

JHI, USA

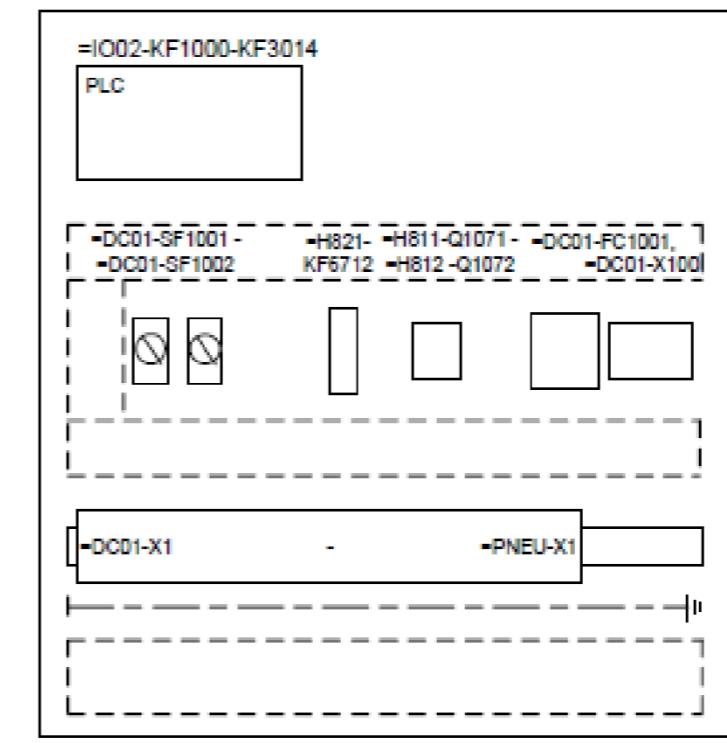
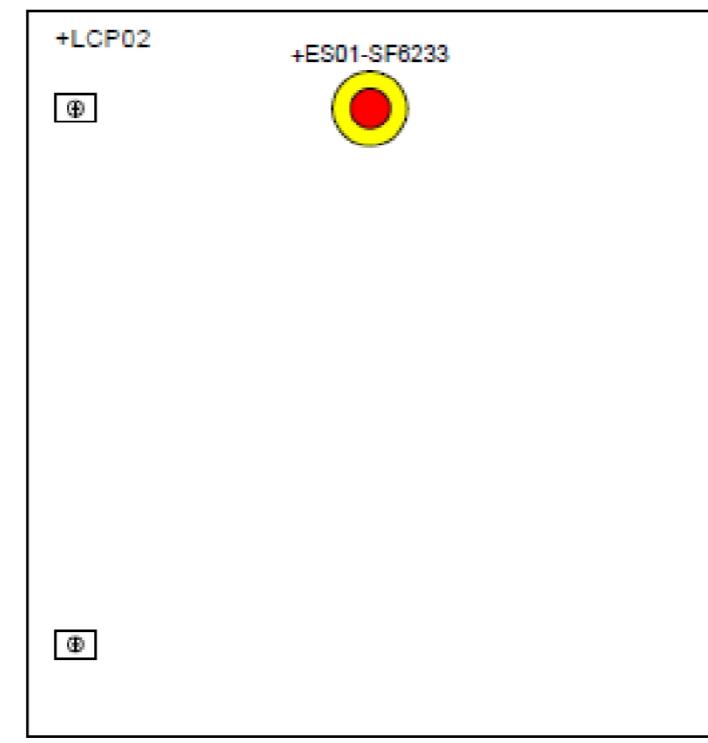
Dan-Web Machinery A/S

+LCP02 Hammermill 0B



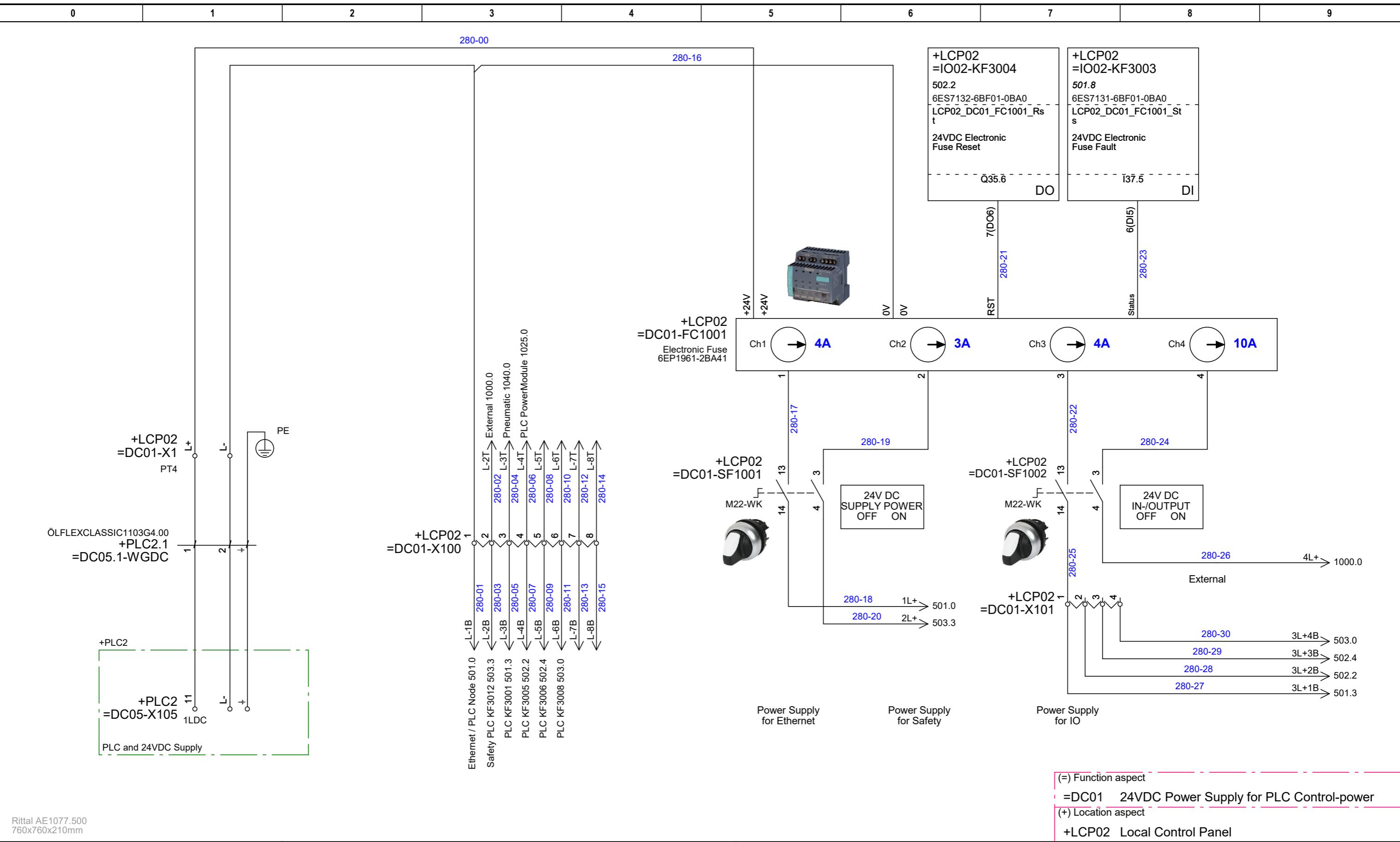
Dan-Web Machinery A/S > Røddikvej 82 > DK-8464 Galten > Tel. +45 87 43 95 00

