

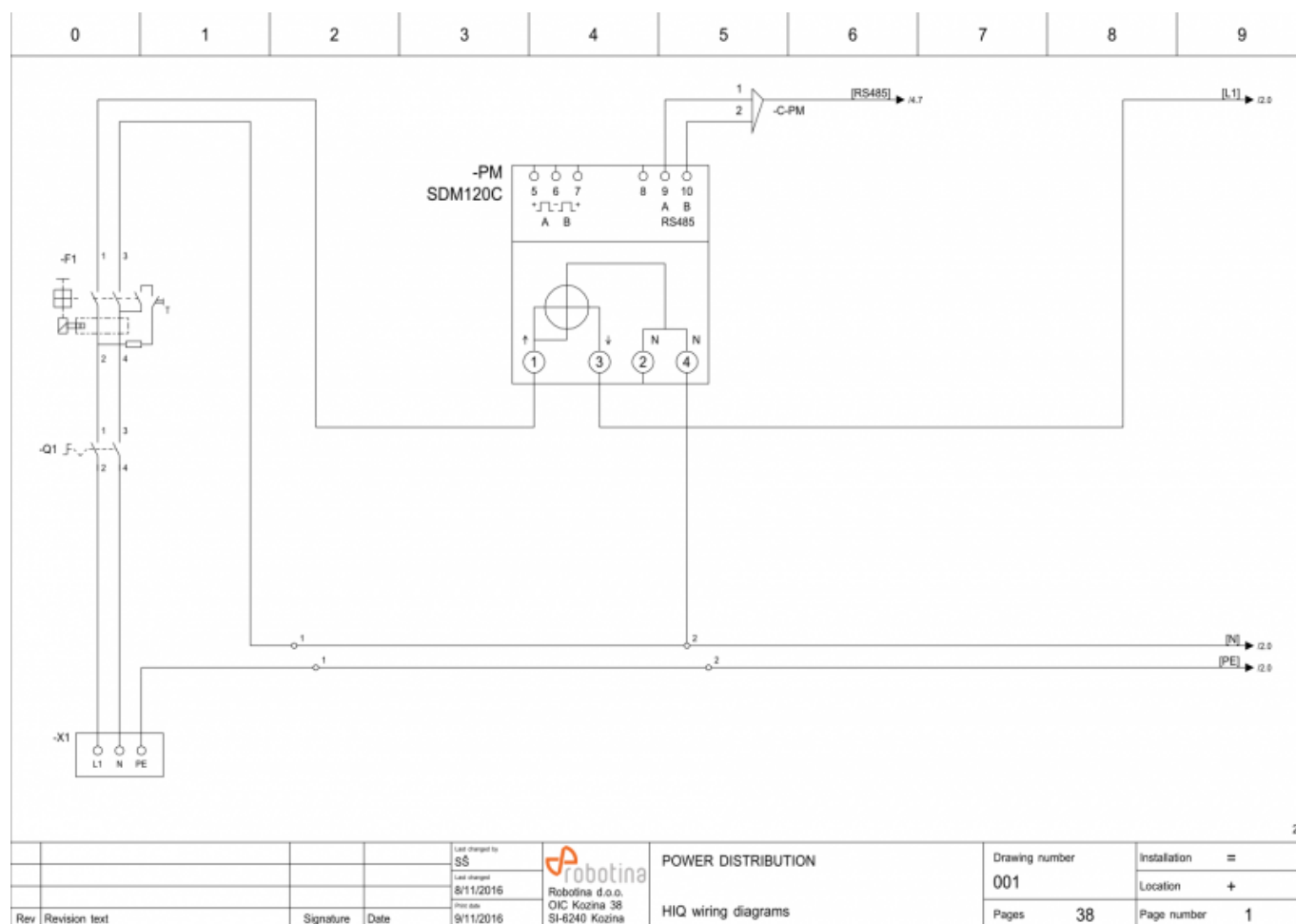
# HIQ designing

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

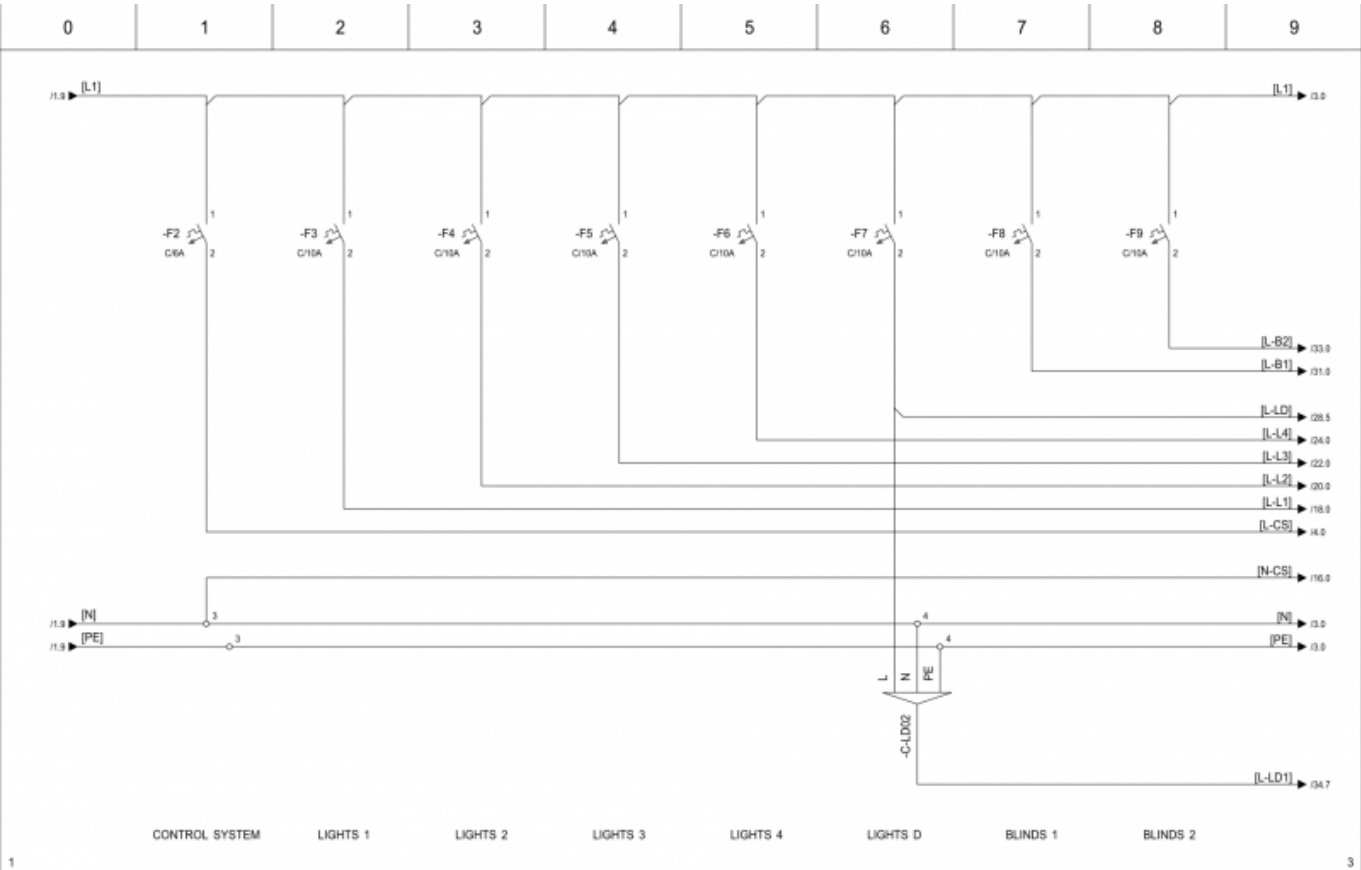
Single phase power input, connection of RCD switch (Residual Current Device) and [power meter](#). Input can be single or three phase.

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.

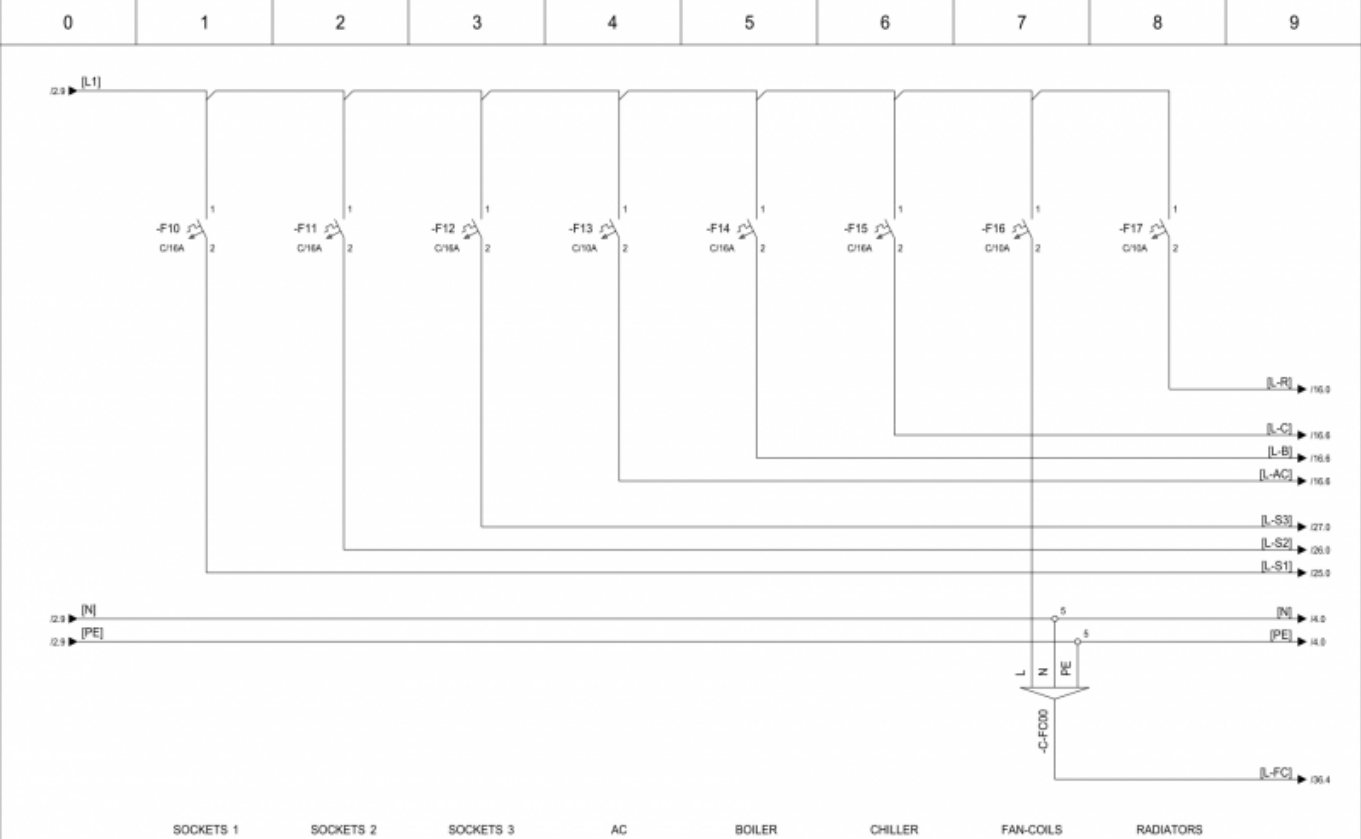


## Page 2-3 - Power distribution - Fuses

Suggested fuse plan.

