

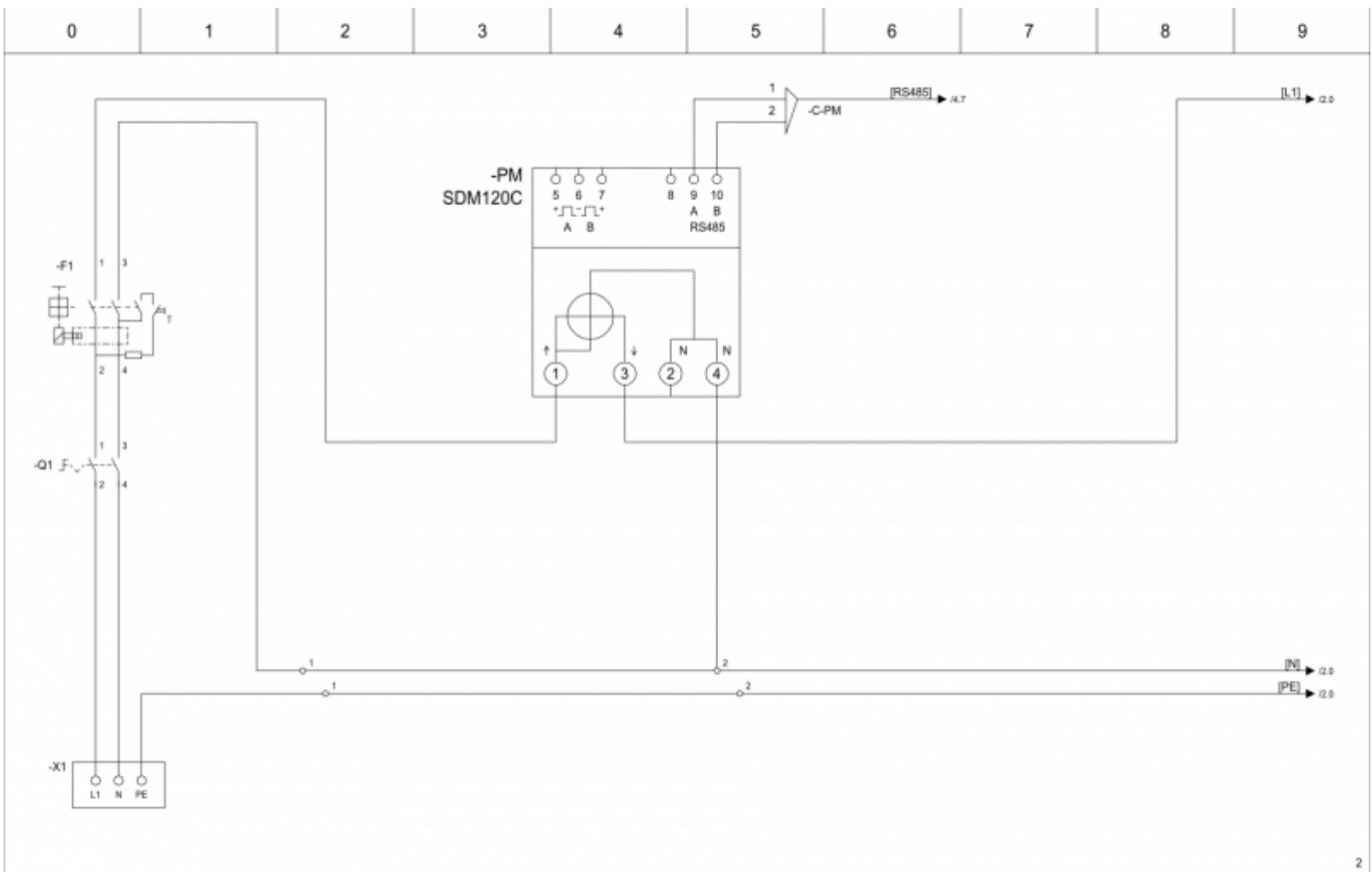
# HIQ designing

Presented electric wiring plans were made with the help of [Elwin](#) software which is made by [3xM Automation company](#). New plans can be made with modification of included [Elwin project](#) or with modification of [DXF plans](#) with any DXF capable program. With the Elwin project, all HIQ symbols are included. The whole design plan can be also downloaded as a [PDF file](#).

## Page 1- Power distribution-RCD switch and power meter

Single phase power input, connection of RCD switch (Residual Current Device) and [power meter](#). Input can be single or three phase.

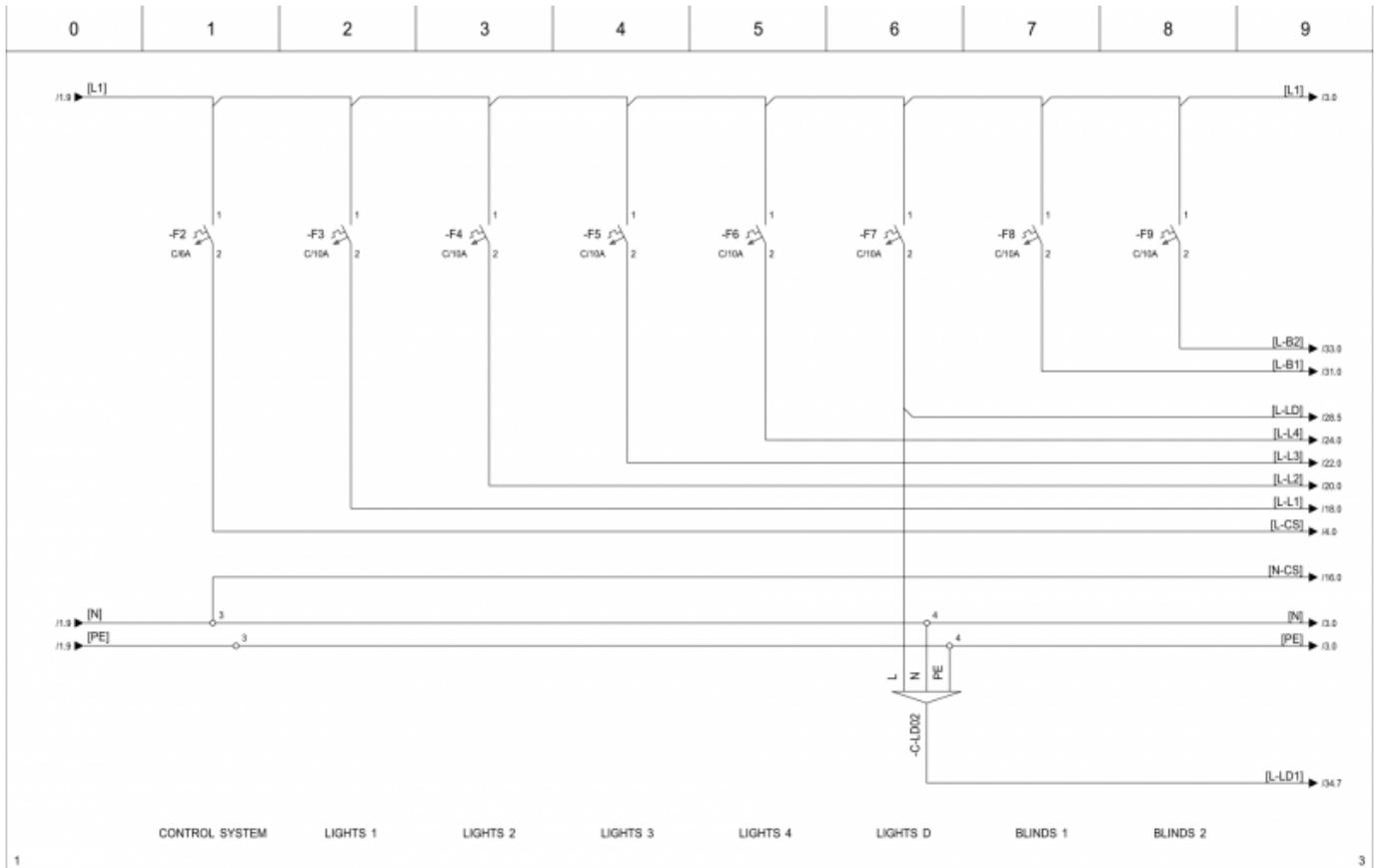
The [power meter](#) on the wiring plan is connected to measure the whole electricity consumption, but can be connected to any device (or group of devices). Only single phase electricity measurement is available.



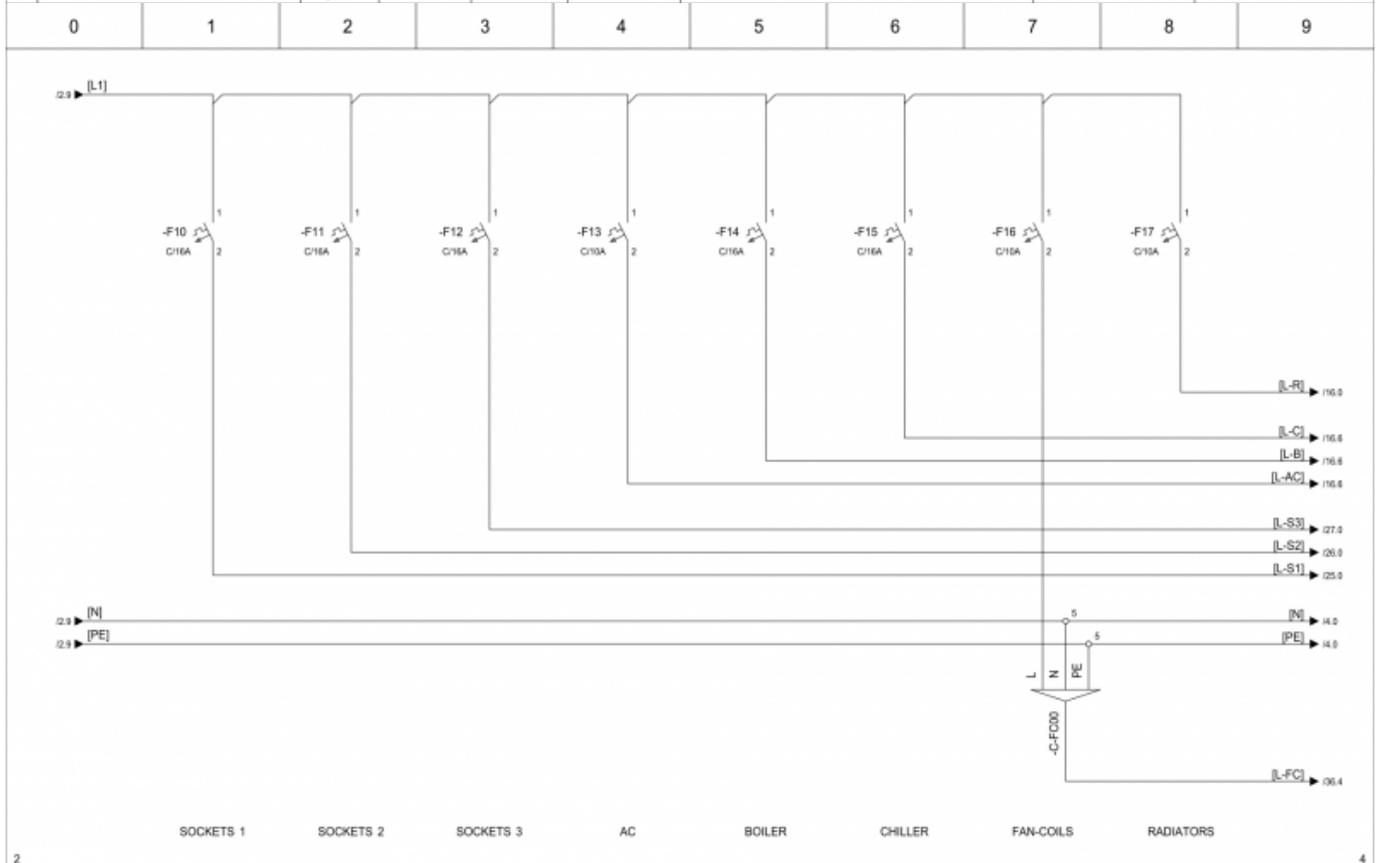
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## Page 2-3 - Power distribution - Fuses

Suggested fuse plan.



			Last changed by SS Last changed 7/11/2016 Print date 9/11/2016	Robotina d.o.o. OIC Kozina 38 SI-6240 Kozina	POWER DISTRIBUTION HIQ wiring diagrams	Drawing number 001	Installation =
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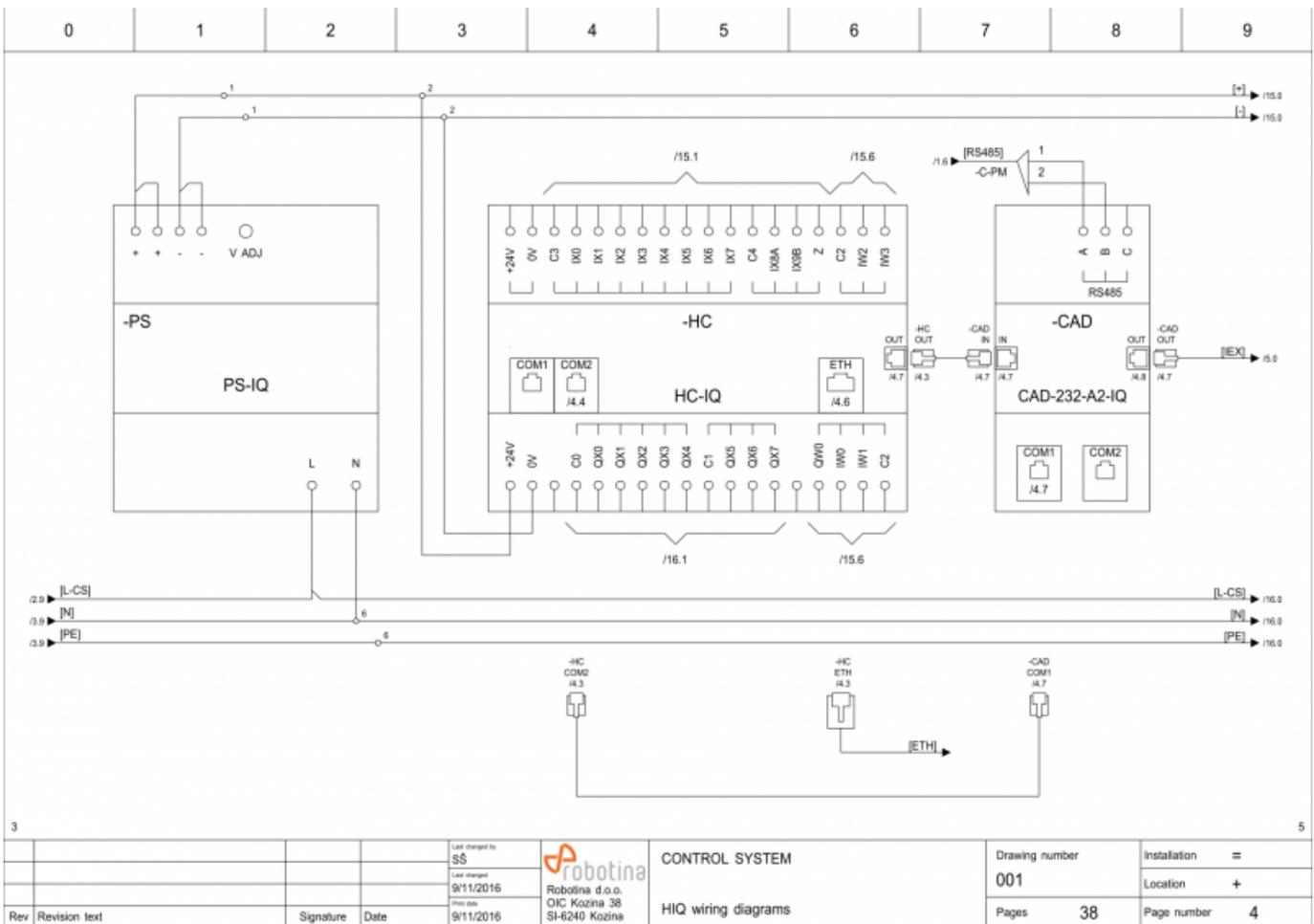
# Page 4 - Control System-Power supply, HC, CAD-232

24V power supply (PS) for control system, Home controller and CAD-232-A2-IQ.

