Schneider Electric

TESTED VALIDATED

DOCUMENTED ARCHITECTURE : Compact / EtherNetIP / Logic Controller M251

PLANT DESIGNATION : TVDA
DRAWING NUMBER : EIO0000002282.00

DEPARTMENT : Industry Business
PRODUCT DOMAIN : TVDA

CAE SYSTEM : ePlan P8 V 2.4.4
RELATED PRODUCTS : Logic Controller M251; Magelis HMIGTO; TM3 I/O-Expansion; iEM3150; Harmony ZBRN1; Altivar 32/71; Lexium 32M; Lexium ILx2K; Preventa XPSMCM; OsiSense XGCS

INCOMING SUPPLY	: 400V 3~, N, PE, 50Hz
FEEDER	: Oelflex Classic 100 5G2,5mm²
POWER INPUT	: 3,90 kW
CONTROL VOLTAGE	: 24V dc
MANUFACTURING DATE	: 2015
CABINET TYPE	: Spacial, RAL 7035
CHECKED TO	: IEC 60364

RESPONSIBLE FOR PROJECT : Machine Solutions
CREATOR : TVDA
DATE CHANGED : 2015/11/13
REVISION DATE :

VERSION INDEX

0

This document is based on European standards and is not valid for use in U.S.A.

Structure identifier overview

First Level	Structure description	Second Level	Structure description	Third Level	Structure description
=COMM	Common pages	+COVER	Cover page	#PSD	Power Supply Distribution
=WIRD	Wiring diagramm	+CONT	Table of Content	#SAF	Safety
		+INFO	Informations	#PLC	PLC Pages
		+DEF	Definitions	#HMI	Human Machine Interface
		+LAYOUT	Layout Pages	#CTRL	Control
		+LOC	Local Equipments	#MOV	Movement
		+MC	Main Cabinet	#COM	Communication

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Assignment	Page	Page description	Date	Edited by
=COMM +COVER		Cover page		
	1	Cover Page	2015/10/21	kJakob
=COMM +CONT		Table of Content		
	1	Structure identifier overview	2015/11/13	kJakob
	2	Table of contents	2015/11/13	kJakob
	3	Table of contents	2015/11/13	kJakob
	4	Table of contents	2015/11/13	kJakob
	5	Table of contents	2015/11/13	kJakob
=COMM +INFO		Informations		
	1	Disclaimer	2015/10/19	kJakob
	2	Safety Information 1	2015/09/11	kJakob
	3	Safety Information 2	2015/09/11	kJakob
	4	Informations about changes	2015/09/11	kJakob
=COMM +DEF		Definitions		
	1	Wiring, Plug and Terminal definitions	2015/11/13	kJakob
=COMM +LAYOUT		Layout Pages		
	1	Plant Layout Cabinet	2015/09/17	kJakob
=WIRD +MC #PSD		Main Cabinet / Power Supply Distribution		
	1	Power supply feed in	2015/11/13	kJakob
	2	Cabinet Lamp, Socket, Fan	2015/11/13	kJakob
	3	Energy Measurement - iEM3150	2015/11/13	kJakob
	4	Emergency Stop Main Power Supply	2015/11/13	kJakob
	5	Power Supply 24V dc	2015/11/13	kJakob
	6	Power Supply 24V dc	2015/11/13	kJakob
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	8	Power Supply 24V dc	2015/11/13	kJakob
	9	Power Supply 0V dc	2015/11/13	kJakob
	10	Power Supply 24V dc ILx2K	2015/11/13	kJakob
	11	Power Supply 24V dc ILx2K	2015/11/13	kJakob

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=WIRD +MC #PSD		Main Cabinet / Power Supply Distribution		
	12	Power Supply 0V dc ILx2K	2015/11/13	kJakob
=WIRD +MC #SAF		Main Cabinet / Safety		
	1	Emergency Stop - Main Contactors	2015/11/13	kJakob
	2	Assembly layout Safety Controller	2015/11/13	kJakob
	3	Overview Safety Controller	2015/11/13	kJakob
	4	Overview Expansion module R04	2015/11/13	kJakob
	5	Overview Expansion module R04DA	2015/11/13	kJakob
	6	Power Supply Safety Controller & Expansion Modules	2015/11/13	kJakob
	7	Digital Inputs/Outputs E-Stop Safety Controller	2015/11/13	kJakob
	8	Digital Inputs/Outputs Door-Guard Safety Controller	2015/11/13	kJakob
	9	Digital Inputs/Outputs OSSD 1 & 2 Safety Controller	2015/11/13	kJakob
	10	Digital Inputs Expansion module R04	2015/11/13	kJakob
	11	Digital Inputs/Outputs NO 1 & 2 Expansion module R04	2015/11/13	kJakob
	12	Digital Inputs/Outputs NO 3 & 4 Expansion module R04	2015/11/13	kJakob
	13	Digital Inputs Expansion module R04DA	2015/11/13	kJakob
	14	Digital Outputs Expansion module R04DA	2015/11/13	kJakob
	15	Digital Inputs/Outputs NO 1 & 2 Expansion module R04DA	2015/11/13	kJakob
	16	Digital Inputs/Outputs NO 3 & 4 Expansion module R04DA	2015/11/13	kJakob
=WIRD +MC #PLC		Main Cabinet / PLC Pages		
	1	Assembly layout M251	2015/10/21	kJakob
	2	Overview M251	2015/09/11	kJakob
	3	Overview TM3 Expansion	2015/10/21	kJakob
	4	Power supply M251	2015/11/13	kJakob
	5	Power Supply TM3 Expansion	2015/11/13	kJakob
=WIRD +MC #HMI		Main Cabinet / Human Machine Interface		
	1	HMI Magelis Panel Power Supply	2015/11/13	kJakob
=WIRD +MC #CTRL		Main Cabinet / Control		
	1	Digital inputs TM3	2015/11/13	kJakob

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=WIRD +MC #CTRL		Main Cabinet / Control		
	2	Digital inputs TM3	2015/11/13	kJakob
	3	Digital outputs TM3	2015/11/13	kJakob
	4	Digital outputs TM3	2015/11/13	kJakob
	5	Digital outputs TM3	2015/11/13	kJakob
	6	Wireless Push-Buttons	2015/11/13	kJakob
	7	RFID Antennas	2015/11/13	kJakob
	8	Vision Sensor	2015/11/13	kJakob
	9	Drive 1 Control Terminals Altivar 32	2015/11/13	kJakob
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	11	Drive 3 Control Terminals Altivar 71	2015/11/13	kJakob
	12	Drive 4 Control Terminals Altivar 71	2015/11/13	kJakob
	13	Drive 3+4 Brake Contactors	2015/11/13	kJakob
	14	Drive 5 Control Terminals Lexium 32M	2015/11/13	kJakob
	15	Drive 6 Control Terminals Lexium 32M	2015/11/13	kJakob
	16	Drive 7 Control Terminals Lexium ILA2K	2015/11/13	kJakob
	17	Drive 8 Control Terminals Lexium ILE2K	2015/11/13	kJakob
	18	Drive 9 Control Terminals Lexium ILS2K	2015/11/13	kJakob
=WIRD +MC #MOV		Main Cabinet / Movement		
	1	Drive 1 Variable speed drive Altivar 32	2015/11/13	kJakob
	2	Drive 2 Variable speed drive Altivar 32	2015/11/13	kJakob
	3	Drive 3 Variable speed drive Altivar 71	2015/11/13	kJakob
	4	Drive 4 Variable speed drive Altivar 71	2015/11/13	kJakob
	5	Drive 5 Servo drive Lexium 32M	2015/11/13	kJakob
	6	Drive 6 Servo drive Lexium 32M	2015/11/13	kJakob
	7	Servo drives ILx2K integrated	2015/11/13	kJakob
=WIRD +MC #COM		Main Cabinet / Communication		
	1	Layout Ethernet topology	2015/10/21	kJakob
	2	Power Supply Ethernet Switch	2015/11/13	kJakob

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Table of contents		=COMM +CONT
			Ed.	kJakob					
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Assignment	Page	Page description	Date	Edited by
=WIRD +MC #COM		Main Cabinet / Communication		
	3	Ethernet topology - Ethernet network	2015/11/13	kJakob
	4	Ethernet topology - Device network	2015/11/13	kJakob
	5	Ethernet topology - Device network (Field)	2015/11/13	kJakob
	6	Modbus topology	2015/11/13	kJakob

General project information

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Equipment Grounding

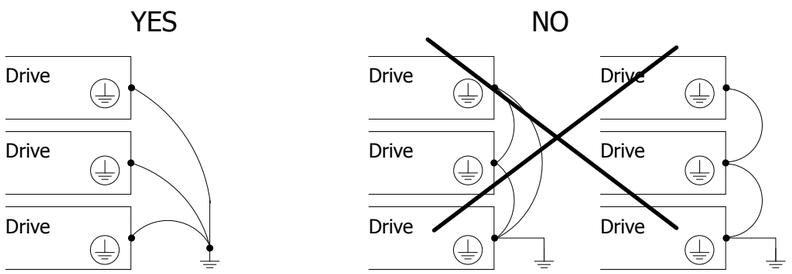
Secure the ground connection of the devices to the protective ground (PE) of your panel at a single point and in conformance with local and national electrical code requirements. Depending on these local and national code requirements, a minimum wire section (gauge) of 10 mm² (6 AWG) may be required to meet standards limiting leakage current.

⚠ DANGER

ELECTRIC SHOCK

- Properly ground your panel and equipment before applying power.
- Always comply with local wiring requirements regarding grounding cables and grounding cable shields.
- Ground devices independently at a single point.

Failure to follow these instructions will result in death or serious injury.



- Ensure that the resistance of ground is one ohm or less.
- When grounding several drives, you must connect each one directly, as as shown in the figure to the left.
- Do not loop the ground cables or connect them in series.

General project information

⚠ DANGER

LOSS OF CONTROL, ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- The designer of the machine and its control system must consider their potential failure modes and provide a means to achieve a safe state during and after a failure by installing and thoroughly testing security control devices.
- Power line and output circuits must be wired and fused in compliance with local and national regulatory requirements for the rated current and voltage of the particular equipment.
- The designer of the machine and its control system is responsible for compliance with all international and national electrical standards in force concerning protective grounding of all equipment.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

REGULATORY INCOMPATIBILITY

Be sure that all equipment applied and systems designed comply with all applicable local, regional, and national regulations and standards.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

INFORMATIONS ABOUT CHANGES

No.	Date	Editor	Changes	Plant	Location	Page
-	-	-	-	-	-	-

Wiring Definitions

Main circuit	Black	1,5/2,5mm²
Neutral wire	Light-blue	1,5/2,5mm²
Control circuit 230V ac	Red	0,75-2,5mm²
Control circuit 120V ac	Red	0,75-2,5mm²
Control circuit 24V dc	Dark-blue	0,75-2,5mm²
Control circuit 0V dc	Dark-blue/white	0,75-2,5mm²
Control circuit ±15V dc	Violet	0,75mm²
External voltage	Orange	0,75-2,5mm²

Cable glands: If shielded cable use metal!

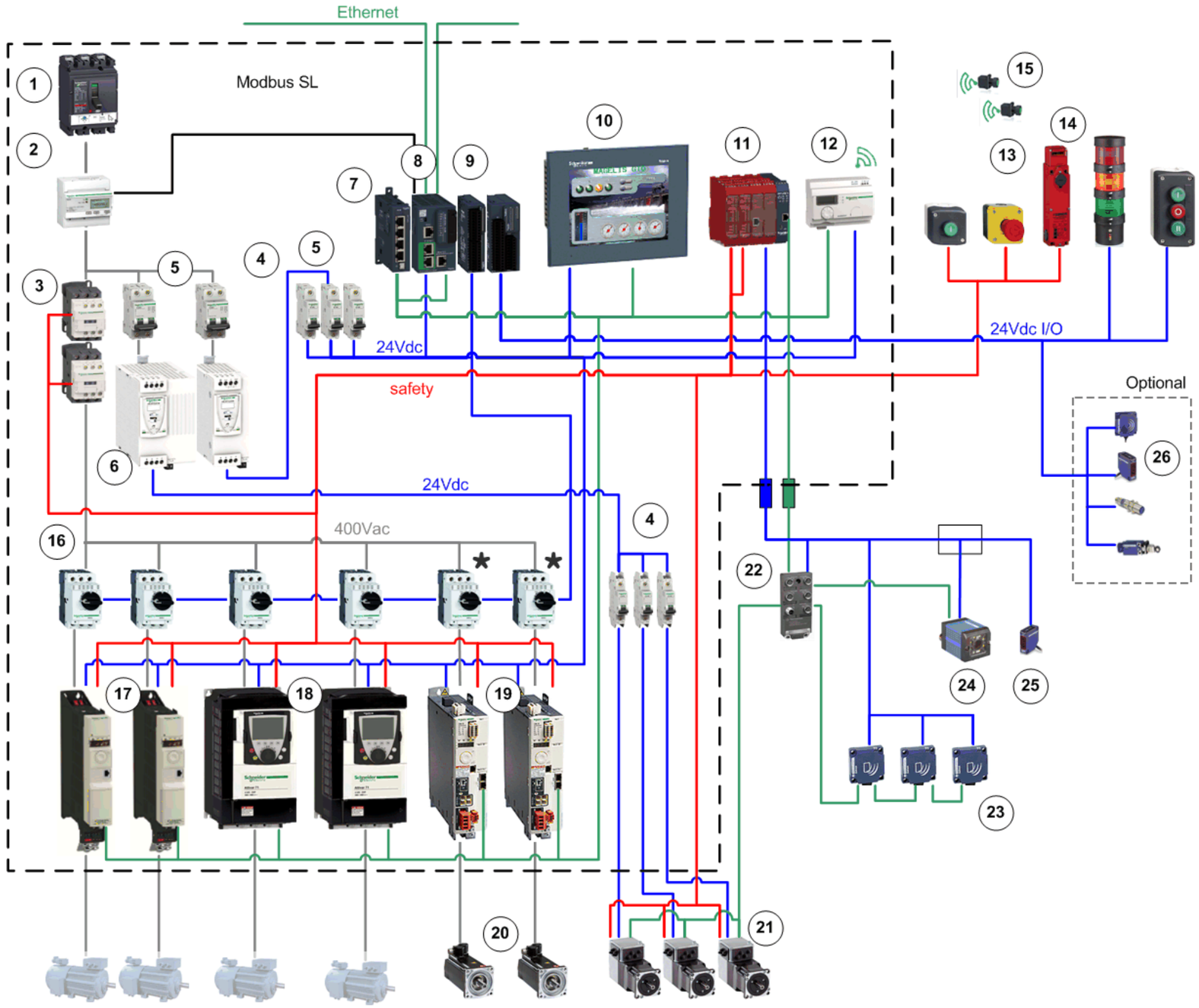
Plugdefinitions

+MC-XSETH01 = RJ45/M12 adapter - Ethernet
+MC-XSETH02 = RJ45/M12 adapter - Ethernet
+MC-XSETH03 = RJ45/M12 adapter - Ethernet

Terminaldefinitions

+MC-XD01 = Power Supply 400V ac
+MC-X01 = Power Supply 24V dc Distribution intern
+MC-X02 = Power Supply 24V dc Distribution ILx2K-Drives
+LOC-U04-XG01 = Control Terminals Vision Sensor

Compact / EtherNetIP / Logic Controller M251



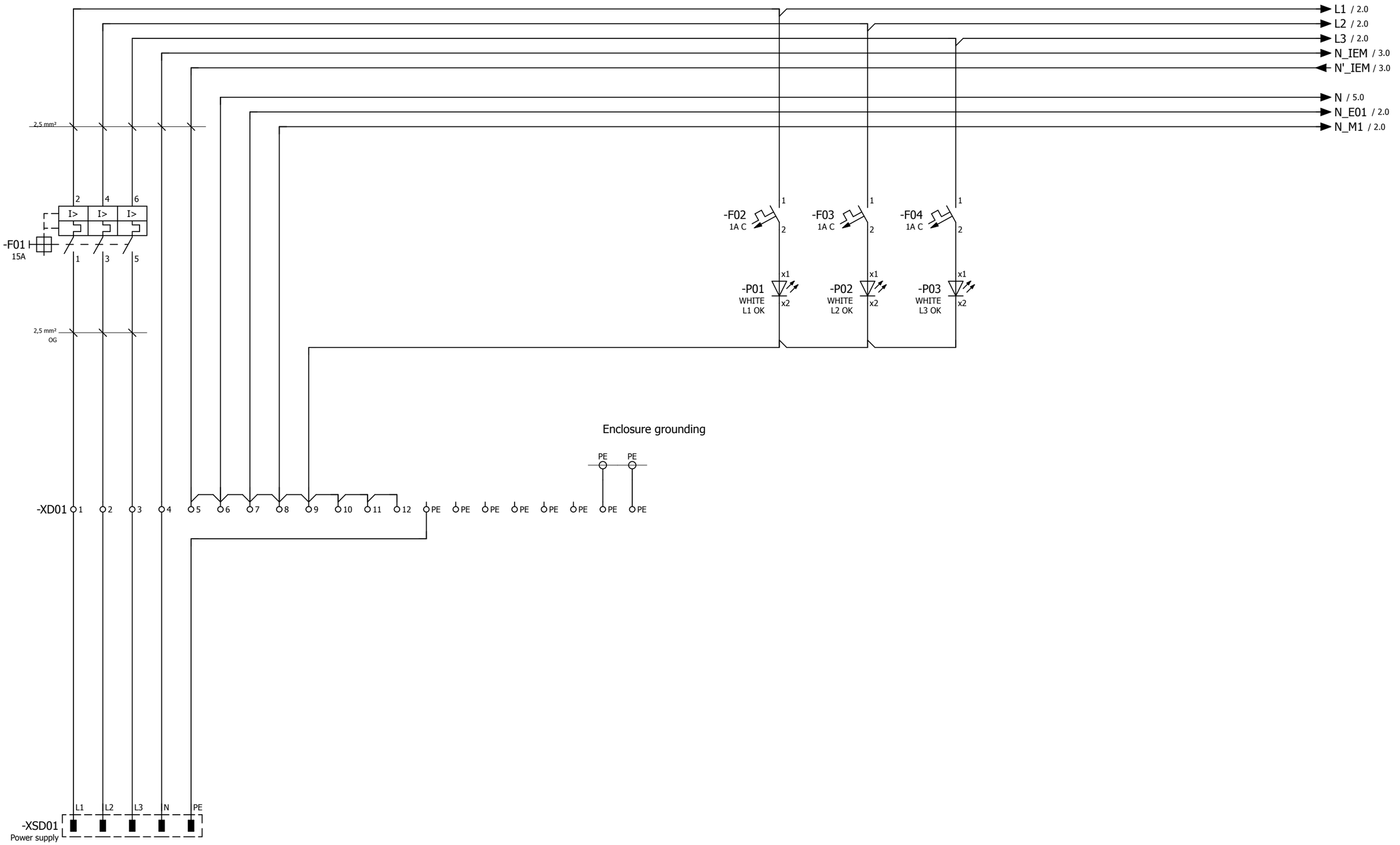
1 PowerPact circuit breaker
2 Energy Meter iEM3150
3 TeSysD Contactor
4 Multi9 Circuit-breaker C60 UL489
5 Multi9 Circuit-breaker C60 UL1077
6 Phaseo Power-Supply 24Vdc
7 Modicon TM4 Ethernet Switch 4 ports
8 Modicon Logic Controller M251
9 Modicon TM3 I/O expansion modules
10 Magelis touch panel HMI GTO
11 Preventa XPS MCM Modular Safety Controller
12 Harmony Wireless Receiver ZBRN1 (MB TCP)
13 Harmony signaling/control devices
14 Preventa Safety Interlock Switch XCSL
15 Harmony wireless push-buttons
16 TeSys Motor circuit-breaker GV2P
17 Altivar 32 + Com. Module (EIP)
18 Altivar 71 + Com. Module (EIP)
19 Lexium 32M+ Com. Module (EIP)
20 Servo motor BSH
21 Integrated Lexium (ILA2K, ILE2K, ILS2K)
22 ConneXium Ethernet switch IP67
23 OsiSense XG RFID station
24 OsiSense XUW vision sensor
25 OsiSense sensor to trigger the vision sensor
26 OsiSense optional sensors

★ For complying the UL standard, fuses must be used for the branch circuit protection in front of the Lexium servo drives.

+DEF/1

=WIRD+MC#PSD/1

			Date	2015/09/17	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Plant Layout Cabinet	=COMM	+LAYOUT
			Ed.	kJakob					
			Appr		TVDA			EIO0000002282.00	Page 1
Modification	Date	Name	Original		Replacement of	Replaced by		=COMM+LAYOUT/1	of 1

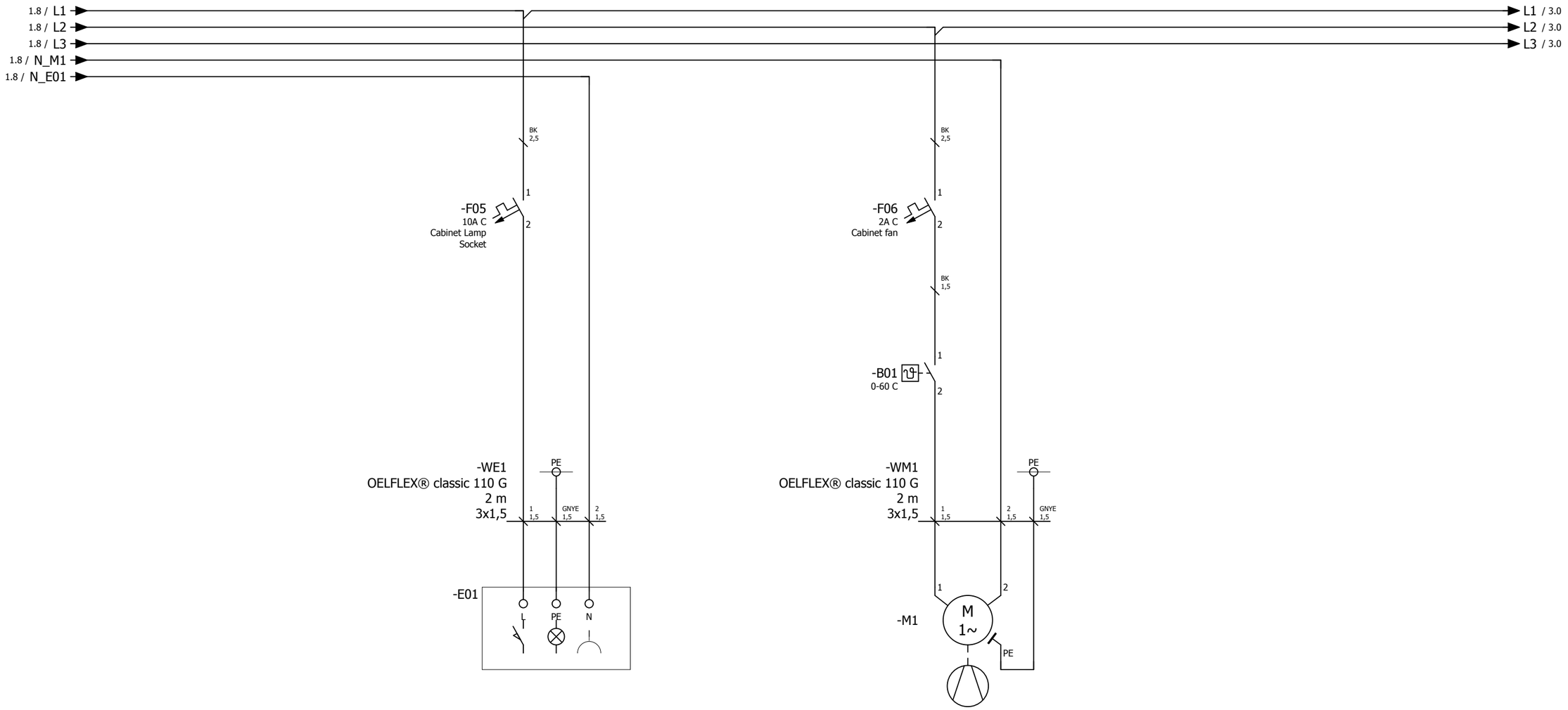


Note: In feed power supply must be adapted accordingly to the power consumption of the final plant.

