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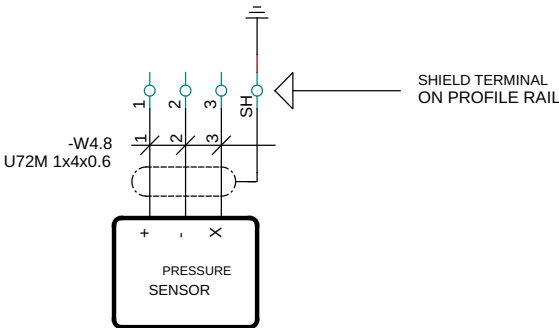
WS-SMART-HG

Wiring diagram · 1 DH heat exchanger, 4 heating circuits, 1 DHW circuit (1ECH-4GR-1ECS)
One sheet per WS-SMART-IO module with its connected devices

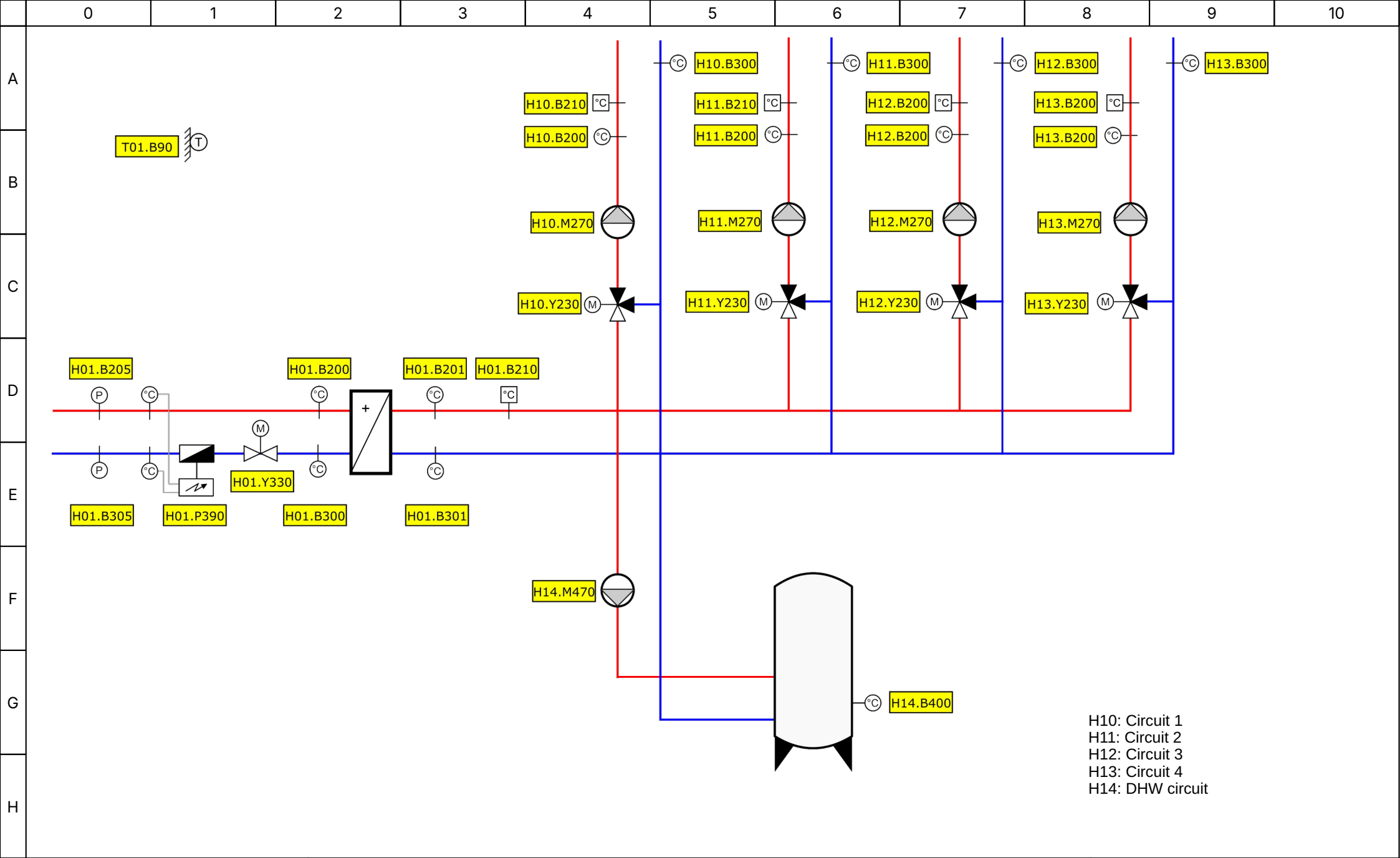
Project	CAD
Position	TEST ALPA
Diagram no.	1ECH-4GR-1ECS, version 1
Controller	Siemens Climatix POL648.80/STD + M-Bus extension POL907.00 + 5 WS-SMART-IO modules (Modbus)
Author	WELLSET, Rue de l'Industrie 10, 1950 Sion · www.wellset.ch
Videos	YouTube · www.youtube.com/@Wellset-ch
Based on	WSCAD diagram ws-smart-hg-schema-raccordement-1ech-4gr-1ecs-v1 (sheets dated 23.07.2026 to 24.08.2026)

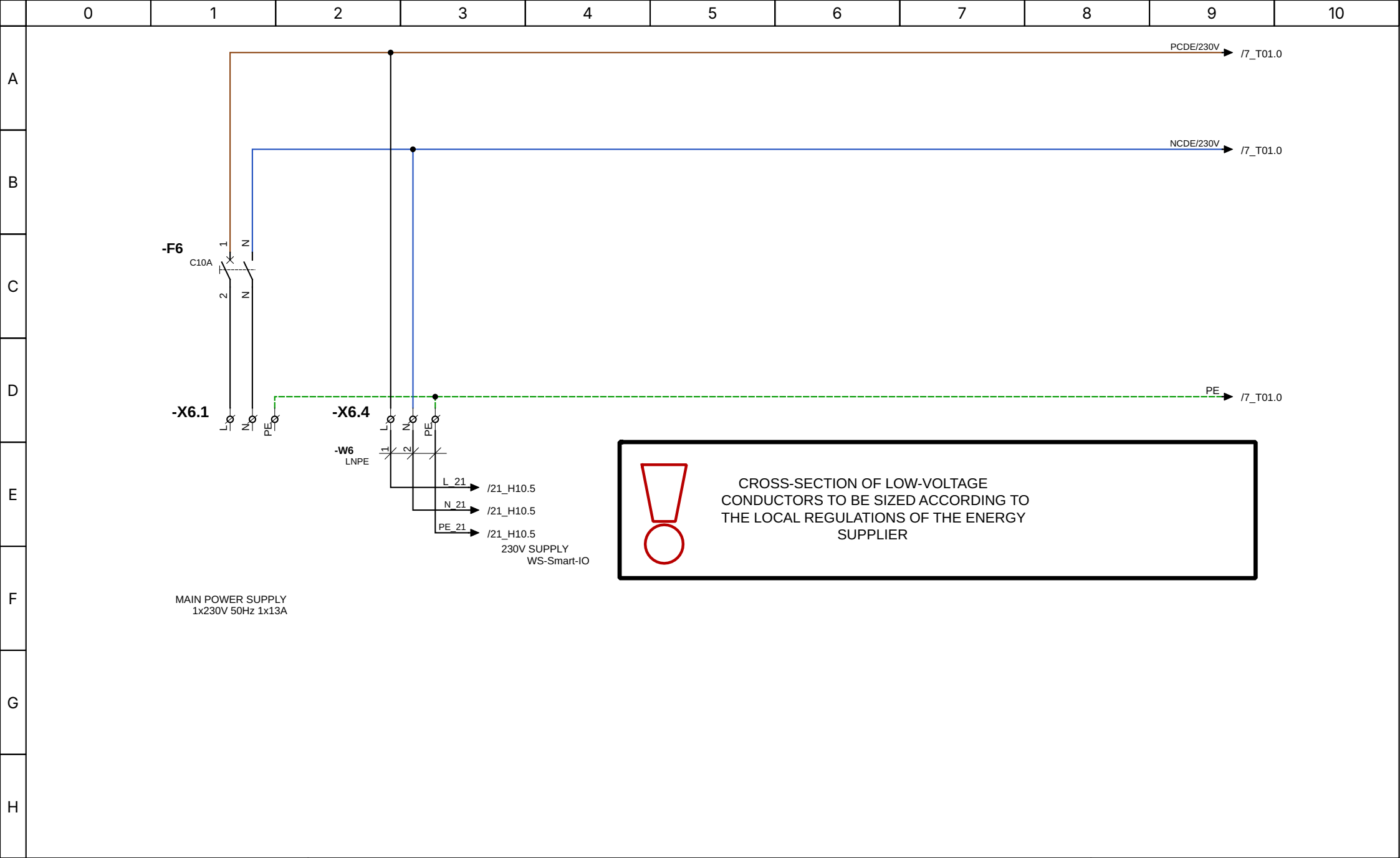
This diagram remains the intellectual property of WORKSWELL Sàrl. No modification or adaptation is permitted without prior agreement.
Contents: sheet 2 · Sheets numbered consecutively “n_installation” (T01 panel, H01 DH production, H10-H13 circuits 1-4, H14 DHW).
Device tags: panel and modules numbered after their sheet (-F6, -U8, -U22); field devices after their function (B200, Y230, M270).
Allocation (03.10.2026): Climatix POL648 for DH production (H01) and the outdoor temperature (sheet 10_T01);
WS-SMART-IO modules 1 to 4 for heating circuits H10 to H13, module 5 for DHW H14.
One sheet per module (21_H10 to 25_H14) with its sensors, thermostat, valve and pump wired directly, without cross-references.
230 V pumps switched by relay J13 of their module: phase from AC OUT J12 via COM → NO, N and PE direct.
WS-SMART-IO board (overview and connections): sheet 20, just before the module sheets.