24V power supply can be optionally used for LED lighting (up to 2.5A with serial power supply, larger power supply can be used).

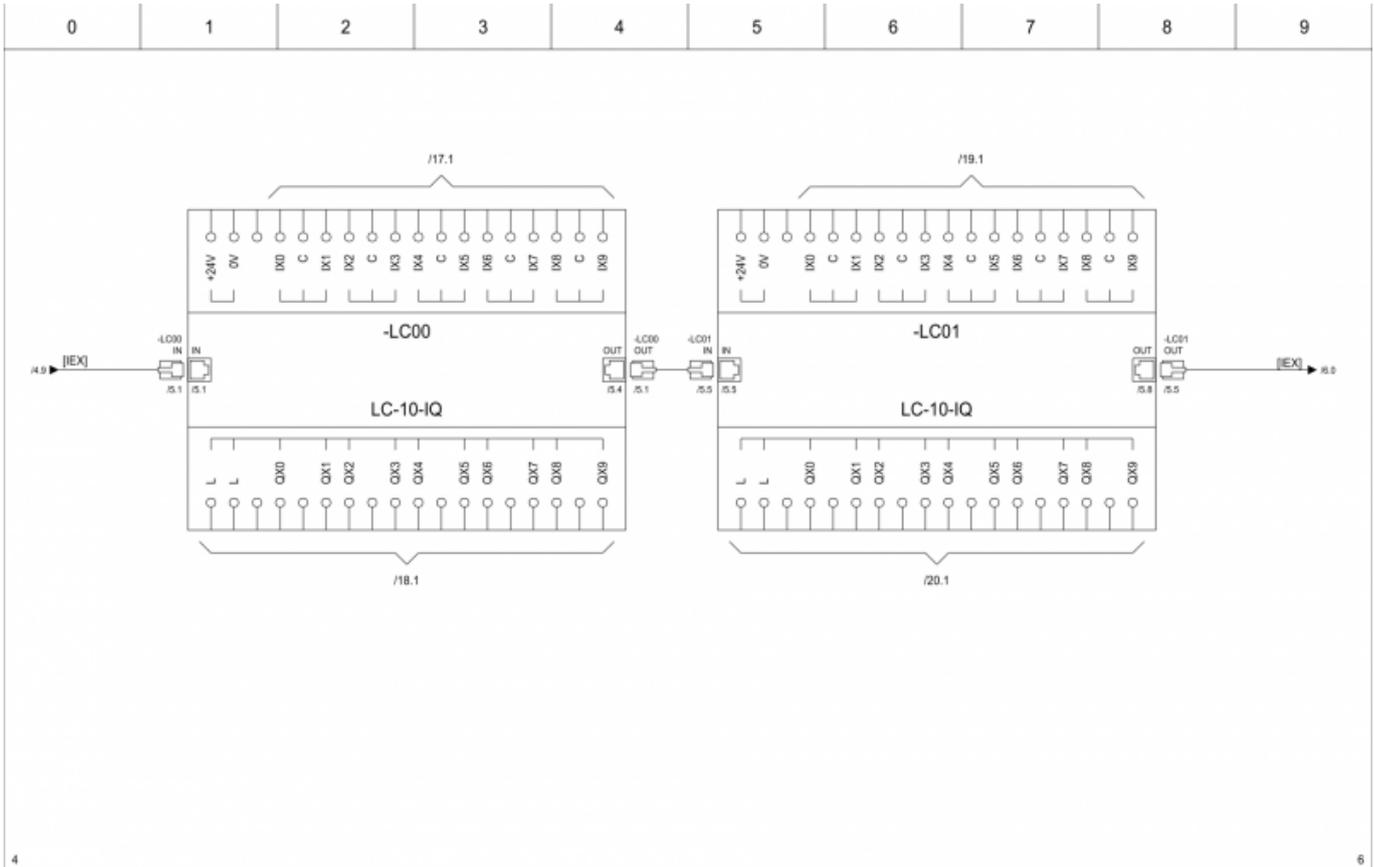
Home controller (HC) is the heart of the system. It is connected to the network (ETH) and has optional inputs (connections are on page 15) and outputs (connections are on page 16).

CAD-232-A2-IQ expander is used as communication interface between home controller and power meter (If power meter is not used then the expander is not necessary). It is connected to a home controller through IEX bus, to COM2 on home controller input and to power meter (RS485 communication).

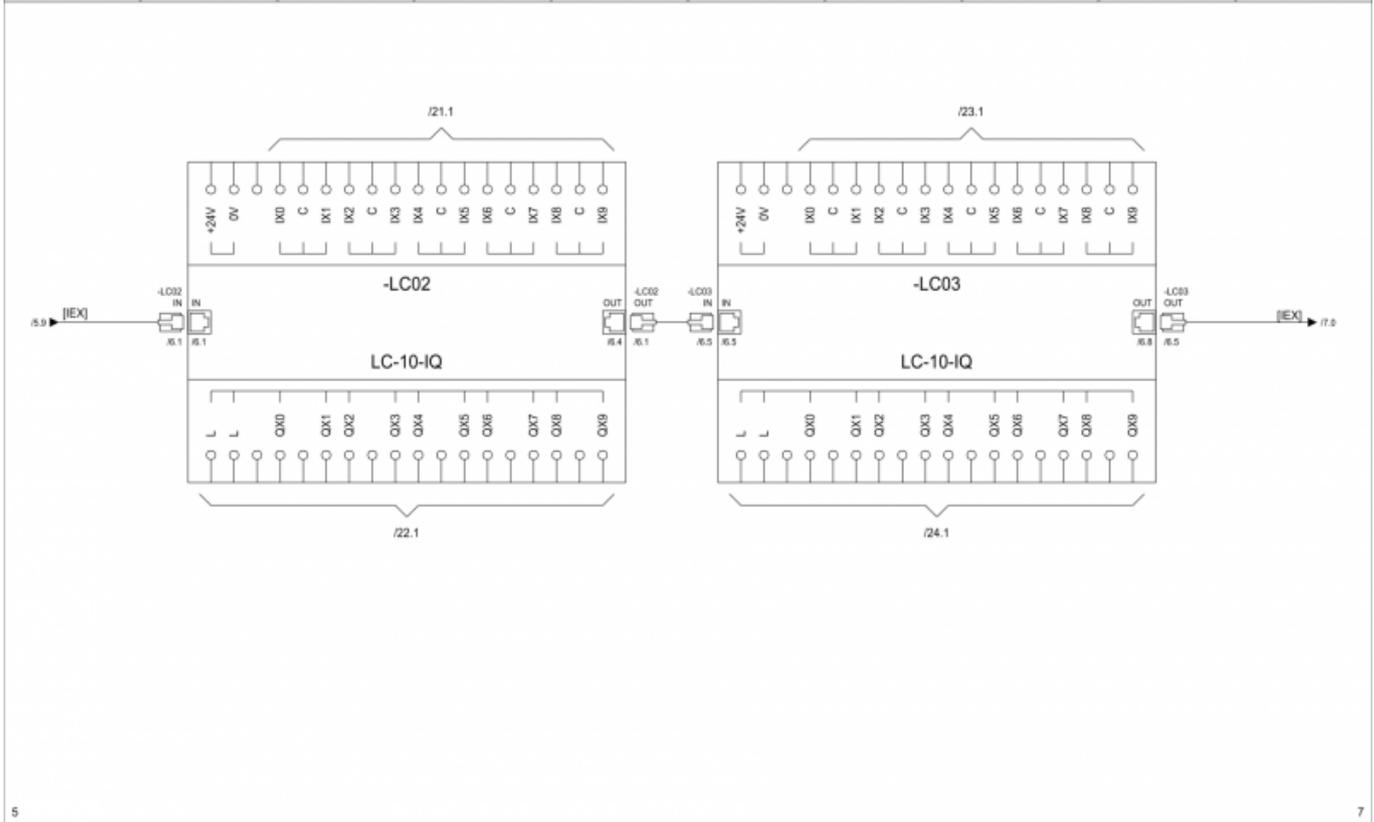


# Page 5-6 - CS-Light controller 00 and 01

Light controllers (LC) are connected to IEX bus, we can connect up to up 4 LC to 1 home controller. On the top side are inputs and on the bottom side are outputs (connections are on page 17-24).



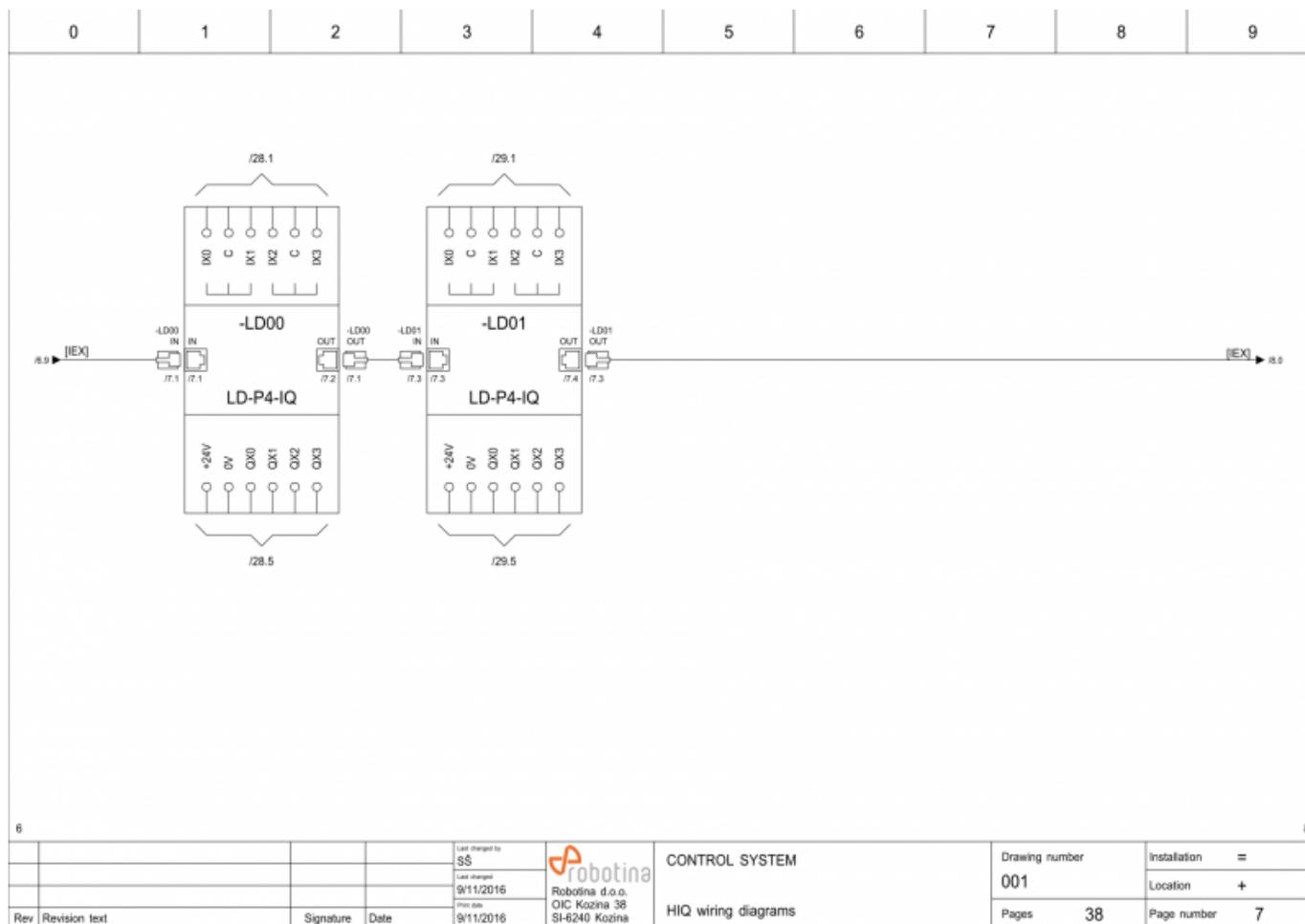
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# Page 7 - CS - Light dimmer

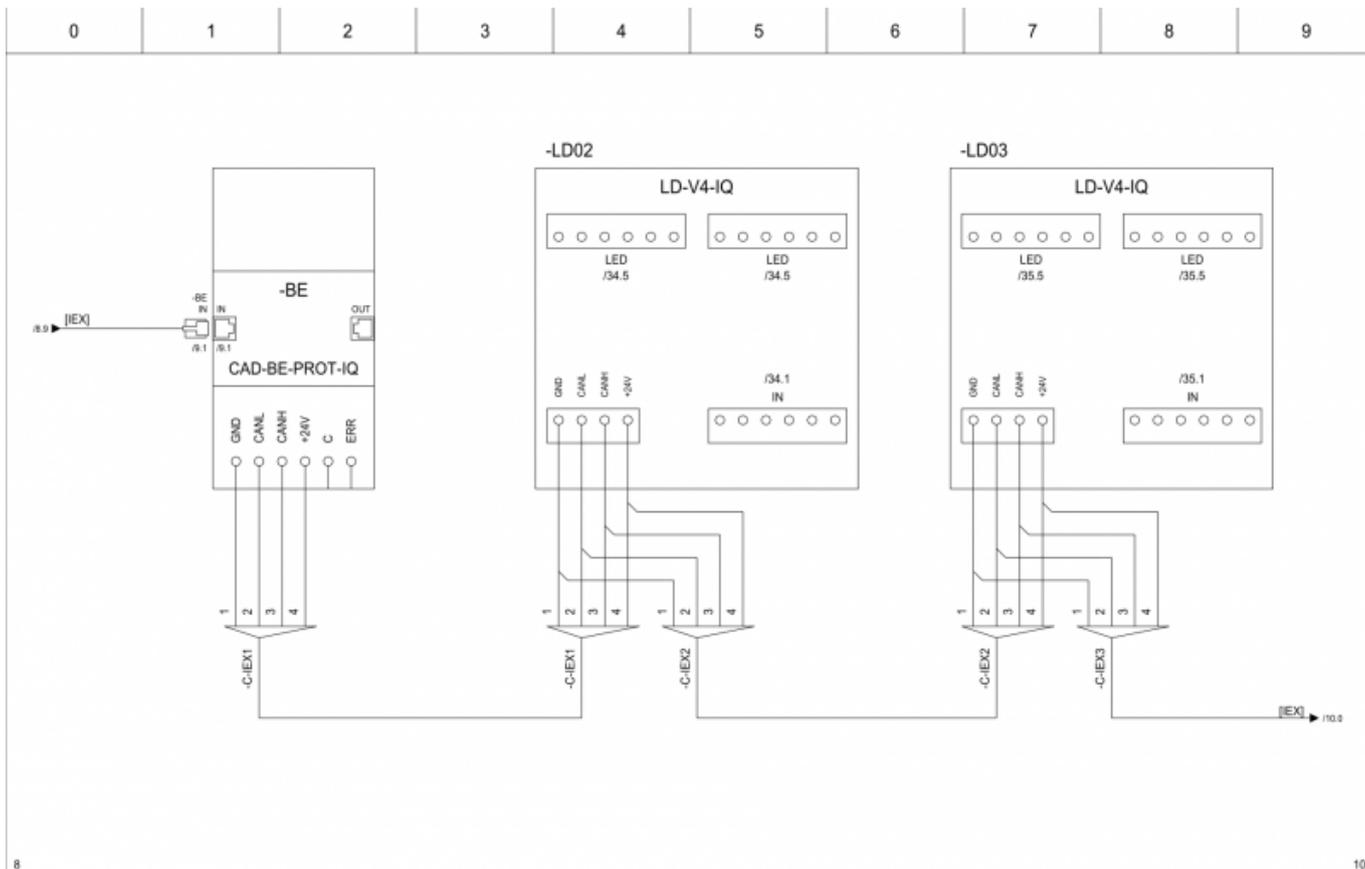
Up to 4 light dimmers can be connected to 1 HC. On sample plan we use 2 [Light dimmers drivers](#) for LUD-12 universal light dimmers.