Power supply

Phase control

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power supply feed in	=WIRD	+MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 1
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#PSD/1	of 12

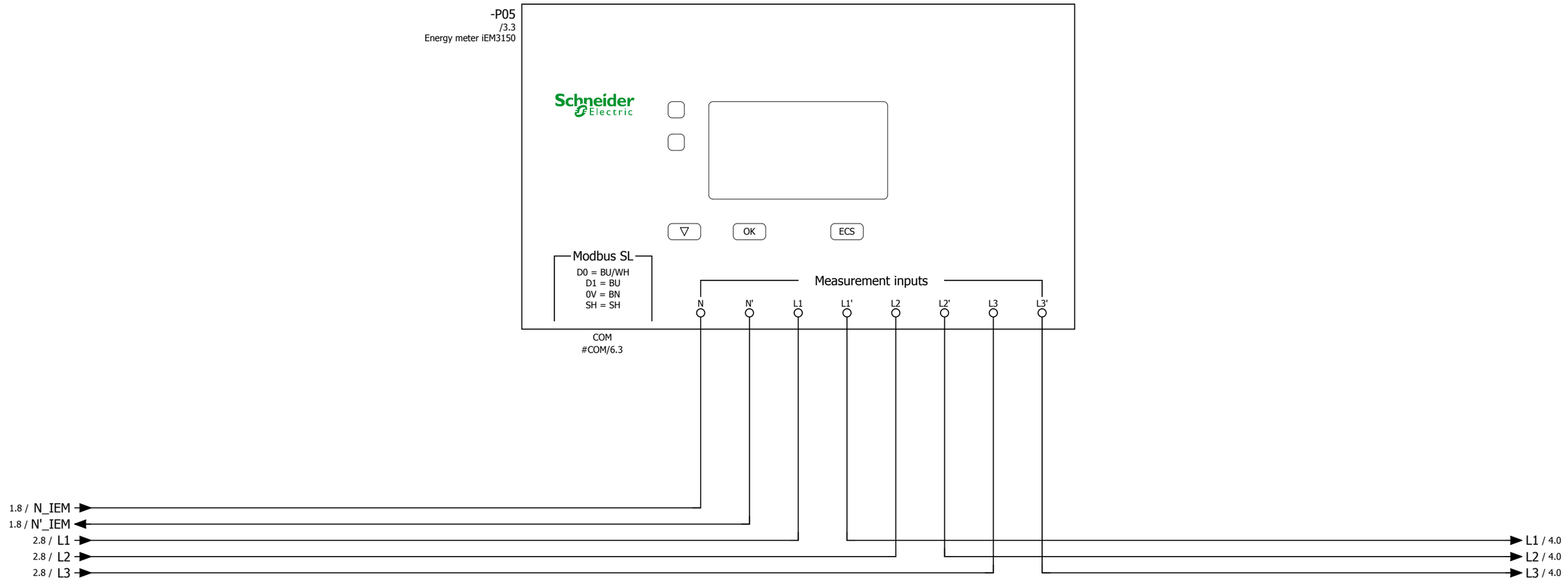


Cabinet Lamp, Socket

Cabinet fan

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Cabinet Lamp, Socket, Fan		=WIRD +MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 2
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#PSD/2	of 12

-P05
/3.3
Energy meter iEM3150



Energy Meter

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Energy Measurement - iEM3150	=WIRD	+MC
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3.8 / L1
3.8 / L2
3.8 / L3

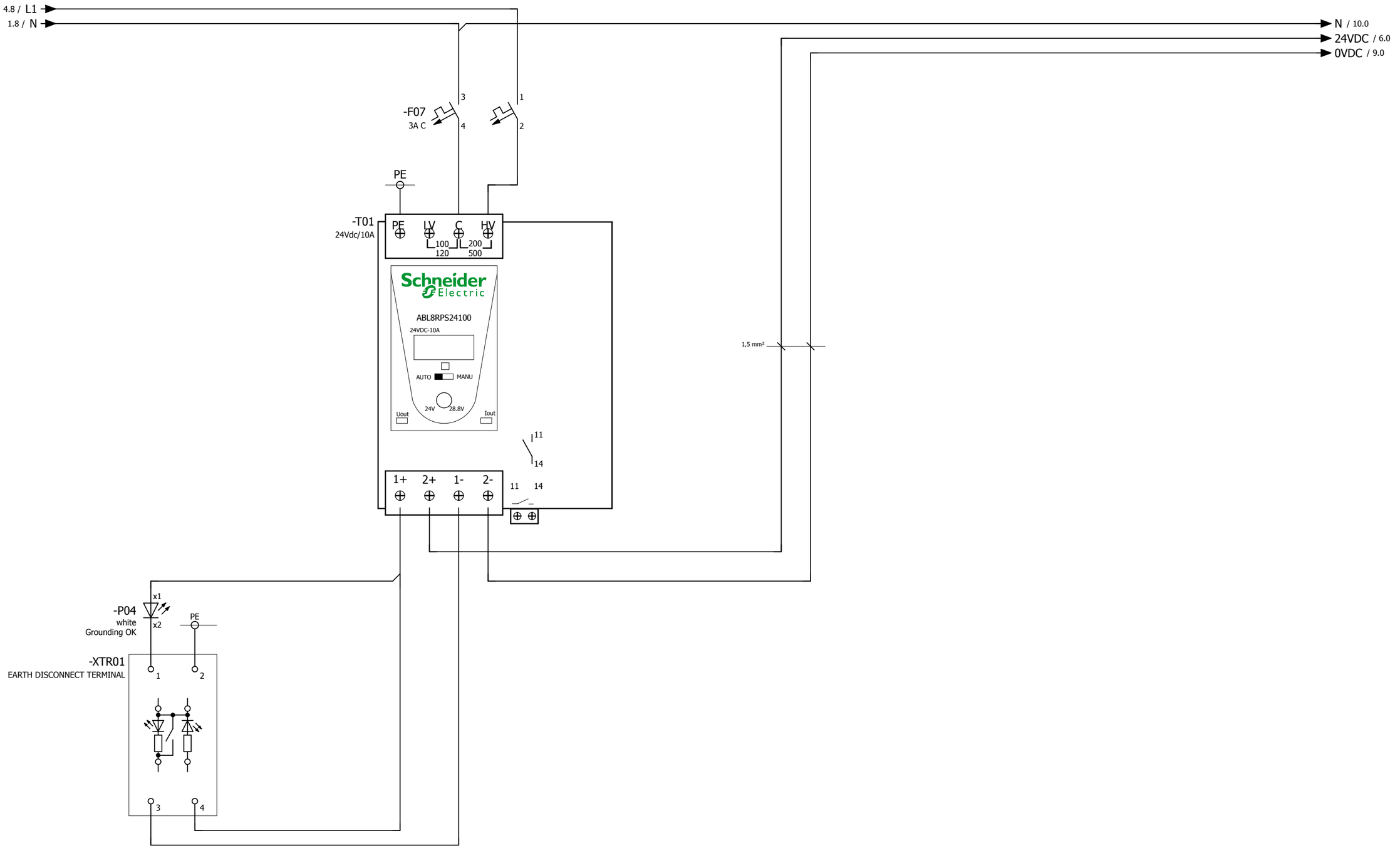
L1 / 5.0
L2 / 10.0

#SAF-Q01
#SAF/1.2
1 3 5
2 4 6

#SAF-Q02
#SAF/1.3
1 3 5
2 4 6

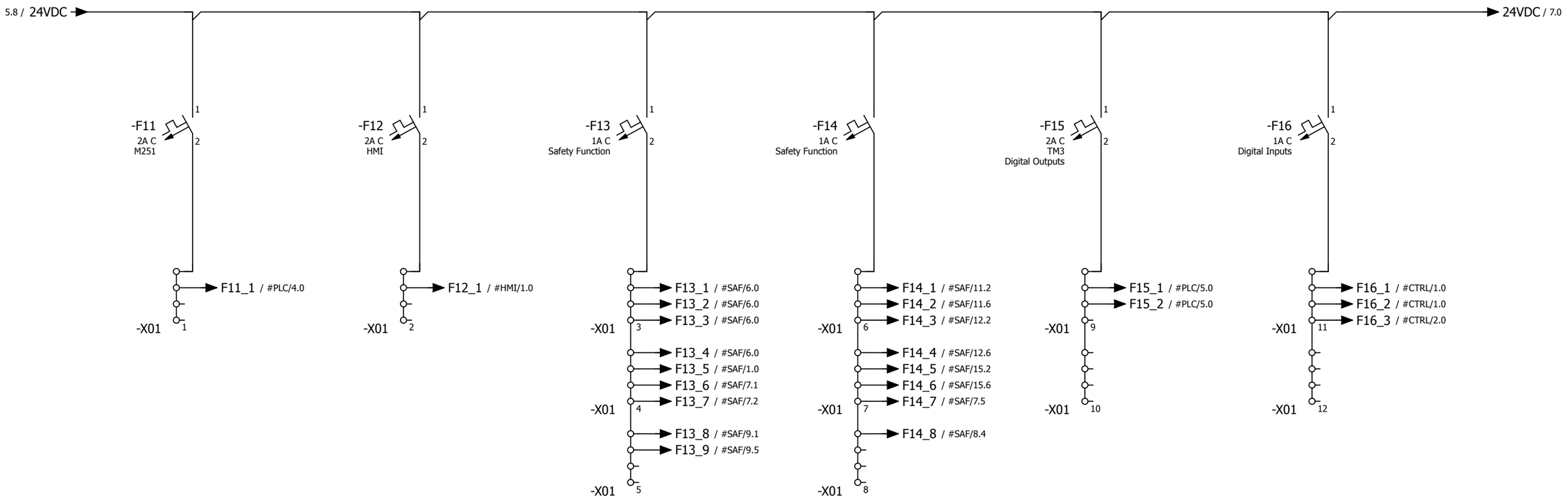
1L1 / #MOV/1.0
1L2 / #MOV/1.0
1L3 / #MOV/1.0

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Emergency Stop Main Power Supply		=WIRD +MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 4
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#PSD/4	of 12



Earth disconnect terminal

Power Supply



M251
power supply 24V dc

HMI
power supply 24V dc

Safety Function
power supply 24V dc

Safety Function
power supply 24V dc

TM3 Digital Outputs
power supply 24V dc

Digital Inputs
power supply 24V dc

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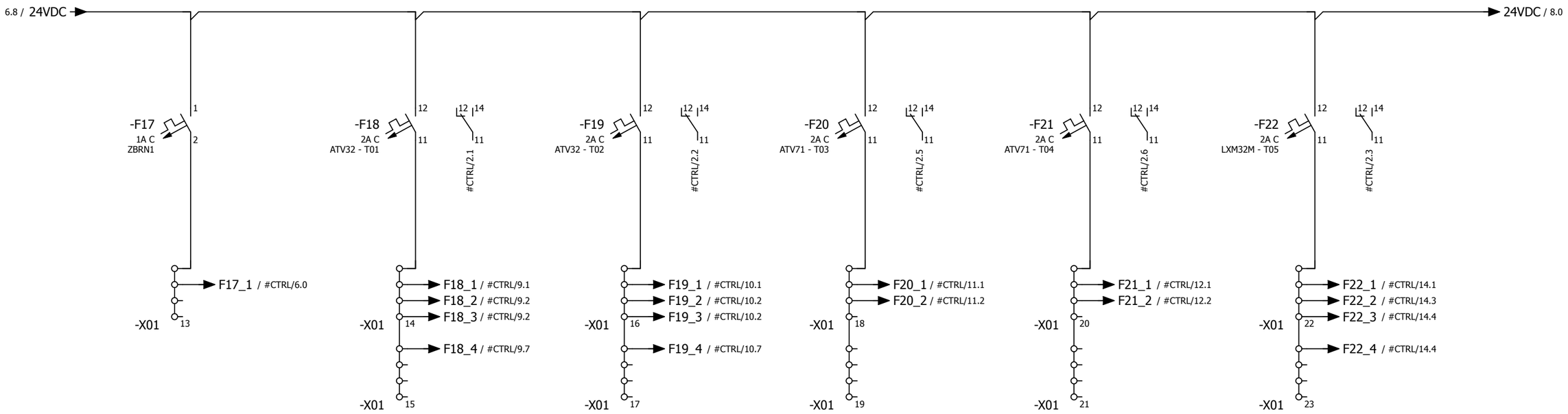
			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply 24V dc	=WIRD	+MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 6
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PSD/6	of 12



ZBRN1
power supply 24V dc

ATV32 - T01
power supply 24V dc

ATV32 - T02
power supply 24V dc

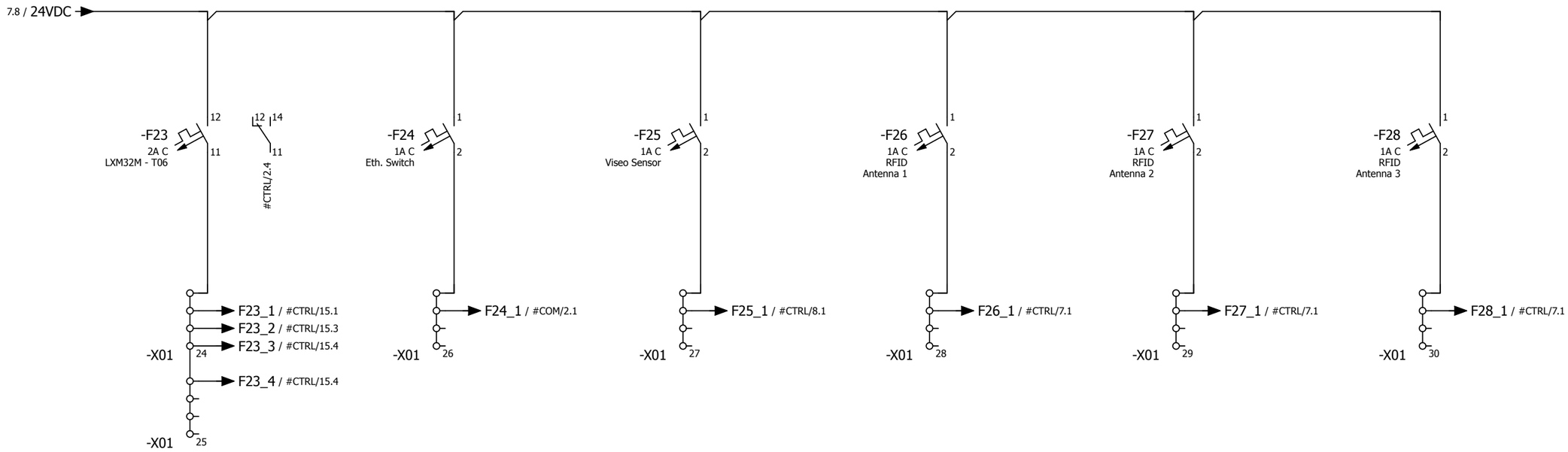
ATV71 - T03
power supply 24V dc

ATV71 - T04
power supply 24V dc

LXM32M - T05
power supply 24V dc

6 8

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply 24V dc	=WIRD	+MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 7
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PSD/7	of 12



LXM32M - T06
power supply 24V dc

Ethernet Switch
power supply 24V dc

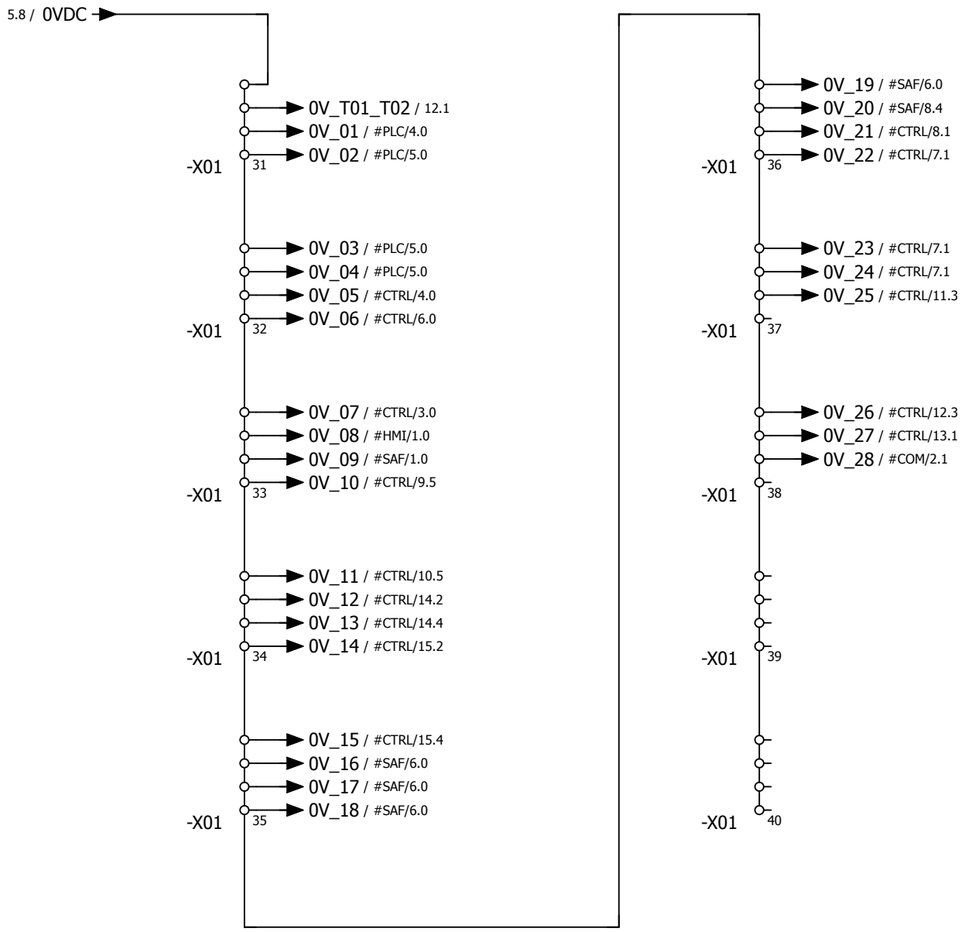
Vision Sensor
power supply 24V dc

RFID Antenna 1
power supply 24V dc

RFID Antenna 2
power supply 24V dc

RFID Antenna 3
power supply 24V dc

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply 24V dc	=WIRD	+MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 8
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PSD/8	of 12



Power supply 0V dc

Power supply 0V dc

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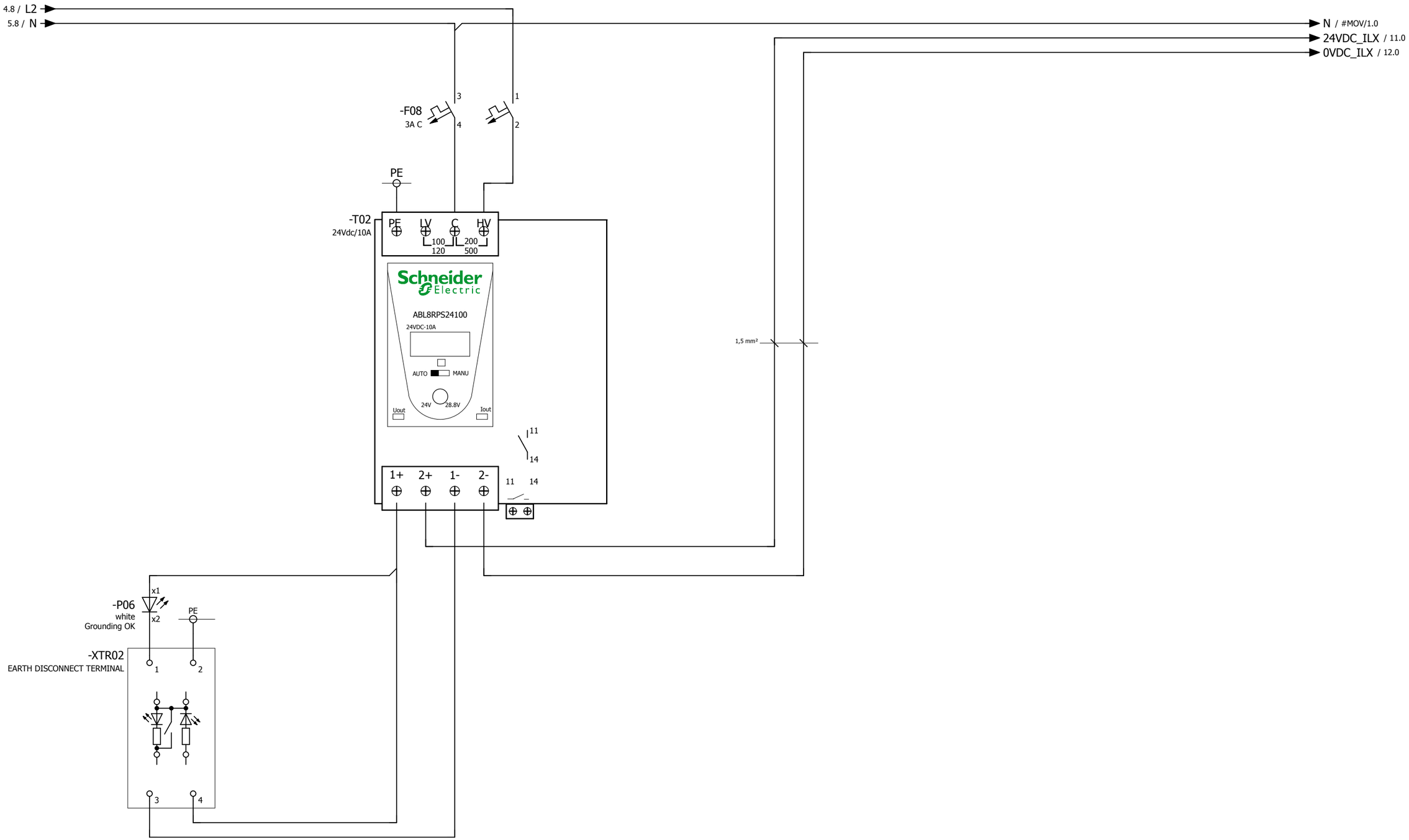
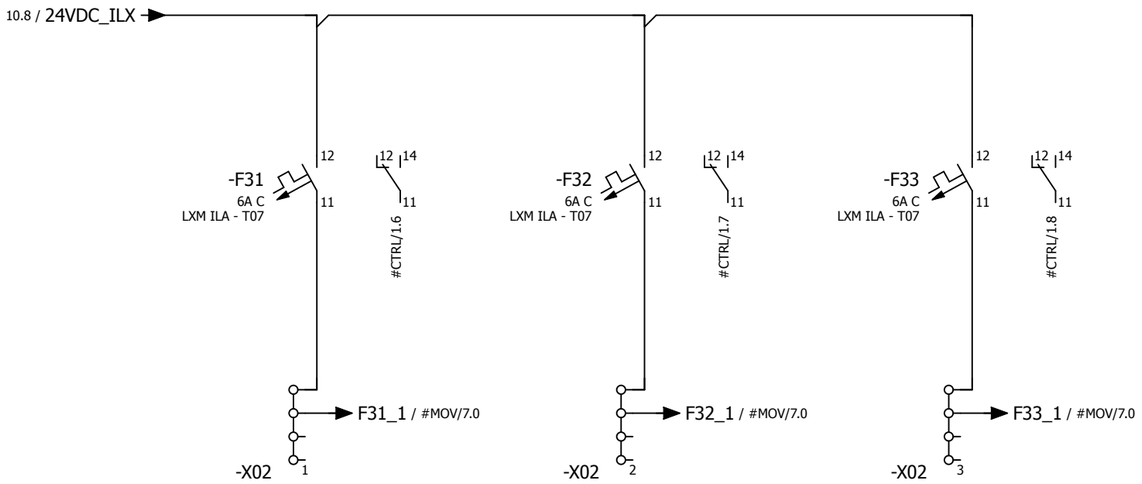
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PSD/9	of 12



