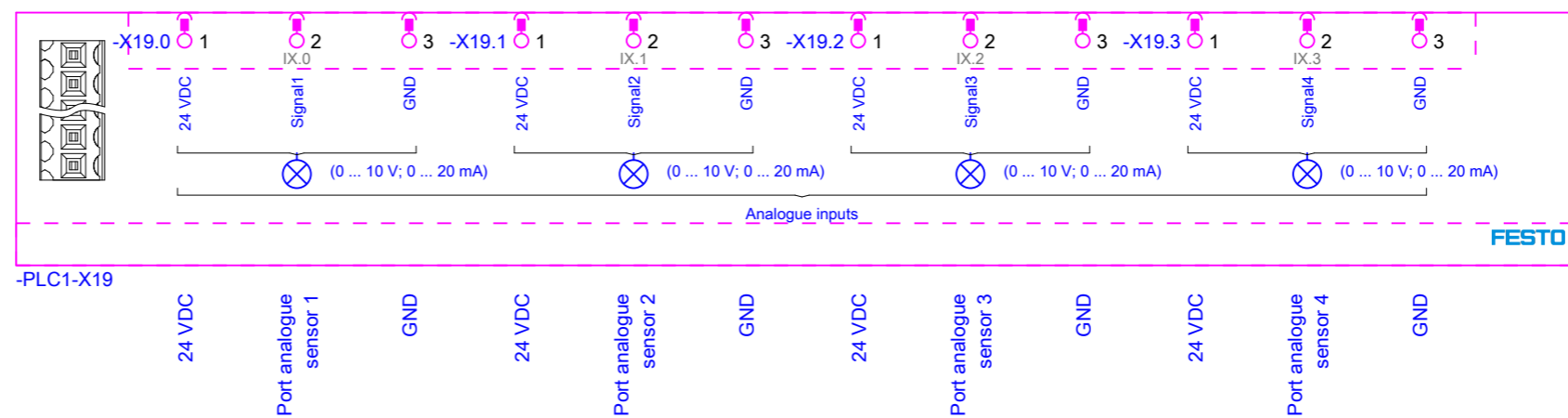
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| Project no.: | | EN | &EFS |
| CA_CS.2160550 | | = | A1 |
| Productionorder: | | + | O1 |
| SAP PRODUCTION_ORDER / NETWORK | | | Pg. 9 |
| | | | Pg. 25 |

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| Edit by | 02.10.2020 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

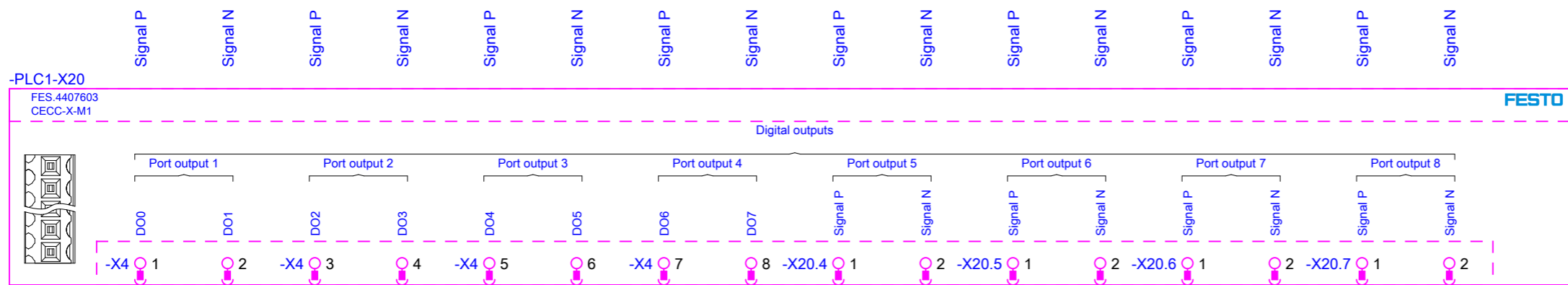
ROBOTIQ INC.
FMCP Panel



PLC1 Connection : X18,X19

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| Project no.: | | EN | &EFS |
| CA_CS.2160550 | | = | A1 |
| Productionorder: | | + | O1 |
| SAP PRODUCTION_ORDER / NETWORK | | | Pg. 10 |
| | | | Pg. 25 |

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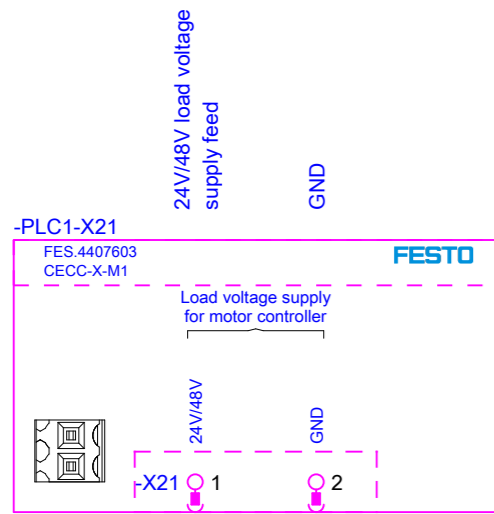
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| Project status | | xxx | |
| Date | 28.02.2020 | Technical designer | |
| Edit by | 18.01.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