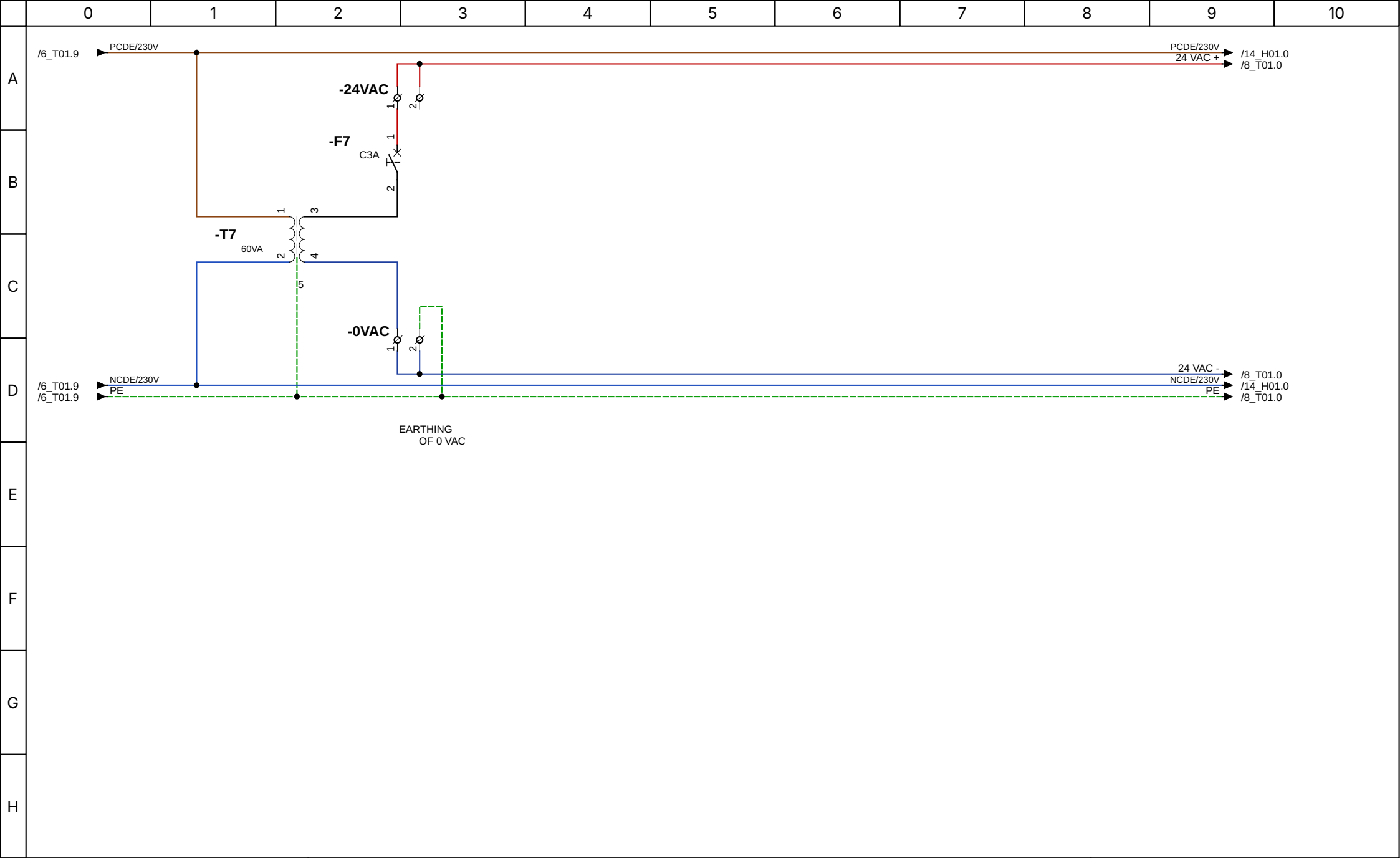
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A	<div>CONTENTS</div> <table><thead><tr><th>Sheet</th><th>Title</th><th>Date</th><th>Revision</th></tr></thead><tbody><tr><td>1</td><td>COVER PAGE</td><td>20.08.26</td><td>1-R</td></tr><tr><td>2</td><td>CONTENTS</td><td>23.07.26</td><td>1-R</td></tr><tr><td>3</td><td>ELECTRICAL REQUIREMENTS</td><td>24.08.26</td><td>1-R</td></tr><tr><td>4</td><td>WIRING COLOUR CODE</td><td>23.07.26</td><td>1-R</td></tr><tr><td>5_T01</td><td>PRINCIPLE DIAGRAM</td><td>21.08.26</td><td>1-R</td></tr><tr><td>6_T01</td><td>MAIN POWER SUPPLY</td><td>20.08.26</td><td>1-R</td></tr><tr><td>7_T01</td><td>24VAC POWER SUPPLY</td><td>20.08.26</td><td>1-R</td></tr><tr><td>8_T01</td><td>MAIN CONTROLLER POL648.80/STD</td><td>21.08.26</td><td>1-R</td></tr><tr><td>9_T01</td><td>CONTROLLER EXTENSION MBUS POL907.00</td><td>20.08.26</td><td>1-R</td></tr><tr><td>10_T01</td><td>OUTDOOR TEMPERATURE</td><td>21.08.26</td><td>1-R</td></tr><tr><td>11_H01</td><td>DH PRIMARY SUPPLY TEMP.</td><td>24.08.26</td><td>1-R</td></tr><tr><td>12_H01</td><td>DH SECONDARY SUPPLY TEMP.</td><td>24.08.26</td><td>1-R</td></tr><tr><td>13_H01</td><td>PRESSURE SENSOR</td><td>24.08.26</td><td>1-R</td></tr><tr><td>14_H01</td><td>DH SECONDARY THERMOSTAT</td><td>24.08.26</td><td>1-R</td></tr><tr><td>15_H01</td><td>DH PRIMARY RETURN TEMP.</td><td>24.08.26</td><td>1-R</td></tr><tr><td>16_H01</td><td>DH SECONDARY RETURN TEMP.</td><td>24.08.26</td><td>1-R</td></tr><tr><td>17_H01</td><td>PRESSURE SENSOR</td><td>24.08.26</td><td>1-R</td></tr><tr><td>18_H01</td><td>DH VALVE</td><td>24.08.26</td><td>1-R</td></tr><tr><td>19_H01</td><td>DH METER</td><td>24.08.26</td><td>1-R</td></tr><tr><td>20</td><td>WS-SMART-IO · OVERVIEW AND CONNECTIONS</td><td>03.10.26</td><td>1-R</td></tr><tr><td>21_H10</td><td>WS-Smart-IO 1 · Circuit 1</td><td>24.08.26</td><td>1-R</td></tr><tr><td>22_H11</td><td>WS-Smart-IO 2 · Circuit 2</td><td>21.08.26</td><td>1-R</td></tr><tr><td>23_H12</td><td>WS-Smart-IO 3 · Circuit 3</td><td>21.08.26</td><td>1-R</td></tr><tr><td>24_H13</td><td>WS-Smart-IO 4 · Circuit 4</td><td>21.08.26</td><td>1-R</td></tr><tr><td>25_H14</td><td>WS-Smart-IO 5 · DHW</td><td>24.08.26</td><td>1-R</td></tr><tr><td>26</td><td>Terminal diagram (1)</td><td>26.10.26</td><td>1-R</td></tr><tr><td>27</td><td>Terminal diagram (2)</td><td>26.10.26</td><td>1-R</td></tr><tr><td>28</td><td>Cable list (1)</td><td>26.10.26</td><td>1-R</td></tr><tr><td>29</td><td>Cable list (2)</td><td>26.10.26</td><td>1-R</td></tr><tr><td>30</td><td>Bill of materials (1)</td><td>26.10.26</td><td>1-R</td></tr><tr><td>31</td><td>Bill of materials (2)</td><td>26.10.26</td><td>1-R</td></tr></tbody></table>								Sheet	Title	Date	Revision	1	COVER PAGE	20.08.26	1-R	2	CONTENTS	23.07.26	1-R	3	ELECTRICAL REQUIREMENTS	24.08.26	1-R	4	WIRING COLOUR CODE	23.07.26	1-R	5_T01	PRINCIPLE DIAGRAM	21.08.26	1-R	6_T01	MAIN POWER SUPPLY	20.08.26	1-R	7_T01	24VAC POWER SUPPLY	20.08.26	1-R	8_T01	MAIN CONTROLLER POL648.80/STD	21.08.26	1-R	9_T01	CONTROLLER EXTENSION MBUS POL907.00	20.08.26	1-R	10_T01	OUTDOOR TEMPERATURE	21.08.26	1-R	11_H01	DH PRIMARY SUPPLY TEMP.	24.08.26	1-R	12_H01	DH SECONDARY SUPPLY TEMP.	24.08.26	1-R	13_H01	PRESSURE SENSOR	24.08.26	1-R	14_H01	DH SECONDARY THERMOSTAT	24.08.26	1-R	15_H01	DH PRIMARY RETURN TEMP.	24.08.26	1-R	16_H01	DH SECONDARY RETURN TEMP.	24.08.26	1-R	17_H01	PRESSURE SENSOR	24.08.26	1-R	18_H01	DH VALVE	24.08.26	1-R	19_H01	DH METER	24.08.26	1-R	20	WS-SMART-IO · OVERVIEW AND CONNECTIONS	03.10.26	1-R	21_H10	WS-Smart-IO 1 · Circuit 1	24.08.26	1-R	22_H11	WS-Smart-IO 2 · Circuit 2	21.08.26	1-R	23_H12	WS-Smart-IO 3 · Circuit 3	21.08.26	1-R	24_H13	WS-Smart-IO 4 · Circuit 4	21.08.26	1-R	25_H14	WS-Smart-IO 5 · DHW	24.08.26	1-R	26	Terminal diagram (1)	26.10.26	1-R	27	Terminal diagram (2)	26.10.26	1-R	28	Cable list (1)	26.10.26	1-R	29	Cable list (2)	26.10.26	1-R	30	Bill of materials (1)	26.10.26	1-R	31	Bill of materials (2)	26.10.26	1-R	<div>LEGEND</div> <div>Sheets</div> <p>n_installation: consecutive sheet no. 5-10 T01: panel, Climatix, outdoor temp. 11-19 H01: DH production on the Climatix 20: WS-SMART-IO board · 21-25 H10-H14: modules</p> <div>Device tags</div> <p>-F circuit breaker, -T transformer, -K relay, -U controller / module, -B sensor, -Y valve actuator, -M pump, -P meter, -X terminal strip, -W cable</p> <div>Cross-references</div> <p>/sheet.column: the conductor continues</p> <div>Colours</div> <p>L / PCDE brown, N / NCDE blue, PE green dashed, 24 V + red, 0 V dark blue; wire colour code: sheet 4</p> <div>Terminals</div> <p>top = inside the panel, bottom = field</p>	
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B	<div>Contacts are shown de-energised, cold, dry and at zero pressure.</div> <div>The cross-section of low-voltage conductors must be sized according to the local regulations of the energy supplier.</div>																																		
C	<div>A safety switch must be provided on all fans and pumps.</div> <table><tr><th>Line length</th><th>< 50m</th><th>50-100m</th><th>100-200m</th></tr><tr><td>Control switches, limit switches (DDC)</td><td>0.8mm²</td><td>1mm²</td><td>1mm²</td></tr><tr><td>Thermostats, hygrostats, pressure switches</td><td>0.8mm²</td><td>1mm²</td><td>1mm²</td></tr><tr><td>Sensors, transmitters (temperature, humidity, pressure)</td><td>0.8mm²</td><td>1mm²</td><td>1.5mm²</td></tr><tr><td>Control switches, limit switches</td><td>0.8mm²</td><td>1.5mm²</td><td>1.5mm²</td></tr><tr><td>Actuators (dampers, valves, etc.)</td><td>0.8mm²</td><td>1.5mm²</td><td>1.5mm²</td></tr></table>											Line length	< 50m	50-100m	100-200m	Control switches, limit switches (DDC)	0.8mm ²	1mm ²	1mm ²	Thermostats, hygrostats, pressure switches	0.8mm ²	1mm ²	1mm ²	Sensors, transmitters (temperature, humidity, pressure)	0.8mm ²	1mm ²	1.5mm ²	Control switches, limit switches	0.8mm ²	1.5mm ²	1.5mm ²	Actuators (dampers, valves, etc.)	0.8mm ²	1.5mm ²	1.5mm ²
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E	<div>Use of shielding</div> <div>Shielding shall be used for all analogue signals of type 0...10 V, 4...20 mA, 0...20 mA, and for certain communication buses.</div> <div>It applies in particular to the following signals:</div> <div>Measuring signals from active sensors</div> <div>Positioning signals of analogue actuators</div> <div>Speed signals for variable-flow pumps, EC motors, frequency converters</div> <div>Control signals for heat pumps, burners, chillers</div>																																		
F	<div>Wago rail:</div> <div>790-145</div> <div>Wago clamping bracket:</div> <div>790-180 diameter 3-8mm -- 790-116 diameter 7-16mm</div> <div></div>																																		
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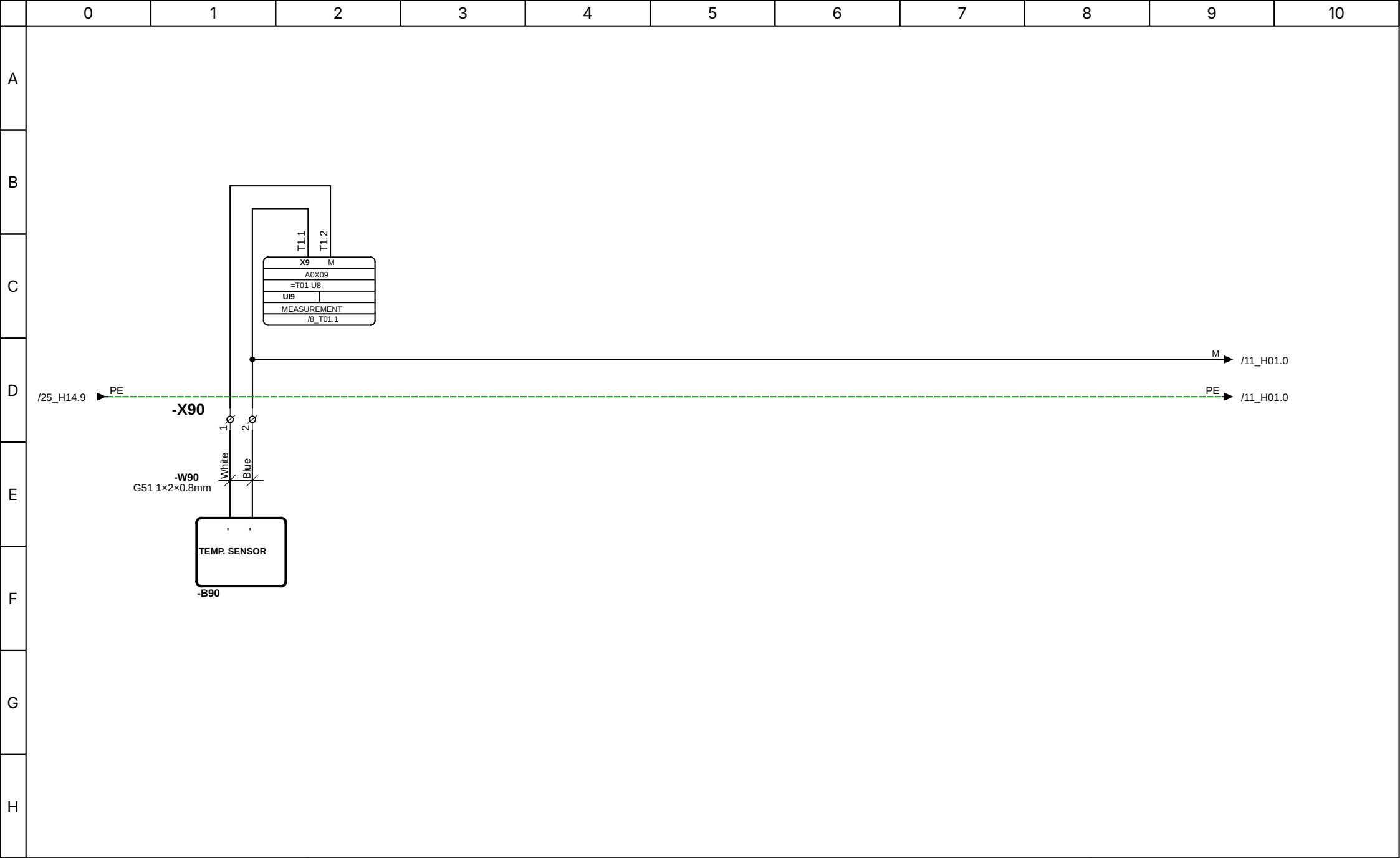
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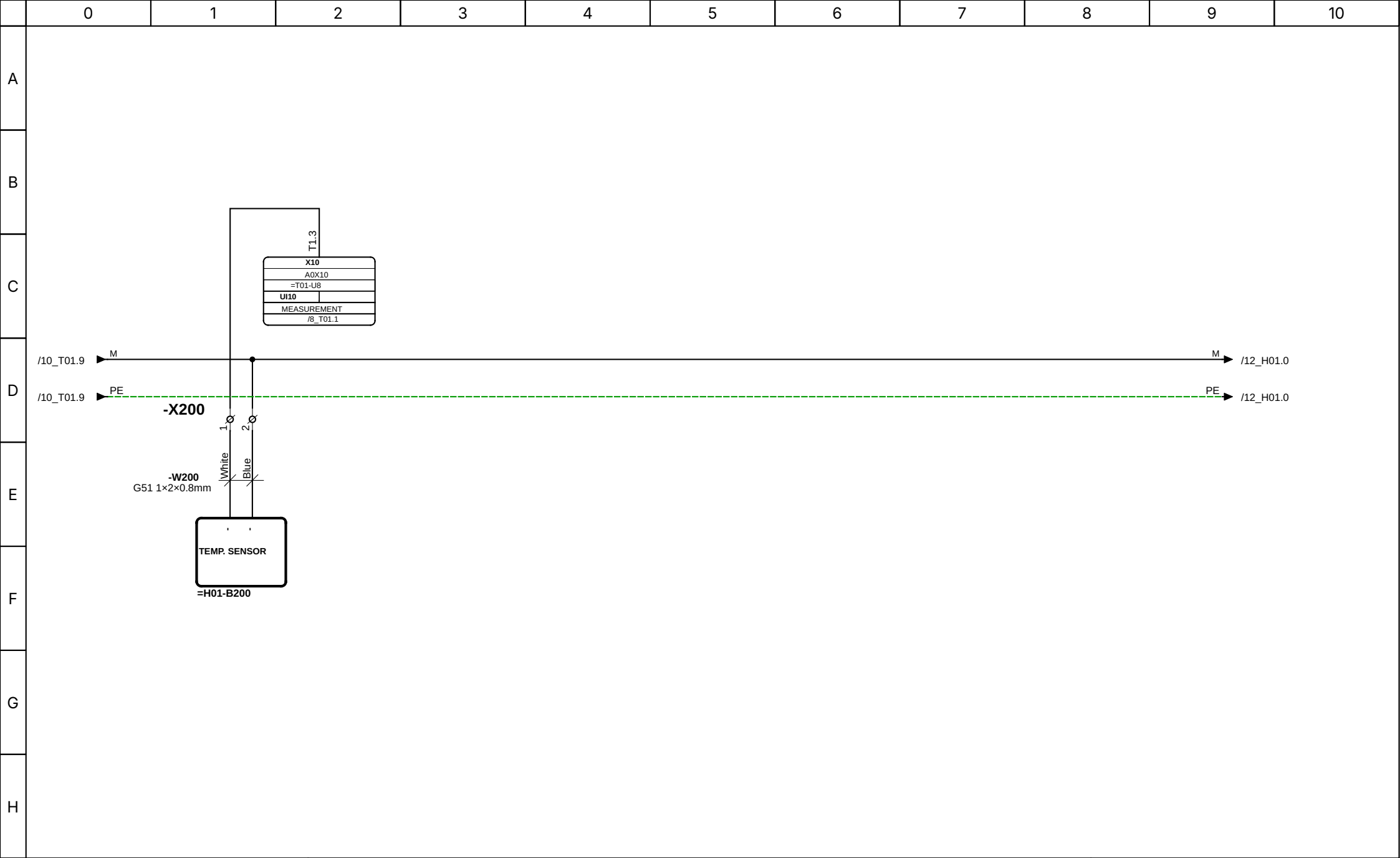