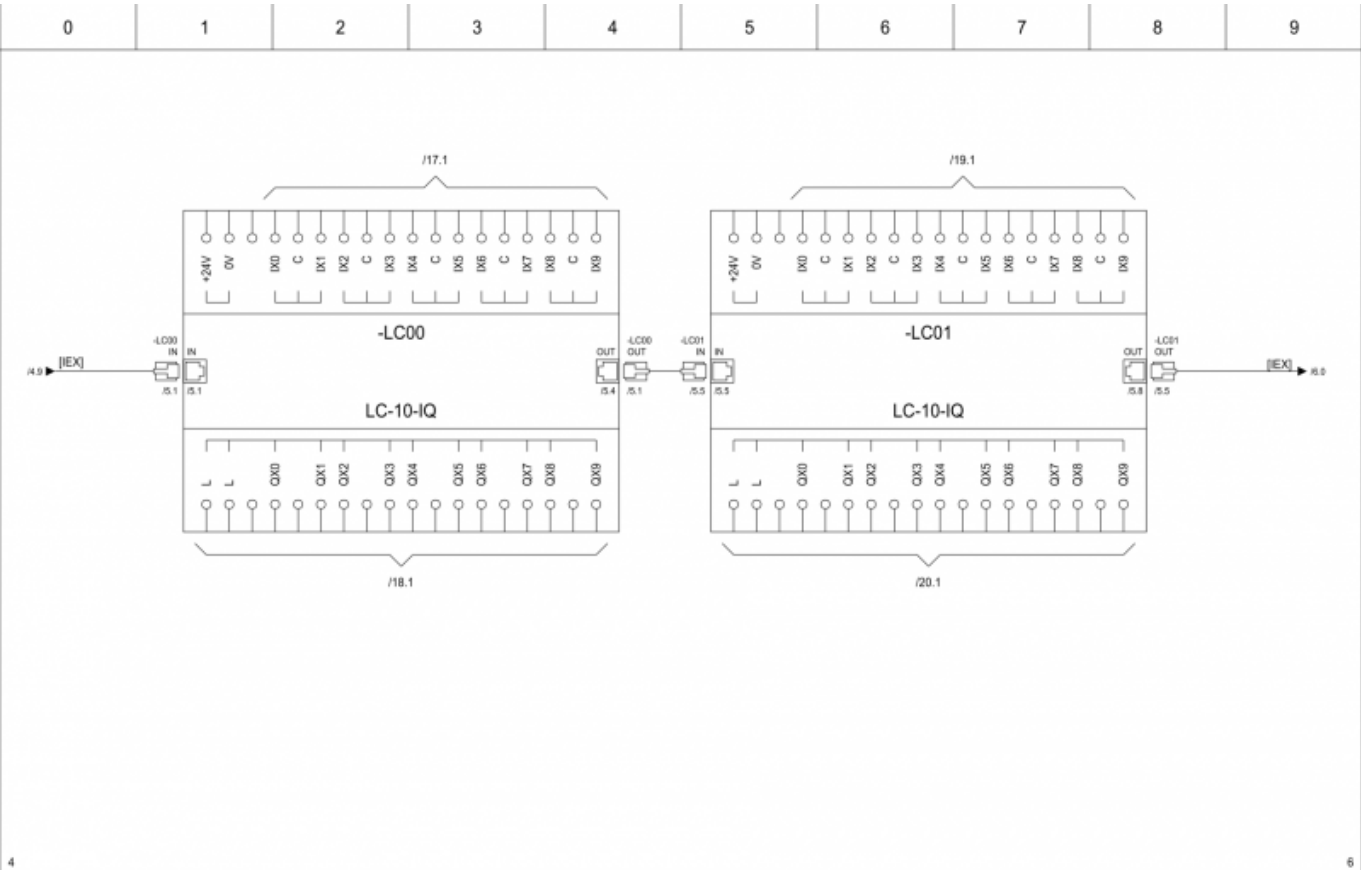



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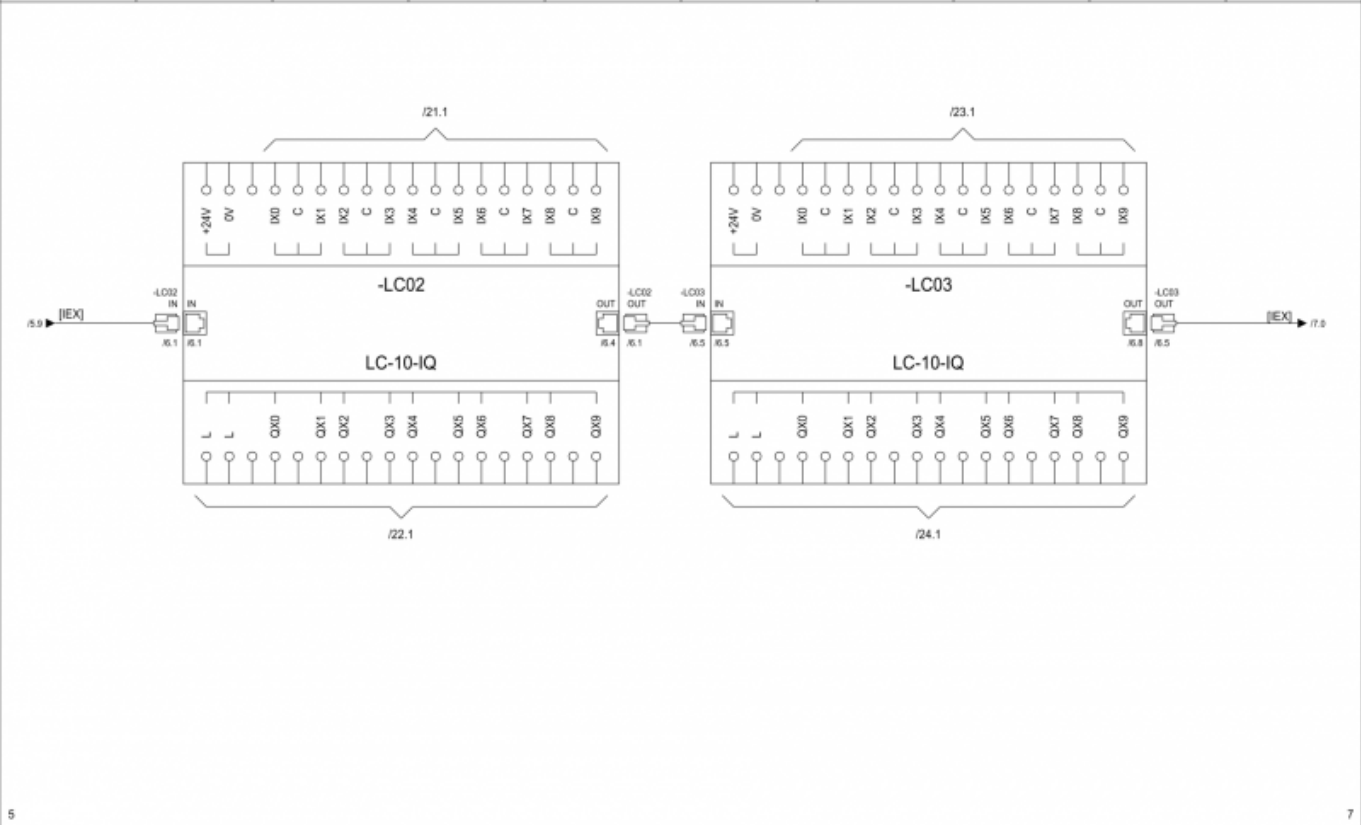


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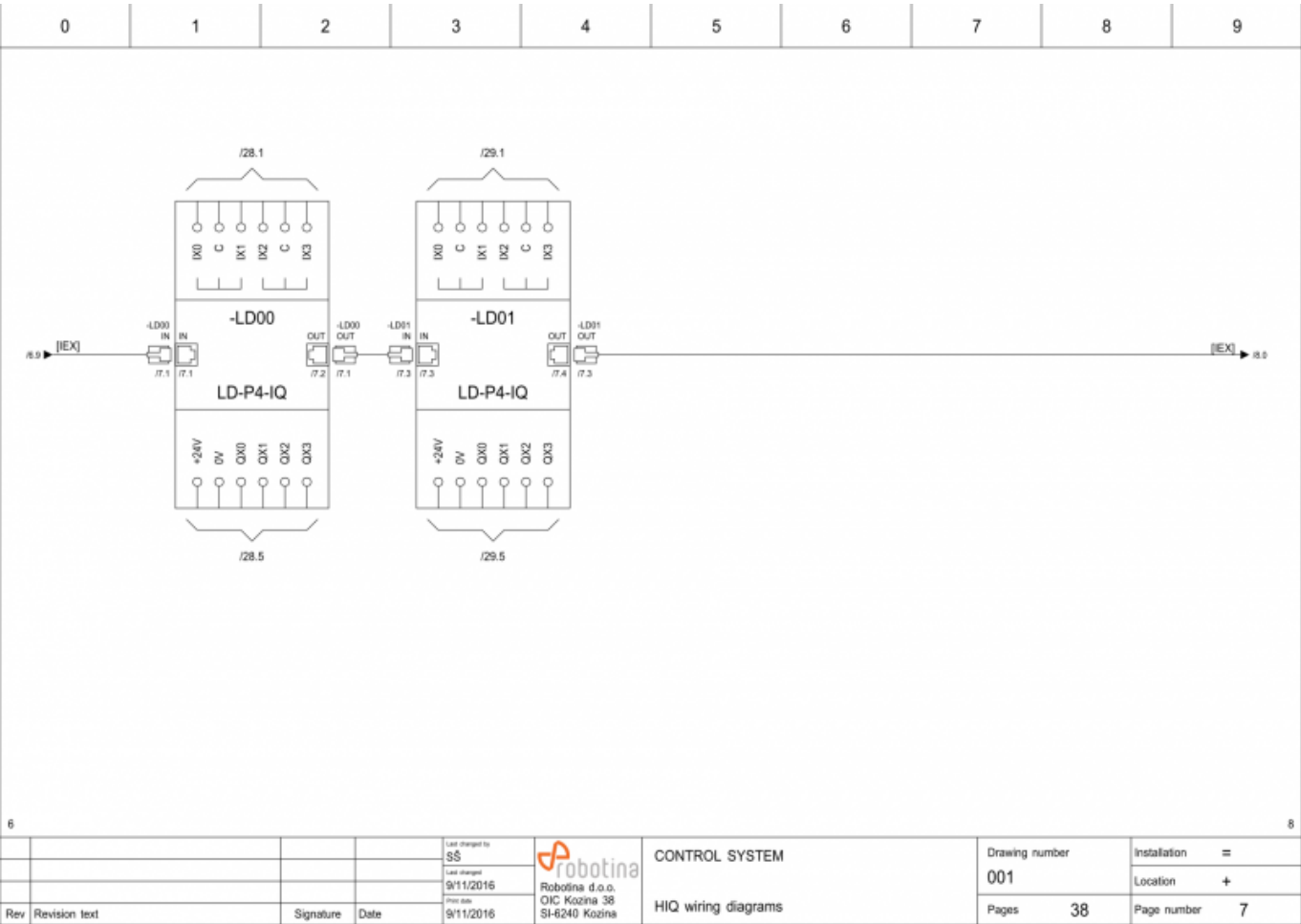
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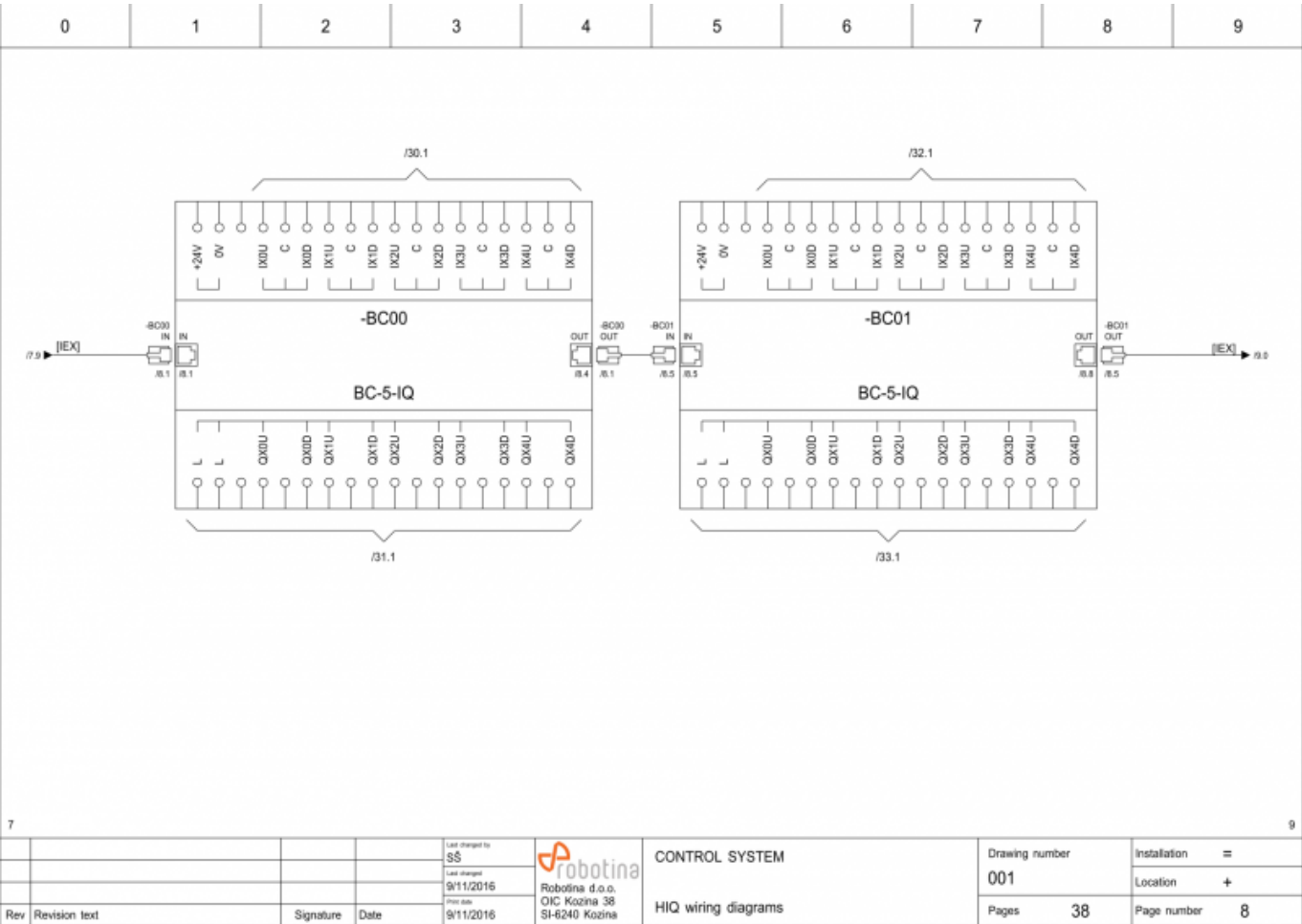
Page 7 - CS - Light dimmer

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

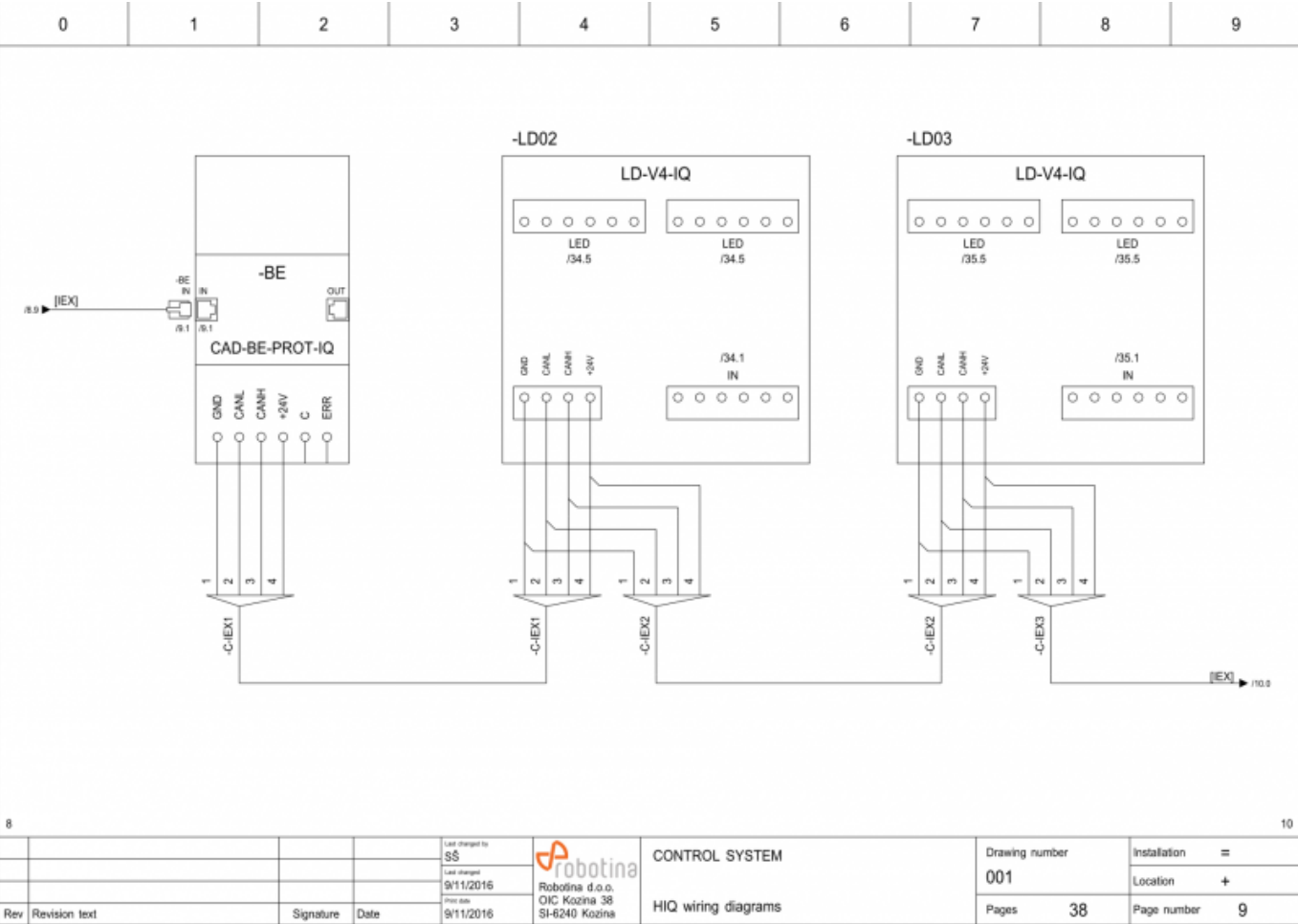
Up to 2 [Blinds controllers \(BC\)](#) can be connected to 1 HC.