# Page 8 - CS - Blinds controllers

Up to 2 [Blinds controllers \(BC\)](#) can be connected to 1 HC.



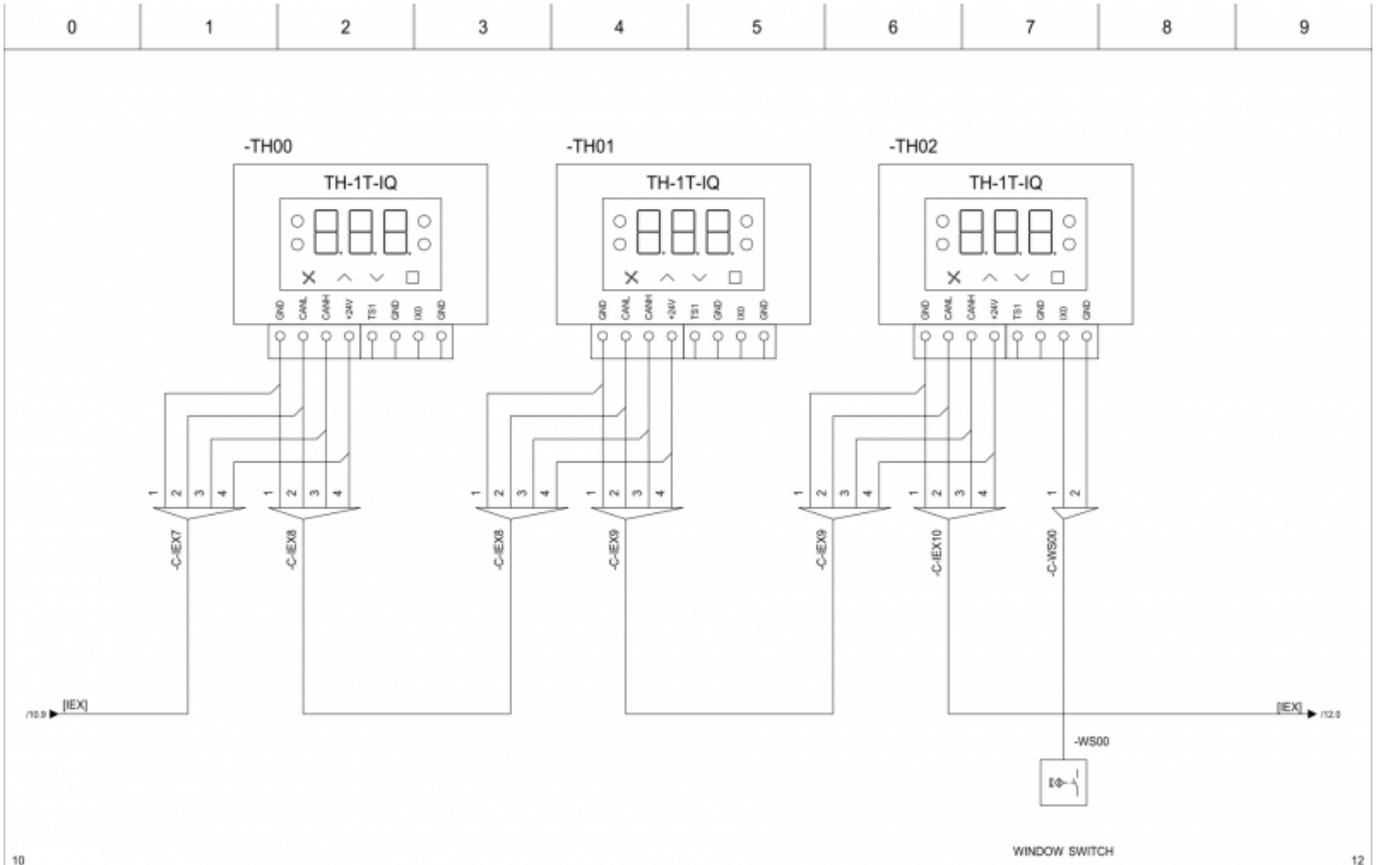


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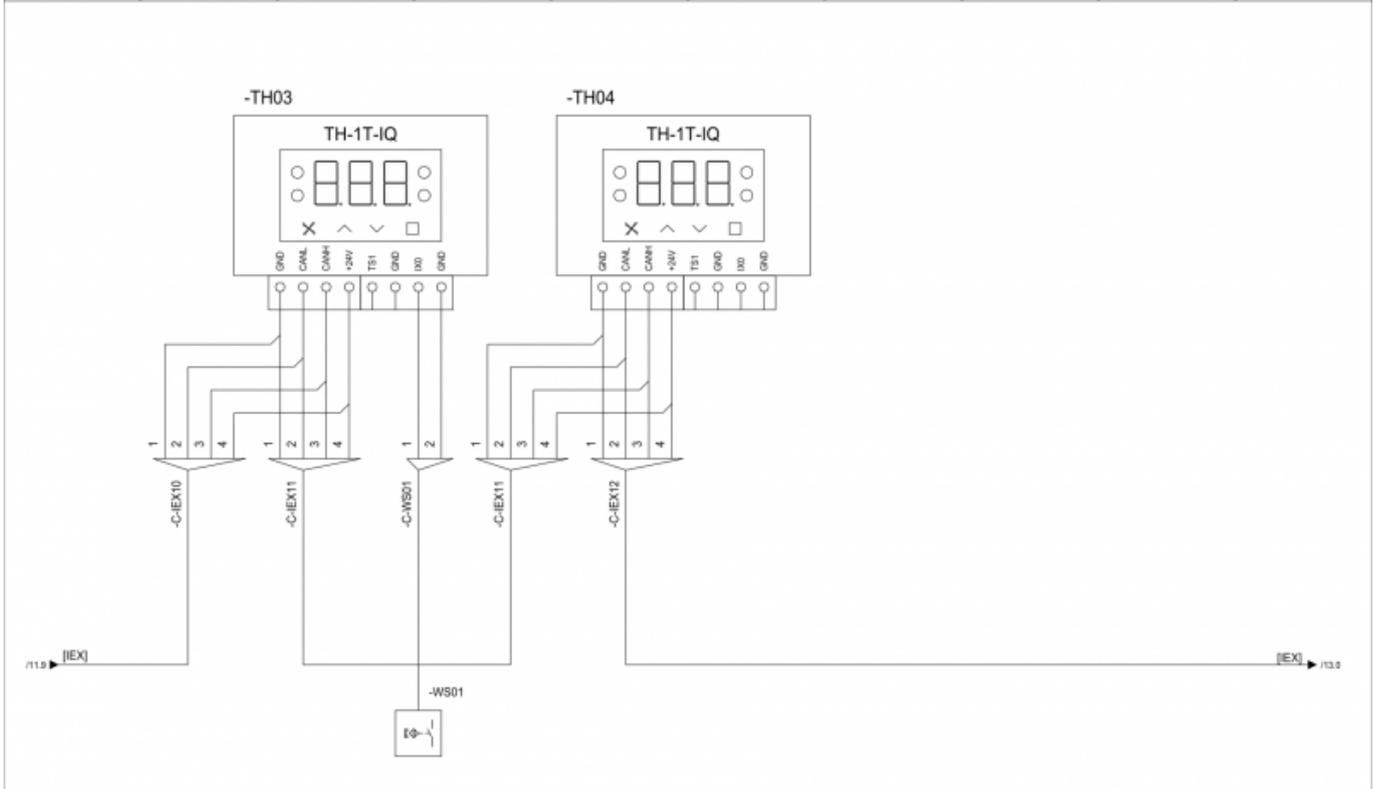
# Page 10 - CS - Scene controllers

Up to 4 Scene Controllers can be connected to 1 HC. On sample plan are 4 Scene Touch Panels, but also Scene Panels and Scene controllers can be connected in the same way.





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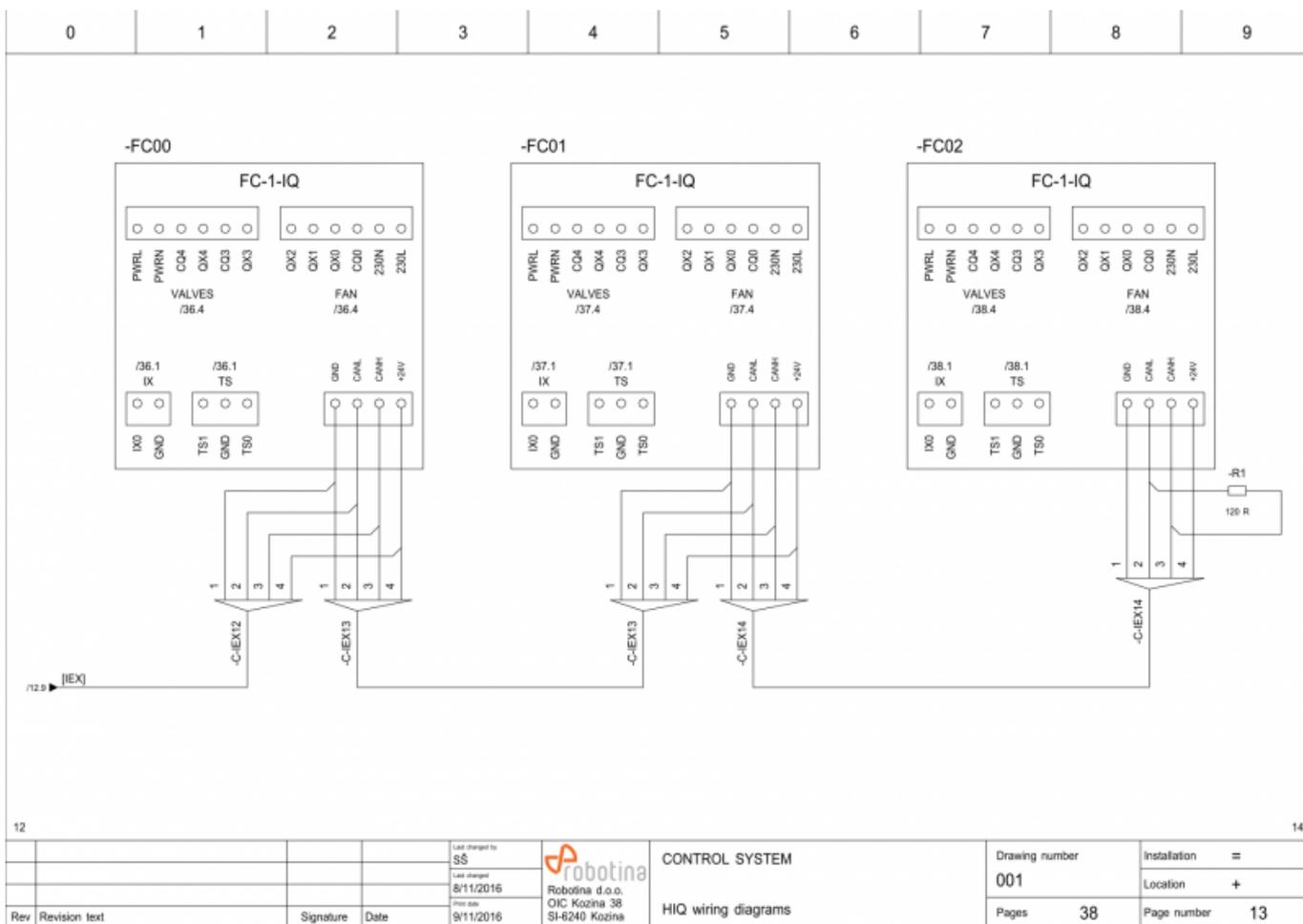


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## Page 13 - CS-Fan-coil

Up to 5 Fan-coil controllers (FC) can be connected to 1 HC. On our sample plan we have 3 FC, 2 thermostats are controlling radiator valves (page 36-38).

FC controllers are the last items on IEX bus. Longer IEX bus lines (over 100m) must be terminated with a 120ohm resistor between CANL and CANH (-R1).



## Page 14 - CS-Blank page

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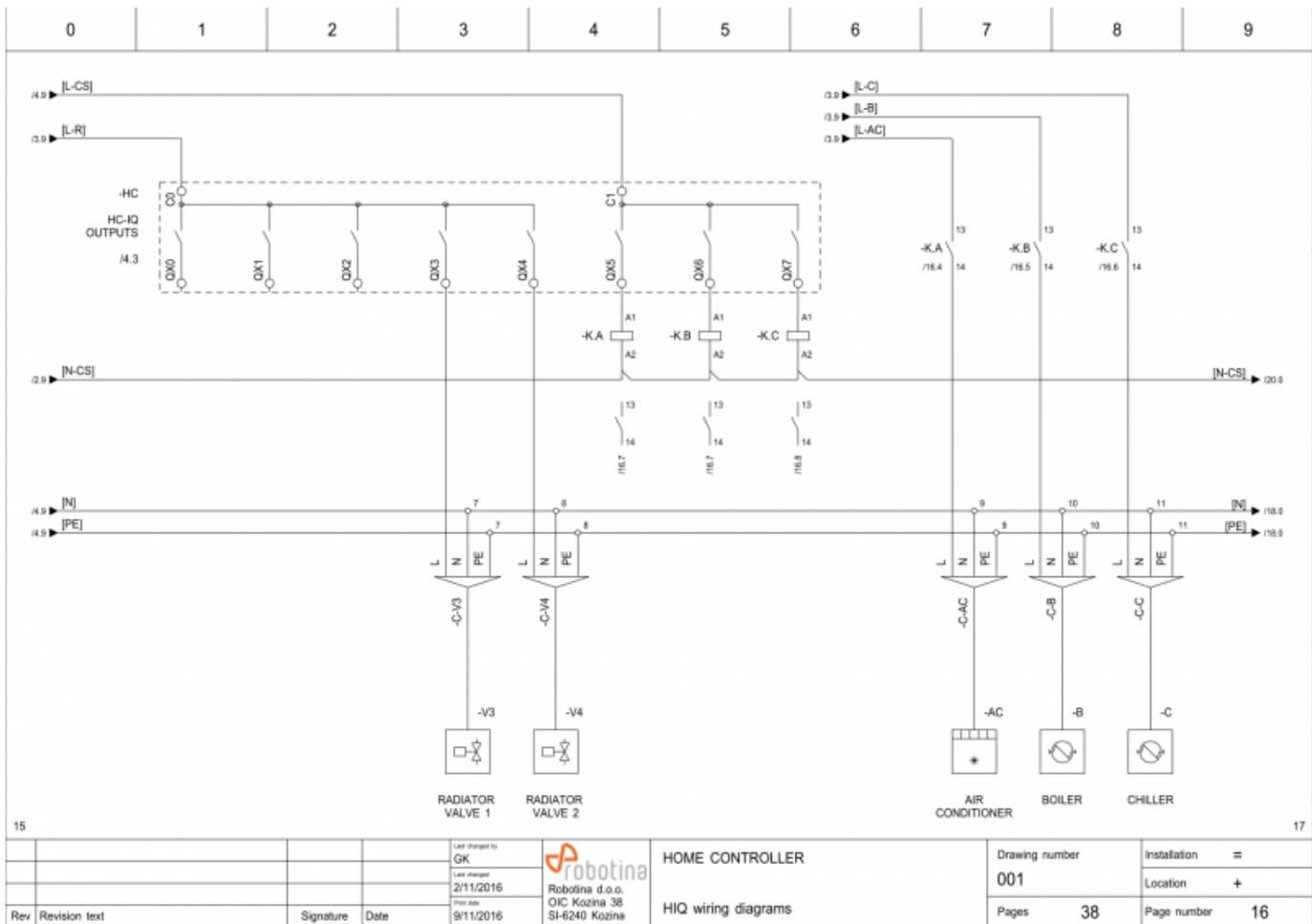
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## Page 15 - Home controller inputs

