



AL24A1/D is a controller with one 0...10 V output. The controller is intended for control of heating or cooling in HVAC systems.

- * With or without display showing current temperature
- * Internal or external setpoint
- * Can be set for heating or cooling output
- * Change-over via sensor or relay contact
- * P or PI - function
- * Adjustable P-band and settable I-time

Function

AL24A1/D and ALD24A1/D are two compact controllers with or without display for DIN-rail mounting.

All settings are on the front and they have one output 0...10 V. The output is reversible, that enables the controllers to control heating or cooling. 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 set by a function switch in 1 or 10 minute steps.

Setpoint

The scale is 0...30°C. If sensor in other range is connected scales with corresponding range 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.

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.

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

Change-over

AL(D)24A1/D has input for change-over, that causes the control function to switch between heating or cooling. This input can be connected to a REGIN NTC-sensor or

a closing relay contact.

When the contact is closed the controller works with heating output and when it is open the output has the cooling function.

When using sensor for change-over, the temperature range must be 0...30°C and the sensor is mounted on the supply to the battery in order to give accurate temperature values.

When the temperature at the sensor exceeds 22°C, the output function is switched to heating and when the temperature falls below 18°C the output is set to cooling.

Setting heating/cooling function

If the external *change-over* function is not in use, and heating output is desired, a wire must be connected between terminals 7 and 10.

When using cooling output, the input is left open.

Display

ALD24A1/D has a display on the front that shows the current temperature. *N.B. shows only 0...30°C.*

Indications

The unit has indication for power supply and activated output on the front.

There is also indication for heating/cooling function with a two-coloured LED. Red means that the heating output is activated and green means cooling output is activated.

Models

AL24A1/D	Controller, one 0...10 V output
ALD24A1/D	Controller, one 0...10 V output, with display

Technical data

Supply voltage	24 V AC +/- 15 % 50-60 Hz
Power consumption	2VA
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient temperature	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
Change-over	For Regin NTC-sensor (0...30°C) or closing relay contact
SPC	0...10 V-signal

Output

Control signal	0...10 V DC, 1 mA
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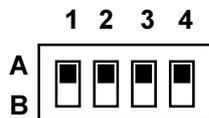
Settings

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

Display

On model ALD24A1/D	2 digits LED, shows measured value on main sensor Only 0...30°C sensor can be used with ALD24A1/D
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Function selectors

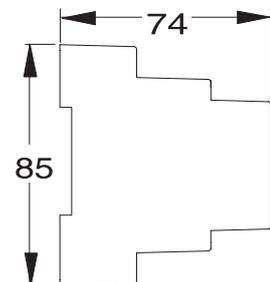
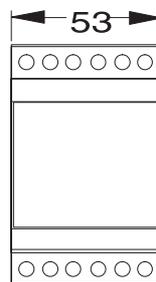


Switch 1	Control function	A = P-control	B = PI-control (*)
Switch 2	Reset time	A = 1 min (*)	B = 10 min
Switch 3	Setpoint	A = Internal (*)	B = External
Switch 4	Not in use		

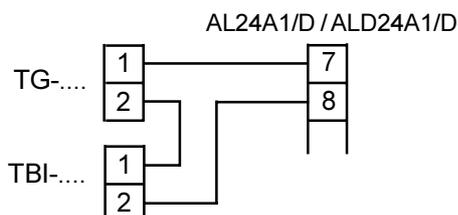
*=Delivery settings

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	9	SPC
4	Signal neutral	10	Change-over
5	Not in use	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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