



Goudsmit Magnetic Systems
Petunialaan 19
5582 HA Waalre
The Netherlands
Phone +31 (0)40 - 2213283

Customer Name:	Customer Name xxxxx		
Customer Number:	Customer Number XXXXXX		
Country:	The Netherlands		
Language:	English		
Project Name:	Control box EM4-7 INCL. VALVE		
Project Number:	project Number xxxxx		
Product Description:	SPA-E-CB-NA-PLC-HW-PT1K0		
Product Number:	ESBP210003_G		
Make:	TNR		
Designer:	p.hellings	Supply Voltage:	110-230-400 VAC
Design Date:	12-6-2023	Nominal Power:	1.0 kW
Edit Date:	22-9-2025	Max Supply Current:	16 A
Revision Number:	Rev G	Control Voltage:	24V DC
Revision Status:		ATEX:	No Atex
			Number of pages 31

Project overview

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2	Project Overview
3	Revision overview
4	Page overview
100	Mains supply
110	Power supplies
150	Main circuit
200	Control Circuit
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600	-
700	-
800	Cabinet Layout
900	Bill of material
920	Components list
940	Terminal Plan
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TERMINAL NUMBERING	
X0	Mains supply
X1	Main power
X2	Control Voltage 230VAC
X3	Control Voltage 24 VAC
X4	Control Voltage 24 VDC
X5	Analog Signals (Field)
X6	Digital Signals (Field)
X7	External Signals (Customer)
X8	EEX i
X9	-

