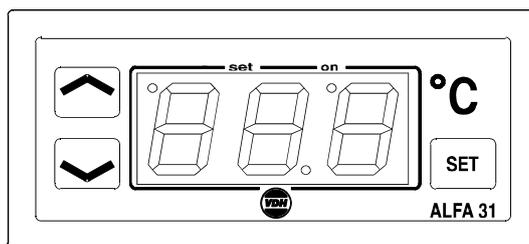


# User manual ALFA 31 DP Cool/Heat Thermostat.



VDH doc. 970629  
Software ALFA 31DP

Version: v1.1  
File: DO970629.WP8

Date: 02-11-1999  
Range: -10,0/+40,0 °C per 0,1°C

## \* Installation.

On the Topside of the **ALFA 31 DP** you can see how the sensor, power supply and relay have to be connected.

After connecting the **ALFA 31 DP** to the power supply, a self test function is started. As this test is finished the measured temperature appears in the display.

When the relay is activated, the led 'on' will light in the display.

## \* Control.

The **ALFA 31 DP** thermostat can be controlled by three pushbuttons on the front. These keys are:

- SET** - view / change the setpoint.
- UP** - increase the setpoint.
- DOWN** - decrease the setpoint.

## \* Viewing setpoint.

By pushing the **SET** key the setpoint appears in the display. The led 'set' starts blinking. A few seconds after releasing the **SET** key the setpoint disappears and the measured temperature is shown in the display.

## \* Changing setpoint.

Push the **SET** key and the setpoint appears in the display. Release the **SET** key. Now push the **SET** key again and together with the **UP** or **DOWN** keys the setpoint can be changed.

A few seconds after releasing the keys the measured temperature is shown again in the display.



\* **Setting internal parameters.**

Next to the adjustment of the setpoint, some internal settings are possible like differential, sensor-offset, setpoint range and the function cooling or heating.

By pushing the **DOWN** key more than 10 seconds, you enter the 'internal programming menu'. In the left display the upper and lower segments are blinking. With the **UP** and **DOWN** keys the required parameter can be selected (see table for the parameters).

If the required parameter is selected, the value can be read-out by pushing the **SET** key. Pushing the **UP** or **DOWN** keys together with the **SET** key allows you to change the value of this parameter. If after 20 seconds no key is pushed, the **ALFA 31 DP** changes to its normal operation mode.

\* **Adjustment sensor.**

The sensor can be adjusted by using the Sensor Offset (parameter 04). Indicates the **ALFA 31 DP** e.g. 2°C too much, the Sensor Offset has to be decreased by 2°C.

\* **Error messages.**

In the display of the **ALFA 31 DP** the following error messages can appear:

- Er** - Sensor broken. Solution:
  - Check if the sensor is connected correctly.
  - Check the sensor (1000Ω at 25°C).
  - Replace the sensor.
- EE** - Settings are lost. Solution:
  - Reprogram the settings.

\* **Technical details.**

Model : ALFA 31 DP  
Range : -10/+40°C, readout at 0,1°C  
Supply : 230 Vac (optional 24Vac/dc or 12Vac/dc see sticker)  
Relays : SPDT 250V/16A(C-NO), 8A(C-NC) (cos phi=1)  
Control : by pushbuttons on the front.  
Front : Polycarbonate  
Sensor : SM 811/2m (1000Ω at 25°C)  
Sizes : 35 x 77 x 71,5mm (hwd)  
Panel hole : 28 x 70mm (hw)

- Provided with memory protection during power failure.
- Connection with screw terminals on the backside.
- Equipped with self test function and sensor failure detection.
- Special version are available upon request.



\* **Parameter ALFA 31 DP.**

PARAMETER	DESCRIPTION PARAMETER	RANGE	DEFAULT VALUE
01	Switching differential	0,1..10°C	1.0
02	Minimum setpoint	-10..+40°C	-10.0
03	Maximum setpoint	-10..+40°C	+40.0
04	Offset temperature sensor	-10..+10°C	0
10	Startup delay after power failure	0..99 Min.	0
11	Relay on at sensor failure	0 = No 1 = Yes	0
15	Function cooling or heating	0 = Cool 1 = Heat	0
16	Switch on delay relay 1)	0..99	0
17	Switch off delay relay 1)	0..99	0
18	Parameter 16/17 in seconds	0 = Sec. 1 = Min.	0
19	Minimum on-time relay	0..99 Min.	0
20	Minimum off-time relay	0..99 Min.	0

1) On active delay led 'on' blinks.

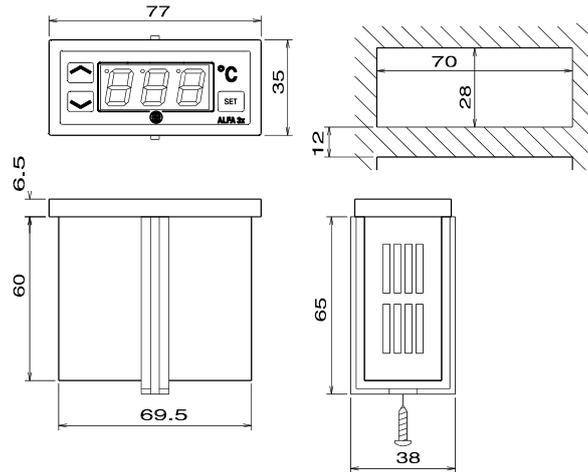
\* **Address**

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 9301 ZS Roden  
 The Netherlands

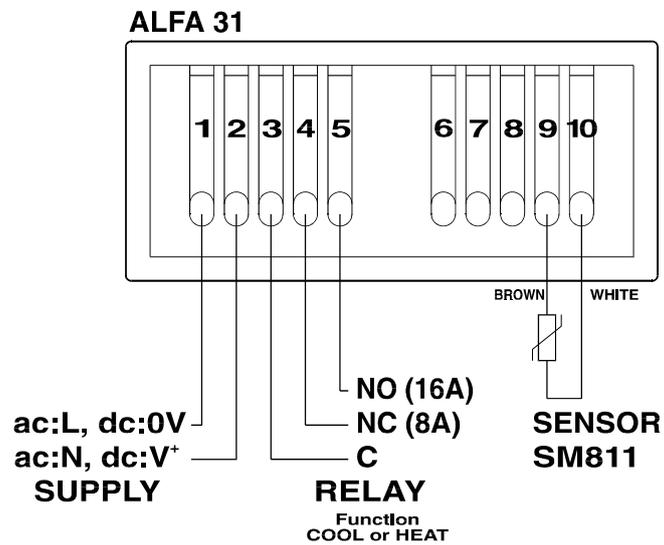
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\* **Dimensions**



\* **Connections**



\* **Function diagram**