Earth disconnect terminal

Power Supply ILx2K Drives

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply 24V dc ILx2K		=WIRD +MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 10
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PSD/10	of 12



LXM ILA - T07
power supply 24V dc

LXM ILE - T08
power supply 24V dc

LXM ILS - T09
power supply 24V dc

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply 24V dc ILx2K	=WIRD	+MC
			Ed.	kJakob					#PSD
			Appr		TVDA			EIO0000002282.00	Page 11
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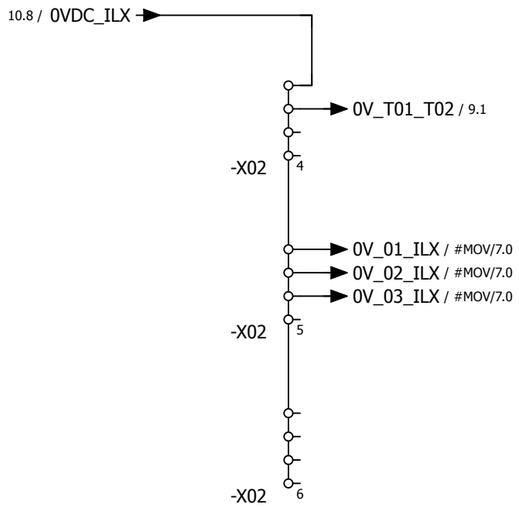
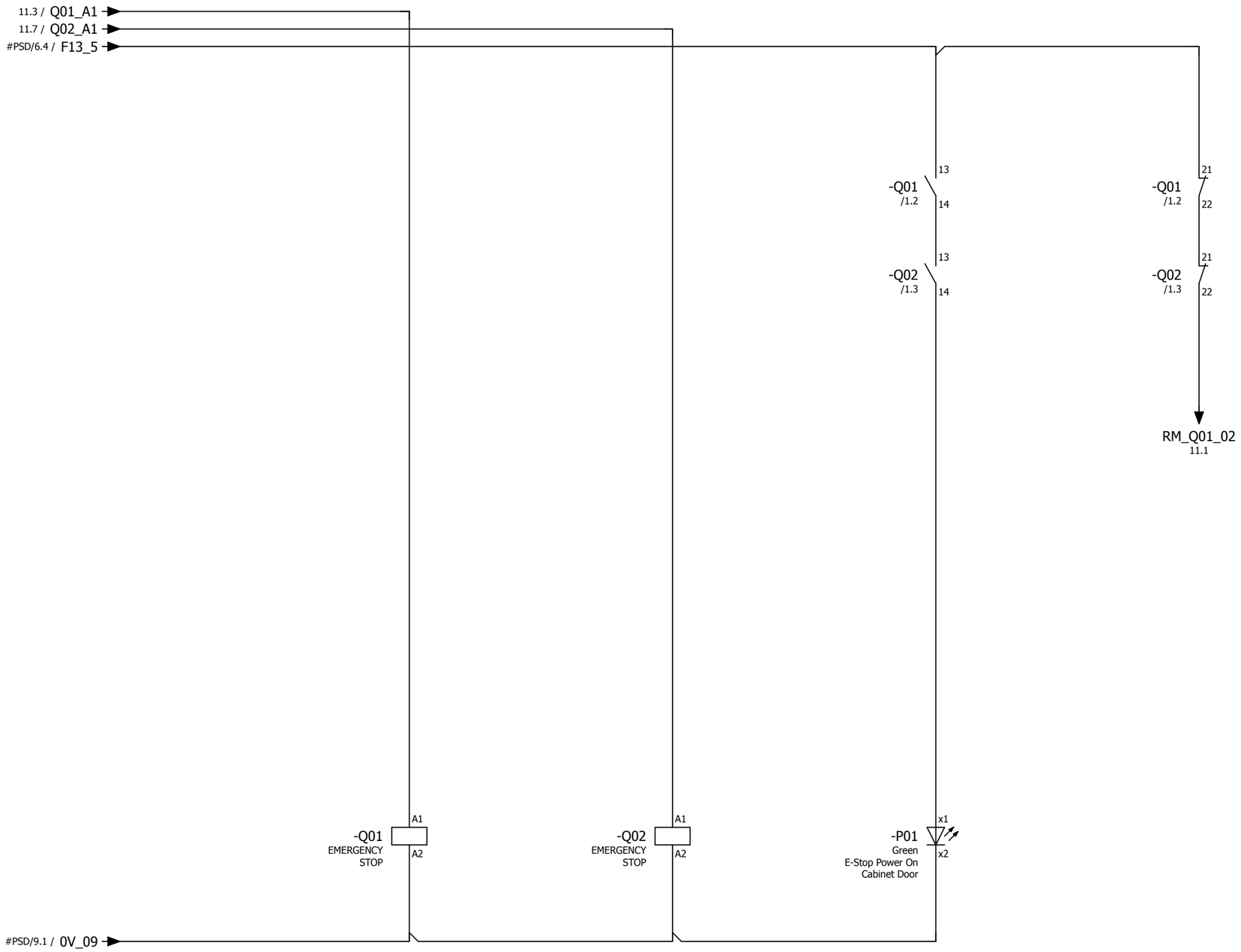


Power supply 0V dc
ILx Drives

11 #SAF/1

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply 0V dc ILx2K		=WIRD	+MC
			Ed.	kJakob						#PSD
			Appr		TVDA			EIO0000002282.00		Page 12
Modification	Date	Name	Original		Replacement of	Replaced by			=WIRD+MC#PSD/12	of 12



1 2 #PSD/4.2
3 4 #PSD/4.2
5 6 #PSD/4.2
13 14 /1.5
21 22 /1.6

1 2 #PSD/4.2
3 4 #PSD/4.2
5 6 #PSD/4.2
13 14 /1.5
21 22 /1.6

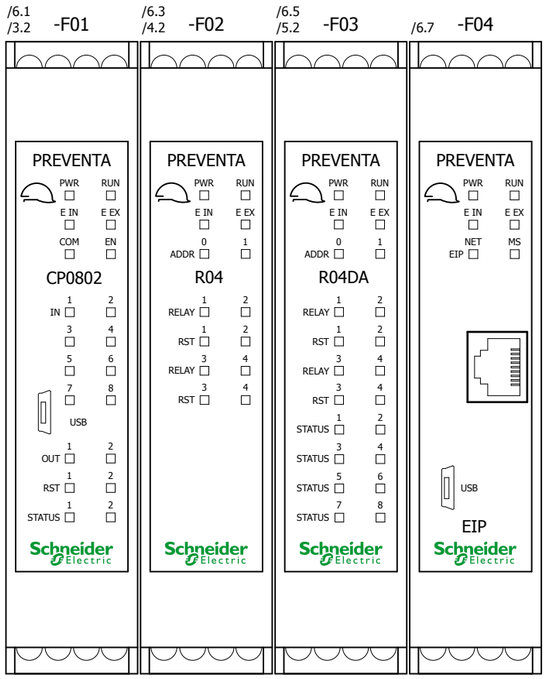
Emergency Stop
Main Contactor 1

Emergency Stop
Main Contactor 2

Emergency Stop
Power-ON

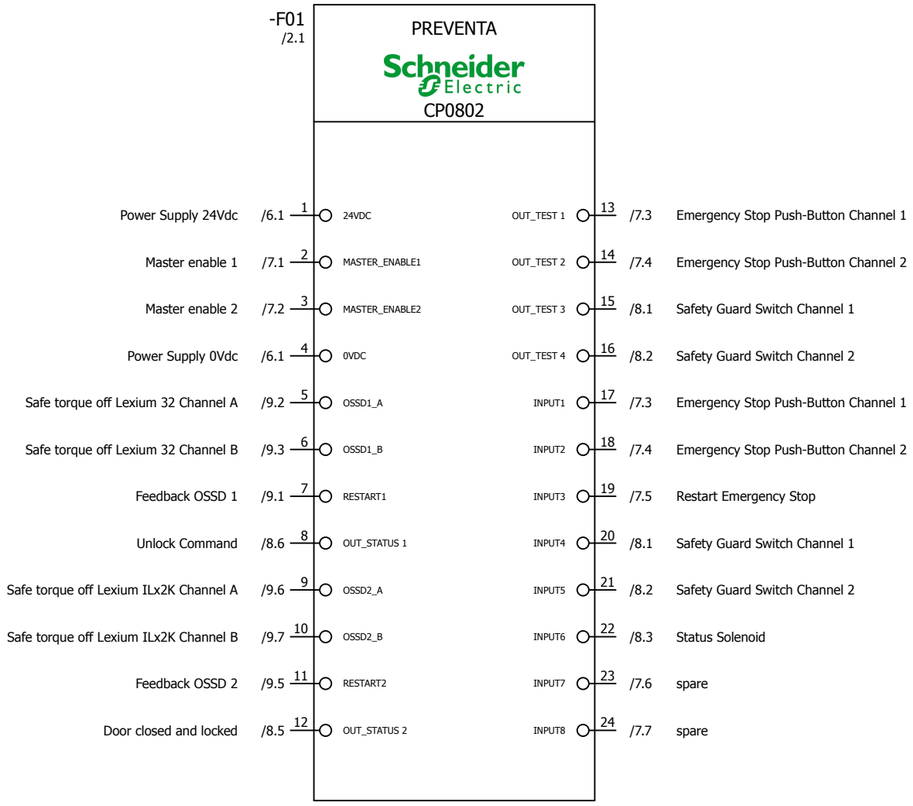
Emergency Stop
Feedback loop

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Emergency Stop - Main Contactors	=WIRD +MC
			Ed.	kJakob				#SAF
			Appr		TVDA			EIO0000002282.00 Page 1
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/1 of 16

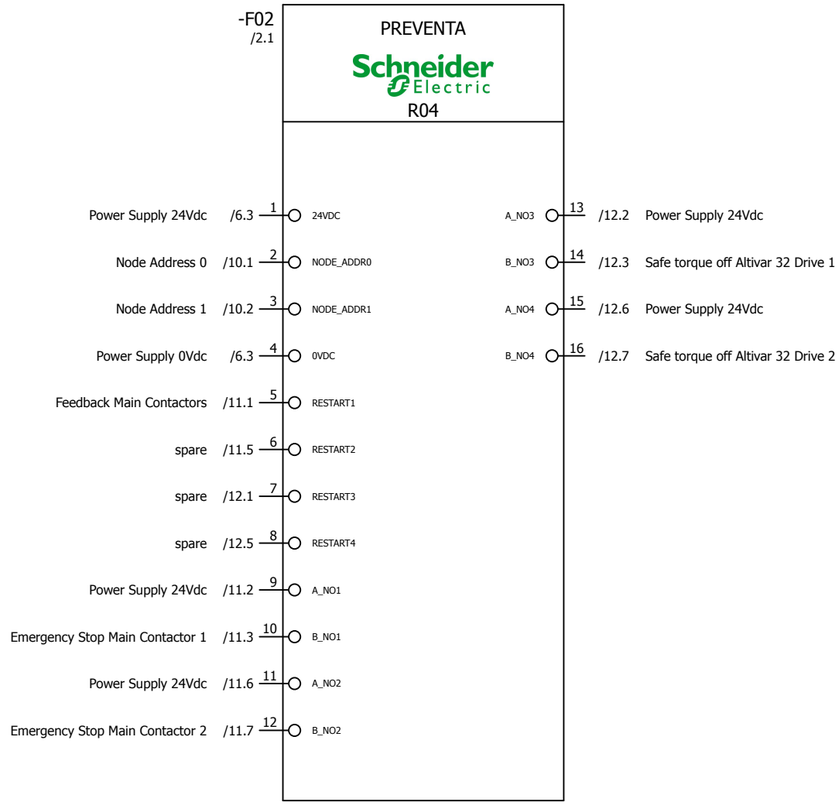


1 3

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Assembly layout Safety Controller	=WIRD	+MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 2
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#SAF/2	of 16



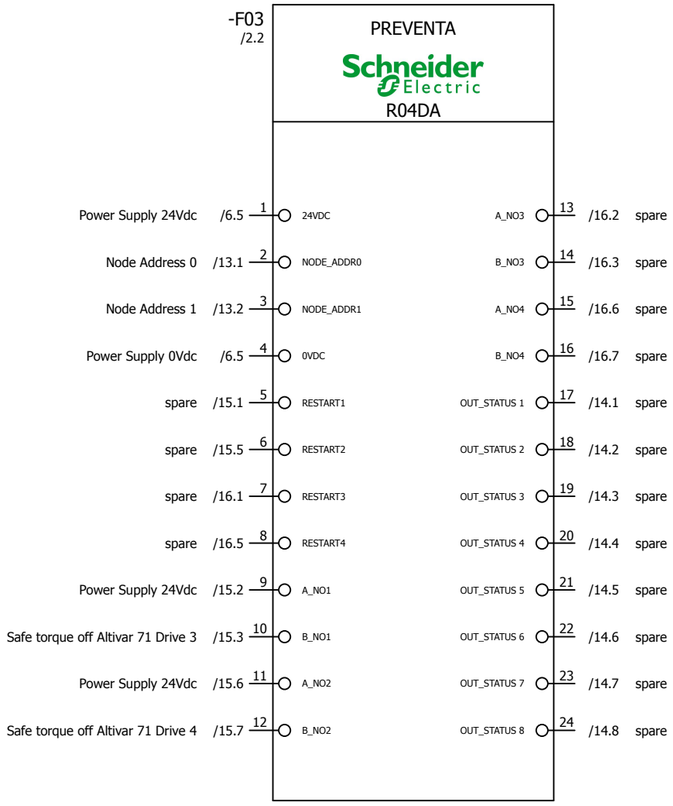
XPS MCM
Controller



XPS MCM
Expansion
Module R04

3 5

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Overview	=WIRD	+MC
			Ed.	kJakob			Expansion module R04		#SAF
			Appr		TVDA			EIO0000002282.00	Page 4
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#SAF/4	of 16

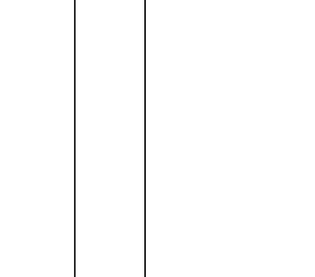


XPS MCM
Expansion
Module R04DA

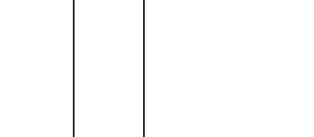
4 6

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Overview	=WIRD	+MC
			Ed.	kJakob			Expansion module R04DA		#SAF
			Appr		TVDA			EIO0000002282.00	Page 5
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#SAF/5	of 16

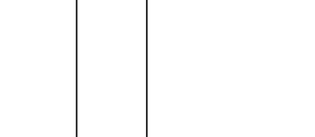
#PSD/6.4 / F13_1
#PSD/6.4 / F13_2
#PSD/6.4 / F13_3
#PSD/6.4 / F13_4
#PSD/9.1 / 0V_16
#PSD/9.1 / 0V_17
#PSD/9.1 / 0V_18
#PSD/9.3 / 0V_19



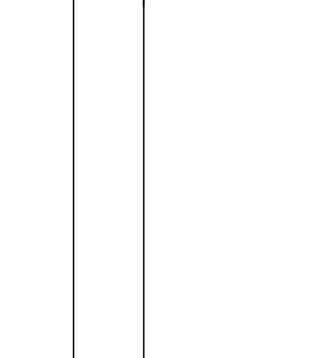
Power Supply
XPS MCM
Controller



Power Supply
XPS MCM
Expansion Module R04

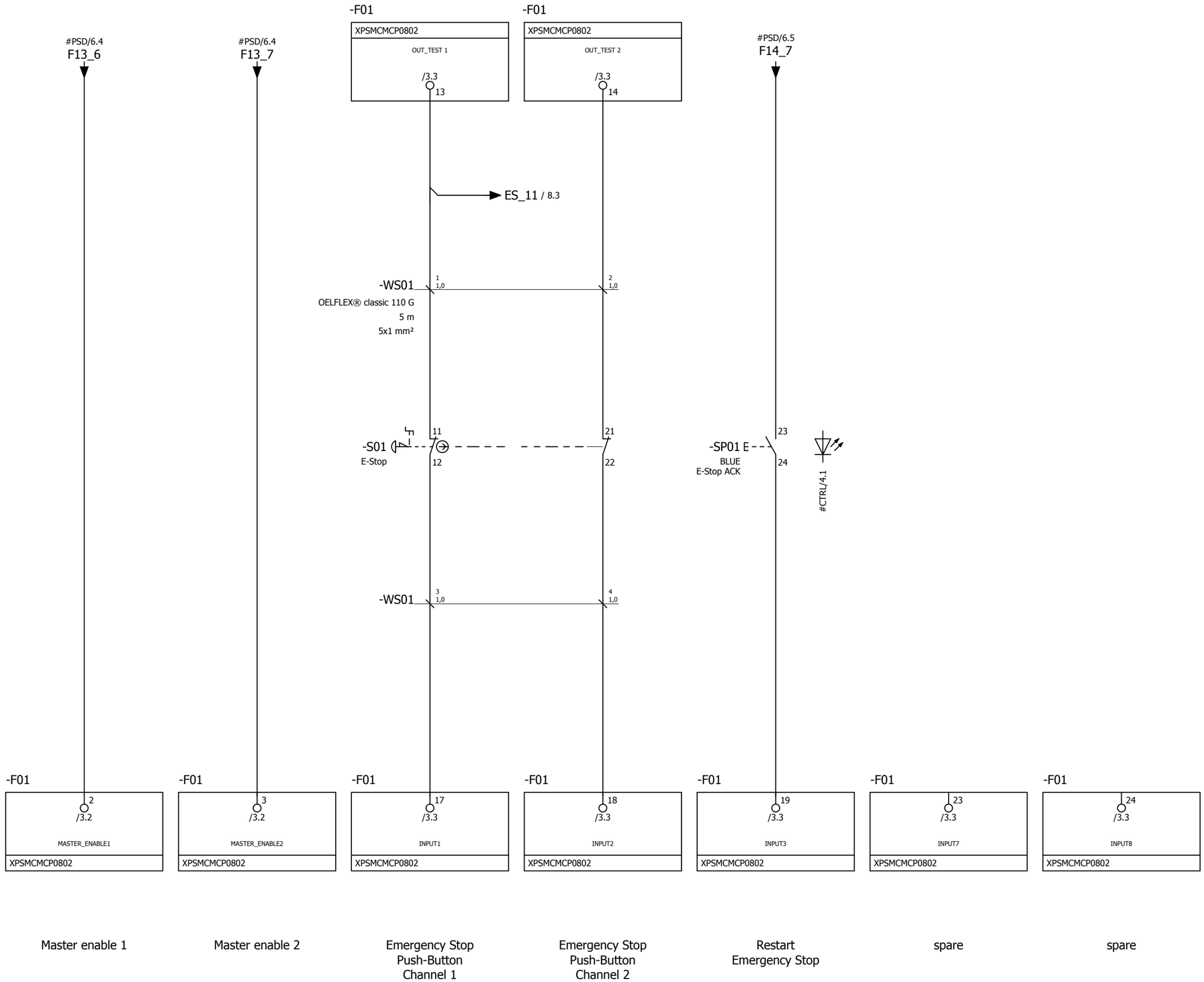


Power Supply
XPS MCM
Expansion Module R04DA



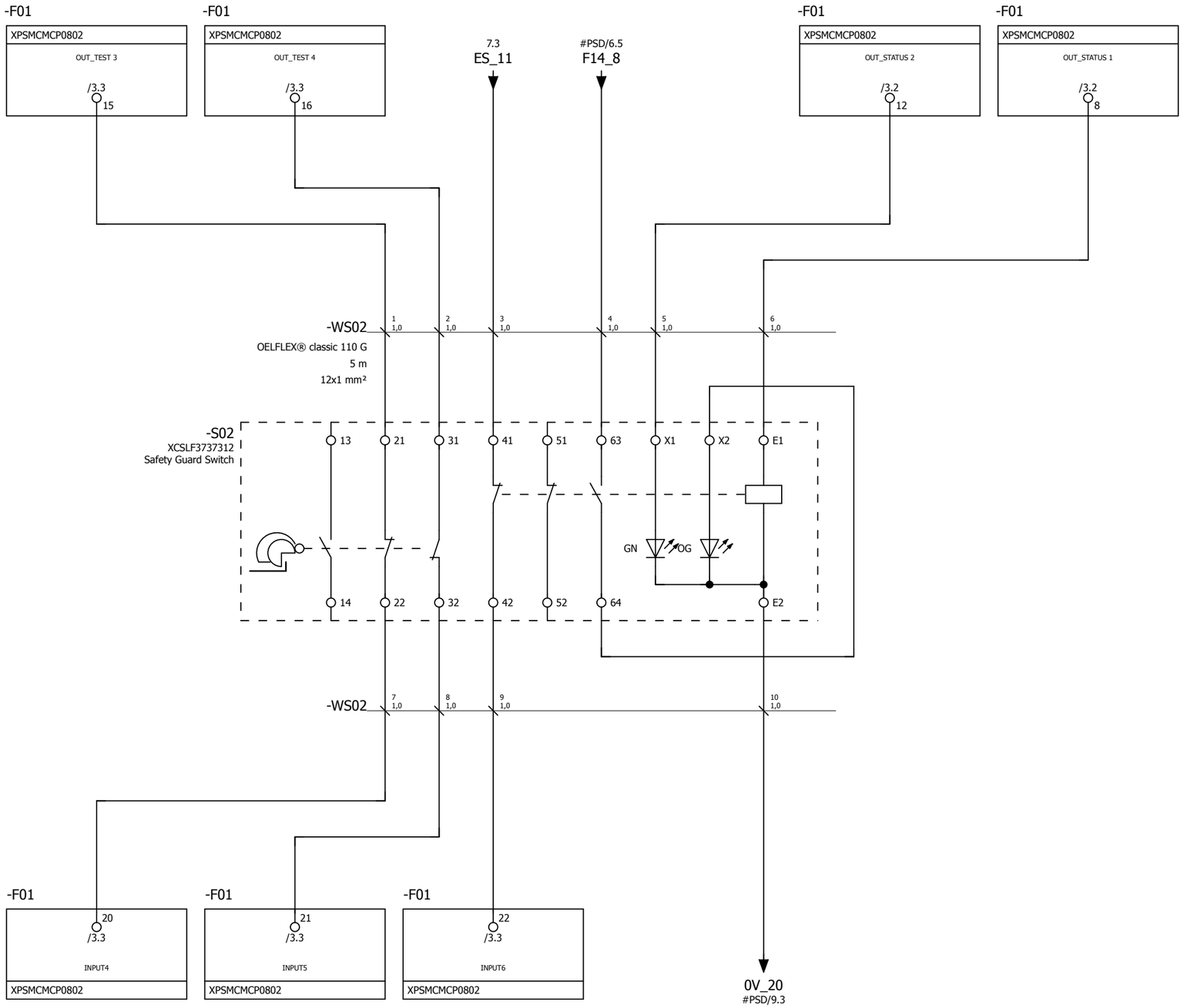
Power Supply
XPS MCM
Communication
Module

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply Safety Controller & Expansion Modules	=WIRD +MC
			Ed.	kJakob				#SAF
			Appr		TVDA			EIO0000002282.00 Page 6
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/6 of 16



