



ALD24A1 is a controller for zone control of heating or cooling

- * Setpoint 10...30°C
- * Internal or external sensor
- * Easy-to-use menu system
- * Change-over via sensor or closing contact
- * Input for occupancy control
- * Setpoint offset +/- 3K

Function

ALD24A1 is a room controller for wall mounting. It has built-in temperature sensor and one reversible 0...10 V output for heating or cooling.

The controller has adjustable P- and I-time and input for changeover between heating or cooling function. There is also one input for occupancy control, changing setpoint between comfort and standby level. All settings are made using the menu system in the display. Actual output valve is shown continuously in the display.

Sensors

The controller has built-in sensor. Alternatively external sensor (Regin NTC 0...30°C) can be used. In this mode the jumper external/internal inside is reset.

Setpoint

Is set in the setting-level menu. The controller uses heating setpoint (when the output has heating function) or cooling setpoint (when the output has cooling function). The settings are factory set to 21°C or 24°C.

Setpoint offset

By pressing [+] or [-] button on the front individual setpoint adjustments can easily be made, without entering the setting level of the menu system. Settable +/- 3K in 0.5 steps.

Change over

ALD24A1 has an input that resets the output for heating and cooling function. The input can be activated by a sensor (type Regin NTC) or by a closing contact. On closed contact the controller works in heating mode and on open contact it is in cooling mode.

When a sensor is connected it must have temperature range 0...30°C and the sensor temperature controls the output function. The sensor must be mounted in order to detect the supply pipe temperature to the battery. When the supply pipe temperature exceeds 22°C, the output shifts to heating function and when it falls below 18°C the output shifts to cooling.

Selecting Heating/Cooling function

When not using changeover, the desired output function is selected by adding a wire between terminals 5 and 6 for heating function. For cooling function the input is left open.

Occupancy control

The controller has an input for closing contact from the occupancy detector or similar device. When presence is determined the controller runs with comfort setpoint for heating respectively cooling. If presence is not detected, the controller works in stand-by mode, with reduced setpoint for heating and raised setpoint for cooling.

Display and menu system

The menu system of the controller has a level for setting that is accessed in the following way:

Both buttons [<] and [>] are pressed for five seconds. The display shows 000.

Then press button [-] three times, the controller enters setting level and gives access to setpoints, control parameters etc. See overleaf.

Technical data

Supply voltage	24 V AC +/- 15% 50-60 Hz
Power consumption	4 VA
Ambient temp	0...50°C
Storage temp	-40...+50°C
Ambient humidity	Max 90% RH
Protection class	IP20
CE	This Product confirms with the requirements of European EMC standards CENELEC EN50081-1 and EN50082-1 and carries the CE-mark

Inputs

External sensor	0...30°C (NTC sensor)
Change-over	For Regin NTC or closing contact
Occupancy	Closing contact from i.e. presence detector IR24-P

Output

Control signal	One, 0...10 V DC, 1 mA
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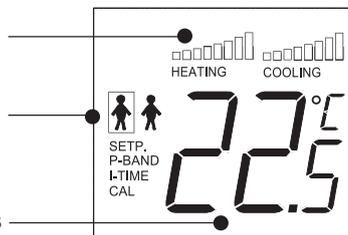
Settings (menu)

Factory settings (rangeability 0...30°C)

	Heating setpoint	21°C
	Cooling setpoint	24°C
Occupancy control	Heating setpoint comfort	21°C
	Cooling setpoint comfort	24°C
	Heating setpoint stand-by	17°C
	Cooling setpoint stand-by	28°C
P-band	0.5...99.9 K	
I-time	1...999 s	
Calibration (temp. sensor)	+/- 3 K	(internal or external)
Occupancy function	Active or inactive	(Factory setting: Unactivated)
Jumper BY1	Downwards=	Internal sensor (factory setting)
	Upwards=	External sensor

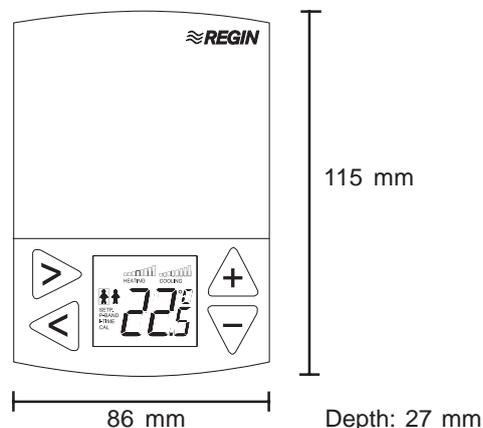
Display and description

- Bar graph for heating or cooling is lit up, depending on function
- Occupancy control,
Man in room (the frame) means occupied
Man out of room means unoccupied
- Actual temperature is displayed in 0.5°C steps



Wiring and dimensions

1	Supply voltage 24 V AC
2	System voltage neutral 24 V AC
3	Output 0...10 V
4	Signal neutral
5	Change-over input
6	Signal neutral
7	External sensor
8	Occupancy control input



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