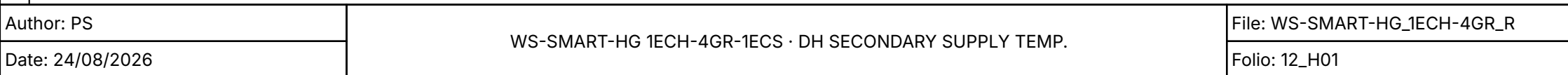


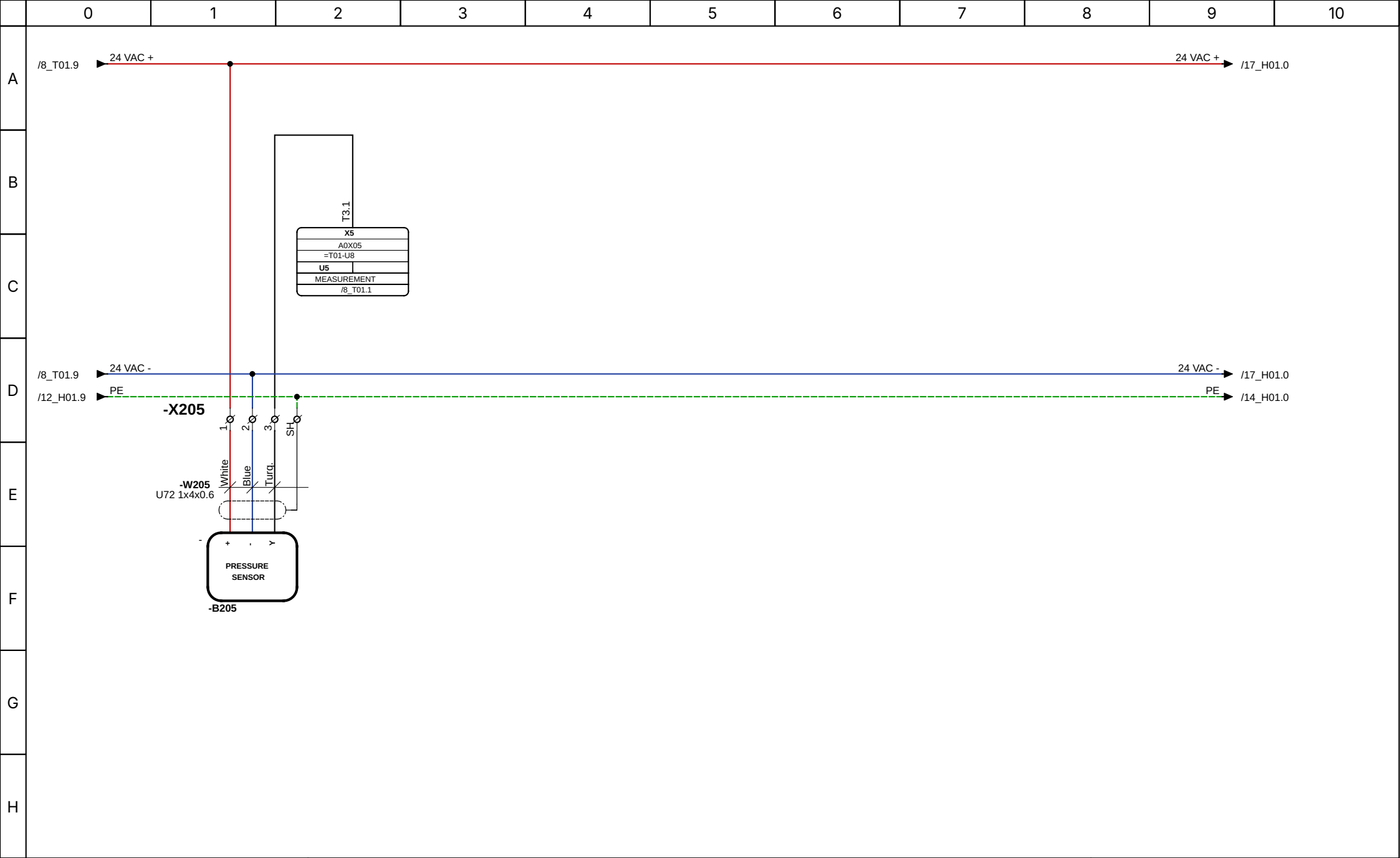


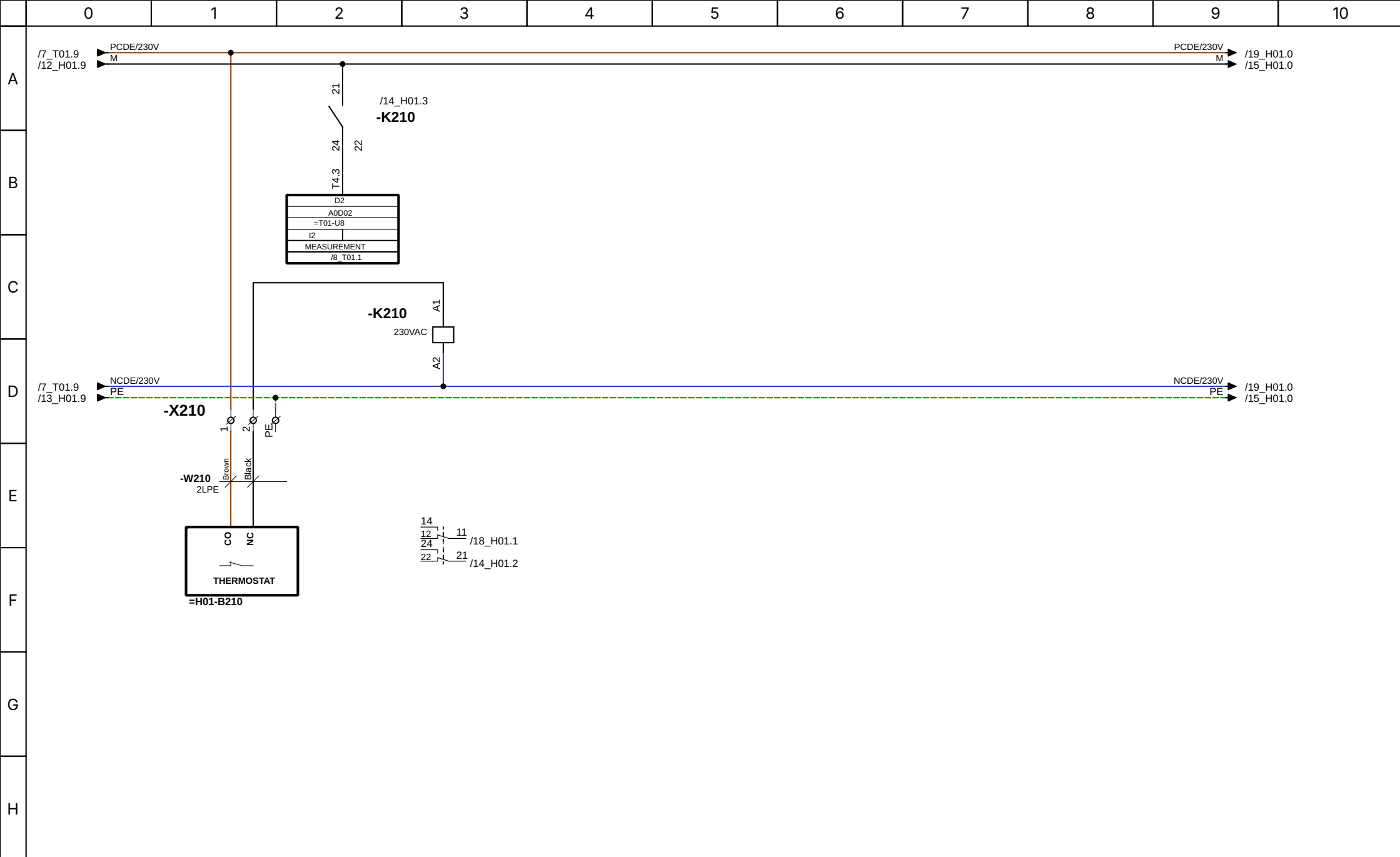


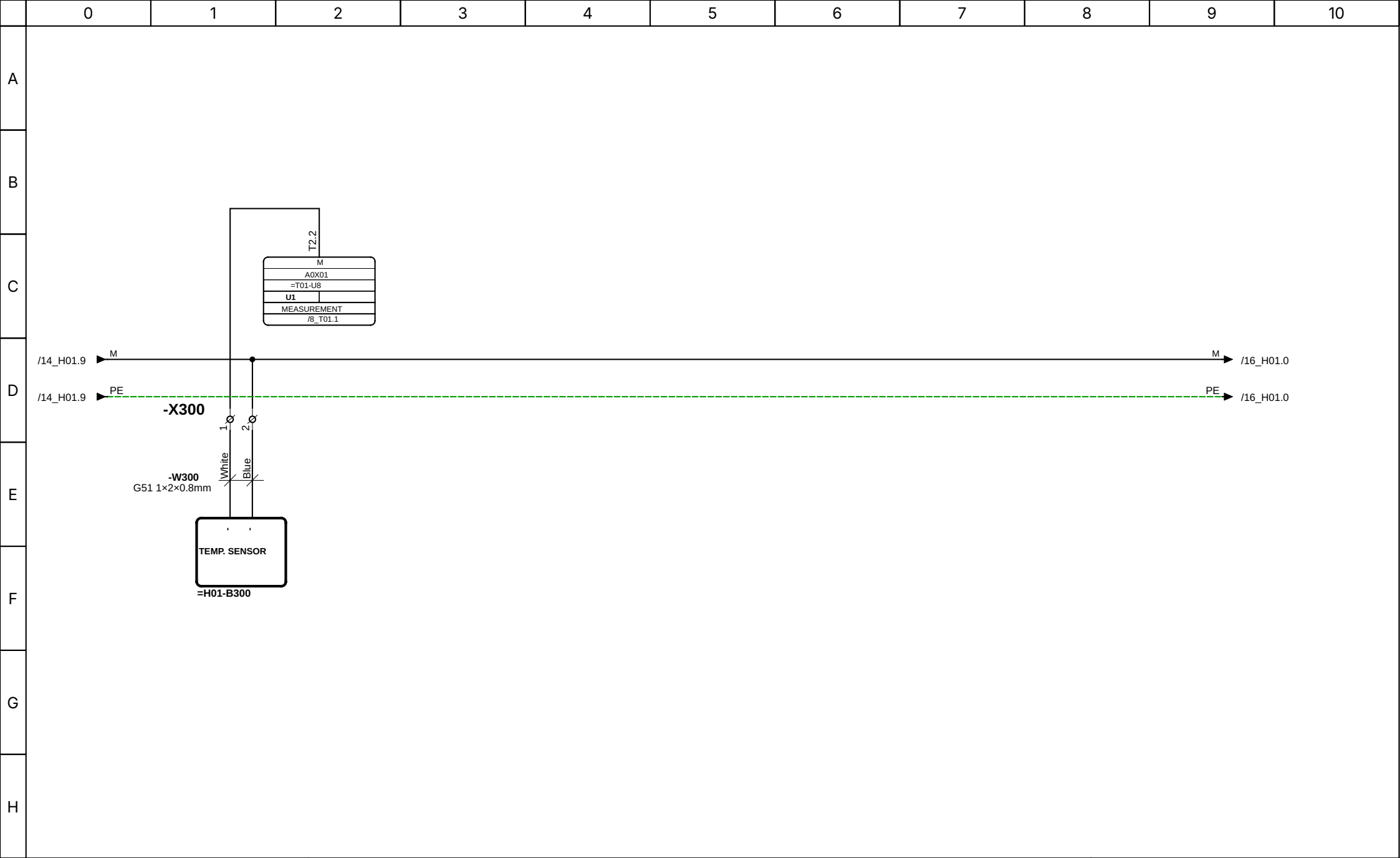


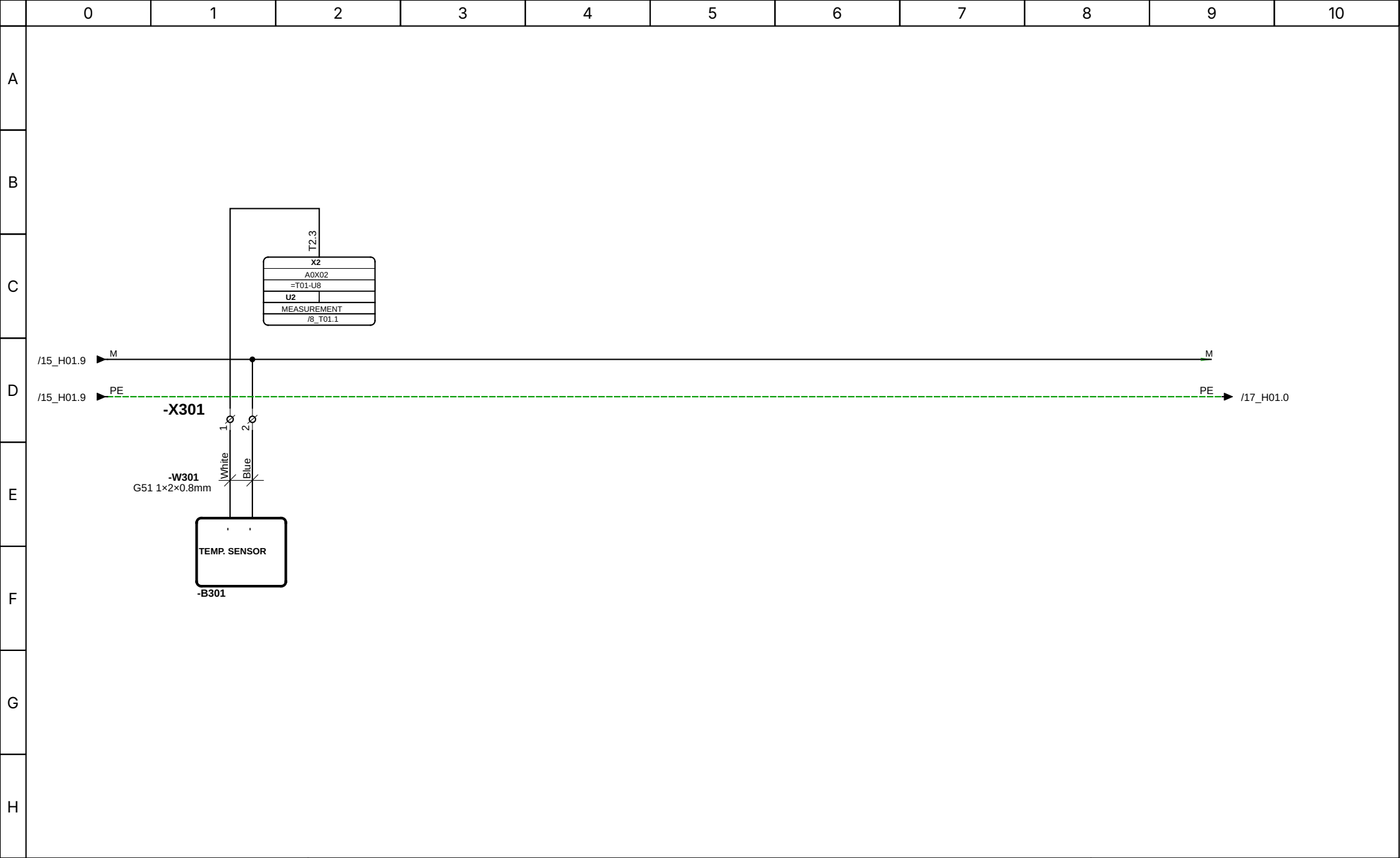


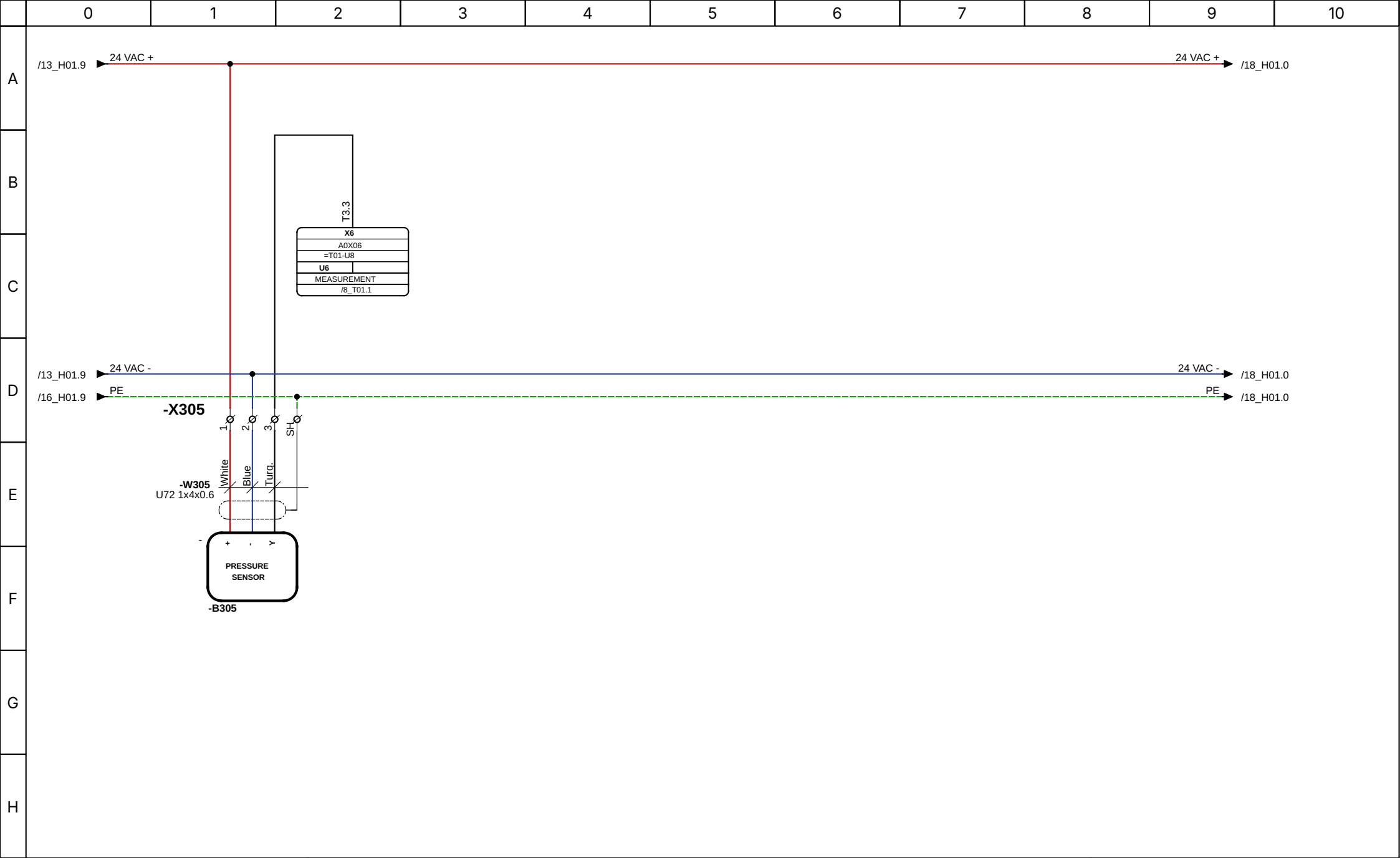


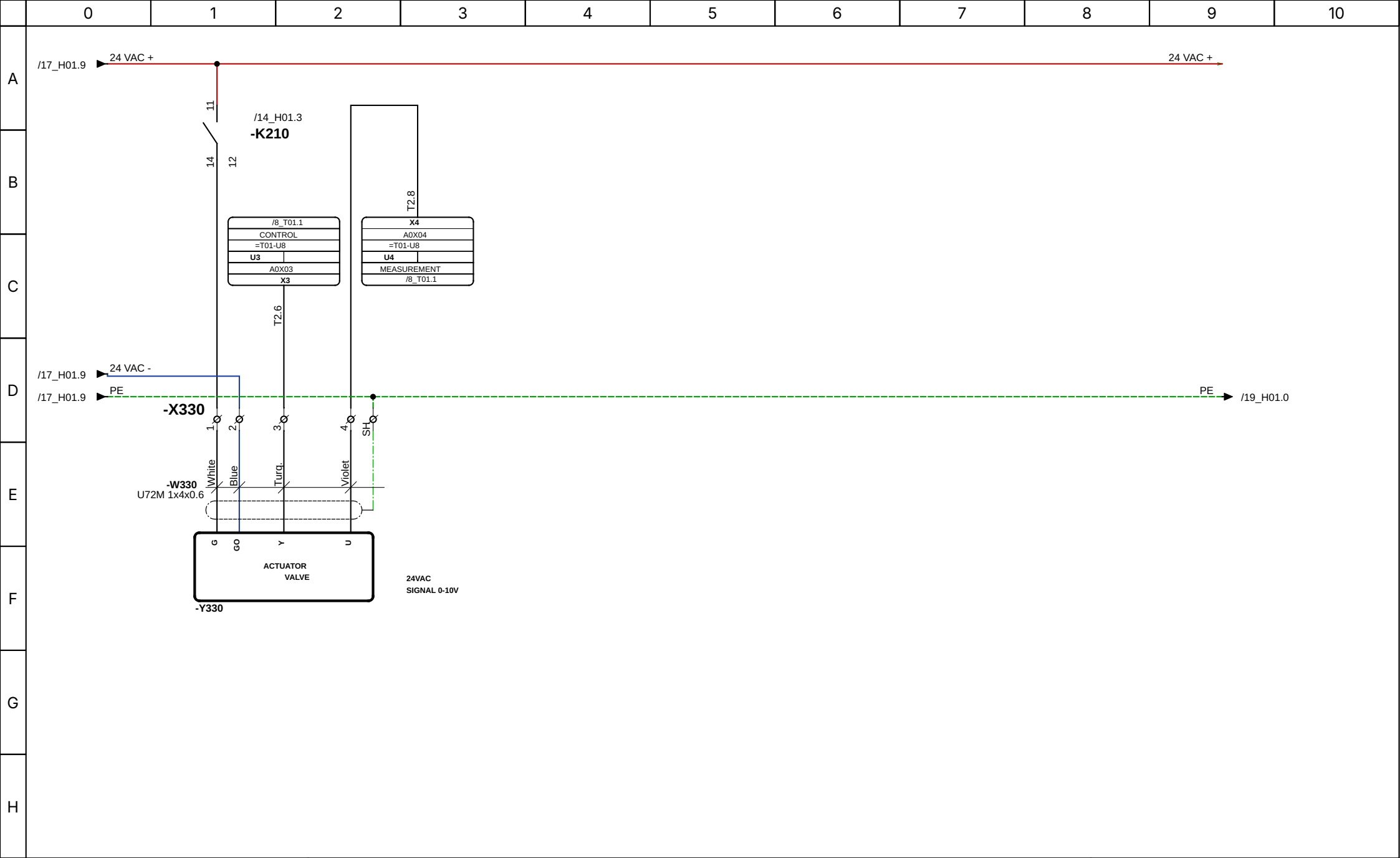


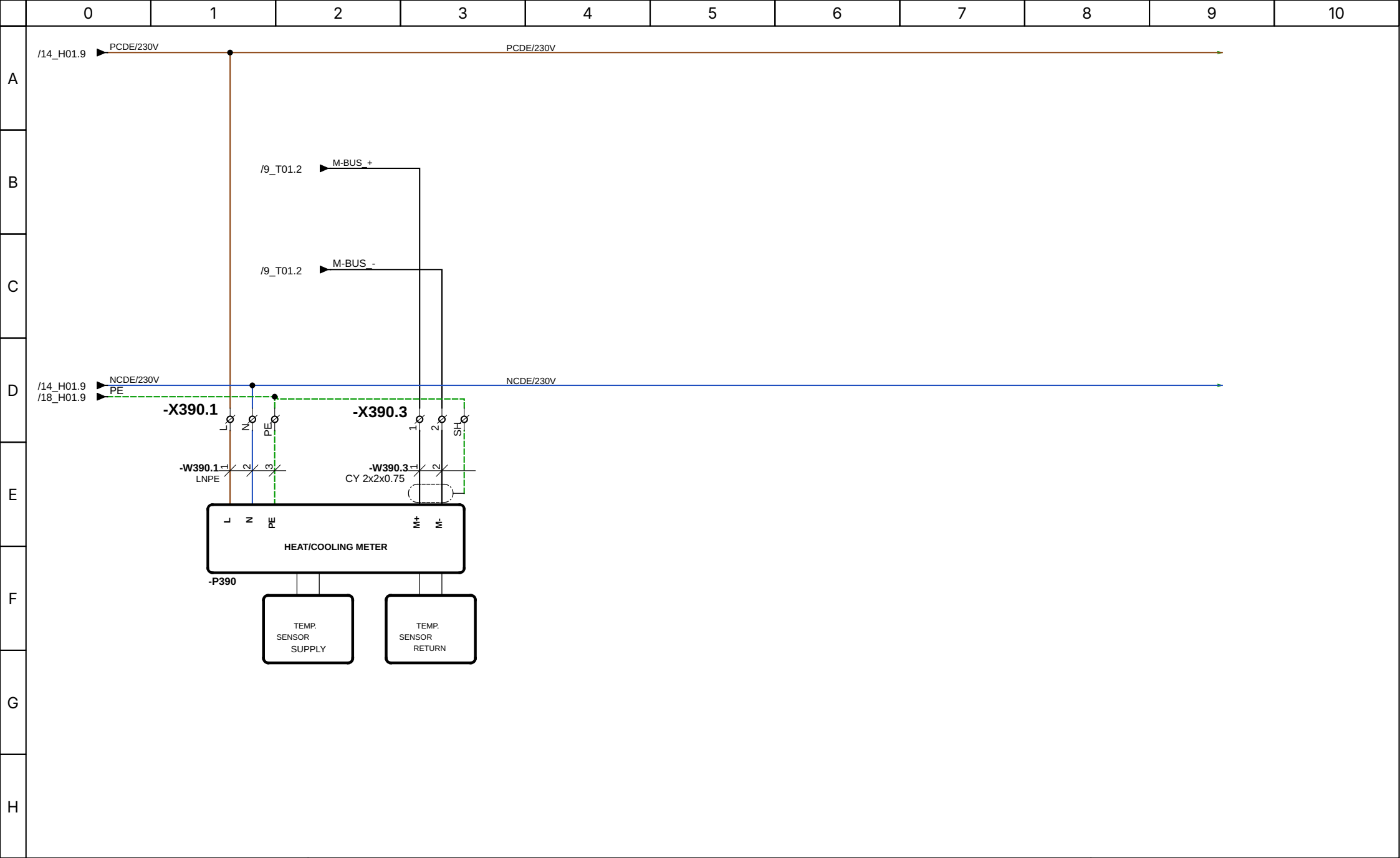


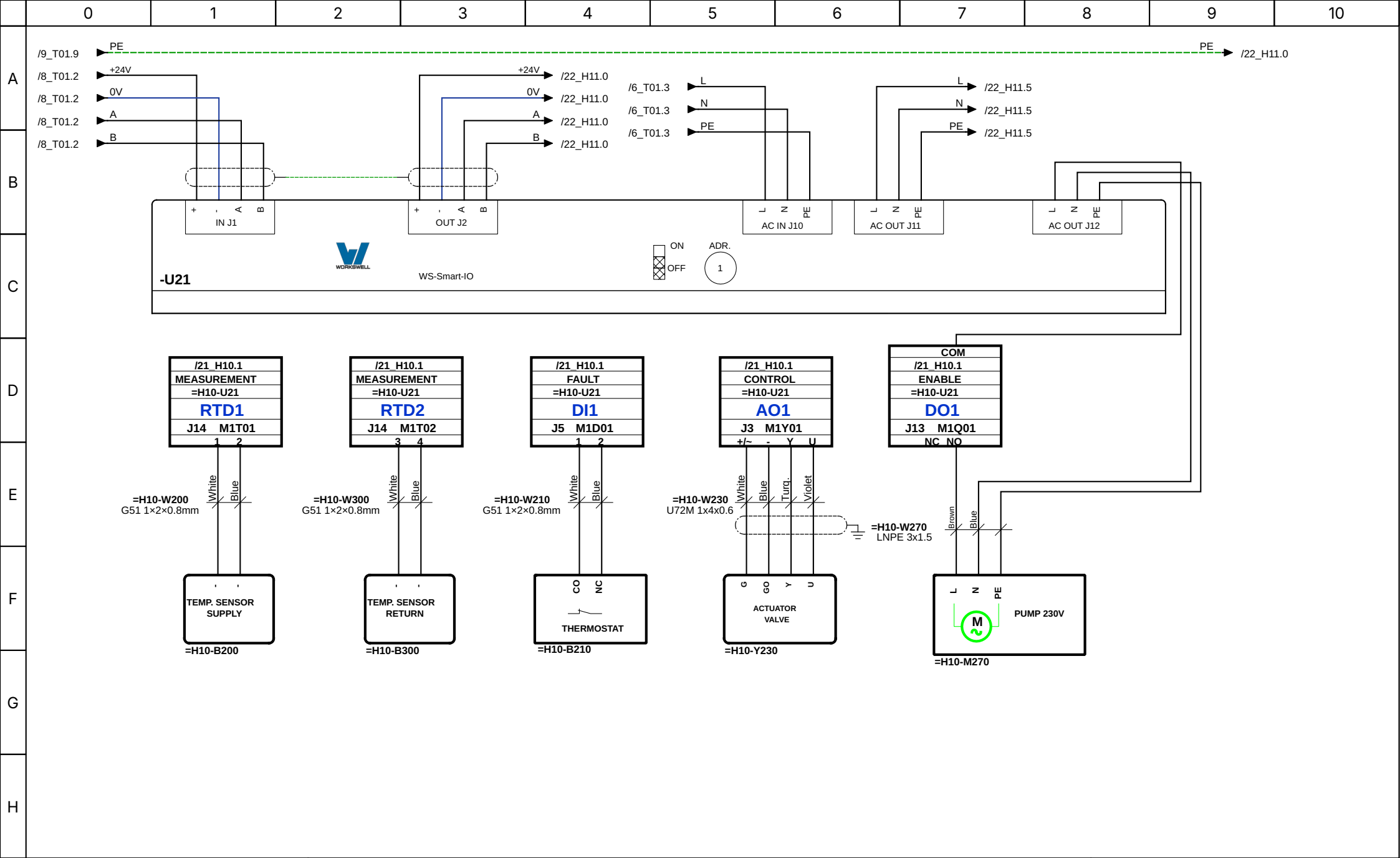


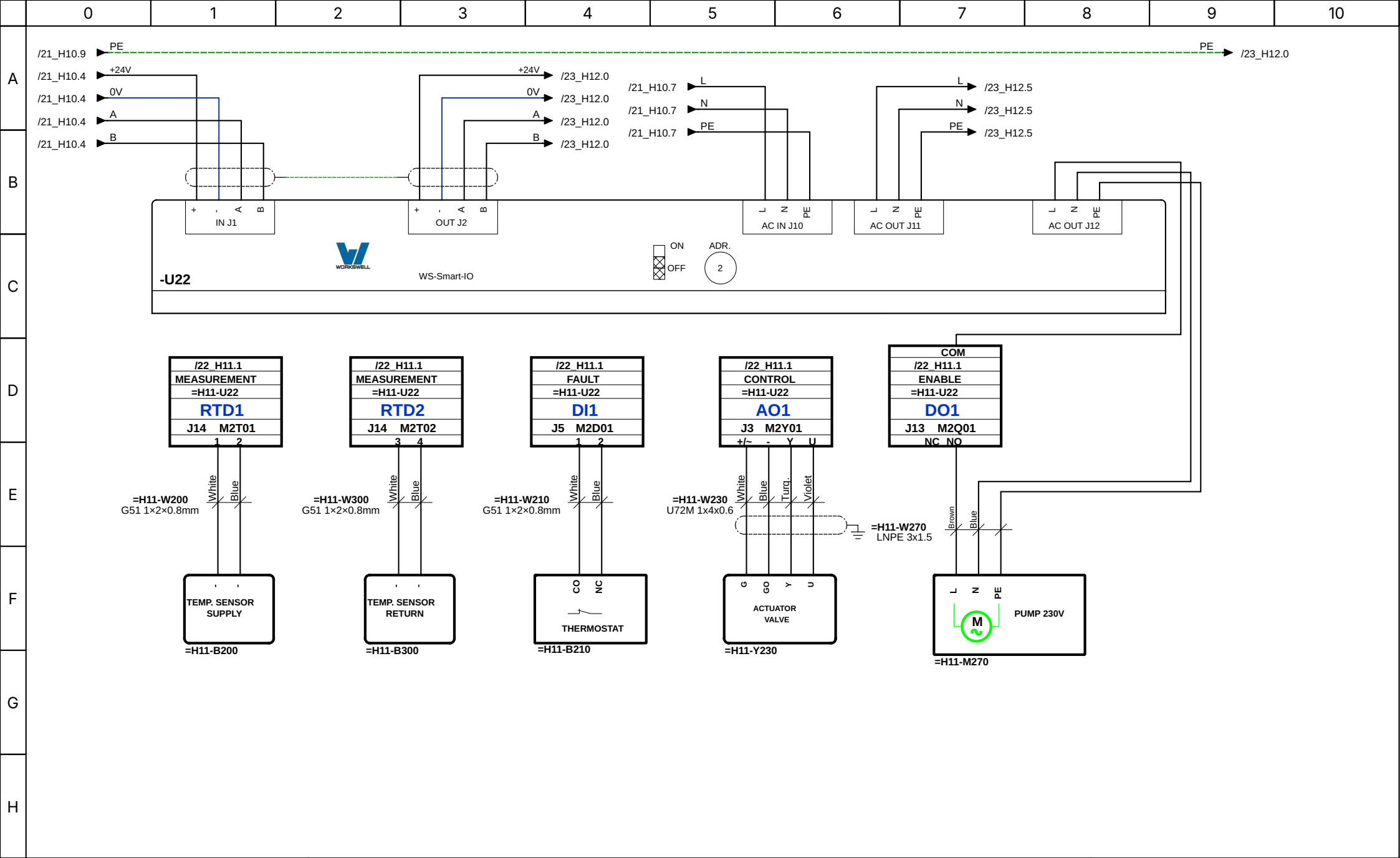


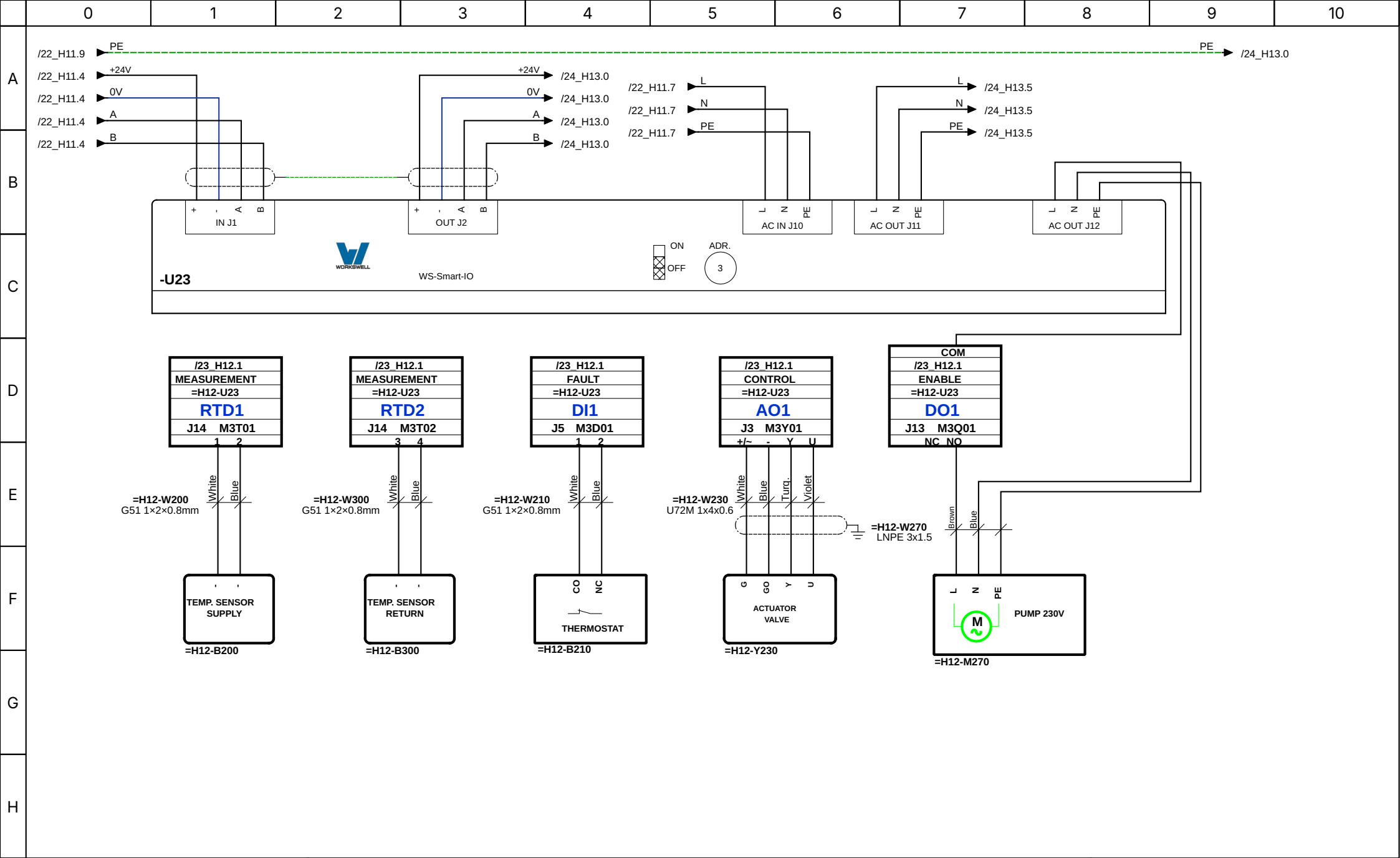


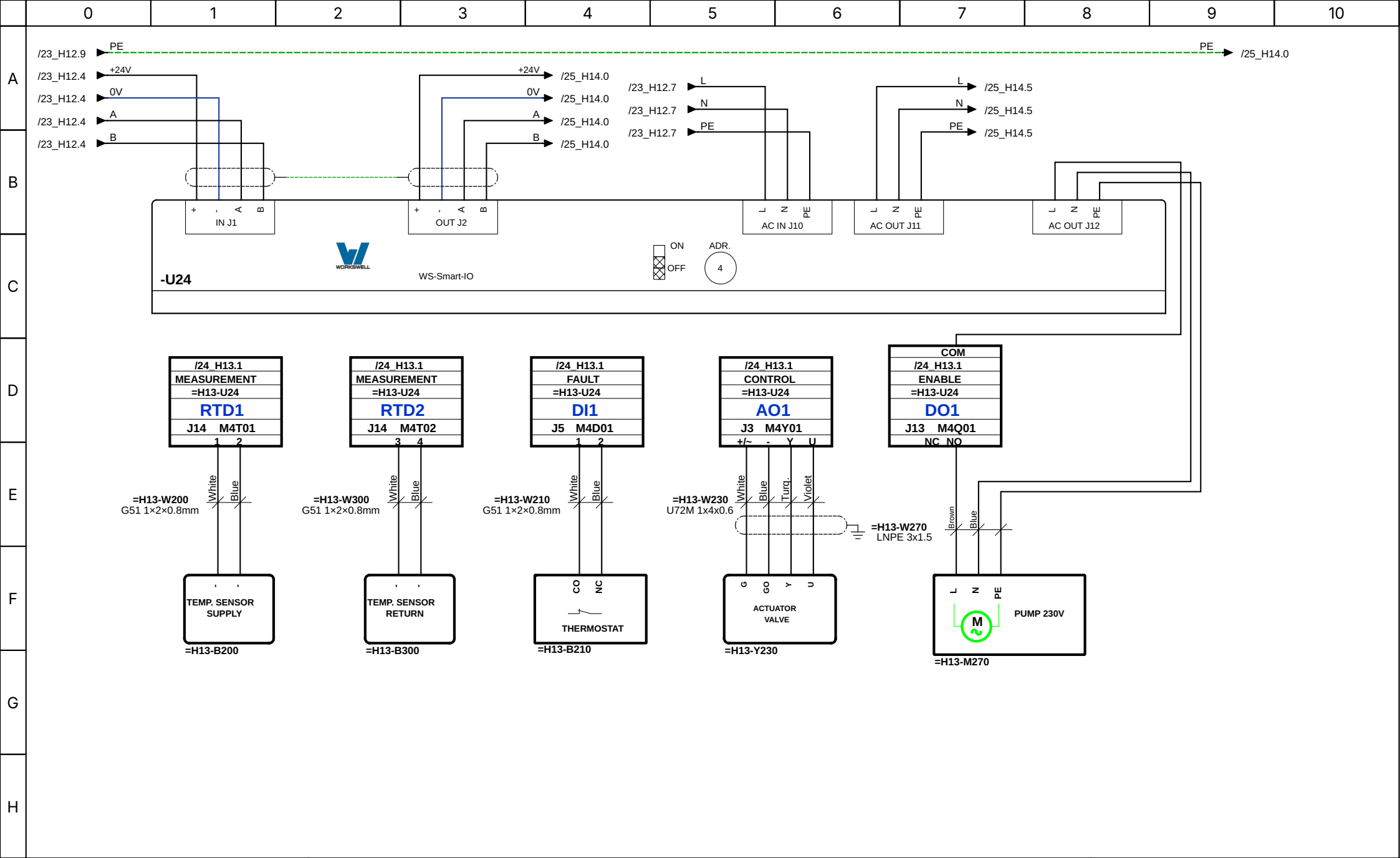


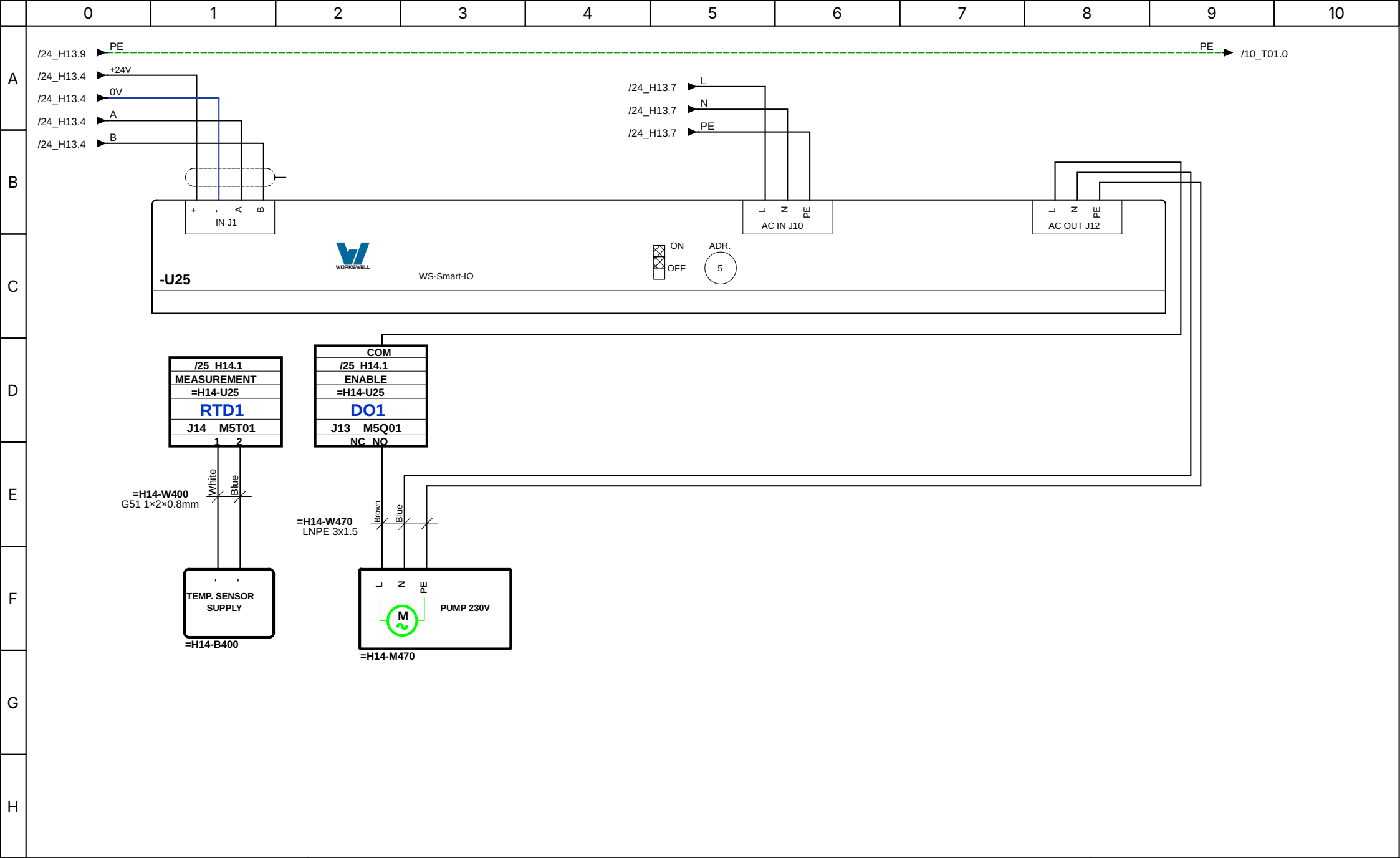












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A	<div>TERMINAL DIAGRAM (1/2)</div> <table><thead><tr><th>Terminal strip</th><th>Terminal</th><th>Sheet</th><th>Panel side (top)</th><th>Field side (bottom)</th></tr></thead><tbody><tr><td>-X6.1</td><td>L</td><td>6_T01</td><td>-F6:2</td><td></td></tr><tr><td>-X6.1</td><td>N</td><td>6_T01</td><td>-F6:N</td><td></td></tr><tr><td>-X6.1</td><td>PE</td><td>6_T01</td><td>PE rail</td><td></td></tr><tr><td>-X6.4</td><td>L</td><td>6_T01</td><td>L_21 rail</td><td>L_21 rail (-W6 1)</td></tr><tr><td>-X6.4</td><td>N</td><td>6_T01</td><td>NCDE/230V rail</td><td>N_21 rail (-W6 2)</td></tr><tr><td>-X6.4</td><td>PE</td><td>6_T01</td><td>PE rail</td><td>PE_21 rail (-W6)</td></tr><tr><td>-24VAC</td><td>1</td><td>7_T01</td><td>24 VAC + rail</td><td>-F7:1</td></tr><tr><td>-24VAC</td><td>2</td><td>7_T01</td><td>24 VAC + rail</td><td></td></tr><tr><td>-0VAC</td><td>1</td><td>7_T01</td><td>-T7:4</td><td>24 VAC - rail</td></tr><tr><td>-0VAC</td><td>2</td><td>7_T01</td><td>PE rail</td><td>24 VAC - rail</td></tr><tr><td>-X8</td><td>1</td><td>8_T01</td><td>21_24V rail</td><td>21_24V rail (-W8 Red)</td></tr><tr><td>-X8</td><td>2</td><td>8_T01</td><td>21_0V rail</td><td>21_0V rail (-W8 Black)</td></tr><tr><td>-X8</td><td>3</td><td>8_T01</td><td>-U8:A1+</td><td>21_A rail (-W8 Yellow)</td></tr><tr><td>-X8</td><td>4</td><td>8_T01</td><td>-U8:B1-</td><td>21_B rail (-W8 White)</td></tr><tr><td>-X8</td><td>SH</td><td>8_T01</td><td>PE rail</td><td></td></tr><tr><td>-X90</td><td>1</td><td>10_T01</td><td>-U8:M</td><td>-B90:- (-W90 White)</td></tr><tr><td>-X90</td><td>2</td><td>10_T01</td><td>M rail</td><td>-B90:-.2 (-W90 Blue)</td></tr><tr><td>-X200</td><td>1</td><td>11_H01</td><td>-U8:X10</td><td>=H01-B200:- (-W200 White)</td></tr><tr><td>-X200</td><td>2</td><td>11_H01</td><td>M rail</td><td>=H01-B200:-.2 (-W200 Blue)</td></tr><tr><td>-X201</td><td>1</td><td>12_H01</td><td>-U8:X11</td><td>-B201:- (-W201 White)</td></tr><tr><td>-X201</td><td>2</td><td>12_H01</td><td>M rail</td><td>-B201:-.2 (-W201 Blue)</td></tr><tr><td>-X205</td><td>1</td><td>13_H01</td><td>24 VAC + rail</td><td>-B205:+ (-W205 White)</td></tr><tr><td>-X205</td><td>2</td><td>13_H01</td><td>24 VAC - rail</td><td>-B205:- (-W205 Blue)</td></tr><tr><td>-X205</td><td>3</td><td>13_H01</td><td>-U8:X5</td><td>-B205:Y (-W205 Turq.)</td></tr><tr><td>-X205</td><td>SH</td><td>13_H01</td><td>PE rail</td><td></td></tr><tr><td>-X210</td><td>1</td><td>14_H01</td><td>PCDE/230V rail</td><td>=H01-B210:CO (-W210 Brown)</td></tr><tr><td>-X210</td><td>2</td><td>14_H01</td><td>-K210:A1</td><td>=H01-B210:NC (-W210 Black)</td></tr><tr><td>-X210</td><td>PE</td><td>14_H01</td><td>PE rail</td><td></td></tr><tr><td>-X300</td><td>1</td><td>15_H01</td><td>-U8:M</td><td>=H01-B300:- (-W300 White)</td></tr><tr><td>-X300</td><td>2</td><td>15_H01</td><td>M rail</td><td>=H01-B300:-.2 (-W300 Blue)</td></tr><tr><td>-X301</td><td>1</td><td>16_H01</td><td>-U8:X2</td><td>-B301:- (-W301 White)</td></tr><tr><td>-X301</td><td>2</td><td>16_H01</td><td>M rail</td><td>-B301:-.2 (-W301 Blue)</td></tr><tr><td>-X305</td><td>1</td><td>17_H01</td><td>24 VAC + rail</td><td>-B305:+ (-W305 White)</td></tr><tr><td>-X305</td><td>2</td><td>17_H01</td><td>24 VAC - rail</td><td>-B305:- (-W305 Blue)</td></tr></tbody></table>											Terminal strip	Terminal	Sheet	Panel side (top)	Field side (bottom)	-X6.1	L	6_T01	-F6:2		-X6.1	N	6_T01	-F6:N		-X6.1	PE	6_T01	PE rail		-X6.4	L	6_T01	L_21 rail	L_21 rail (-W6 1)	-X6.4	N	6_T01	NCDE/230V rail	N_21 rail (-W6 2)	-X6.4	PE	6_T01	PE rail	PE_21 rail (-W6)	-24VAC	1	7_T01	24 VAC + rail	-F7:1	-24VAC	2	7_T01	24 VAC + rail		-0VAC	1	7_T01	-T7:4	24 VAC - rail	-0VAC	2	7_T01	PE rail	24 VAC - rail	-X8	1	8_T01	21_24V rail	21_24V rail (-W8 Red)	-X8	2	8_T01	21_0V rail	21_0V rail (-W8 Black)	-X8	3	8_T01	-U8:A1+	21_A rail (-W8 Yellow)	-X8	4	8_T01	-U8:B1-	21_B rail (-W8 White)	-X8	SH	8_T01	PE rail		-X90	1	10_T01	-U8:M	-B90:- (-W90 White)	-X90	2	10_T01	M rail	-B90:-.2 (-W90 Blue)	-X200	1	11_H01	-U8:X10	=H01-B200:- (-W200 White)	-X200	2	11_H01	M rail	=H01-B200:-.2 (-W200 Blue)	-X201	1	12_H01	-U8:X11	-B201:- (-W201 White)	-X201	2	12_H01	M rail	-B201:-.2 (-W201 Blue)	-X205	1	13_H01	24 VAC + rail	-B205:+ (-W205 White)	-X205	2	13_H01	24 VAC - rail	-B205:- (-W205 Blue)	-X205	3	13_H01	-U8:X5	-B205:Y (-W205 Turq.)	-X205	SH	13_H01	PE rail		-X210	1	14_H01	PCDE/230V rail	=H01-B210:CO (-W210 Brown)	-X210	2	14_H01	-K210:A1	=H01-B210:NC (-W210 Black)	-X210	PE	14_H01	PE rail		-X300	1	15_H01	-U8:M	=H01-B300:- (-W300 White)	-X300	2	15_H01	M rail	=H01-B300:-.2 (-W300 Blue)	-X301	1	16_H01	-U8:X2	-B301:- (-W301 White)	-X301	2	16_H01	M rail	-B301:-.2 (-W301 Blue)	-X305	1	17_H01	24 VAC + rail	-B305:+ (-W305 White)	-X305	2	17_H01	24 VAC - rail	-B305:- (-W305 Blue)
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A	<div>CABLE LIST (1/2)</div> <table><tr><th>Cable</th><th>Type</th><th>Drawn conductors</th><th>Sheet</th></tr><tr><td>-W6</td><td>LNPE</td><td>3 conductor(s)</td><td>6_T01</td></tr><tr><td>-W8</td><td>KNX-Y(St)Y green</td><td>4 conductor(s)</td><td>8_T01</td></tr><tr><td>-W90</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>10_T01</td></tr><tr><td>-W200</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>11_H01</td></tr><tr><td>-W201</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>12_H01</td></tr><tr><td>-W205</td><td>U72 1x4x0.6</td><td>3 conductor(s)</td><td>13_H01</td></tr><tr><td>-W210</td><td>2LPE</td><td>2 conductor(s)</td><td>14_H01</td></tr><tr><td>-W300</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>15_H01</td></tr><tr><td>-W301</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>16_H01</td></tr><tr><td>-W305</td><td>U72 1x4x0.6</td><td>3 conductor(s)</td><td>17_H01</td></tr><tr><td>-W330</td><td>U72M 1x4x0.6</td><td>4 conductor(s)</td><td>18_H01</td></tr><tr><td>-W390.1</td><td>LNPE</td><td>3 conductor(s)</td><td>19_H01</td></tr><tr><td>-W390.3</td><td>CY 2x2x0.75</td><td>2 conductor(s)</td><td>19_H01</td></tr><tr><td>=H10-W200</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>21_H10</td></tr><tr><td>=H10-W210</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>21_H10</td></tr><tr><td>=H10-W230</td><td>U72M 1x4x0.6</td><td>4 conductor(s)</td><td>21_H10</td></tr><tr><td>=H10-W270</td><td>LNPE 3x1.5</td><td>3 conductor(s)</td><td>21_H10</td></tr><tr><td>=H10-W300</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>21_H10</td></tr><tr><td>=H11-W200</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>22_H11</td></tr><tr><td>=H11-W210</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>22_H11</td></tr><tr><td>=H11-W230</td><td>U72M 1x4x0.6</td><td>4 conductor(s)</td><td>22_H11</td></tr><tr><td>=H11-W270</td><td>LNPE 3x1.5</td><td>3 