6 8

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs/Outputs E-Stop Safety Controller	=WIRD	+MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 7
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#SAF/7	of 16



Safety Guard Switch
Channel 1

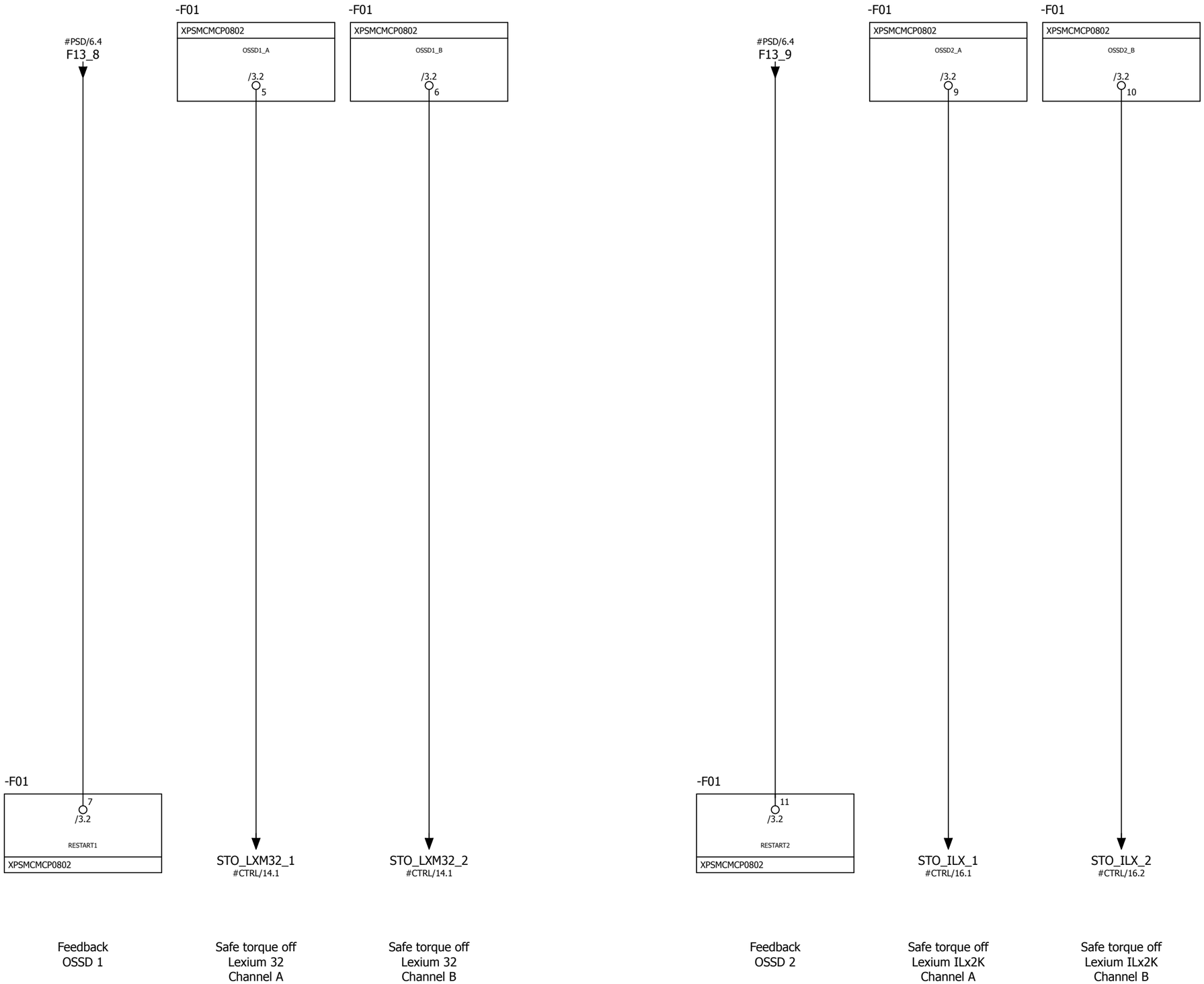
Safety Guard Switch
Channel 2

Status
Solenoid

Door
closed and locked

Unlock
Command

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs/Outputs Door-Guard Safety Controller	=WIRD +MC
			Ed.	kJakob				#SAF
			Appr		TVDA		EIO0000002282.00	Page 8
Modification	Date	Name	Original		Replacement of / Replaced by		=WIRD+MC#SAF/8	of 16



Feedback OSSD 1

Safe torque off Lexium 32 Channel A

Safe torque off Lexium 32 Channel B

Feedback OSSD 2

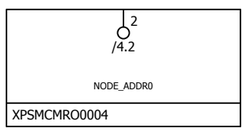
Safe torque off Lexium ILx2K Channel A

Safe torque off Lexium ILx2K Channel B

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs/Outputs OSSD 1 & 2 Safety Controller	=WIRD +MC
			Ed.	kJakob				#SAF
			Appr		TVDA			EIO0000002282.00 Page 9
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/9 of 16

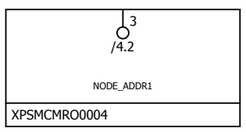
0	1	2	3	4	5	6	7	8	9

-F02



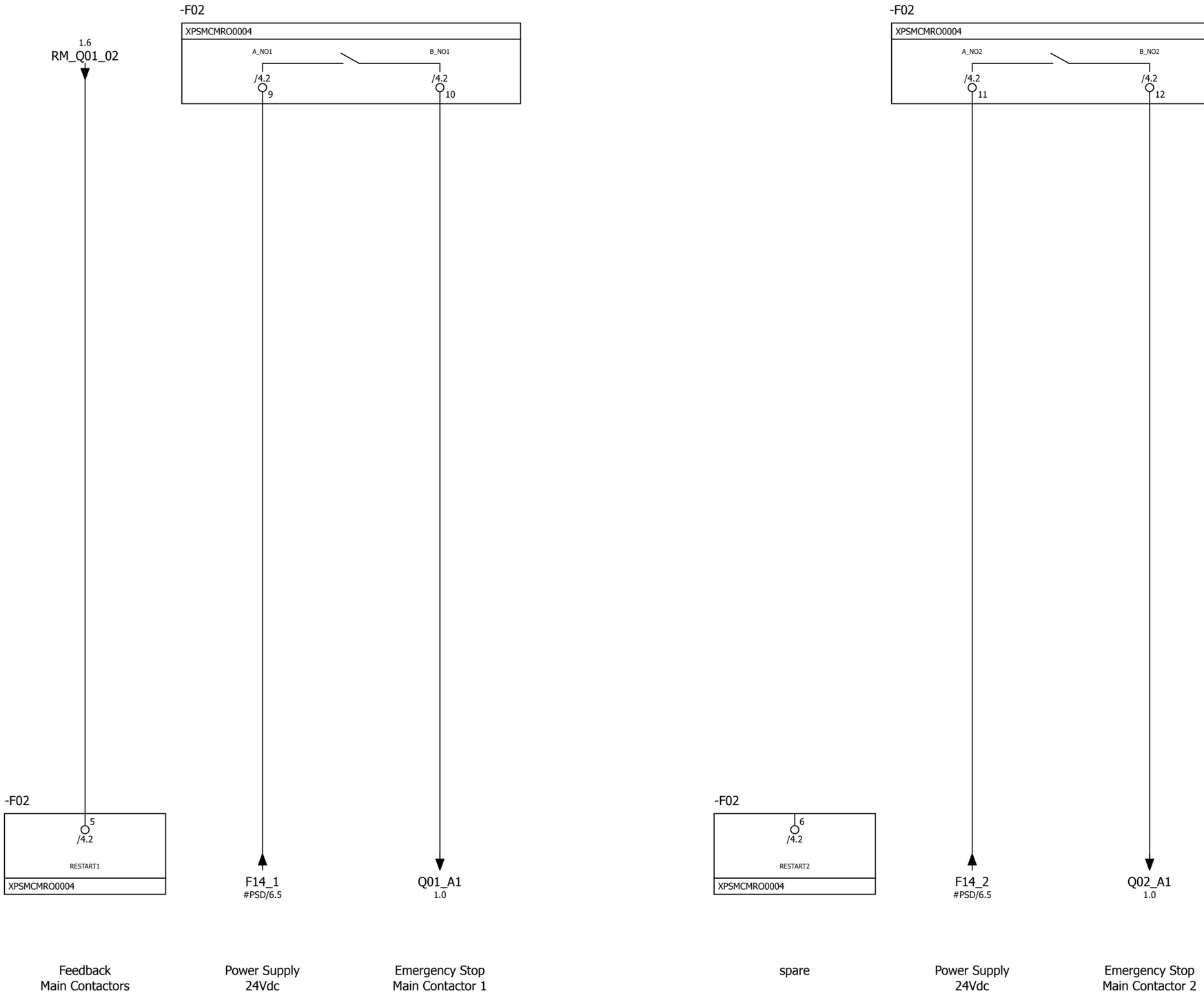
Node Address 0

-F02



Node Address 1

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs Expansion module R04		=WIRD +MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 10
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/10	of 16



			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs/Outputs NO 1 & 2 Expansion module R04	=WIRD	+MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 11
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/11	of 16

-F02

XPSMCMRO0004

A_NO3 B_NO3

/4.3 13

/4.3 14

-F02

XPSMCMRO0004

A_NO4 B_NO4

/4.3 15

/4.3 16

-F02

7

/4.2

RESTART3

XPSMCMRO0004

F14_3

#PSD/6.5

STO_ATV32_1

#CTRL/9.3

-F02

8

/4.2

RESTART4

XPSMCMRO0004

F14_4

#PSD/6.5

STO_ATV32_2

#CTRL/10.3

spare

Power Supply
24Vdc

Safe torque off
Altivar 32
Drive 1

spare

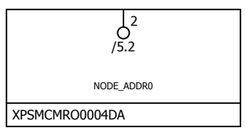
Power Supply
24Vdc

Safe torque off
Altivar 32
Drive 2

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs/Outputs NO 3 & 4 Expansion module R04		=WIRD +MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 12
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/12	of 16

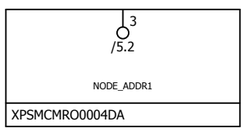
0	1	2	3	4	5	6	7	8	9

-F03



Node Address 0

-F03



Node Address 1

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs Expansion module R04DA		=WIRD +MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 13
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/13	of 16

0	1	2	3	4	5	6	7	8	9

1	2	3	4	5	6	7	8
-F03	-F03	-F03	-F03	-F03	-F03	-F03	-F03
XPSMCMRO0004DA	XPSMCMRO0004DA	XPSMCMRO0004DA	XPSMCMRO0004DA	XPSMCMRO0004DA	XPSMCMRO0004DA	XPSMCMRO0004DA	XPSMCMRO0004DA
OUT_STATUS 1	OUT_STATUS 2	OUT_STATUS 3	OUT_STATUS 4	OUT_STATUS 5	OUT_STATUS 6	OUT_STATUS 7	OUT_STATUS 8
/5.3 17	/5.3 18	/5.3 19	/5.3 20	/5.3 21	/5.3 22	/5.3 23	/5.3 24
spare	spare	spare	spare	spare	spare	spare	spare

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Outputs Expansion module R04DA		=WIRD +MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 14
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/14	of 16

-F03

XPSMCMRO0004DA

A_NO1 — B_NO1

/5.2 — 9

/5.2 — 10

F14_5
#PSD/6.5

Power Supply
24Vdc

STO_ATV71_1
#CTRL/11.6

Safe torque off
Altivar 71
Drive 3

-F03

XPSMCMRO0004DA

A_NO2 — B_NO2

/5.2 — 11

/5.2 — 12

F14_6
#PSD/6.5

Power Supply
24Vdc

STO_ATV71_2
#CTRL/12.6

Safe torque off
Altivar 71
Drive 4

-F03

/5.2 — 5

RESTART1

XPSMCMRO0004DA

spare

-F03

/5.2 — 6

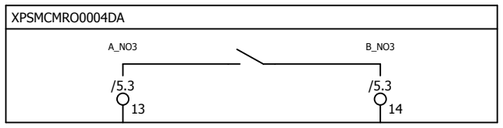
RESTART2

XPSMCMRO0004DA

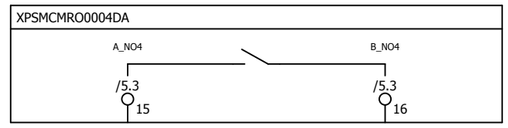
spare

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs/Outputs NO 1 & 2 Expansion module R04DA		=WIRD +MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 15
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#SAF/15	of 16

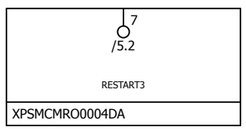
-F03



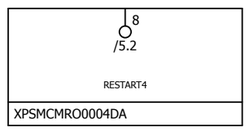
-F03



-F03



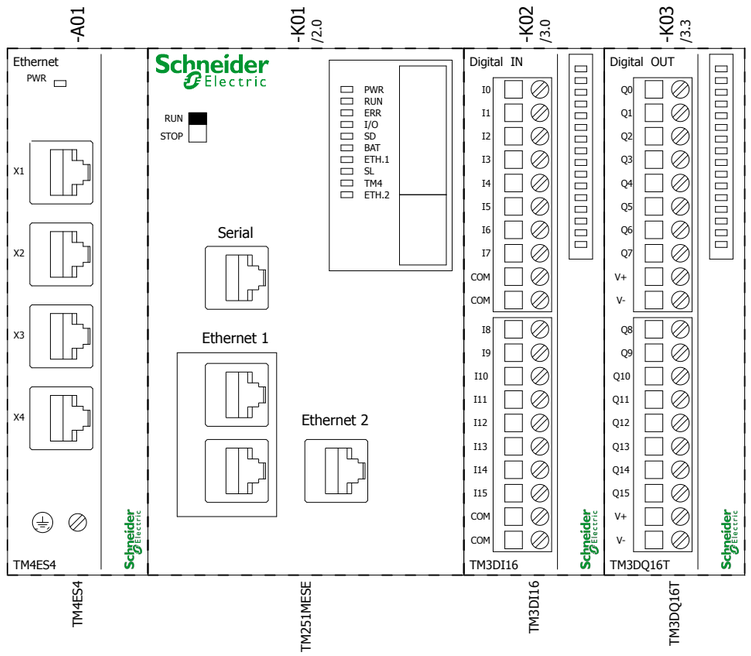
-F03



spare spare spare

spare spare spare

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital Inputs/Outputs NO 3 & 4 Expansion module R04DA	=WIRD	+MC
			Ed.	kJakob					#SAF
			Appr		TVDA			EIO0000002282.00	Page 16
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#SAF/16	of 16



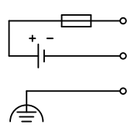
			Date	2015/10/21	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Assembly layout M251	=WIRD	+MC
			Ed.	kJakob					#PLC
			Appr		TVDA			EIO0000002282.00	Page 1
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PLC/1	of 5

-K01

Schneider Electric

TM251MESE
/4.1
/1.1

POWER



X0:+	/4.2	Power Supply PLC M251
X0:-	/4.2	
X0:PE	/4.2	

Communication

Serial Line	SL	#COM/6.2	
Ethernet 1 Port 1	ETH1.1	#COM/3.2	
Ethernet 1 Port 2	ETH1.2	#COM/3.2	
Ethernet 2	ETH2	#COM/4.2	

-K02

%IX1.0	X1:I0	#CTRL/1.1	Push Button Rerverse	
%IX1.1	X1:I1	#CTRL/1.2	Push Button Stop	
%IX1.2	X1:I2	#CTRL/1.3	Push Button Forward	
%IX1.3	X1:I3	#CTRL/1.4	spare	
%IX1.4	X1:I4	#CTRL/1.5	spare	
%IX1.5	X1:I5	#CTRL/1.6	Circuit breaker Lexium ILA	
%IX1.6	X1:I6	#CTRL/1.7	Circuit breaker Lexium ILE	
%IX1.7	X1:I7	#CTRL/1.8	Circuit breaker Lexium ILS	
	X1:COM0	/5.1	COM	
	X1:COM1	/5.2	COM	
%IX2.0	X2:I8	#CTRL/2.1	Motor circuit breaker Altivar 32 1	
%IX2.1	X2:I9	#CTRL/2.2	Motor circuit breaker Altivar 32 2	
%IX2.2	X2:I10	#CTRL/2.3	Motor circuit breaker Lexium 32 1	
%IX2.3	X2:I11	#CTRL/2.4	Motor circuit breaker Lexium 32 2	
%IX2.4	X2:I12	#CTRL/2.5	Motor circuit breaker Altivar 71 1	
%IX2.5	X2:I13	#CTRL/2.6	Motor circuit breaker Altivar 71 2	
%IX2.6	X2:I14	#CTRL/2.7	spare	
%IX2.7	X2:I15	#CTRL/2.8	spare	
	X2:COM2	/5.2	COM	
	X2:COM3	/5.3	COM	

TM3 16 DI
TM3DI16

/1.3

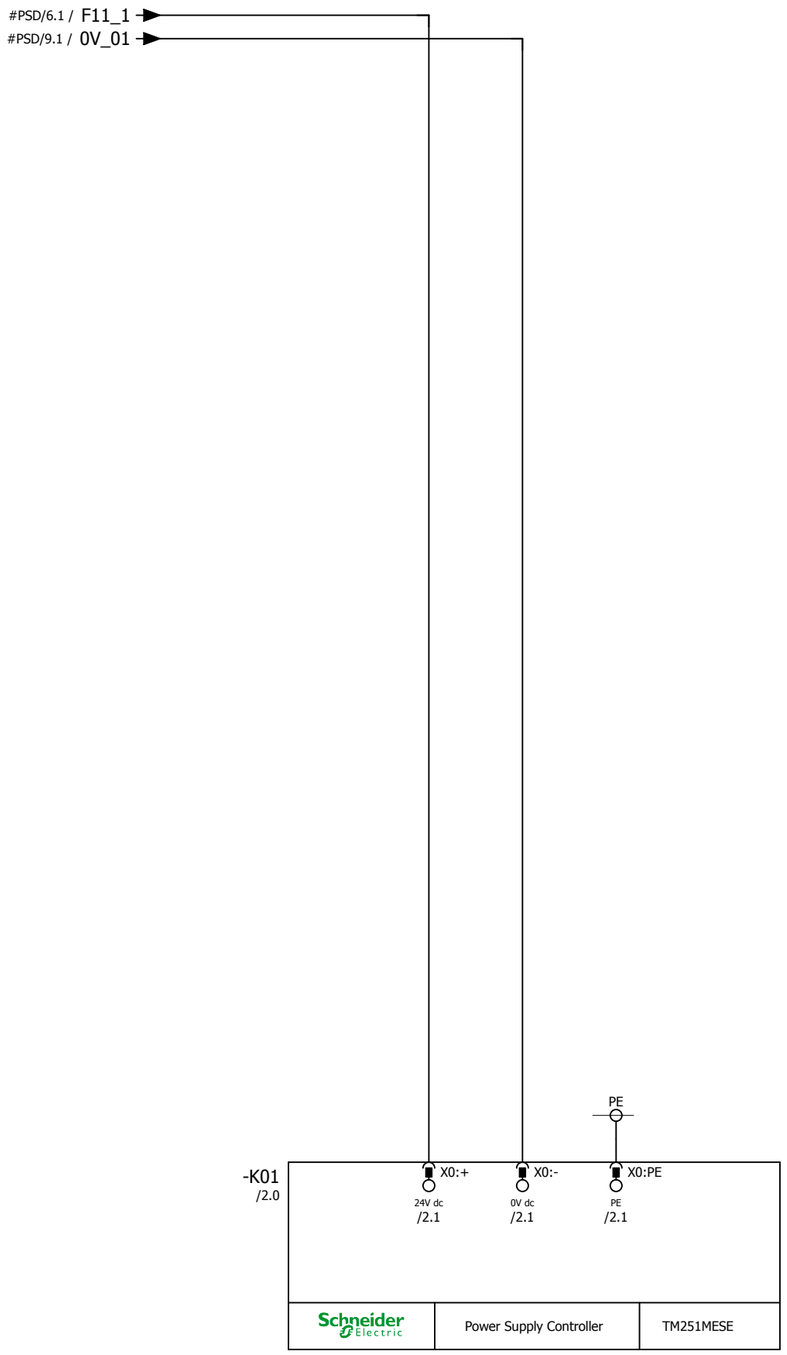
-K03

%QX1.0	X1:Q0	#CTRL/3.2	Tower light green lamp	
%QX1.1	X1:Q1	#CTRL/3.3	Tower light white lamp	
%QX1.2	X1:Q2	#CTRL/3.4	Tower light red lamp	
%QX1.3	X1:Q3	#CTRL/3.5	Tower light blue lamp	
%QX1.4	X1:Q4	#CTRL/4.1	Indicator E-Stop	
%QX1.5	X1:Q5	#CTRL/4.2	spare	
%QX1.6	X1:Q6	#CTRL/4.3	spare	
%QX1.7	X1:Q7	#CTRL/4.4	spare	
	X1:V+	/5.4	24V dc Q0-Q7	
	X1:V-	/5.4	0V dc	
%QX2.0	X2:Q8	#CTRL/5.1	spare	
%QX2.1	X2:Q9	#CTRL/5.2	spare	
%QX2.2	X2:Q10	#CTRL/5.3	spare	
%QX2.3	X2:Q11	#CTRL/5.4	spare	
%QX2.4	X2:Q12	#CTRL/5.5	spare	
%QX2.5	X2:Q13	#CTRL/5.6	spare	
%QX2.6	X2:Q14	#CTRL/5.7	spare	
%QX2.7	X2:Q15	#CTRL/5.8	spare	
	X2:V+	/5.5	24V dc Q8-Q15	
	X2:V-	/5.5	0V dc	

TM3 16 DO
TM3DQ16T

/1.3

0	1	2	3	4	5	6	7	8	9

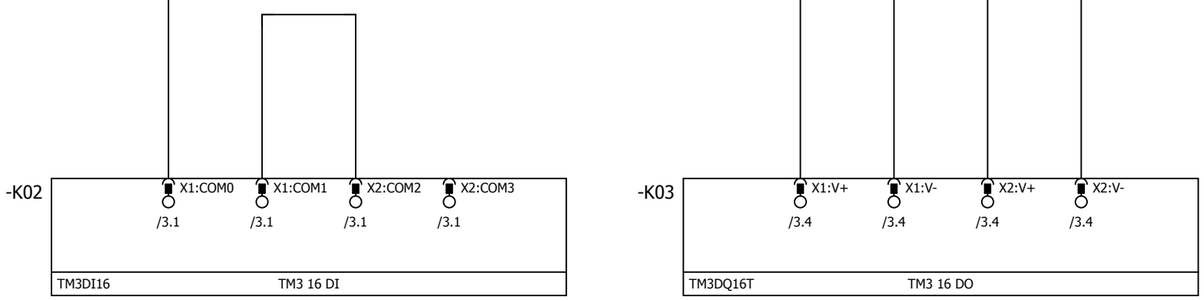


Power Supply PLC M251

3 5

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power supply M251	=WIRD	+MC
			Ed.	kJakob					#PLC
			Appr		TVDA			EIO0000002282.00	Page 4
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PLC/4	of 5

