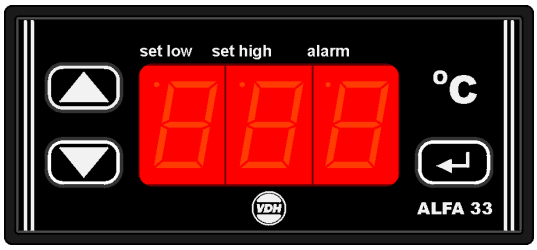
User Manual
ALFA(NET) 33 (0-100°C)
Min./Max. Alarm thermostat.



VDH doc. 070239 **Version: v1.1** **Date: 02-03-2007**
Software: ALFA(NET) 13/33 **File: Do070239.WPD** **Range: 0/+100˚C, readout per 1˚C**

* Function.

The **ALFA(NET) 33** is a digital alarm thermostat for panel mounting. The thermostat watches the minimum and maximum temperature. The **ALFA(NET) 33** has one relay for both alarms.
The **ALFA*NET* 33** 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) 33** you can see how the sensor, power supply and relay have to be connected.
After connecting the **ALFA(NET) 33** to the power supply, a self test function is started. As this test is finished, the measured temperature appears in the display.
The relay is normally activated, with an alarm it's not activated, then the led 'on' will light-up in the display.

* Control.

The **ALFA(NET) 33** alarm thermostat can be controlled by three pushbuttons on the front;

- **SET** - view / change setpoints and reset of alarm.
- **UP** - increase a value.
- **DOWN** - decrease a value.

* Viewing setpoints.

Viewing setpoint of maximum alarm:
By pushing the **SET** key first and then the **UP** key together the maximum alarm setpoint appears in the display. The led 'set high' starts blinking.
Viewing setpoint of minimum alarm:
By pushing the **SET** key first and then the **DOWN** key together the maximum alarm setpoint appears in the display. The led 'set low' starts blinking.
A few seconds after releasing the keys the setpoint disappears and the measured temperature is shown in the display.

* Changing setpoints.

Push the **SET** key together with the **UP** or **DOWN** key and the maximum alarm setpoint or minimum alarm setpoint appears in the display. Release both keys.
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.

* Actions of the alarm functions.

The **ALFA(NET) 33** alarm thermostat has a minimum alarm and a maximum alarm both with there own setpoint. We can choose two different kinds of alarms (PARAMETER 27) namely:

watchdog alarm — relay normally activated, with alarm it falls off and the led 'alarm' burns. So on power failure the alarm relay also falls off. or a

regulated alarm — relay normally not activated, with alarm the relay will be activated and the led 'alarm' will burn.

With PARAMETER 28 we can choose auto reset alarm or a hold alarm, after temperature recovering. Also it is possible to give both setpoints their own offset and differential see function diagram. Each alarm can be set at an alarm-delay time (PARAMETER 23 and 24) when the temperature will give an alarm the led 'alarm' first starts to blink. If the temperature will recover within the delay time, no alarm occurs. If an alarm will come through after the delay time the led 'alarm' burns continuously and the display alternates between the temperature and 'H' for high-alarm (max.) or 'L' for low-alarm (min.) to indicate the alarm.

To reset an alarm, press the **SET** key.

* Setting internal parameters.

Next to the adjustment of the setpoint, some internal settings are possible like differential, sensor-offset, setpoint range.

By pushing the **DOWN** key 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, allows you to change the value of this parameter. If no key is pushed for 20 seconds, the **ALFA(NET) 33** changes to it's normal operation mode.

* Sensor adjustment.

The sensor can be adjusted by using the Sensor Offset (parameter 04). Indicates the **ALFA(NET) 33** 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) 33** the following error messages can appear:

E1 - 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:
- Re programme the settings.

-L- - In case of sensor short-circuit the display alternates between error-code **E1** and **-L-**, as indication for a short-circuit sensor.

-H- - In case of open-circuit sensor the display alternates between error-code **E1** and **-H-**, as indication for a open circuit sensor.

* Technical data.

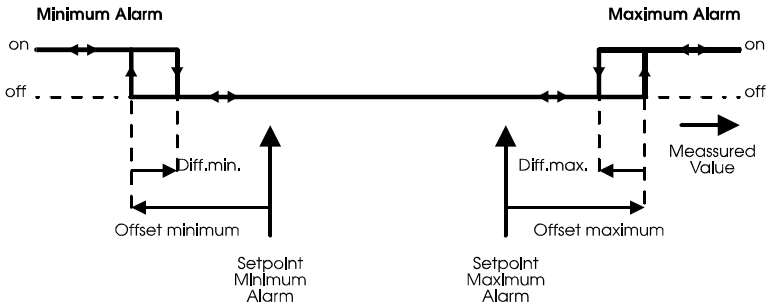
Type	: ALFA(NET) 33 alarm thermostat
Range	: 0/+100˚C, readout per 1˚C
Supply	: 230 Vac (or else see product sticker)
Relay	: SPDT 250V/16A(C-NO), 8A(C-NC) (cos phi=1)
Communication	: RS 485 Network (2xtwisted pair shielded) only at ALFANET model.
Control	: thru pushbuttons on front.
Front	: Polycarbonate IP65
Sensor	: SM 811/2m.
Dimensions	: 35 x 77 x 71,5mm (hwd)
Panel cut-out	: 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.