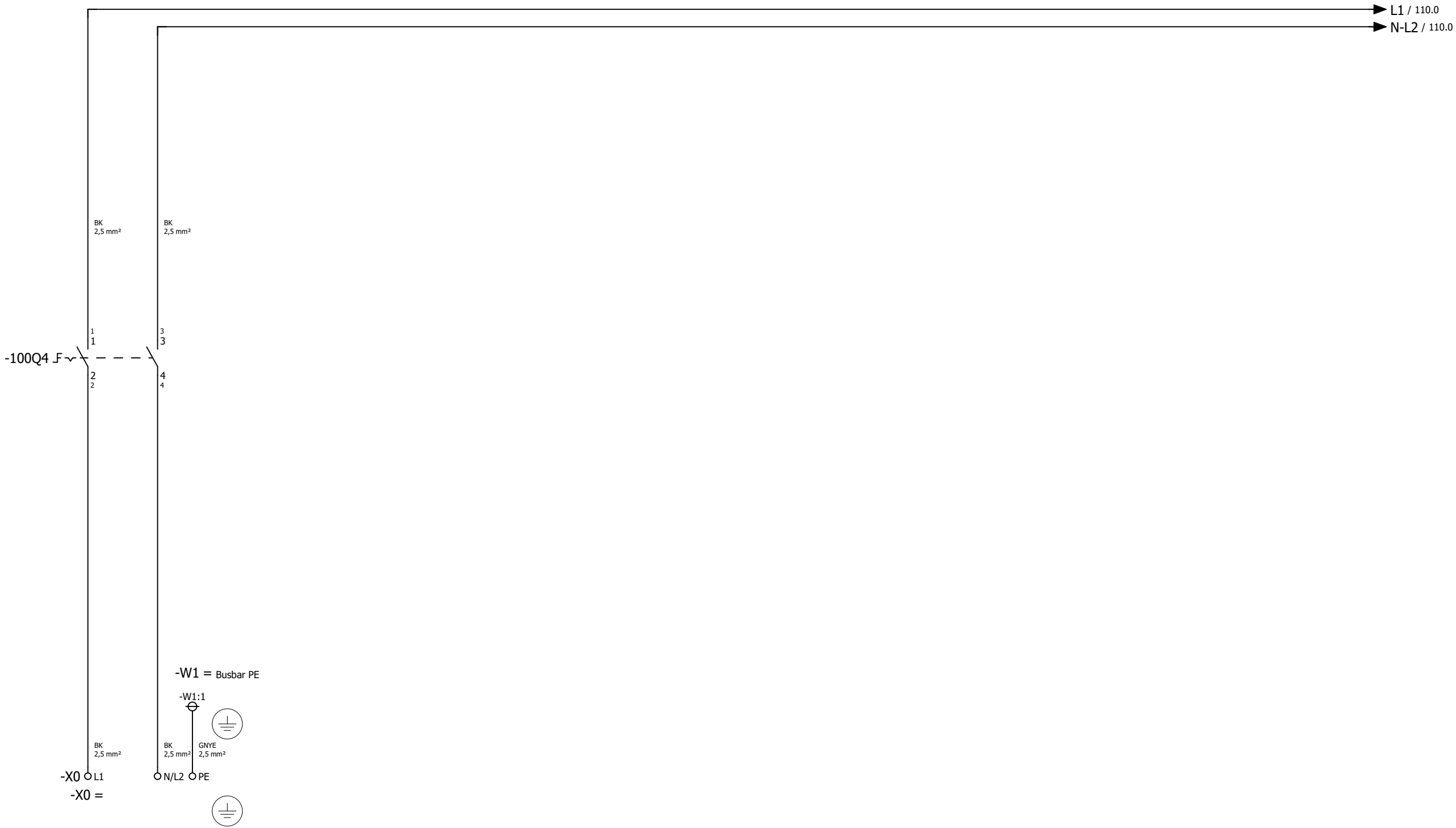


COLOR CODE INTERNAL WIRING		
Main voltage 400/230VAC	Phase	Black
	Neutral	Lightblue
	Earth	Yellow/Green
Control voltage 230VAC	Phase	Red
	Switch wire	Red
	Neutral	Red
Control voltage 24VAC	Phase (L)	Grey
	Switch wire	Grey
	Neutral (N)	Grey
Control voltage 24VDC	Phase (+)	Darkblue
	Switch wire	Darkblue
	Neutral (-)	Darkblue
Control voltage 12VDC	Phase (+)	White
	Switch wire	White
	Neutral (-)	White
Measurement		Purple
External signals (potential free contacts)		Orange
EEx i		Blue

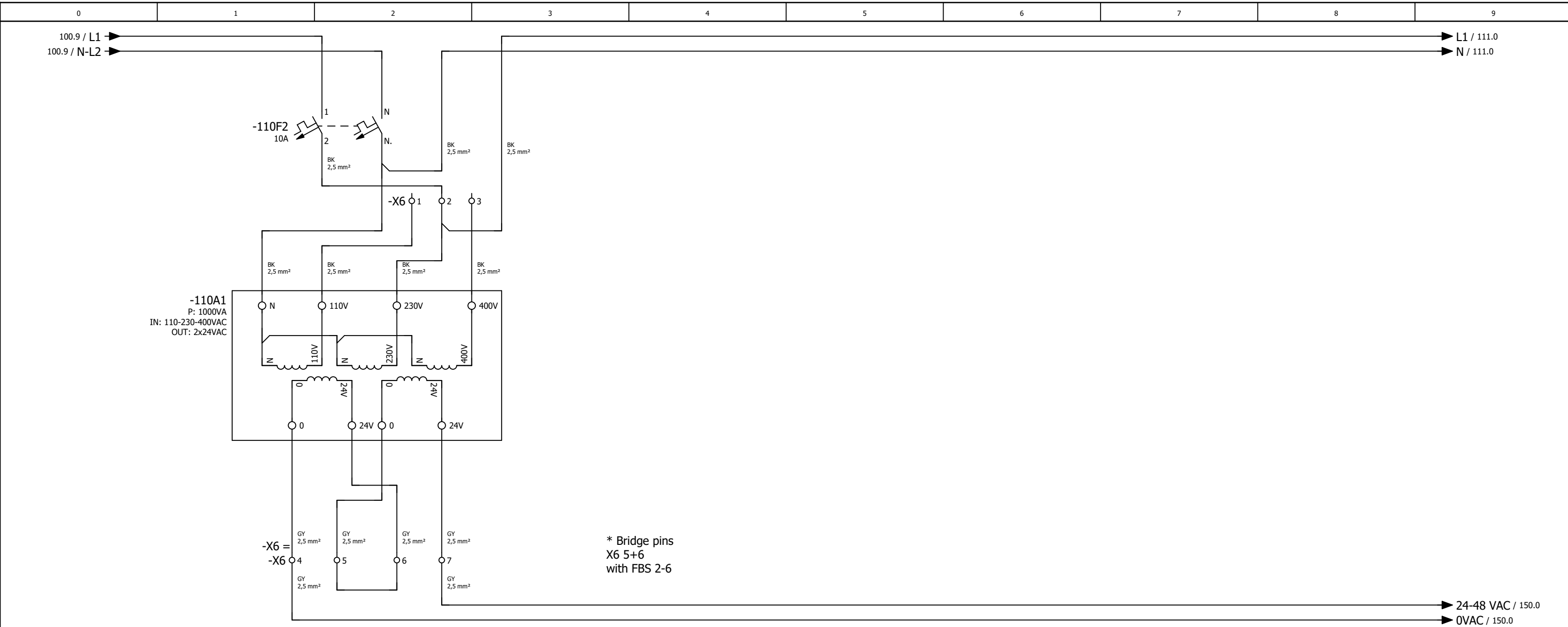
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Column X: An automatically generated page was edited

