



AL24A2/D and ALD24A2/D are controllers with two 0...10 V outputs. They are intended for control of heating and cooling in HVAC systems.

- * With or without display
- * Internal or external setpoint
- * Can be set for heating or cooling output
- * P or PI - function
- * SPC-input
- * Supply voltage 24 V AC

Function

AL24A2/D and AL(D)24A2/D are two compact controllers for DIN-rail mounting in a cabinet or other enclosure. All settings are on the front and they have two outputs 0...10 V in sequence with adjustable neutral zone. The controllers have one input for main sensor and the control function can be set to P- or PI-control.

The P-Band is adjustable 2...100 K and the I-time can be selected by a function switch in 1 or 10 minute steps.

Setpoint

The scale is 0...30°C. If sensor with a different temperature range is connected other scales with corresponding ranges can be supplied.

Controller with display, ALD24A2/D, can only be used together with 0...30°C sensor.

If external setpoint is desired, the device is connected in series with the main sensor and switch no 3 is set to external setpoint position. See overleaf.

Neutral zone

This is adjustable 0...3 K. The neutral zone affects the starting point of the cooling sequence, causing the output to rise, but not before the room temperature has exceeded the setpoint by the set neutral zone value.

SPC (SetPoint Control)

The setpoint can be remote controlled from an external signal, 0...10 V. At 5 V input the SPC-signal gives no change, higher voltage raises and lower voltage lowers the setpoint. The setpoint shift +/-15 K corresponds to the input signal shift of +/- 5 V.

Example: If the input is 6 V (5 + 1) the setpoint is shifted to be 3 degrees higher than set value on the setpoint knob.

If the SPC is not in use the input is left open.

Outputs

Output Y1 is always for heating control, while the output Y2 can be set to control a heating sequence, i.e. heat exchanger, or cooling.

Indication

The unit has LEDs on the front for indication of power supply and activated outputs.

Display

ALD24A2/D model is equipped with display at the front. The display shows the current temperature at the main sensor.

N.B. Shows only 0...30°C

Models

AL24A2/D	Controller, two 0...10 V outputs
ALD24A2/D	Controller, two 0...10 V outputs, with display

Technical data

Supply voltage	24 V AC +/- 15 % 50-60 Hz
Power consumption	2 VA
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient humidity	Max 90% RH
Protection class	IP20



This product conforms with the requirements of European EMC standards CENELEC EN 50081-1 and EN 50082-1 and carries the CE mark

Inputs

Main sensor	NTC-sensor, 0...30°C
External setpoint	Connected in series with the main sensor. See wiring below
SPC	0...10 V-signal

Outputs

Control signals	Two, 0...10 V DC, 1 mA
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Settings

Setpoint	0...30°C
P-band	2...100 K
Reset time (I-time)	1 or 10 min, is set by function selector. See below
NZ neutral zone	0...5 K

Display

In model ALD24A2/D	2 digits LED, shows measured value on main sensor
	Only 0...30°C sensor can be used with ALD24A2/D

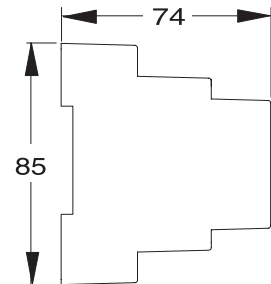
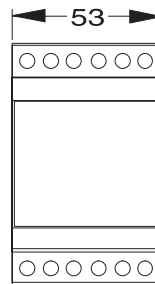
Function selectors

	Switch 1	Control function	A = P	B = PI (*)
	Switch 2	Reset time	A = 1 min (*)	B = 10 min
	Switch 3	Setpoint	A = Internal (*)	B = External
	Switch 4	Function Y2	A = Cooling	B = Heating (*)

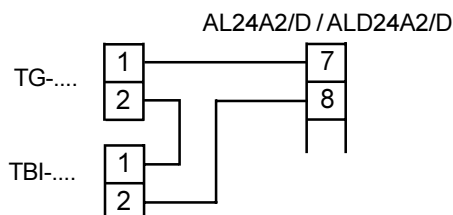
*= Delivery settings

Wiring and dimensions

1	Supply 24 V AC	7	Signal neutral
2	System neutral 24 V AC	8	Main sensor
3	Output 0...10 V, Y1	9	SPC
4	Signal neutral	10	Not in use
5	Output 0...10 V, Y2	11	Not in use
6	Not in use	12	Not in use



External setpoint for panel mounting with TBI-...



FOR INDOOR CLIMATE WITH OPTIMUM CONTROL

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