Page 9 - CS - bus extender, LED light dimmer

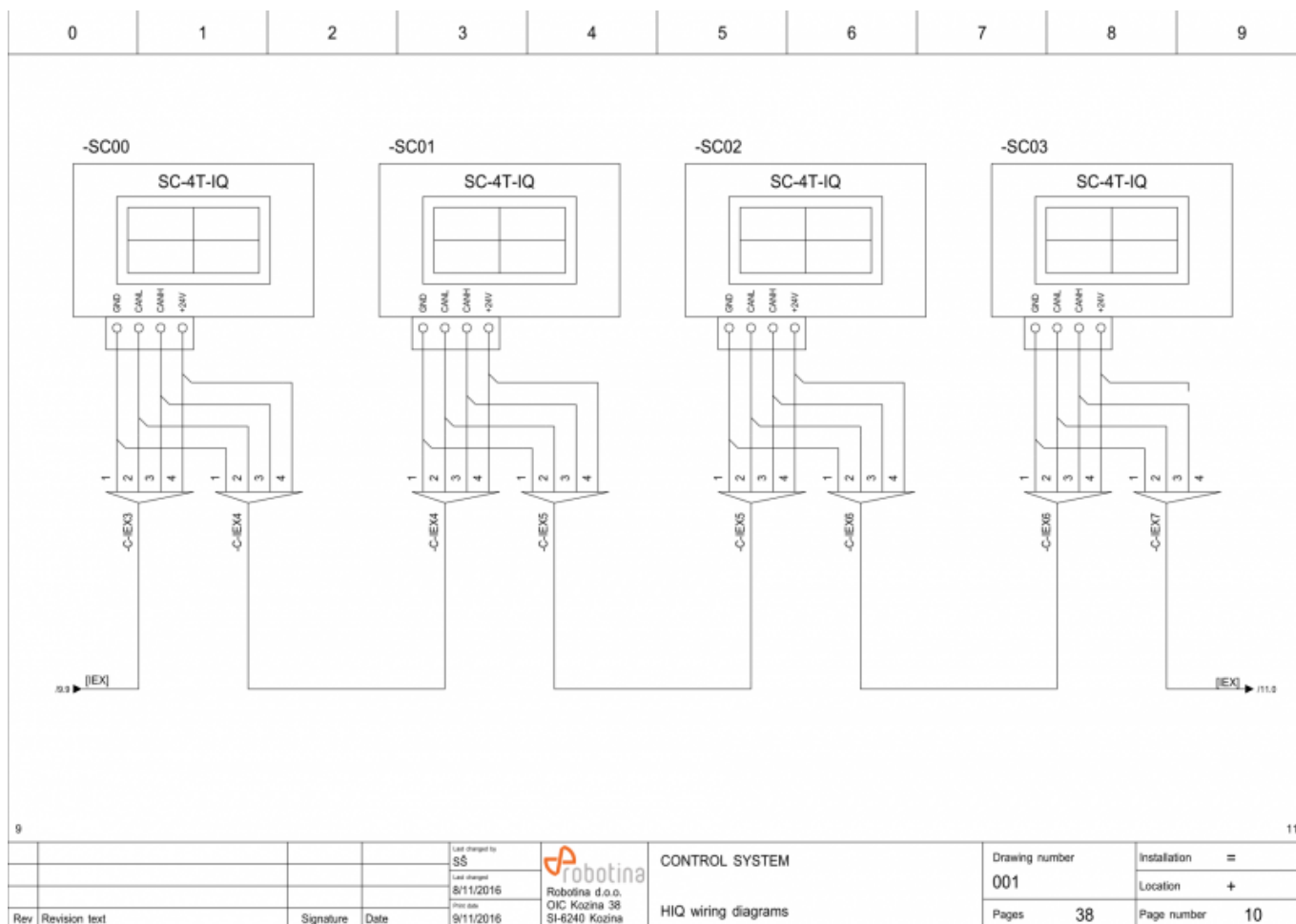
Bus extender (BE) is a passive switch for easy IEX bus interconnection between cabinet and field modules.

Up to 4 light dimmers can be connected to 1 HC. On sample plan we use 2 LED stripe dimmers.



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.

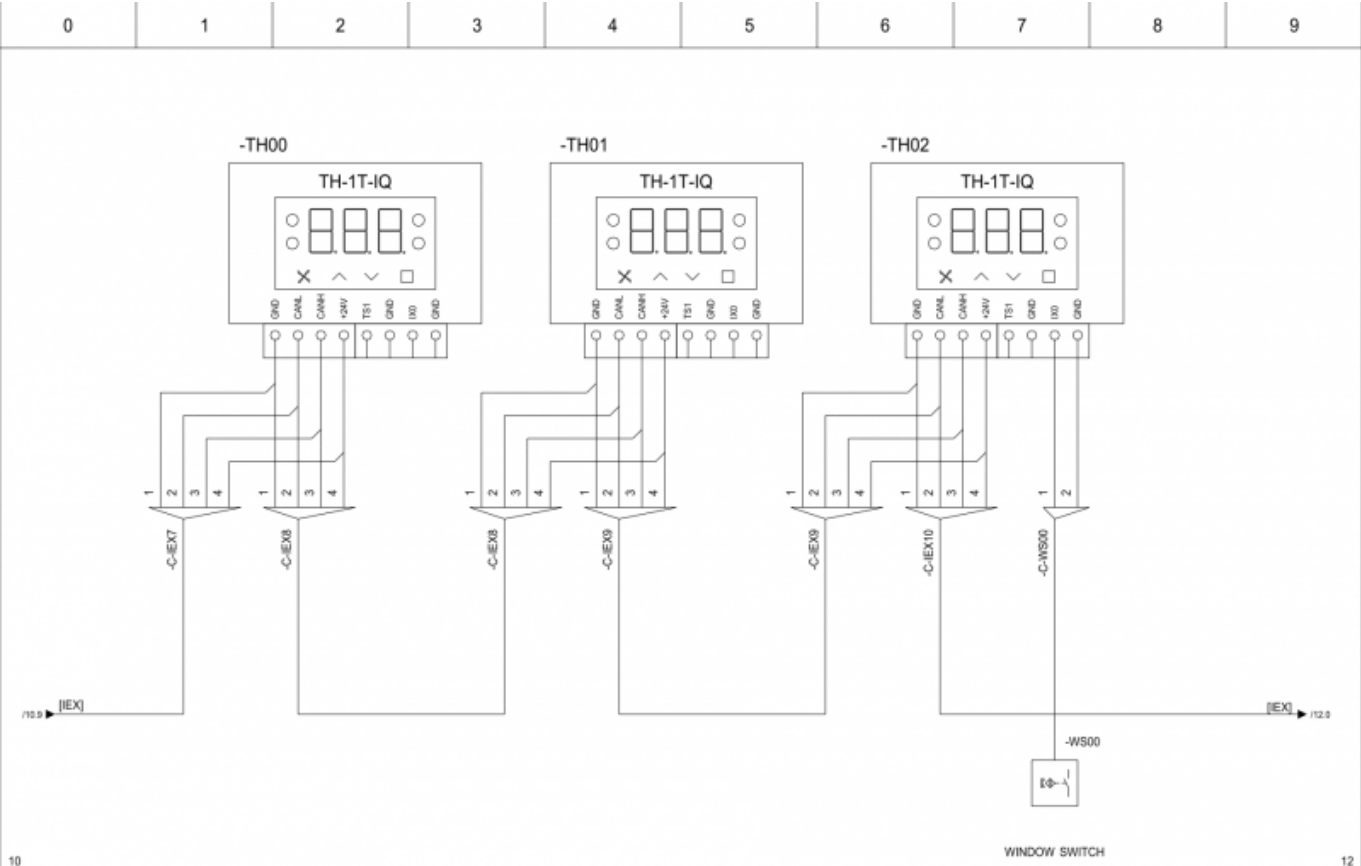


## Page 11-12 - CS - Thermostats

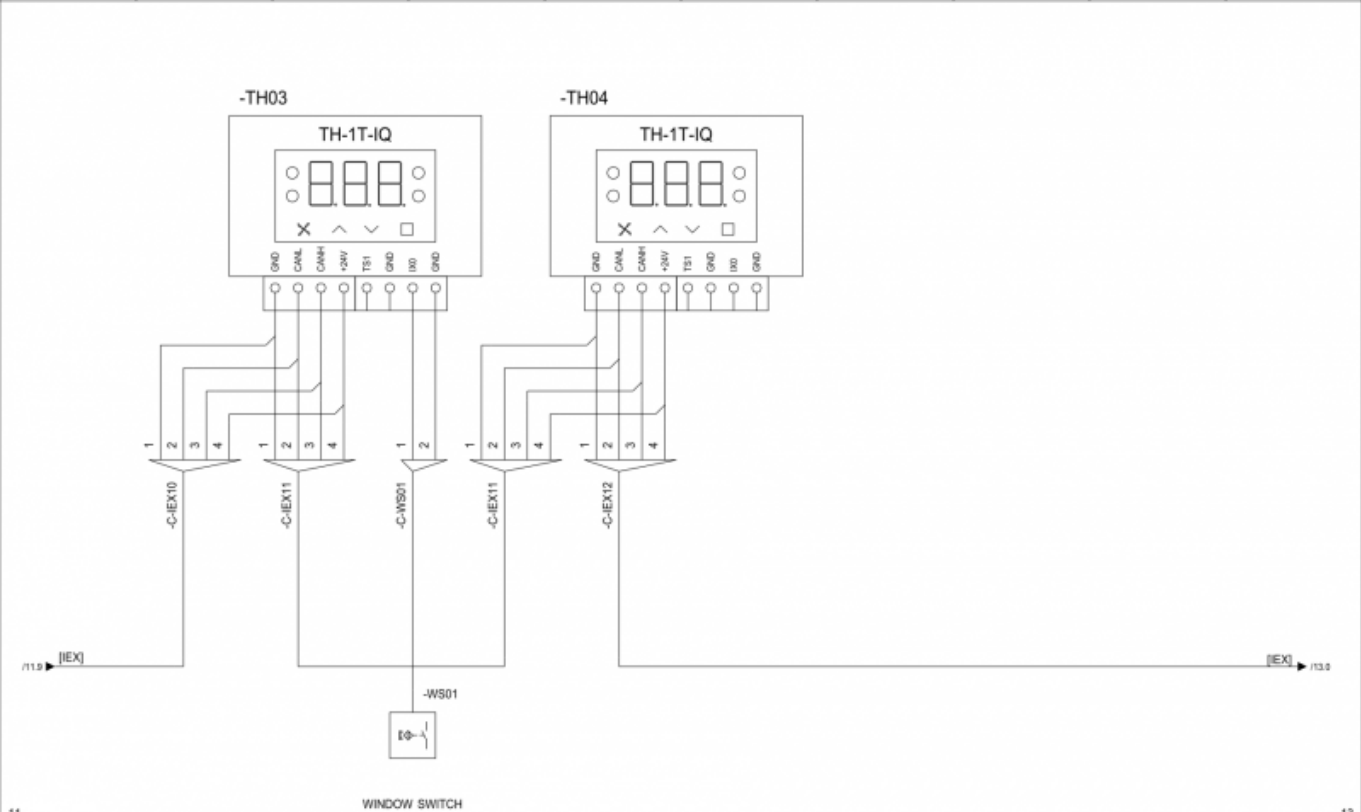
Up to 5 Thermostats can be connected to 1 HC. On sample plan we use 5 [Touch buttons electronic thermostats](#), but also ordinary [Electronic thermostats](#) and [Blind electronic thermostats](#) can be connected in a similar way.

Optionally we can connect window switch on each thermostat (sample on -TH02 and -TH03) (not possible with [Blind electronic thermostat](#)).





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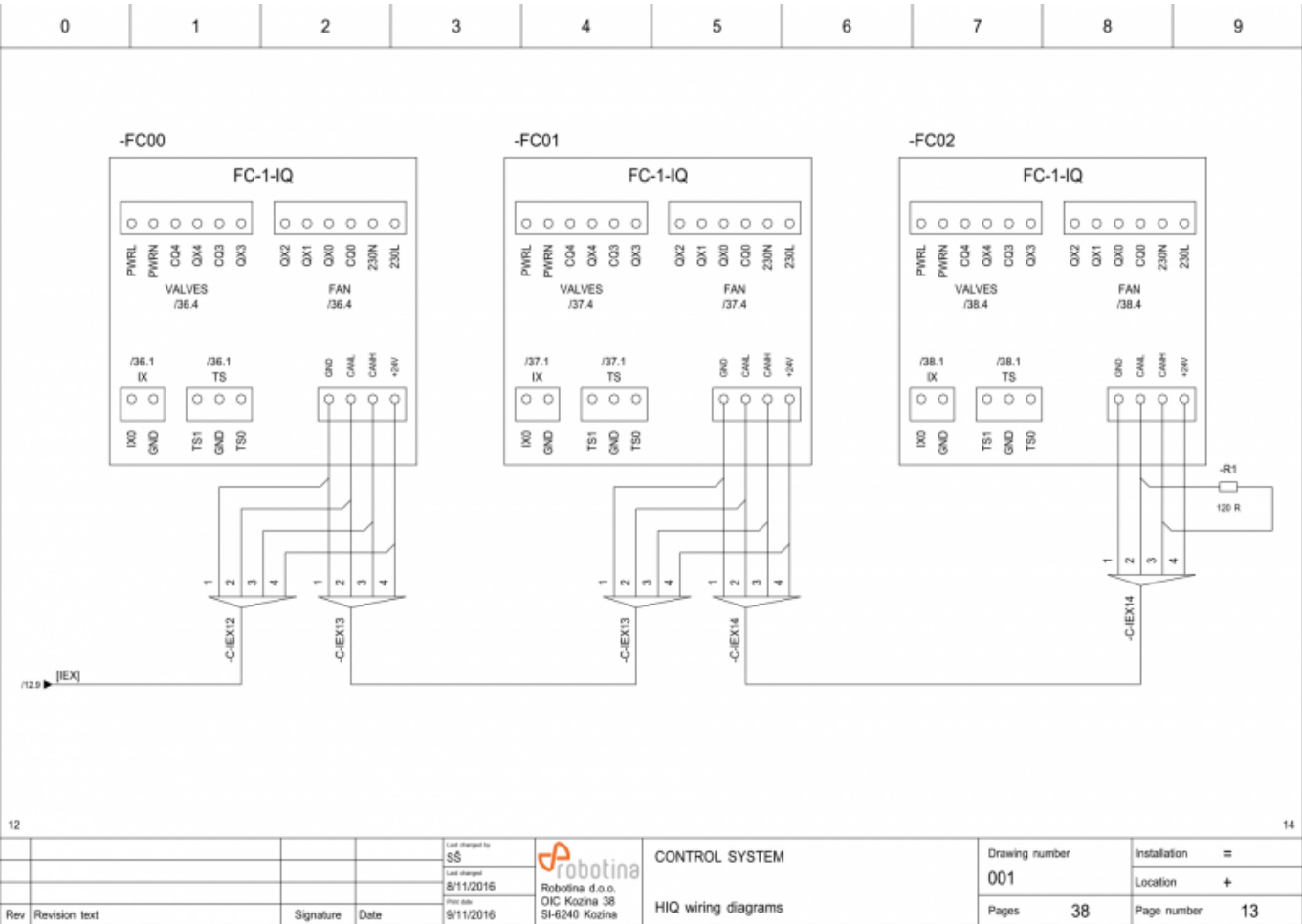


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Page 13 - CS-Fan-coil


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).



