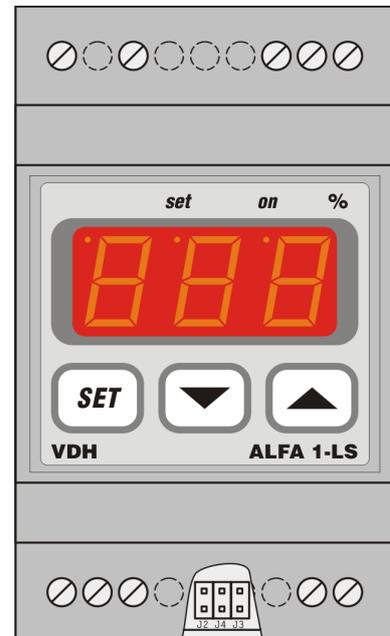


# User manual ALFA 1-LS and ALFANET 1-LS

Level switch controller  
with input 0-10V =0-100%



VDH doc: 071728

Versie: v1.1

Datum: 12-12-2007

Software: 060376\_ALFA 1-LS

File: Do071728.wpd

Range: 0/+100 % per 1%

## \* Function.

The **ALFA(NET) 1-LS** is a level-switch controller for rail mounting. The read-out is in whole percent. The function from the controller can be changed through the internal parameters. It is possible to switch the relay if the measured input is lower or higher than the adjusted set point.

The **ALFANET 1-LS** has a RS 485 network connection for read-out and adjusting through the Alfanet.

## \* Installation.

On the topside of the **ALFA(NET) 1-LS** is shown how the input, power supply and relay have to be connected.

After connecting the **ALFA(NET) 1-LS** 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) 1-LS** can be controlled by three push buttons 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 at **SET** key. Now push the **SET** key again and together with the **UP** or **DOWN** keys the set point 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 more than 10 seconds, you enter the 'internal programming menu'. In the left display the upper and lower segment are blinking.

Over 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(NET) 1-LS** changes to it's normal operation mode.

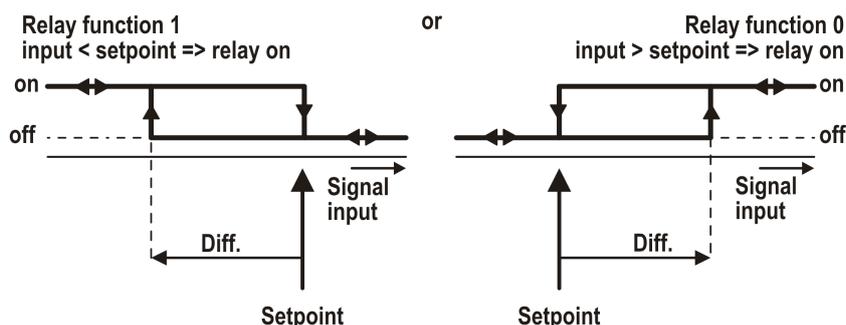
\* **Parameters ALFA(NET) 1-LS.**

Parameter	Description Parameter	Range	Standaard value
01	Switching differential	1..15 %	3
02	Minimum adjustable set point	0..100 %	0
03	Maximum adjustable set point	0..100 %	100
04	Offset input signal	-15..+15 %	0
10	Start up delay after powerfailure	0..99 minuten	0
15	Function relay 0 = input > set point relay on 1 = input < set point relay on	0..1	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 or minutes	0=sec./1=min.	0
19	Minimum on-time relay	0..99 minuten	0
20	Minimum off-time relay	0..99 minuten	0
90	Network number (only at network)	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) If the delay is active the led 'on' will flash.



\* **Function diagram.**



\* **Adjustment input signal.**

The input can be adjusted with the Offset (parameter 04). Indicates the **ALFA(NET) 1-LS** e.g. 2% too much, the Offset has to be decreased with 2%.

\* **Error messages.**

In the display of the **ALFA 1-LS** the following error messages can appear:

- EE** - Settings are lost.
- Solution: - Reprogram the settings.

