

Alarm operating logic

If the process value is lower or higher than the set minimum or maximum values, then the RED LED lights up and after the "time delay" the audible alarm starts. The audible warning can be stopped by pressing the ENTER key. The buzzer will no longer ring for subsequent readings of the same sample. When the process value returns to the set parameters, the LED turns green and the alarm clears.

State	LED	Buzzer	Meaning
Normal	Green	OFF	Values within range
New alarm	Red (blink)	ON	Threshold exceeded, buzzer active
Acknowledged	Red	OFF	Buzzer stopped, LED stays red
Cleared	Green	OFF	Values returned to normal

Technical specifications

Power supply	7 V – 30 V DC
Consumption (ON/OFF backlight)	12 V — 80 mA / 50 mA
Power consumption printing	12 V — 5 A
Display	LCD 2x16 characters
Clock power supply	BAT-CR2032/EG
Battery dimensions	Ø20 x 3.2 mm
Thermal paper width	56 mm
Maximum paper roll diameter	45 mm
Sensor cable length	5 m, 10 m
Ambient temperature	-10 °C ... +65 °C
Ambient humidity	0 % ... 95 %

Variant with DS18B20 sensor

Temperature	-55 °C ... +125 °C
Accuracy	±0.5 °C (-10 °C to +85 °C)
Resolution	0.1 °C
Sensor diameter	5 mm

Variant with T+RH sensor

Temperature	-40 °C ... +80 °C
Accuracy	±0.2 °C
Relative humidity	0 % ... 100 %
Accuracy (RH)	±2 % RH (max. ±5 % RH)
Resolution (RH)	0.1 %
Sensor diameter	15.1 mm

Declaration of conformity

The supplier Synchro s.r.l. declares on its own responsibility according to the legislation in force that the thermographer:

Measurement of temperature EN 12830:1999
EN 301489-1 V1.8.1, EN 301489-17 V1.3.2 (EMC)
EN 65022:2006
EN 55024:1998 + A1:2001 + A2:2003
EN 61000-2-2:2006
EN 61000-3-3:1995 + A1:2001 + A2:2005
EN 60950-1:2001 + A11:2004 (SAFETY)

It has been tested and found to be in accordance with the essential requirements of the following European Standard:
It is assumed that the product has not been modified in any way.

Signed: Viorel BISCU
Administrator

TERMOGRAF

Buttons

Button	Function
ENTER	Acknowledge alarm (stop buzzer) Long press (~3 s): Enter Settings Menu
DEC (▼)	Previous screen / Decrease value
INC (▲)	Next screen / Increase value
ESC / PRINT	Open Print menu / Confirm value

DEC + INC simultaneously: Feed printer paper
ENTER + INC simultaneously: Toggle backlight

Main display screens

DISPLAY	FUNCTION
Measurement	Current T (and RH) values with alarm status
Alarm thresholds	Configured min/max alarm limits
Recorded data	Trip number and record count
Date and time	Current RTC date and time

Displays temperature and/or humidity from the connected probes.

Settings menu

Press and hold ENTER for ~3 seconds to enter the settings menu.
Use INC/DEC to navigate, ESC/PRINT to enter, ENTER to exit.

Menu item	FUNCTION	Password
1. Clock	Set date and time	No
2. Demographics	Unit ID, language, temp. unit	Yes
3. Alarm	Alarm thresholds	Yes
4. Offset	Log period, offsets	Yes
5. Probe Type	Sensor type, dual probe	Yes
6. Clear log	Delete trip data	Yes
7. Printer	Printer output settings	Yes
8. Password	Change password	Yes
9. Serial Nr.	Display SN and FW version	No
10. Exit	Return to main display	—

THERMOGRAPH USER'S MANUAL

Clock settings menu

KEY	DISPLAY	FUNCTION
	year, month, day, hour, min, sec	Displays the current date and time INC / DEC to adjust the value ESC/PRINT to confirm and advance
		Returns to the main display

Demographics settings menu

KEY	DISPLAY	FUNCTION
	Car ID Company name Company name 2 Probe 1 name Probe 2 name	INC / DEC to select character ENTER to advance cursor position ESC/PRINT to confirm field
	Language Temperature scale (°C / °F)	INC / DEC to change selection ESC/PRINT to confirm
		Returns to the main display

Alarm settings menu

KEY	DISPLAY	FUNCTION
	T0 min / max, T1 min / max RH0 min / max, RH1 min / max	INC / DEC to set the threshold ESC/PRINT to confirm and advance
		Returns to the main display

Offset settings menu

KEY	DISPLAY	FUNCTION
	Logging period Time offset T0, T1 offset RH0, RH1 offset	INC / DEC to set the value ESC/PRINT to confirm and advance
		Returns to the main display

Probe selection menu

KEY	DISPLAY	FUNCTION
	Probe type (T / T+RH) Probe 2 present (Yes / No)	INC / DEC to toggle selection ESC/PRINT to confirm
		Returns to the main display

Note: changes reset offsets and clear logs

THERMOGRAPH USER'S MANUAL

Clear log menu

KEY	DISPLAY	FUNCTION
	Clear the current trip Clear all trips	INC / DEC to toggle Yes / No ESC/PRINT to confirm
		Returns to the main display

Printer menu

KEY	DISPLAY	FUNCTION
	Probe at print Print order Print date format	INC / DEC to change the setting ESC/PRINT to confirm and advance
		Returns to the main display

Password menu

KEY	DISPLAY	FUNCTION
	Set Password	INC / DEC to set value (0–99) ESC/PRINT to confirm
		Returns to the main display

*) the default (factory) password is 11

Serial Number menu

KEY	DISPLAY	FUNCTION
	Display SN	Displays the unit serial number and firmware version
		Returns to the main display