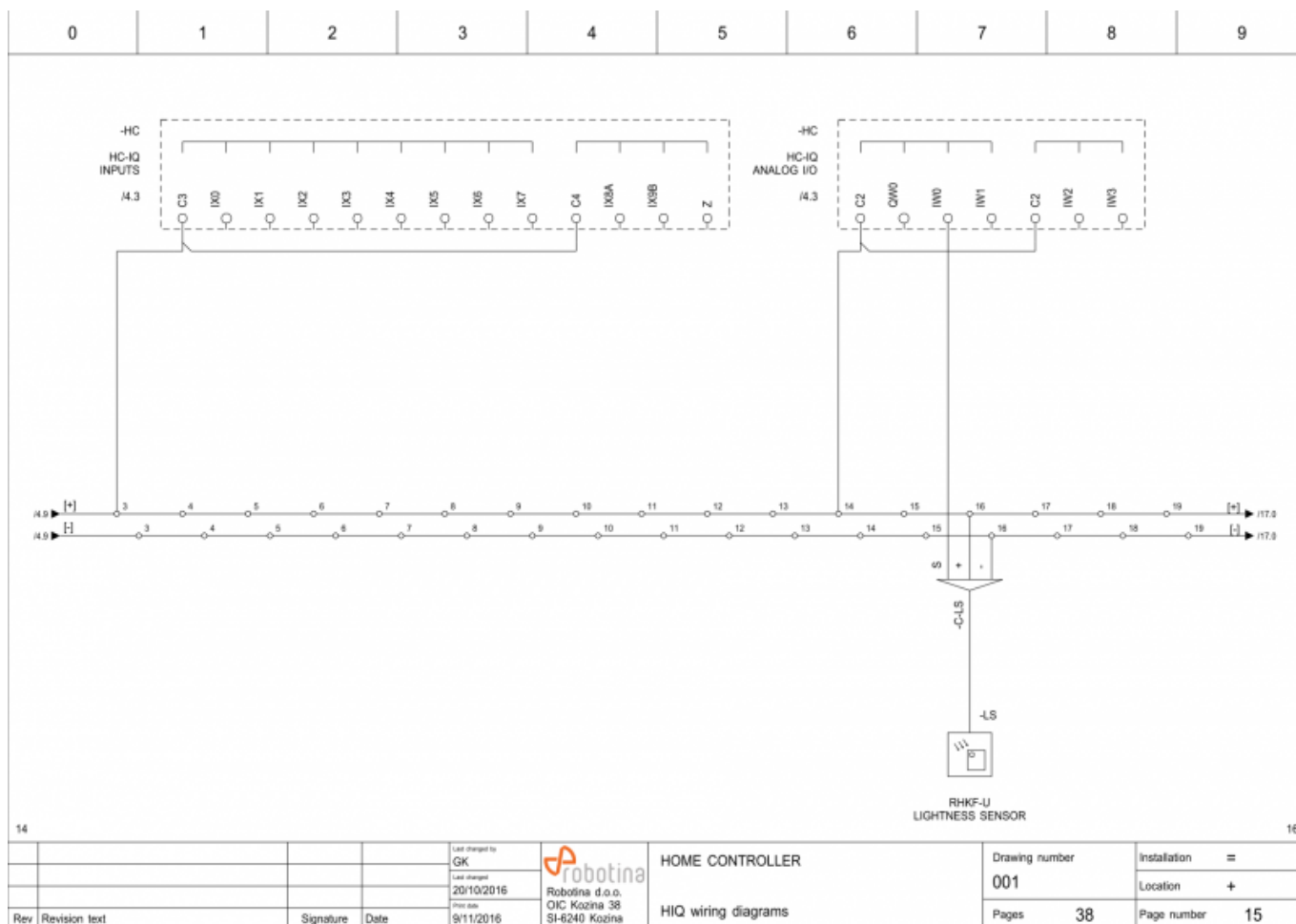
Page 14 - CS-Blank page

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## 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 16 - Home controller outputs

QX0-QX4 outputs - can be used for radiator valves or to control other heating/cooling devices. Internal relay is used for valves, other loads are recommended to use an additional 16A installation relay.

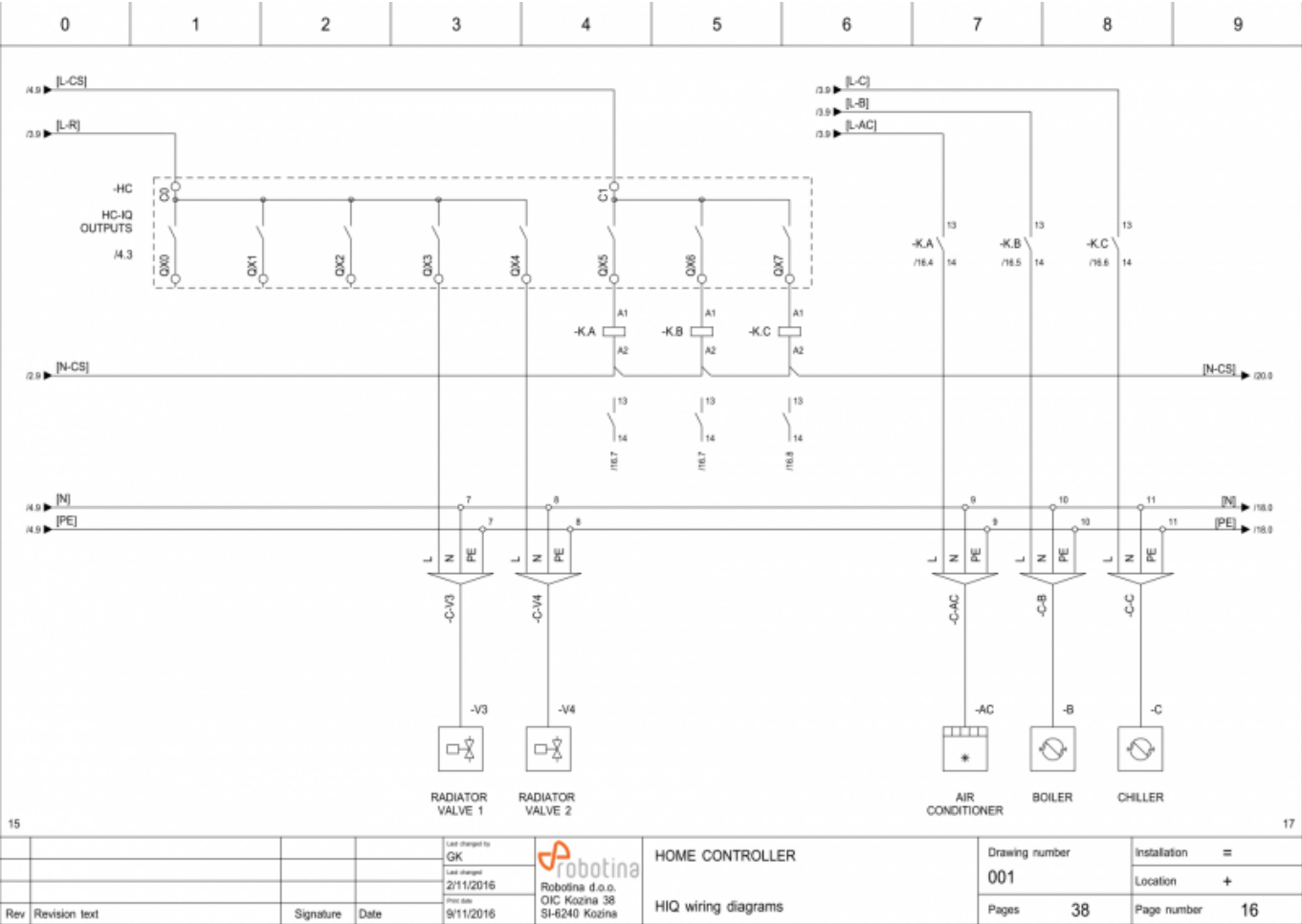
In our plan we use 2 radiator valves (and 3 [Fan-coil controllers](#)).

QX5 output - is used for Air Conditioner.

QX6 output - is used for Boiler.

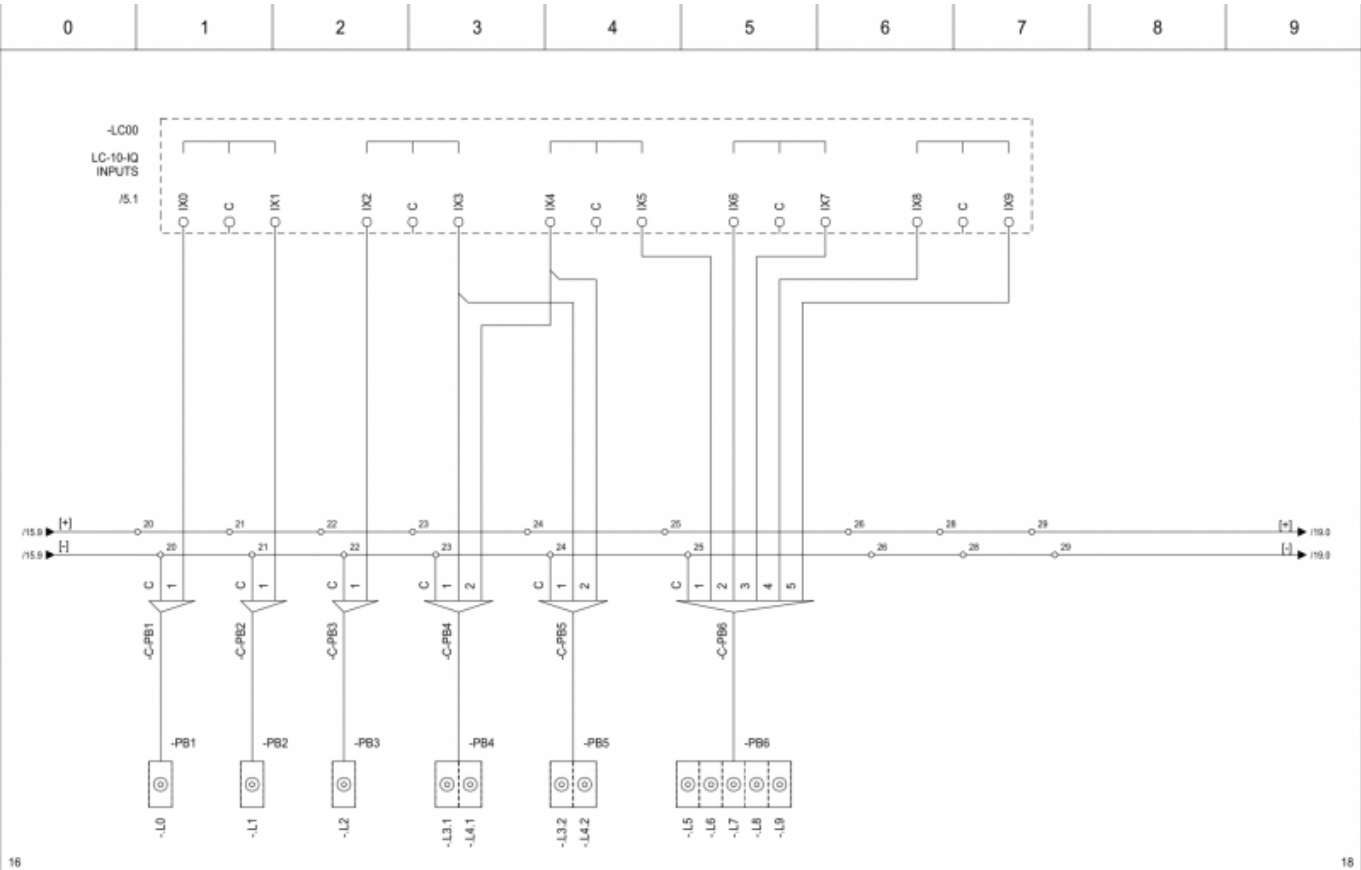
QX7 output - is used for Chiller.

All three outputs are connected to external installation relays (-K.A, -K.B and -K.C) .

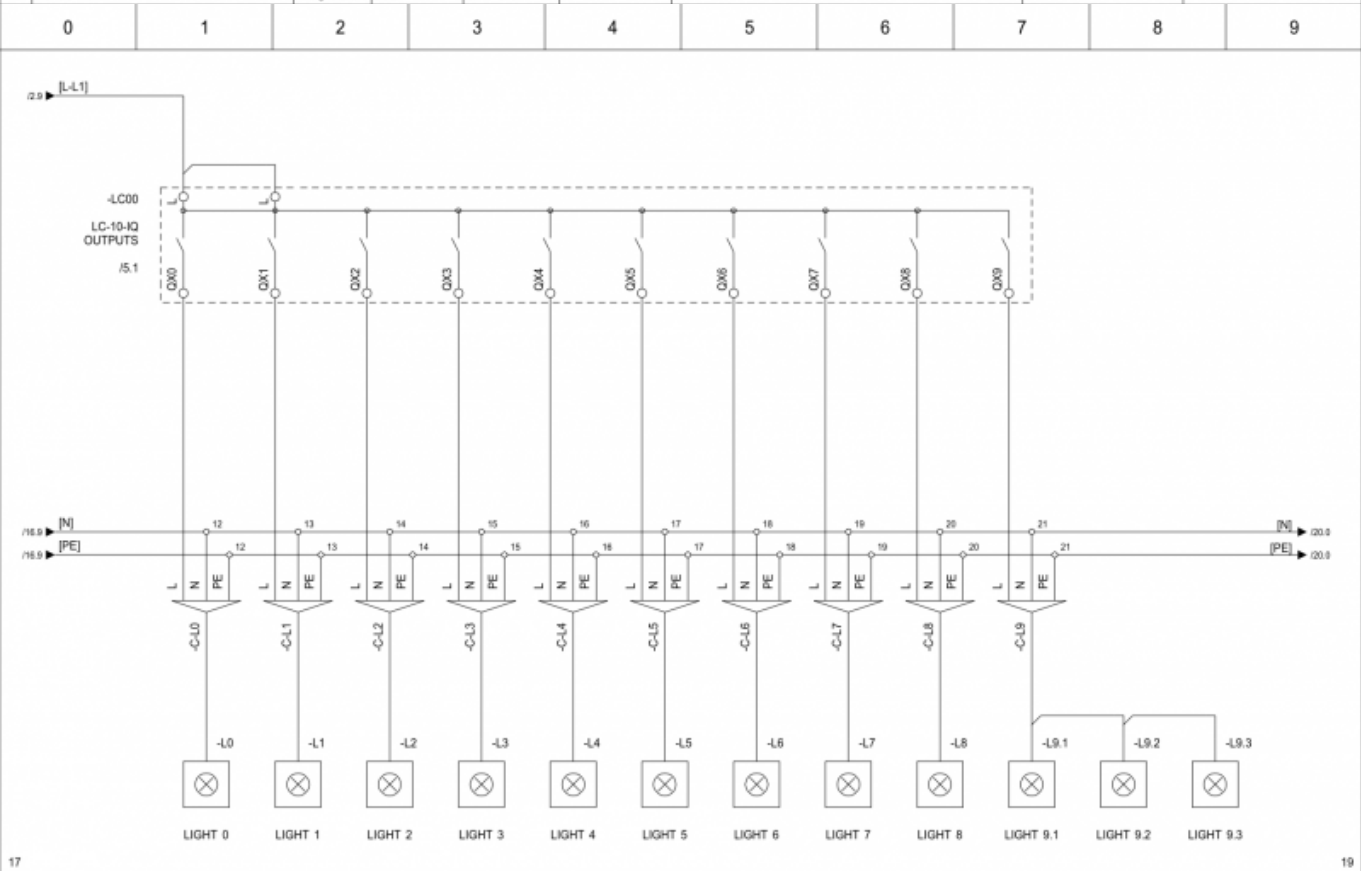


Page 17-24 - Light controller

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).