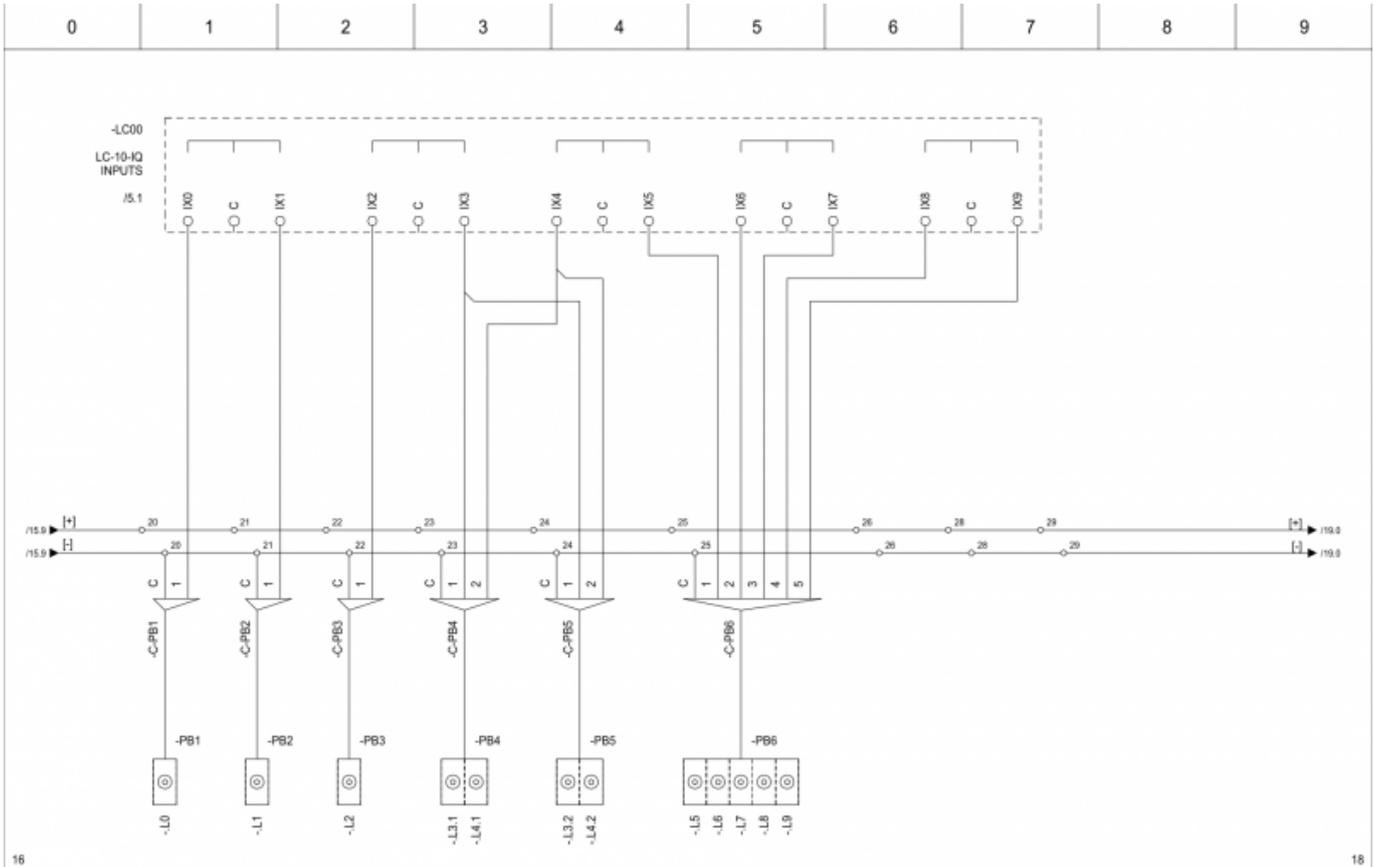
If used, optional [lightness sensor](#) must be connected to IW0 analog input on [home controller](#).  
 All other inputs are left for custom programming solutions (10 digital inputs IX0-IX7, IX8A, IX9B and 3 8-bit analog inputs IW1-IW3).



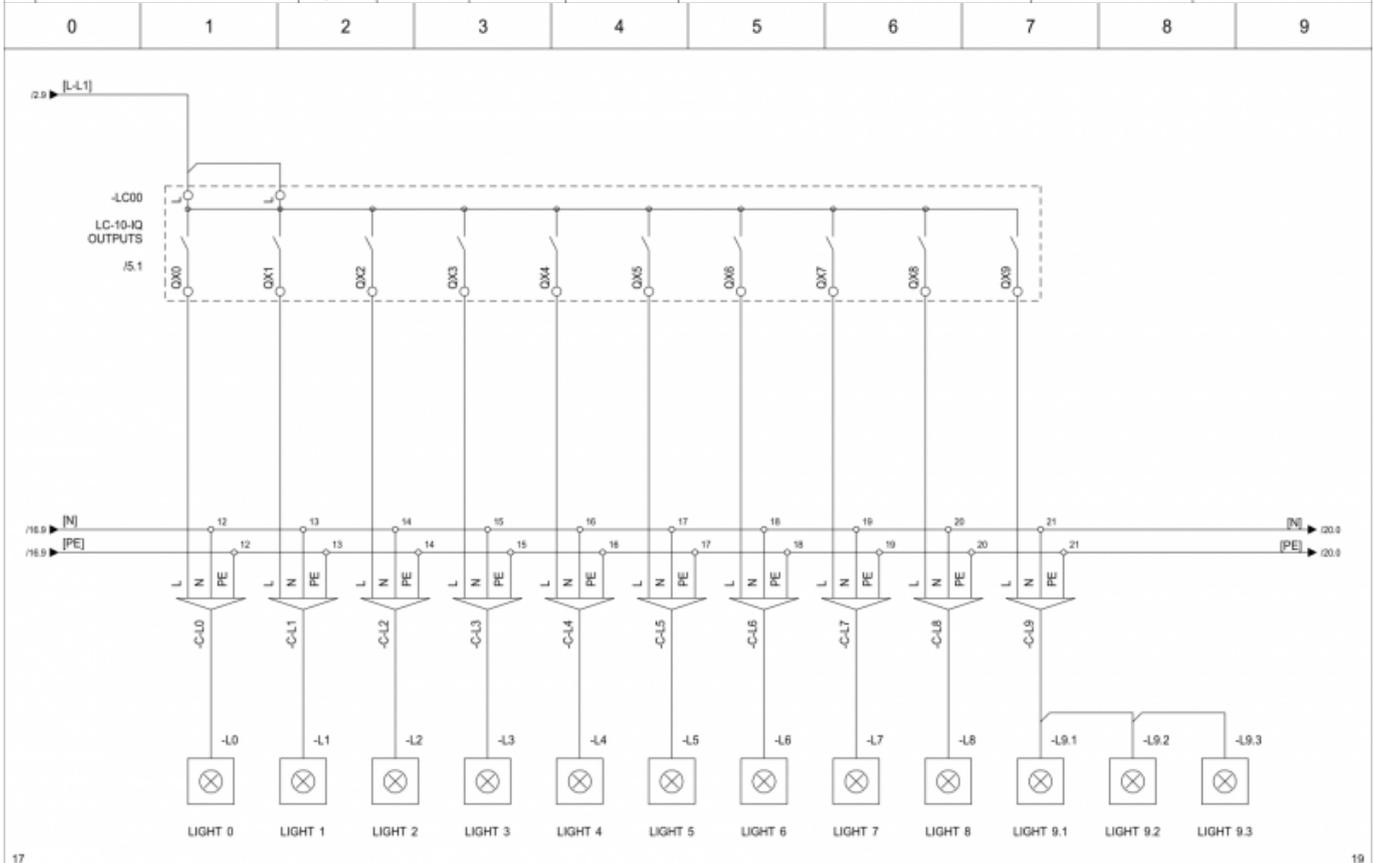


# Page 17-24 - Light controller

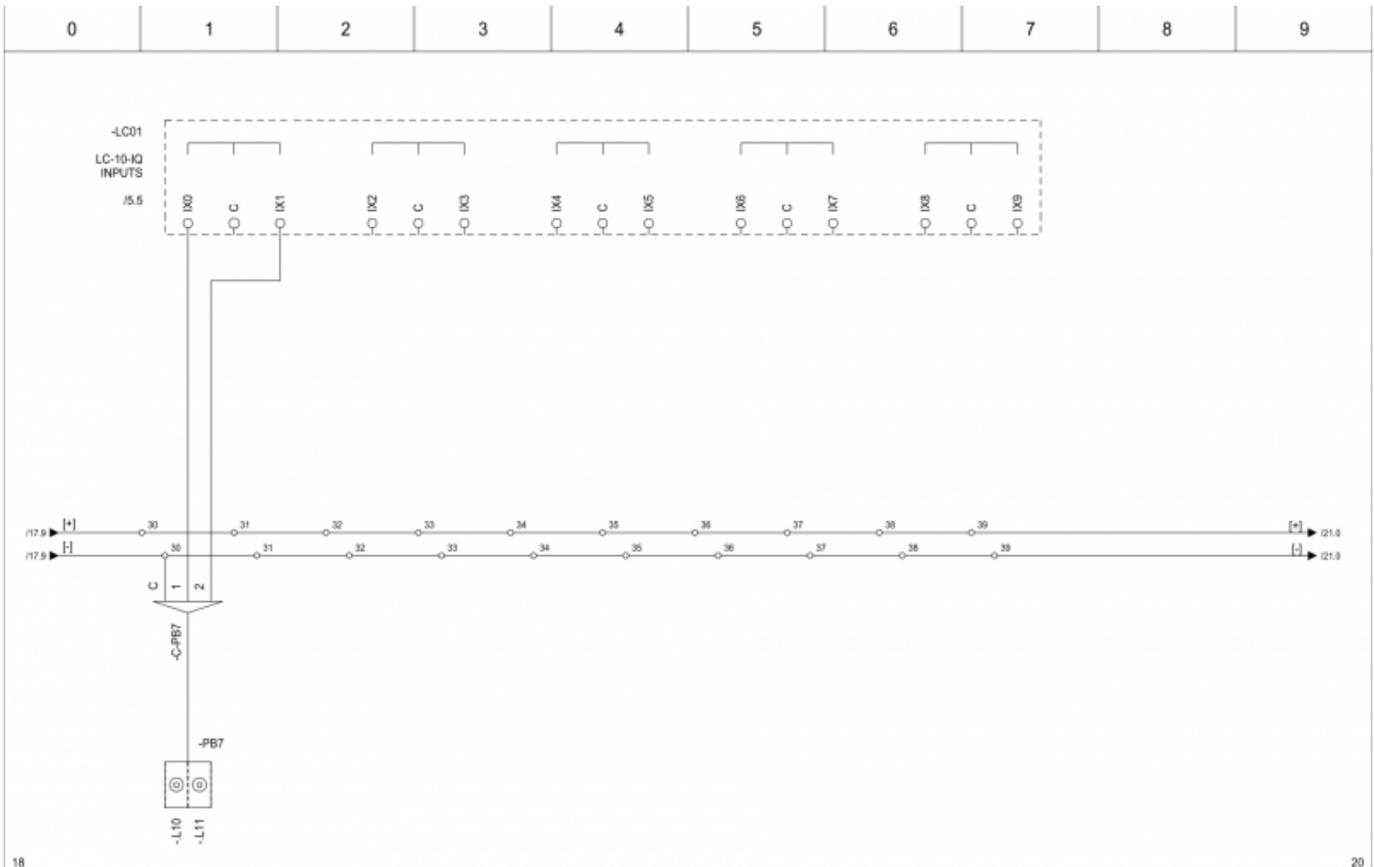
Lights and managed power sockets are connected to [Light controllers](#) .  
 Several button combinations are possible.  
 Managed power sockets should be connected through installation relays (-K12-K14, -K22-K23 and -K30-K33).