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/2	Project Overview	Rev G	22-9-2025	p.hellings	
/3	Revision Overview	Rev G	22-9-2025	p.hellings	
/4	Page Overview	Rev G	22-9-2025	p.hellings	
/100	Mains Power	Rev G	22-9-2025	p.hellings	
/110	Power Supplies	Rev G	22-9-2025	p.hellings	
/111	Power Supplies	Rev G	22-9-2025	p.hellings	
/150	Main Circuit	Rev G	22-9-2025	p.hellings	
/200	Control Circuit 24VDC	Rev G	22-9-2025	p.hellings	
/220	Control Circuit Temperature	Rev G	22-9-2025	p.hellings	
/230	Control Circuit Status	Rev G	22-9-2025	p.hellings	
/400	PLC overview	Rev G	22-9-2025	p.hellings	
/410	PLC CPU Power	Rev G	22-9-2025	p.hellings	
/412	PLC Digital Mix Power	Rev G	22-9-2025	p.hellings	
/413	PLC Digital Mix Power	Rev G	22-9-2025	p.hellings	
/501	PLC I/O Digital Inputs	Rev G	22-9-2025	p.hellings	
/502	PLC I/O Digital Outputs	Rev G	22-9-2025	p.hellings	
/503	PLC I/O Digital Inputs	Rev G	22-9-2025	p.hellings	
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/901	Bill of material	Rev G	22-9-2025	p.hellings	
/920	Components List	Rev G	22-9-2025	p.hellings	
/921	Components List	Rev G	22-9-2025	p.hellings	
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/990	Textplates	Rev G	22-9-2025	p.hellings	

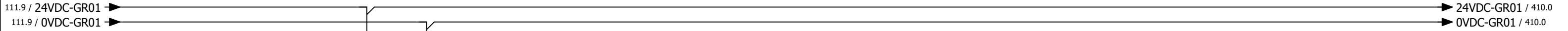


			Date	22-9-2025	Control box EM4-7 INCL. VALVE project Number xxxxx			SPA-E-CB-NA-PLC-HW-PT1K0 ESBP210003_G	Mains Power	=	
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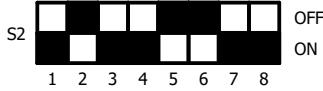
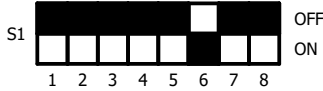
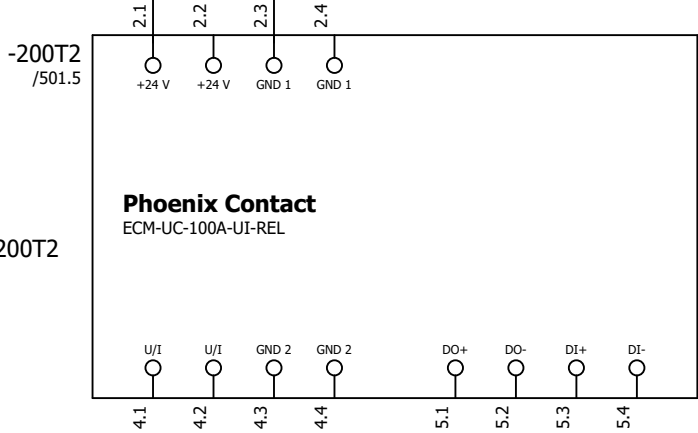


