

Data sheet

ECA 35

Input / output extension module for ECL Comfort 310 / 310B

Designed in Denmark

Description

ECA 35



The ECA 35 module extends the ECL Comfort 310/ 310B with a number of inputs and outputs.

ECA 35 is to be placed in the base part for ECL Comfort 310 / 310B.

ECA 35 is used in ECL Comfort 310 related applications where the demand for extra inputs / outputs is present.

The connection between the ECL Comfort 310 / 310B and ECA 35 is a 10-pole (2 x 5) connector.

ECA 35 offers:

A similar module, ECA 32, exists. The ECL Comfort 310 / 310B works with either one ECA 32 or one ECA 35.

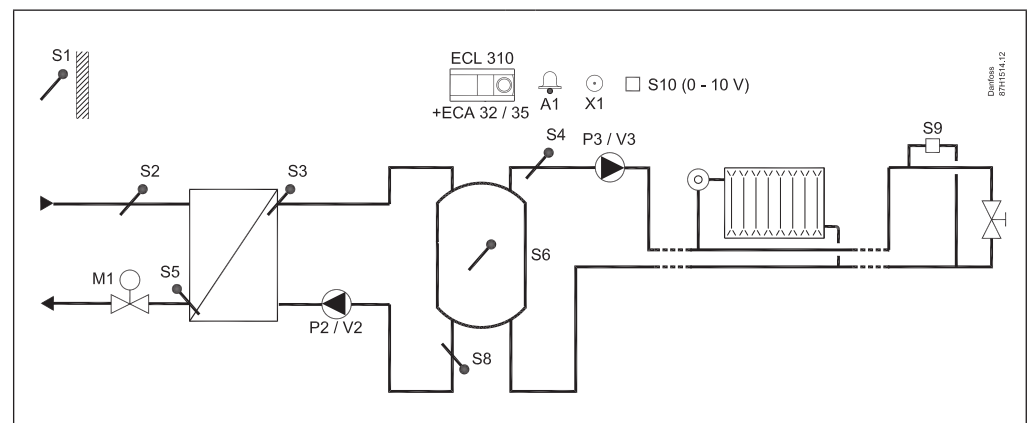
- 4 outputs, PWM*
- 3 outputs, 0 - 10 Volt
- 4 relay outputs
- 2 inputs (Pt 1000, digital or 0 - 10 Volt)
- 2 pulse inputs

The connection is automatically established when the ECL Comfort 310 / 310B is placed on the base part.

* PWM = Pulse Width Modulation

The PWM control principle can be used for speed control of for example circulation pumps.

Application example



The example shows an advanced buffer control for heating: A319.

The charging pump P2 / V2 and the circulation pump P3 / V3 can be speed controlled in two different ways: With 0 - 10 Volt (ECA 32 or ECA 35) or PWM controlled (ECA 35).

The shown diagram is a fundamental example and does not contain all components that are necessary in a system.

All named components are connected to the ECL Comfort 310 and ECA 32 / 35.

ECA 35 input / output extension module for ECL Comfort 310 / 310B

Ordering

Type	Designation	Code no.
ECA 35	Internal module for ECL Comfort 310 / 310B. Mounting guide (no text) is included	087H3205
Base part for ECL Comfort 310 / 310B (space for ECA 35)	For mounting on wall or DIN rail (35 mm). Mounting guide (no text) and cable inlet accessories are included.	087H3230

Operation

ECA 35 is controlled from ECL Comfort 310 / 310B.