\* **Technical details.**

Type	: ALFA 1-LS (Level Switch) controller or ALFANET 1-LS (Level Switch) controller with network
Range	: 0/+100 %, read out per 1 %
Supply	: 230 Vac / 1,2VA 50/60Hz (or else see product sticker)
Relay	: SPDT 250V/16A(C-NO), 8A(C-NC) (cos phi=1)
Control	: through push buttons on the front.
Front	: Polycarbonate
Input	: 0-10Vdc = 0-100%
Communication	: RS485 Network (2x twisted-pair shielded min. 0,5mm <sup>2</sup> )
Dimensions	: 90 x 53 x 58mm (hwd)
Panel hole	: 46 x 53mm (hw)

- Provided with memory protection during power failure.
- Connection with screw terminals on top and bottom side.
- Special version on request available.

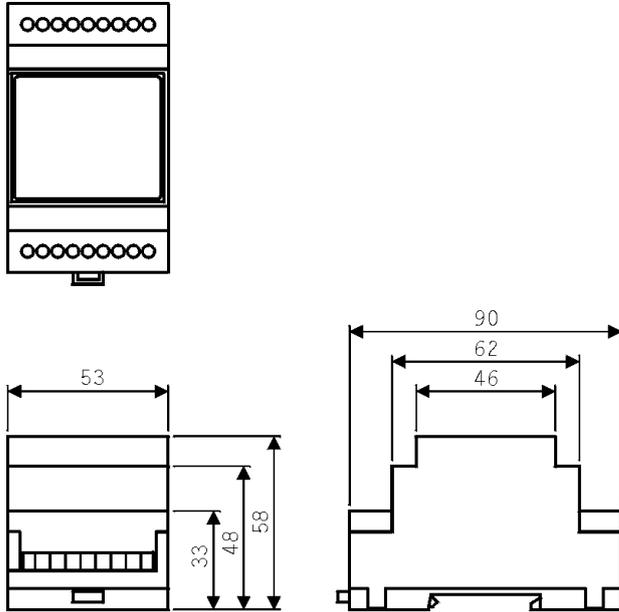
\* **Adress.**

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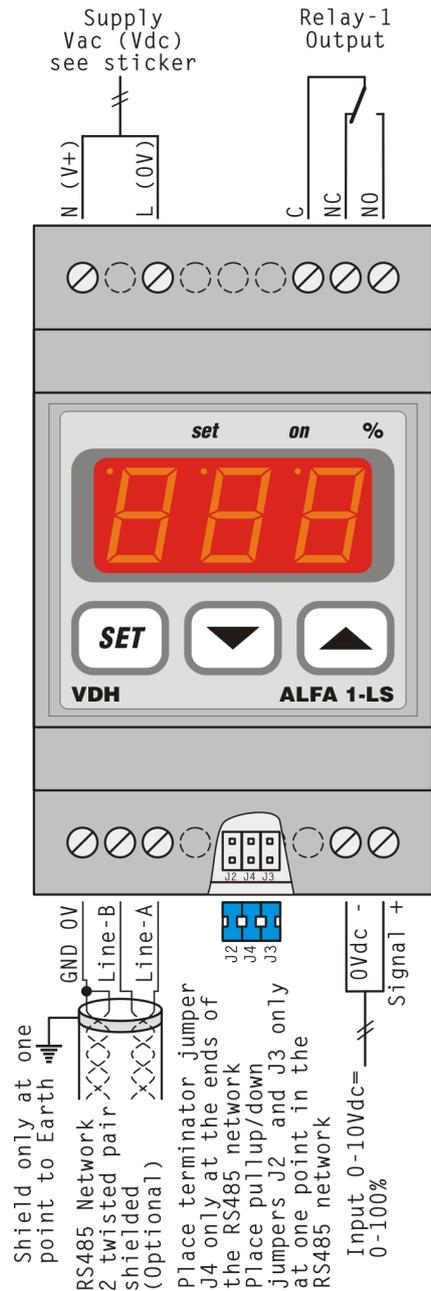
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**\* Dimensions.**



**\* Connections.**



**RS 485 NETWORK CONNECTIONS 2-twisted pair shielded cable:**