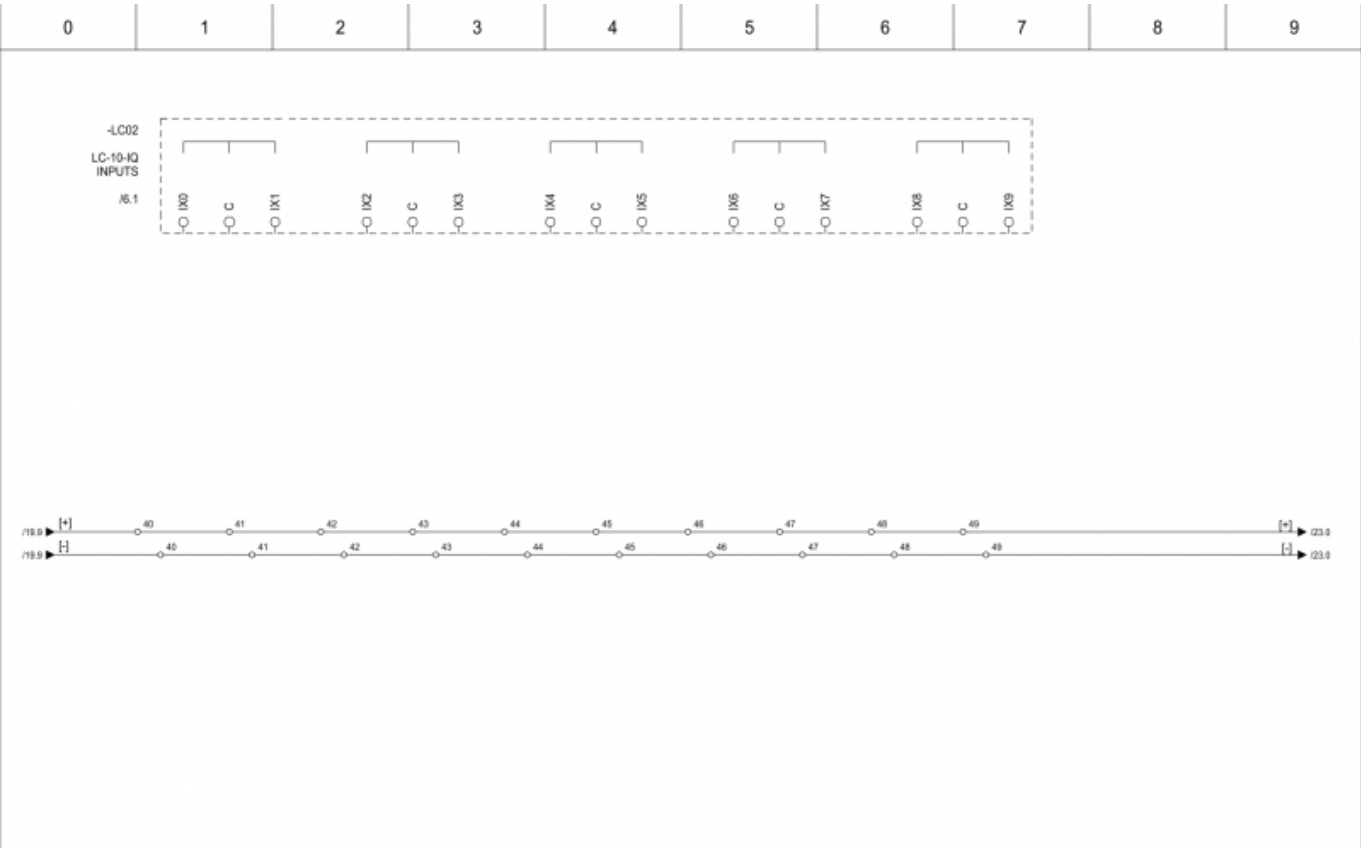


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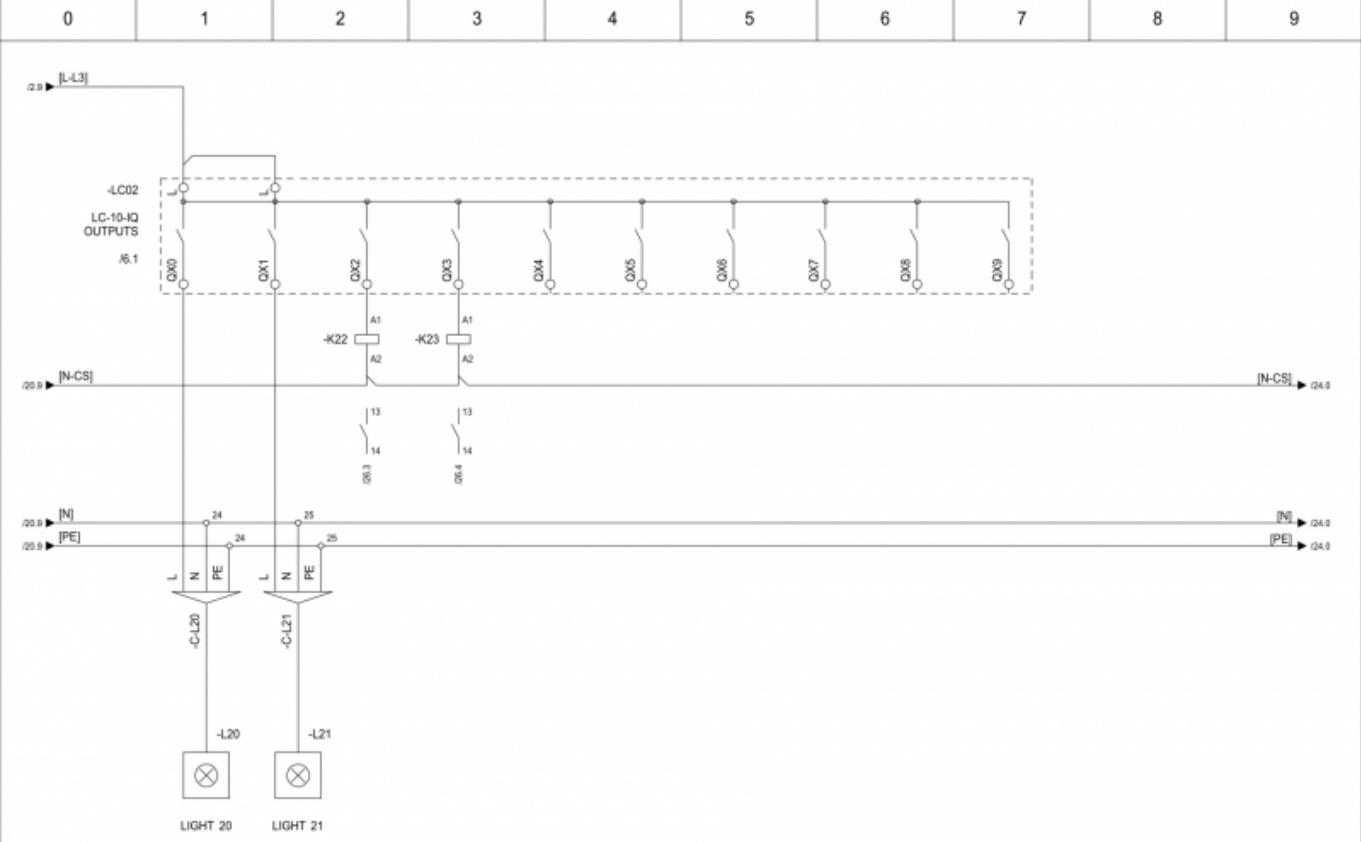


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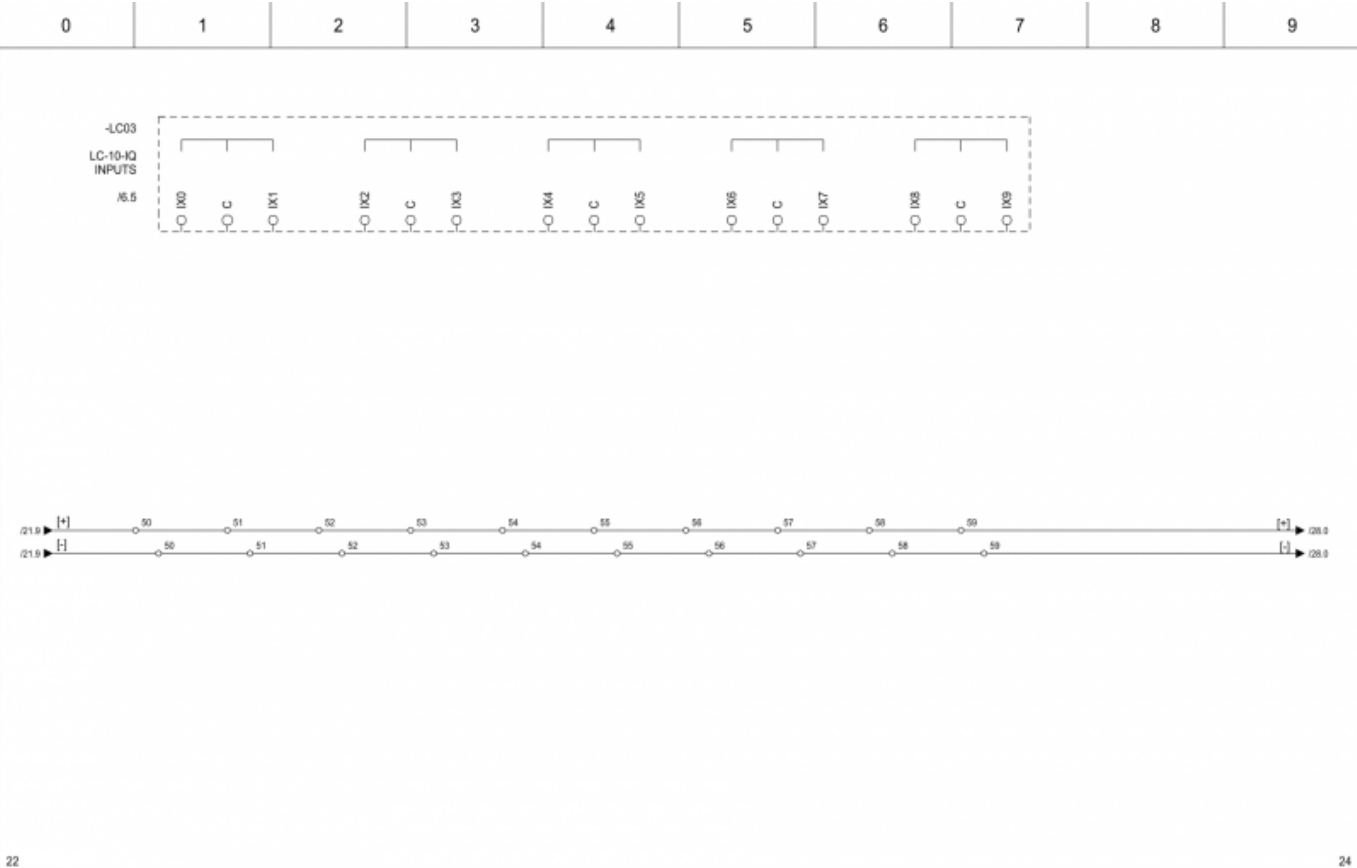


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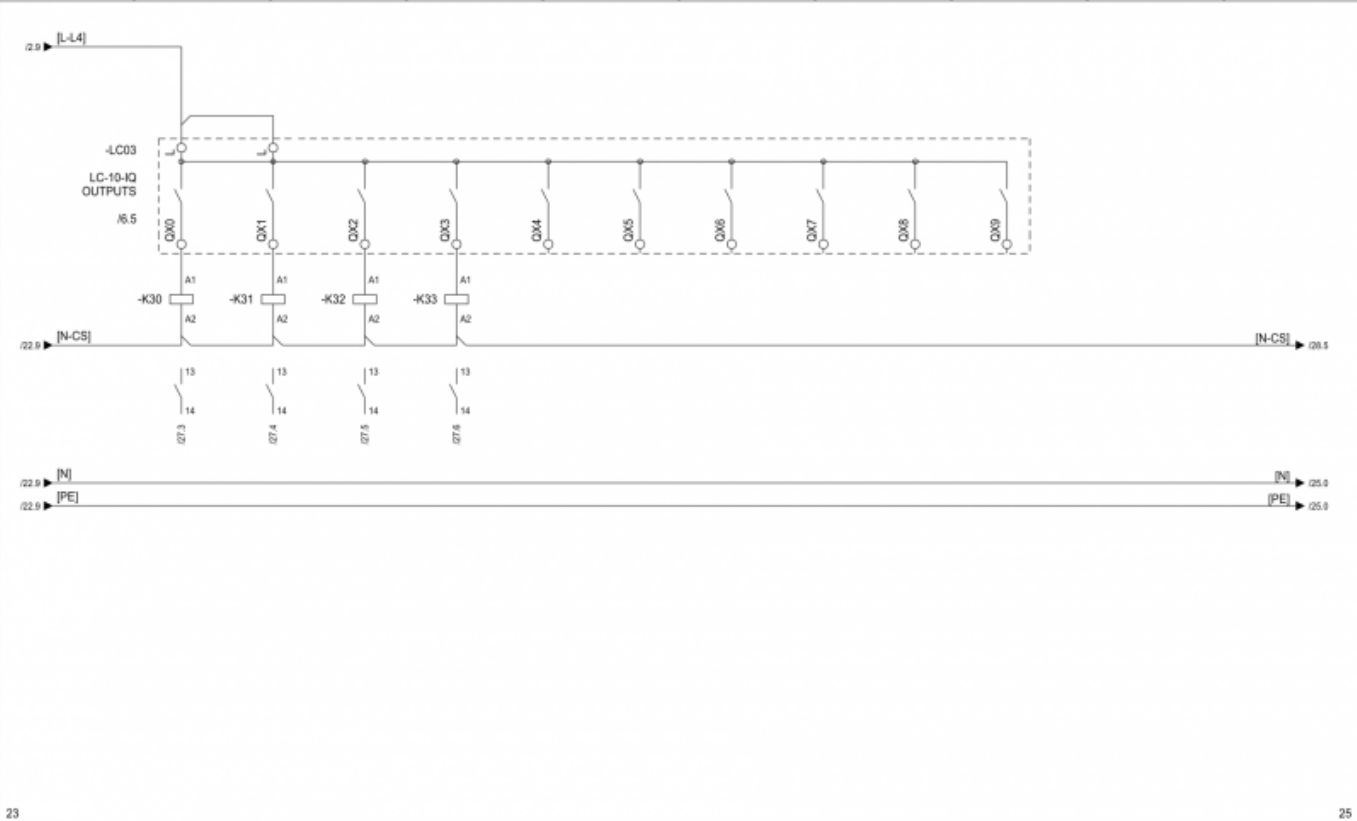