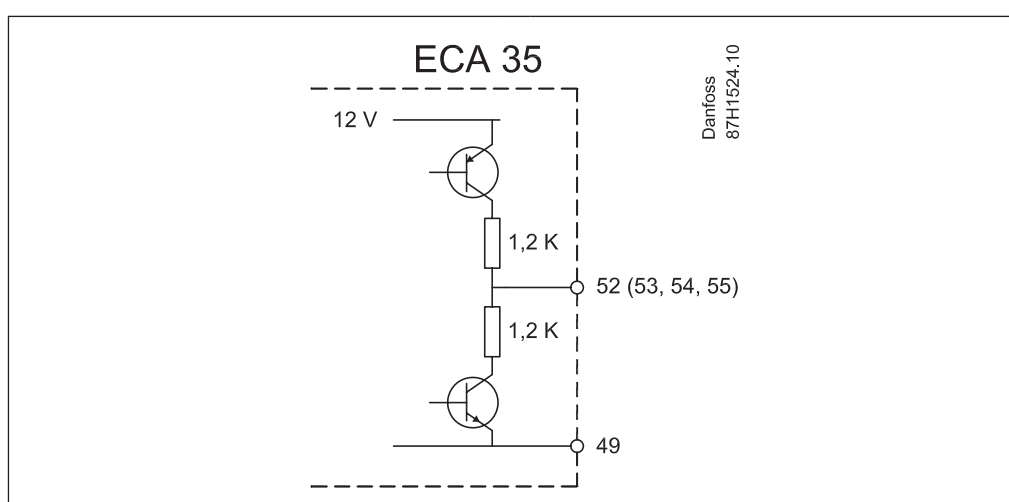
Communication

ECA 35 has a 10-pole female connector which automatically connects to the ECL Comfort 310 / 310B.

General data

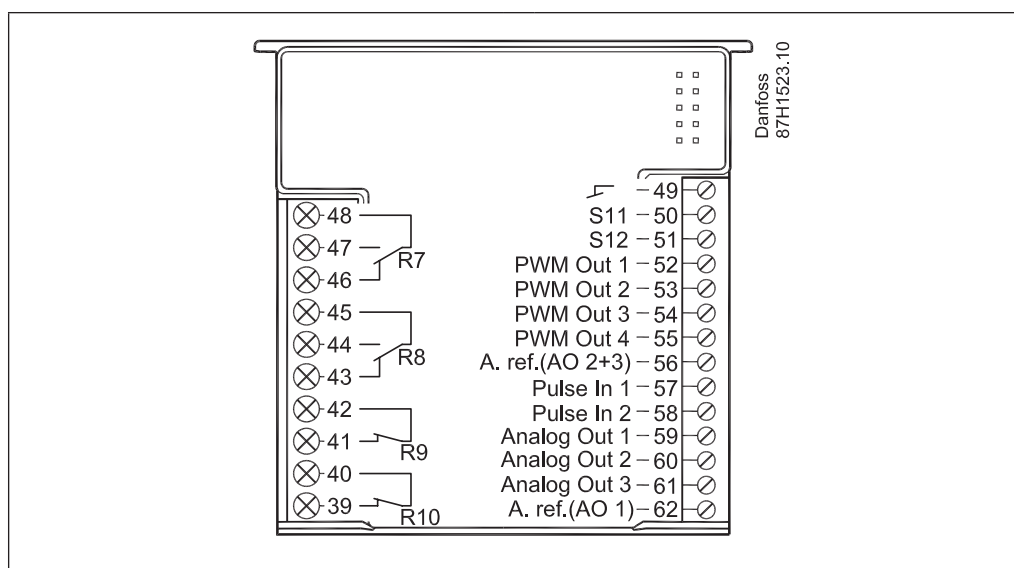
Ambient temperature	0 - 55 °C
Storage and transportation temperature	-40 - 70 °C
Mounting	In ECL Comfort 310's base part
Power supply	From ECL Comfort 310 / 310B via 10-pole female connector
Number of configurable inputs	2 (S11 and S12)
Configurable input types	Each input is configured at application upload as Pt 1000, 0-10 V or digital input. If an input is not configured at application upload, the default setting is "Pt 1000". Configuration can also be done by using the ECL Portal or ECL Tool.
Number of PWM outputs	4 (PWM Out 1 - 4)
PWM output frequency	200 Hz
PWM output	Push-pull, pull-up to 12 Volt. See PWM output, principle sketch
PWM range	0 - 100 %
Max. load on each PWM output	10 mA
Number of relays	2 x SPST 2 x SPDT
Max. load on relay outputs	4 (2) A (4 A for ohmic load, 2 A for inductive load)
Number of pulse counter inputs	2
Max. frequency of pulse counter input	200 Hz
Number of analogue outputs (0 -10 V)	3
Max. load on analogue output	2 mA each (min. resistance 5 KΩ)
Compatibility with ECL Comfort 310 / 310B	From version 1.20 and up
PWM cable length	Up to 3 m and according to specification of pump and cable