Power Supply 24V AC
Control Circuit

X6:1 FOR MAIN POWER SUPPLY 110V AC
X6:2 FOR MAIN POWER SUPPLY 230V AC
X6:3 FOR MAIN POWER SUPPLY 400V AC

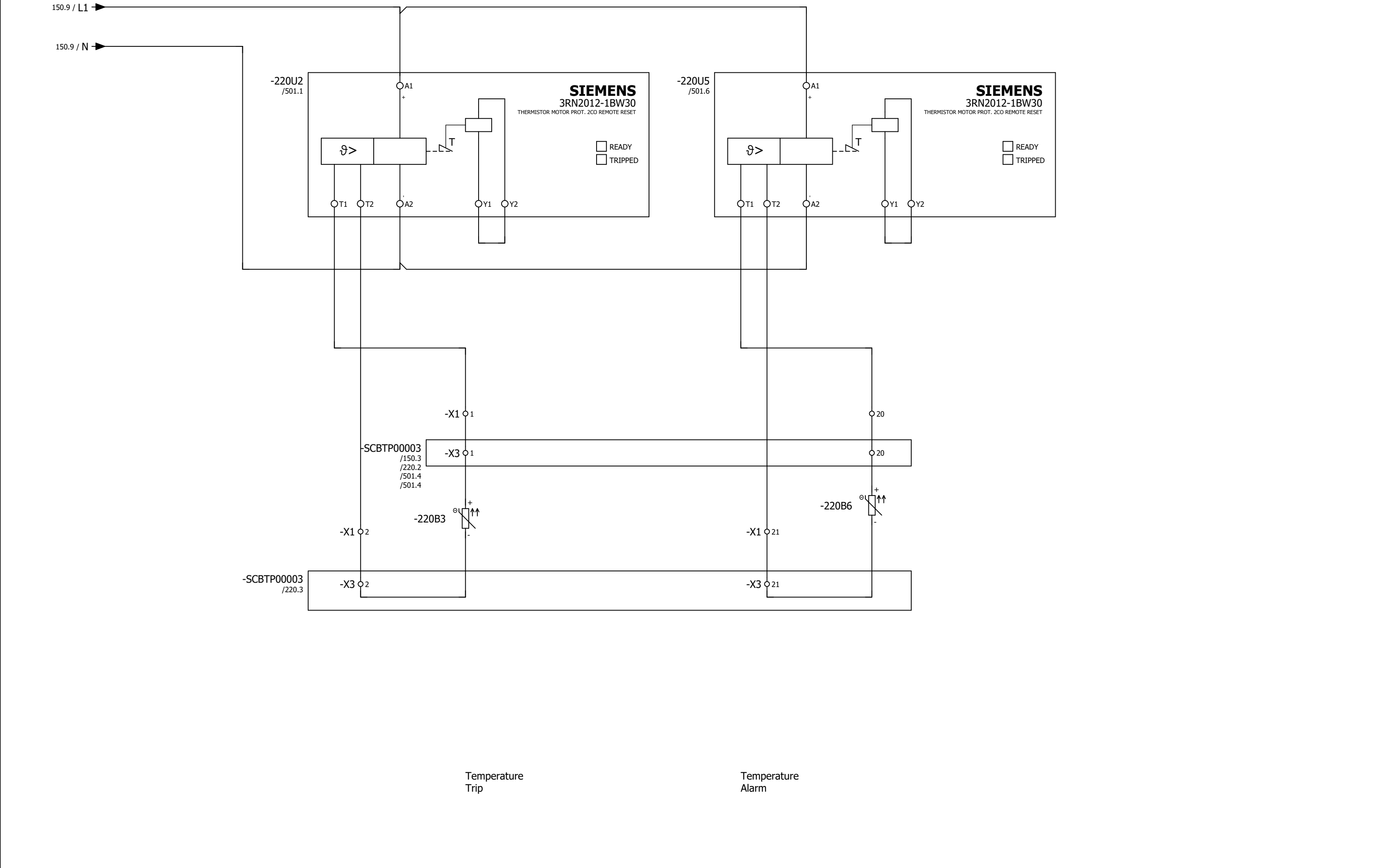


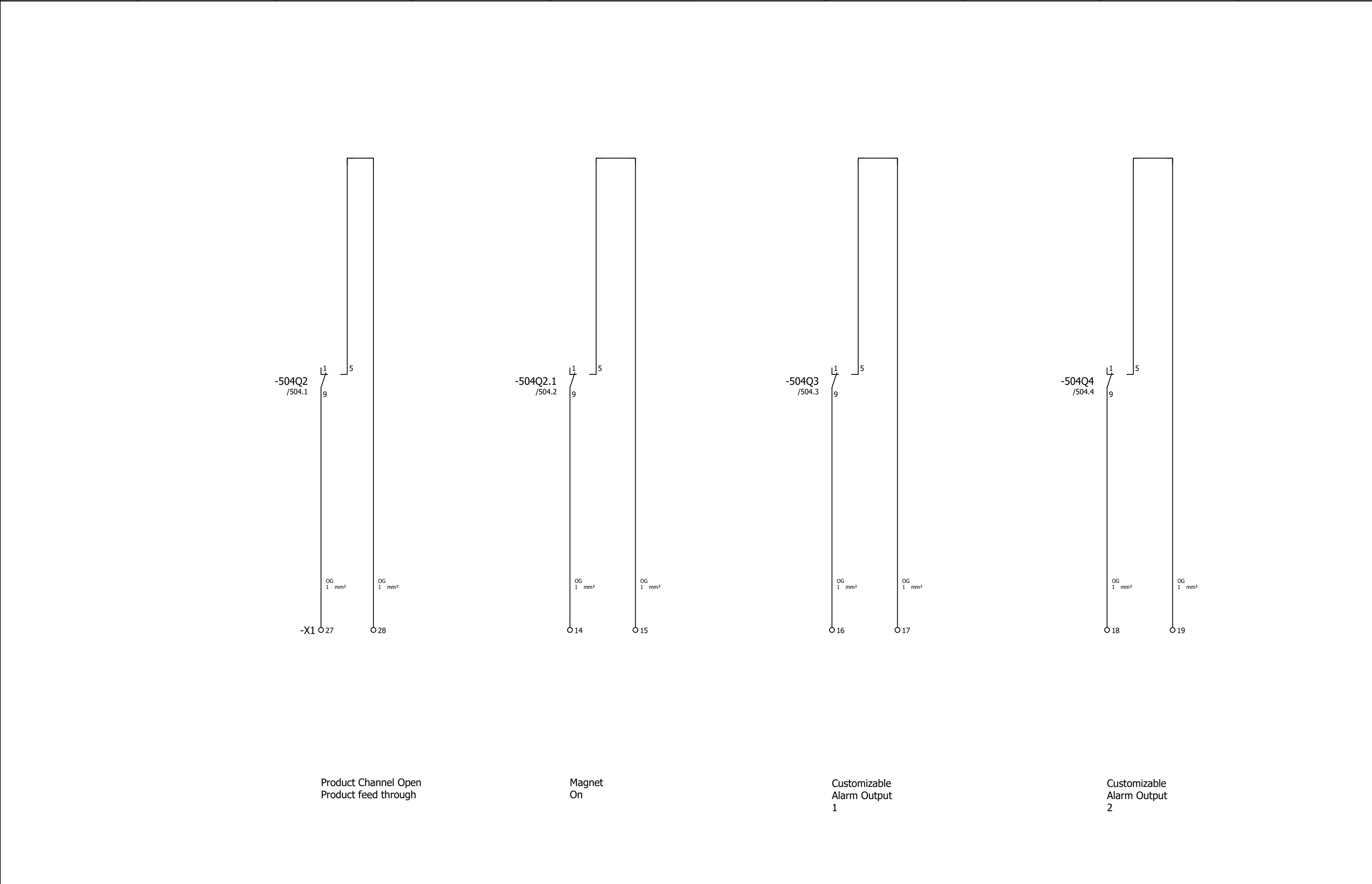