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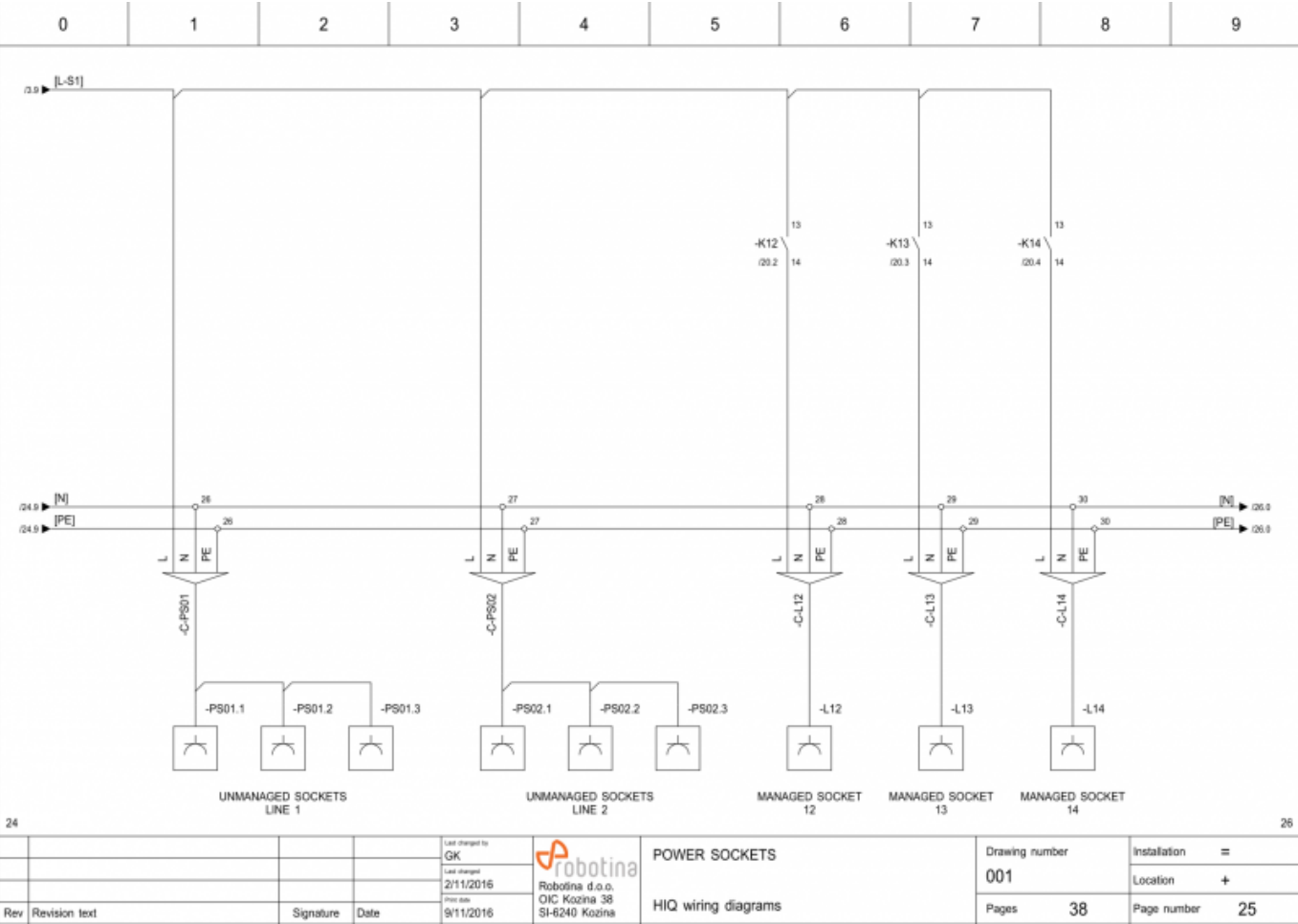
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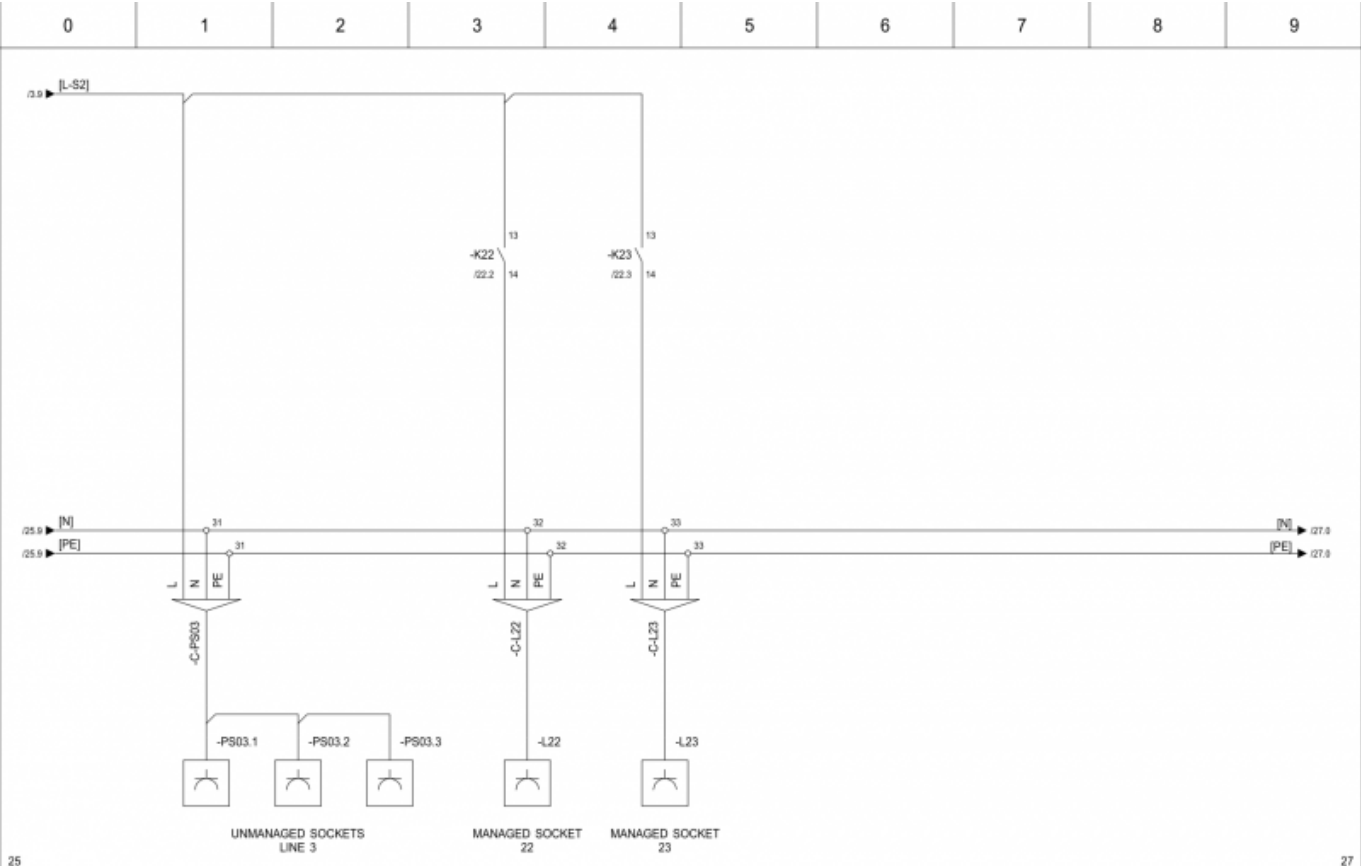


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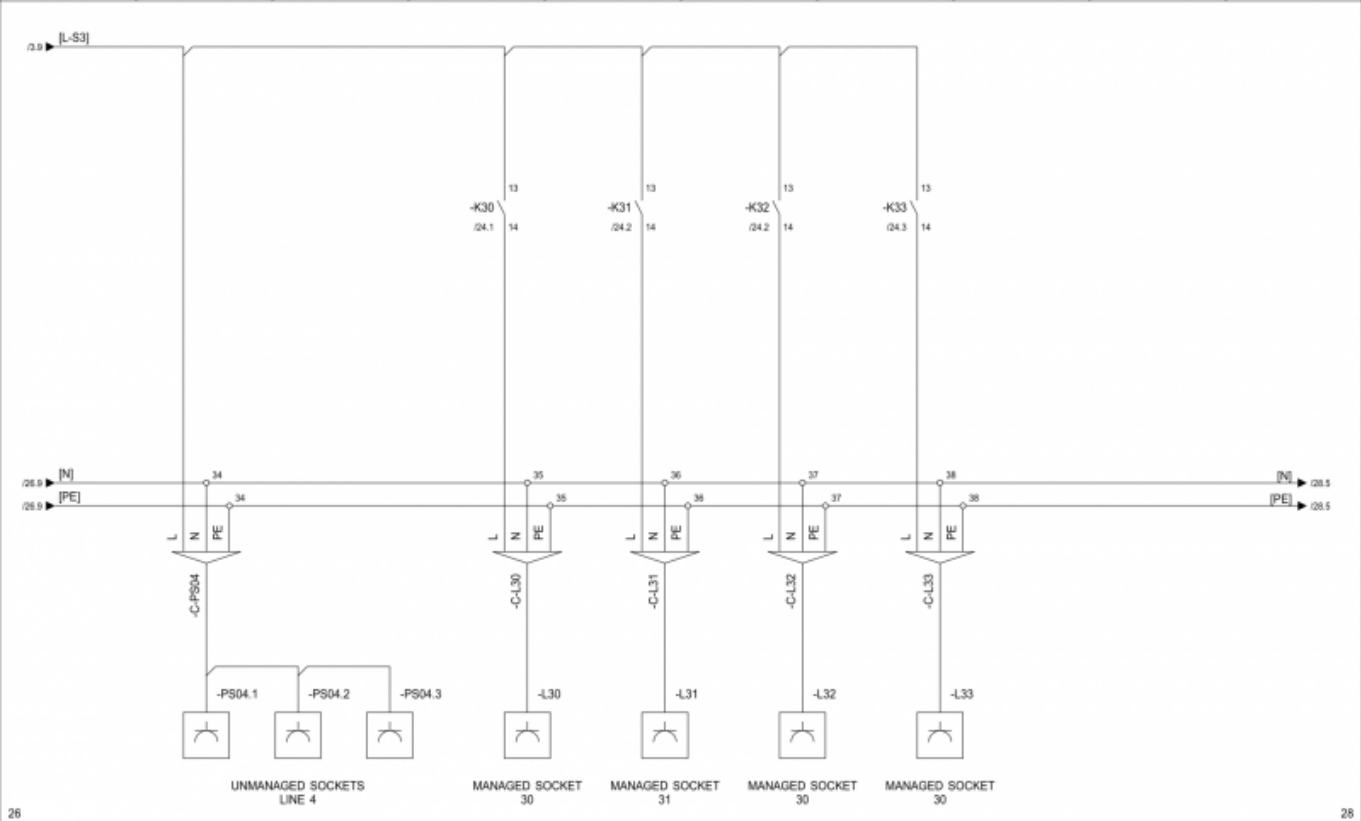
Page 25-27 - Power sockets

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.





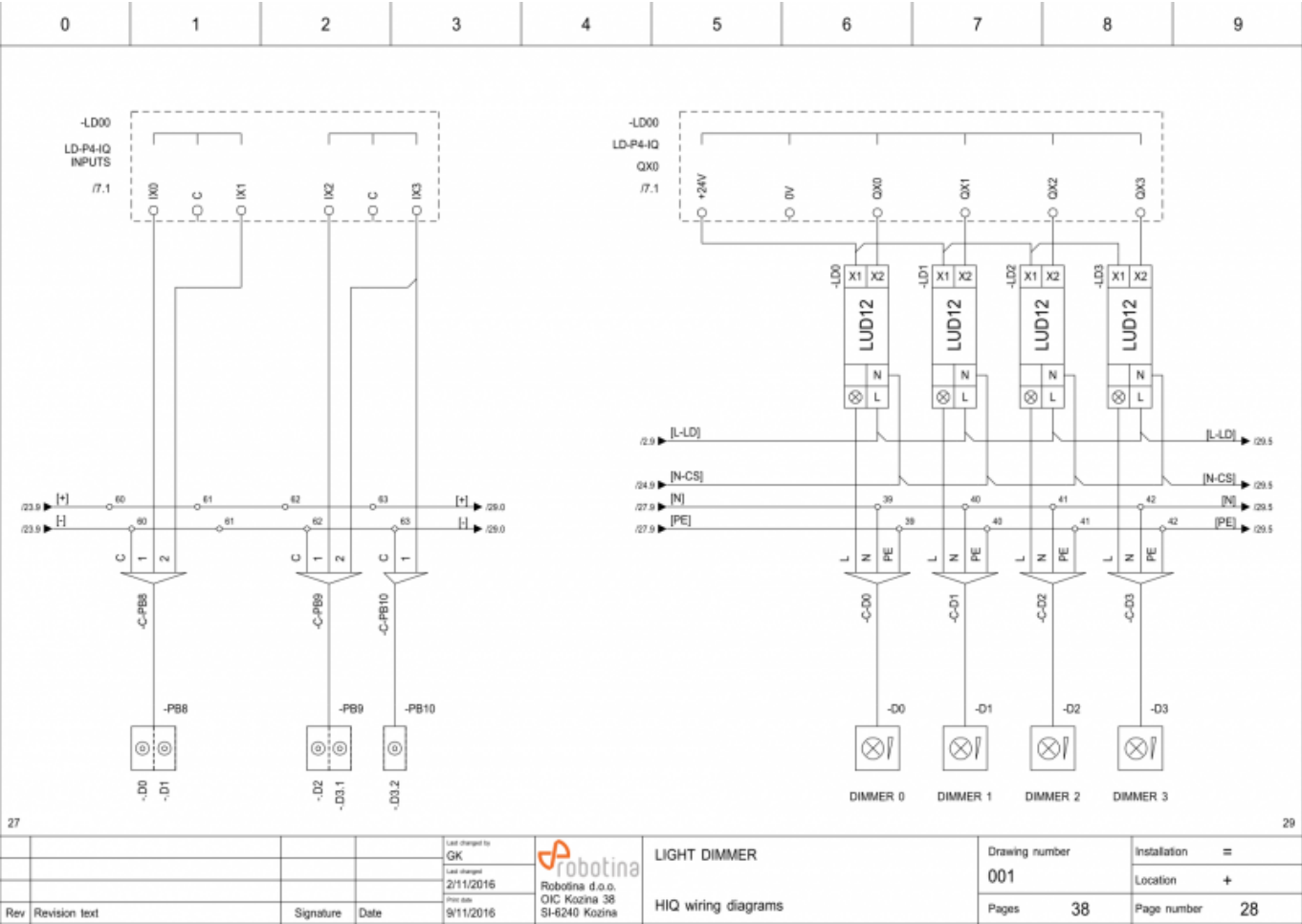
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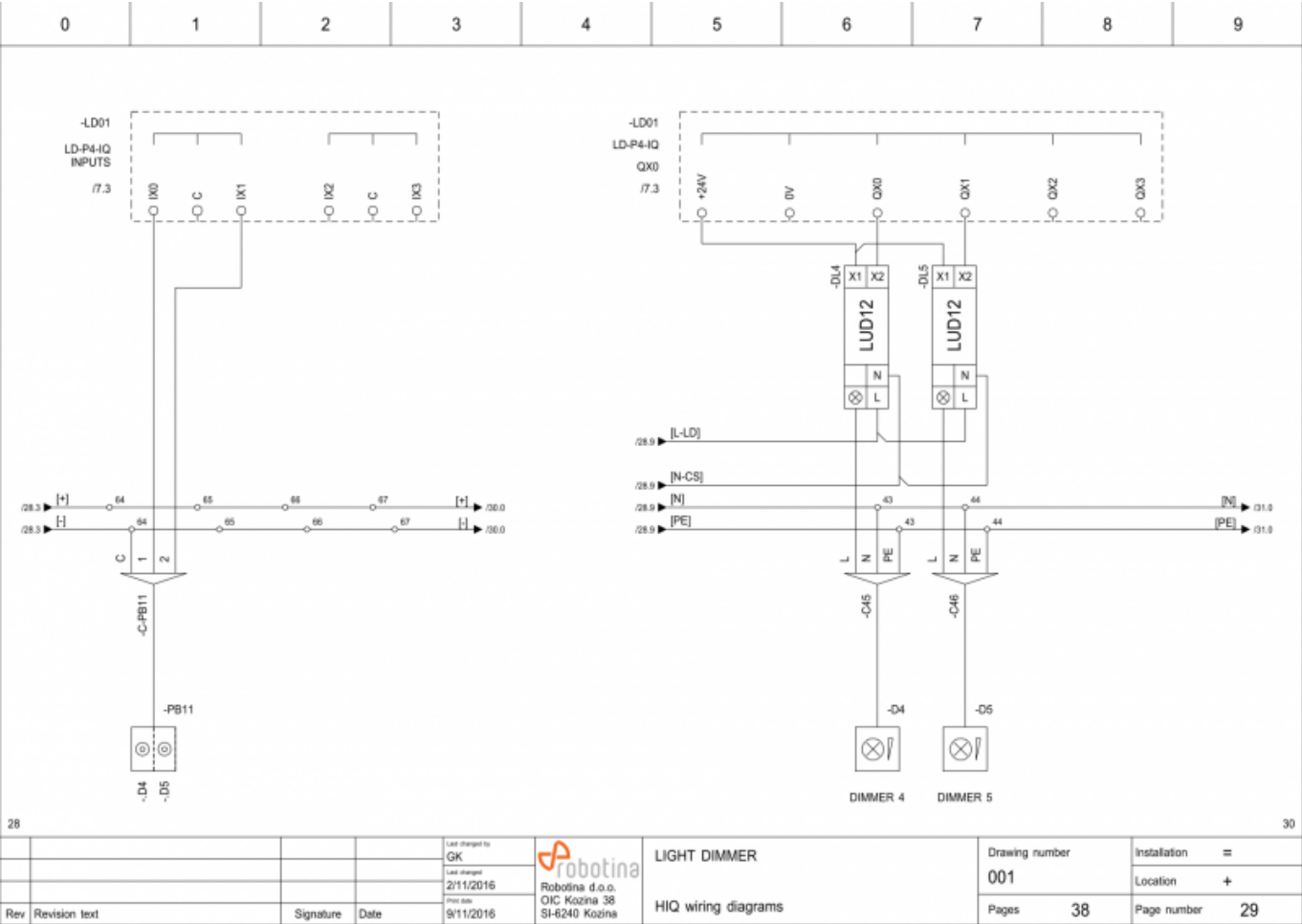