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FMCP Panel

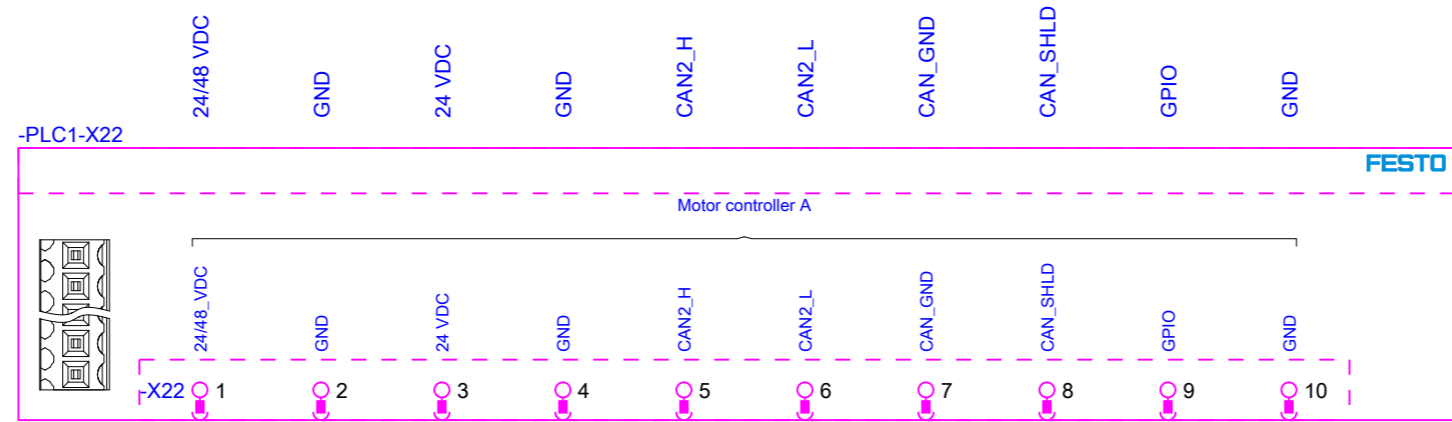


PLC1 Connection : X20

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|------------------|--------------------------------|-----|------|
| | | EN | &EFS |
| Project no.: | CA_CS.2160550 | = | A1 |
| | | + | O1 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 11 |
| | | Pg. | 25 |



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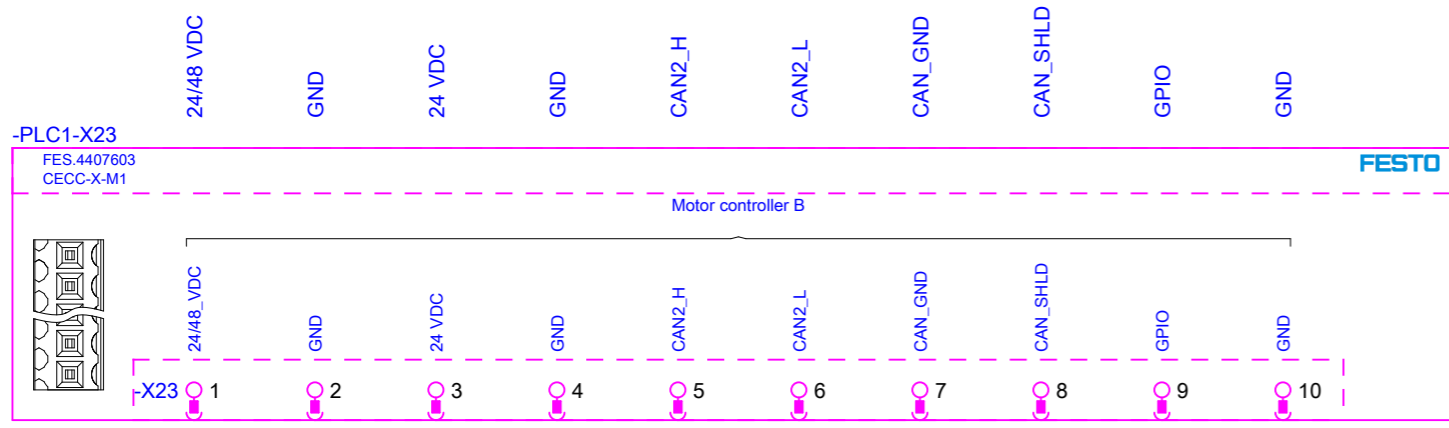
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| Project status | xxx | | | |
| Date | 28.02.2020 | Technical designer | | |
| Edit by | 18.01.2021 | ca0zfa | | |
| Appr. | | | | |
| Modification | Date | Name | Standard | DIRECTIVE 2014/35/EU |