* Note
Wire from to X1-A
must be pulled through 200T2

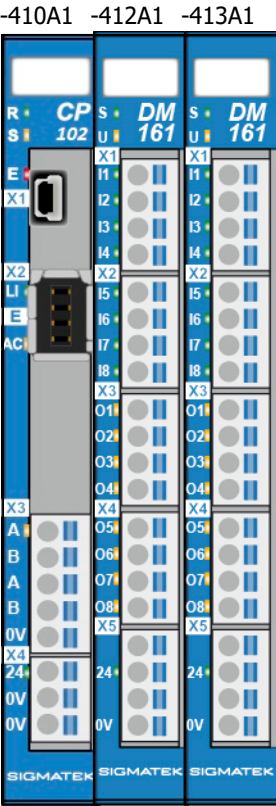


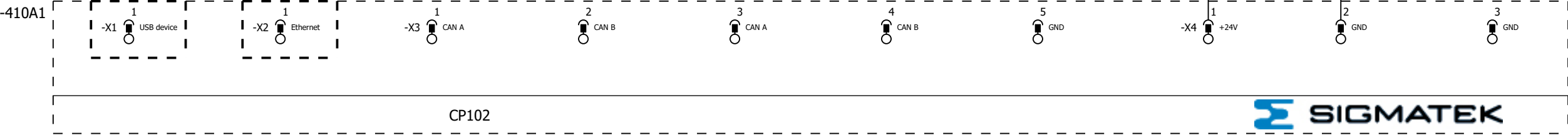
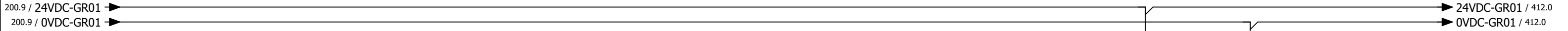
SELECTED