conductor(s)</td><td>22_H11</td></tr><tr><td>=H11-W300</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>22_H11</td></tr><tr><td>=H12-W200</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>23_H12</td></tr><tr><td>=H12-W210</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>23_H12</td></tr><tr><td>=H12-W230</td><td>U72M 1x4x0.6</td><td>4 conductor(s)</td><td>23_H12</td></tr><tr><td>=H12-W270</td><td>LNPE 3x1.5</td><td>3 conductor(s)</td><td>23_H12</td></tr><tr><td>=H12-W300</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>23_H12</td></tr><tr><td>=H13-W200</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>24_H13</td></tr><tr><td>=H13-W210</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>24_H13</td></tr><tr><td>=H13-W230</td><td>U72M 1x4x0.6</td><td>4 conductor(s)</td><td>24_H13</td></tr><tr><td>=H13-W270</td><td>LNPE 3x1.5</td><td>3 conductor(s)</td><td>24_H13</td></tr><tr><td>=H13-W300</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>24_H13</td></tr><tr><td>=H14-W400</td><td>G51 1×2×0.8mm</td><td>2 conductor(s)</td><td>25_H14</td></tr></table>											Cable	Type	Drawn conductors	Sheet	-W6	LNPE	3 conductor(s)	6_T01	-W8	KNX-Y(St)Y green	4 conductor(s)	8_T01	-W90	G51 1×2×0.8mm	2 conductor(s)	10_T01	-W200	G51 1×2×0.8mm	2 conductor(s)	11_H01	-W201	G51 1×2×0.8mm	2 conductor(s)	12_H01	-W205	U72 1x4x0.6	3 conductor(s)	13_H01	-W210	2LPE	2 conductor(s)	14_H01	-W300	G51 1×2×0.8mm	2 conductor(s)	15_H01	-W301	G51 1×2×0.8mm	2 conductor(s)	16_H01	-W305	U72 1x4x0.6	3 conductor(s)	17_H01	-W330	U72M 1x4x0.6	4 conductor(s)	18_H01	-W390.1	LNPE	3 conductor(s)	19_H01	-W390.3	CY 2x2x0.75	2 conductor(s)	19_H01	=H10-W200	G51 1×2×0.8mm	2 conductor(s)	21_H10	=H10-W210	G51 1×2×0.8mm	2 conductor(s)	21_H10	=H10-W230	U72M 1x4x0.6	4 conductor(s)	21_H10	=H10-W270	LNPE 3x1.5	3 conductor(s)	21_H10	=H10-W300	G51 1×2×0.8mm	2 conductor(s)	21_H10	=H11-W200	G51 1×2×0.8mm	2 conductor(s)	22_H11	=H11-W210	G51 1×2×0.8mm	2 conductor(s)	22_H11	=H11-W230	U72M 1x4x0.6	4 conductor(s)	22_H11	=H11-W270	LNPE 3x1.5	3 conductor(s)	22_H11	=H11-W300	G51 1×2×0.8mm	2 conductor(s)	22_H11	=H12-W200	G51 1×2×0.8mm	2 conductor(s)	23_H12	=H12-W210	G51 1×2×0.8mm	2 conductor(s)	23_H12	=H12-W230	U72M 1x4x0.6	4 conductor(s)	23_H12	=H12-W270	LNPE 3x1.5	3 conductor(s)	23_H12	=H12-W300	G51 1×2×0.8mm	2 conductor(s)	23_H12	=H13-W200	G51 1×2×0.8mm	2 conductor(s)	24_H13	=H13-W210	G51 1×2×0.8mm	2 conductor(s)	24_H13	=H13-W230	U72M 1x4x0.6	4 conductor(s)	24_H13	=H13-W270	LNPE 3x1.5	3 conductor(s)	24_H13	=H13-W300	G51 1×2×0.8mm	2 conductor(s)	24_H13	=H14-W400	G51 1×2×0.8mm	2 conductor(s)	25_H14
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A	<div>CABLE LIST (2/2)</div> <table><tr><th>Cable</th><th>Type</th><th>Drawn conductors</th><th>Sheet</th></tr><tr><td>=H14-W470</td><td>LNPE 3x1.5</td><td>3 conductor(s)</td><td>25_H14</td></tr></table>											Cable	Type	Drawn conductors	Sheet	=H14-W470	LNPE 3x1.5	3 conductor(s)	25_H14
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A	<div>BILL OF MATERIALS (1/2)</div> <table><tr><th>Tag</th><th>Description</th><th>Manufacturer</th><th>Type / ref.</th><th>Sheet(s)</th></tr><tr><td>-F6</td><td>Circuit breaker C10A</td><td></td><td></td><td>6_T01</td></tr><tr><td>-F7</td><td>Circuit breaker C3A</td><td></td><td></td><td>7_T01</td></tr><tr><td>-T7</td><td>Transformer 60VA</td><td></td><td></td><td>7_T01</td></tr><tr><td>-U8</td><td>Climatix controller (+ 10 I/O channel(s) on the device sheets)</td><td>SIEMENS</td><td>POL648.80/STD</td><td>8_T01, 10_T01, 11_H01 to 18_H01</td></tr><tr><td>-U9</td><td>Climatix M-Bus extension module</td><td>SIEMENS</td><td>POL907.00</td><td>9_T01</td></tr><tr><td>-B90</td><td>TEMP. SENSOR</td><td></td><td></td><td>10_T01</td></tr><tr><td>=H01-B200</td><td>TEMP. SENSOR</td><td></td><td></td><td>11_H01</td></tr><tr><td>-B201</td><td>TEMP. SENSOR</td><td></td><td></td><td>12_H01</td></tr><tr><td>-B205</td><td>PRESSURE