PWM output, principle sketch

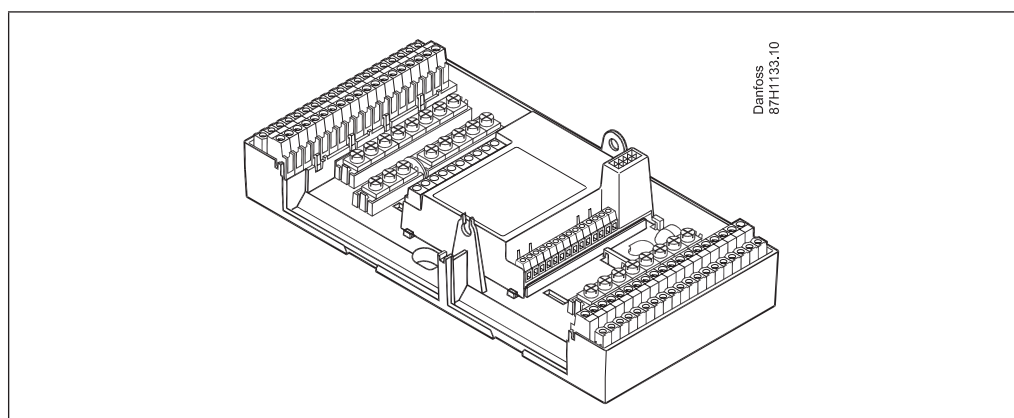


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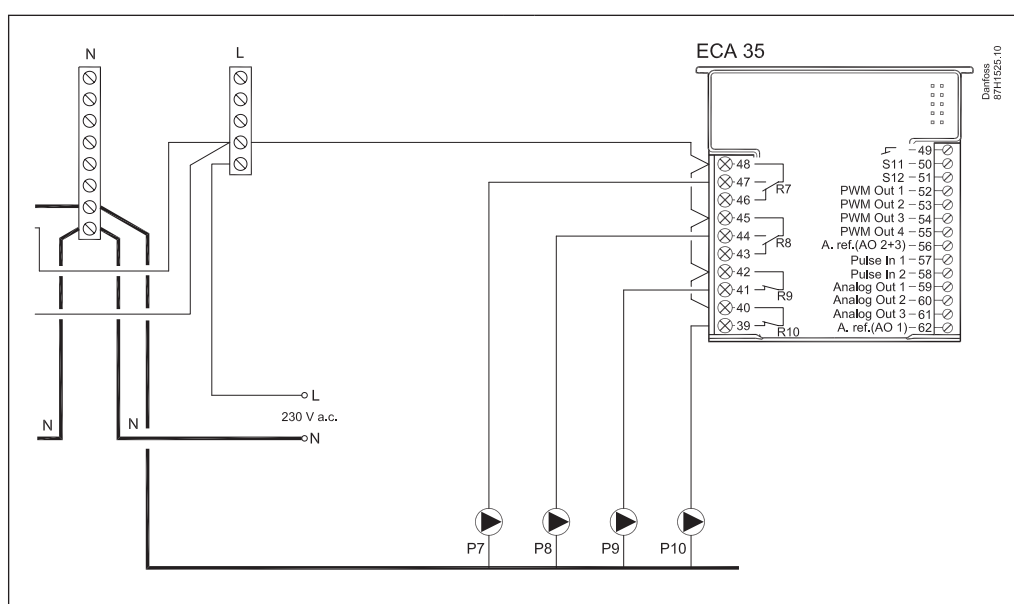
Connection terminals



