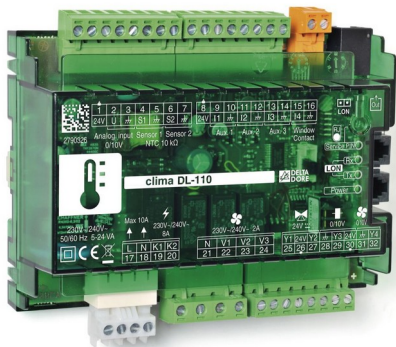


# Technical data sheet clima DL-110

## 1. Product description



The clima DL-110 is a universal room controller. It is suitable for controlling static heating/cooling systems (like radiators, heated/chilled ceilings, chilled beams) and fan coil systems. Here the usage of 2-pipes, 3-pipes and 4-pipes-system are supported. Additionally wall modules with temperature sensor, humidity sensor and push buttons for setpoint and fanspeed adjustment can be connected as well as a multisensor for presence detection, for measurement of ambient brightness in rooms and as receiver for the infrared remote control with LC display dialog DRC-10. An LNS plug-in for comfortable configuration is available.

### Available inputs and outputs

The inputs and outputs listed in the following table can be freely configured.

Type	Number	Usage
Analog input 0-10V	1	e.g. Air quality sensor
Analog input für NTC 10kOhm	2	Temperature sensor
Digital input for floating contacts	4	e.g. Window contact, dew point sensor, hotel card switch
Analog output 0-10V	2	e.g. Valve or damper actuator, fan
Digital output 24 VDC	2	e.g. Valve actuator (2-point and 3-point)
Fan output 230 VAC (max. 3-stage)	1	Fan
Switching output 230VAC	1	e.g. Heater battery, contactor (relay) for central-off

## Supported heating/cooling systems

The heating/cooling systems listed below are supported by clima DL-110. Thereby the required actuators can be freely assigned to the available outputs.

- Heating with radiator
- Heating with radiator, air quality control with VAV
- Heating with radiator, cooling and air quality control combined with VAV
- Cooling with chilled ceiling
- Cooling with chilled ceiling, air quality control with VAV
- Cooling with chilled ceiling, heating and air quality control combined with VAV
- Cooling with chilled ceiling, heating with radiator
- Cooling with chilled ceiling, heating with radiator, air quality control with VAV
- Heating and cooling with combined heated/chilled ceiling (2-pipe system)
- Heating and cooling with combined heated/chilled ceiling (2-pipe system), air quality control with VAV
- Heating and cooling with combined heated/chilled ceiling (4-pipe system, 4 valves)
- Heating and cooling with combined heated/chilled ceiling (4-pipe system, 4 valves), air quality control with VAV
- Heating and cooling with combined heated/chilled ceiling (4-pipe system, 3 valves)
- Heating and cooling with combined heated/chilled ceiling (4-pipe system, 3 valves), air quality control with VAV
- Heating and cooling with combined heated/chilled ceiling (4-pipe system, 6-way valve)
- Heating and cooling with combined heated/chilled ceiling (4-pipe system, 6-way valve), air quality control with VAV
- Cooling with fan coil
- Cooling with fan coil, air quality control with VAV
- Cooling with fan coil, heating and air quality control combined with VAV
- Cooling with fan coil with outdoor air damper (incl. air quality control)
- Cooling with fan coil, heating with radiator
- Cooling with fan coil, heating with radiator, air quality control with VAV
- Cooling with fan coil with outdoor air damper (incl. air quality control), heating with radiator
- Heating with fan coil
- Heating with fan coil, air quality control with VAV

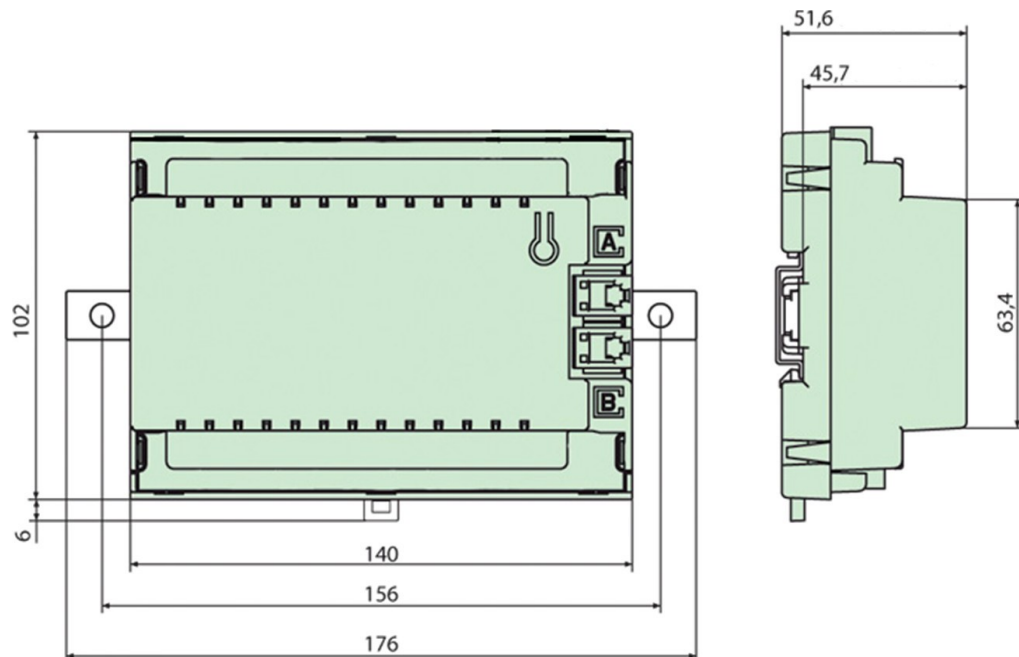
- Heating with fan coil, cooling and air quality control combined with VAV
- Heating with fan coil with outdoor air damper (incl. air quality control)
- Heating and cooling with fan coil (2-pipe system)
- Heating and cooling with fan coil (2-pipe system), air quality control with VAV
- Heating and cooling with fan coil with outdoor air damper (2-pipe system), incl. air quality control
- Heating and cooling with fan coil (4-pipe system)
- Heating and cooling with fan coil (4-pipe system), air quality control with VAV
- Heating and cooling with fan coil with outdoor air damper (4-pipe system), incl. air quality control