0 1 2 3 4 5 6 7 8 9





24VDC Power Supply

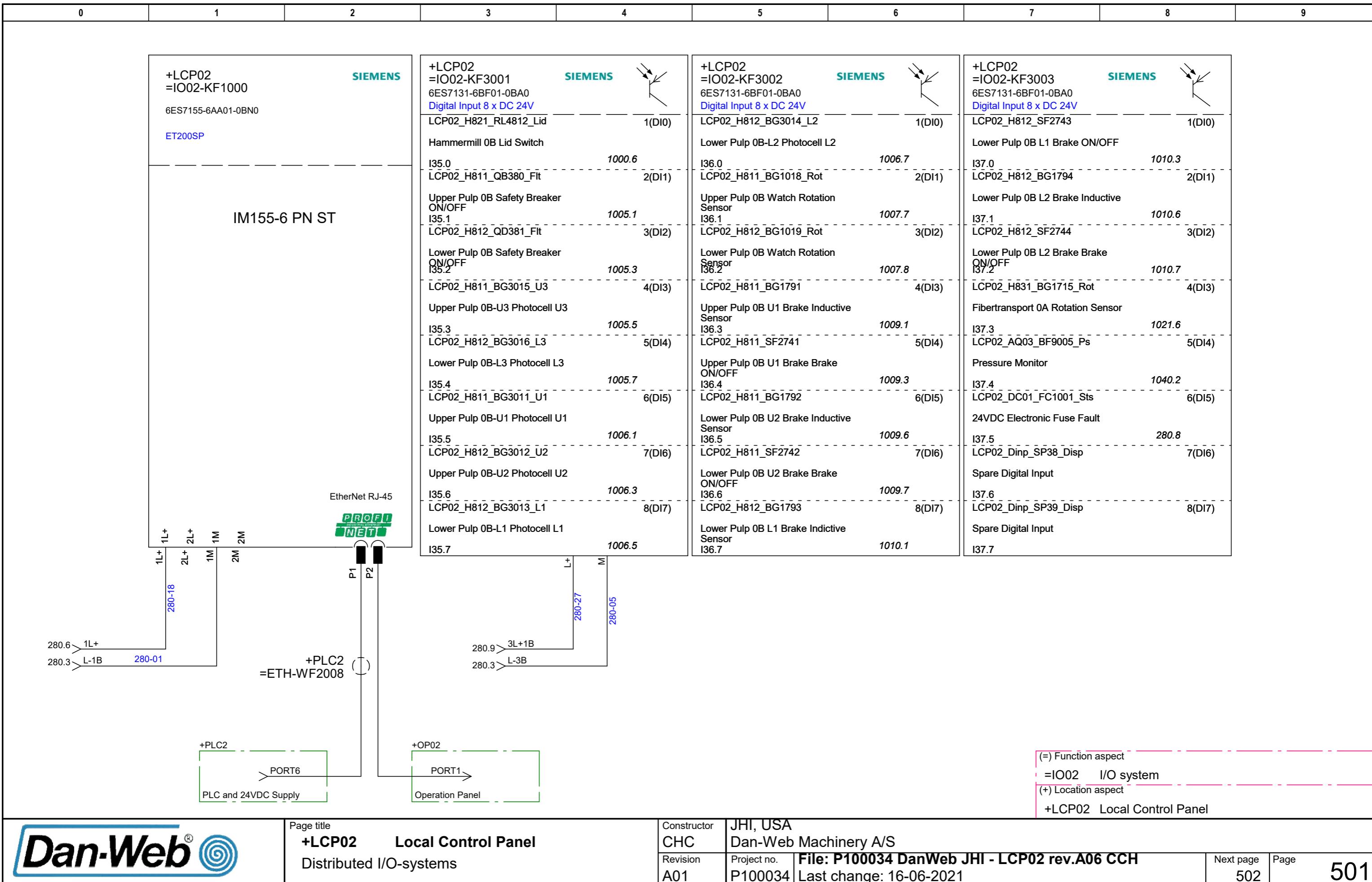


Distributed I/O system



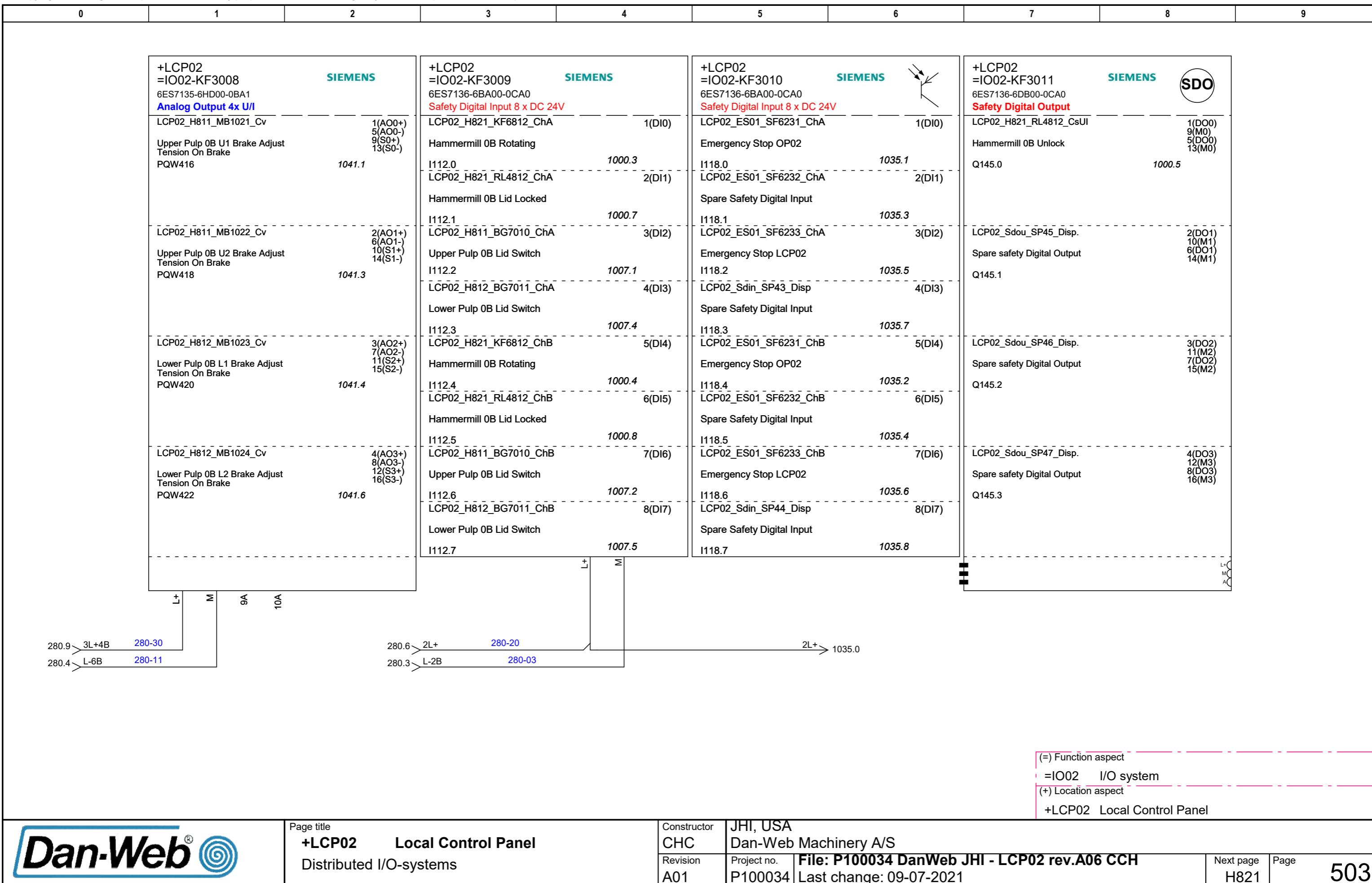
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 <p>0 BA 2xRJ45 SIEMENS SIMATIC ET 200SP IM155-6PN ST</p>	<p>1 DI 8x24VDC DI 8x24VDC ST 8x24VDC ST 8x24VDC</p>	<p>2 DI 8x24VDC DI 8x24VDC ST 8x24VDC ST 8x24VDC</p>	<p>3 DI 8x24VDC DI 8x24VDC ST 8x24VDC ST 8x24VDC</p>	<p>4 DQ 8x24VDC/0.5A BA 4xU 2-wire AI 4xU/I 2-wire</p>	<p>5 AI 4xRTD/TC ST 4xRTD/TC</p>	<p>6 AI 4xRTD/TC HF 4xU/I</p>	<p>7 AI 4xRTD/TC HF 4xU/I</p>	<p>8 AI 4xRTD/TC HF 4xU/I</p>	<p>9 F-DI 8x24VDC HF 8x24VDC PROFIsafe PROFIsafe</p>	<p>10 F-DI 8x24VDC HF 8x24VDC PROFIsafe PROFIsafe</p>	<p>11 F-DQ 4x24VDC/2A PN HF 4x24VDC/2A PN PROFIsafe PROFIsafe</p>

(=) Function aspect
 =I002 I/O system
 (+) Location aspect
 +LCP02 Local Control Panel



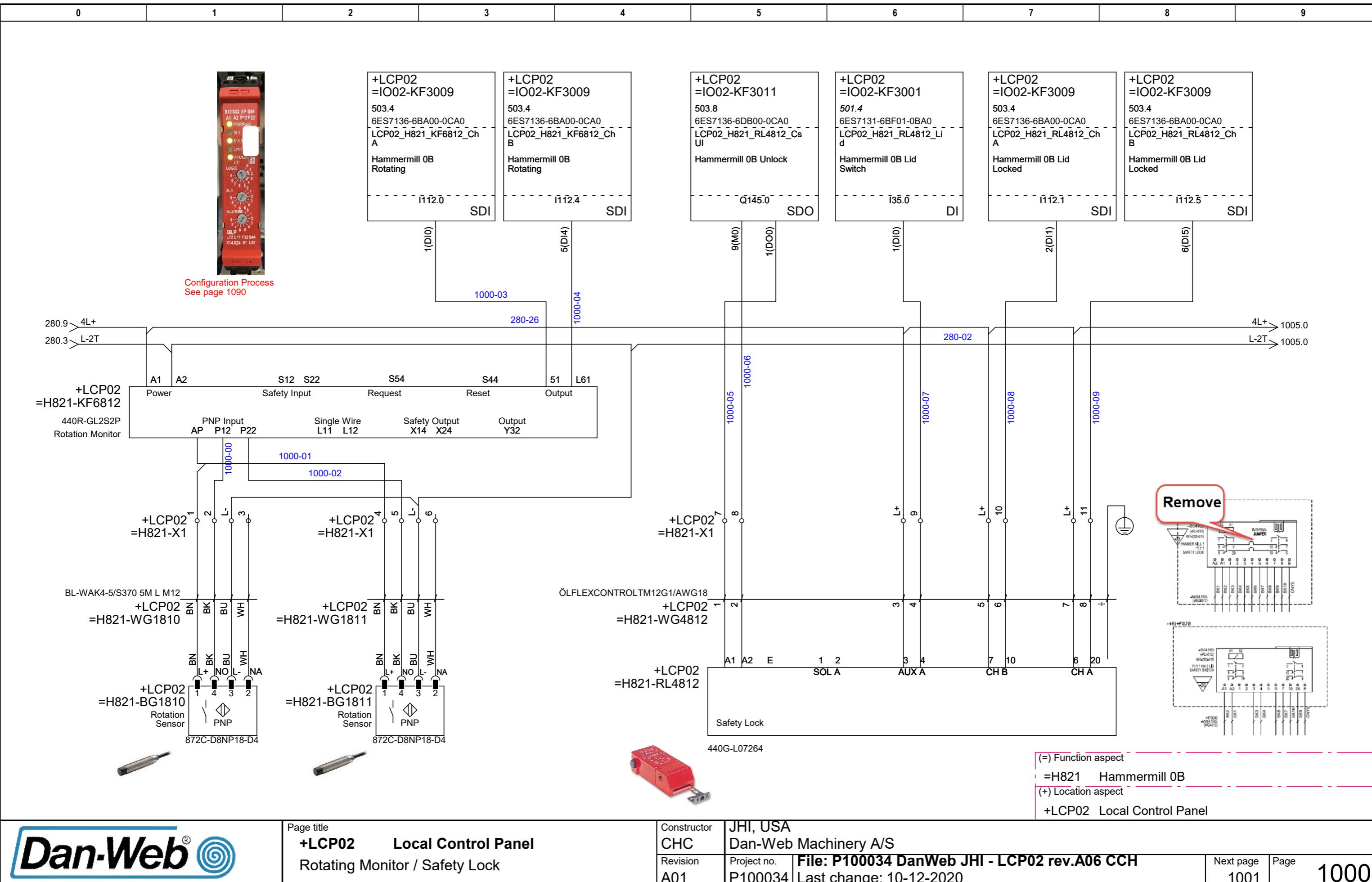
0	1	2	3	4	5	6	7	8	9
<p>+LCP02 =IO02-KF3004 6ES7132-6BF01-0BA0 8 Digital Output DC24V/0,5A</p>  <p>LCP02_H811_PH2741 1(DO0) Upper Pulp 0B U1 Brake Brake On Q35.0 1009.4 LCP02_H811_PH2742 2(DO1) Lower Pulp 0B U2 Brake Brake On Q35.1 1009.8 LCP02_H812_PH2743 3(DO2) Lower Pulp 0B L1 Brake Brake On Q35.2 1010.4 LCP02_H812_PH2744 4(DO3) Lower Pulp 0B L2 Brake Brake On Q35.3 1010.8 LCP02_H811_QM1071_Opn 5(DO4) Upper Pulp 0B Up/Down Open/ Close Nip Q35.4 1040.4 LCP02_H812_QM1072_Opn 6(DO5) Lower Pulp 0B Up/Down Open/ Close Nip Q35.5 1040.6 LCP02_DC01_FC1001_Rst 7(DO6) 24VDC Electronic Fuse Reset Q35.6 280.7 LCP02_Dout_SP40_Dis 8(DO7) Spare Digital Output Q35.7</p>	<p>+LCP02 =IO02-KF3005 6ES7134-6GD01-0BA1 Analog Input 4xU/I 2-wire ST</p> <p>Not available - used as current input</p>	<p>+LCP02 =IO02-KF3006 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW448 1001.1 LCP02_H821_BT6810_Tmp 5(MO0-) Hammermill 0B Bearings Temp. TS 1(MO0+) 9(IC0+) 13(IC0-)</p>	<p>+LCP02 =IO02-KF3007 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW456 1021.3 LCP02_H831_BT6802_Tmp 5(MO0-) Fibertransport 0B Temp. Bearing MS 1(MO0+) 9(IC0+) 13(IC0-)</p>	<p>+LCP02 =IO02-KF3008 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW458 1021.4 LCP02_H831_BT6803_Tmp 6(MO1-) Fibertransport 0B Temp. Bearing FS 2(MO1+) 10(IC1+) 14(IC1-)</p>	<p>+LCP02 =IO02-KF3009 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW460 1021.5 LCP02_H821_BT6812_Tmp 7(MO2-) Hammermill 0B Outlet Temp. 3(MO2+) 11(IC2+) 15(IC2-)</p>	<p>+LCP02 =IO02-KF3010 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW462 1021.6 LCP02_H831_BT6801_Tmp 8(MO3-) Fibertransport 0B Temp Sensor 4(MO3+) 12(IC3+) 16(IC3-)</p>	<p>+LCP02 =IO02-KF3011 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW463 1021.7 LCP02_H831_BT6802_Tmp 7(MO2-) Spare RTD Input 3(MO2+) 11(IC2+) 15(IC2-)</p>	<p>+LCP02 =IO02-KF3012 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW464 1021.8 LCP02_A070_BM1920_Hum 15(12+) Air Sensor In Canal Humidity 11(UV2)</p>	<p>+LCP02 =IO02-KF3013 6ES7134-6JD00-0CA1 Analog Input (PT100)</p> <p>PIW465 1021.9 LCP02_A070_BT1920_Tmp 16(13+) Air Sensor In Canal Temperature 12(UV3)</p>
		<p>±</p> <p>9A 10A</p> <p>280.9 > 3L+2B 280-28 280.3 > L-4B 280-07</p>	<p>±</p> <p>9M 10M</p> <p>280.9 > 3L+3B 280-29 280.3 > L-5B 280-09</p>					<p>L+ M A</p>	<p>L+ M A</p>