SENSOR</td><td></td><td></td><td>13_H01</td></tr><tr><td>-K210</td><td>Contactactor 230VAC</td><td></td><td></td><td>14_H01, 18_H01</td></tr><tr><td>=H01-B210</td><td>THERMOSTAT</td><td></td><td></td><td>14_H01</td></tr><tr><td>=H01-B300</td><td>TEMP. SENSOR</td><td></td><td></td><td>15_H01</td></tr><tr><td>-B301</td><td>TEMP. SENSOR</td><td></td><td></td><td>16_H01</td></tr><tr><td>-B305</td><td>PRESSURE SENSOR</td><td></td><td></td><td>17_H01</td></tr><tr><td>-Y330</td><td>VALVE ACTUATOR (24VAC SIGNAL 0-10V)</td><td></td><td></td><td>18_H01</td></tr><tr><td>-P390</td><td>HEAT/COOLING METER</td><td></td><td></td><td>19_H01</td></tr><tr><td>-U21</td><td>Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)</td><td>WELLSET</td><td>WS-SMART-IO</td><td>21_H10</td></tr><tr><td>=H10-B200</td><td>TEMP. SENSOR, SUPPLY</td><td></td><td></td><td>21_H10</td></tr><tr><td>=H10-B210</td><td>THERMOSTAT</td><td></td><td></td><td>21_H10</td></tr><tr><td>=H10-B300</td><td>TEMP. SENSOR, RETURN</td><td></td><td></td><td>21_H10</td></tr><tr><td>=H10-M270</td><td>PUMP 230V</td><td></td><td></td><td>21_H10</td></tr><tr><td>=H10-Y230</td><td>VALVE ACTUATOR</td><td></td><td></td><td>21_H10</td></tr><tr><td>-U22</td><td>Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)</td><td>WELLSET</td><td>WS-SMART-IO</td><td>22_H11</td></tr><tr><td>=H11-B200</td><td>TEMP. SENSOR, SUPPLY</td><td></td><td></td><td>22_H11</td></tr><tr><td>=H11-B210</td><td>THERMOSTAT</td><td></td><td></td><td>22_H11</td></tr><tr><td>=H11-B300</td><td>TEMP. SENSOR, RETURN</td><td></td><td></td><td>22_H11</td></tr><tr><td>=H11-M270</td><td>PUMP 230V</td><td></td><td></td><td>22_H11</td></tr><tr><td>=H11-Y230</td><td>VALVE ACTUATOR</td><td></td><td></td><td>22_H11</td></tr><tr><td>-U23</td><td>Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)</td><td>WELLSET</td><td>WS-SMART-IO</td><td>23_H12</td></tr><tr><td>=H12-B200</td><td>TEMP. SENSOR, SUPPLY</td><td></td><td></td><td>23_H12</td></tr><tr><td>=H12-B210</td><td>THERMOSTAT</td><td></td><td></td><td>23_H12</td></tr><tr><td>=H12-B300</td><td>TEMP. SENSOR, RETURN</td><td></td><td></td><td>23_H12</td></tr><tr><td>=H12-M270</td><td>PUMP 230V</td><td></td><td></td><td>23_H12</td></tr><tr><td>=H12-Y230</td><td>VALVE ACTUATOR</td><td></td><td></td><td>23_H12</td></tr></table>											Tag	Description	Manufacturer	Type / ref.	Sheet(s)	-F6	Circuit breaker C10A			6_T01	-F7	Circuit breaker C3A			7_T01	-T7	Transformer 60VA			7_T01	-U8	Climatix controller (+ 10 I/O channel(s) on the device sheets)	SIEMENS	POL648.80/STD	8_T01, 10_T01, 11_H01 to 18_H01	-U9	Climatix M-Bus extension module	SIEMENS	POL907.00	9_T01	-B90	TEMP. SENSOR			10_T01	=H01-B200	TEMP. SENSOR			11_H01	-B201	TEMP. SENSOR			12_H01	-B205	PRESSURE SENSOR			13_H01	-K210	Contactactor 230VAC			14_H01, 18_H01	=H01-B210	THERMOSTAT			14_H01	=H01-B300	TEMP. SENSOR			15_H01	-B301	TEMP. SENSOR			16_H01	-B305	PRESSURE SENSOR			17_H01	-Y330	VALVE ACTUATOR (24VAC SIGNAL 0-10V)			18_H01	-P390	HEAT/COOLING METER			19_H01	-U21	Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)	WELLSET	WS-SMART-IO	21_H10	=H10-B200	TEMP. SENSOR, SUPPLY			21_H10	=H10-B210	THERMOSTAT			21_H10	=H10-B300	TEMP. SENSOR, RETURN			21_H10	=H10-M270	PUMP 230V			21_H10	=H10-Y230	VALVE ACTUATOR			21_H10	-U22	Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)	WELLSET	WS-SMART-IO	22_H11	=H11-B200	TEMP. SENSOR, SUPPLY			22_H11	=H11-B210	THERMOSTAT			22_H11	=H11-B300	TEMP. SENSOR, RETURN			22_H11	=H11-M270	PUMP 230V			22_H11	=H11-Y230	VALVE ACTUATOR			22_H11	-U23	Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)	WELLSET	WS-SMART-IO	23_H12	=H12-B200	TEMP. SENSOR, SUPPLY			23_H12	=H12-B210	THERMOSTAT			23_H12	=H12-B300	TEMP. SENSOR, RETURN			23_H12	=H12-M270	PUMP 230V			23_H12	=H12-Y230	VALVE ACTUATOR			23_H12