ROBOTIQ INC.
FMCP Panel

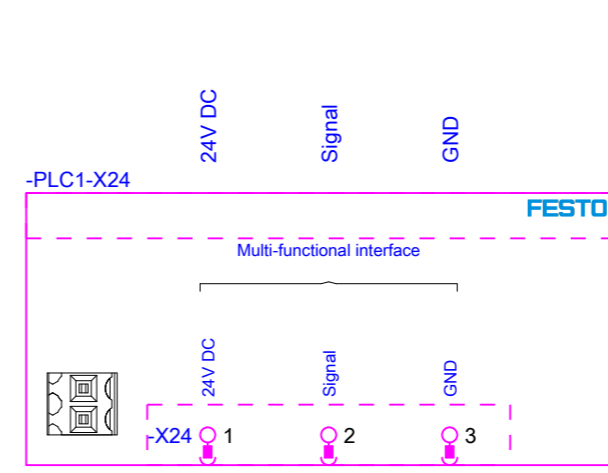


PLC1 Connection : X21,X22

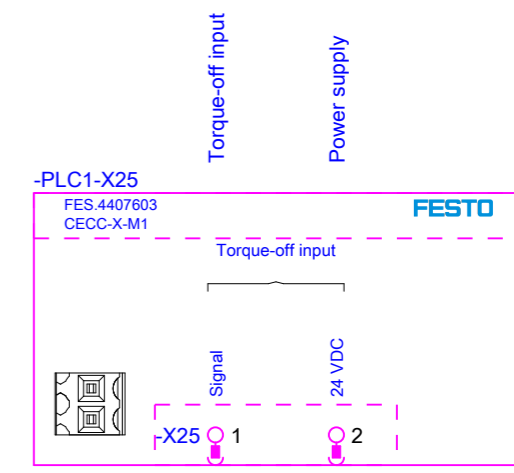
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| Project no.: | CA_CS.2160550 | EN | &EFS |
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| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 12 |
| | | Pg. | 25 |



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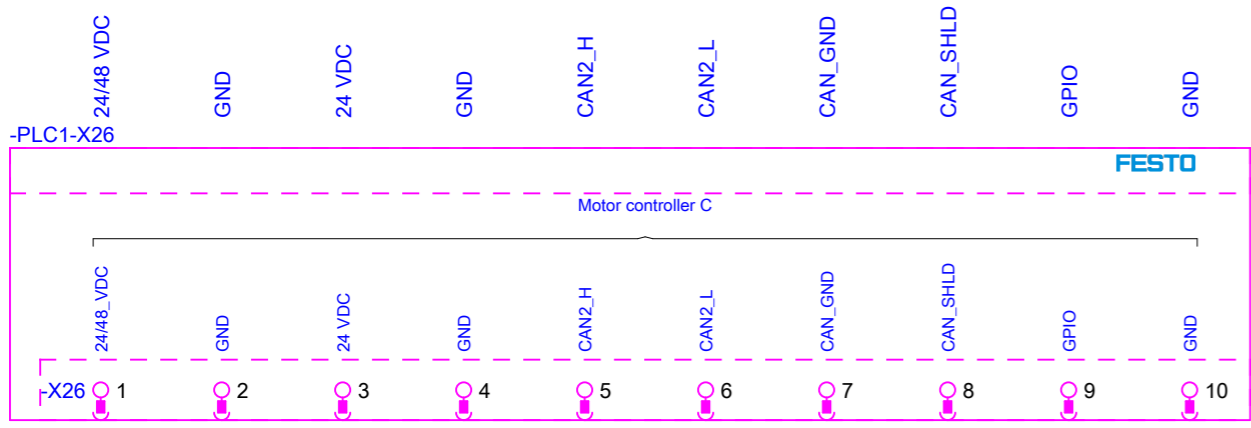
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| Date | 28.02.2020 | Technical designer | |
| Edit by | 18.01.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

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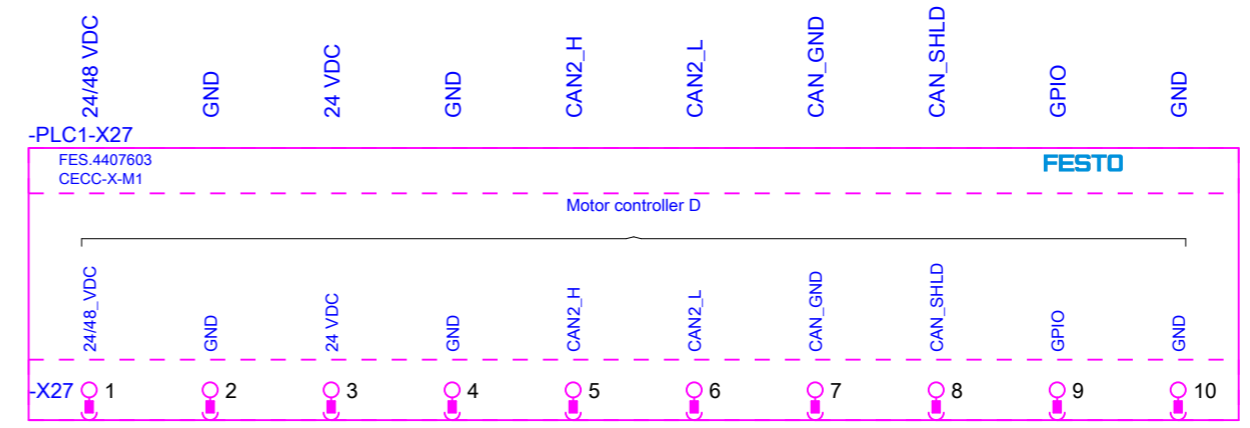