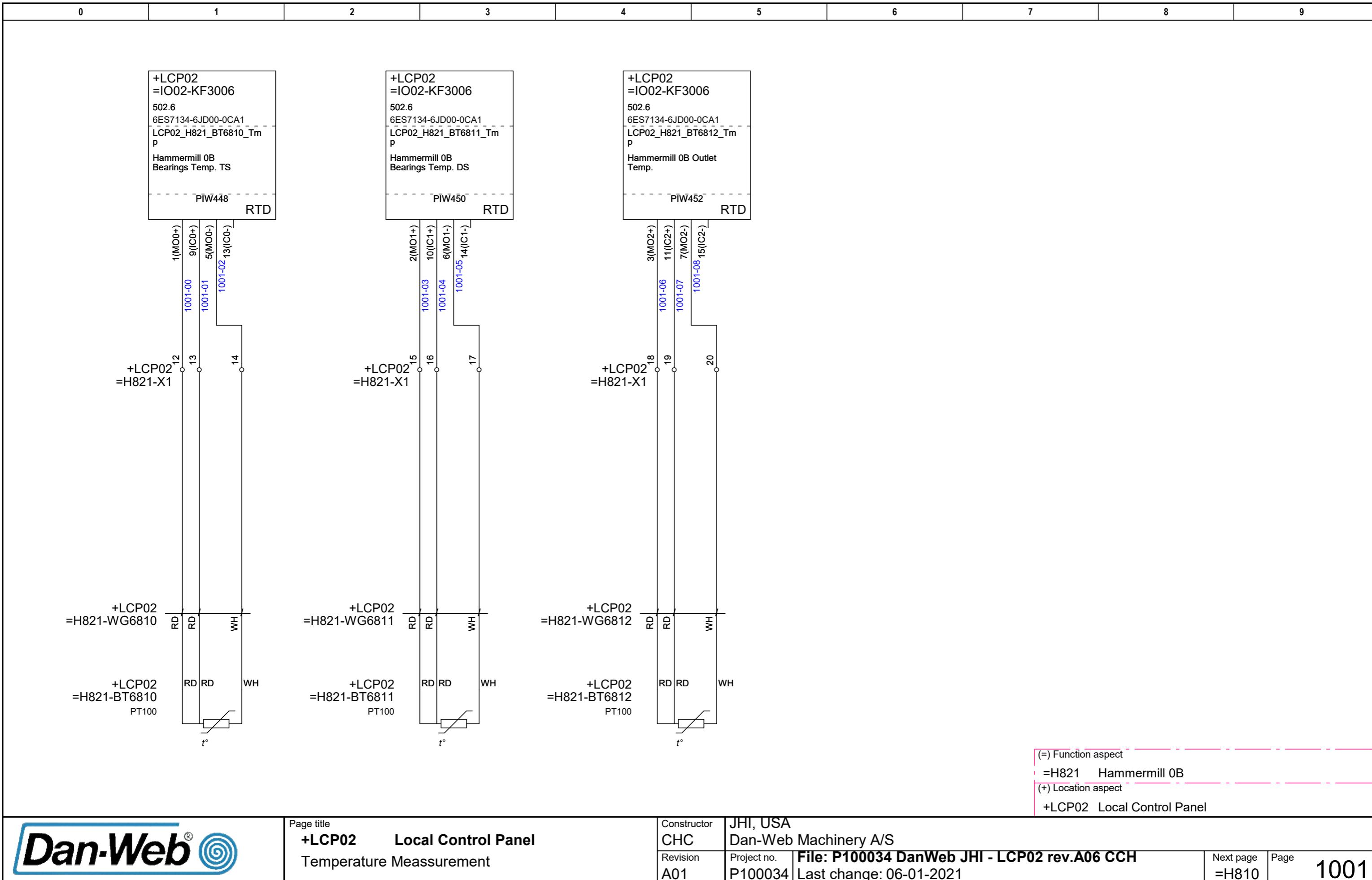
(=) Function aspect
=I002 I/O system
(+) Location aspect
+LCP02 Local Control Panel