#PSD/6.6 / F15_1
#PSD/6.6 / F15_2
#PSD/9.1 / 0V_02
#PSD/9.1 / 0V_03
#PSD/9.1 / 0V_04

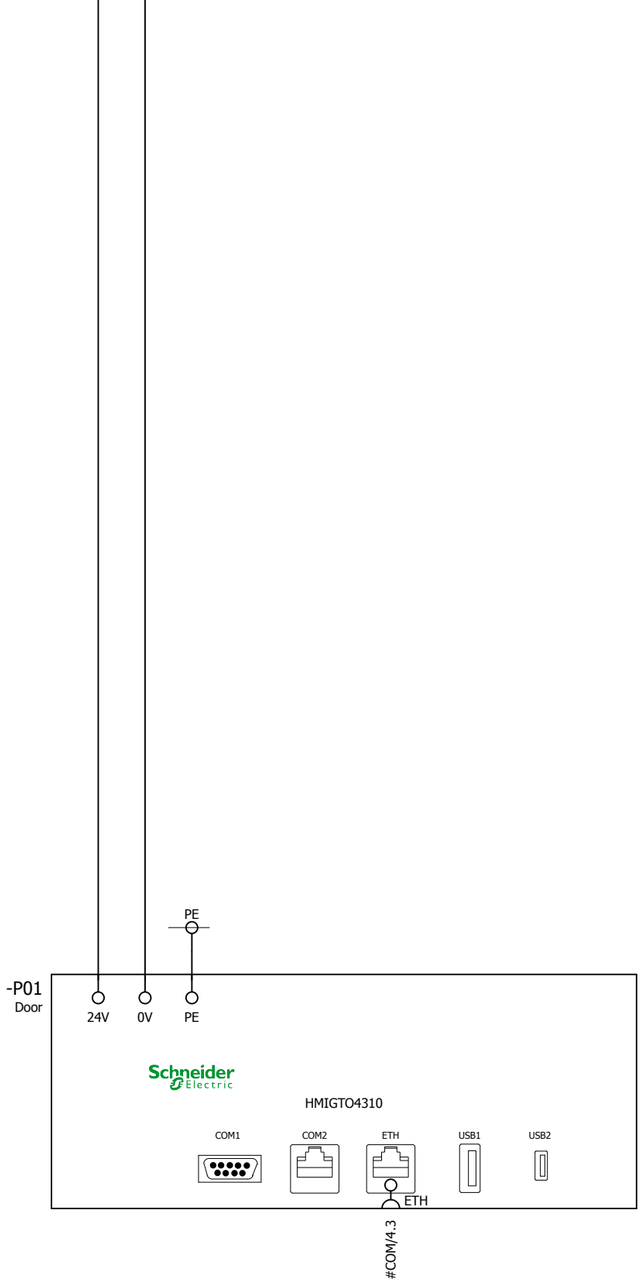


COM COM COM COM

24V dc Q0-Q7 0V dc 24V dc Q8-Q15 0V dc

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply TM3 Expansion	=WIRD +MC
			Ed.	kJakob				#PLC
			Appr		TVDA			EIO0000002282.00 Page 5
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#PLC/5 of 5

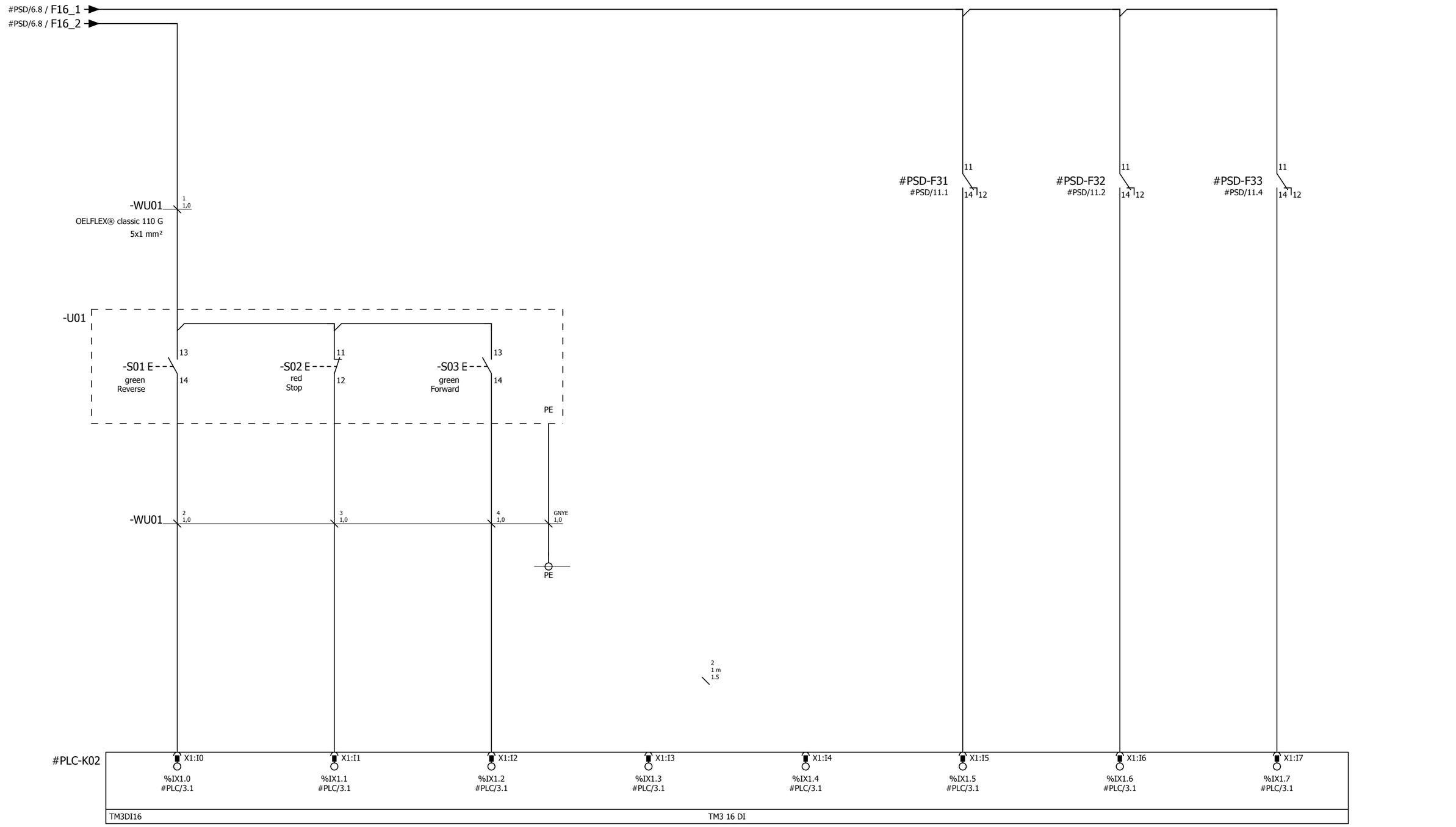
#PSD/6.2 / F12_1
#PSD/9.1 / 0V_08



#PLC/5

#CTRL/1

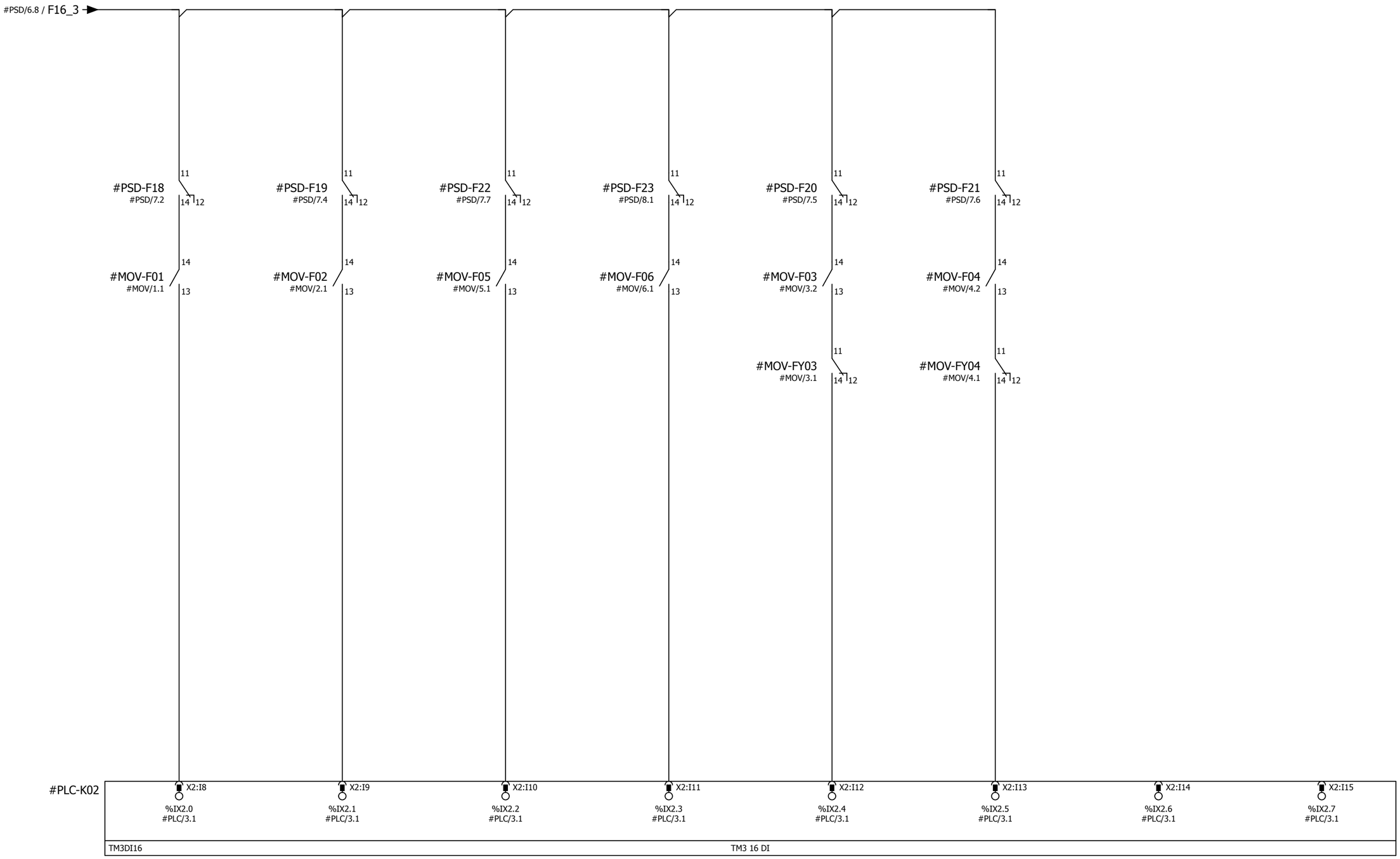
			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	HMI Magelis Panel Power Supply	=WIRD	+MC
			Ed.	kJakob					#HMI
			Appr		TVDA			EIO0000002282.00	Page 1
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#HMI/1	of 1



#HMI/1

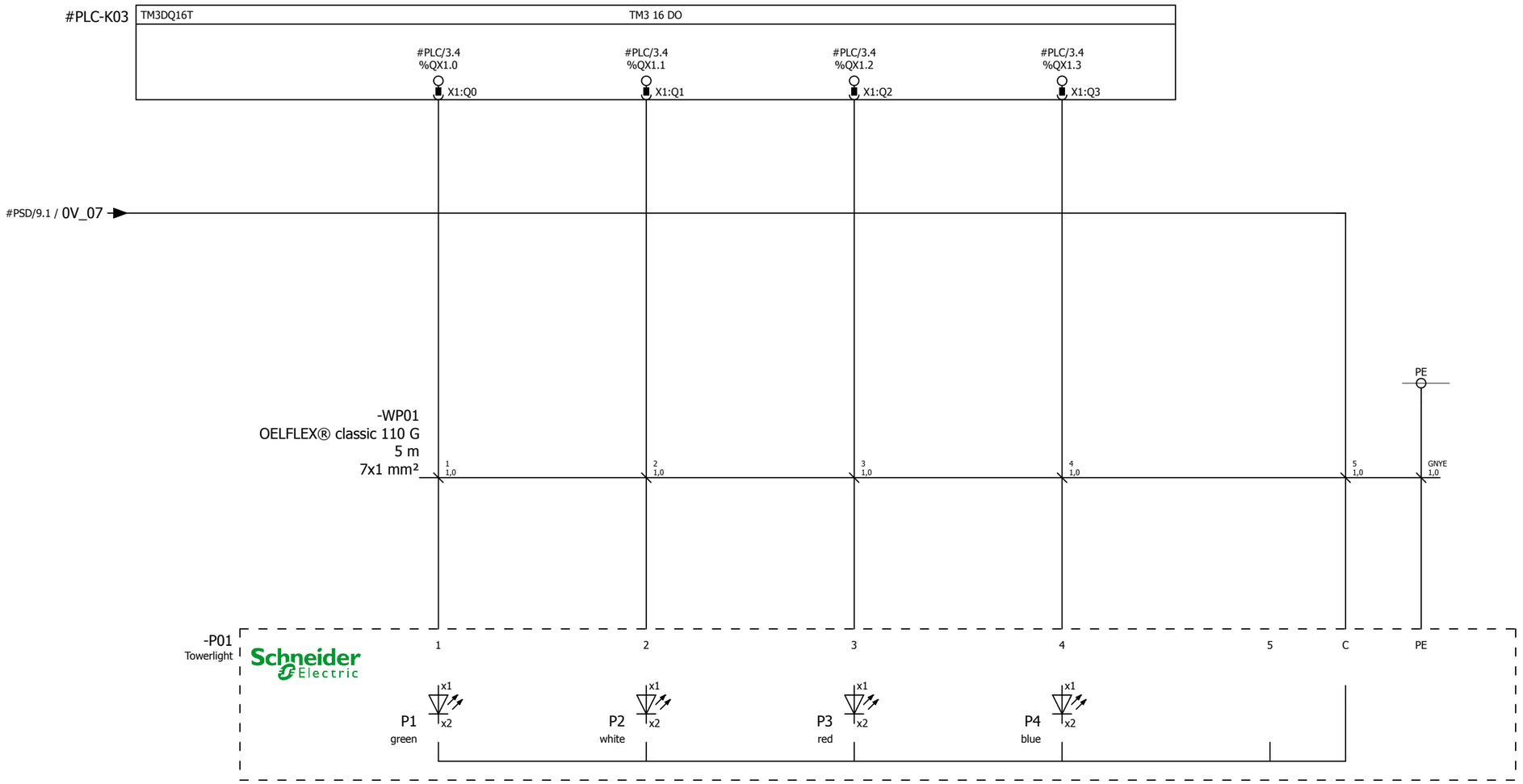
2

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital inputs TM3	=WIRD +MC
			Ed.	kJakob				#CTRL
			Appr		TVDA			EIO0000002282.00 Page 1
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/1 of 18



1 3

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital inputs TM3	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 2
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/2	of 18



Tower light green lamp	Tower light white lamp	Tower light red lamp	Tower light blue lamp	Towerlight spare

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital outputs TM3	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 3
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/3	of 18

0	1	2	3	4	5	6	7	8	9

#PLC-K03

TM3DQ16T	TM3 16 DO		
#PLC/3.4 %QX1.4 X1:Q4	#PLC/3.4 %QX1.5 X1:Q5	#PLC/3.4 %QX1.6 X1:Q6	#PLC/3.4 %QX1.7 X1:Q7

#SAF-SP01
#SAF/7.5
BLUE
E-Stop ACK

#PSD/9.1 / 0V_05

Indicator E-Stop	spare	spare	spare

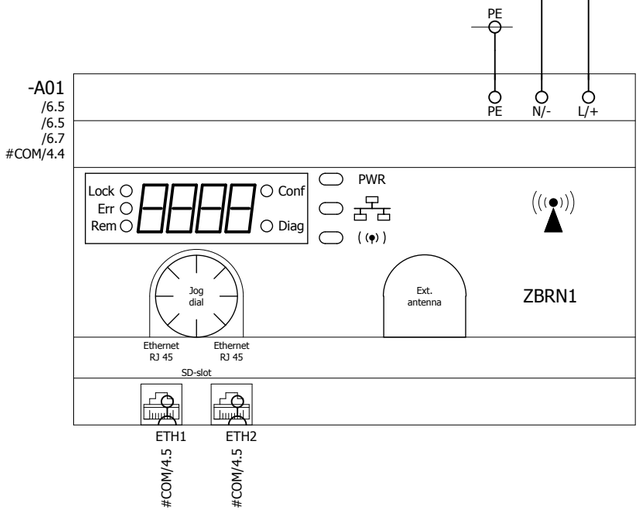
			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Digital outputs TM3		=WIRD +MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 4
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/4	of 18

0	1	2	3	4	5	6	7	8	9

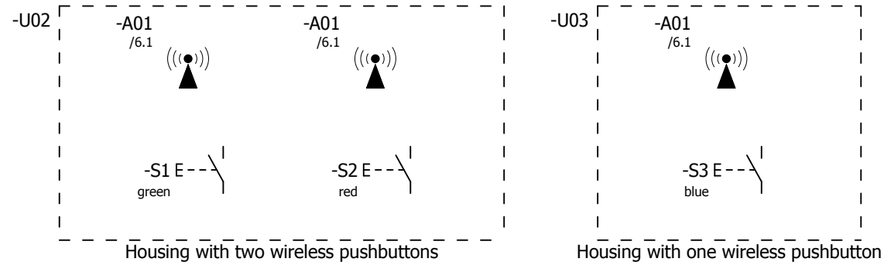
#PLC-K03

TM3DQ16T								TM3 16 DO
#PLC/3.4 %QX2.0 X2:Q8	#PLC/3.4 %QX2.1 X2:Q9	#PLC/3.4 %QX2.2 X2:Q10	#PLC/3.4 %QX2.3 X2:Q11	#PLC/3.4 %QX2.4 X2:Q12	#PLC/3.4 %QX2.5 X2:Q13	#PLC/3.4 %QX2.6 X2:Q14	#PLC/3.4 %QX2.7 X2:Q15	
spare	spare	spare	spare	spare	spare	spare	spare	

#PSD/7.1 / F17_1
#PSD/9.1 / 0V_06



Receiver
wireless pushbuttons



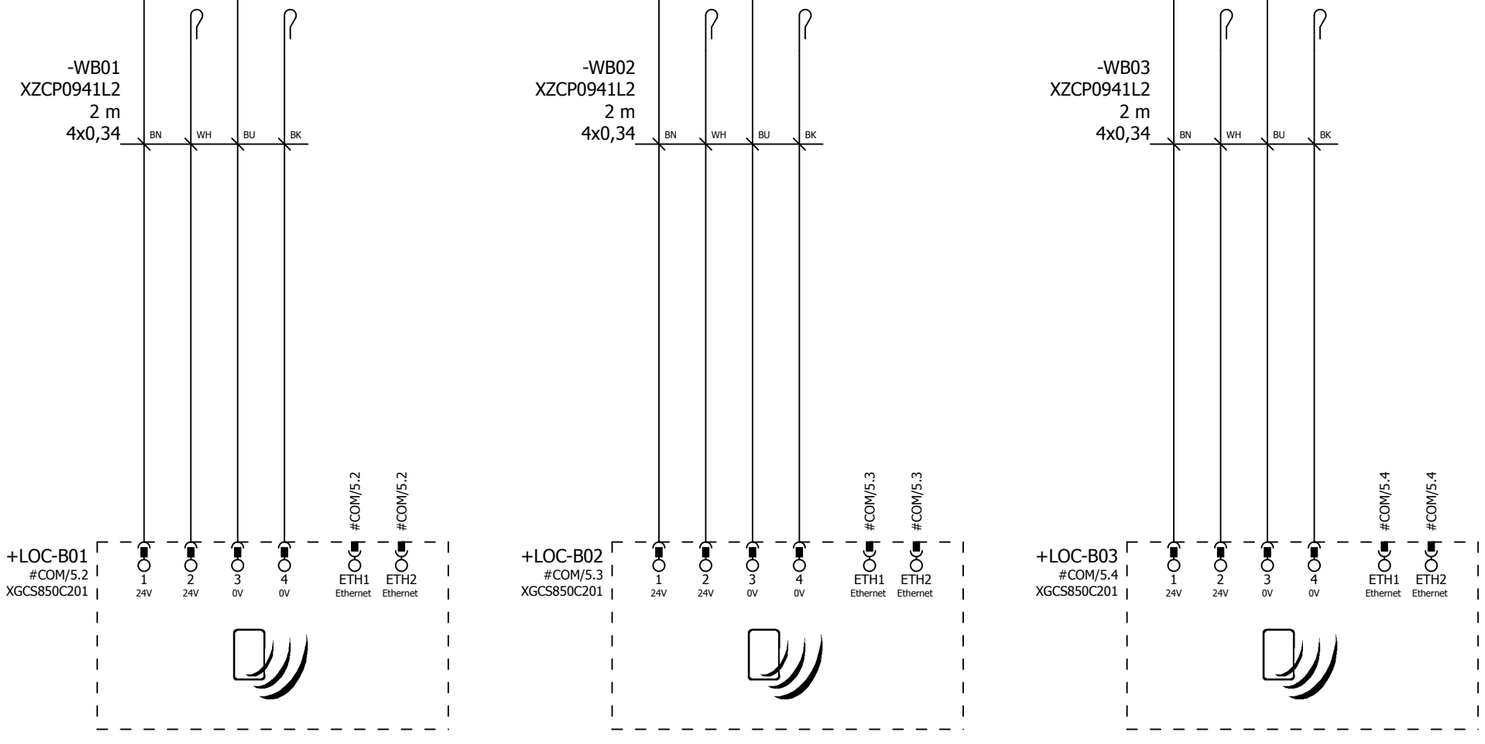
Housing with two wireless pushbuttons

Housing with one wireless pushbutton

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Wireless Push-Buttons	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 6
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/6	of 18

0	1	2	3	4	5	6	7	8	9

#PSD/8.5 / -F26_1
#PSD/9.3 / -0V_22
#PSD/8.6 / -F27_1
#PSD/9.3 / -0V_23
#PSD/8.8 / -F28_1
#PSD/9.3 / -0V_24



RFID antenna 1

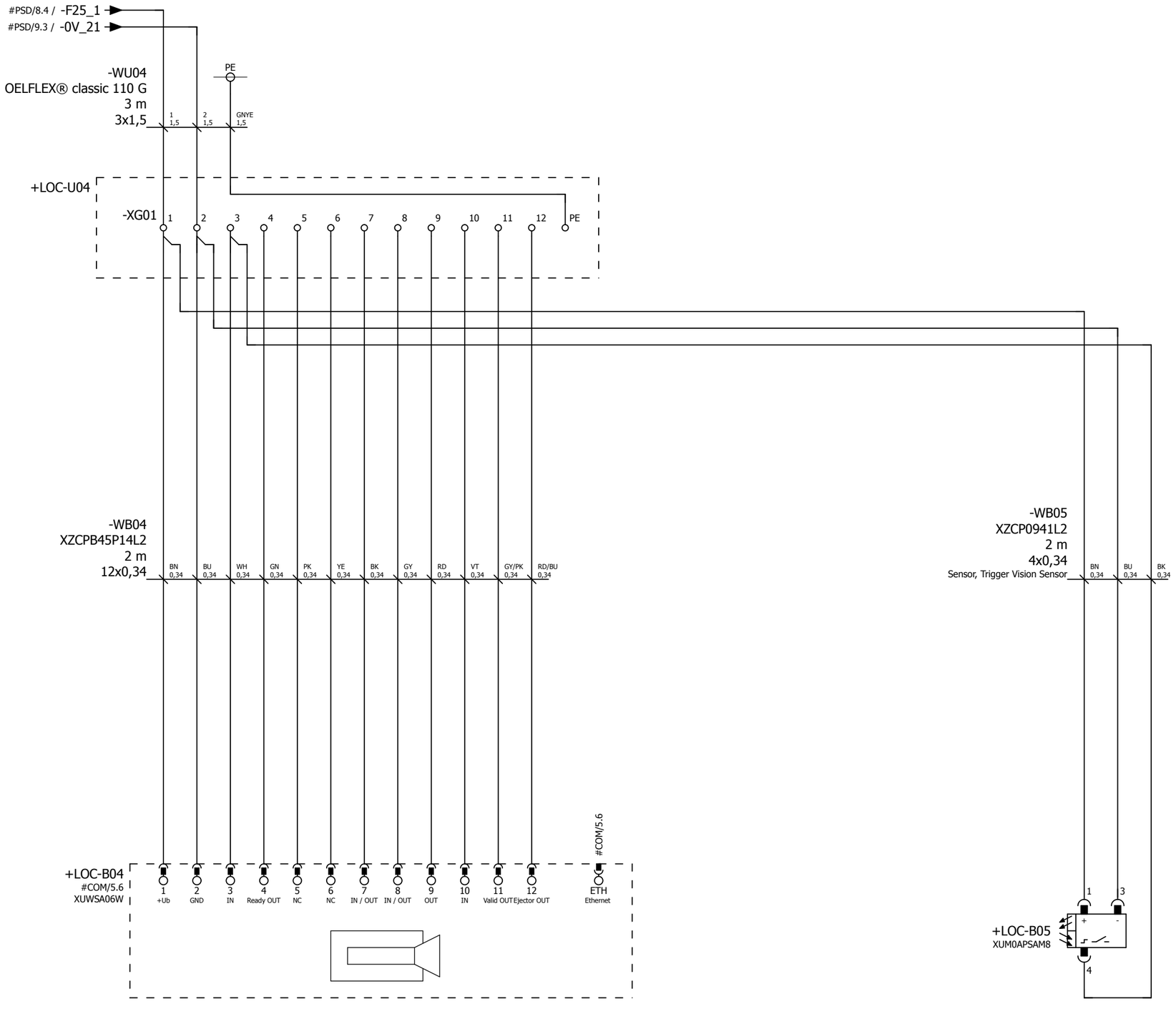
RFID antenna 2

RFID antenna 3

6

8

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	RFID Antennas	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 7
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/7	of 18