Position in base part

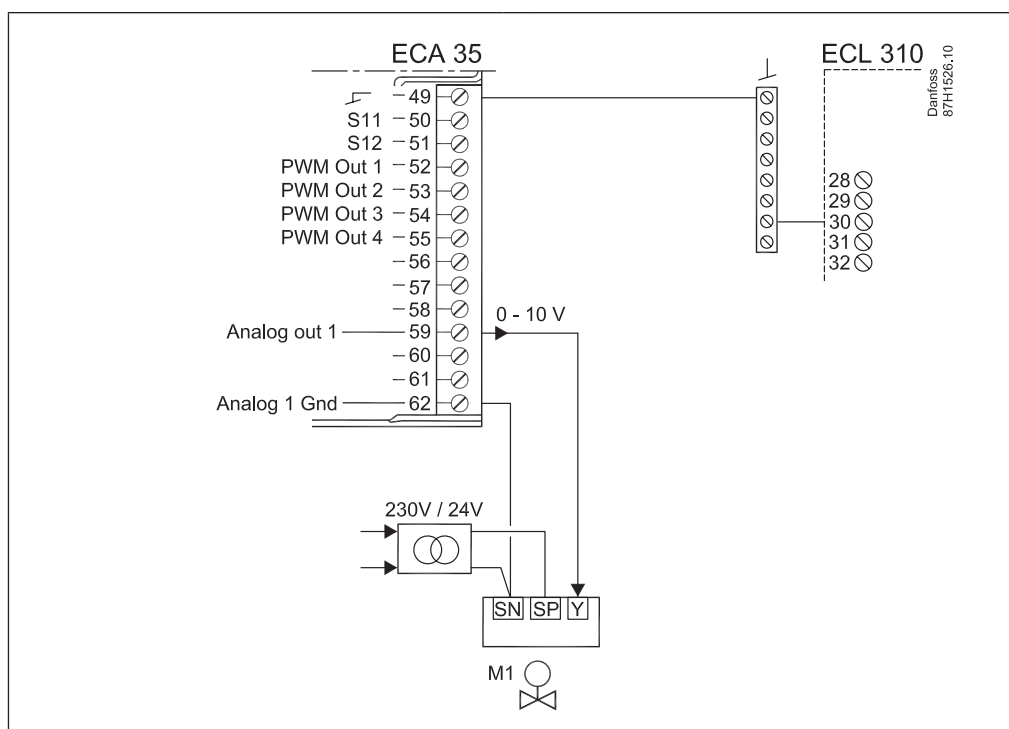


Wiring example, relay outputs

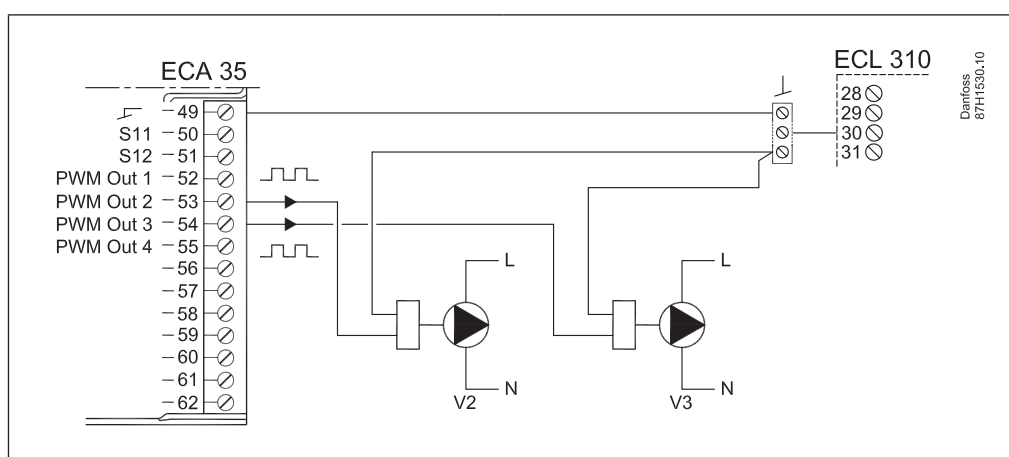


ECA 35 input / output extension module for ECL Comfort 310 / 310B

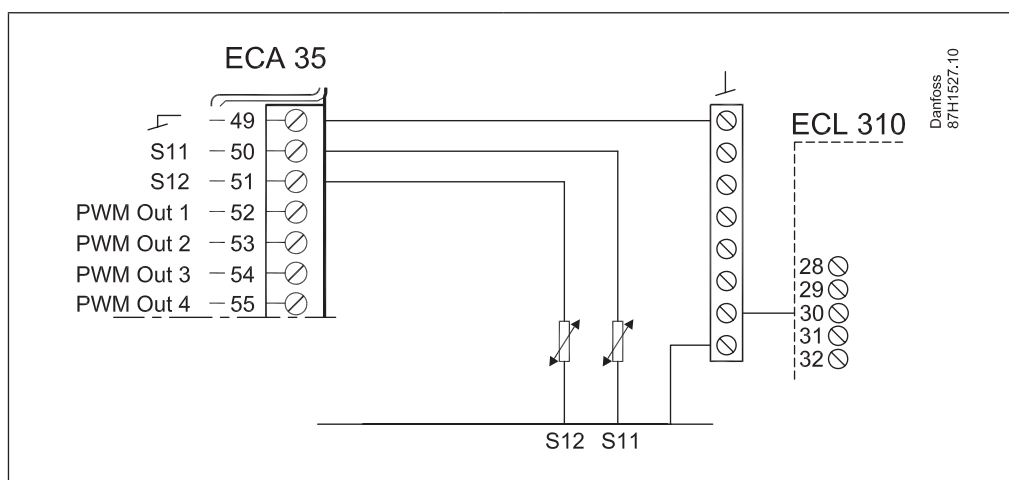
Wiring example, 0 - 10 V output



Wiring example, PWM output

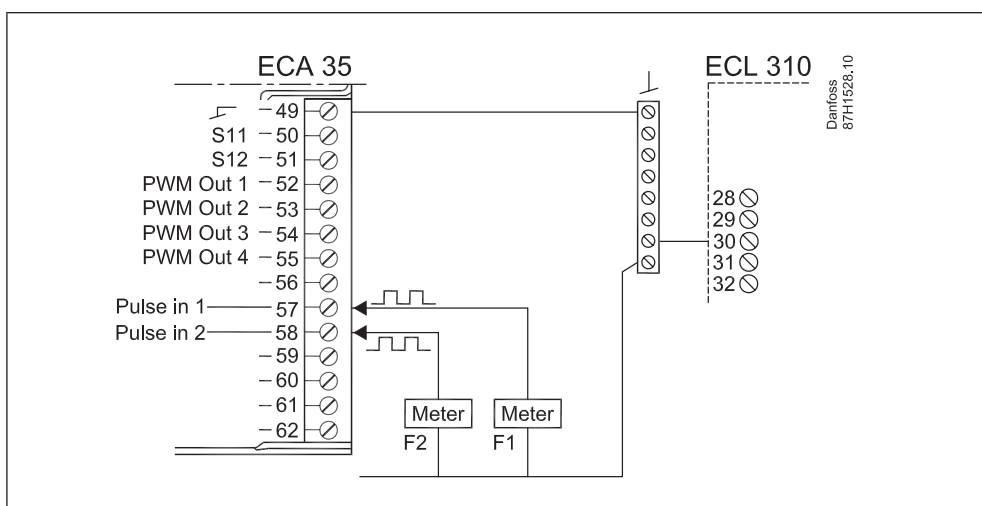