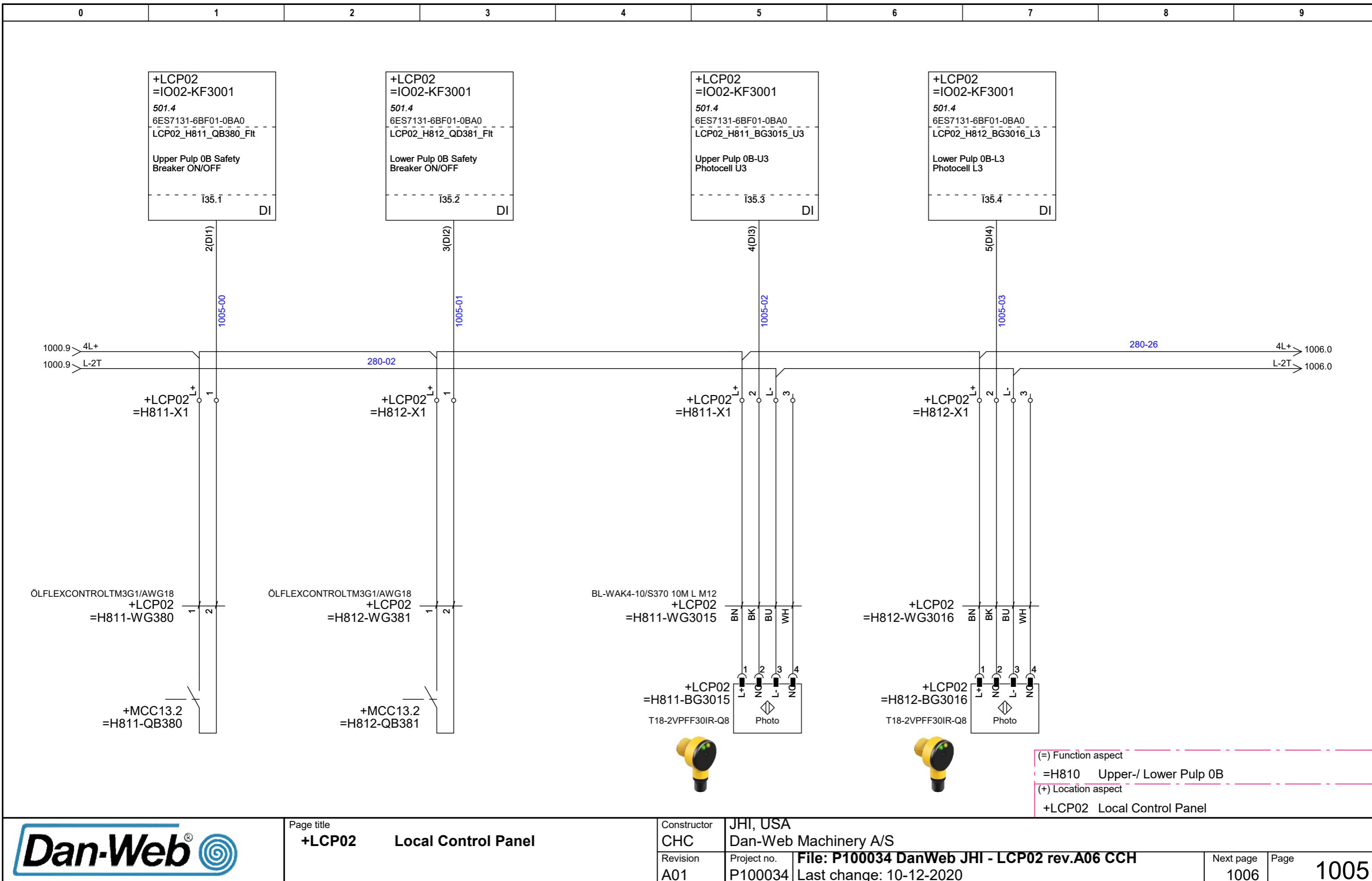
Hammermill OB

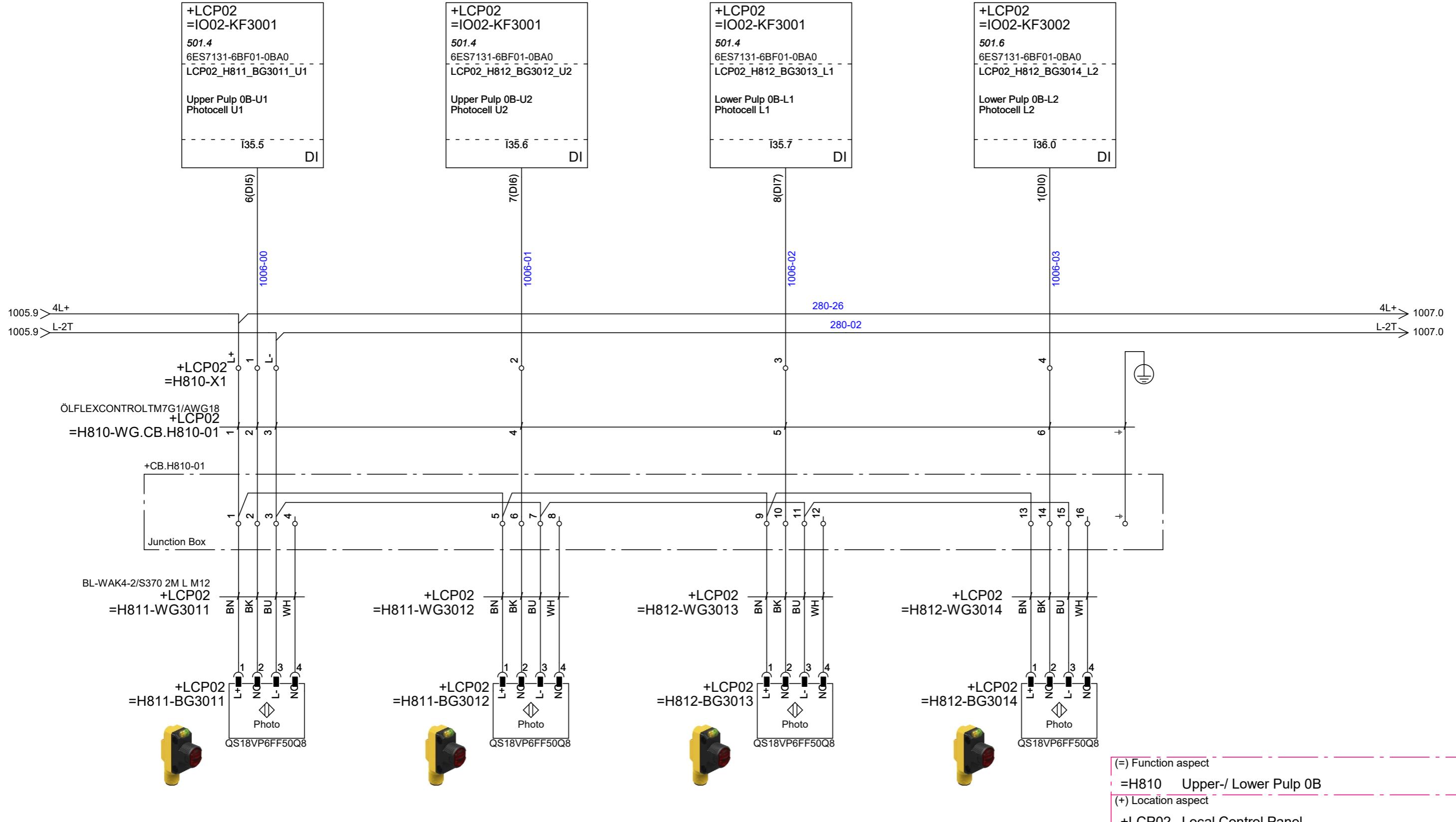


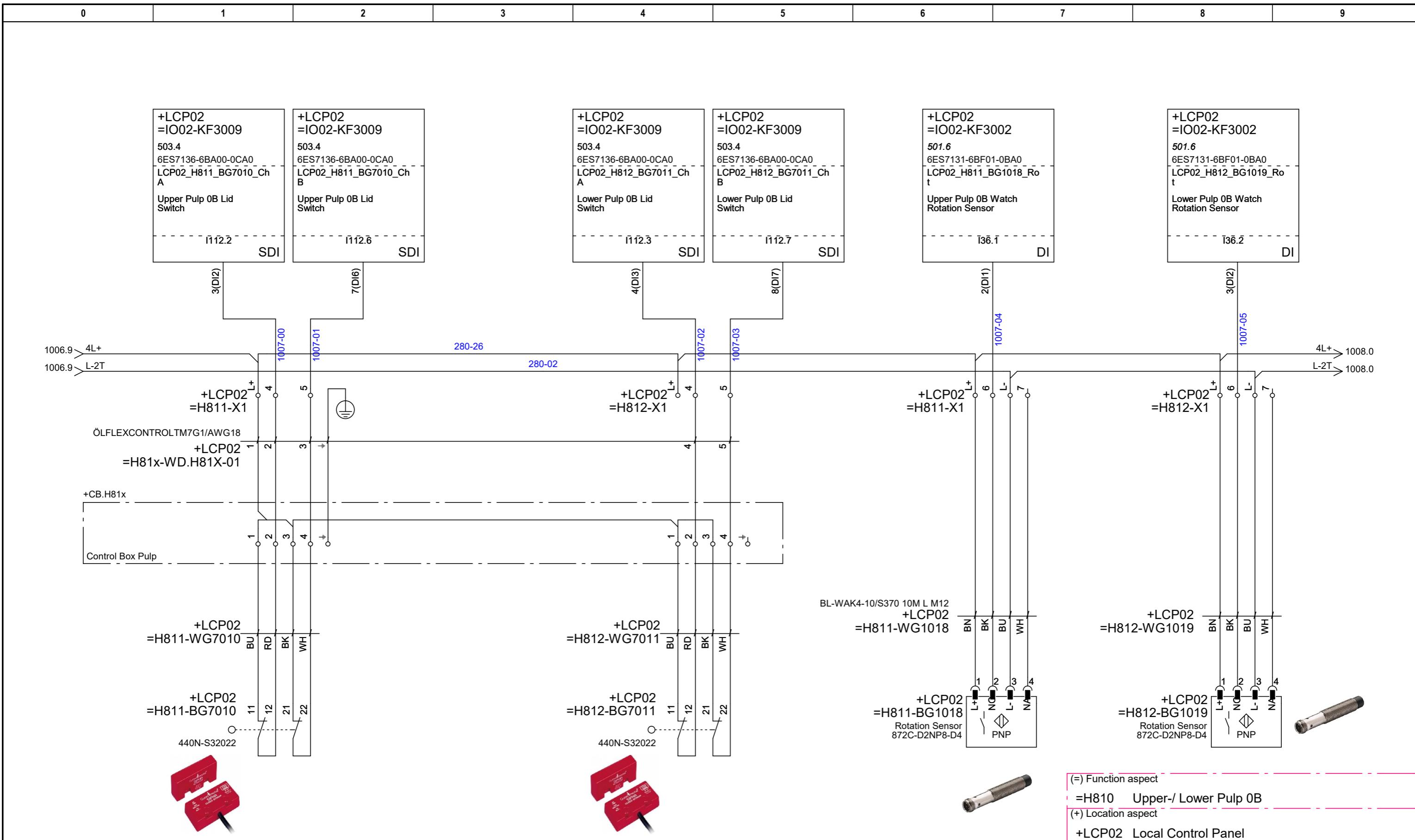


Upper- / Lower Pulp OB

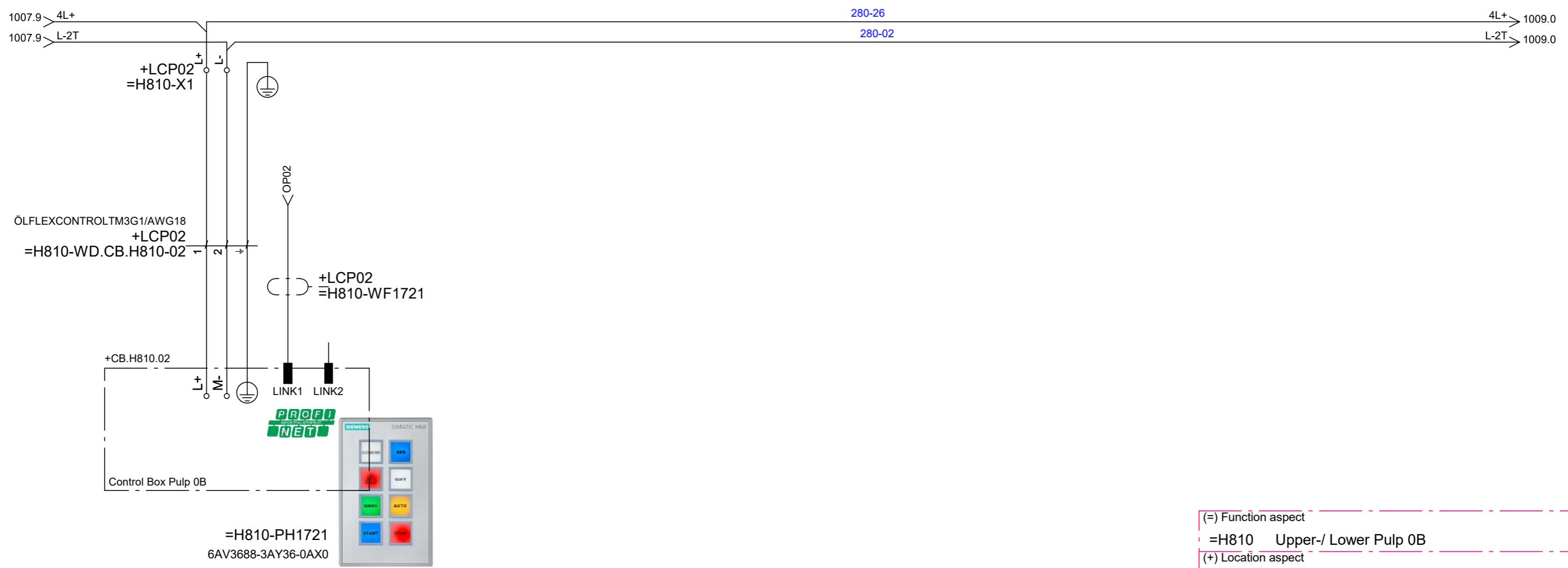




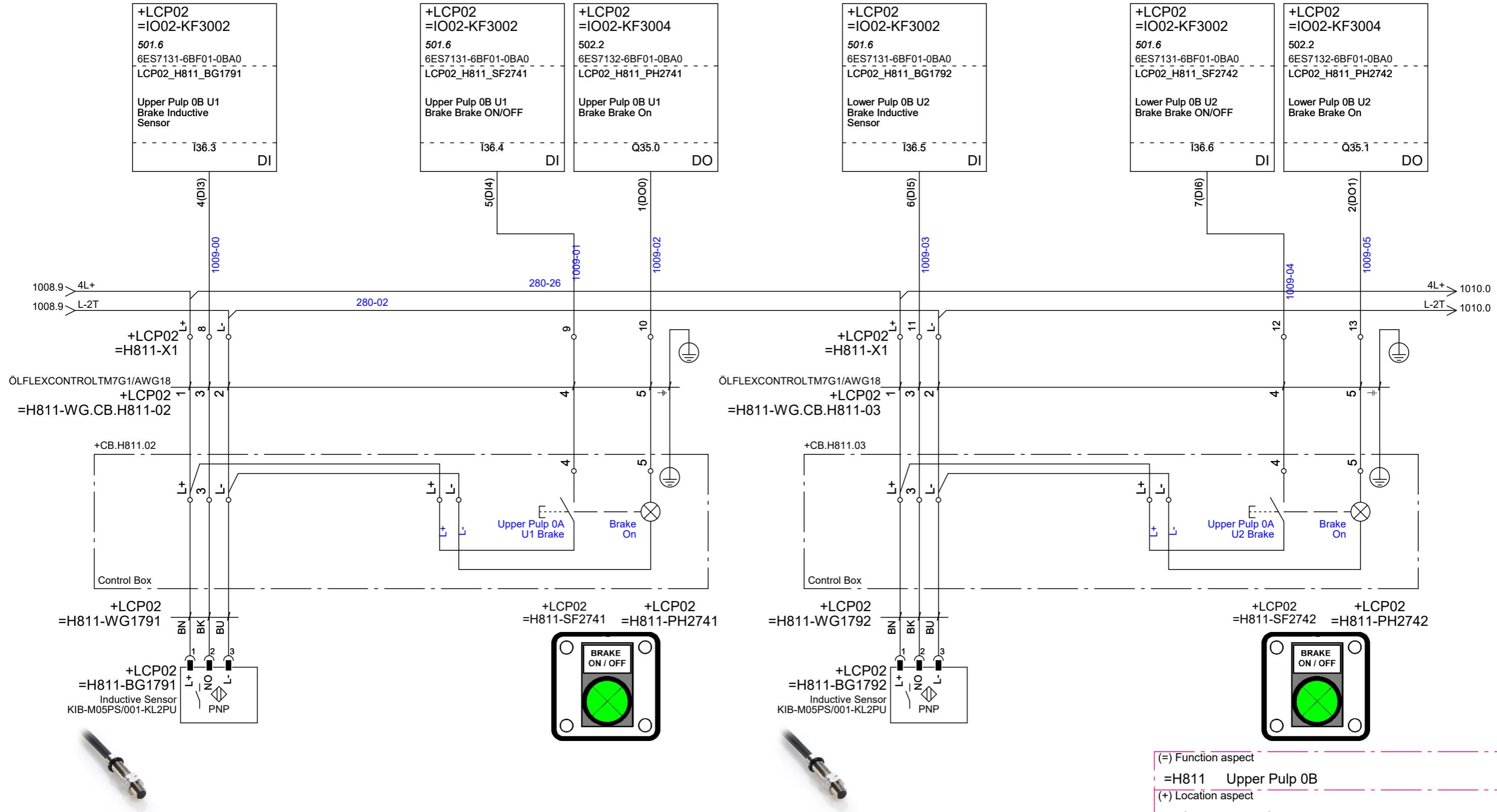




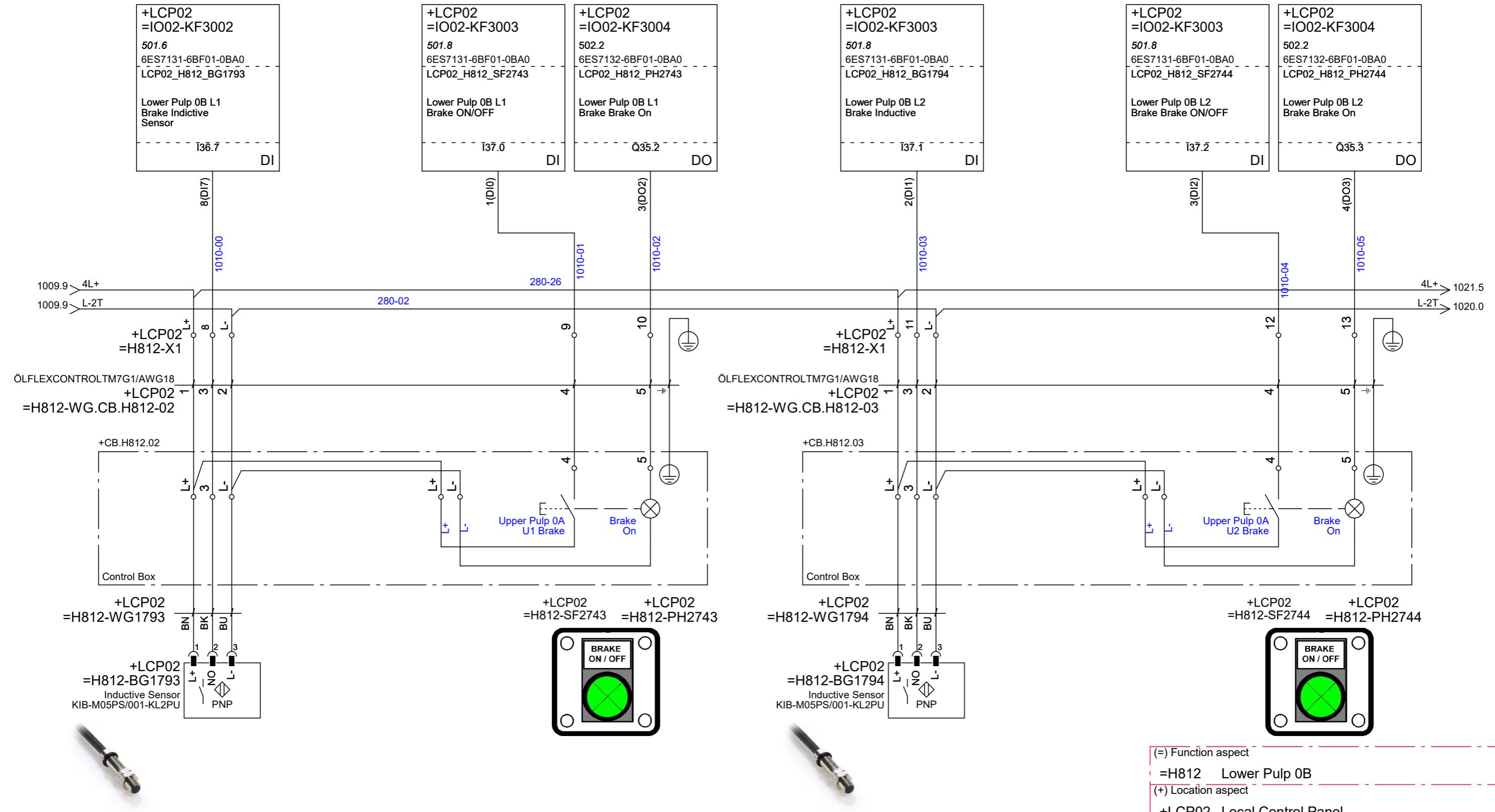
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Fibertransport OB

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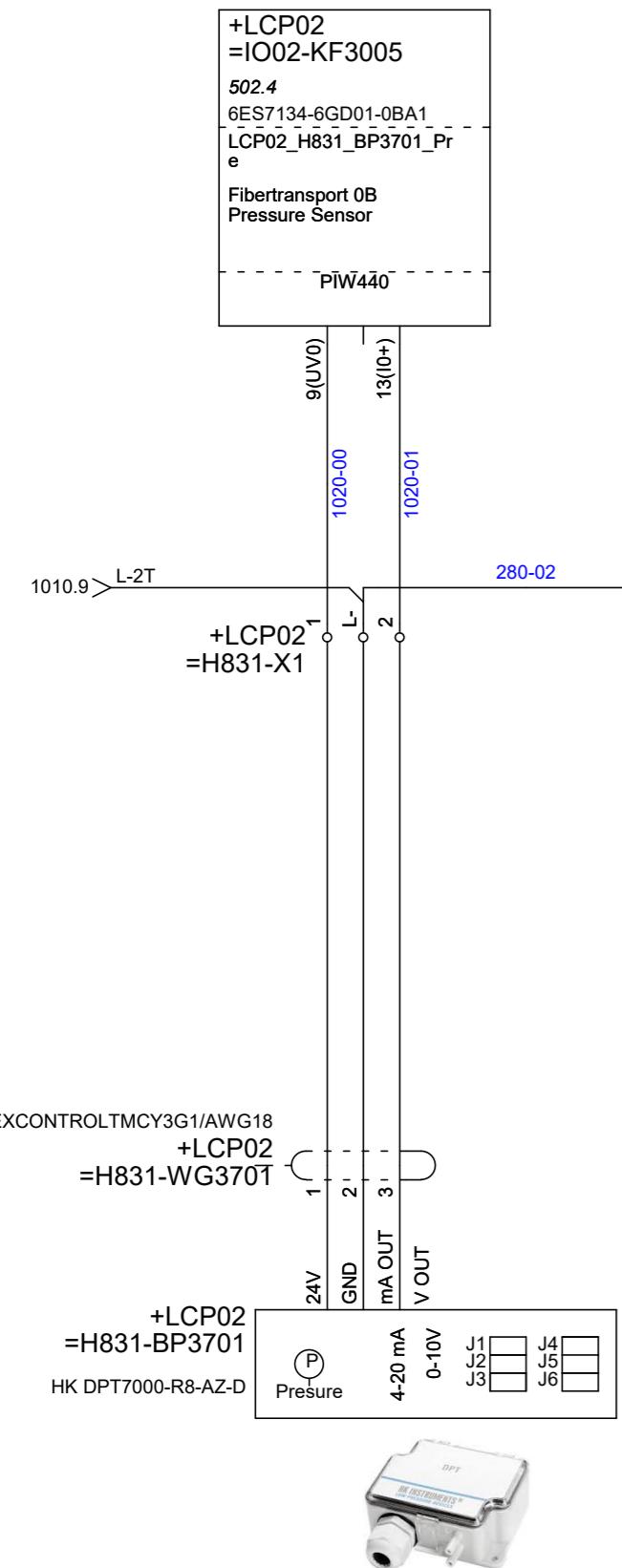


Table 3-1 Terminal assignment

Terminal assignment for AI 4xU/I 2-wire ST (6ES7134-6HD00-0BA1)						
Terminal	Assignment	Terminal	Assignment	Explanation	BaseUnit ¹	Color identification label (terminals 1 to 16)
1	U ₀₊	2	U ₁₊	Voltage input (terminals 1 to 8) • U _{n+} : Input signal "+", channel n • U _{n-} : Input signal "-", channel n	A0 A1	
3	U ₂₊	4	U ₃₊			
5	U ₀₋	6	U ₁₋			
7	U ₂₋	8	U ₃₋			
9	U _{V0}	10	U _{V1}	Current input (terminals 9 to 16) • U _{Vn} : Supply voltage channel n • I _{n+} : Current input "+", channel n	CC03 6ES7193-6CP03-2MA0	
11	U _{V2}	12	U _{V3}			
13	I ₀₊	14	I ₁₊			
15	I ₂₊	16	I ₃₊			
L+	24 VDC	M	M			

Voltage input

U
U_{n+}
U_{n-}

Current input

I
U_{Vn}
I_{n+}

¹ Usable BaseUnit types, can be identified by the last two digits of the article number.