PLC1 Connection : X23,X24,X25

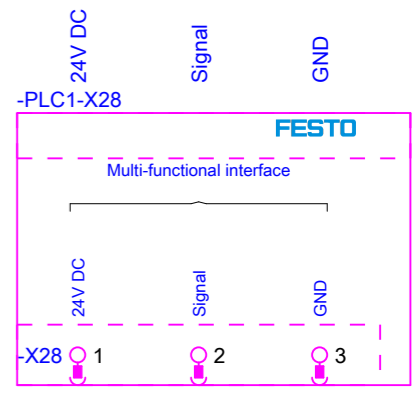
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| Productionorder: | | SAP PRODUCTION_ORDER / NETWORK | = | A1 |
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| | | | | Pg. 13 |
| | | | | Pg. 25 |



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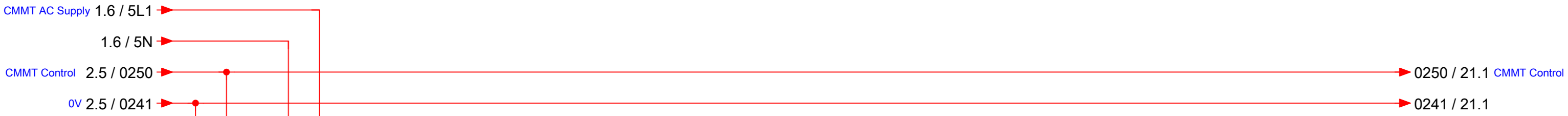
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| Date | 28.02.2020 | Technical designer | | |
| Edit by | 18.01.2021 | ca0zfa | | |
| Appr. | | | | |
| Modification | Date | Name | Standard | DIRECTIVE 2014/35/EU |

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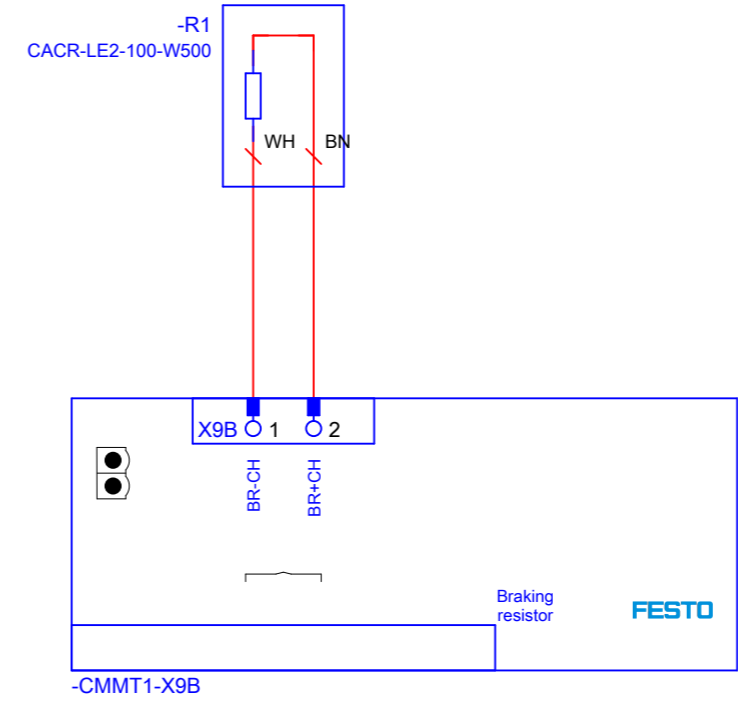
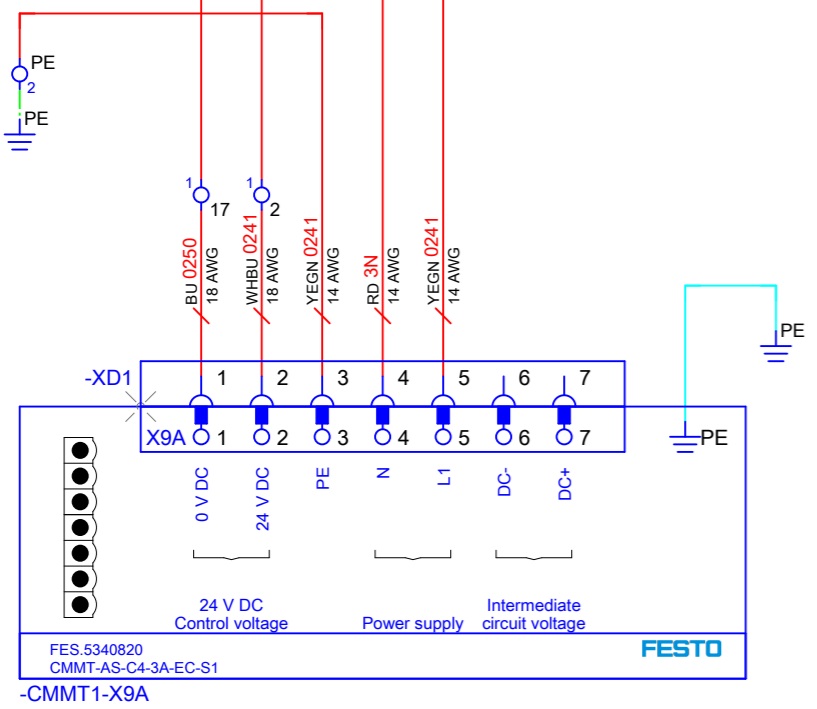
PLC1 Connection : X26,X27,X28