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=H10-B200	TEMP. SENSOR, SUPPLY			21_H10																																																																																																																																																																																						
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=H10-B300	TEMP. SENSOR, RETURN			21_H10																																																																																																																																																																																						
=H10-M270	PUMP 230V			21_H10																																																																																																																																																																																						
=H10-Y230	VALVE ACTUATOR			21_H10																																																																																																																																																																																						
-U22	Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)	WELLSET	WS-SMART-IO	22_H11																																																																																																																																																																																						
=H11-B200	TEMP. SENSOR, SUPPLY			22_H11																																																																																																																																																																																						
=H11-B210	THERMOSTAT			22_H11																																																																																																																																																																																						
=H11-B300	TEMP. SENSOR, RETURN			22_H11																																																																																																																																																																																						
=H11-M270	PUMP 230V			22_H11																																																																																																																																																																																						
=H11-Y230	VALVE ACTUATOR			22_H11																																																																																																																																																																																						
-U23	Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)	WELLSET	WS-SMART-IO	23_H12																																																																																																																																																																																						
=H12-B200	TEMP. SENSOR, SUPPLY			23_H12																																																																																																																																																																																						
=H12-B210	THERMOSTAT			23_H12																																																																																																																																																																																						
=H12-B300	TEMP. SENSOR, RETURN			23_H12																																																																																																																																																																																						
=H12-M270	PUMP 230V			23_H12																																																																																																																																																																																						
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Date: 26/10/2026									Folio: 30		