Note

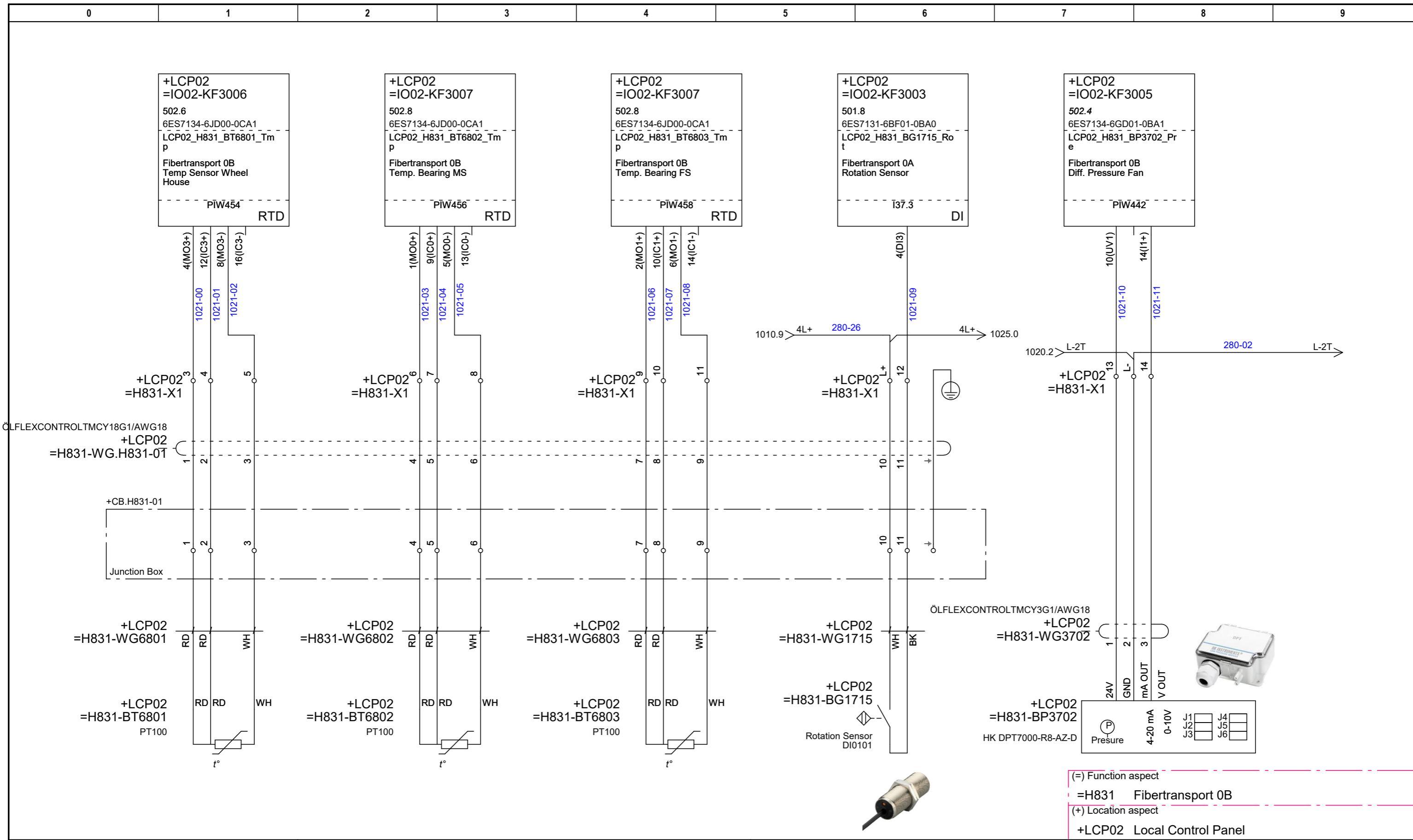
The first BaseUnit of a station must be a light-colored BaseUnit. Also keep this in mind during the configuration.

See also

You will find additional information on the BaseUnit types in the ET 200SP distributed I/O system (<http://support.automation.siemens.com/WW/view/en/58649293>) system manual.

Analog Input Module AI 4xU/I 2-wire ST (6ES7134-6HD00-0BA1)

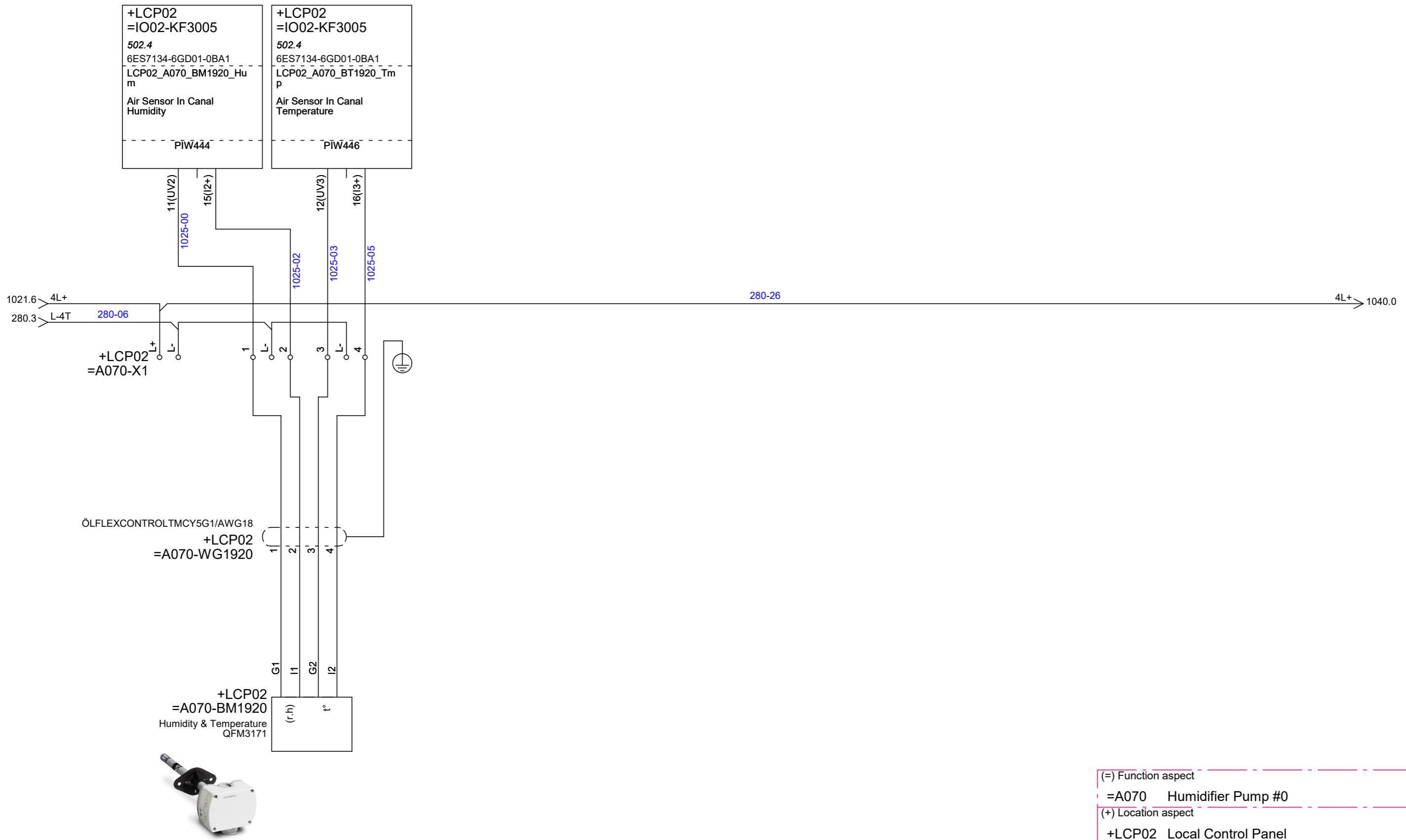
- (=) Function aspect
- =H831 Fibertransport 0B
- (+) Location aspect
- +LCP02 Local Control Panel