Vision Sensor

Part present
Trigger Input
Vision Sensor

7

9

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Vision Sensor	=WIRD +MC
			Ed.	kJakob				#CTRL
			Appr		TVDA			EIO0000002282.00 Page 8
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/8 of 18

#MOV-T01
#MOV/1.1

ATV32H037N4
Control Terminals

configurable relay output	R1A	
configurable relay output (common)	R1C	F18_1 / #PSD/7.2
configurable relay output	R1B	
configurable relay output	R2A	
configurable relay output (common)	R2C	F18_2 / #PSD/7.2
External power supply for control internal power supply for STO	P24	F18_3 / #PSD/7.2
STO input	STO	STO_ATV32_1 / #SAF/12.3
Configrablae logic input	LI1	
Configrablae logic input	LI2	
Configrablae logic input	LI3	
Configrablae logic input	LI4	
Configrablae logic input	LI5	
Configrablae logic input	LI6	
Logic input power supply	+24V	
Power supply for reference potentiometer	+10V	
Common	COM1	0V_10 / #PSD/9.1
Analog current input	AI3	
Analog voltage input	AI2	
Analog voltage input	AI1	
Votage or current analog output	AO1	
Common	COM2	
Common	COM3	
Logic output	LO-	
Logic output	LO+	F18_4 / #PSD/7.2

Modification	Date	Name	Original	Replacement of
			Date 2015/11/13	Compact / EtherNetIP / Logic Controller M251
			Ed. klakob	TVDA
			Appr	

Schneider Electric

Drive 1 Control Terminals Altivar 32

EIO0000002282.00

Replaced by

=WIRD

+MC

#CTRL

Page 9

of 18

=WIRD+MC#CTRL/9

#MOV-T02
#MOV/2.1

ATV32H037N4
Control Terminals

configurable relay output	R1A	
configurable relay output (common)	R1C	F19_1 / #PSD/7.4
configurable relay output	R1B	
configurable relay output	R2A	
configurable relay output (common)	R2C	F19_2 / #PSD/7.4
External power supply for control internal power supply for STO	P24	F19_3 / #PSD/7.4
STO input	STO	STO_ATV32_2 / #SAF/12.7
Configrablae logic input	LI1	
Configrablae logic input	LI2	
Configrablae logic input	LI3	
Configrablae logic input	LI4	
Configrablae logic input	LI5	
Configrablae logic input	LI6	
Logic input power supply	+24V	
Power supply for reference potentiometer	+10V	
Common	COM1	0V_11 / #PSD/9.1
Analog current input	AI3	
Analog voltage input	AI2	
Analog voltage input	AI1	
Votage or current analog output	AO1	
Common	COM2	
Common	COM3	
Logic output	LO-	
Logic output	LO+	F19_4 / #PSD/7.4

Modification	Date	Name	Original	Date	2015/11/13
				Ed.	klakob
				Appr	
				Replacement of	
				Replaced by	

Schneider Electric

Compact / EtherNetIP / Logic Controller M251

TVDA

Drive 2 Control Terminals Altivar 32

EIO0000002282.00

=WIRD

+MC

#CTRL

Page 10

of 18

=WIRD+MC.#CTRL/10

#MOV-T03

ATV71H075N4
Control Terminals

configurable relais output	R1A	
configurable relais output (common)	R1C	F20_1 / #PSD/7.5
configurable relais output	R1B	
configurable relais output	R2A	T03_R2A / 13.1
configurable relais output (common)	R2C	
External power supply for control	P24	F20_2 / #PSD/7.5
External power supply for control	0V	0V_25 / #PSD/9.3
Configrablae logic input	LI1	
Configrablae logic input	LI2	
Configrablae logic input	LI3	
Configrablae logic input	LI4	
Configrablae logic input	LI5	
Configrablae logic input	LI6	
Power supply for reference potentiometer	+10	
differential analog voltage input	AI1+	
differential analog voltage input	AI1-	
Common	COM1	
Votage or current input	AI2	
Common	COM2	
Votage, current or logic output	AO1	
PWR (Power removel) safety function input	PWR	STO_ATV71_1 / #SAF/15.3
Logic input power supply	+24	

Schneider Electric

Compact / EtherNetIP / Logic Controller M251

TVDA

Drive 3 Control Terminals Altivar 71

Modification	Date	Name	Original	Date	2015/11/13
				Ed.	klakob
				Appr	

Replacement of

Replaced by

EIO0000002282.00

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=WIRD+MC.#CTRL/11

=WIRD

+MC

#CTRL

#MOV-T04

ATV71H075N4Z
Control Terminals

configurable relais output	R1A	
configurable relais output (common)	R1C	F21_1 / #PSD/7.6
configurable relais output	R1B	
configurable relais output	R2A	T04_R2A / 13.1
configurable relais output (common)	R2C	
External power supply for control	P24	F21_2 / #PSD/7.6
External power supply for control	0V	0V_26 / #PSD/9.3
Configrablae logic input	LI1	
Configrablae logic input	LI2	
Configrablae logic input	LI3	
Configrablae logic input	LI4	
Configrablae logic input	LI5	
Configrablae logic input	LI6	
Power supply for reference potentiometer	+10	
differential analog voltage input	AI1+	
differential analog voltage input	AI1-	
Common	COM1	
Votage or current input	AI2	
Common	COM2	
Votage, current or logic output	AO1	
PWR (Power removel) safety function input	PWR	STO_ATV71_2 / #SAF/15.7
Logic input power supply	+24	

Modification | Date | Name | Original

	Date	
Ed.	2015/11/13	
Appr	klakob	

Compact / EtherNetIP / Logic Controller M251

TVDA

Replacement of

Replaced by

Schneider Electric

Drive 4 Control Terminals Altivar 71

EIO0000002282.00

=WIRD+MC.#CTRL/12

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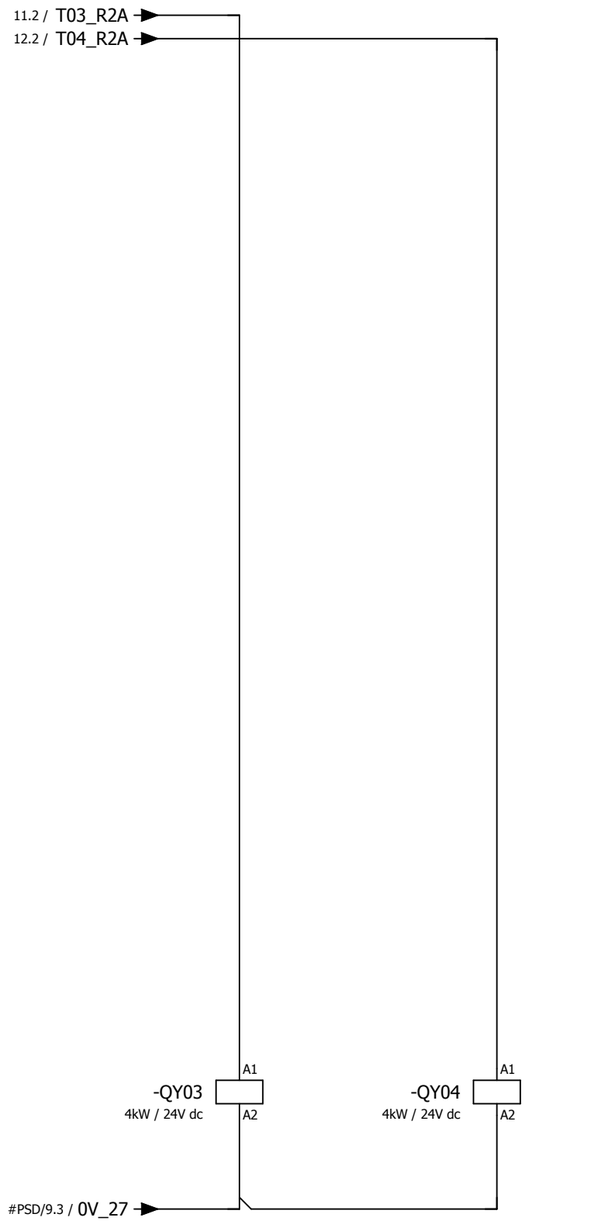
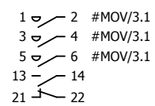
=WIRD

+MC

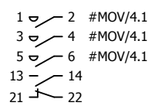
#CTRL

13





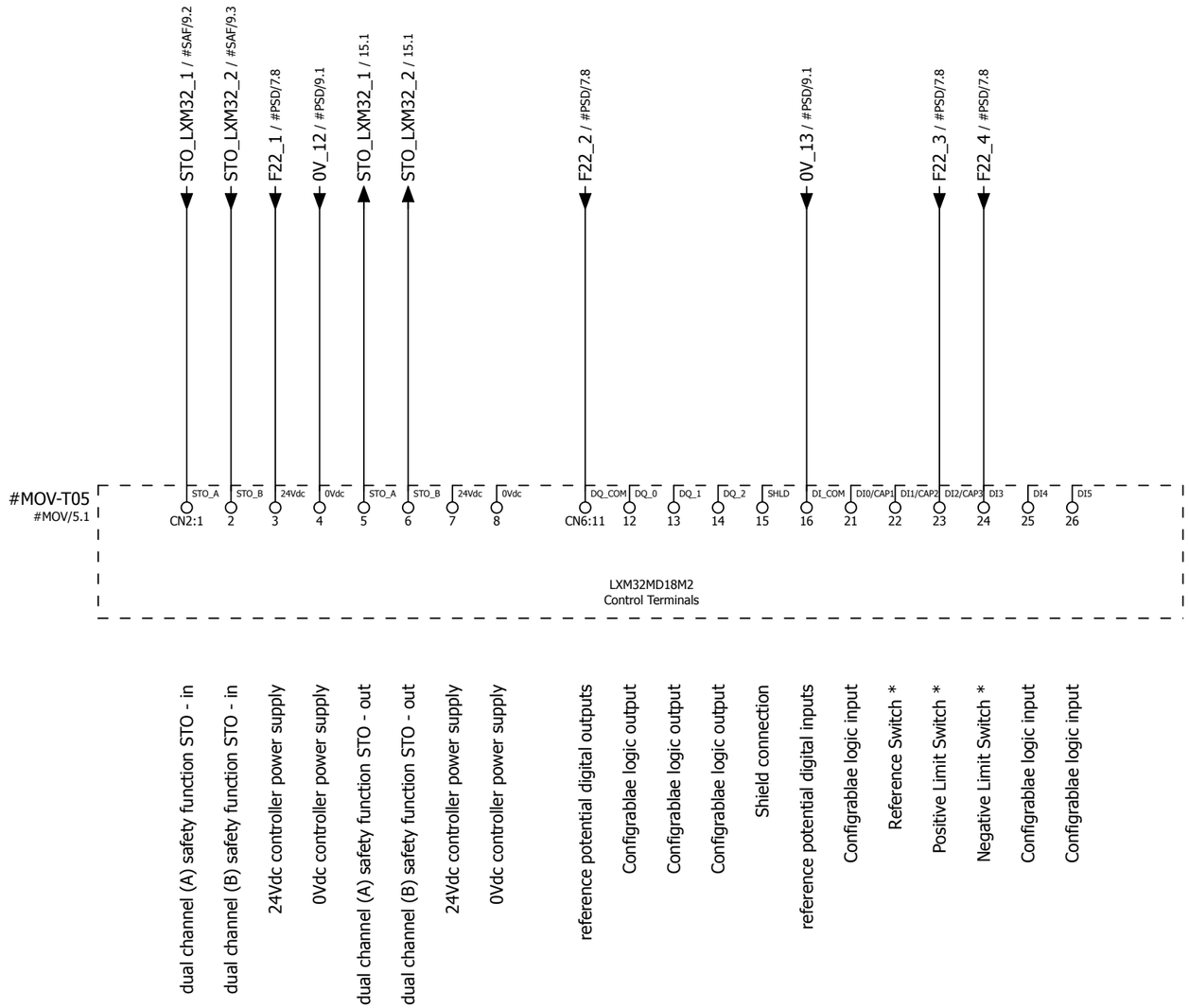
Brake Drive 3



Brake Drive 4

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 3+4 Brake Contactors	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 13
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/13	of 18

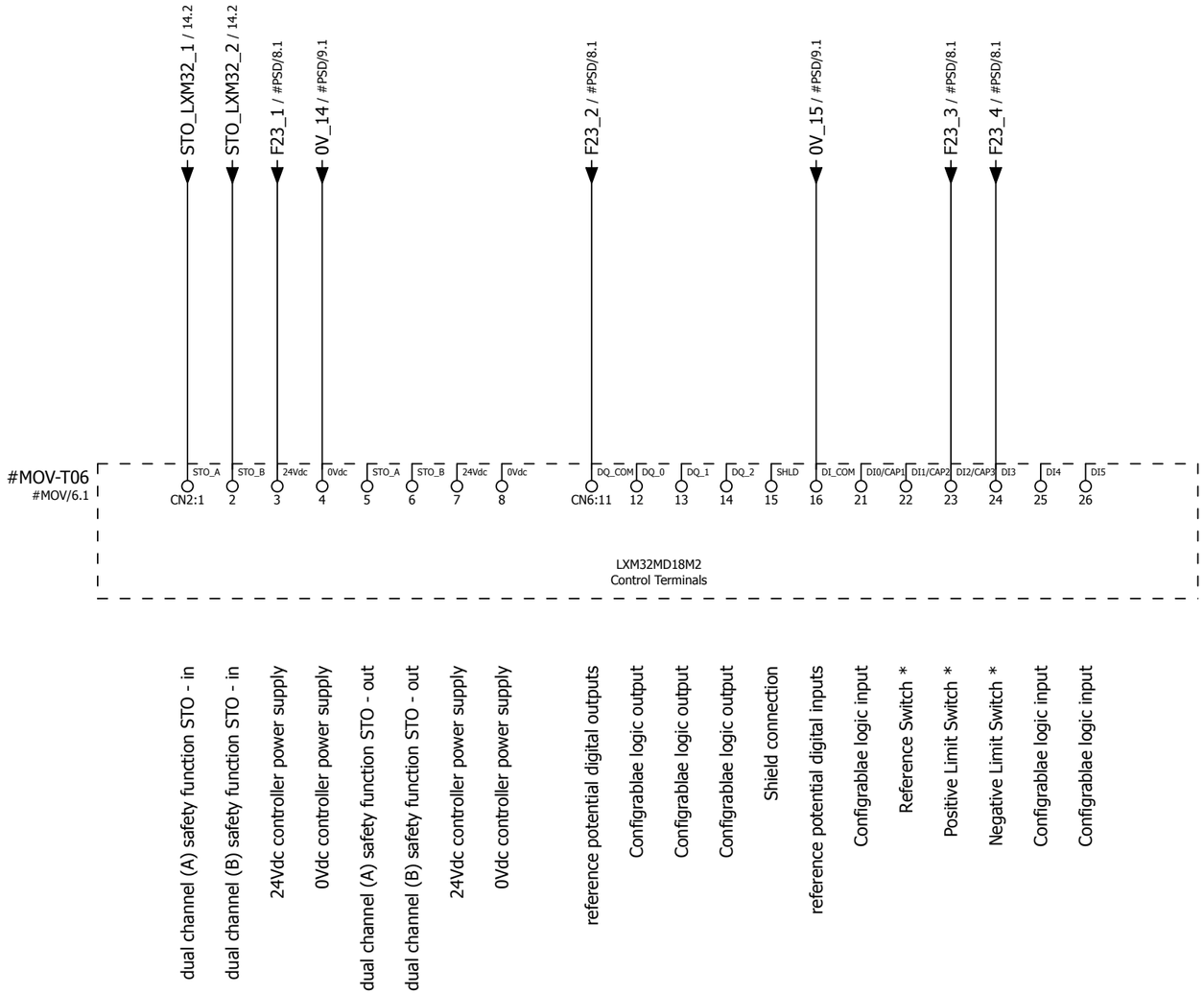
The axes in this architecture are used as modulo type, therefore the inputs for limit switches are connected to 24V dc permanently.



* default configuration in fieldbus control mode

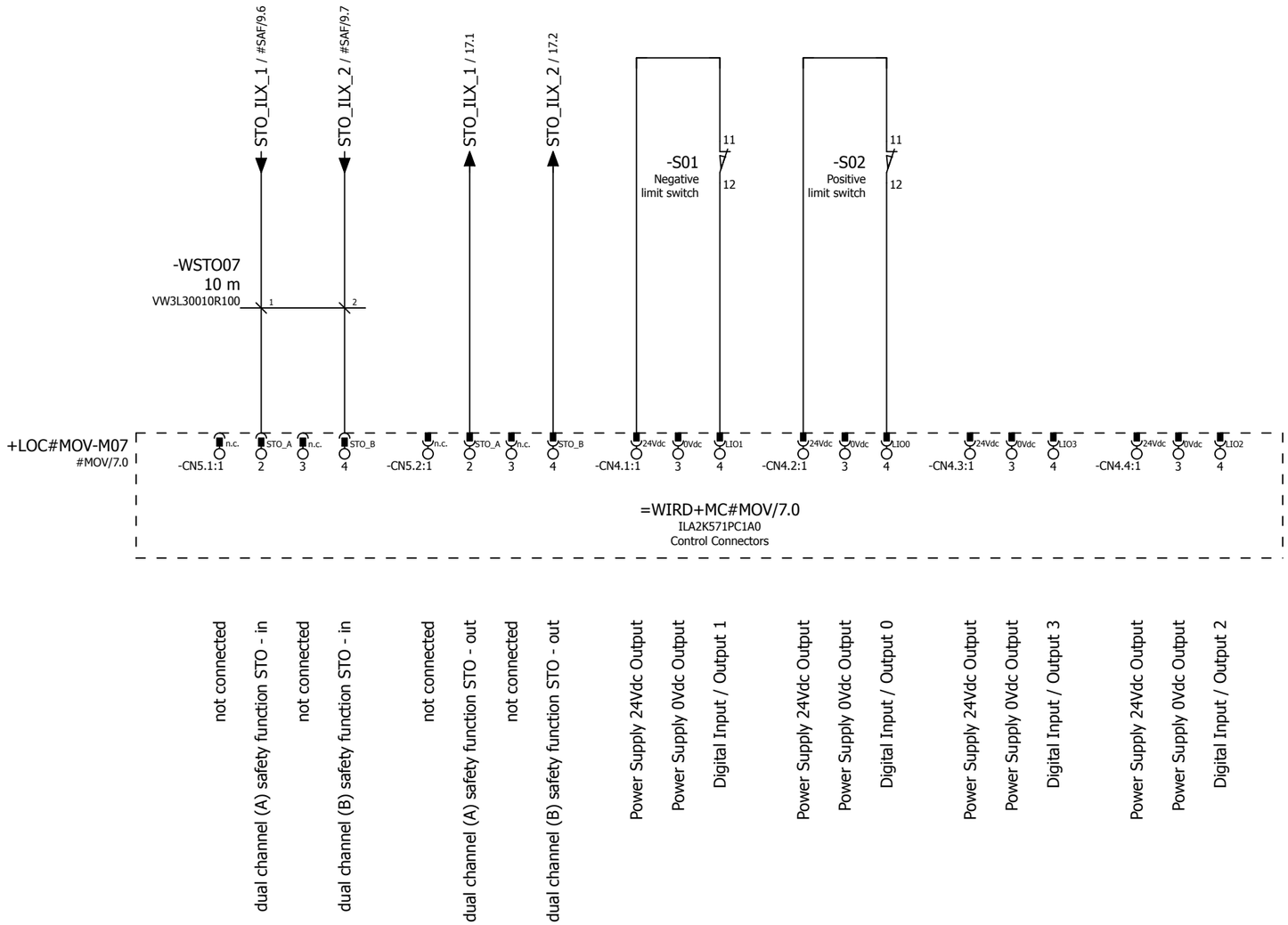
			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 5 Control Terminals Lexium 32M	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 14
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#CTRL/14	of 18

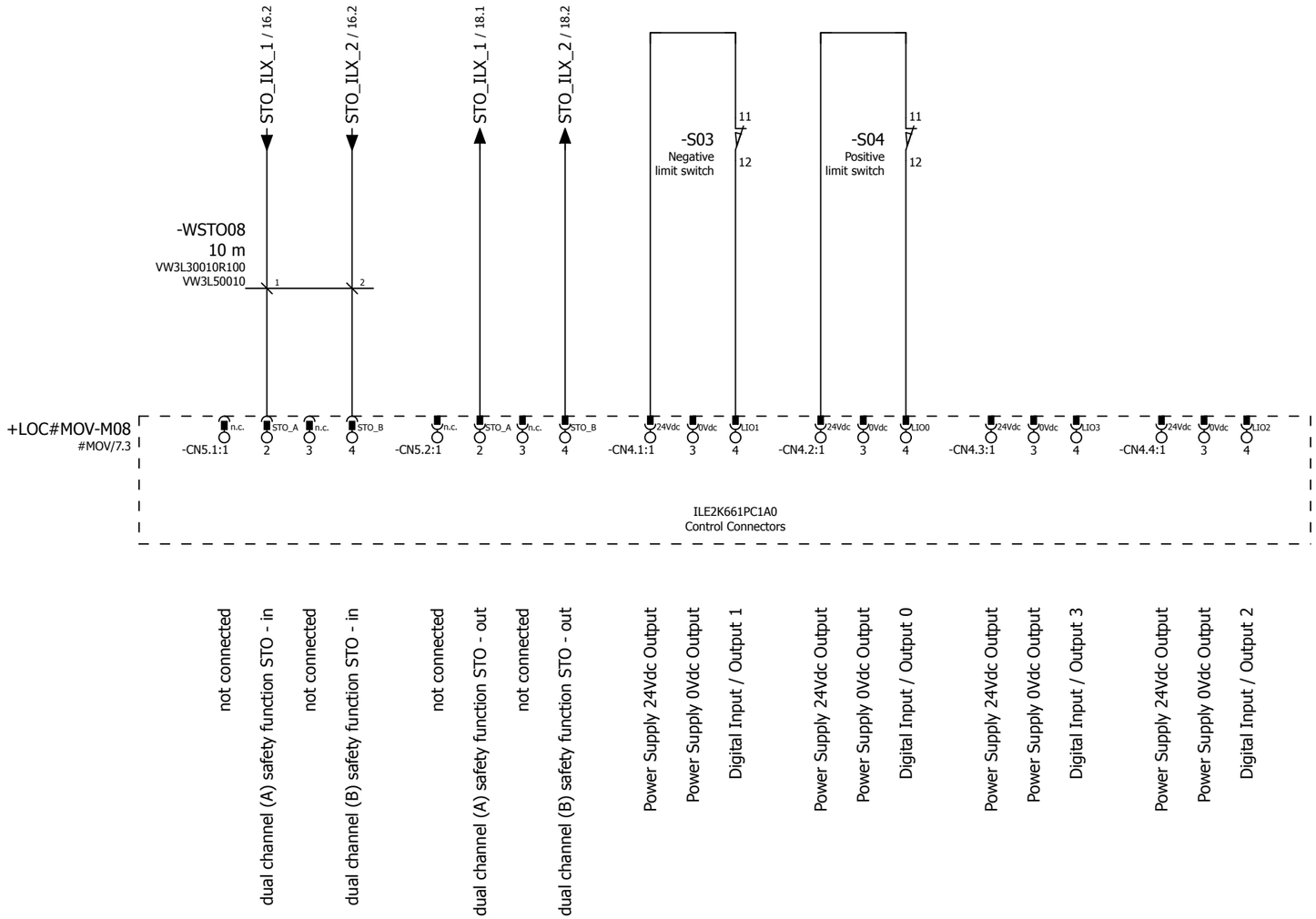
The axes in this architecture are used as modulo type, therefore the inputs for limit switches are connected to 24V dc permanently.