**For supporting not listed heating/cooling systems please contact our support. Please find the contact information at the end of this data sheet.**

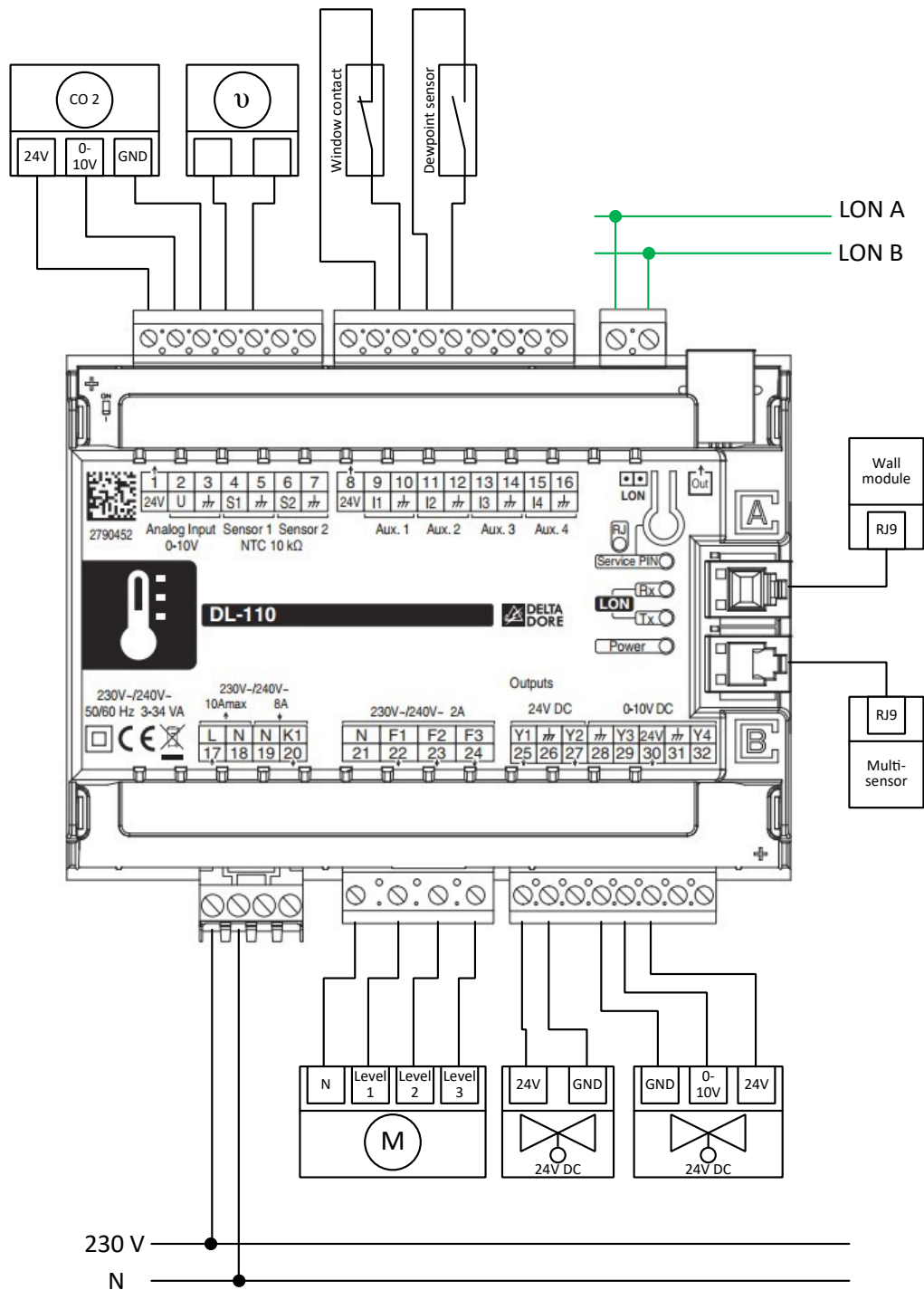
## 2. Mounting and installation

The assembly of clima DL-100 is able in a switch cupboard or directly with 2 side flaps, e. g. , in the false ceiling. There is also the possibility to mount the device in the separat available assembly box "clima DMB-10".