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| Project no.: | | CA_CS.2160550 | EN | &EFS |
| Productionorder: | | SAP PRODUCTION_ORDER / NETWORK | = | A1 |
| | | | + | O1 |
| | | | | Pg. 14 |
| | | | | Pg. 25 |



Important before shipping the panel, make sure :

- Update Controller firmware to latest version V018.0.5
- Configure IP Address of the CMMT-AS-C4-3A-EC-S1 to be 172.17.101.11



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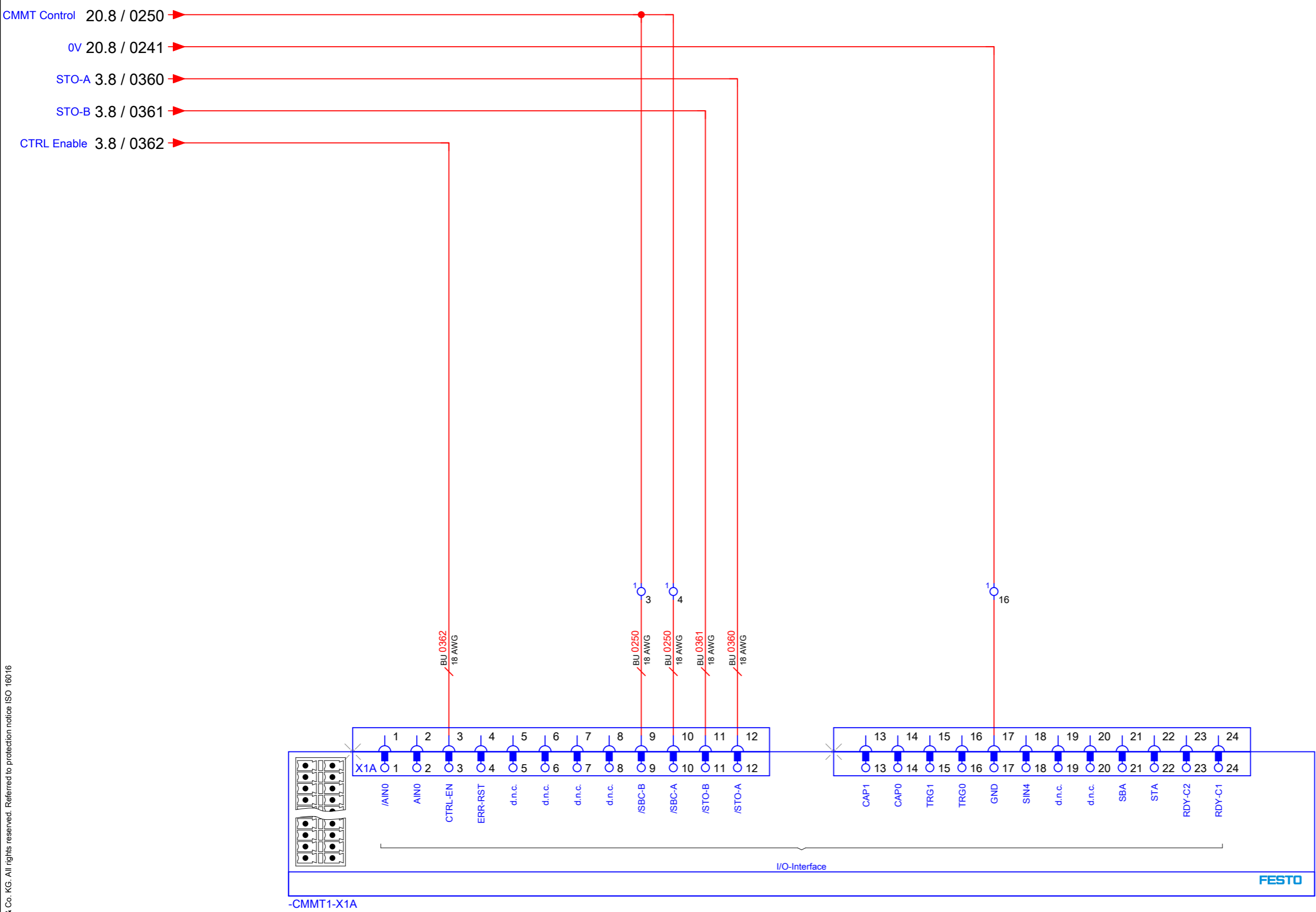
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| Project status | | xxx | |
| Date | 28.02.2020 | Technical designer | |
| Edit by | 15.09.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
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FMCP Panel



