



ECL Comfort 310 Electronic Controller



# Danfoss ECL Comfort 310 Electronic Controller Installation Guide

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**Danfoss ECL Comfort 310 Electronic Controller**



## Specifications

- Product: ECL Comfort 310
- Model: P314
- Manufacturer: Danfoss
- Input: 24 V a.c.
- Control Interface: 3-point and 0-10 V

## Installation

1. Follow the provided installation guide for proper setup.
2. Ensure the device is connected to a 24 V a.c. Power source.

## Configuration

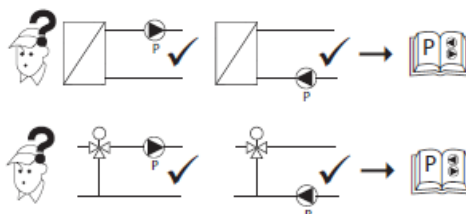
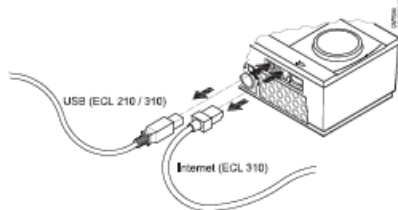
1. Use the control interface to set up the desired control parameters.
2. Adjust settings such as M1, M2, and M3 based on your requirements.

## Operation

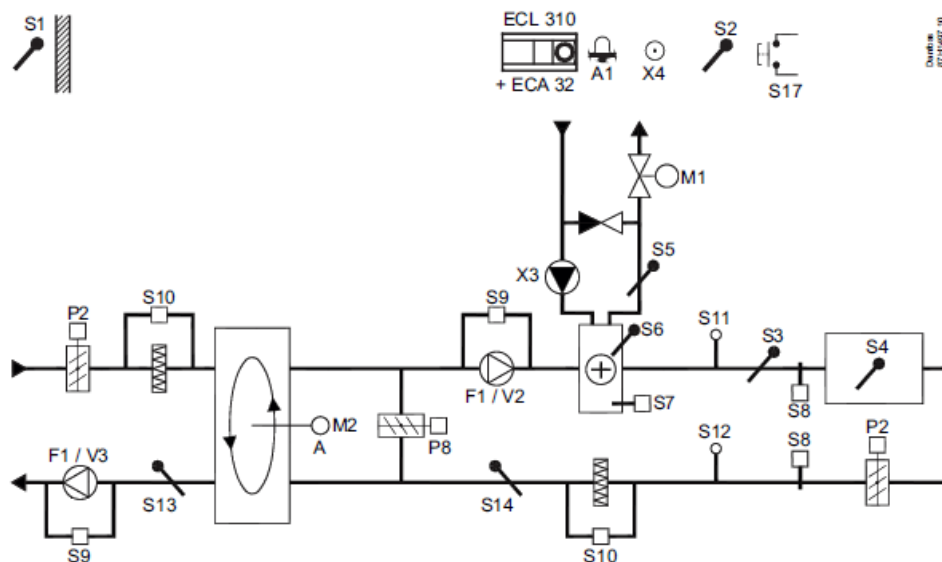
1. Power on the device using the designated power switch.
2. Monitor the display for any alerts or notifications.

## Installation Guide

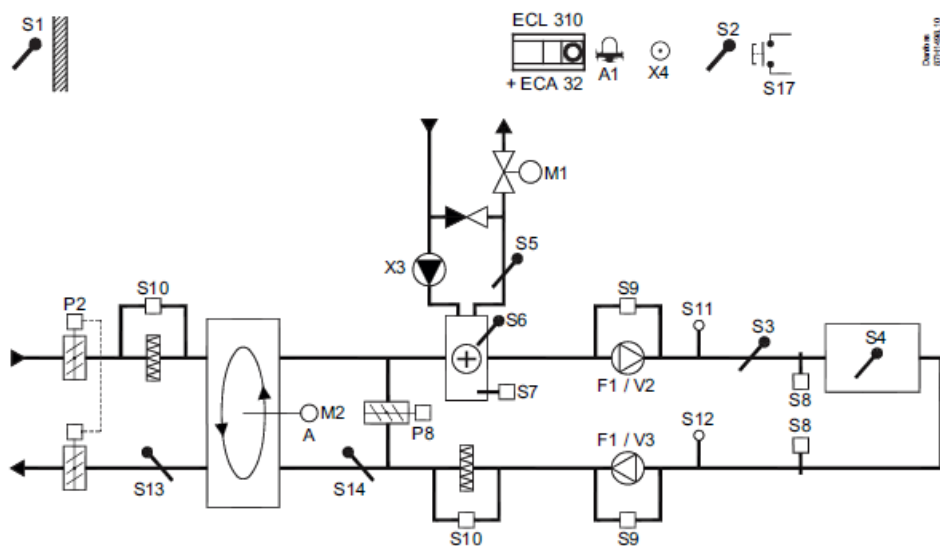
ECL Comfort 310, P314 (code no. 087H3841)



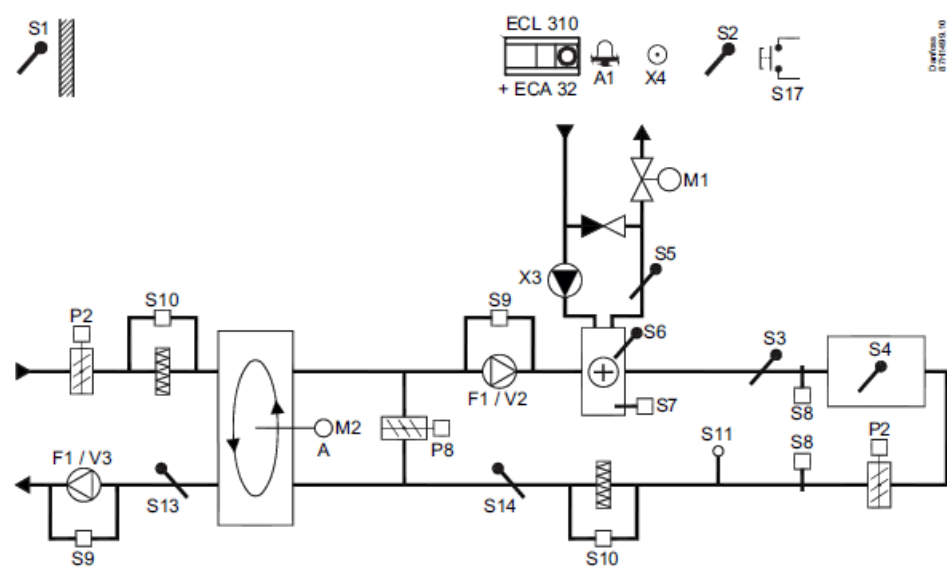
P314.4, ex. a:



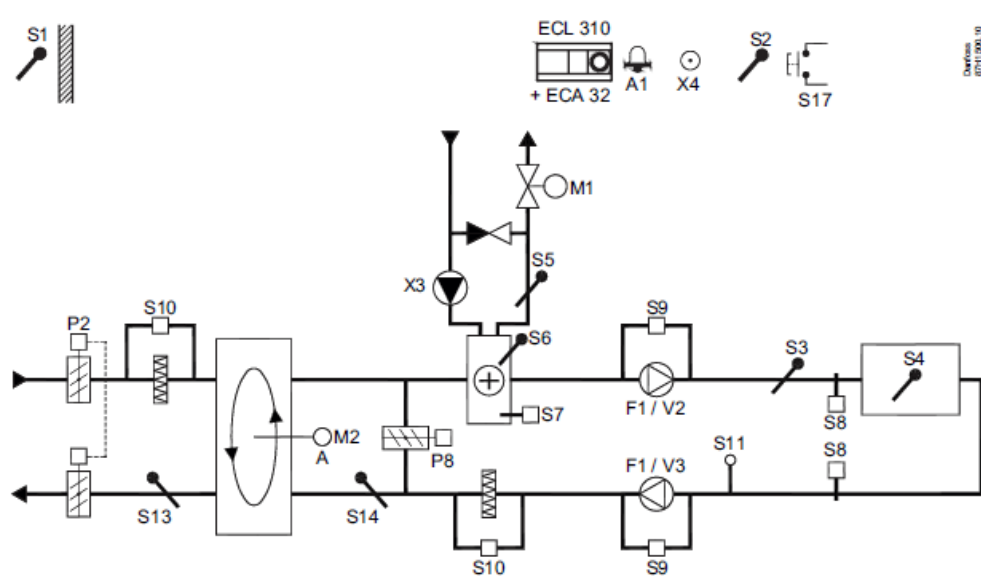
P314.4, ex. b:



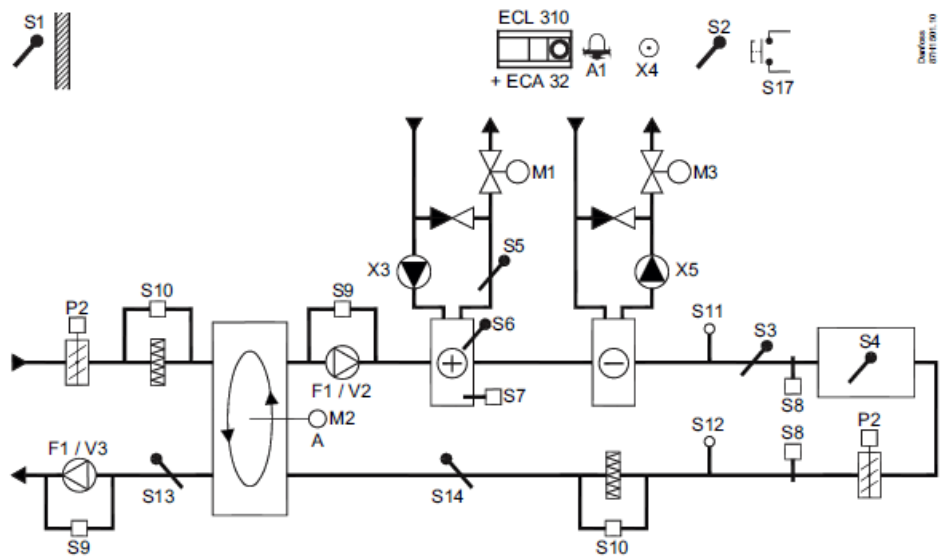
P314.5, ex. a:



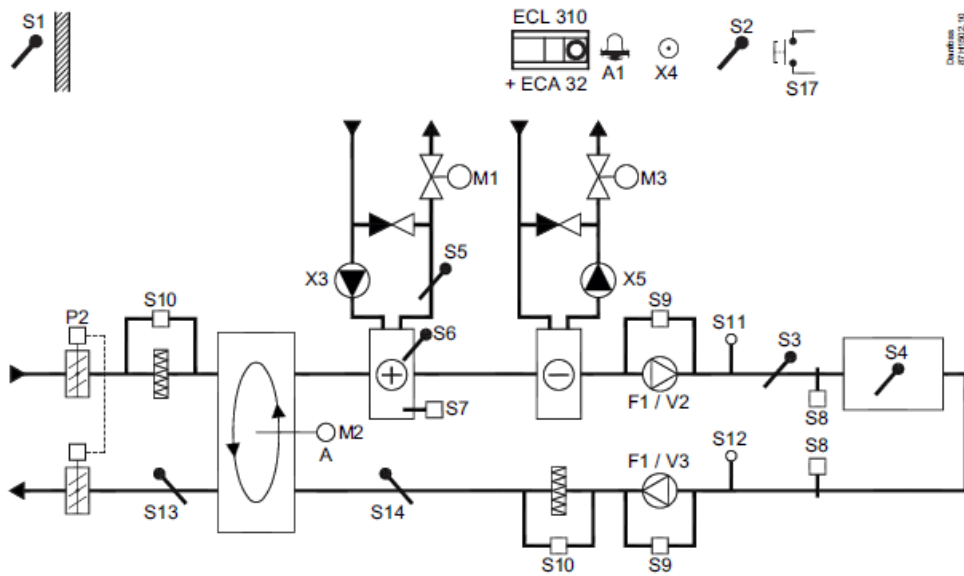
P314.5, ex. b:



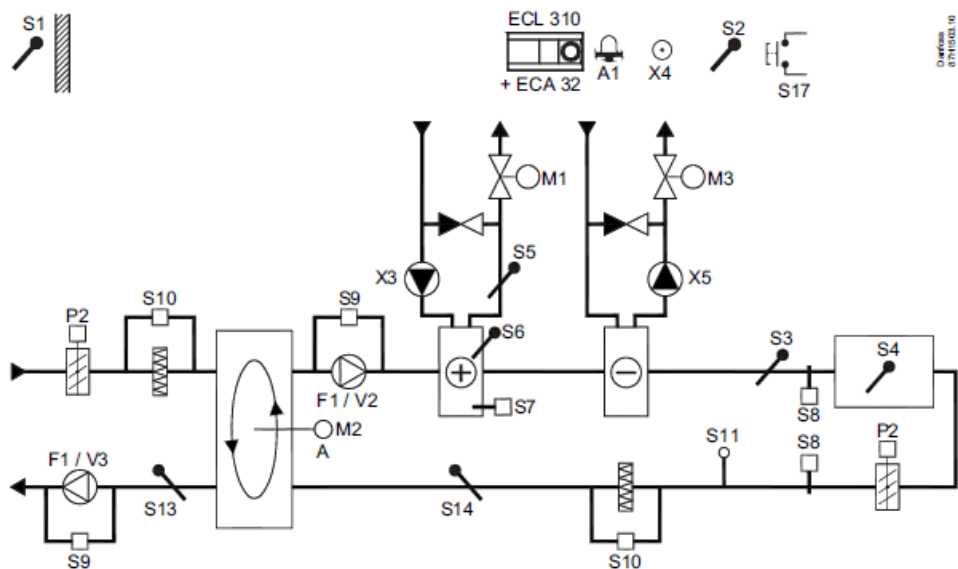
P314.6, ex. a:



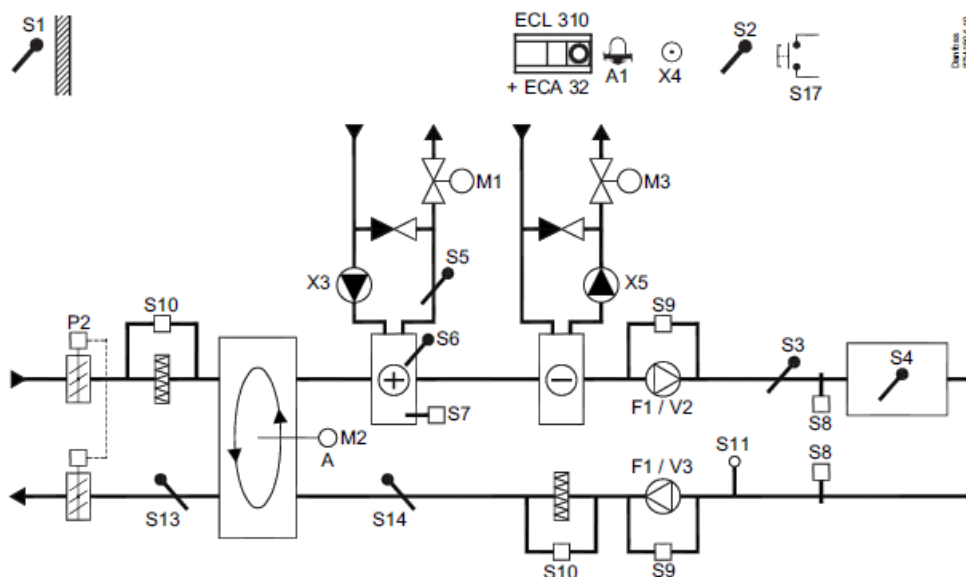
P314.6, ex. b:



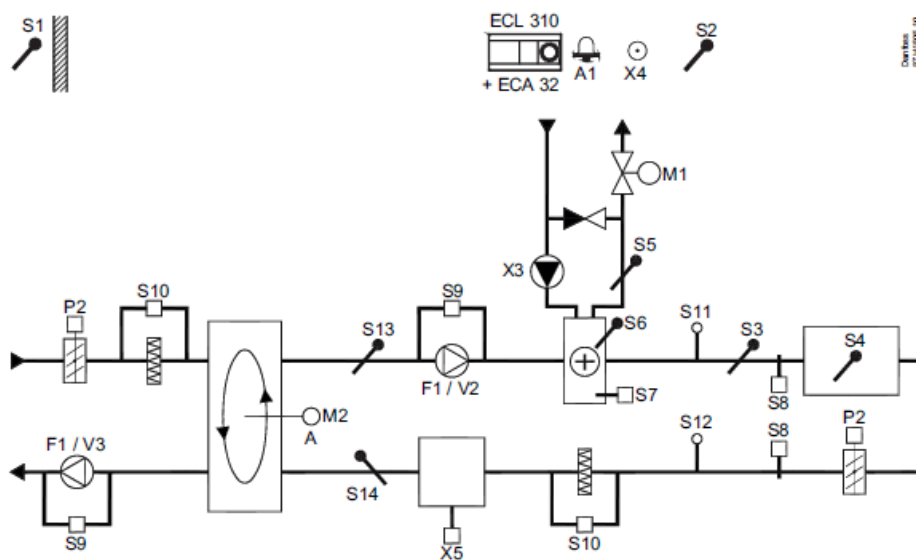
P314.7, ex. a:



P314.7, ex. b:

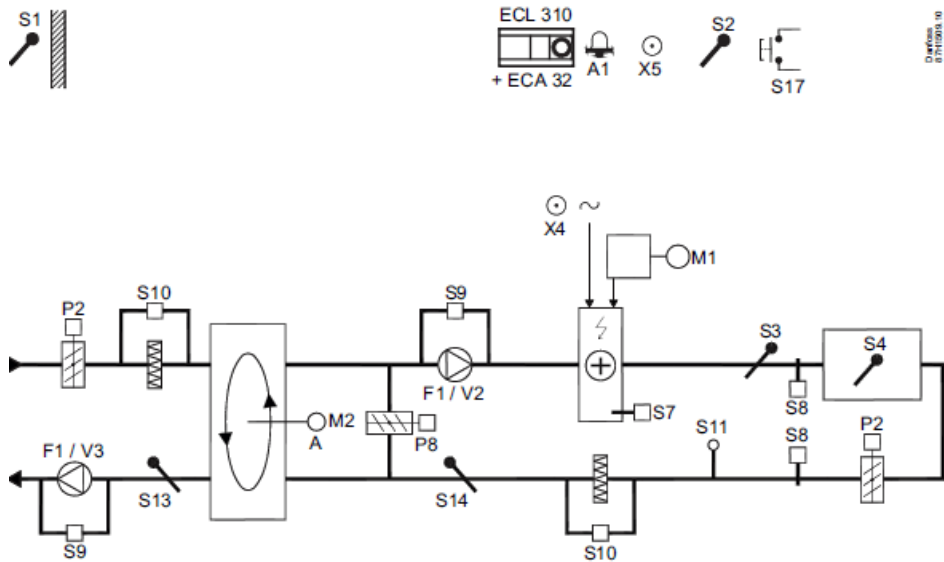


P314.8, ex. a:

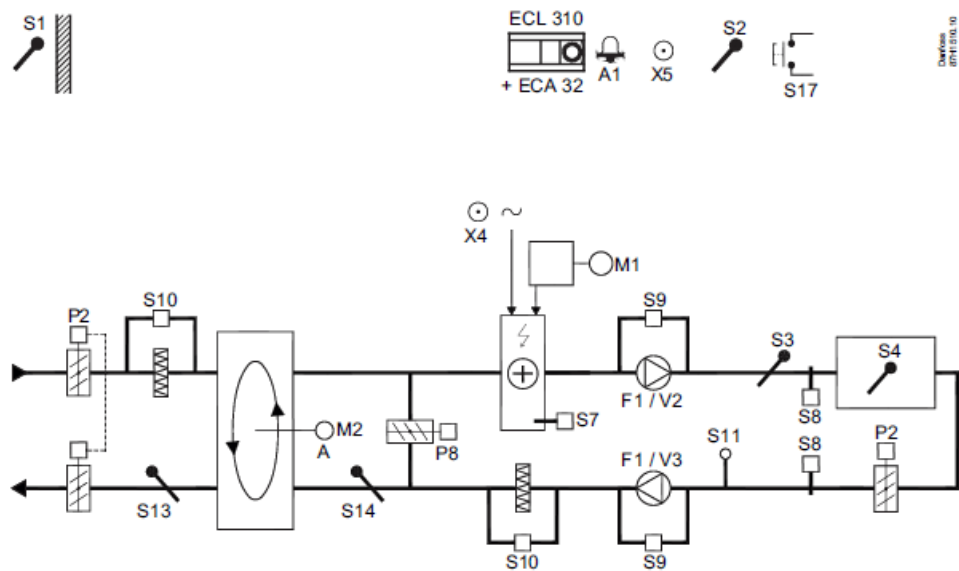


P314.8, ex. b:





P314.11, ex. b:



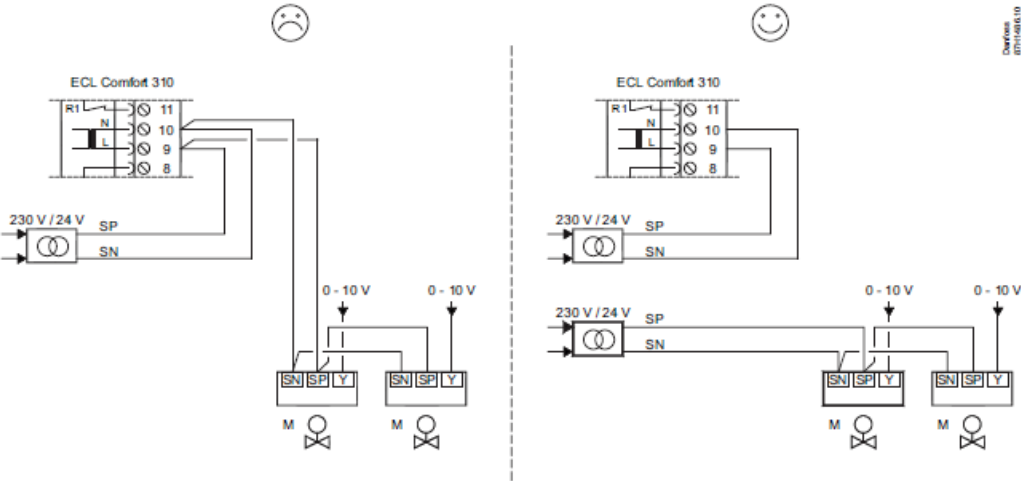
ECL 310, 24 V a.c.:

|         | 3-point: |    |    |  | 0 - 10 V:<br>(ECA 32) |    |
|---------|----------|----|----|--|-----------------------|----|
|         | M1       | M2 | M3 |  | M1                    | M2 |
| P314.4  | ✓        |    |    |  |                       | ✓  |
| P314.5  | ✓        |    |    |  |                       | ✓  |
| P314.6  | ✓        |    | ✓  |  |                       | ✓  |
| P314.7  | ✓        |    | ✓  |  |                       | ✓  |
| P314.8  | ✓        |    |    |  |                       | ✓  |
|         |          |    |    |  |                       |    |
| P314.10 | ✓        |    |    |  |                       | ✓  |
| P314.11 | ✓        |    |    |  |                       | ✓  |

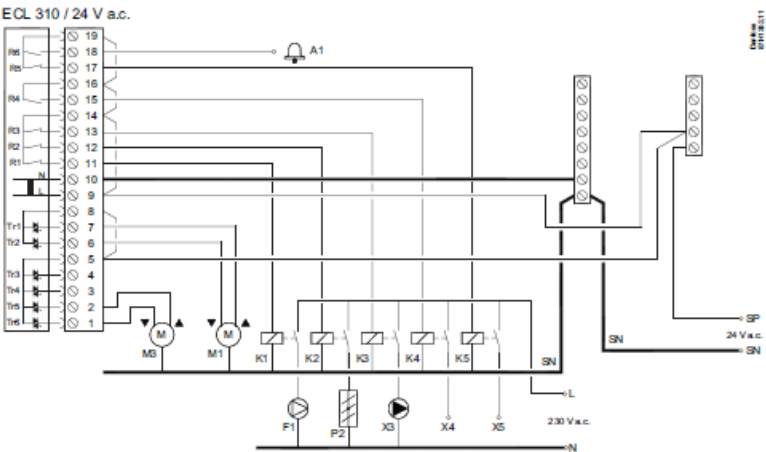
ECL 310, 24 V a.c.:

|         | ECL Comfort 310 |    |    |    |    |  | ECA 32 |    |
|---------|-----------------|----|----|----|----|--|--------|----|
|         | F1              | P2 | X3 | X4 | X5 |  | P7     | P8 |
| P314.4  | ✓               | ✓  | ✓  | ✓  |    |  | ✓      | ✓  |
| P314.5  | ✓               | ✓  | ✓  | ✓  |    |  | ✓      | ✓  |
| P314.6  | ✓               | ✓  | ✓  | ✓  | ✓  |  | ✓      |    |
| P314.7  | ✓               | ✓  | ✓  | ✓  | ✓  |  | ✓      |    |
| P314.8  | ✓               | ✓  | ✓  | ✓  | ✓  |  | ✓      |    |
|         |                 |    |    |    |    |  |        |    |
| P314.10 | ✓               | ✓  |    | ✓  | ✓  |  | ✓      | ✓  |
| P314.11 | ✓               | ✓  |    | ✓  | ✓  |  | ✓      | ✓  |

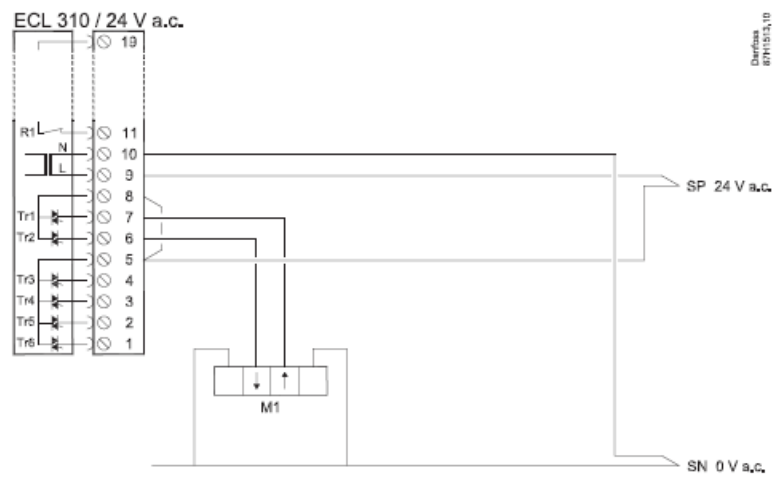
24 V a.c., P314:



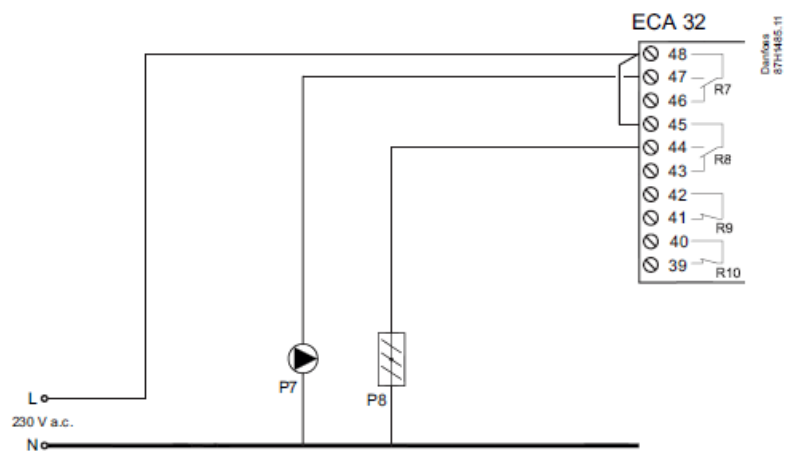
24 V a.c., P314



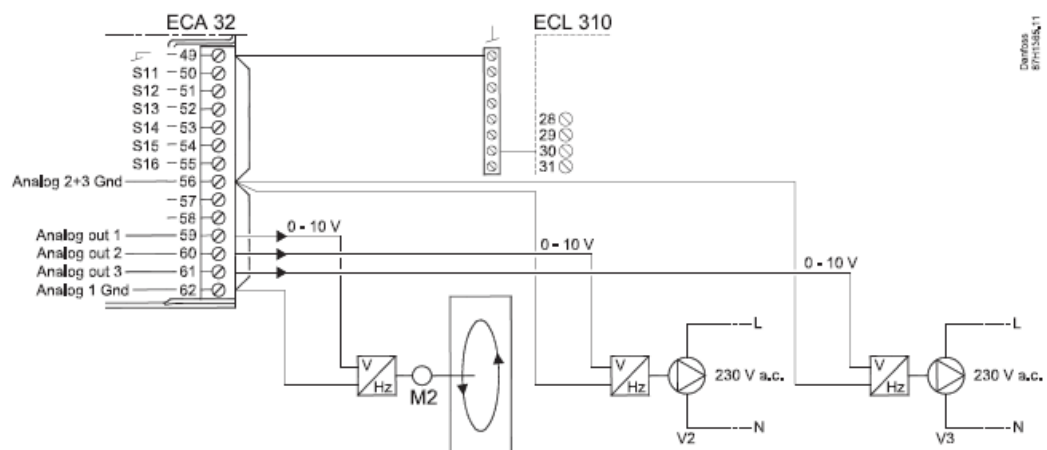
24 V a.c., P314



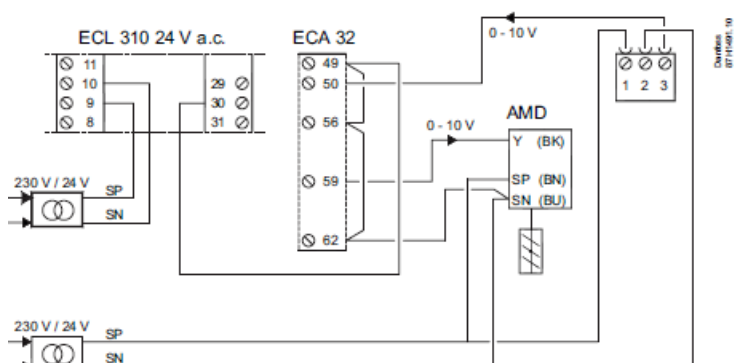
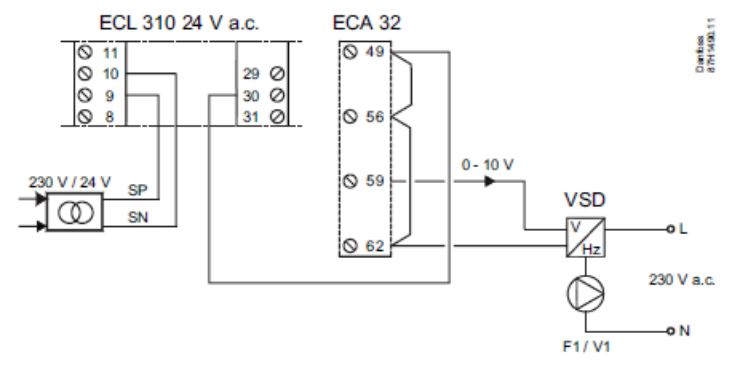
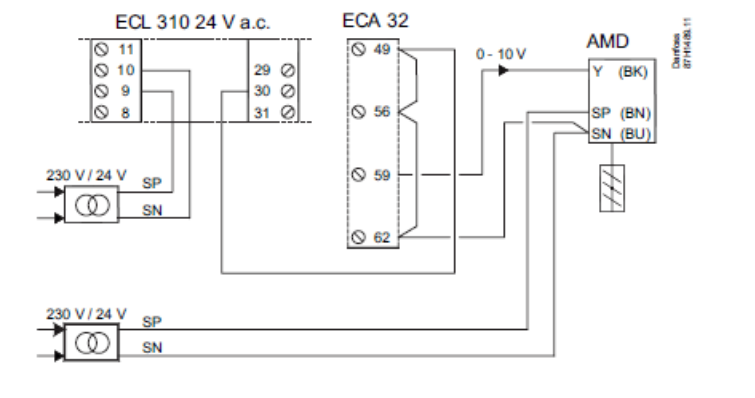
ECA 32