Current
Relay

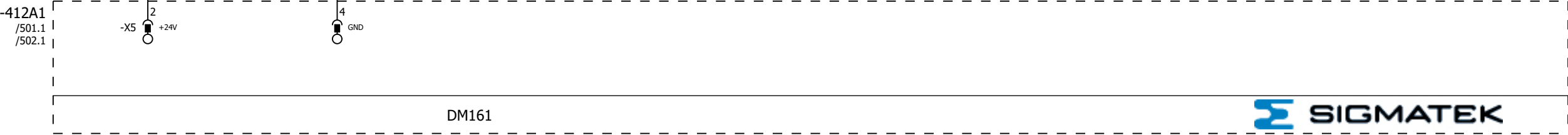
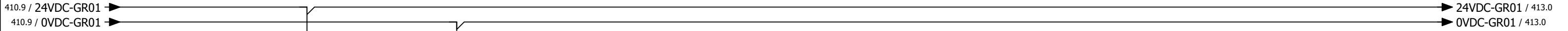


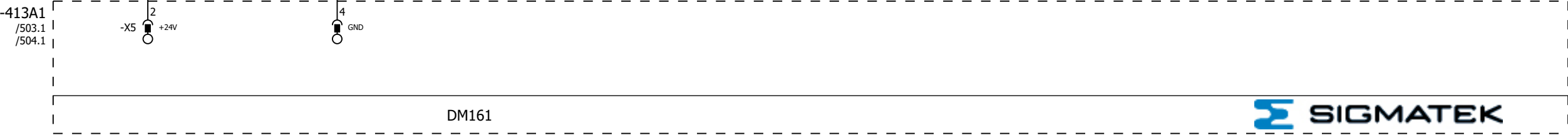
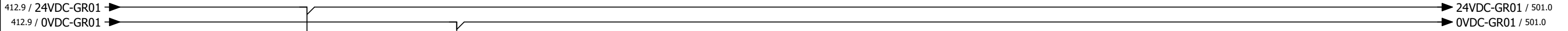