* default configuration in fieldbus control mode

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 6 Control Terminals Lexium 32M	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 15
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#CTRL/15	of 18

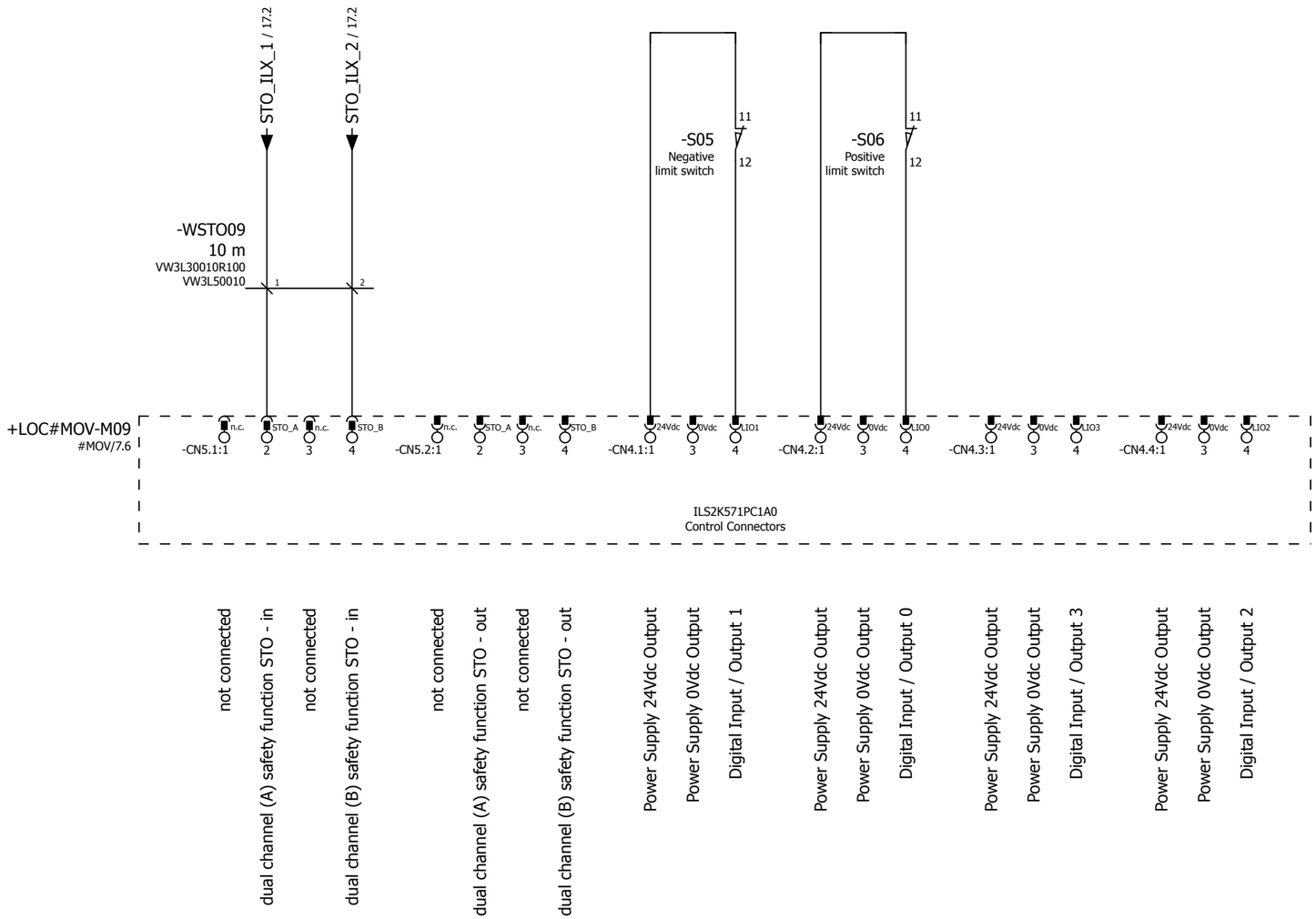

STO_ILX_1 / #SAF/9.6
STO_ILX_2 / #SAF/9.7
STO_ILX_1 / 17.1
STO_ILX_2 / 17.2
-S01
Negative
limit switch
11
12
-S02
Positive
limit switch
11
12
-WSTO07
10 m
VW3L30010R100
1
2
+LOC#MOV-M07
#MOV/7.0
n.c.
STO_A
n.c.
STO_B
-CN5.1:1
2
3
4
-CN5.2:1
24Vdc
0Vdc
LIO1
-CN4.1:1
LIO0
-CN4.2:1
LIO3
-CN4.3:1
LIO2
-CN4.4:1
=WIRD+MC#MOV/7.0
ILA2K571PC1A0
Control Connectors
not connected
dual channel (A) safety function STO - in
not connected
dual channel (B) safety function STO - in
not connected
dual channel (A) safety function STO - out
not connected
dual channel (B) safety function STO - out
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 1
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 0
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 3
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 2



16

18

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 8 Control Terminals Lexium ILE2K	=WIRD	+MC
			Ed.	kJakob					#CTRL
			Appr		TVDA			EIO0000002282.00	Page 17
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#CTRL/17	of 18


STO_ILX_1 / 17.2
STO_ILX_2 / 17.2
-S05
Negative
limit switch
-S06
Positive
limit switch
11
12
-WSTO09
10 m
VW3L30010R100
VW3L50010
1
2
+LOC#MOV-M09
#MOV/7.6
-CN5.1:1
-CN5.2:1
-CN4.1:1
-CN4.2:1
-CN4.3:1
-CN4.4:1
n.c.
STO_A
STO_B
24Vdc
0Vdc
LIO1
LIO0
LIO3
LIO2
ILS2K571PC1A0
Control Connectors
not connected
dual channel (A) safety function STO - in
not connected
dual channel (B) safety function STO - in
not connected
dual channel (A) safety function STO - out
not connected
dual channel (B) safety function STO - out
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 1
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 0
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 3
Power Supply 24Vdc Output
Power Supply 0Vdc Output
Digital Input / Output 2

#PSD/4.8 / 1L1 → 1L1 / 2.0
#PSD/4.8 / 1L2 → 1L2 / 2.0
#PSD/4.8 / 1L3 → 1L3 / 2.0
#PSD/10.8 / N → N / 2.0

-F01
1.6-2.5A
1 3 5 21 13
I> I> I>
2 4 6 22 14
#CTRL/2.1

PE

-T01
#CTRL/9.1
#COM/4.6
Altivar 32
0.37 kW, 2.1 A

R/L1 S/L2 T/L3 PE

RUN run RUN err
Ref Mon Conf
Value Unit
ESC

Schneider Electric
ATV32H037N4

R1A	R1C	R1B	R2A	R2C	P24	STO	LI1	LI2	LI3	LI4	LI5	LI6	+24V
#CTRL/9.1	#CTRL/9.1	#CTRL/9.2	#CTRL/9.2	#CTRL/9.2	#CTRL/9.2	#CTRL/9.3	#CTRL/9.3	#CTRL/9.3	#CTRL/9.3	#CTRL/9.4	#CTRL/9.4	#CTRL/9.4	#CTRL/9.5

change over contact of programmable relay R1
NO contact of R2 programmable relay
External power supply for control circuit / Internal power supply for STO
STO (Safe Torgue Off) safety function input
Configurable logic inputs
Programable logic input or Pulse input 20 kpps
Programable logic input or Input for PTC probes
Logic input power supply

Filter settings: Normal / IT system
LI6 input switch SW2: PTC / LI
Logic input switch SW1: Source Sink Ext / Sink Int

PBe	PB	PA/+	PC/-	+10V	COM1	AI3	AI2	AI1	AO1	COM2	COM3	LO-	LO+	CAN	ETH1	ETH2
Output to braking resistor (+ polarity)		DC bus (+) polarity	DC bus (-) polarity	Power supply for reference potentiometer	Analog I/O common	Analog current input	Analog voltage input	Analog voltage input	Voltage or current analog output (collector)	Analog I/O common	Analog I/O common	Logic output		CANopen/Modbus RJ45	ETH	ETH
				#CTRL/9.5	#CTRL/9.5	#CTRL/9.5	#CTRL/9.6	#CTRL/9.6	#CTRL/9.6	#CTRL/9.6	#CTRL/9.7	#CTRL/9.7	#CTRL/9.7		#COM/4.6	#COM/4.6

-A01
Communication Module
VW3A3616
Slot for Communication Module

U/T1 V/T2 W/T3 PE

-WM01
OELFLEX® classic 110 G
5 m
4x1,5 mm²
1 1,5 | 2 1,5 | 3 1,5 | GNYE 1,5

U V W
M 3~
PE

+LOC-M01
0,18kW / 0,47A
230/400V

Drive 1

#CTRL/18

2

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 1 Variable speed drive Altivar 32	=WIRD +MC
			Ed.	kJakob				#MOV
			Appr		TVDA			EIO0000002282.00 Page 1
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#MOV/1 of 7

0	1	2	3	4	5	6	7	8	9

1.8 / 1L1 → 1L1 / 3.0
1.8 / 1L2 → 1L2 / 3.0
1.8 / 1L3 → 1L3 / 3.0
1.8 / N → N / 3.0

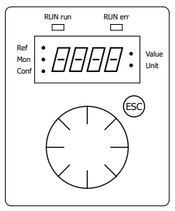
-F02
1.6-2.5A
1 3 5 21 13
I> I> I>
2 4 6 22 14
#CTRL/2.2

PE

-T02
#CTRL/10.1
#COM/4.2
Altivar 32
0.37 kW, 2.1 A

R/L1 S/L2 T/L3 PE

#CTRL/10.1 R1A
#CTRL/10.1 R1C
#CTRL/10.2 R1B
#CTRL/10.2 R2A
#CTRL/10.2 R2C
#CTRL/10.2 P24
#CTRL/10.3 STO
#CTRL/10.3 LI1
#CTRL/10.3 LI2
#CTRL/10.3 LI3
#CTRL/10.4 LI4
#CTRL/10.4 LI5
#CTRL/10.4 LI6
#CTRL/10.5 +24V



Schneider Electric
ATV32H037N4

change over contact of programmable relay R1
NO contact of R2 programmable relay
External power supply for control circuit / Internal power supply for STO
STO (Safe Torgue Off) safety function input
Configurable logic inputs
Programable logic input or Pulse input 20 kpps
Programable logic input or Input for PTC probes
Logic input power supply

Filter settings
Normal IT system
LI6 input switch
PTC LI
SW2
Logic input switch
Source Sink Ext Sink Int
SW1

Output to braking resistor (+ polarity) | DC bus (+) polarity | DC bus (-) polarity | Power supply for reference potentiometer | Analog I/O common | Analog current input | Analog voltage input | Analog voltage input | Voltage or current analog output (collector) | Analog I/O common | Analog I/O common | Logic output | CANopen/Modbus RJ45

PBe PB PA/+ PC/- +10V COM1 AI3 AI2 AI1 AO1 COM2 COM3 LO- LO+ CAN

#CTRL/10.5 #CTRL/10.5 #CTRL/10.5 #CTRL/10.6 #CTRL/10.6 #CTRL/10.6 #CTRL/10.6 #CTRL/10.7 #CTRL/10.7 #CTRL/10.7

-A01
Communication Module
VW3A3616
Slot for Communication Module
ETH ETH
ETH1 ETH2
#COM/4.2 #COM/4.2

U/T1 V/T2 W/T3 PE

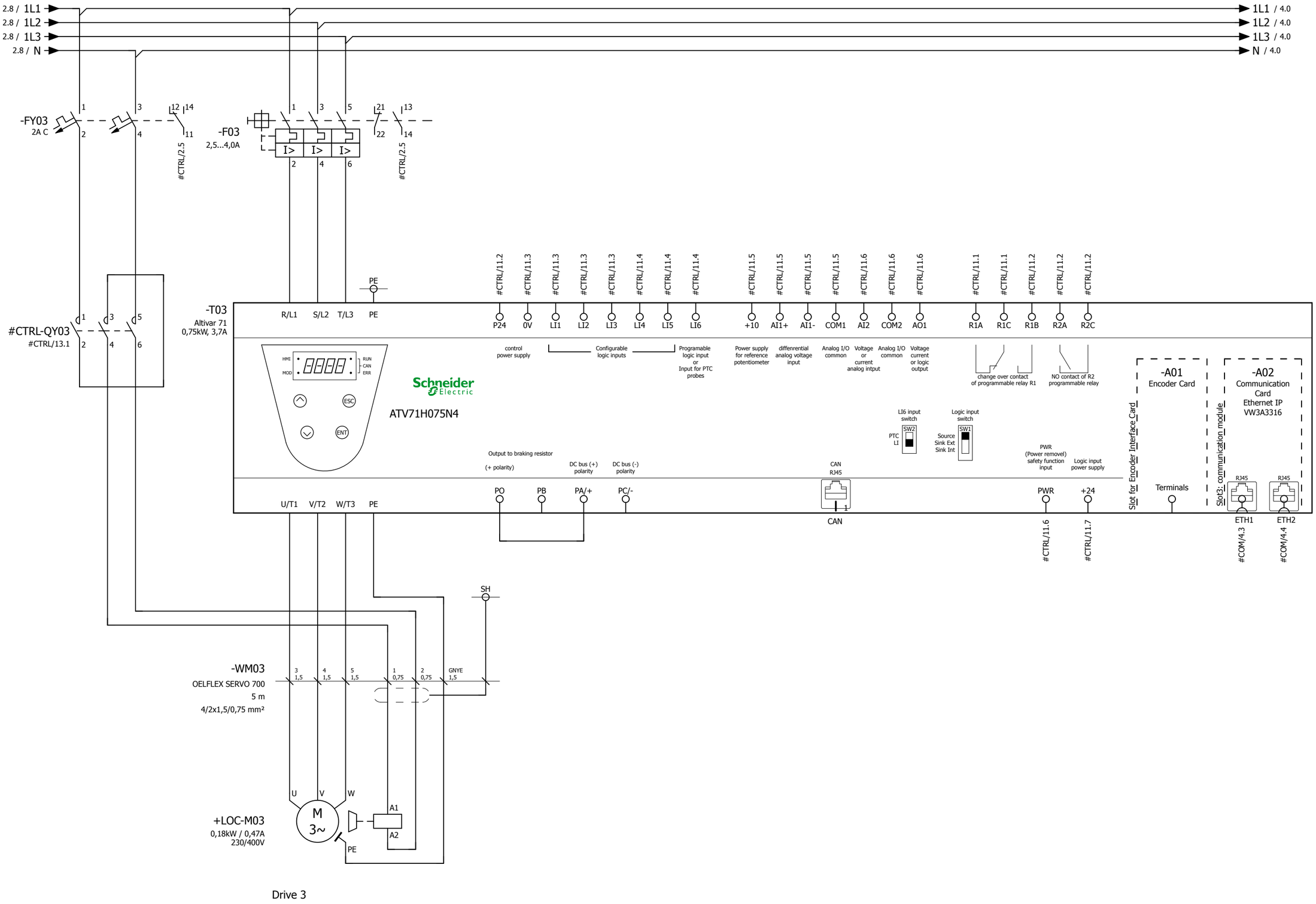
-WM02
OELFLEX® classic 110 G
5 m
4x1,5 mm²
1 1,5 | 2 1,5 | 3 1,5 | GNYE 1,5

U V W
M 3~
PE
+LOC-M02
0,18kW / 0,47A
230/400V

Drive 2

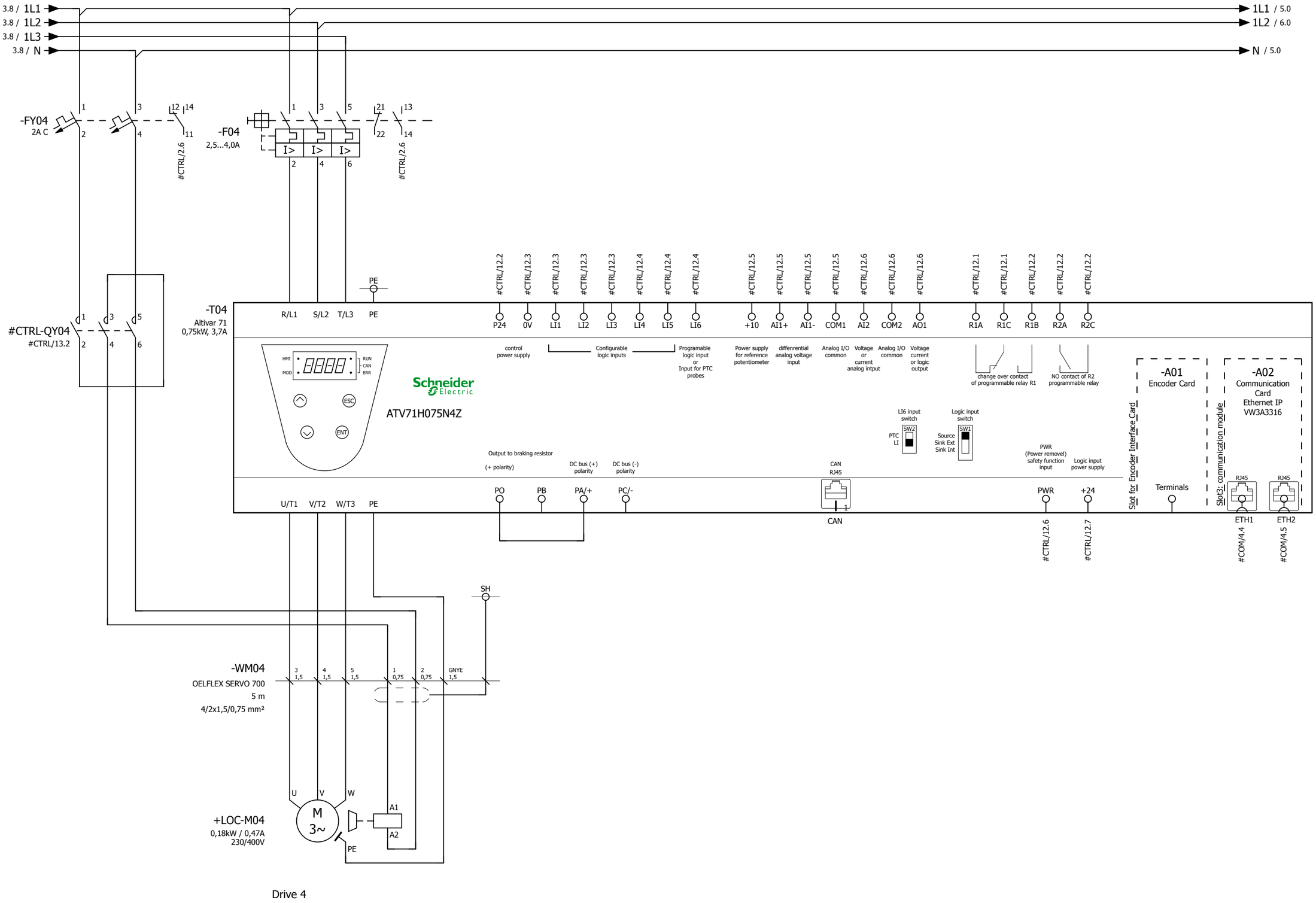
1 3

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 2 Variable speed drive Altivar 32	=WIRD	+MC
			Ed.	kJakob					#MOV
			Appr		TVDA			EIO0000002282.00	Page 2
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#MOV/2	of 7



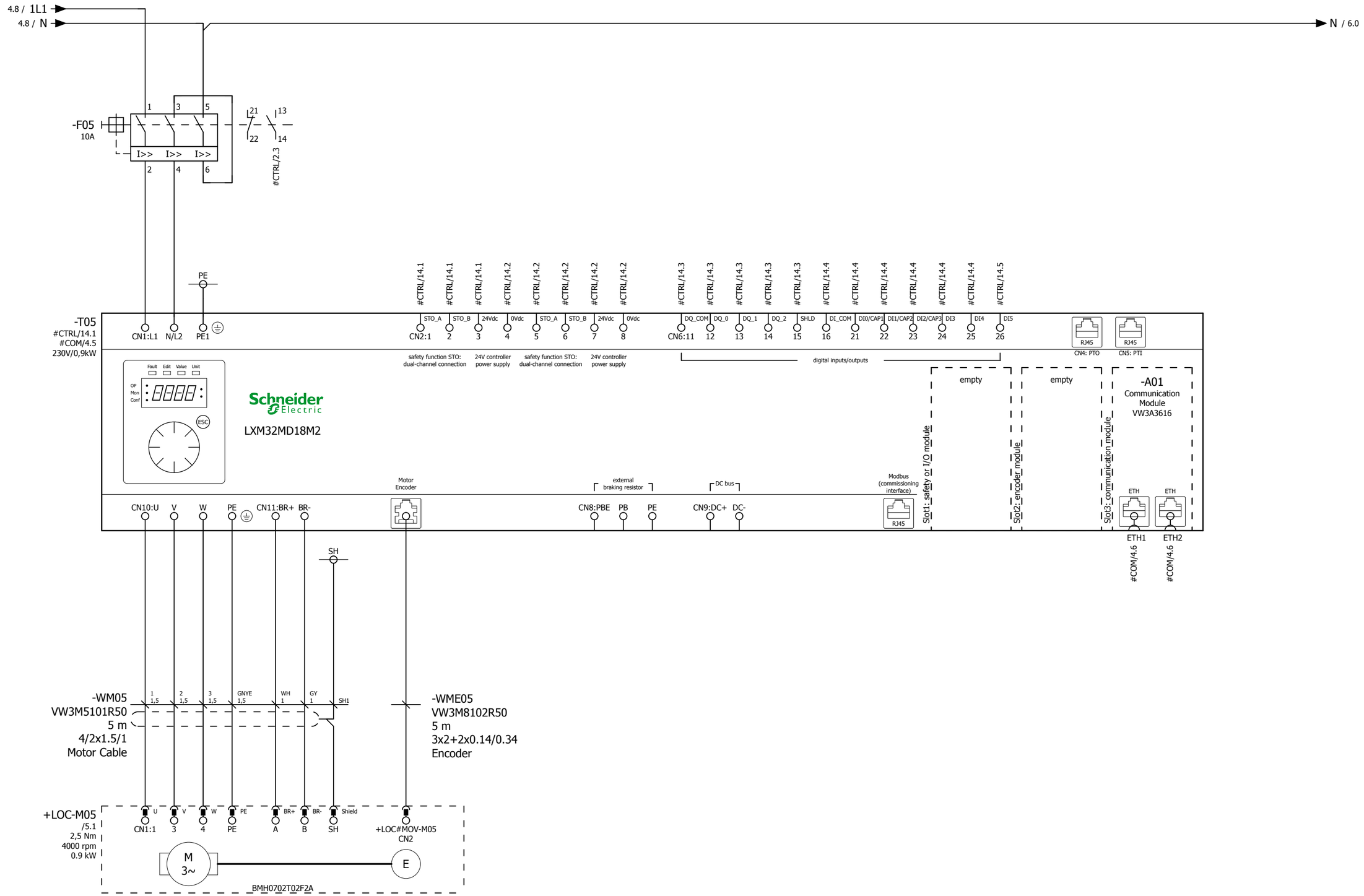
Drive 3

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 3 Variable speed drive Altivar 71		=WIRD +MC
			Ed.	kJakob					#MOV
			Appr		TVDA			EIO0000002282.00	Page 3
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#MOV/3	of 7