Humidifier Pump Forming Area

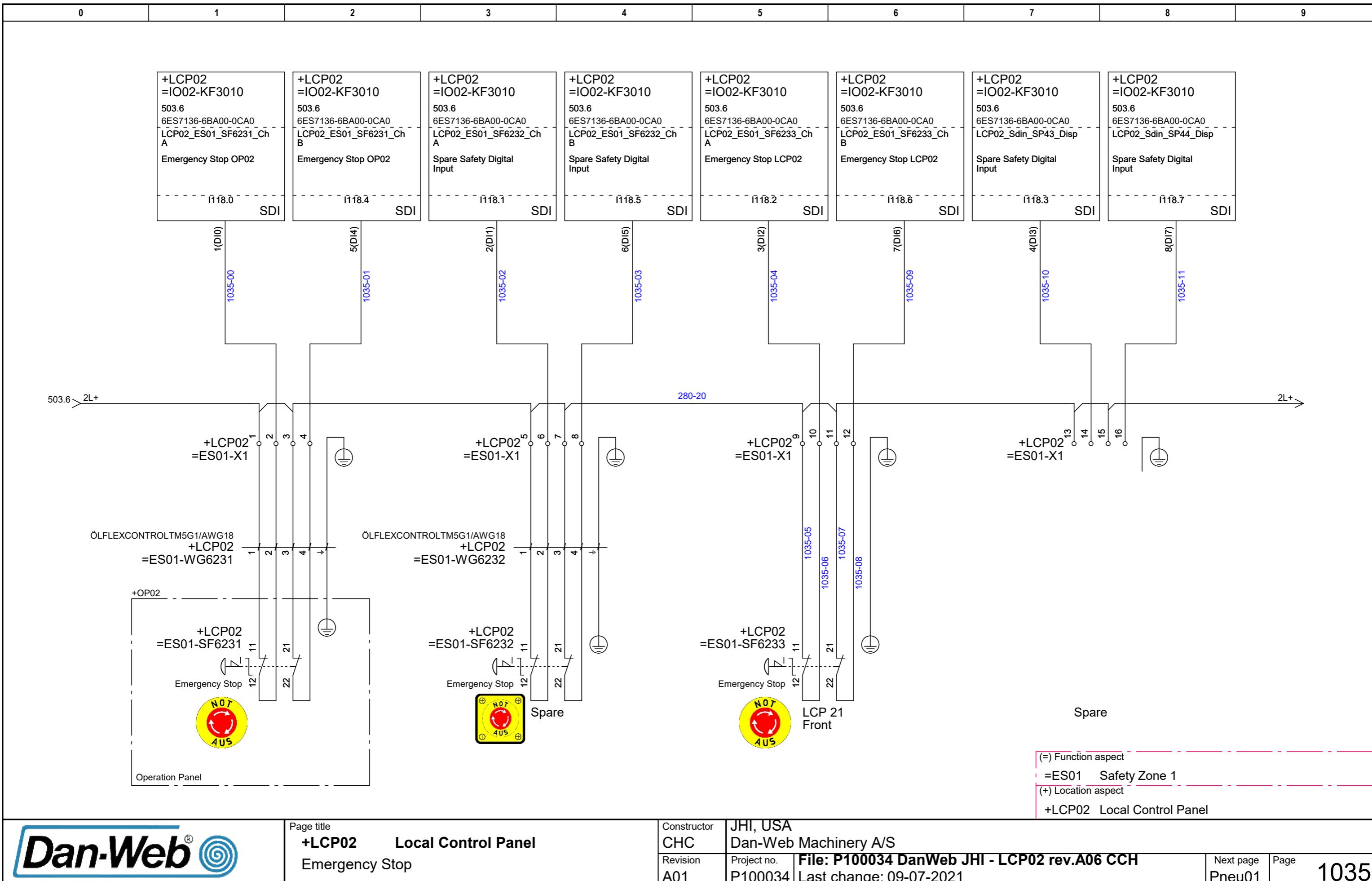


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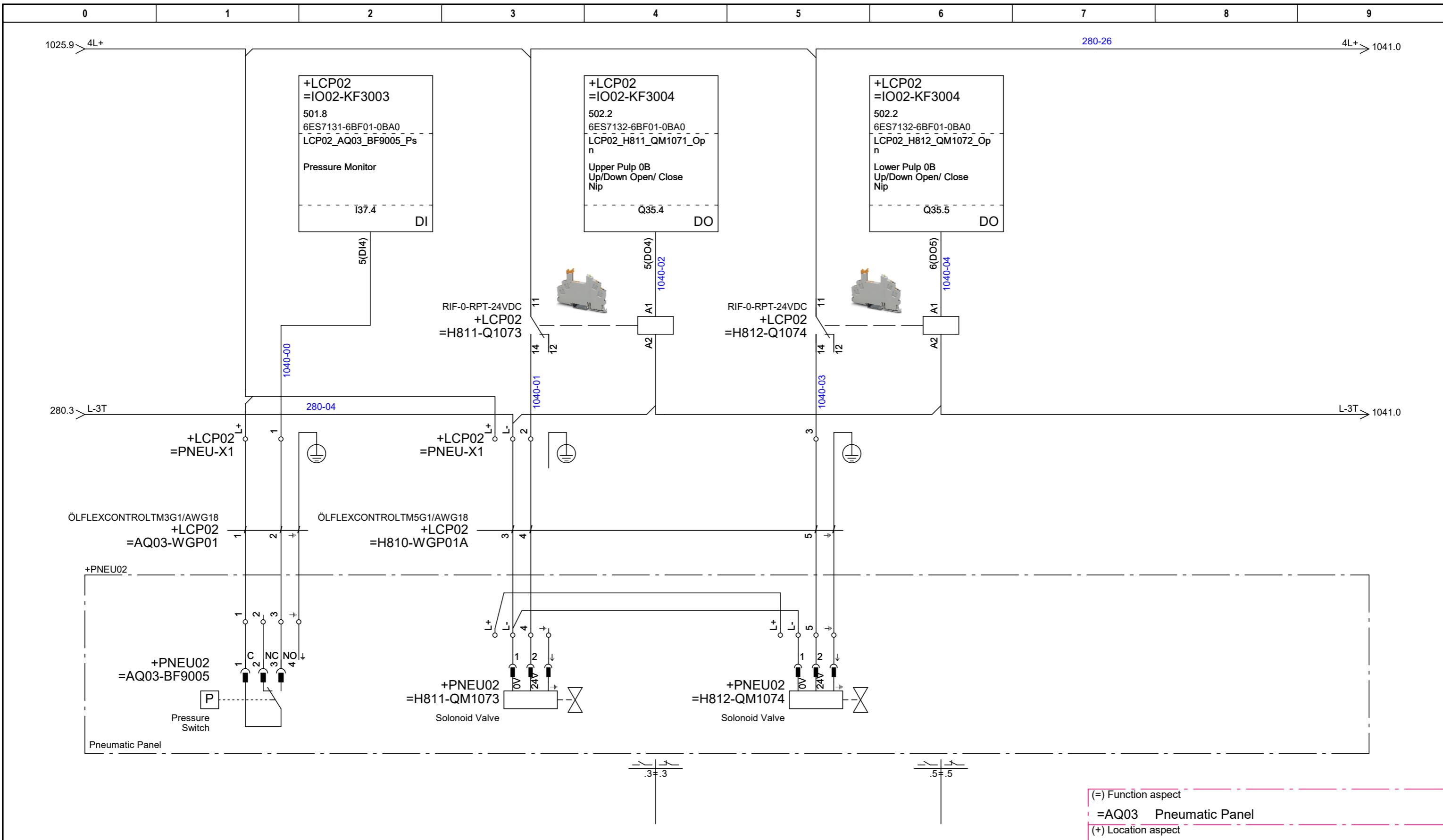


Emergency Stop



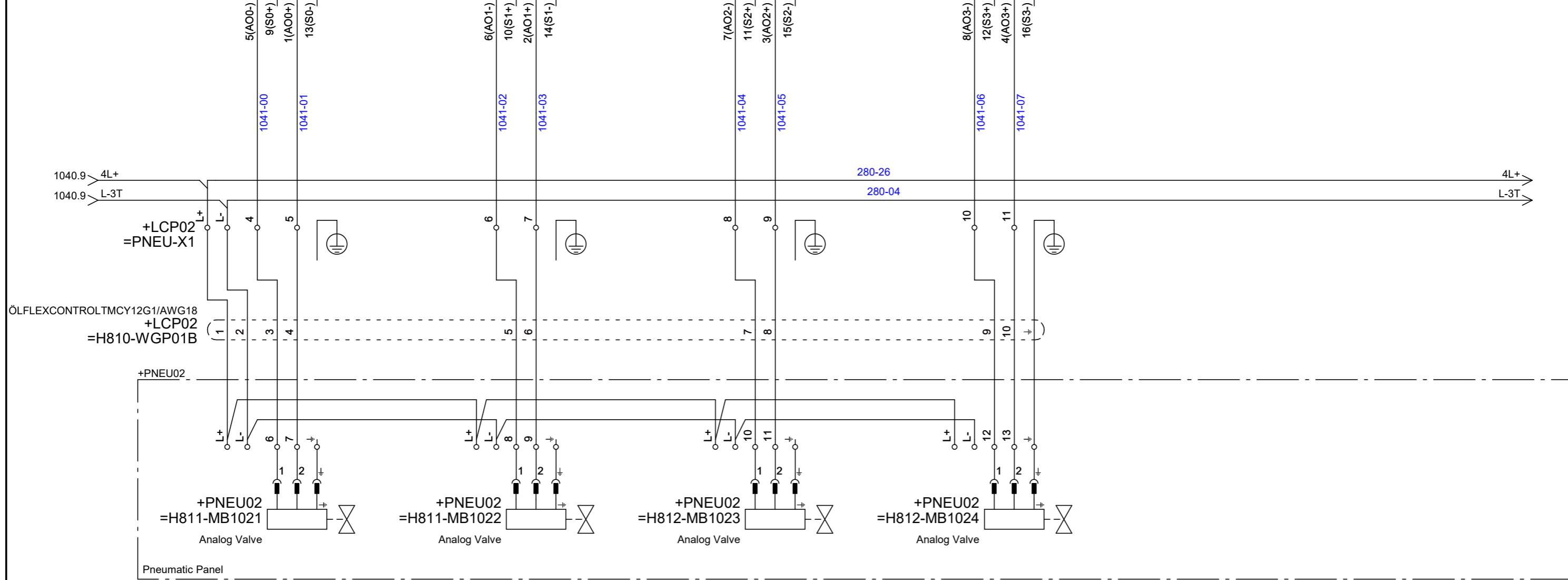
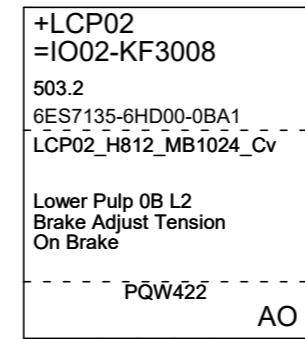
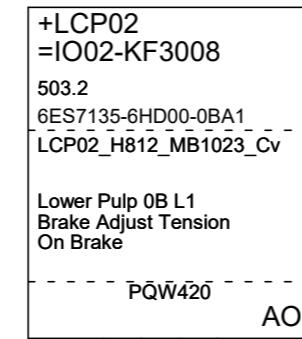
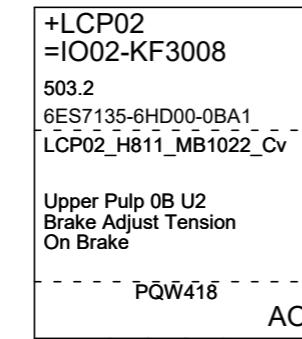
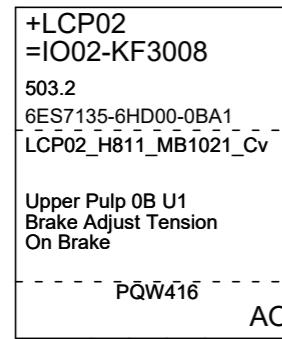


Pneumatic



(=) Function aspect
 =AQ03 Pneumatic Panel
 (+) Location aspect
 +PNEU02 Pneumatic Panel

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(=) Function aspect
 =AQ03 Pneumatic Panel
 (+) Location aspect
 +PNEU02 Pneumatic Panel

Guard-Locking Proximity Inputs Safety Relay



Catalog Number 440R-GL2S2P

Configuration Chapter 4

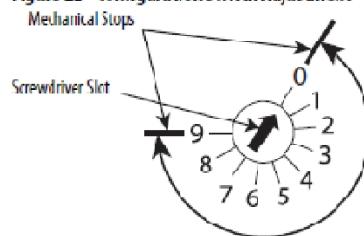
Table 4 - SLS2/Times Settings

SLS2/Time Switch Setting	Safe Maximum Speed Configuration 1...4 and 8 (Configured from 9)	Time Configuration 5...8 (Configured from 0)
0	No limit	10%
1	10 Hz	20%
2	20 Hz	30%
3	50 Hz	40%
4	100 Hz	50%
5	200 Hz	60%
6	500 Hz	70%
7	1000 Hz	80%
8	2000 Hz	90%
9	3000 Hz	100%



Use a small slotted screwdriver to set the switches to the desired setting. The configuration switches are multi-position switches with a limited rotation.

Figure 22 - Configuration Switch Adjustment



IMPORTANT Adjust the switches gently and do not turn past the mechanical stops.

Configuration Process

Configuration is a five-step process. The process requires the wiring to the GLP safety relay to be completed. During the configuration process, GLP safety relay sends out test pulses to determine how it is wired and then configures the internal parameters to match the application.

The GLP safety relay is configured in five steps:

- With the power OFF, set the switches for configuration.

Set the Logic switch to:

- 0 if you want X14 and X24 configured as OSSD safety outputs. They turn ON simultaneously as the L11 SWS output.
- 9 if you want to use X14 and X24 as test pulse outputs that the GLP safety relay expects to receive at S12 and S22 inputs.
- You must always set the Logic Switch to 0 or 9 during configuration, even if you only want to change SLS1 or SLS2/Time.

Set SLS1 to 0.

Set SLS2/TIME to 0.

Guard-Locking Proximity Inputs Safety Relay



Catalog Number 440R-GL2S2P

Configuration Chapter 4

2. Apply power.

The PWR/Fault status indicator flashes red continuously. The prior configuration in the EEPROM is erased and the device now prepared for a new configuration.

3. Adjust the Logic, SLS1, and SLS2/Time switches.

After 500 ms, the new configuration parameters are acknowledged. Then, after 300 ms, the new parameter is stored in the EEPROM, the power status indicator is solid green.