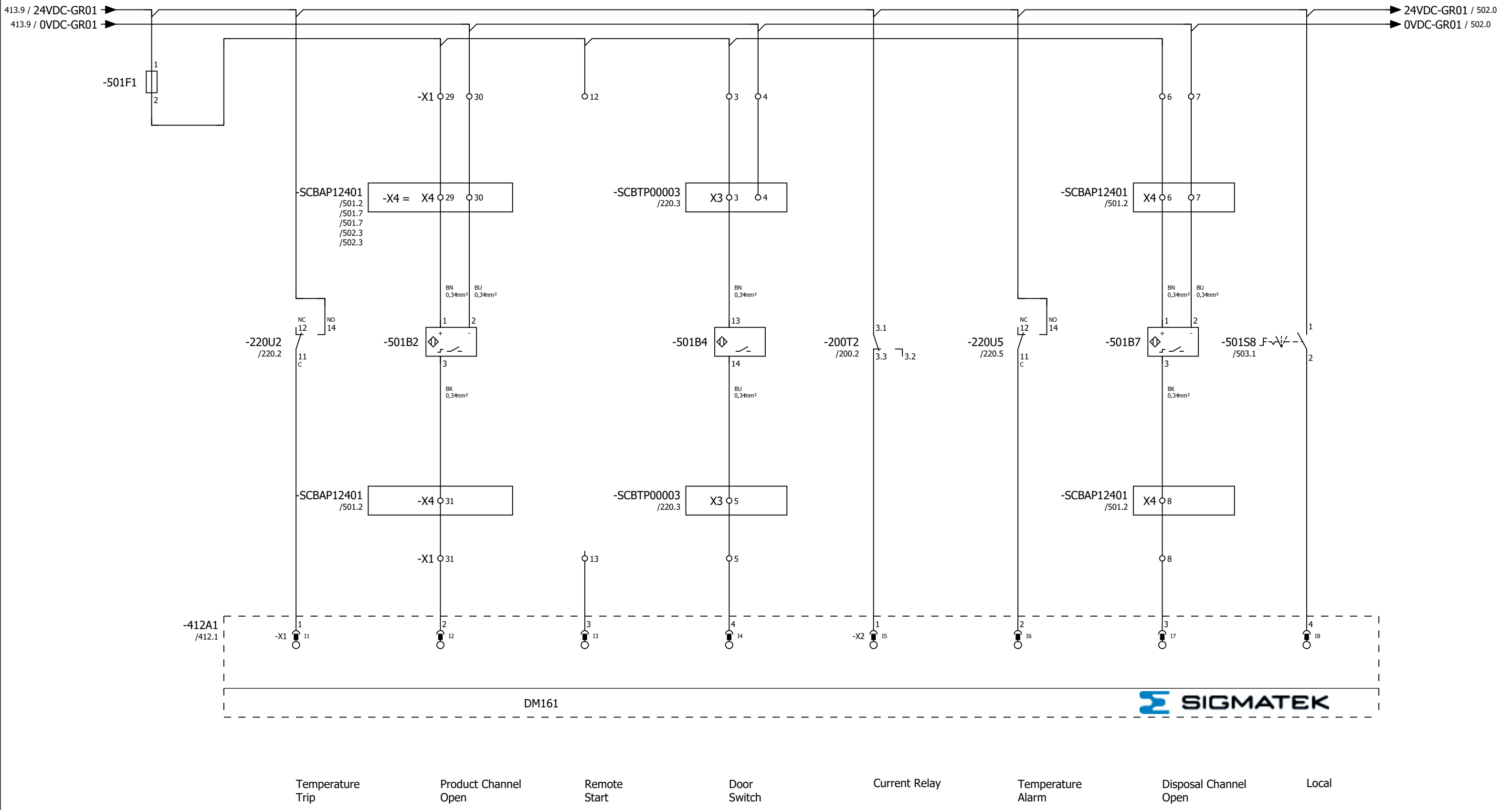


			Date	22-9-2025	Control box EM4-7 INCL. VALVE project Number xxxxx		Goudsmit Magnetic Systems 	SPA-E-CB-NA-PLC-HW-PT1K0 ESBP210003_G	PLC CPU Power	=	
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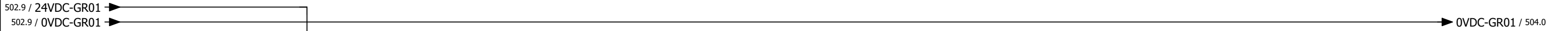




			Date	22-9-2025	Control box EM4-7 INCL. VALVE project Number xxxxx			SPA-E-CB-NA-PLC-HW-PT1K0 ESBP210003_G	PLC Digital Mix Power	=	
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-501S8
/501.8

-413A1
/413.1



DM161



Remote Spare Spare Spare Spare Spare Spare Spare

-413A1
/413.1

DM161



-X3 01
1

02
2

03
3

04
4

-X4 05
1

06
2

07
3

08
4

-504Q2
13(-)
14(+)

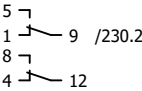
-504Q2.1
13(-)
14(+)

-504Q3
13(-)
14(+)

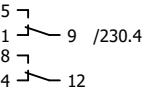
-504Q4
13(-)
14(+)

503.9 / 0VDC-GR01

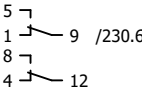
Product Channel
Open
[Product Feed
Through]