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Page 28-29 - Light dimmers

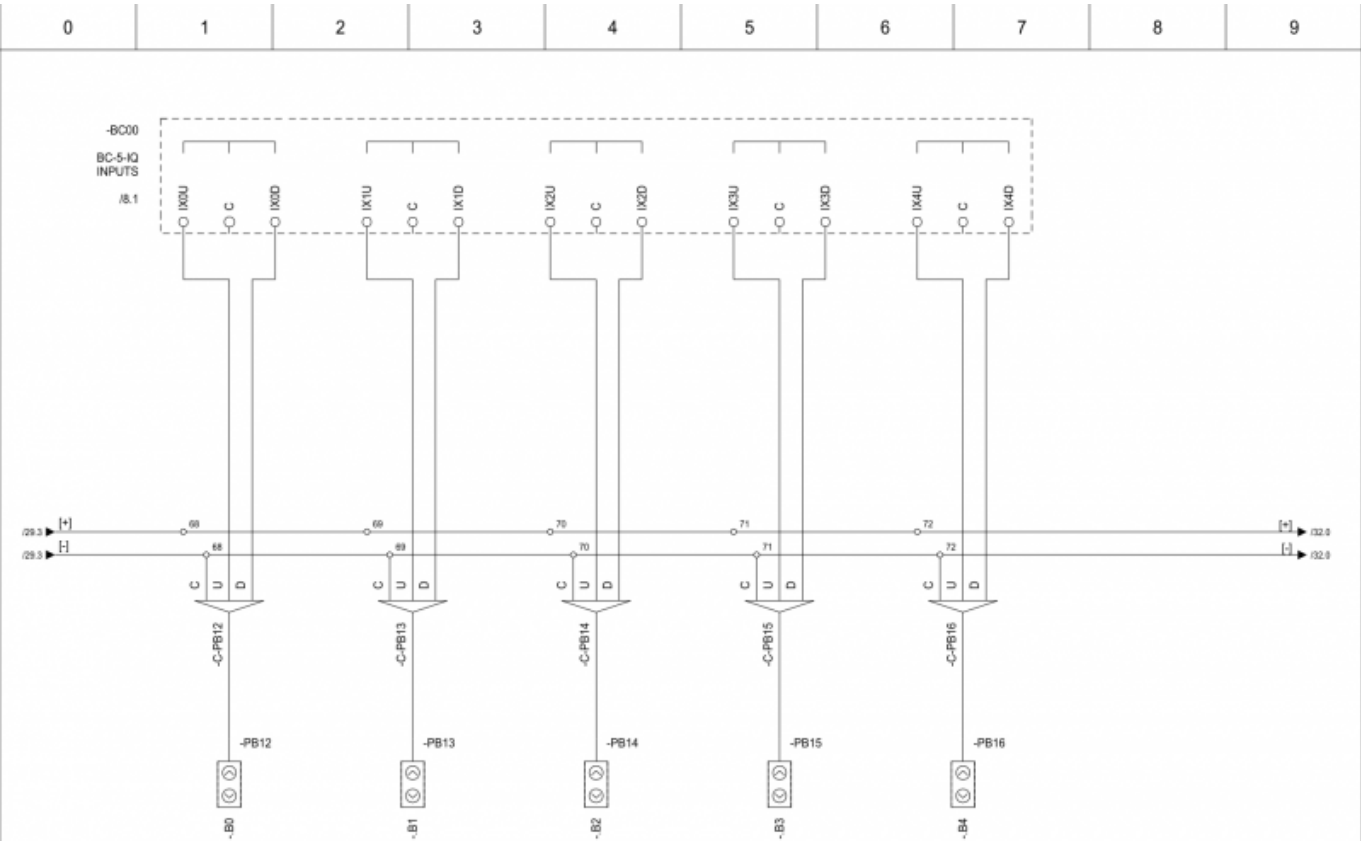
On sample plan we use 2 [Light dimmers drivers](#). On each driver we can connect up to 4 [LUD-12](#) universal light dimmers.



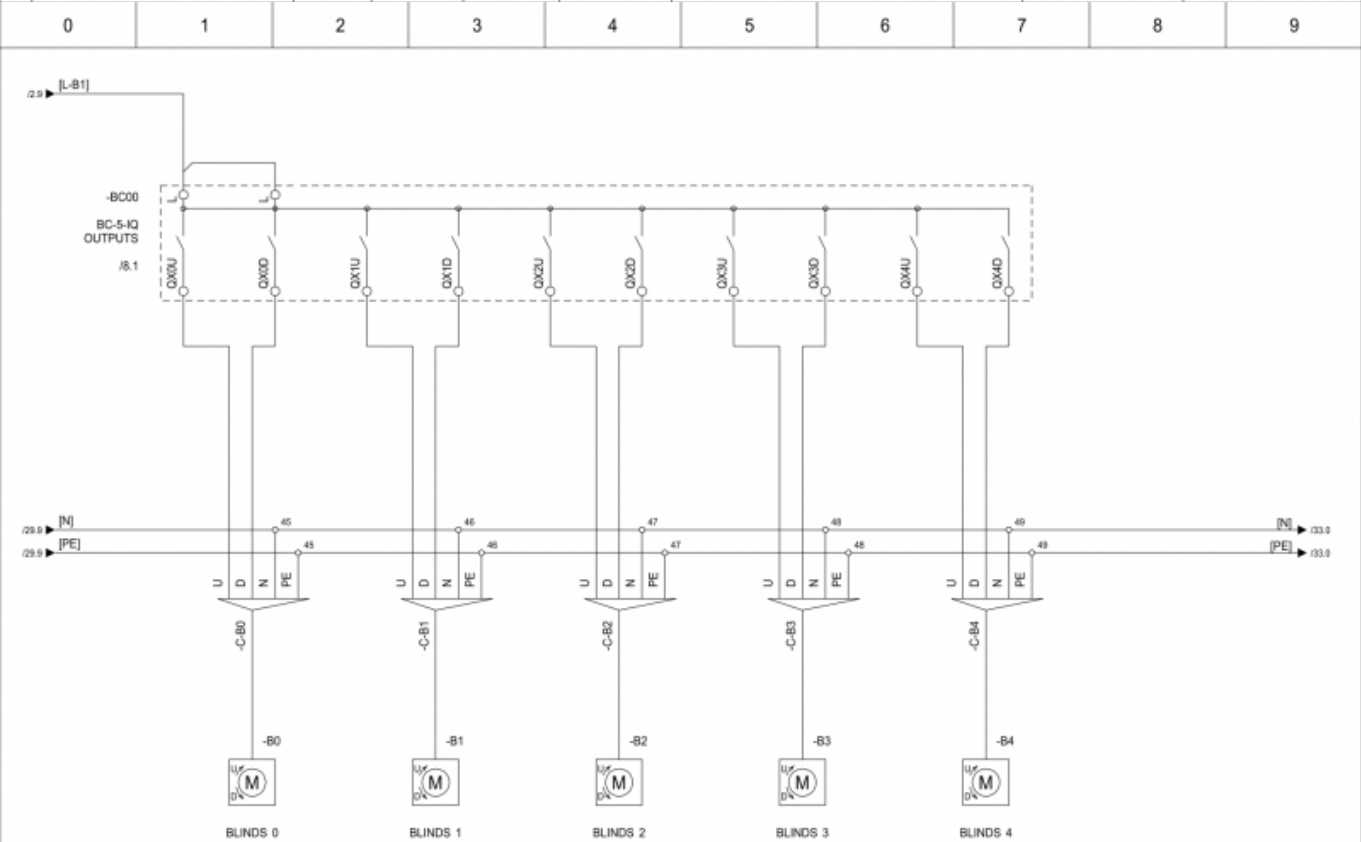


Page 30-33 - Blinds controllers

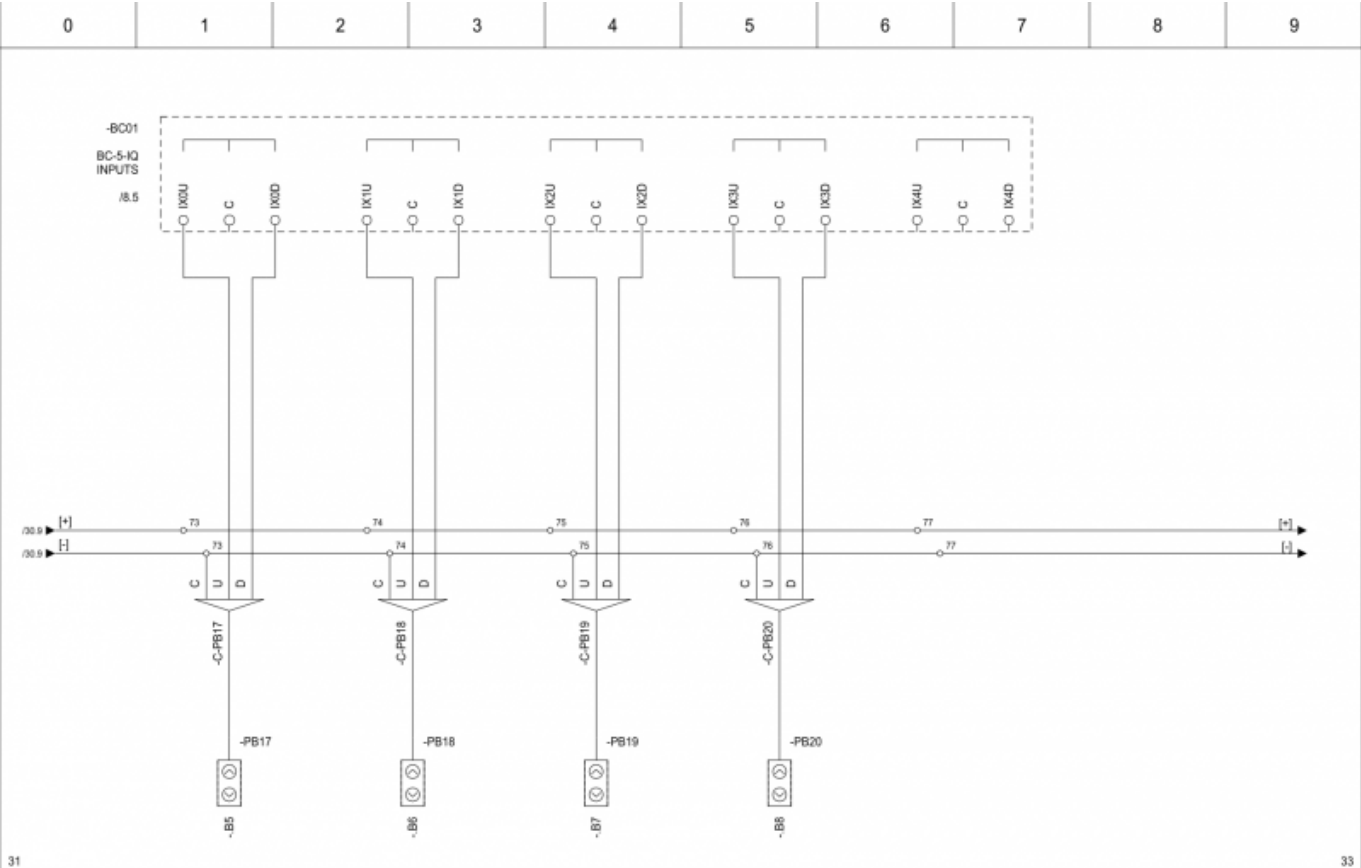
On our sample plan we have 2 Blinds controllers (BC) with 9 blinds and 9 double-push buttons.