### Dimensions:



**Installation:**



Electrical devices must be assembled and installed by trained personnel only.



Please observe local standards, guidelines and regulations when planning and installing electrical devices.



Do not exceed device specifications.



The system installer has to take care that the correct application and the associated parameters are corresponding with the wiring and the intended use of the device.

### 3. Technical data

#### Supply

operating voltage, power 230 - 240 VAC,  
50/60 Hz, 3 - 34 VA

#### Network

LON FTT TP/FT-10 (78kbps)

#### Inputs

1 x analog input 0-10 V  
4 x digital input for floating contacts  
2 x NTC sensors NTC 10KOhm@25°C

#### Outputs

1 x 230 VAC 8A, max. power 1.8 KW  
3 X 230 VAC max. 2A each, for controlling fans  
2 x 24 VDC for 2 two point thermal actuator  
or 1 three point motorized actuator.  
(All 24 VDC outputs must not draw more then max 0.8A!)

2 x 0-10 VDC analog output max. 2mA each

#### Extension connectors

Connectors A and B for connecting multi sensor and wall module

### Housing

Type of protection	IP 20 (EN 60529), IK05 (EN 50102), Fire: Class V2
Dimensions (W x H x D)	140 x 102 x 51.6 mm

### Ambient conditions

Operating temperature	5°C ... +45°C
Storage temperature	-10°C ... +60°C
Operating Relative humidity	20 ... 80% of RH (w/o condensation)
Installation height	up to 2000 m above sea level

### CE-Conformity

2004/108/EC Electromagnetic Compatibility  
2006/95/EC Low voltage directive

## 4. Order informations

Order number	Description
331 110	<b>clima DL-110</b> Universal room controller
934 520	<b>clima DWM-20</b> Wall module with temperature sensor, LC display, push buttons for setpoint and fan speed adjustment, pure white, compatible with room controller clima DL-110
934 521	<b>clima DWM-21</b> Wall module with temperature sensor, LC display, push buttons for setpoint adjustment, pure white, compatible with room controller clima DL-110
934 526	<b>clima DWM-21-rH</b> Wall module with temperature and humidity sensor, LC display, push buttons for setpoint adjustment, pure white, compatible with room controller clima DL-110
930 301	<b>clima DWM-01</b> Wall module with temperature sensor, pure white, compatible with room controller clima DL-110

Order number	Description
934 311	<b>clima DWM-11-rH</b> Wall module with temperature and humidity sensor, pure white, compatible with room controller clima DL-110
934 120 W	<b>clima DMS-20</b> Multisensor for suspended ceiling mounting, pure white, compatible with room controller clima DL-110
910 112	<b>dialog DRC-10</b> Infrared remote control with LC display, compatible with multisensors lumina MS4, lumina MS4/RC and clima DMS-20
930 001	<b>Connection cable RJ9 (length: 6m)</b> RJ9 cable for connection wall modules DWM-01 / 11 (-rH), DWM-2x(-rH) or multisensor DMS-20 to universal controller DL-110
930 002	<b>Connection cable RJ9 (length: 8m)</b> RJ9 cable for connection wall modules DWM-01 / 11 (-rH), DWM-2x(-rH) or multisensor DMS-20 to universal controller DL-110
930 003	<b>Connection cable RJ9 (length: 12m)</b> RJ9 cable for connection wall modules DWM-01 / 11 (-rH), DWM-2x(-rH) or multisensor DMS-20 to universal controller DL-110
930 004	<b>Connection cable RJ9 (length: 20m)</b> RJ9 cable for connection wall modules DWM-01 / 11 (-rH), DWM-2x(-rH) or multisensor DMS-20 to universal controller DL-110
930 005	<b>Connection cable RJ9 (length: 30m)</b> RJ9 cable for connection wall modules DWM-01 / 11 (-rH), DWM-2x(-rH) or multisensor DMS-20 to universal controller DL-110
930 110	<b>clima DMB-10</b> Mounting box with cover, compatible with room controller clima DL-110
020 325	<b>clima A 24-T</b> Noiseless thermoelectric actuator with optical position indicator, with on/off control, closed when de-energised; matching valve adapters on request

Order number	Description
020 345	<b>clima A 24-10AC</b> Noiseless thermoelectric actuator with optical position indicator, continuous positioning via 0-10V AC, closed when de-energised; matching valve adapters on request
020 346	<b>clima A 24-10DC</b> Noiseless thermoelectric actuator with optical position indicator, continuous positioning via 0-10V DC, closed when de-energised; matching valve adapters on request

## 5. Support

The information given in this manual was carefully compiled. Should you have any further questions regarding this product, please contact:

### **SafeSquare GmbH**

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