ECA 32

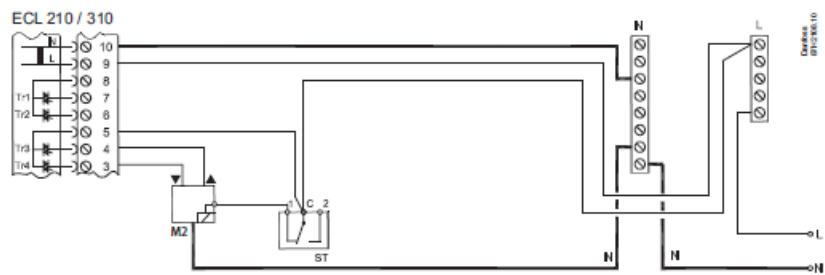
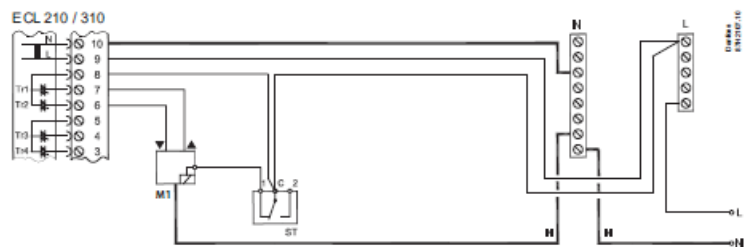
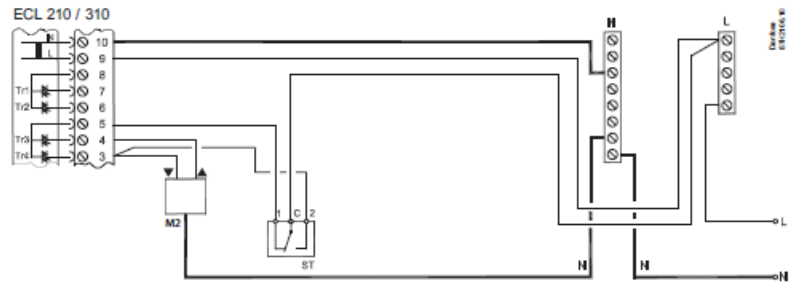
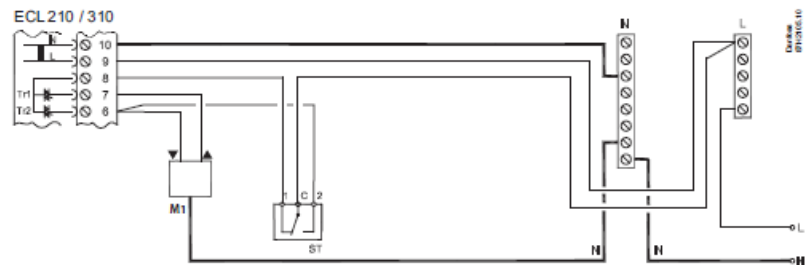


Example:

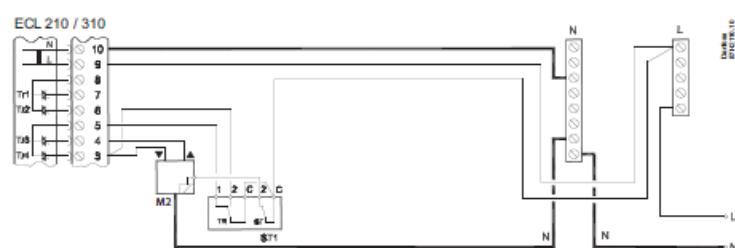
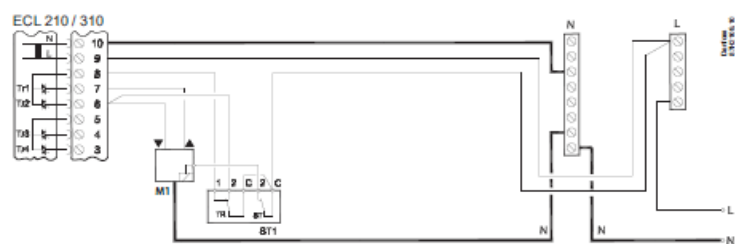


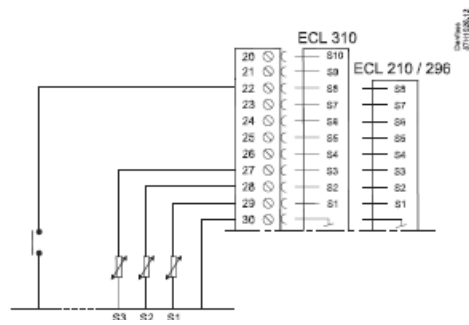
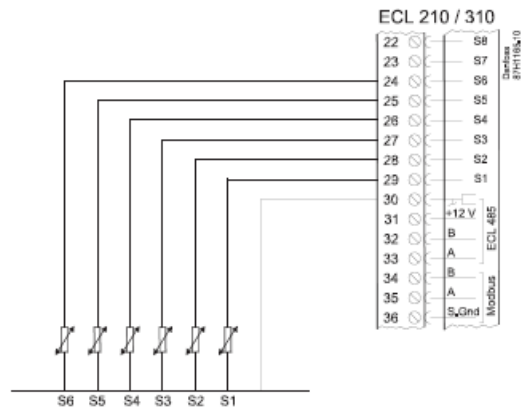
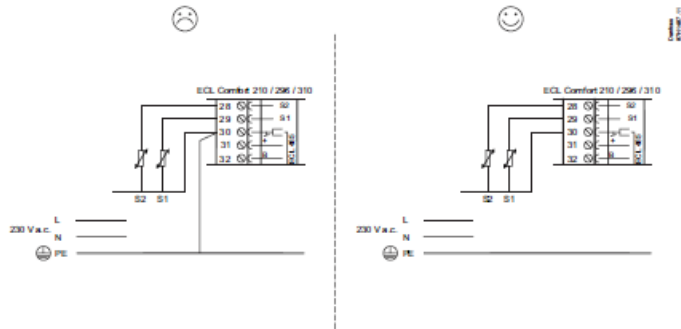
24 V a.c. , safety thermostat