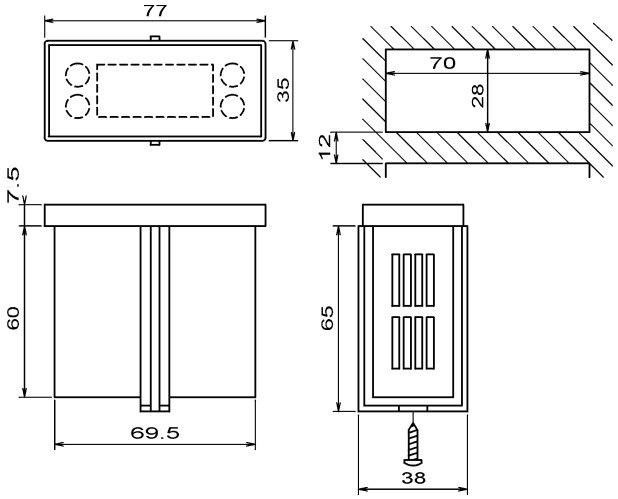
* Parameters ALFA(NET) 33.

PARA-METER	DESCRIPTION PARAMETER	RANGE	DEFAULT VALUE
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	Relay on at sensor failure	0 = No 1 = Yes	0
21	Differential maximum alarm	1..15˚C	1
22	Differential minimum alarm	1..15˚C	1
23	Time delay maximum alarm	0..99 min.	0
24	Time delay minimum alarm	0..99 min.	0
25	Offset setpoint High (Max.)	0..+20˚C	0
26	Offset setpoint Low (Min.)	-20..0˚C	0
27	Relay alarm function (0=watchdog 1=regulated alarm)	0 = No 1 = Yes	0
28	Auto reset alarm after temp. recovering (0=hold)	0 = No 1 = Yes	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	-

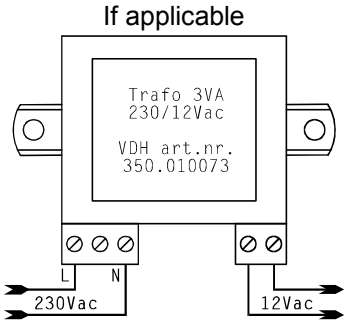
* Function diagram.

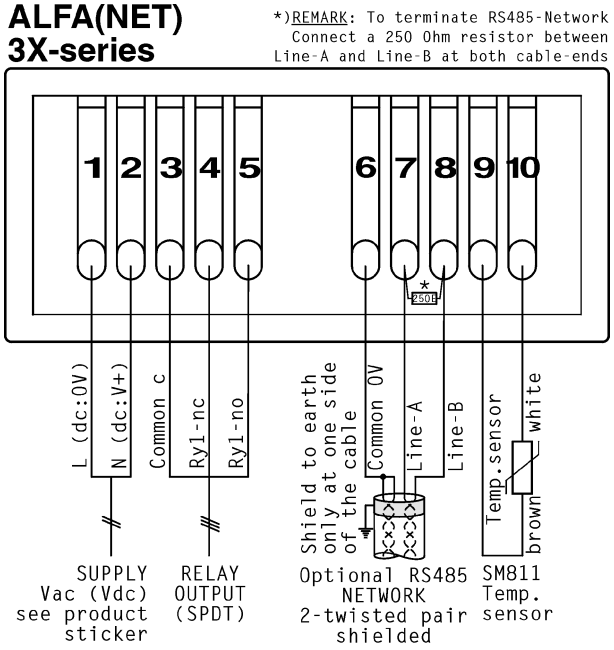


* Dimensions.

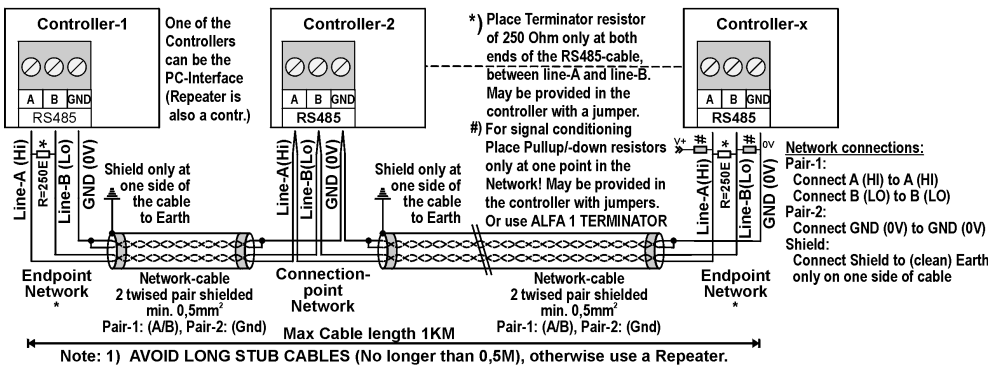


* Connection diagram.





RS 485 NETWORK CONNECTIONS 2-twisted pair shielded cable:



Note: 1) AVOID LONG STUB CABLES (No longer than 0,5M), otherwise use a Repeater.

* Address.

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