CMMT1 Connection : X9A,X9B

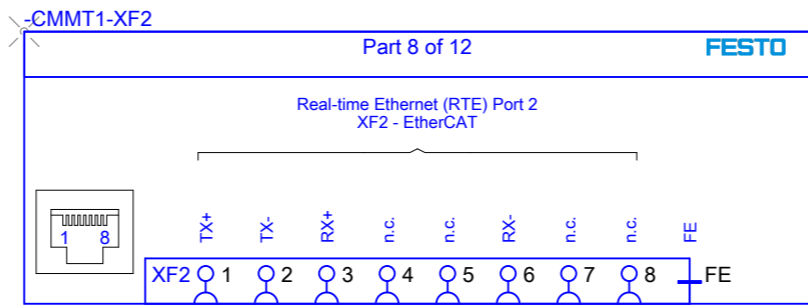
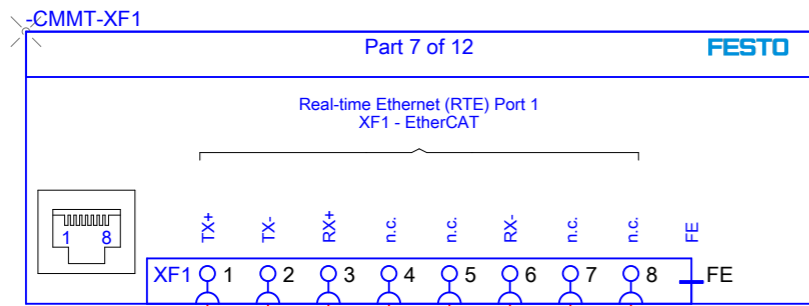
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| Project no.: | CA_CS.2160550 | = | A1 |
| | | + | O1 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 20 |
| | | Pg. | 25 |



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| Project status | | xxx | | ROBOTIQ INC. | | CMMT1 Connection : X1A | | EN &EFS | |
| | Date | 28.02.2020 | Technical designer | FMCP Panel | | FESTO | | Project no.: CA_CS.2160550 | |
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| Modification | Date | Name | Standard | DIRECTIVE 2014/35/EU | | | | Productionorder: SAP PRODUCTION_ORDER / NETWORK | |
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| | | | | | | | | Pg. | 25 |

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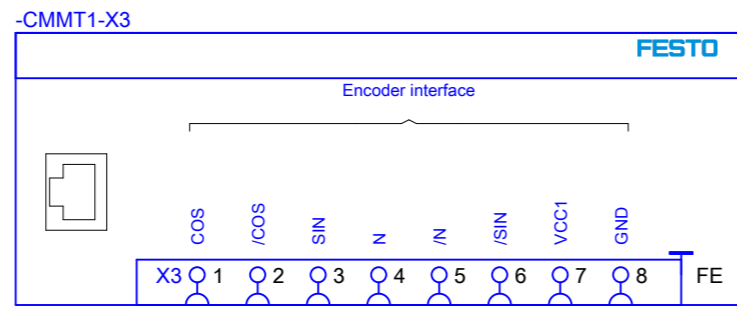
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| Date | 28.02.2020 | Technical designer | |
| Edit by | 15.09.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

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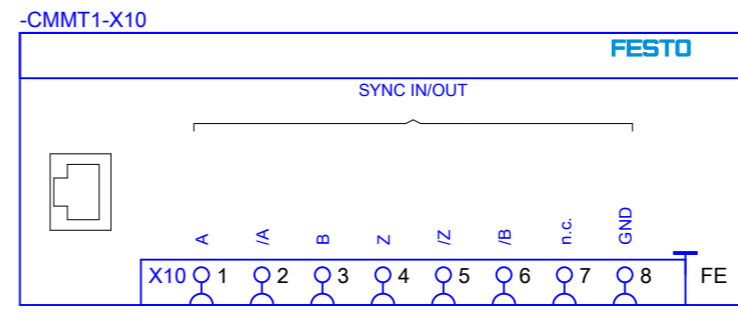


