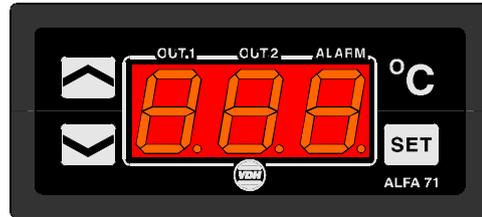


User manual

ALFA 71 spec.

Thermostat.



VDH doc. 080882

Version: v1.0

Date: 13-06-2008

Software: ALFA71S1

File: Do080882.WPD

Range: -50/+50,0°C

* Installation.

On the upperside of the **ALFA 71 spec.** is shown how the sensor, supply, relays and the analogue output have to be connected.

After power up a self test is started. After this self test is completed the **ALFA 71 spec.** will show the measured temperature.

* Control.

The **ALFA 71 spec** thermostat can be controlled by four push buttons on the front.

- SET** - viewing / changing the adjusted value and reset alarm.
- UP** - raise the adjusted value.
- DOWN** - lower the adjusted value.
- °C** - hidden key above the **SET** key.

* Viewing the set point.

By pushing the **SET** key the adjusted set point will be shown. A few seconds after releasing the **SET** key the measured value will be shown again.

* Changing the set point.

Push the **SET** key so the set point will appear on the display. Release the **SET** key. By pushing the **SET** key again simultaneously with the **UP** or **DOWN** key the adjusted set point can be changed. A few seconds after releasing the keys the measured value will be shown again.

* Status from the Relays.

By pushing the **°C** key the display shows the status of the relays. Each digit shows the status of one relay output, showing 0=off and 1=on. The code 110 means relay 1 and 2 are on and relay 3 is off.

* Adjusting internal parameters.

Next to the adjustment of the set point, internal settings can be made like differential, sensor offset, set point range and the functions of the thermostat.

Push the **DOWN** key for more than 10 seconds, to 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** key to change the value of this parameter.

If 20 seconds no key is pushed, the **ALFA 71 spec.** changes to the normal operation mode.



* **Adjusting the sensor.**

The sensor can be adjusted by using the Sensor Offset parameter 05. Indicates a Sensor e.g. 2°C too much, the according Sensor Offset has to be decreased with 2°C.

* **Error codes.**

On the display from the **ALFA 71 spec.** can appear the following error codes:

- LO** - Minimum alarm.
- HI** - Maximum alarm.
- E1** - Sensor failure. Solution:
 - Check if the sensor is connected well.
 - Check the sensor (1000Ω/25°C).
 - Replace the sensor.
- EEE** - Adjustments are lost. Solution:
 - Reprogram the adjustments.

* **Working Alarm.**

If an error code occurs it can be reset with the **SET** key. The function from this key depends on parameter P37.

* **Technical details.**

- Type : ALFA 71 spec. Thermostat
- Range : -50/+50,0°C, above -10°C read out per 0,1°C
- Supply : 12Vac 50/60Hz (-5/+10%)
- Read out : 3-digit 7-segments display
- Status Led : LED 'SET'
- Relays : Ry1= SPST(NO) 250V/8A (cos φ=1) of 250V/5A (cos φ=0.4)
Ry2= SPST(NO) 250V/8A (cos φ=1) of 250V/5A (cos φ=0.4)
Ry3= SPDT(NO/NC) 250V/8A (cos φ=1) of 250V/5A (cos φ=0.4)
Relays have one common (C).
- Control : Through push buttons on the front.
- Front : Polycarbonate IP65
- Sensor : SM 811/2m (PTC 1000Ω/25°C).
- Analogue output : 0...10Vdc measure output.
- Dimensions : 35 x 77 x 71,5mm (hwd)
- Panel cut out : 28 x 70mm (hw)
- Accuracy : ± 0,5% from the range.

- Provided with memory protection during power failure.
- Connections with screw terminals on the back side.
- Equipped with sensor failure detection.
- Special versions on request available.

