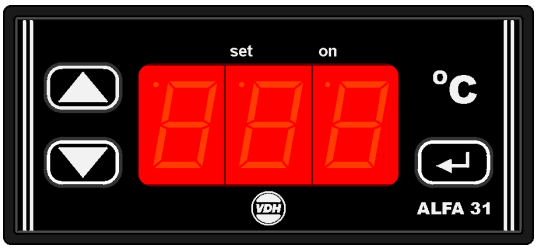
User manual ALFA(NET) 31 0-100°C
Cool/Heat Thermostat.



VDH doc. 053950	Version: v1.0	Date: 14-12-2005
Software: ALFA31 0-100°C	File: Do053950.WPD	Range: 0/+100˚C per 1˚C

* Function.

The **ALFA(NET) 31** is a digital thermostat for panel mounting. The function from the thermostat can be programmed for cooling or heating.
The **ALFA*NET* 31** has a RS 485 network connection so it can be read out and adjusted on the Alfanet.

* Installation.

On the topside of the **ALFA(NET) 31** you can see how the sensor, power supply and relay have to be connected.
After connecting the **ALFA(NET) 31** 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-up in the display.

* Control.

The **ALFA(NET) 31** 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 shows 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 for more than 10 seconds, you enter the 'internal programming menu'. In the left display the upper and lower segment, are blinking. With the **UP** and **DOWN** keys the required parameter can be selected (see the parameter table).
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 no key is pushed for 20 seconds, the **ALFA(NET) 31** changes to its normal operation mode.

* Adjustment sensor.

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

* Error messages.

In the display of the **ALFA(NET) 31** 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(NET) 31
Range	: 0/+100˚C, readout per 1˚C
Supply	: 230 Vac (or else see product sticker)
Relay	: SPDT 250V/16A(C-NO), 8A(C-NC) (cos phi=1)
Communication	: RS485-Network (A,B,GND 3-wire shielded) only at ALFANET 31
Control	: by pushbuttons on the front.
Front	: Polycarbonate IP65
Sensor	: SM 811/2m (1000Ω at 25˚C)
Sizes	: 35 x 77 x 71,5mm (hwd)
Panel hole	: 28 x 70mm (hw)

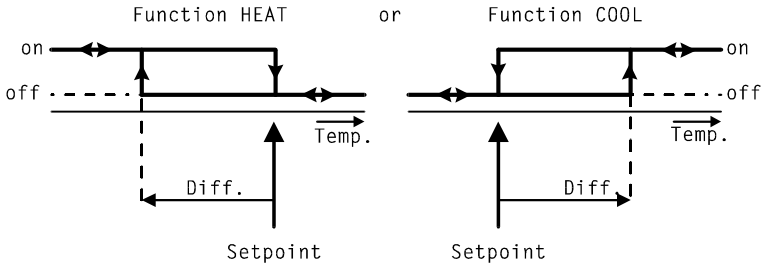
- Provided with memory protection during power failure.
- Connection with screw terminals on the back side.
- Equipped with self test function and sensor failure detection.
- Special versions are available upon request.

* Parameters ALFA(NET) 31.

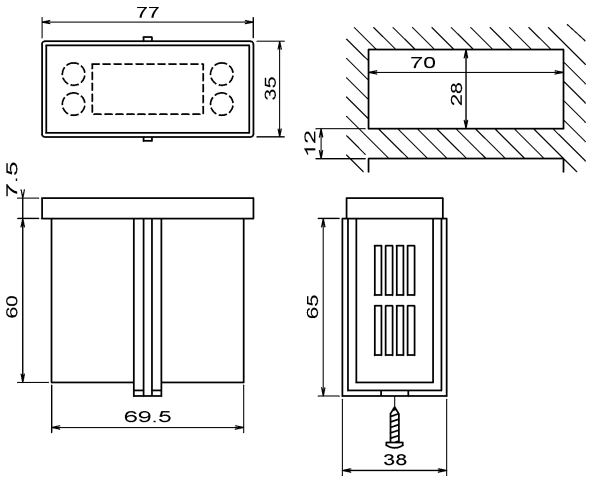
PARA-METER	DESCRIPTION PARAMETER	RANGE	STANDARD VALUE
01	Switching differential	1..15˚C	3
02	Minimum setpoint	0..+100˚C	0
03	Maximum setpoint	0..+100˚C	+100
04	Offset temperature sensor	-15..+15˚C	0
10	Startup delay after power failure	0..99 min.	0
11	Relays on at sensor failure	0 = No 1 = Yes	0
15	Function cooling or heating	0 = Cool 1 = Heat	0
16	Switch on delay relays 1)	0..99	0
17	Switch off delay relays 1)	0..99	0
18	Parameter 16/17 in sec. or min.	0 = sec. 1 = min.	0
19	Minimum on-time relays	0..99 min.	0
20	Minimum off-time relays	0..99 min.	0
90	Network number	1..250	1
95	Software version	0..255	-
96	Production year	00..99	-
97	Production week	1..52	-
98	Serial number (x1000)	0..255	-
99	Serial number (units)	0..999	-

1) On active delay led 'on' blinks.

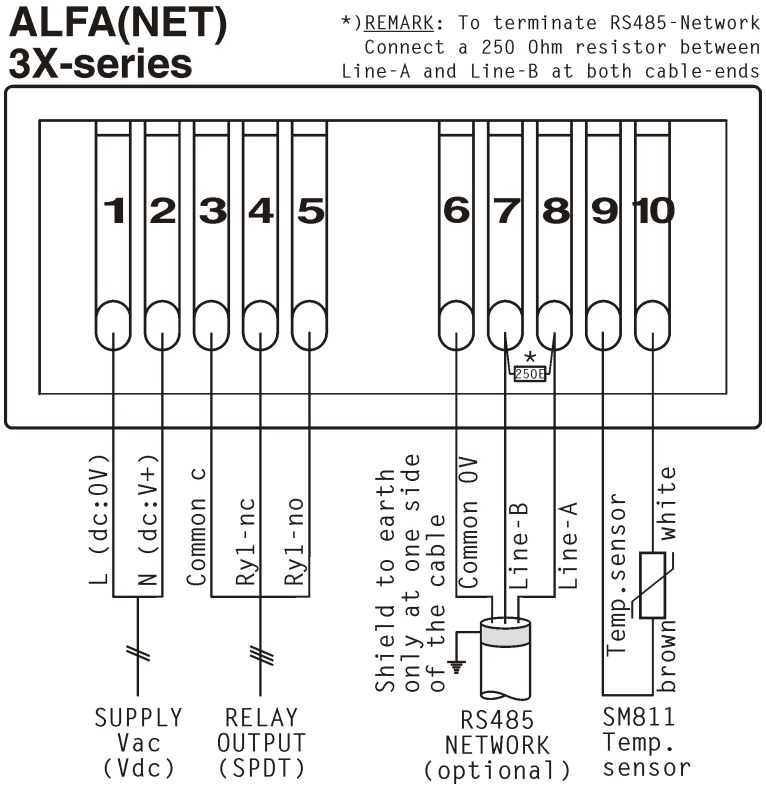
* Function Diagram.



* Dimensions.



* Connection Diagram.



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