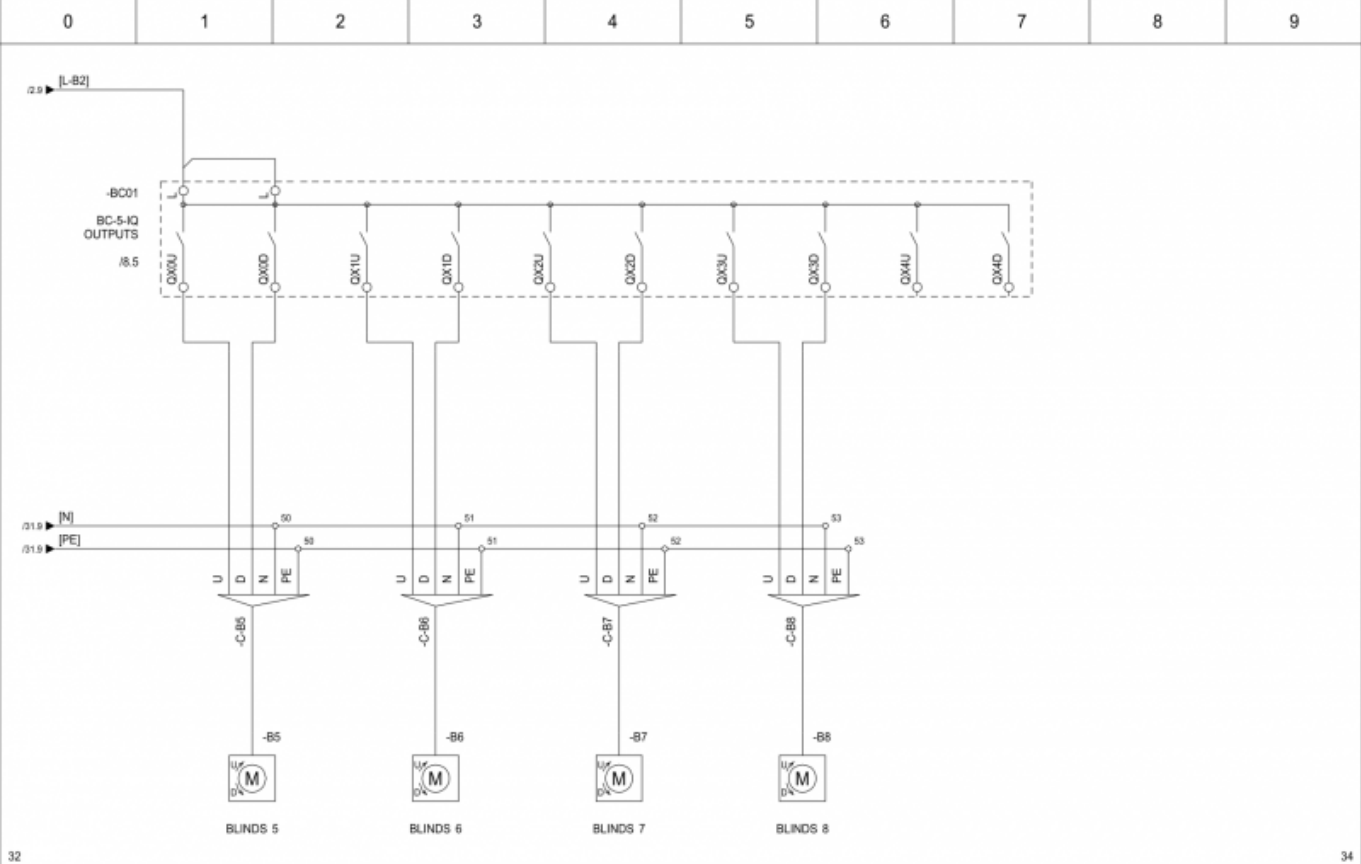
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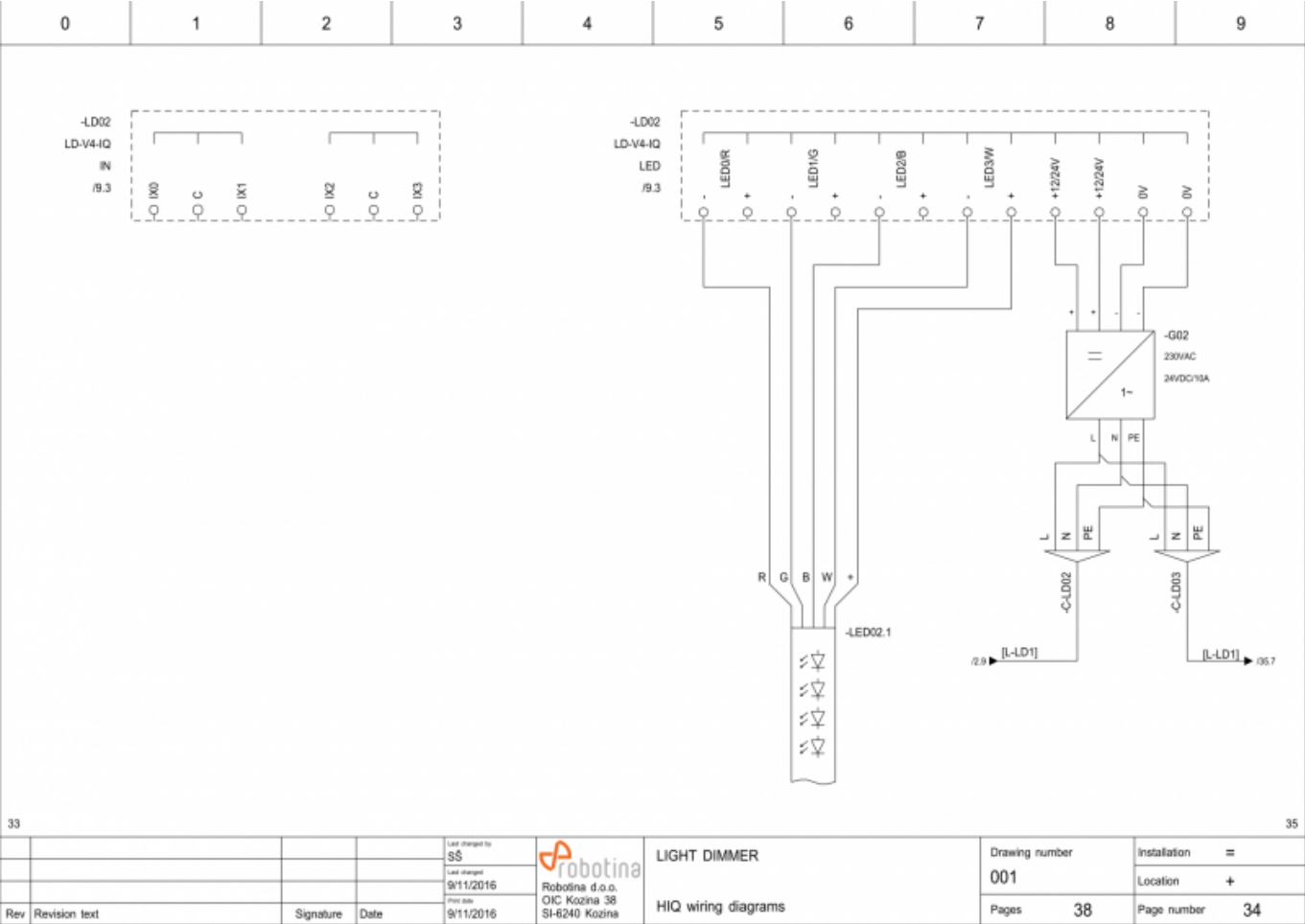
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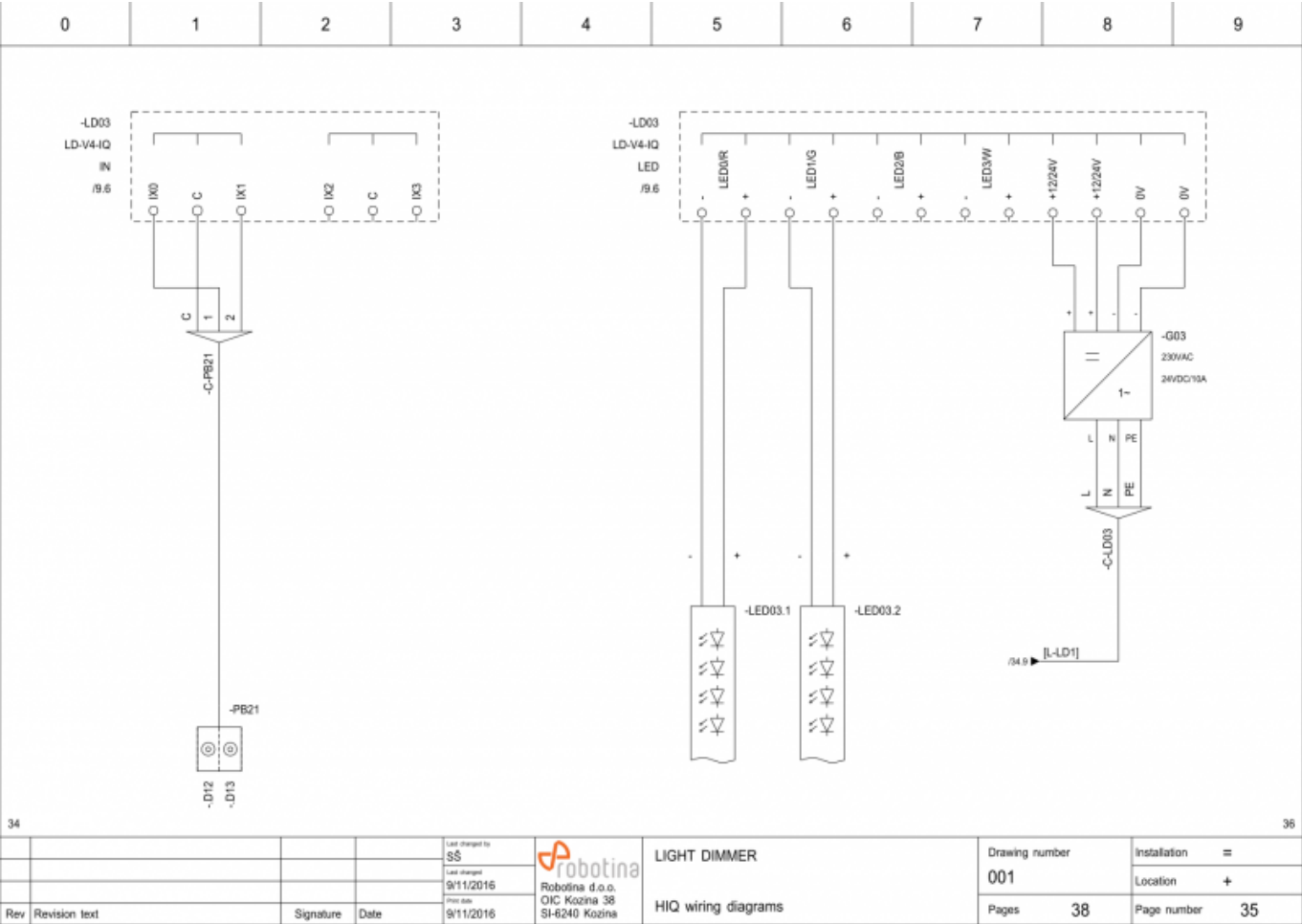
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Page 34-35 - LED stripe dimmer

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.



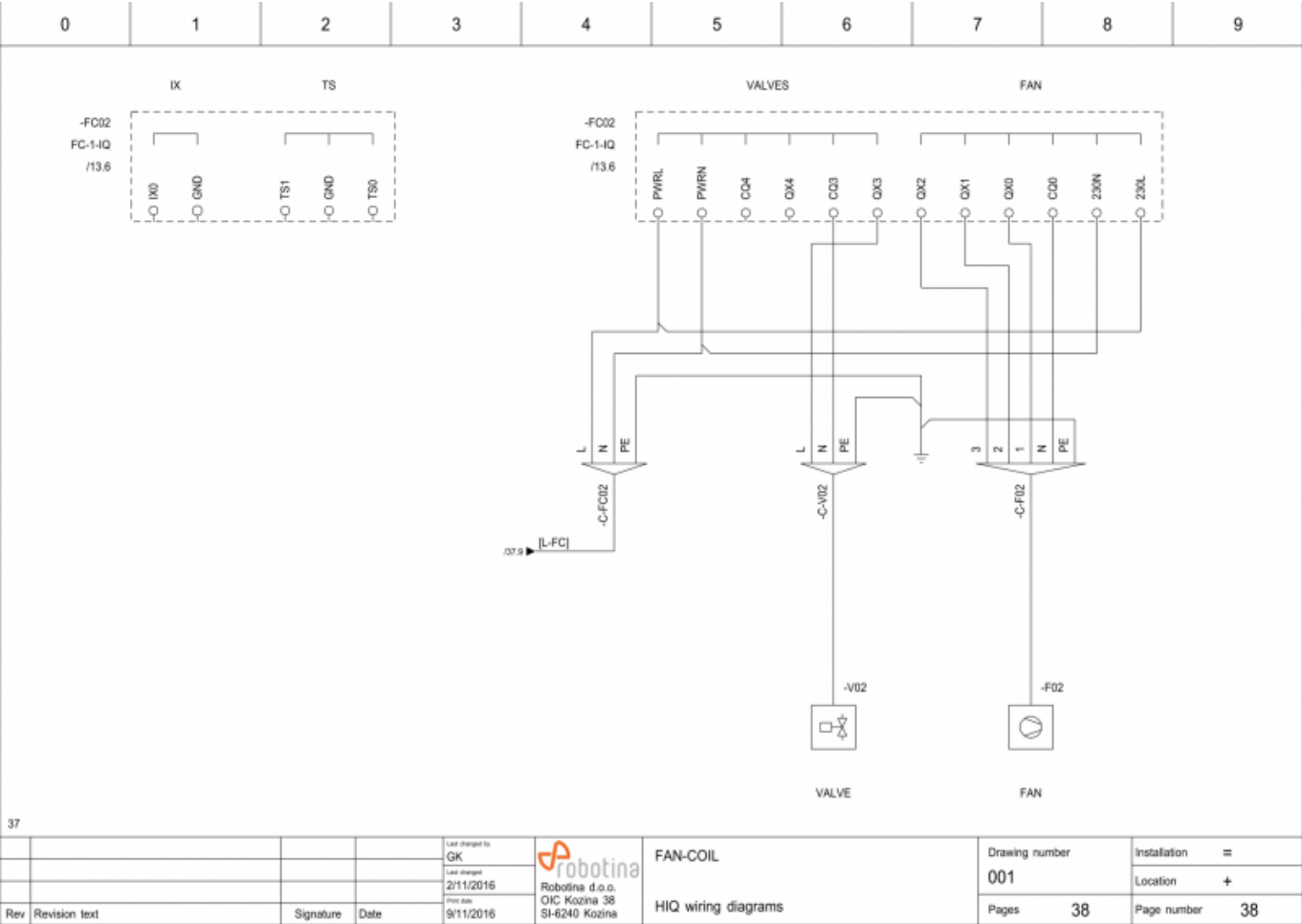




Page 36-38 - Fan-coil

Fan-coil connection.

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