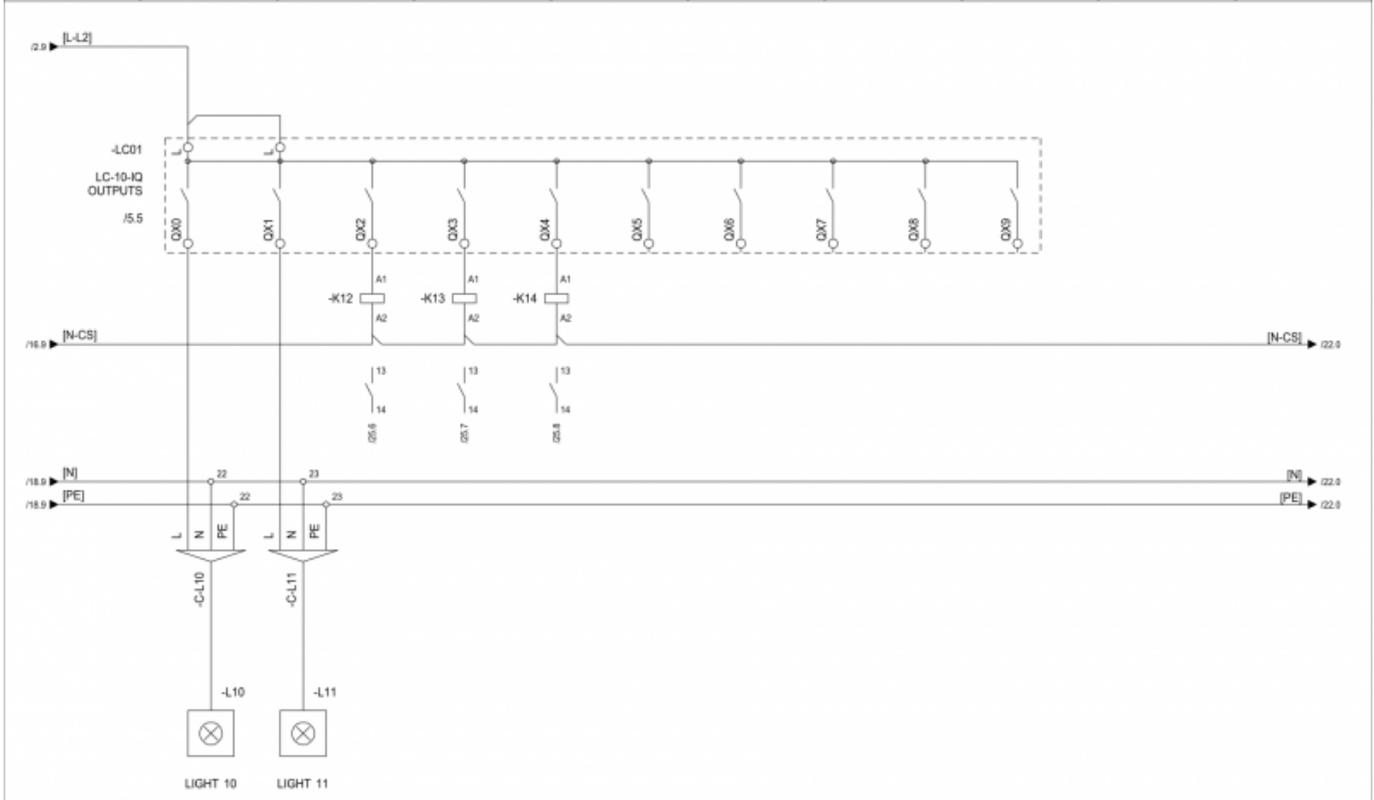
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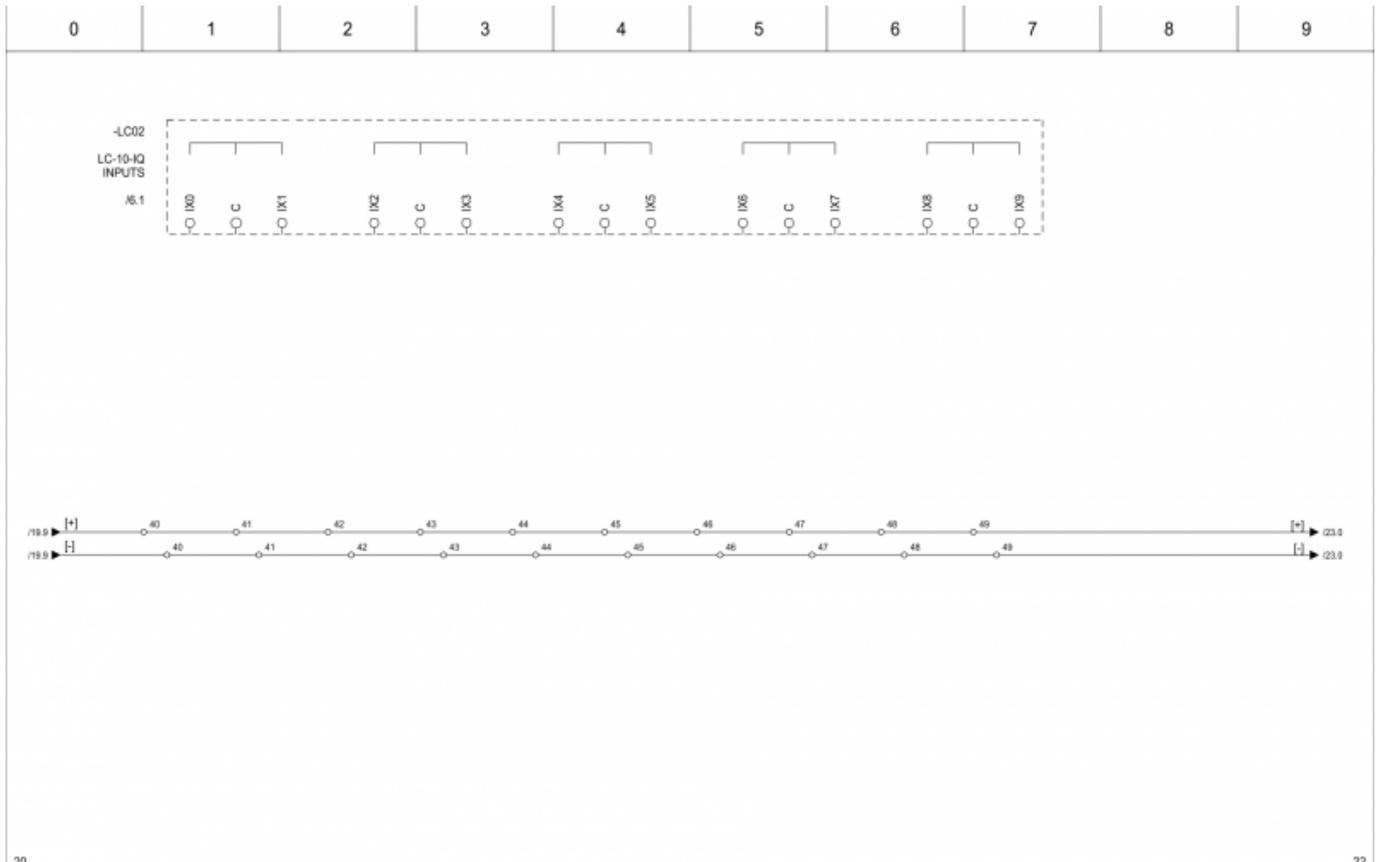
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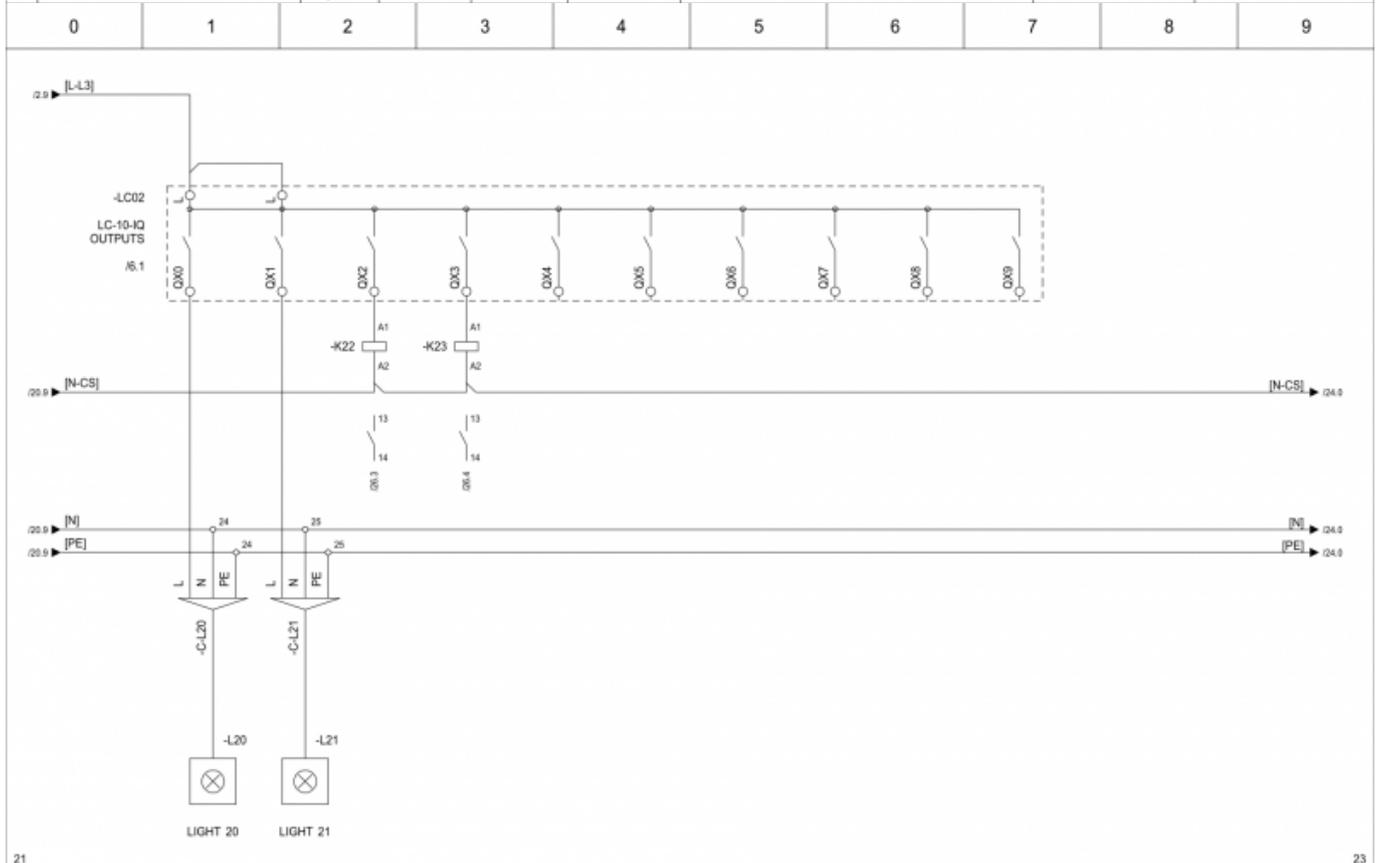
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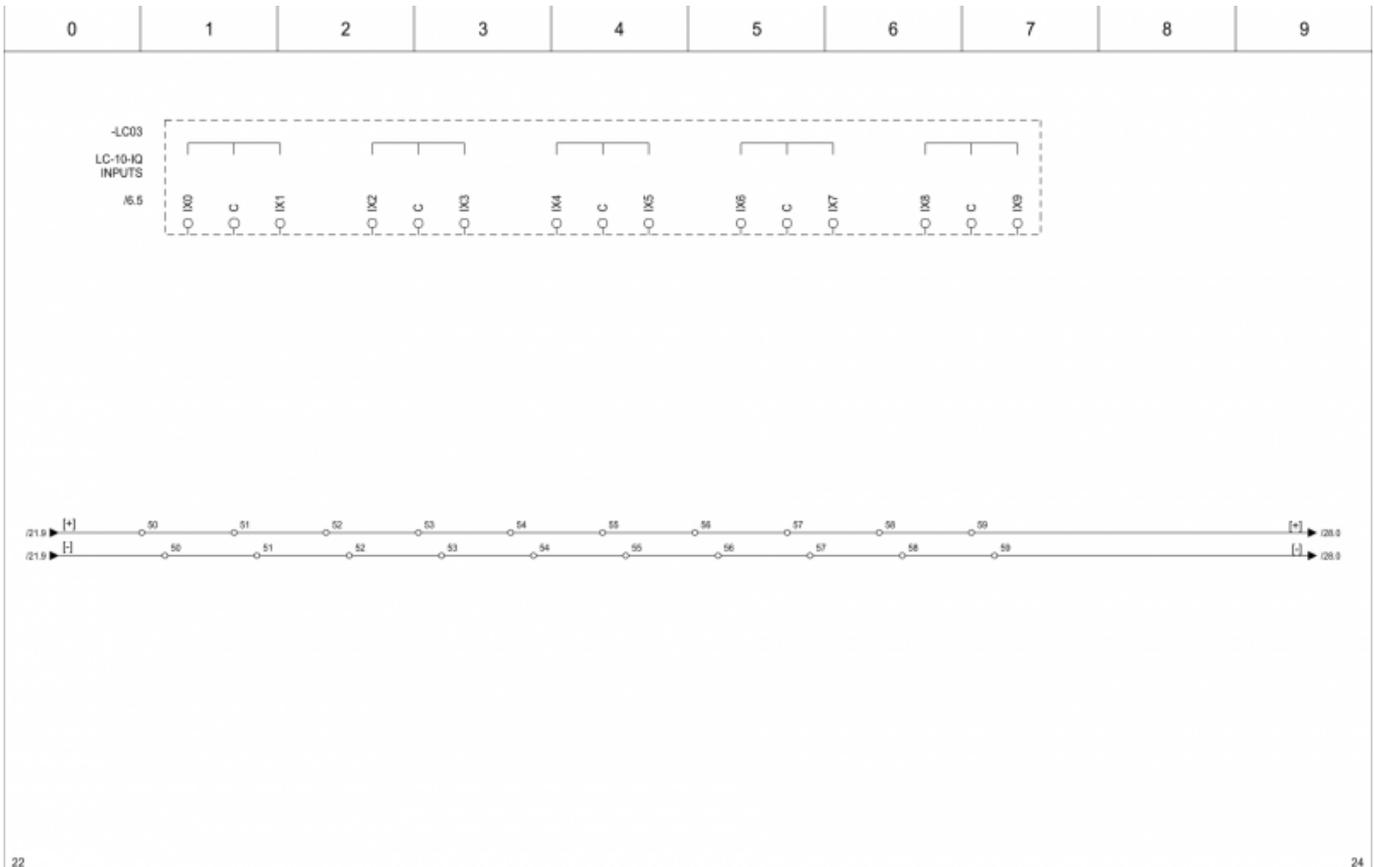
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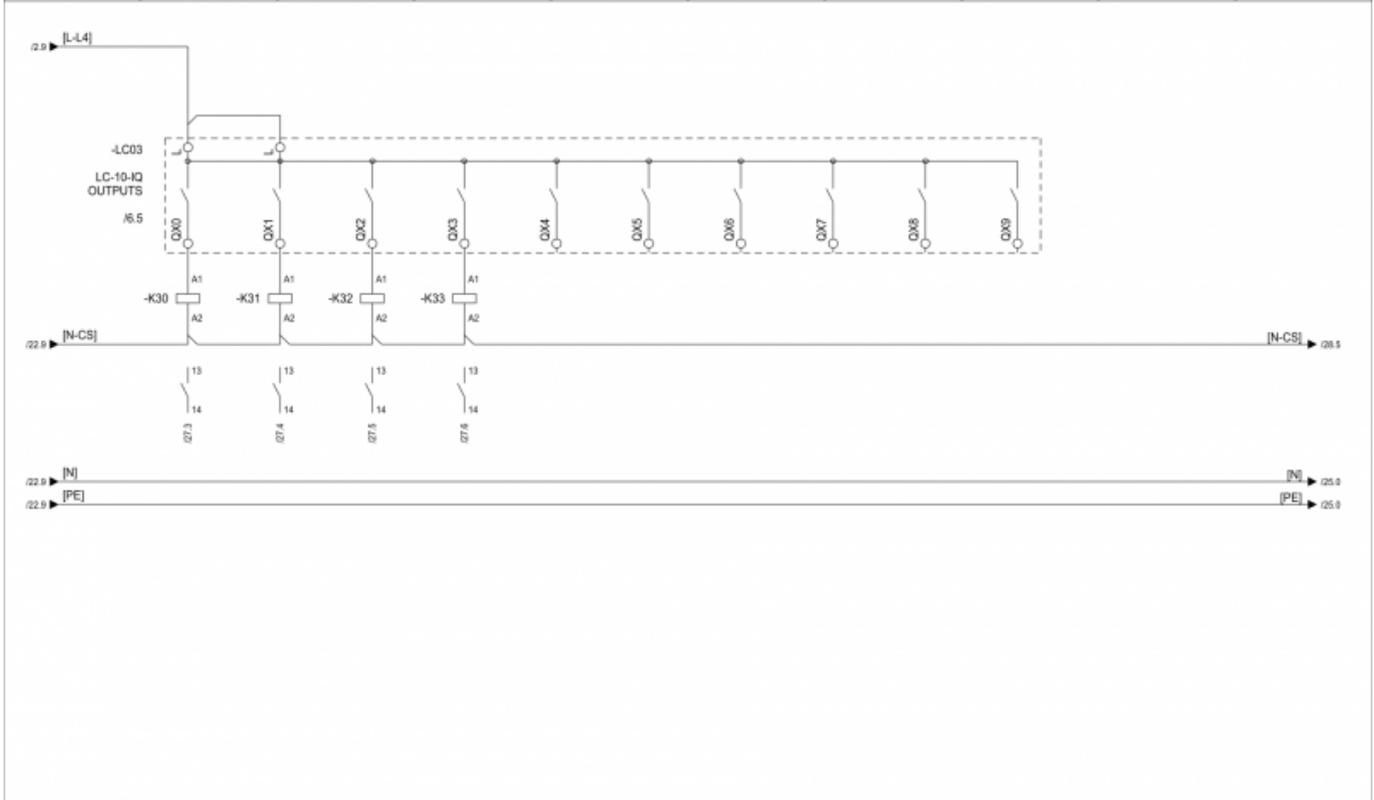
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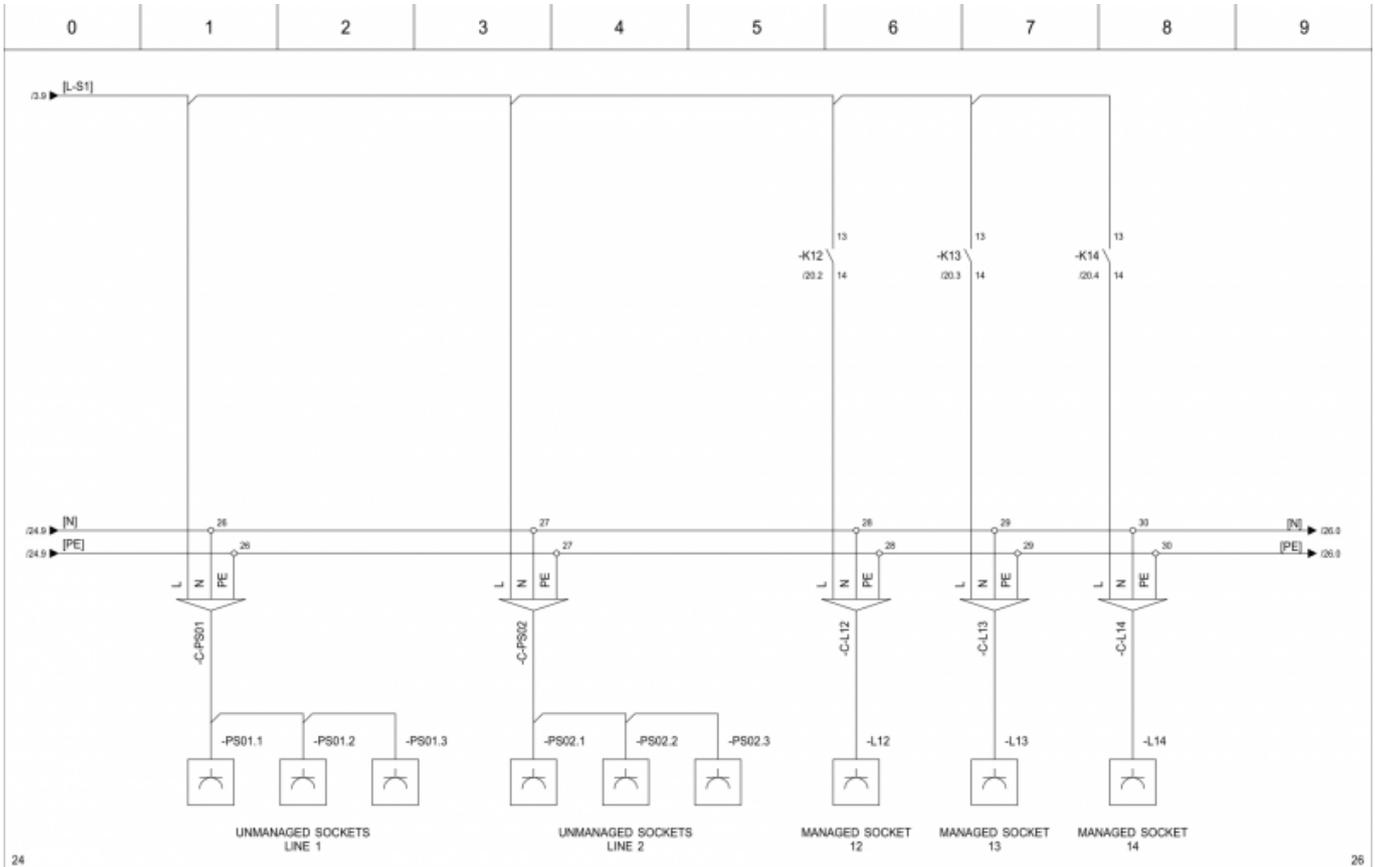
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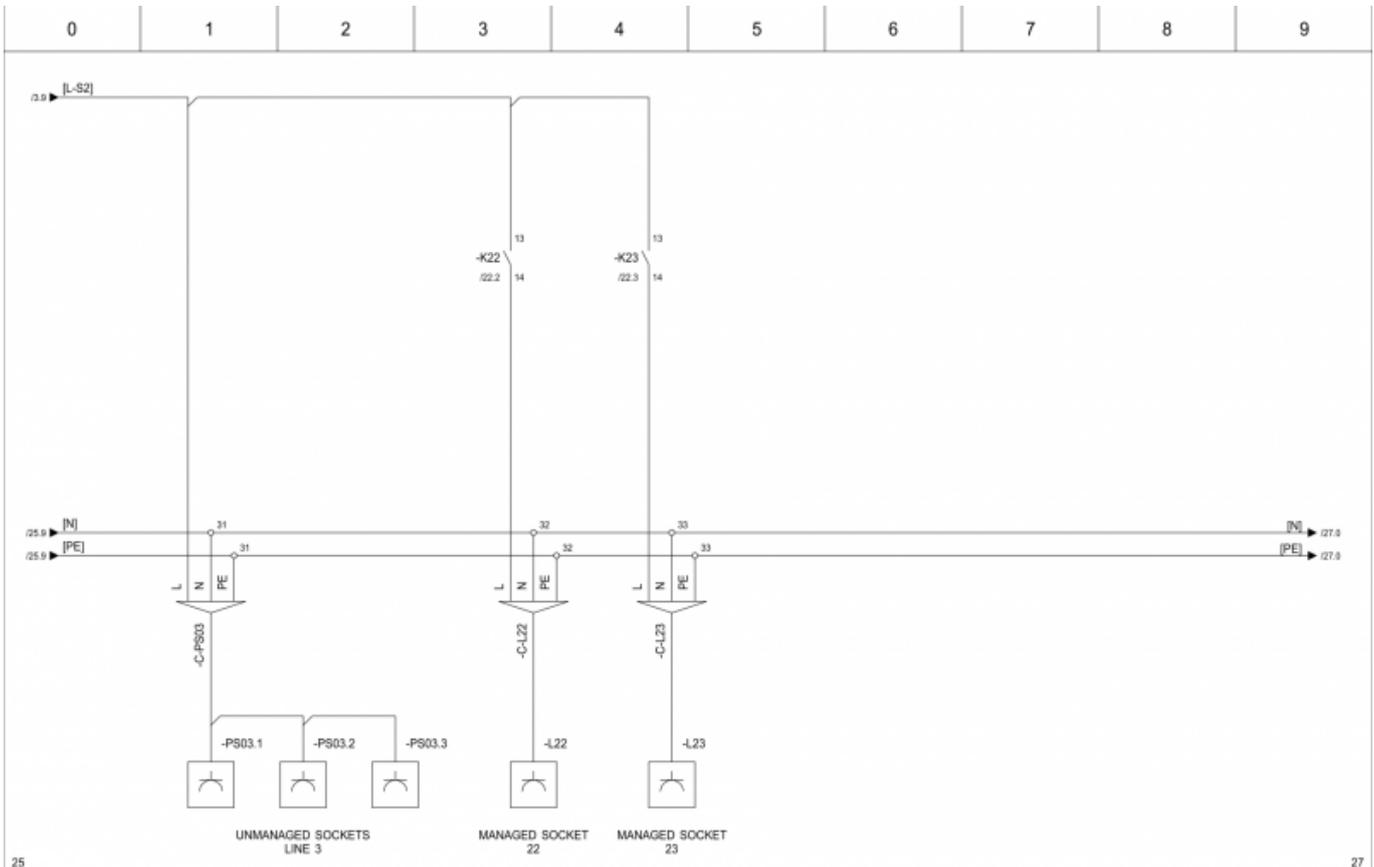
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# Page 25-27 - Power sockets