Wiring example, Pt 1000 temperature sensor inputs

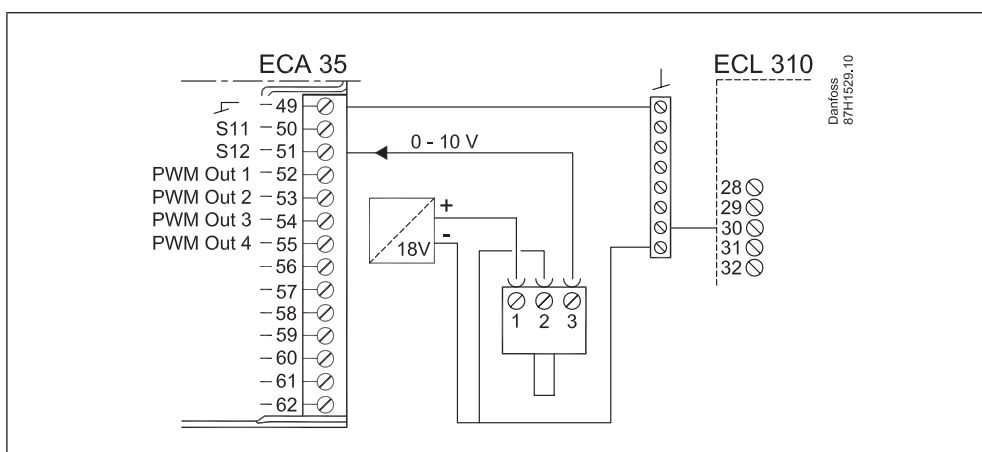


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Wiring example, pulse inputs



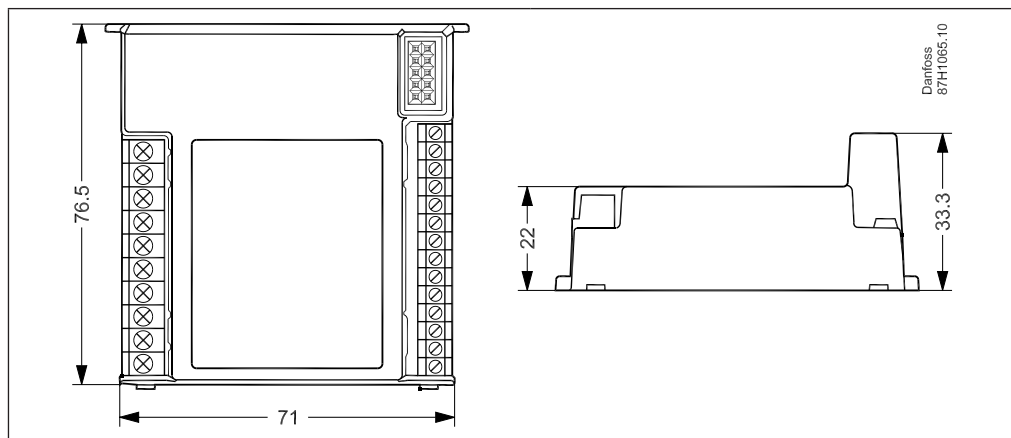
Wiring example, pressure transmitter input



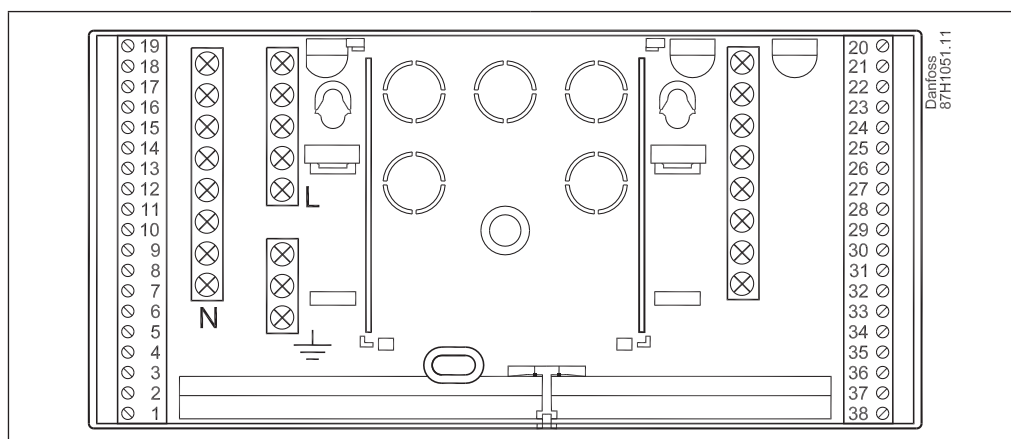
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Dimensions (in mm)

ECA 35



Base part for ECL Comfort 310 / 310B



L x H (mm) = 210 x 100

ECA 35 input / output extension module for ECL Comfort 310 / 310B

Additional documentation for ECL Comfort controllers, modules and accessories is available on <http://danfoss.com/> or <http://store.danfoss.com/>

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