CMMT1 Connection : XF1,XF2

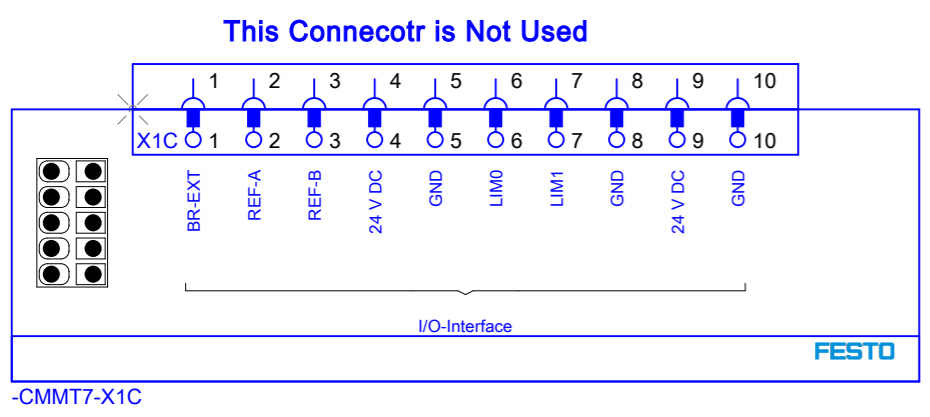
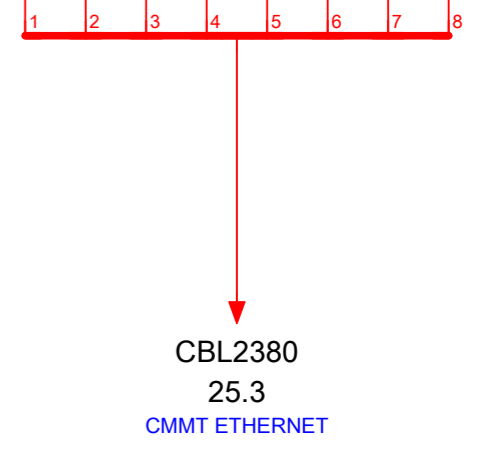
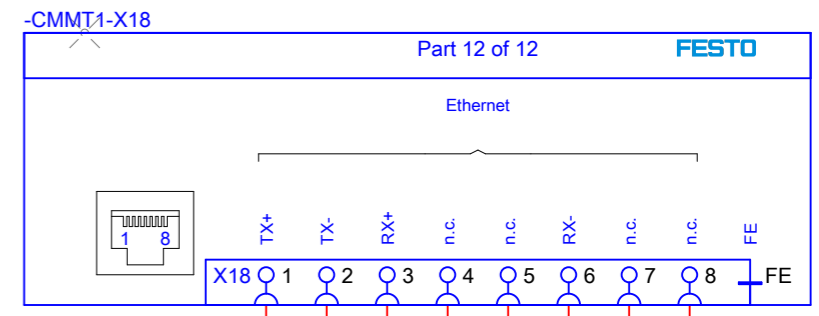
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| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 22 |
| | | Pg. | 25 |



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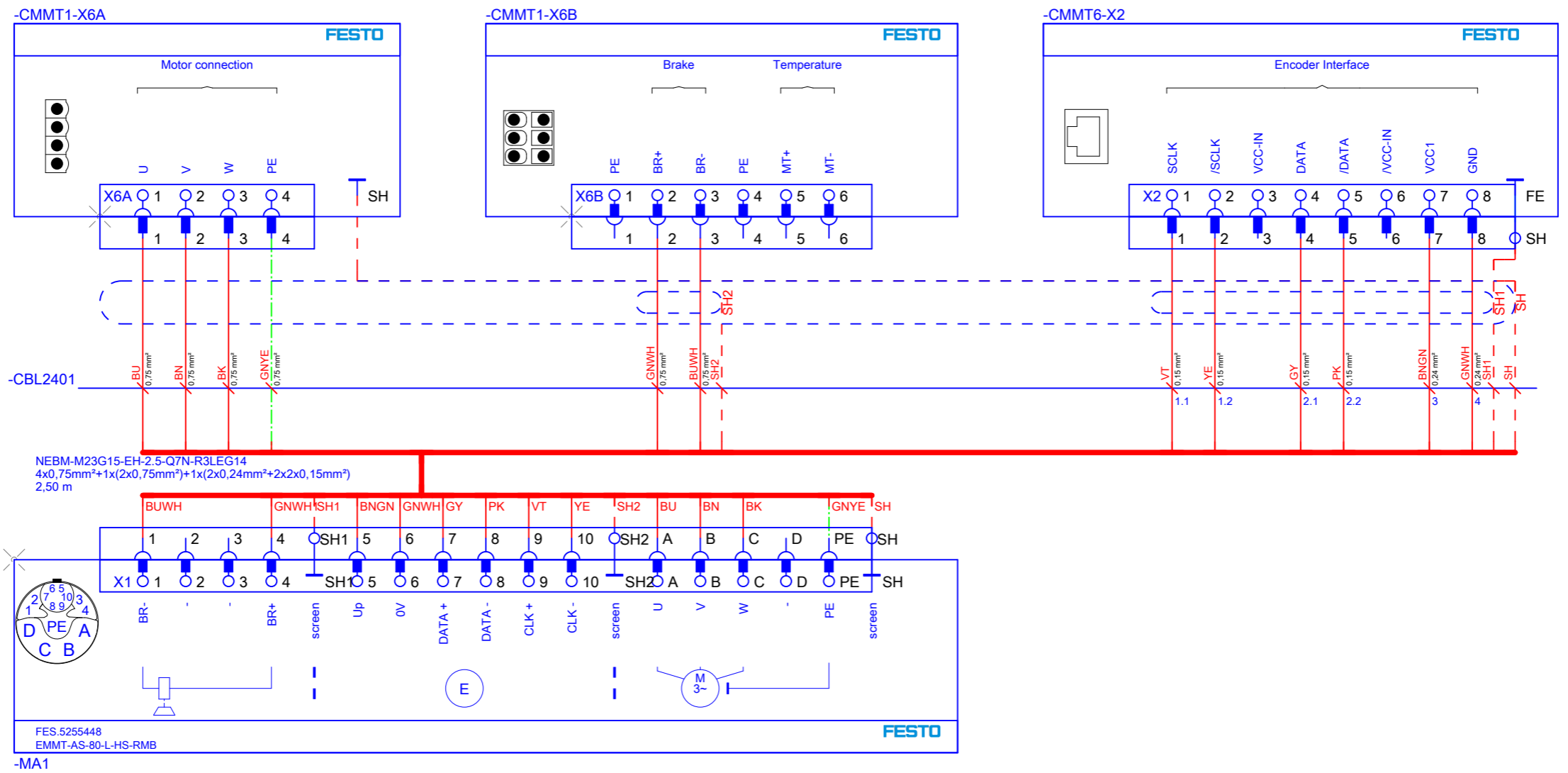
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| Date | 28.02.2020 | Technical designer | |
| Edit by | 15.09.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
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CMMT1 Connection : X1C,X3,X10,X18