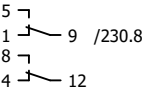
Magnet
On



Customizable
Alarm Output
1



Customizable
Alarm Output
2



Spare

Spare

Spare

Spare

Bill of material

Quantity	Description	Type number	Part Number	Supplier	Isah Number
1	Compact enclosure AX	AX.1050000	1050000	Rittal	EI1D566403
1	VE1.0 1-PHASE TRANSFORMER	VE1.0	11191164	Jaspers Transformatoren	EIJA501K02
1	S-DIAS CPU Module	CP102	20-004-102	Sigmathek	E0027409
2	S-DIAS Digital Mixed Module	DM161	20-008-161	Sigmathek	E0027373
1	CAPACITOR	450V1.5uF	450V1.5uF	Unknown brand	EIMB81K500
1	Capacitor 6.0uF, 450V AC	MKA 450-6uF	MKA 450-6uF	Comar	EIMB86K301
1	CAPACITOR	450V6.3uF	450V6.3uF	Unknown brand	EIMB86K300
1	CIRCUIT BREAKER 10KA 1+N-POL D10	5SY4510-8	5SY4510-8	Siemens	EIHD042005
1	CIRCUIT BREAKER 6KA1+N-POL C4	5SY6504-7	5SY6504-7	Siemens	E0029964
2	Fuse modular terminal block	UT 4-HESI (5X20) GY	3074169	Phoenix Contact	EIOJ020003
2	5X20mm Fuse 0,5A Slow Acting	MI5T25V0,5	F219747Q	Ferraz	EIHF610212
1	LED MODULE, GREEN	3SU1401-1BB40-1AA0	3SU1401-1BB40-1AA0	Siemens	EIFD403002
1	INDICATOR LIGHT, GREEN	3SU1001-6AA40-0AA0	3SU1001-6AA40-0AA0	Siemens	EIFC050005
3	HOLDER	3SU1500-0AA10-0AA0	3SU1500-0AA10-0AA0	Siemens	EICH000022
1	LED MODULE, YELLOW	3SU1401-1BB30-1AA0	3SU1401-1BB30-1AA0	Siemens	EIFD403003
1	INDICATOR LIGHT, YELLOW	3SU1001-6AA30-0AA0	3SU1001-6AA30-0AA0	Siemens	EIFC050006
1	LED MODULE, RED	3SU1401-1BB20-1AA0	3SU1401-1BB20-1AA0	Siemens	EIFD403001
1	INDICATOR LIGHT, RED	3SU1001-6AA20-0AA0	3SU1001-6AA20-0AA0	Siemens	EIFC050007
1	Base mounting switch, On-Off switch, 90 degree, 20A, 2 pole, padlock, yellow/red	M220-61192-033N4	M220-61192-033N4	Salzer	EICB442605
1	CONTACTOR,AC3:7,5KW 1NO+1NC DC24V	3RT2025-1BB40	3RT2025-1BB40	Siemens	EIDB052001
1	CONTACTOR,AC3:4KW 1NO DC24V	3RT2016-1BB41	3RT2016-1BB41	Siemens	EIDB032001
4	Miniature Power Relay, mechanical indicators built-in, 2 poles	MY2IN-GS-R DC24	MY2IN-GS-R DC24	Omron	EIDF632008
4	Square Sockets	PYF08S	PYF08S	Omron	EIDK600004
1	Varistor	S14K60	S14K60	Epcos	EIKH176502
1	ROTARY CAM SWITCH 1X21A, H/0/A - FRONT MOUNTING IP66	M220-61025-003M1	5960025	Salzer	EICB442601
1	SITOP PSU100S	6EP1333-2BA20	6EP1333-2BA20	Siemens	EIPF240505
1	Bridge Rectifier	VBO30-16NO7	VBO30-16NO7	IXYS	EIKCDB3807
1	Heatsink250x140mm	Heatsink250x140mm	Heatsink250x140mm	TNR	E0093016
1	Current value transformer	ECM-UC-100A-UI-REL	1698172	Phoenix Contact	EITW049001

Terminal line-up diagram

Goudsmit_2025_03

[illegible]

-X1		
•	27	
•	28	
•	29	
•	30	
•	31	

			Date	22-9-2025	Control box EM4-7 INCL. VALVE project Number xxxxx		Goudsmit Magnetic Systems 	SPA-E-CB-NA-PLC-HW-PT1K0 ESBP210003_G	Terminal Plan	=	
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Textplates

RESOPALS

MAINSWITCH

MAGNET ON

FAILURE

MAGNET OFF

LOCAL-OFF-REMOTE

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TEXTPLATE

GOUDSMIT
MAGNETICS

MAGNETICS

www.goudsmitmagnets.com



CONTROL BOX

ESBP210003_G

VOLTAGE:

110-230-400 VAC

CURRENT:

16 A

POWER:

1.0 kW

Goudsmit Magnetics, Petunialaan 19, 5582 HA, Waalre, The Netherlands

UK authorised representative:

Goudsmit UK Ltd, 1st Floor, Riverview, The Green, Tullynacross Rd, Lisburn,
BT27 5SR, United Kingdom

RESOPAL PROPERTIES

Resopal dimension	45x15mm
Resopal color	White
Text color	Black

CABLE TAGS

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0

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