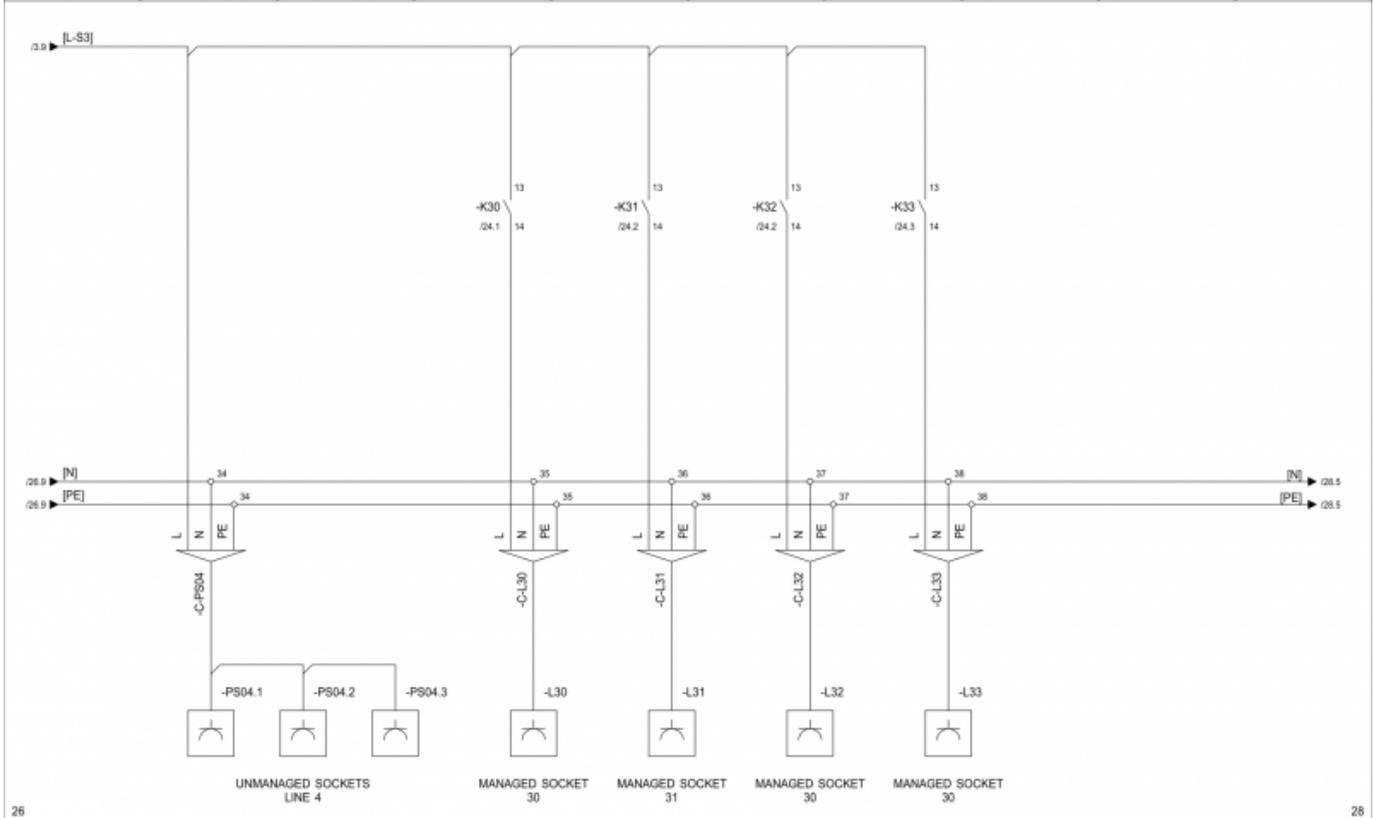
A sample plan assumes use of managed and unmanaged sockets. Managed sockets are connected to [Light controllers](#). External installation relays should be used on Light controller outputs.



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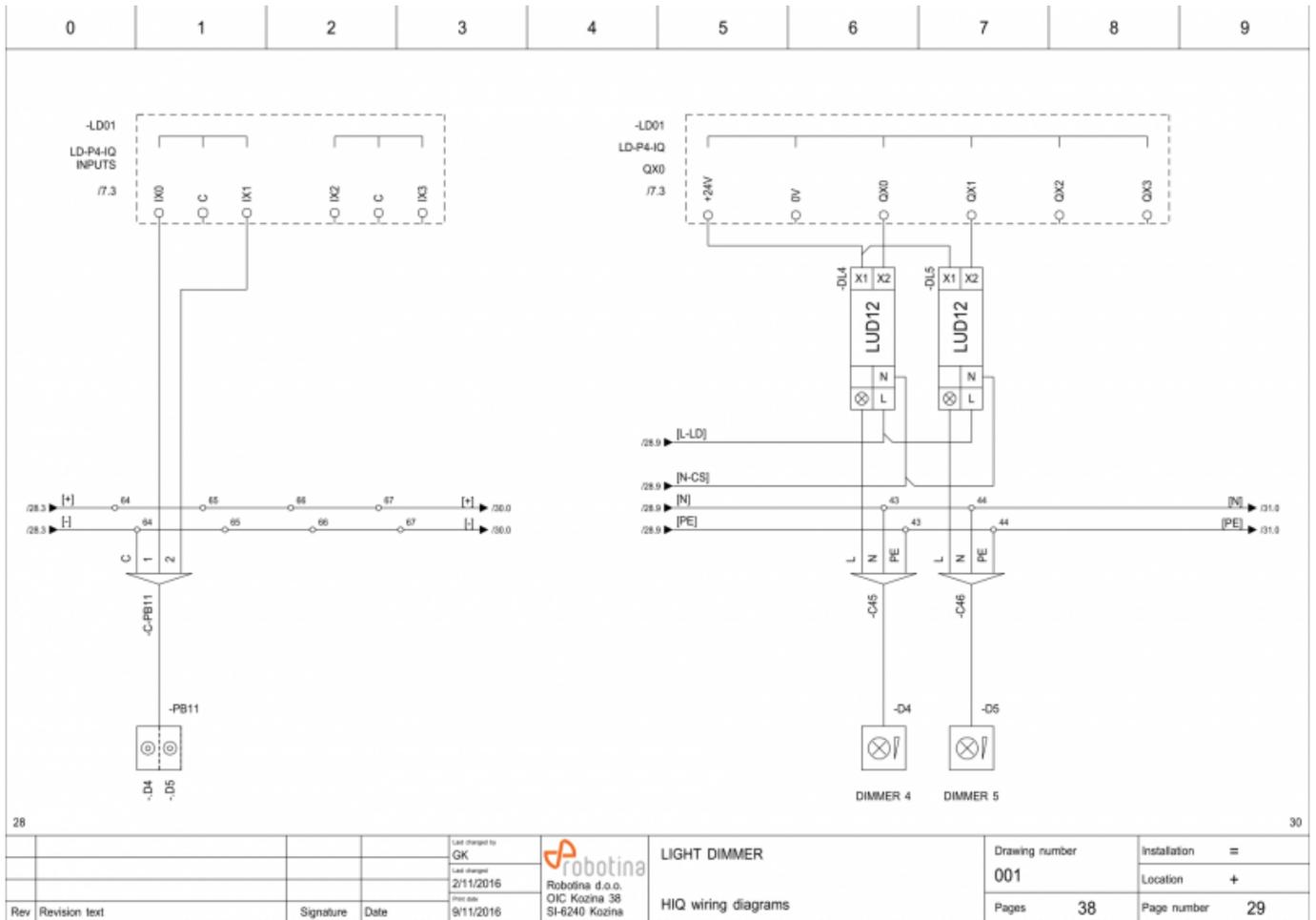