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| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 23 |
| | | Pg. | 25 |



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|--------------------|----------------------|
| Project status | xxx |
| Date | 28.02.2020 |
| Technical designer | |
| Edit by | 15.09.2021 |
| ca0zfa | |
| Appr. | |
| Modification | |
| Date | |
| Name | |
| Standard | DIRECTIVE 2014/35/EU |

ROBOTIQ INC.
FMCP Panel



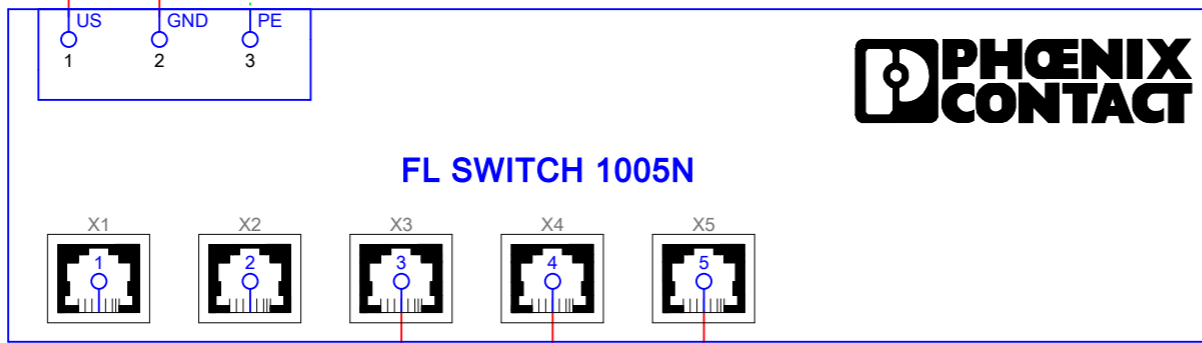
CMMT1 Connection : X2,X6A,X6B

| | | | |
|------------------|--------------------------------|-----|------|
| Project no.: | CA_CS.2160550 | EN | &EFS |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | = | A1 |
| | | + | O1 |
| | | Pg. | 24 |
| | | Pg. | 25 |

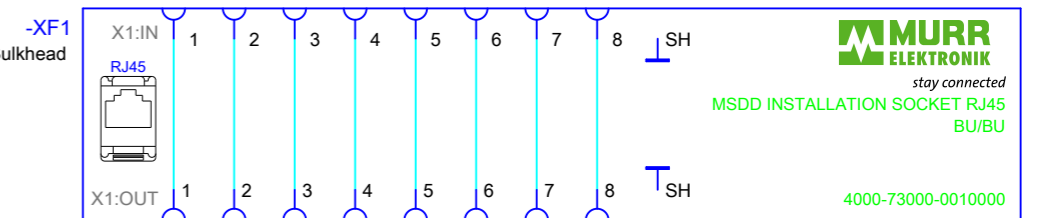
Safety Controller 2.7 / 0260

0V 2.7 / 0241

-ETH2520
PXC.1085039



MODBUS / TCP Interface Bulkhead



CBL2380
23.8
CMMT ETHERNET

CBL0600
6.6
PLC Ethernet

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| | | | |
|----------------|------------|--------------------|----------------------|
| Project status | | xxx | |
| Date | 28.02.2020 | Technical designer | |
| Edit by | 28.05.2021 | ca0zfa | |
| Appr. | | | |
| Modification | Date | Name | Standard |
| | | | DIRECTIVE 2014/35/EU |

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EtherNet Switch Connection

| | | | |
|------------------|--------------------------------|-----|------|
| Project no.: | CA_CS.2160550 | EN | &EFS |
| | | = | A1 |
| | | + | O1 |
| Productionorder: | SAP PRODUCTION_ORDER / NETWORK | Pg. | 25 |
| | | Pg. | 25 |