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A	<div>BILL OF MATERIALS (2/2)</div> <table><tr><th>Tag</th><th>Description</th><th>Manufacturer</th><th>Type / ref.</th><th>Sheet(s)</th></tr><tr><td>-U24</td><td>Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)</td><td>WELLSET</td><td>WS-SMART-IO</td><td>24_H13</td></tr><tr><td>=H13-B200</td><td>TEMP. SENSOR, SUPPLY</td><td></td><td></td><td>24_H13</td></tr><tr><td>=H13-B210</td><td>THERMOSTAT</td><td></td><td></td><td>24_H13</td></tr><tr><td>=H13-B300</td><td>TEMP. SENSOR, RETURN</td><td></td><td></td><td>24_H13</td></tr><tr><td>=H13-M270</td><td>PUMP 230V</td><td></td><td></td><td>24_H13</td></tr><tr><td>=H13-Y230</td><td>VALVE ACTUATOR</td><td></td><td></td><td>24_H13</td></tr><tr><td>-U25</td><td>Modbus I/O module WS-SMART-IO (+ 2 I/O channel(s) on the device sheets)</td><td>WELLSET</td><td>WS-SMART-IO</td><td>25_H14</td></tr><tr><td>=H14-B400</td><td>TEMP. SENSOR, SUPPLY</td><td></td><td></td><td>25_H14</td></tr><tr><td>=H14-M470</td><td>PUMP 230V</td><td></td><td></td><td>25_H14</td></tr></table>											Tag	Description	Manufacturer	Type / ref.	Sheet(s)	-U24	Modbus I/O module WS-SMART-IO (+ 5 I/O channel(s) on the device sheets)	WELLSET	WS-SMART-IO	24_H13	=H13-B200	TEMP. SENSOR, SUPPLY			24_H13	=H13-B210	THERMOSTAT			24_H13	=H13-B300	TEMP. SENSOR, RETURN			24_H13	=H13-M270	PUMP 230V			24_H13	=H13-Y230	VALVE ACTUATOR			24_H13	-U25	Modbus I/O module WS-SMART-IO (+ 2 I/O channel(s) on the device sheets)	WELLSET	WS-SMART-IO	25_H14	=H14-B400	TEMP. SENSOR, SUPPLY			25_H14	=H14-M470	PUMP 230V			25_H14
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