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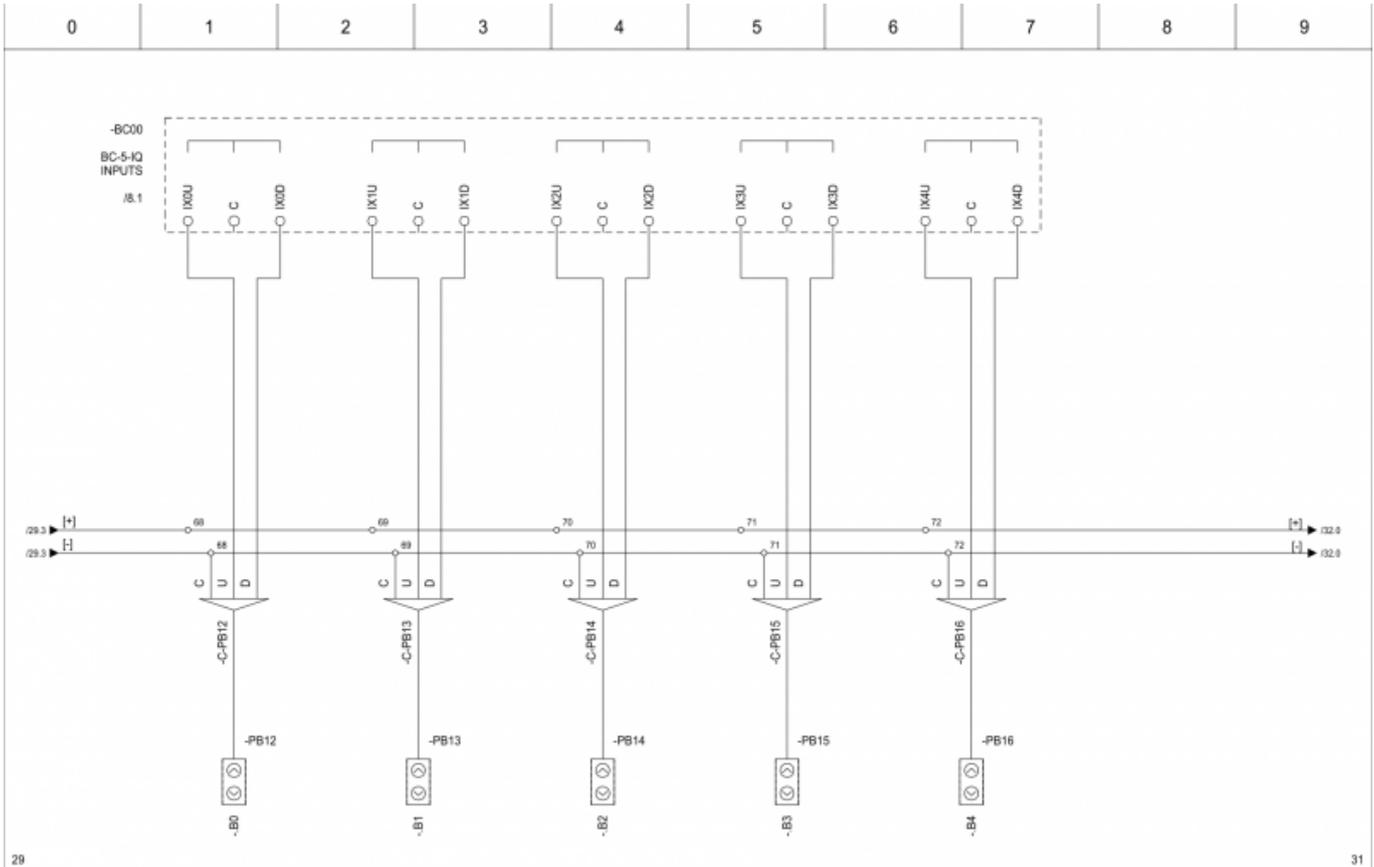
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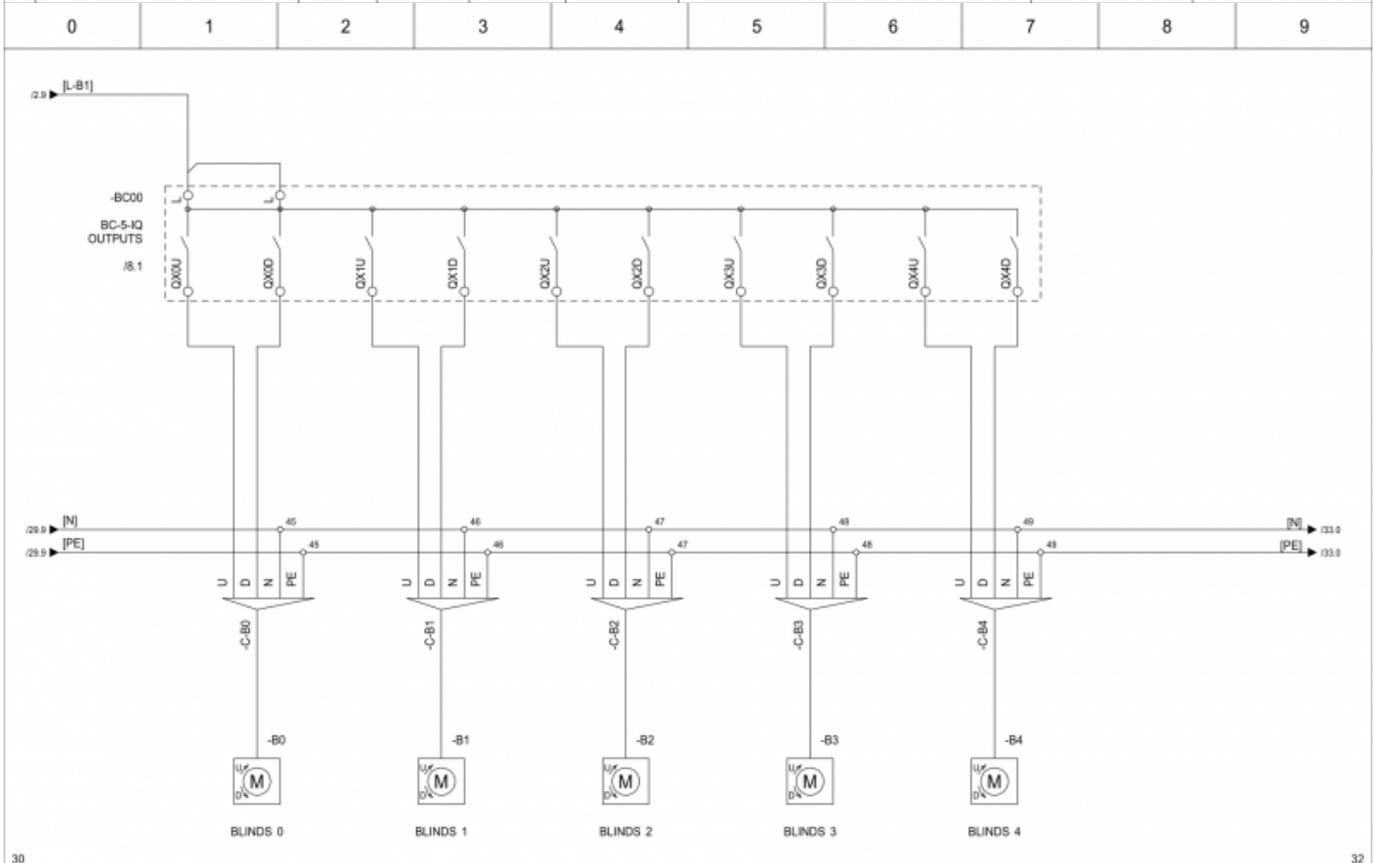


## Page 30-33 - Blinds controllers

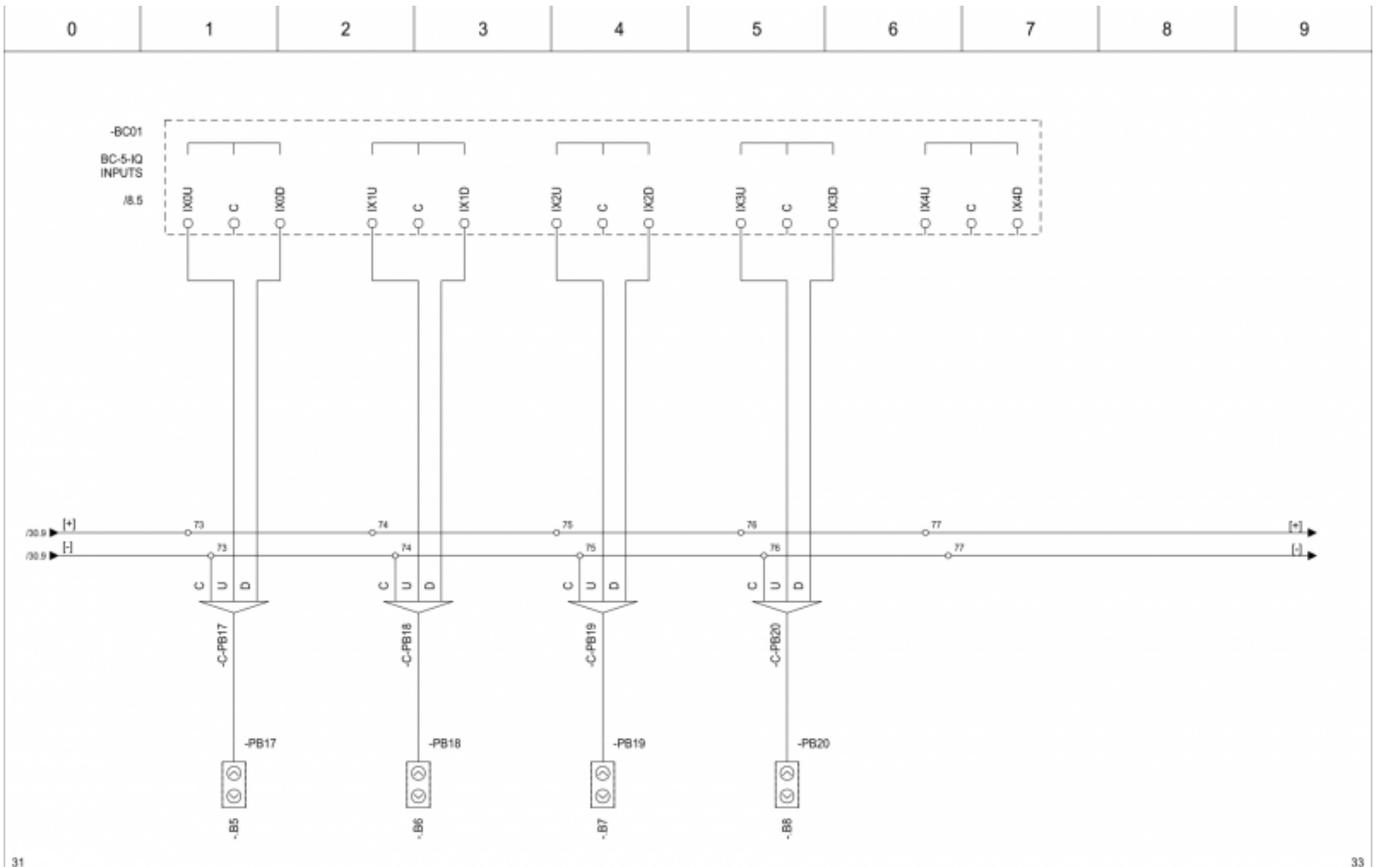
On our sample plan we have 2 [Blinds controllers \(BC\)](#) with 9 blinds and 9 double-push buttons.



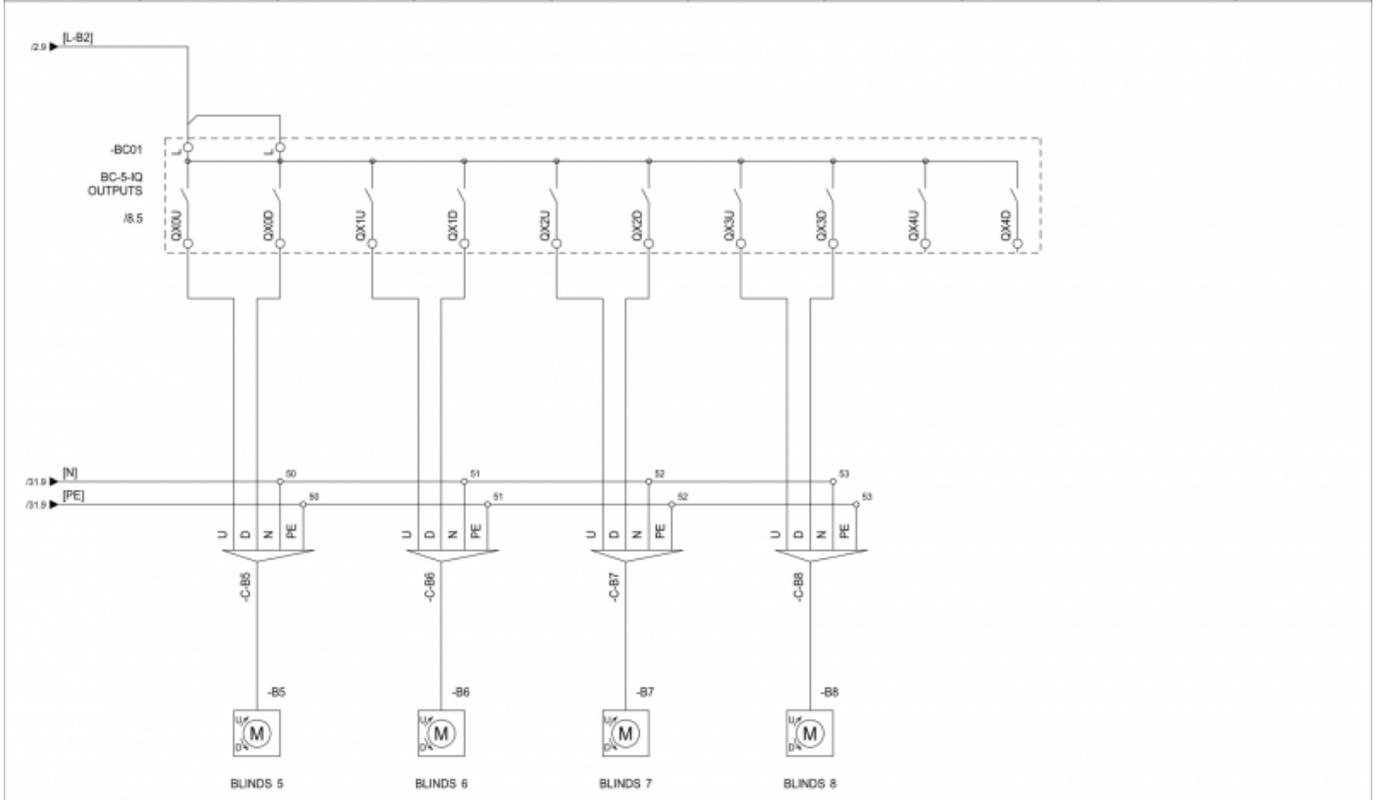
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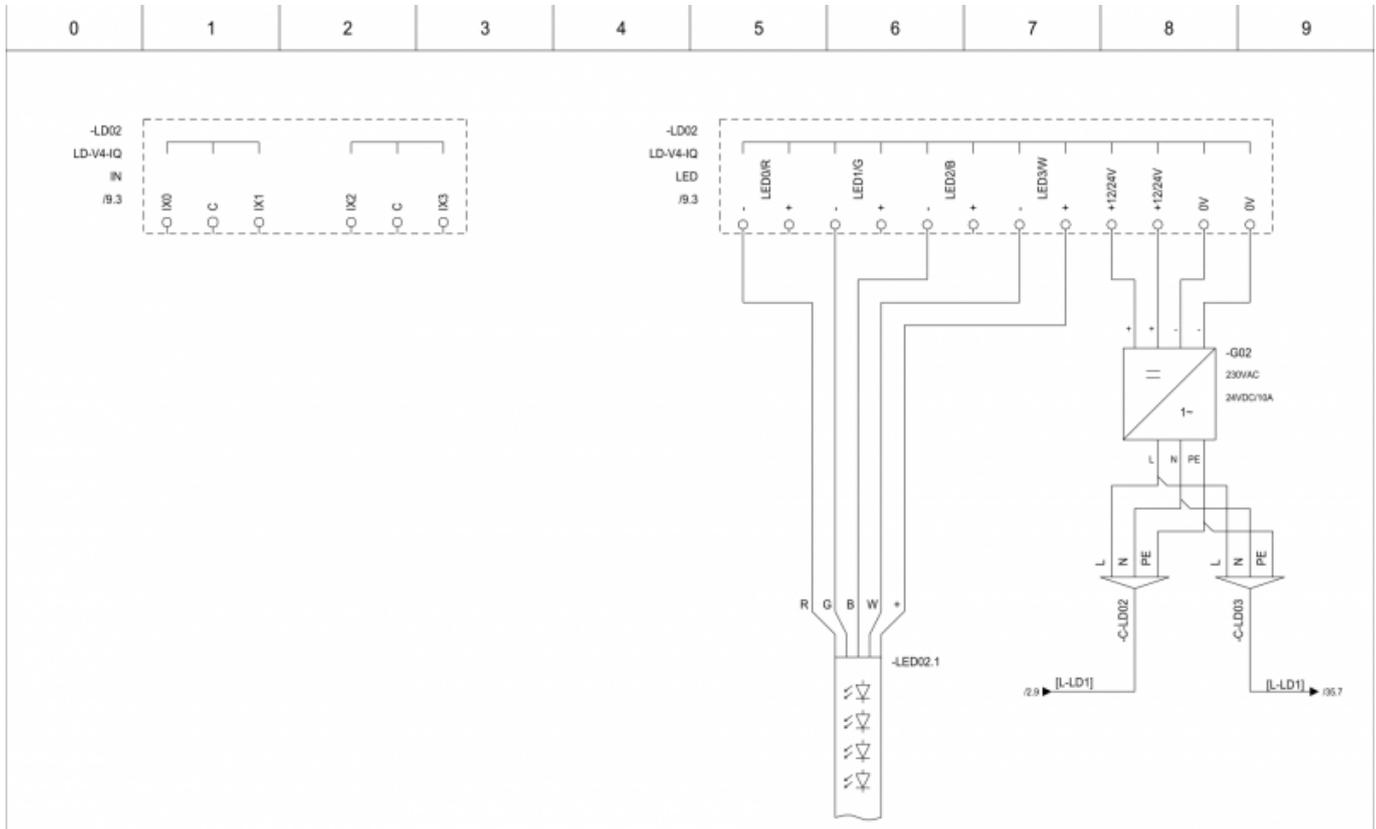
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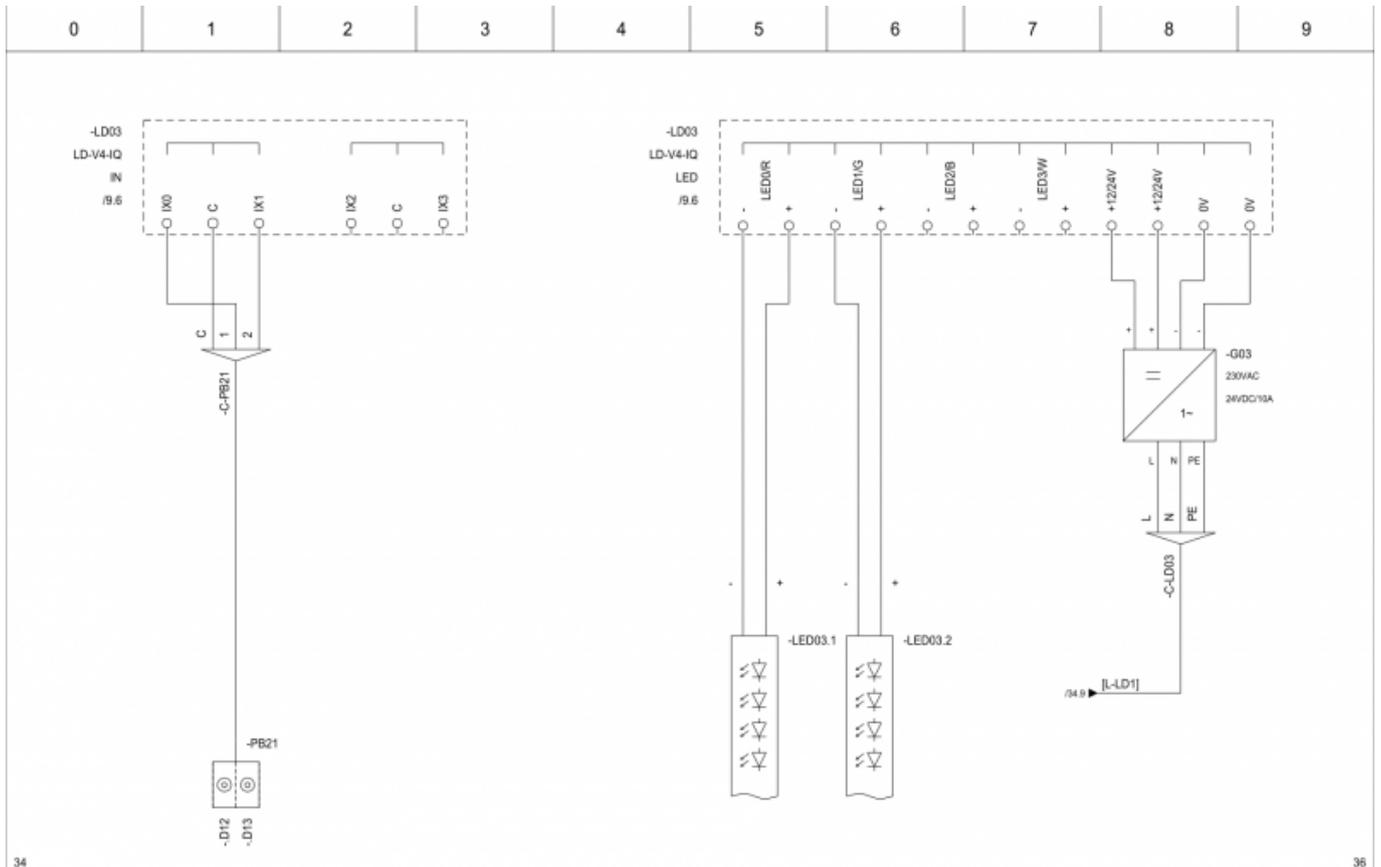
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# Page 34-35 - LED stripe dimmer