1-step closing

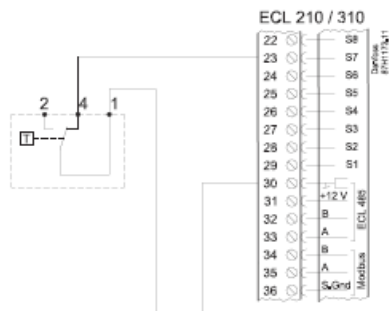


## 2-step closing

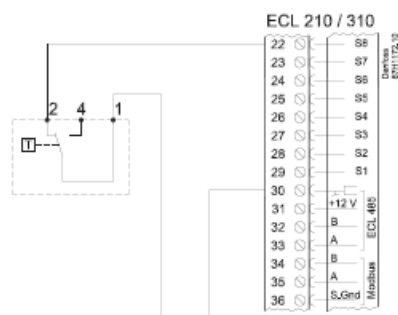


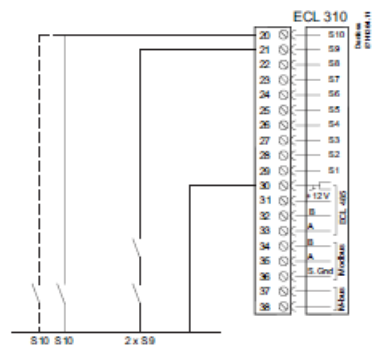


S7

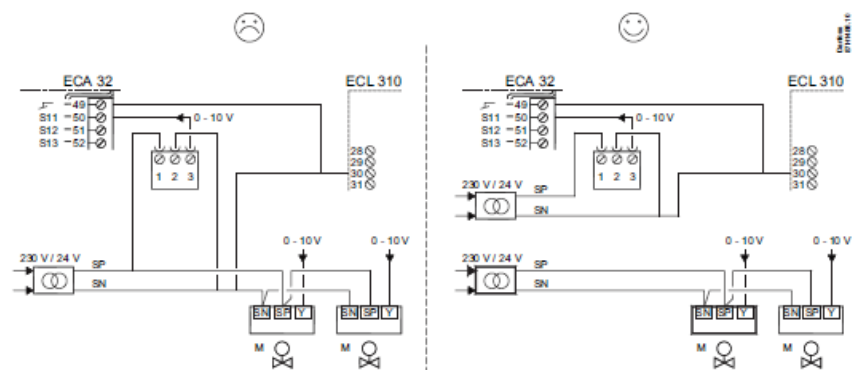


S8

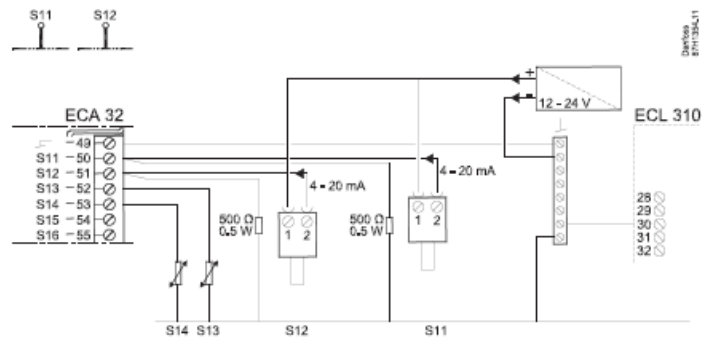
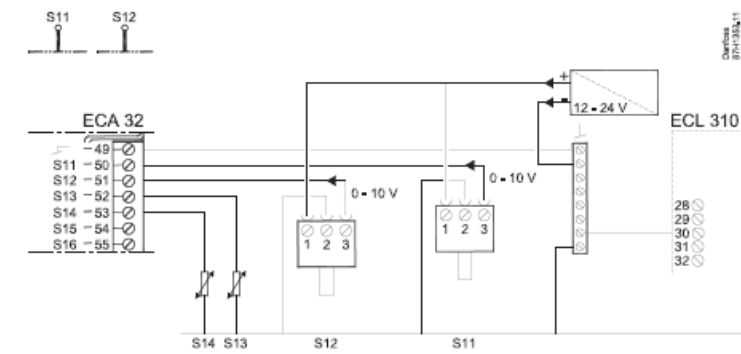


**ECA 32**

|         | S11 | S12 | S13 | S14 | S15 | S16 | S17 |
|---------|-----|-----|-----|-----|-----|-----|-----|
| P314.4  | ✓   | ✓   | ✓   | ✓   |     |     | ✓   |
| P314.5  | ✓   |     | ✓   | ✓   |     |     | ✓   |
| P314.6  | ✓   | ✓   | ✓   | ✓   |     |     | ✓   |
| P314.7  | ✓   |     | ✓   | ✓   |     |     | ✓   |
| P314.8  | ✓   | ✓   | ✓   | ✓   |     |     |     |
|         |     |     |     |     |     |     |     |
| P314.10 | ✓   | ✓   | ✓   | ✓   | ✓   |     | ✓   |
| P314.11 | ✓   |     | ✓   | ✓   | ✓   |     | ✓   |

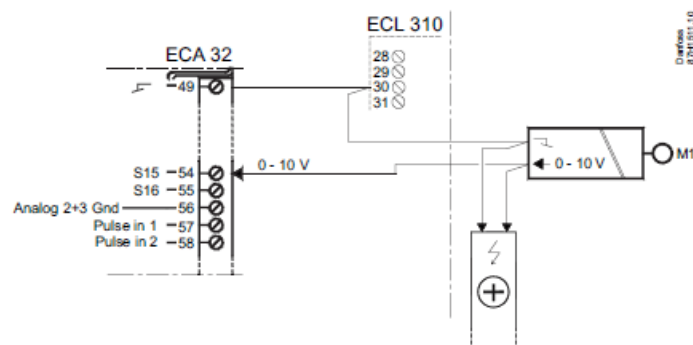


**ECA 32**



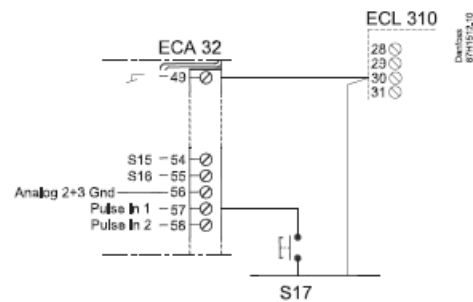
ECA 32, P314.10, P314.11

S15



ECA 32, P314.4, P314.5, P314.6, P314.7, P314.10, P314.11

S17



ECA 30 / 31



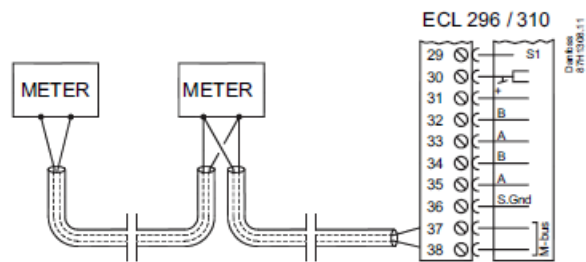
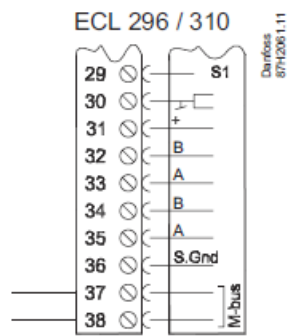
## Master/slave