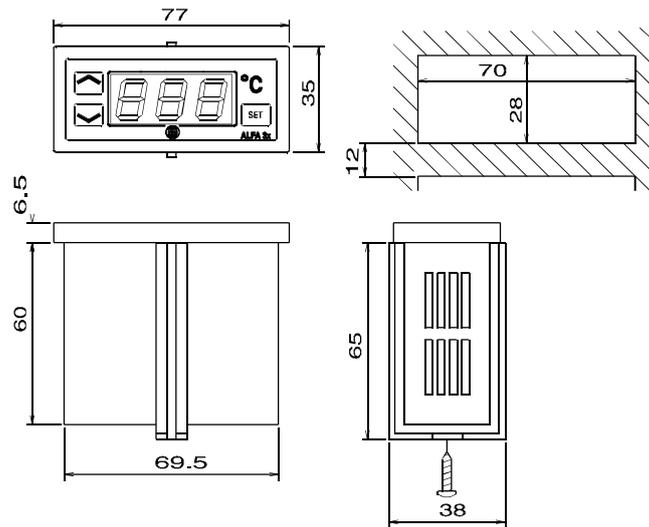


* Parameters ALFA 71 spec.

Para-Meter	Description Parameter	Range	Default value
01	Function Relay 1	1=Cooling 2=Heating 3=Alarm	1
02	Function Relay 2	1=Cooling 2=Heating 3=Alarm	2
03	Function Relay 3	1=Cooling 2=Heating 3=Alarm	3
05	Offset temperature sensor 1	-15.0..+15.0°C	0.0
06	Analogue output 0V at temperature	-50..+50°C	-50.0
07	Analogue output 10V at temperature	-50..+50°C	+50.0
10	Switching stage 2 on	0=Temperature 1=Time	0
11	Switching stage 3 on	0=Temperature 1=Time	0
12	Switch on delay stage 2	0..99 min.	15
13	Switch on delay stage 3	0..99 min.	15
14	Switching differential relay 1	0.1..15.0	0.5
15	Offset relay 1	-15..+15	0.0
16	Switching differential relay 2	0.1..15.0	0.5
17	Offset relay 2	-15..+15	0.0
18	Switching differential relay 3	0.1..15.0	0.5
19	Offset relay 3	-15..+15	0.0
20	Switch on delay cooling	0..99	0
21	Switch off delay cooling	0..99	0
22	Parameter 20/21 in sec. of min.	0=seconds 1=minutes	0
23	Minimum on time cooling	0..99 min.	0
24	Minimum off time cooling	0..99 min.	0
25	Minimum adjustable set point	-50.0..+50.0°C	-50
26	Maximum adjustable set point	-50.0..+50.0°C	+50
27	Read out above -10°C on whole degrees	0= No 1= Yes	0
30	Type Alarm	0= Non 1= Absolute 2= Relative	1
31	Minimum alarm set point	-50.0..+50.0°C	-50
32	Maximum alarm set point	-50.0..+50.0°C	+50
33	Time delay minimum alarm	0..99 min.	0
34	Time delay maximum alarm	0..99 min.	0
35	Relay function alarm relay	0= fail safe alarm 1= control alarm	0
36	Reset alarm relay after recovering alarm	0= No 1= Yes	0
37	Reset alarm relay after manual reset	0= No 1= Yes	0
40	Control delay after power failure	0..99 min.	0
41	Forced relay function at sensor failure	0= Non 1= Cooling 2= Heating	0
95	Software version	0..255	0
96	Production year	00..99	0
97	Production week	1..52	1
98	Serial number (x1000)	0..255	0
99	Serial number (units)	0..999	0

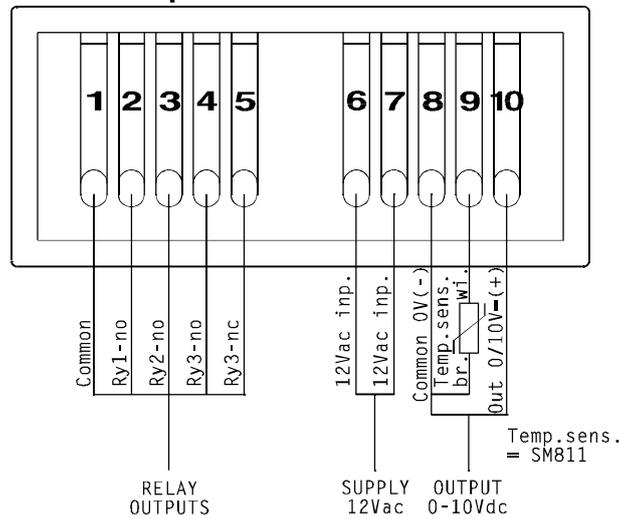


* **Dimensions.**



* **connections.**

ALFA 71 spec



* **Address.**

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