On sample plan we use 2 LED stripe dimmers. RGBW (red-green-blue-white) LED stripe is connected on the first dimmer and the second dimmer controls 2 white LED stripes (2 outputs are empty). 2 push buttons are connected on the second dimmer.



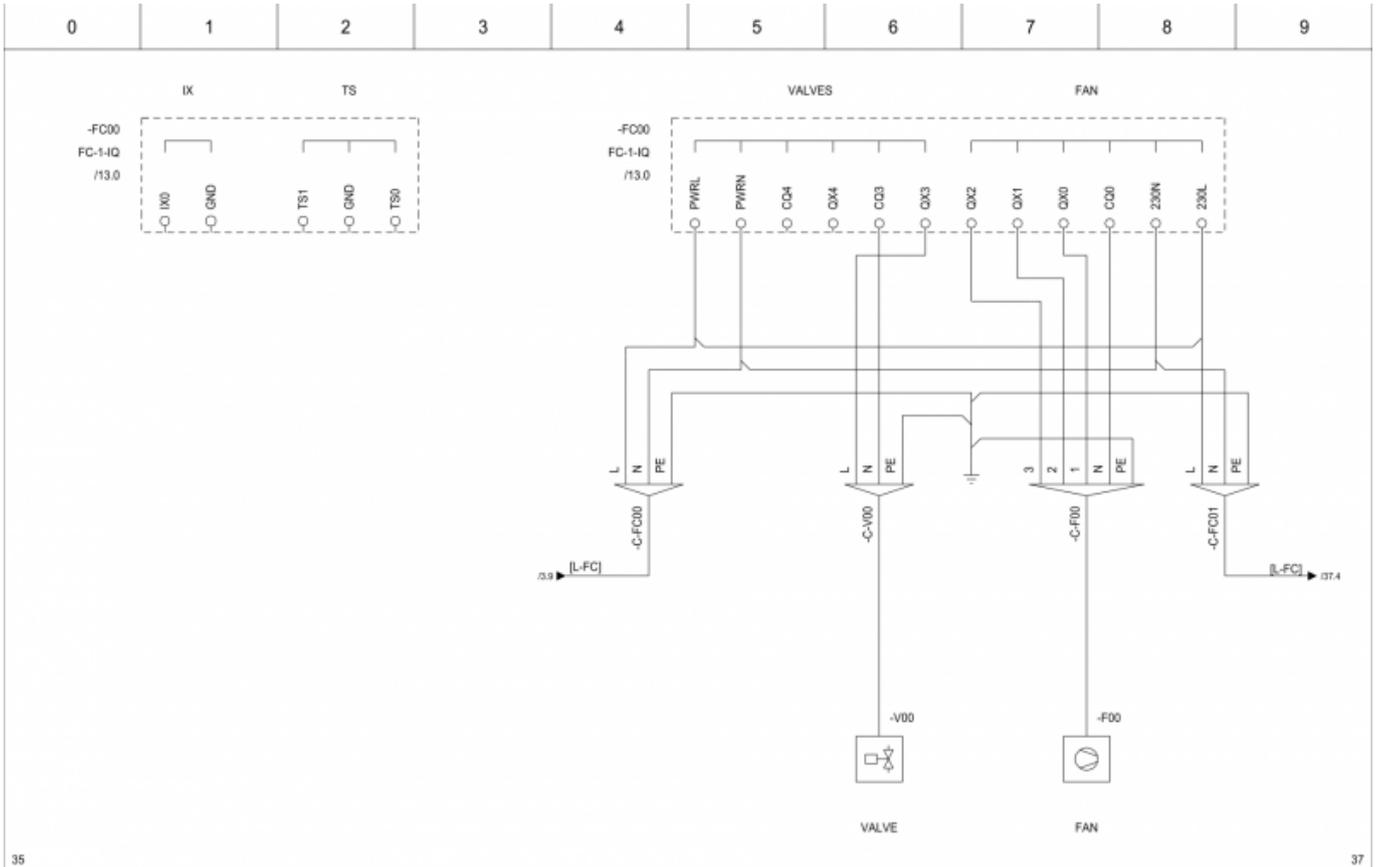
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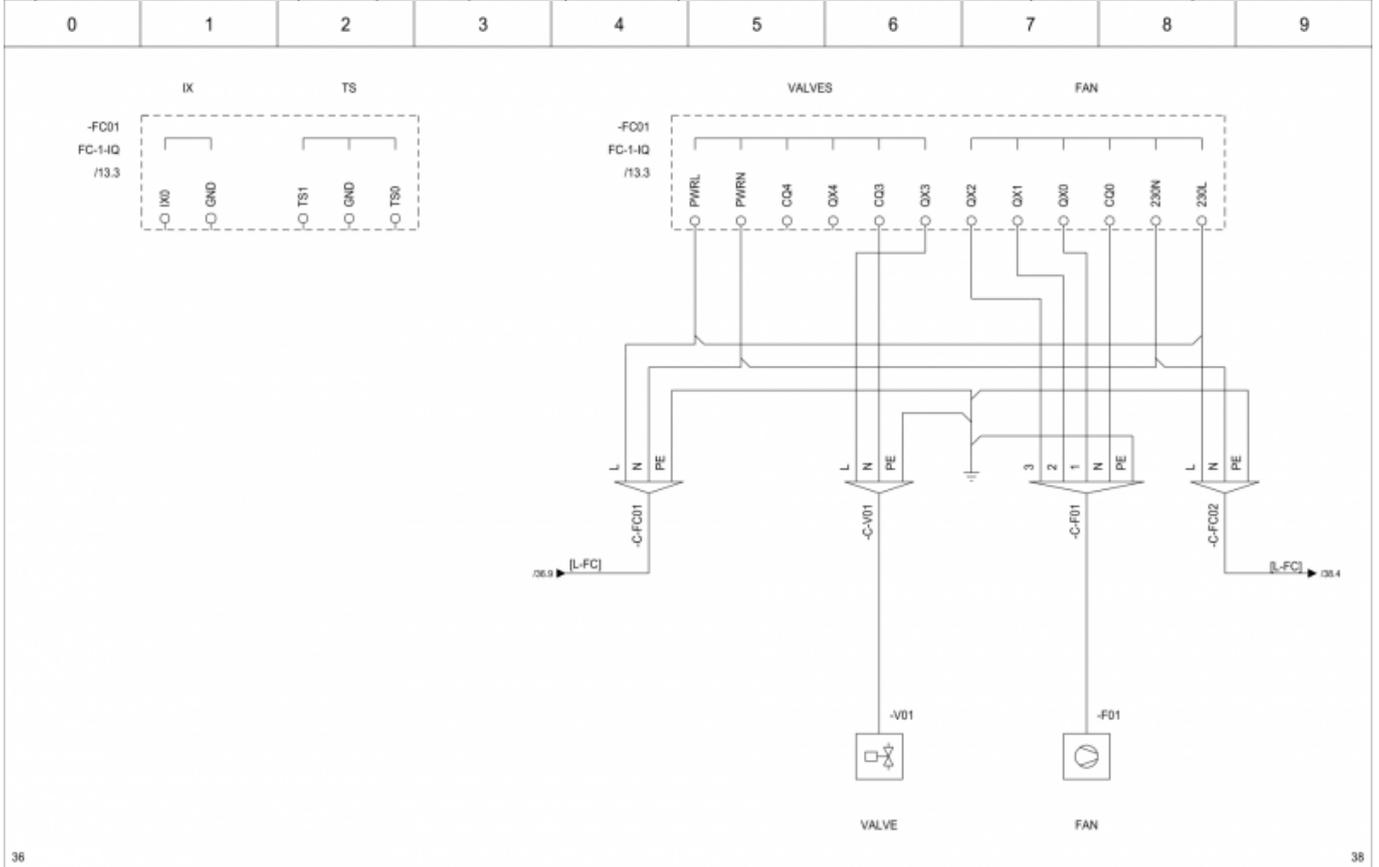
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# Page 36-38 - Fan-coil

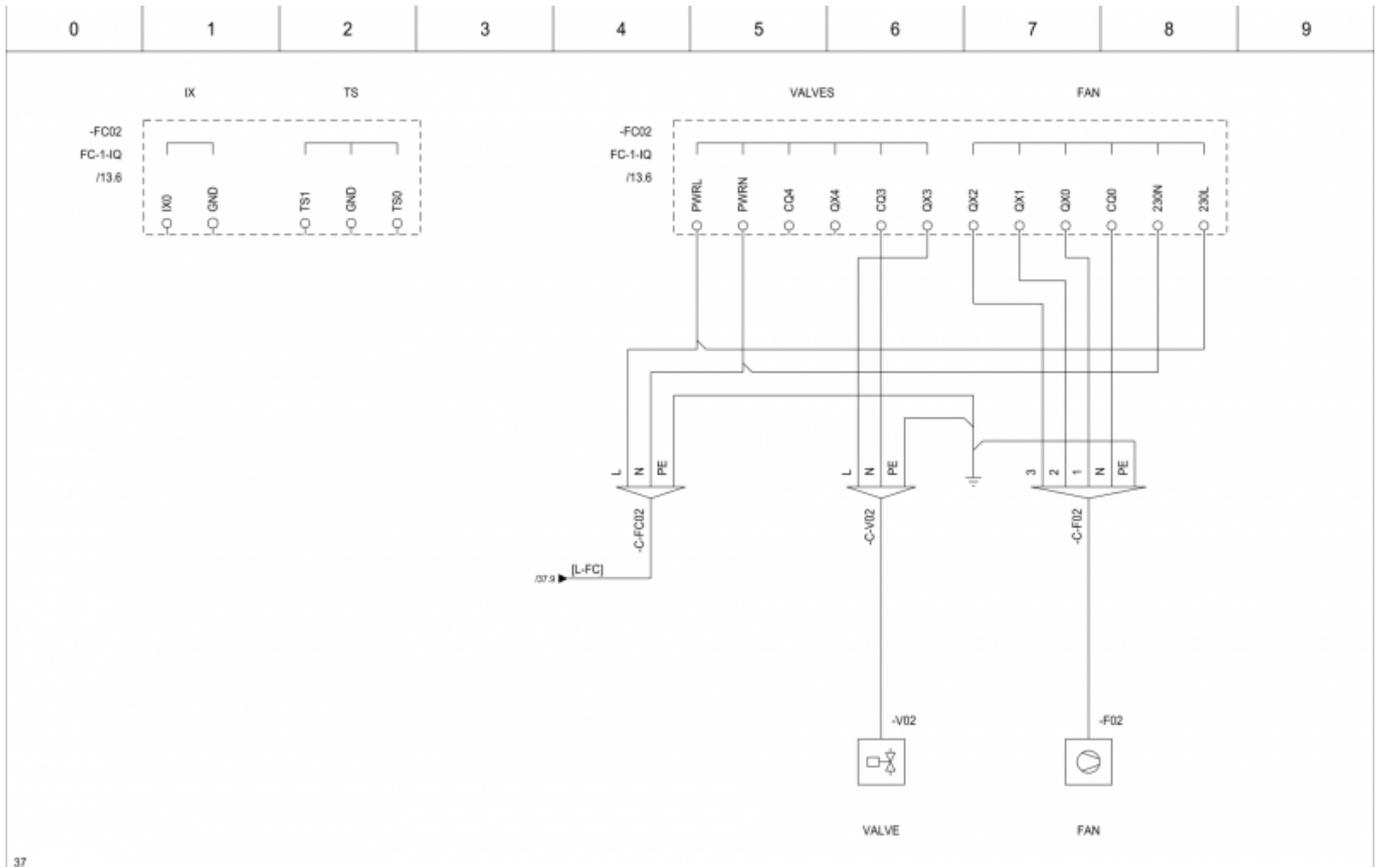
Fan-coil connection.



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