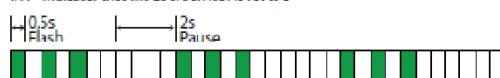
TIP You can change (or readjust) the switch settings during Step 3 and 4. The power status indicator momentarily flashes red again.

4. Verify the settings by counting the blink rates of the status indicators.

The status indicators flash for 0.5 seconds to indicate the switch setting. The number of flashes is equal to the switch setting. The blinking repeats after a two-second pause.

Figure 23 - Example of the Status Indicators Flashing during Configuration Mode

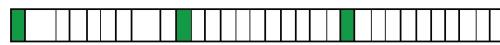
IN1 - Indicates that the LOGIC switch is set to 3



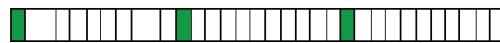
S1/L61 - Indicates that the SLS1 switch is set to 4



Logic IN - Indicates that the SLS2/time switch is set to 1



X14/X24 L11 - Indicates the solenoid connection to guard locking switch with OSSD outputs



5. Cycle the power to store the settings.

After power-up, the current switch settings are compared to the values in the EEPROM, and the input and output circuits are checked. Upon successful completion of the internal checks, the GLP safety relay is ready for operation.

The X14/X24 L11 status indicator indicates the type of connection that is made to terminals 51 and L61. [Table 5](#) shows the conditions for the X14/X24 L11 status indicator blink rates.

Table 5 - X14/X24/L11 Status Indicator

X14/X24/L11 Status Indicator Blanks	Guard Locking Switch	51	L61
One time	OSSD Guard Locking Switch (for example, TLS-ZR or 440G-LZ)	High side	High side
Two times	Standard Guard Locking Switch (for example, TLS-GD2)	High side	Low side



Componentlist

Componentlist

Pos.	Component Page/path	Type Description	Make
1	+LCP02-LCP02 =DC01/280.0	1077500 Rittal enclosure AE 1077 760x760x210 mm	Rittal
2	+LCP02=A070-X1 (4) =A070/1025.2	PTTB2,5 2 level terminal spring	Phoenix Contact
3	+LCP02=DC01-FC1001 =DC01/280.5	6EP1961-2BA41 SITOP PSE200U 10A SELECTIVITY MODULE 4CH. 24VDC ADJ.3-10A	Siemens
4	+LCP02=DC01-SF1001 =DC01/280.5	M22-A Fixing adapter 3 contacts	Möeller
5	+LCP02=DC01-SF1001 (2) =DC01/280.5	M22-K10 Contact element 1M, frontfixing	Möeller
6	+LCP02=DC01-SF1001 =DC01/280.5	M22-IVS Adapter for DIN rail	Möeller
7	+LCP02=DC01-SF1001 =DC01/280.5	M22-WK Changeover switch w.thumb-grib, momentary 2pos.	Möeller
8	+LCP02=DC01-SF1002 =DC01/280.7	M22-WK Changeover switch w.thumb-grib, momentary 2pos.	Möeller
9	+LCP02=DC01-SF1002 =DC01/280.7	M22-IVS Adapter for DIN rail	Möeller
10	+LCP02=DC01-SF1002 (2) =DC01/280.7	M22-K10 Contact element 1M, frontfixing	Möeller
11	+LCP02=DC01-SF1002 =DC01/280.7	M22-A Fixing adapter 3 contacts	Möeller
12	+LCP02=DC01-X1 (2) =DC01/280.1	PT4 Terminal spring	Phoenix Contact
13	+LCP02=DC01-X100 (8) =DC01/280.4	PT2,5 Terminal spring	Phoenix Contact
14	+LCP02=DC01-X101 (4) =DC01/280.8	PT2,5 Terminal spring	Phoenix Contact
15	+LCP02=ES01-SF6233 =ES01/1035.5	M22-PVT Emergency stop actuator, turn to release	Möeller
16	+LCP02=ES01-X1 (8) =ES01/1035.2	PTTB2,5 2 level terminal spring	Phoenix Contact
17	+LCP02=H810-X1 (5) =H810/1006.2	PTTB2,5 2 level terminal spring	Phoenix Contact
18	+LCP02=H811-Q1073 =AQ03/1040.4	RIF-0-RPT-24VDC Relæ RIF-0..., mini-effektrele med 1 sluttekontakt	Phoenix Contact
19	+LCP02=H811-SF2741 =H811/1009.3	M22-DL-G Illuminated Pushbutton Actuator	Möeller
20	+LCP02=H811-SF2741 =H811/1009.3	M22-LED-G LED Element 18-30V AC/DC, Frontmount	Möeller
21	+LCP02=H811-SF2741 =H811/1009.3	M22-K10 Contact element 1M, frontfixing	Möeller
22	+LCP02=H811-SF2742 =H811/1009.8	M22-DL-G Illuminated Pushbutton Actuator	Möeller
23	+LCP02=H811-X1 (12) =H810/1007.7	PTTB2,5 2 level terminal spring	Phoenix Contact
24	+LCP02=H812-Q1074 =AQ03/1040.6	RIF-0-RPT-24VDC Relæ RIF-0..., mini-effektrele med 1 sluttekontakt	Phoenix Contact
25	+LCP02=H812-X1 (12) =H810/1007.9	PTTB2,5 2 level terminal spring	Phoenix Contact



Componentlist

Pos.	Component Page/path	Type Description	Make
26	+LCP02=H821-KF6812 =H821/1000.0	440R-GL2S2P Guard-Locking Proximity Inputs Safety Relay	Allen-Bradley
27	+LCP02=H821-X1 (13) =H821/1001.5	PTTB2,5 2 level terminal spring	Phoenix Contact
28	+LCP02=H831-X1 (9) =H831/1021.8	PTTB2,5 2 level terminal spring	Phoenix Contact
29	+LCP02=IO02-KF1000 =IO02/501.1	6ES7155-6AA01-0BN0 SIMATIC ET 200SP, PROFINET INTERFACE MODULE IM155-6PN STANDARD	Siemens
30	+LCP02=IO02-KF3001 =IO02/501.3	6ES7131-6BF01-0BA0 SIMATIC ET 200SP, INPUT DI 8X 24VDC STANDARD	Siemens
31	+LCP02=IO02-KF3001 =IO02/501.3	6ES7193-6BP00-0DA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2D, BU-TYPE A0, PUSH-IN TERM, NEW LOAD	Siemens
32	+LCP02=IO02-KF3002 =IO02/501.5	6ES7131-6BF01-0BA0 SIMATIC ET 200SP, INPUT DI 8X 24VDC STANDARD	Siemens
33	+LCP02=IO02-KF3002 =IO02/501.5	6ES7193-6BP00-0BA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2B, BU-TYPE A0, PUSH-IN TERM, BRIDGED TO	Siemens
34	+LCP02=IO02-KF3003 =DC01/280.7	6ES7193-6BP00-0BA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2B, BU-TYPE A0, PUSH-IN TERM, BRIDGED TO	Siemens
35	+LCP02=IO02-KF3003 =DC01/280.7	6ES7131-6BF01-0BA0 SIMATIC ET 200SP, INPUT DI 8X 24VDC STANDARD	Siemens
36	+LCP02=IO02-KF3004 =DC01/280.6	6ES7193-6BP00-0BA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2B, BU-TYPE A0, PUSH-IN TERM, BRIDGED TO	Siemens
37	+LCP02=IO02-KF3004 =DC01/280.6	6ES7132-6BF01-0BA0 SIMATIC ET 200SP, OUTPUT DQ 8X24VDC/0,5A STANDARD	Siemens
38	+LCP02=IO02-KF3005 =IO02/502.3	6ES7134-6GD01-0BA1 SIMATIC ET 200SP, AI 4XI 2-/4-WIRE STANDARD	Siemens
39	+LCP02=IO02-KF3005 =IO02/502.3	6ES7193-6BP00-0DA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2D, BU-TYPE A0, PUSH-IN TERM, NEW LOAD	Siemens
40	+LCP02=IO02-KF3006 =IO02/502.5	6ES7193-6BP00-0DA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2D, BU-TYPE A0, PUSH-IN TERM, NEW LOAD	Siemens
41	+LCP02=IO02-KF3006 =IO02/502.5	6ES7134-6JD00-0CA1 SIMATIC ET 200SP, AI 4XRTD/TC HIGH FEATURE, FITS TO BU-TYPE A0, A1, COLOR CODE C	Siemens
42	+LCP02=IO02-KF3007 =IO02/502.7	6ES7193-6BP00-0BA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2B, BU-TYPE A0, PUSH-IN TERM, BRIDGED TO	Siemens
43	+LCP02=IO02-KF3007 =IO02/502.7	6ES7193-6BP00-0DA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2D, BU-TYPE A0, PUSH-IN TERM, NEW LOAD	Siemens
44	+LCP02=IO02-KF3007 =IO02/502.7	6ES7134-6JD00-0CA1 SIMATIC ET 200SP, AI 4XRTD/TC HIGH FEATURE, FITS TO BU-TYPE A0, A1, COLOR CODE C	Siemens
45	+LCP02=IO02-KF3008 =IO02/503.1	6ES7135-6HD00-0BA1 SIMATIC ET 200SP, ANALOG OUT AQ 4XU/I STANDARD	Siemens
46	+LCP02=IO02-KF3008 =IO02/503.1	6ES7193-6BP00-0DA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2D, BU-TYPE A0, PUSH-IN TERM, NEW LOAD	Siemens
47	+LCP02=IO02-KF3009 (136) =IO02/503.3	6ES7193-6BP00-0DA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2D, BU-TYPE A0, PUSH-IN TERM, NEW LOAD	Siemens
48	+LCP02=IO02-KF3009 (128) =IO02/503.3	6ES7193-6BP00-0BA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2B, BU-TYPE A0, PUSH-IN TERM, BRIDGED TO	Siemens
49	+LCP02=IO02-KF3009 =IO02/503.3	6ES7136-6BA00-0CA0 SIMATIC ET 200SP, SAFETY F-DI 8X24VDC HF	Siemens
50	+LCP02=IO02-KF3010 (2) =ES01/1035.1	6ES7136-6BA00-0CA0 SIMATIC ET 200SP, SAFETY F-DI 8X24VDC HF	Siemens



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Componentlist

Pos.	Component Page/path	Type Description	Make
51	+LCP02=IO02-KF3010 =IO02/503.5	6ES7193-6BP00-0BA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2B, BU-TYPE A0, PUSH-IN TERM, BRIDGED TO	Siemens
52	+LCP02=IO02-KF3011 =IO02/503.7	6ES7136-6DB00-0CA0 SIMATIC ET 200SP, SAFETY F-DQ 4XDC 24V/2A	Siemens
53	+LCP02=IO02-KF3011 =IO02/503.7	6ES7193-6BP00-0BA0 SIMATIC ET 200SP, BASEUNIT BU15-P16+A0+2B, BU-TYPE A0, PUSH-IN TERM, BRIDGED TO	Siemens
54	+LCP02=PNEU-X1 (14) =AQ03/1041.6	PTTB2,5 2 level terminal spring	Phoenix Contact
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Graphic Cable Plan