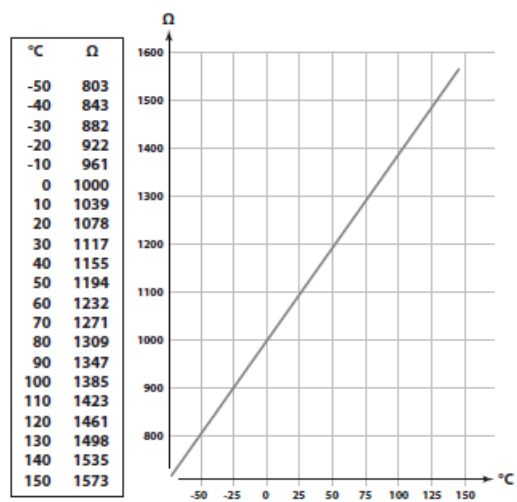
## Modbus



## M-bus

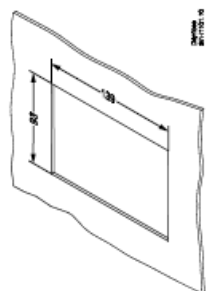


Pt 1000 (IEC 751B, 1000  $\Omega$  / 0 °C

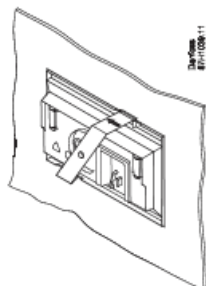


ECA 30

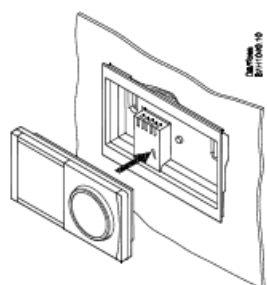
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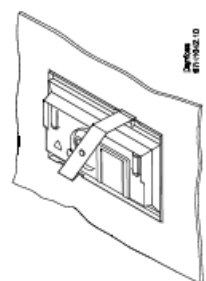
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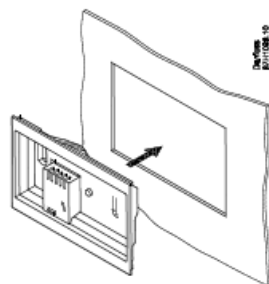
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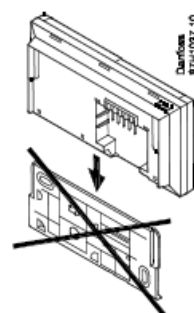
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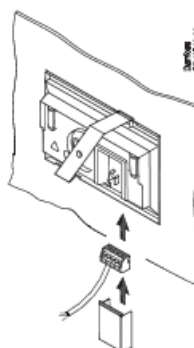
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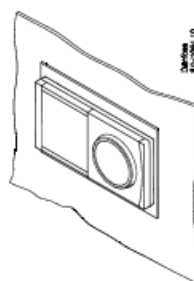
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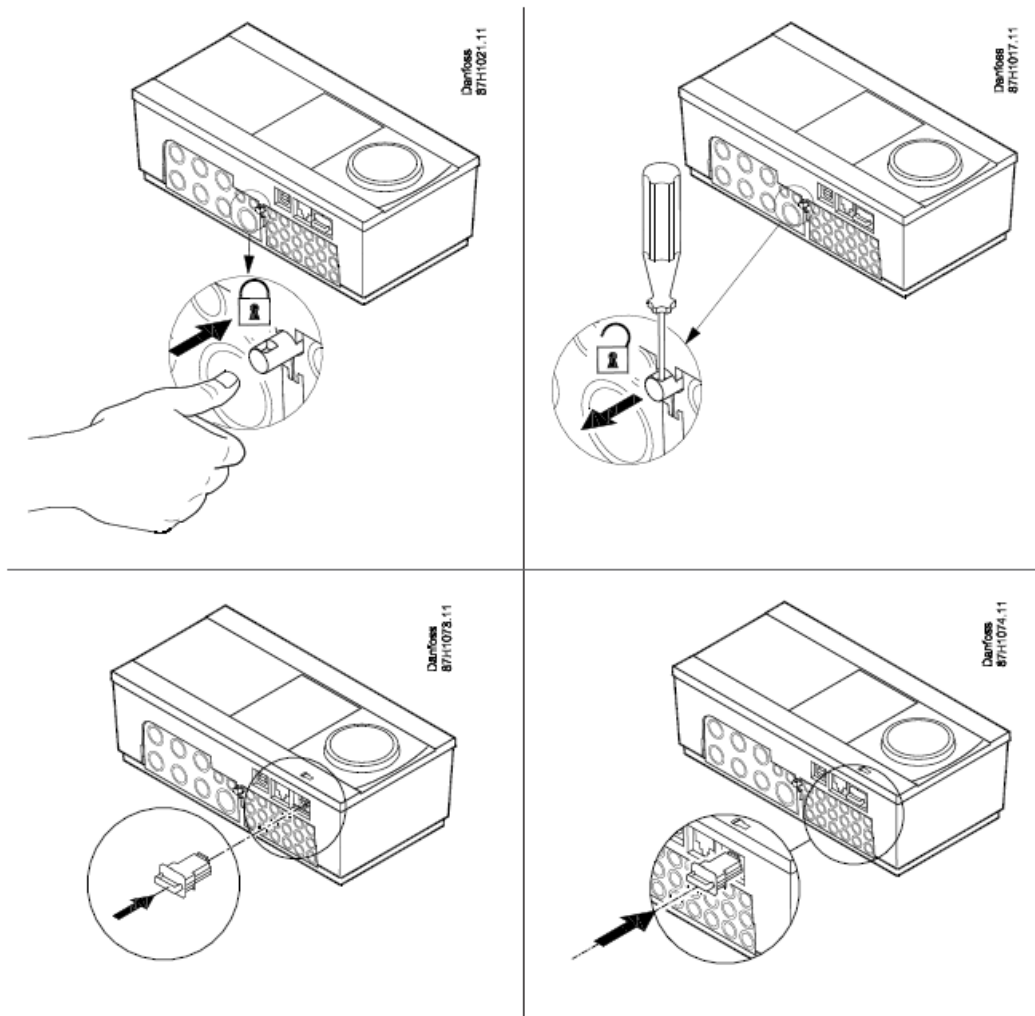


6



8





- ECL Comfort 310, P314: [www.heating.danfoss.com](http://www.heating.danfoss.com)
- <https://www.youtube.com/user/DanfossHeating>
- -> Playlists -> How-to Videos -> District Energy installation videos

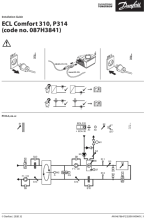
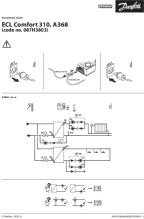
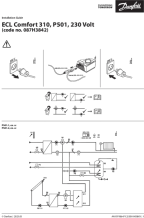
## Danfoss A/S

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FAQs

- **Q: What is the input voltage for the ECL Comfort 310?**  
A: The input voltage for the ECL Comfort 310 is 24 V a.c.
- **Q: How do I configure the control interface?**  
A: Use the provided guidelines to adjust settings such as M1, M2, and M3 for optimal performance.
- **Q: What should I do if I encounter an error code on the display?**  
A: Refer to the user manual for error code explanations and troubleshooting steps.

Documents / Resources

|                                                                                     |                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <a href="#">Danfoss ECL Comfort 310 Electronic Controller</a> [pdf] Installation Guide<br>ECL Comfort 310, ECL Comfort 310 Electronic Controller, Electronic Controller, Controller |
|   | <a href="#">Danfoss ECL Comfort 310 Electronic Controller</a> [pdf] Installation Guide<br>ECL Comfort 310, ECL Comfort 310 Electronic Controller, Electronic Controller, Controller |
|  | <a href="#">Danfoss ECL Comfort 310 Electronic Controller</a> [pdf] Installation Guide<br>ECL Comfort 310, ECL Comfort 310 Electronic Controller, Electronic Controller, Controller |

References

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- [User Manual](#)

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