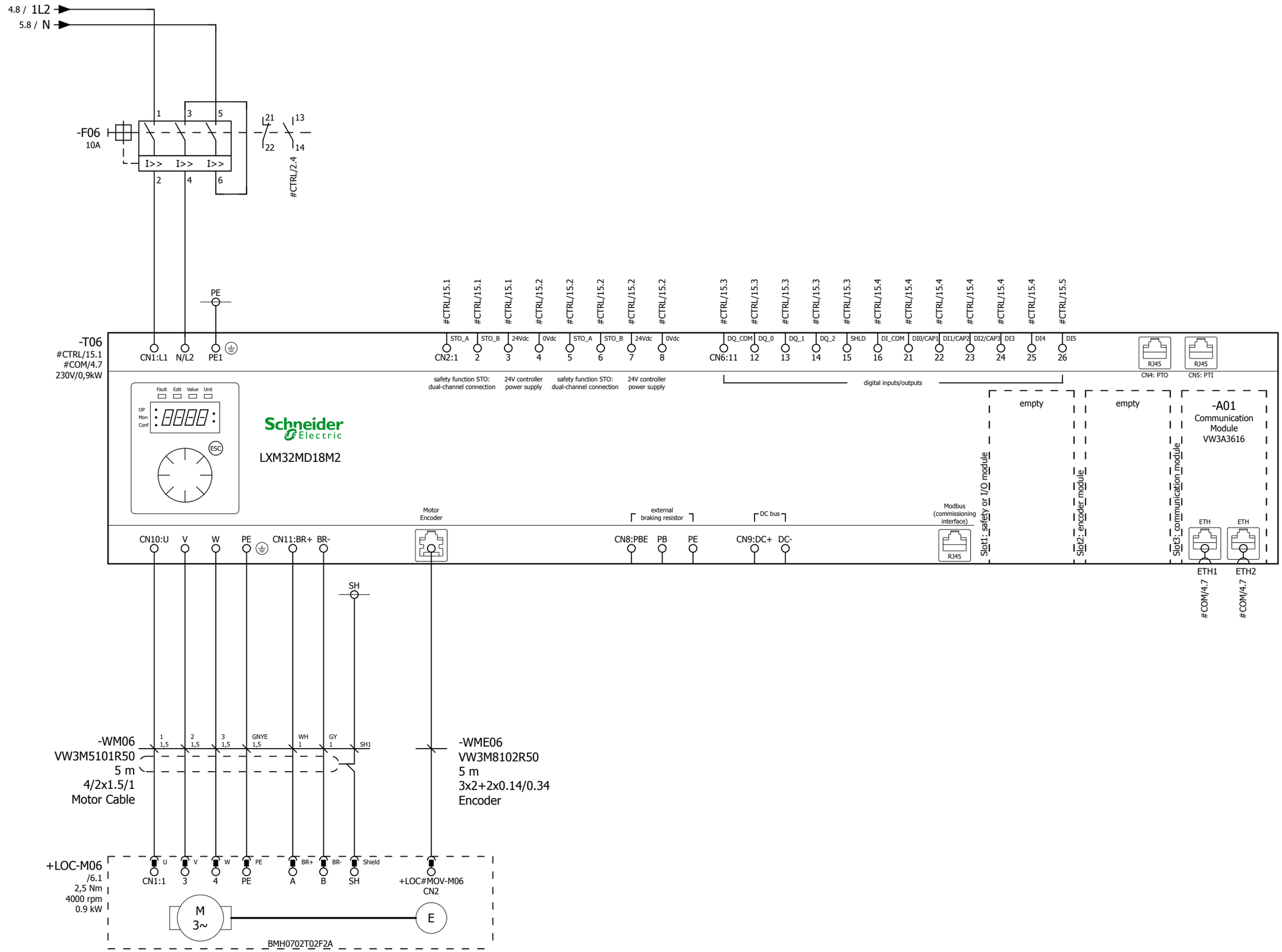
Drive 4

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 4 Variable speed drive Altivar 71	=WIRD	+MC
			Ed.	kJakob					#MOV
			Appr		TVDA			EIO0000002282.00	Page 4
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#MOV/4	of 7



Drive 5

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 5 Servo drive Lexium 32M	=WIRD	+MC
			Ed.	kJakob					#MOV
			Appr		TVDA			EIO0000002282.00	Page 5
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#MOV/5	of 7



Drive 6

5 7

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Drive 6 Servo drive Lexium 32M	=WIRD	+MC
			Ed.	kJakob					#MOV
			Appr		TVDA			EIO0000002282.00	Page 6
Modification	Date	Name	Original		Replacement of / Replaced by			=WIRD+MC#MOV/6	of 7

#PSD/11.1 / F31_1
#PSD/12.1 / 0V_01_ILX
#PSD/11.2 / F32_1
#PSD/12.1 / 0V_02_ILX
#PSD/11.4 / F33_1
#PSD/12.1 / 0V_03_ILX

-WM07
5 m
VW3L30001R50 1 2

PE

+LOC-M07
#CTRL/16.1
#COM/5.2
ILA2K571PC1A0
Control Connectors

Schneider Electric
CN1 24Vdc 1 0Vdc 2 PE

LEXIUM
SERVO DRIVE ILA

INTEGRATED DRIVE
ILA2K571PC1A0

ETH in ETH out
ETH1 ETH2
#COM/5.2 #COM/5.2

Drive 7

-WM08
5 m
VW3L30001R50 1 2

PE

+LOC-M08
#CTRL/17.1
#COM/5.3
ILE2K661PC1A0

Schneider Electric
CN1 24Vdc 1 0Vdc 2 PE

LEXIUM
SERVO DRIVE ILE

INTEGRATED DRIVE
ILE2K661PC1A0

ETH in ETH out
ETH1 ETH2
#COM/5.3 #COM/5.4

Drive 8

-WM09
5 m
VW3L30001R50 1 2

PE

+LOC-M09
#CTRL/18.1
#COM/5.4
ILS2K571PC1A0

Schneider Electric
CN1 24Vdc 1 0Vdc 2 PE

LEXIUM
STEPPER DRIVE ILS

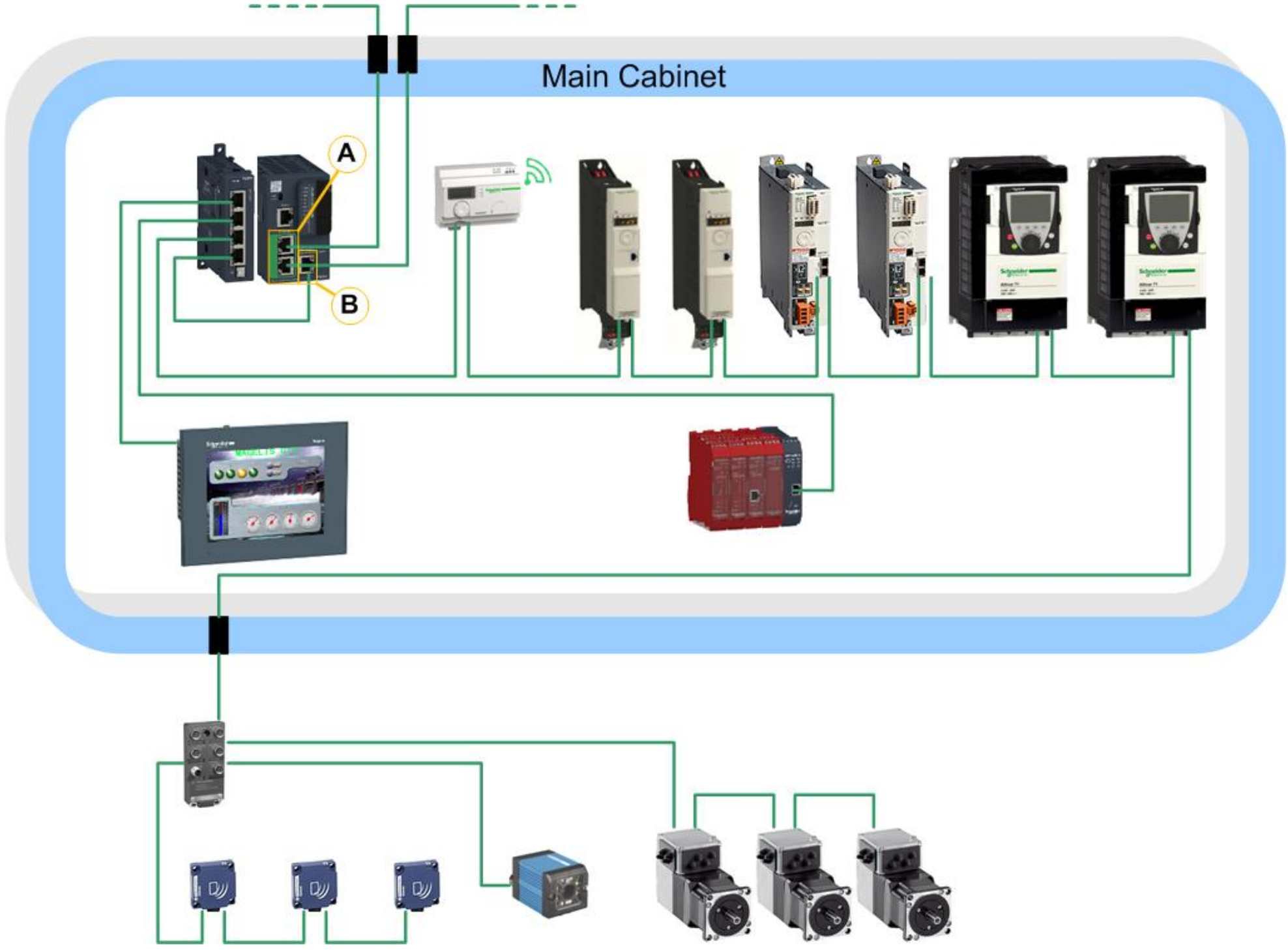
INTEGRATED DRIVE
ILS2K571PC1A0

ETH in ETH out
ETH1 ETH2
#COM/5.5 #COM/5.5

Drive 9

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Servo drives ILx2K integrated	=WIRD +MC
			Ed.	kJakob				#MOV
			Appr		TVDA			EIO0000002282.00 Page 7
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#MOV/7 of 7

0	1	2	3	4	5	6	7	8	9



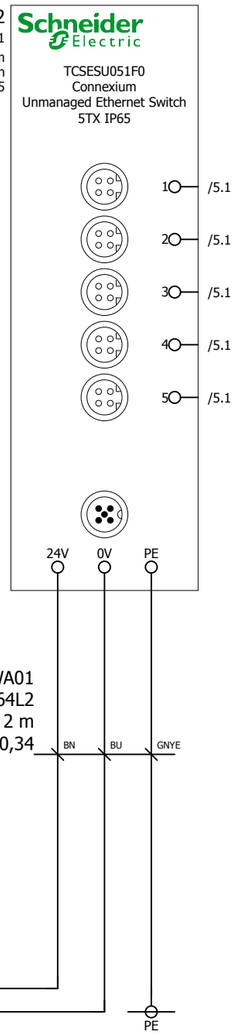
#MOV/7

2

			Date	2015/10/21	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Layout Ethernet topology		=WIRD +MC
			Ed.	kJakob					#COM
			Appr		TVDA			EIO0000002282.00	Page 1
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#COM/1	of 6

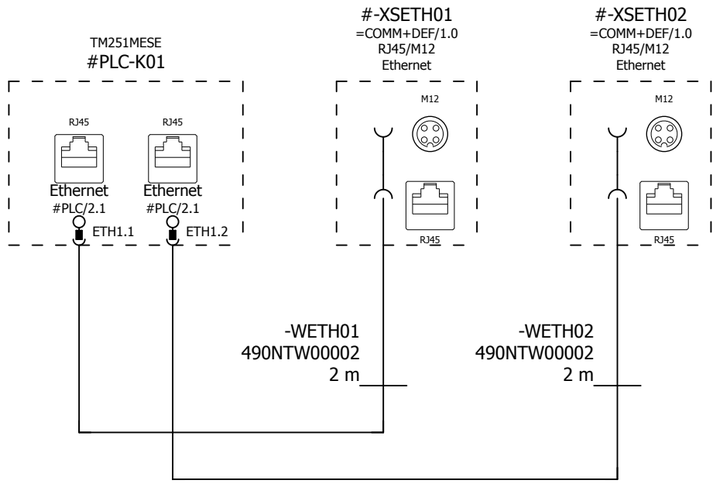
0	1	2	3	4	5	6	7	8	9

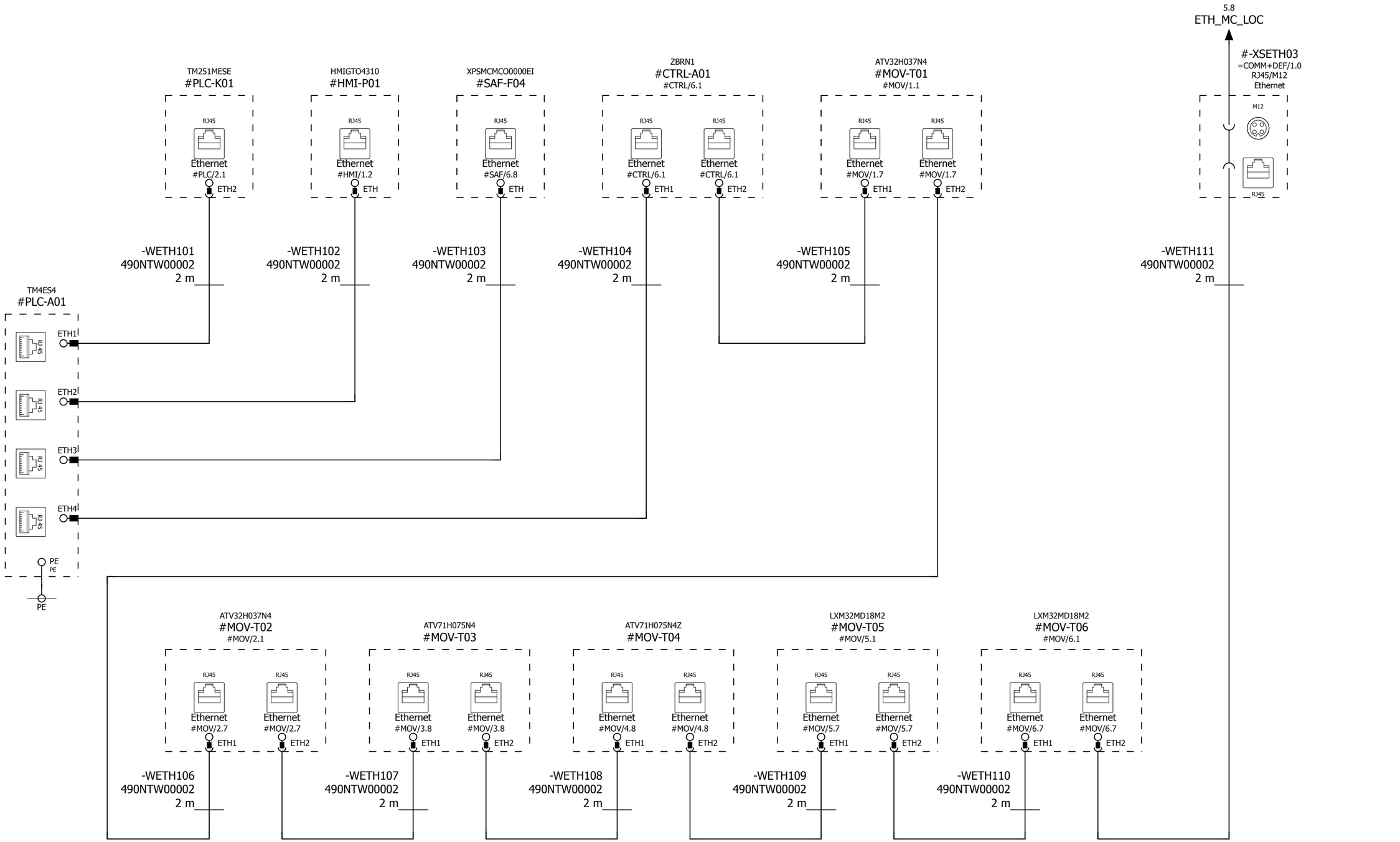
+LOC-A02
/5.1
Connexium
Unmanaged Ethernet Switch
5TX IP65



1 3

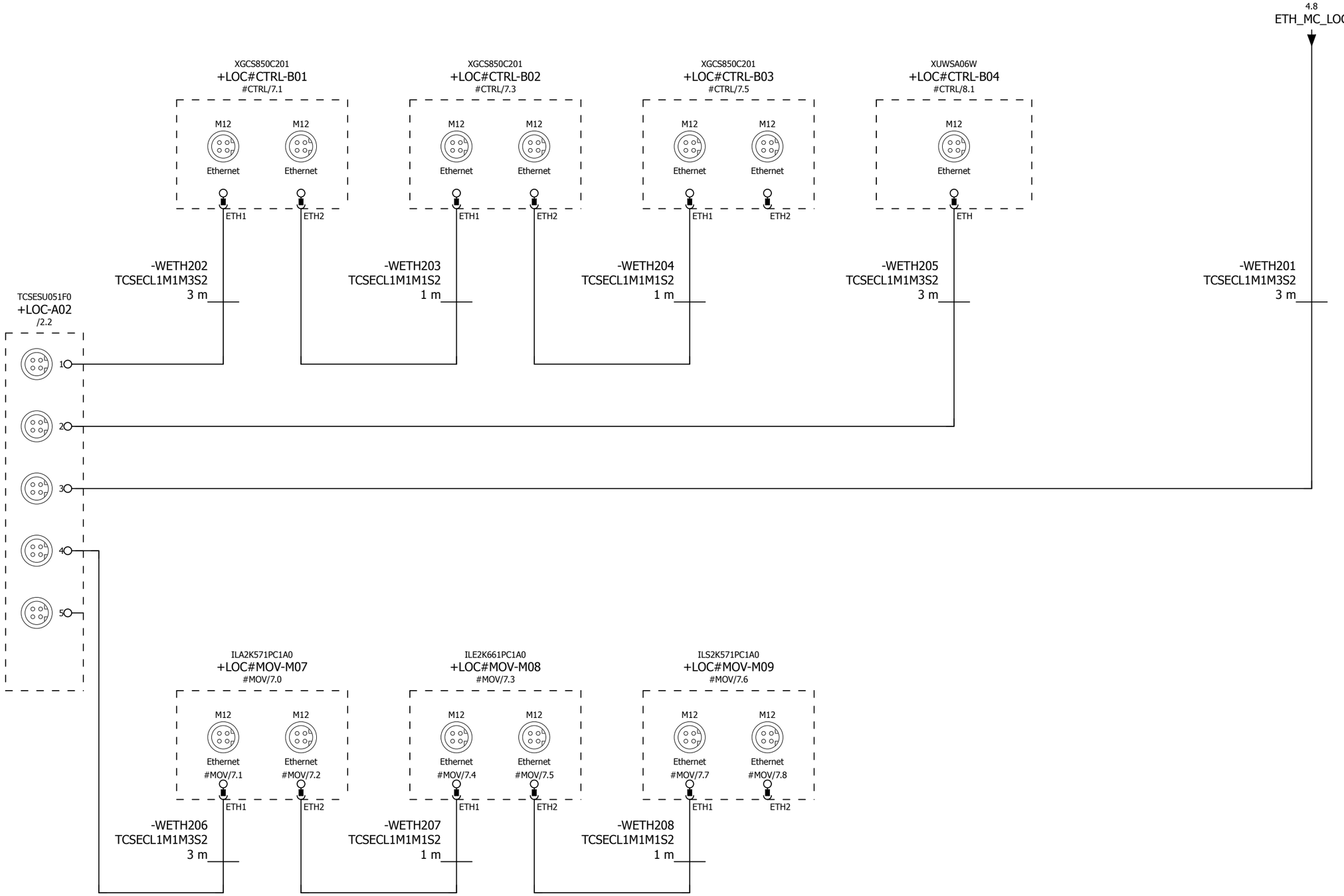
			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Power Supply Ethernet Switch		=WIRD +MC
			Ed.	kJakob					#COM
			Appr		TVDA			EIO0000002282.00	Page 2
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#COM/2	of 6


TM251MESE
#PLC-K01
RJ45
RJ45
Ethernet
#PLC/2.1
Ethernet
#PLC/2.1
ETH1.1
ETH1.2
#-XSETH01
=COMM+DEF/1.0
RJ45/M12
Ethernet
M12
RJ45
#-XSETH02
=COMM+DEF/1.0
RJ45/M12
Ethernet
M12
RJ45
-WETH01
490NTW00002
2 m
-WETH02
490NTW00002
2 m

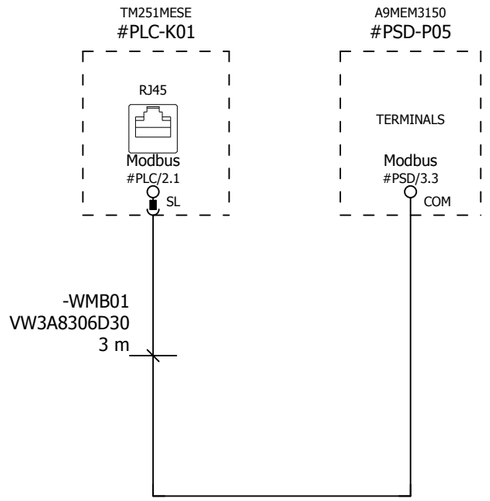


3 5

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Ethernet topology - Device network	=WIRD	+MC
			Ed.	kJakob					#COM
			Appr		TVDA			EIO0000002282.00	Page 4
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#COM/4	of 6



			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251	Schneider Electric	Ethernet topology - Device network (Field)	=WIRD	+MC
			Ed.	kJakob					#COM
			Appr		TVDA			EIO0000002282.00	Page 5
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#COM/5	of 6



VW3A8603D30 - wiring		
RJ45	color	iEM3150
1	wh/gn	nc
2	gn	nc
3	wh/or	nc
4	bu	D1
5	wh/bu	D0
6	or	nc
7	wh/bn	nc
8	bn	GND

5

			Date	2015/11/13	Compact / EtherNetIP / Logic Controller M251		Modbus topology	=WIRD	+MC
			Ed.	kJakob					#COM
			Appr		TVDA			EIO0000002282.00	Page 6
Modification	Date	Name	Original		Replacement of	Replaced by		=WIRD+MC#COM/6	of 6