# Instruction manual



2026-11-16

## Cooling cabinet 1300 l, GN 2/1, stainless steel 230 V / 1N
## LS 140

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## 1. DECLARATION OF CONFORMITY

Decree of the Ministry of Health of the Czech Republic no. 38/2001 Coll. of 19 January 2001 Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation of the European Parliament and Council Regulation (EC) no. 1935/2004 of 27 October 2004

The products meet the requirements of §26 of Act No.258/2000 as amended. The products meet the requirements of RoHS Directive 2015/863/EU, 10/2011, 517/2014, 2015/1094, 2015/1095.

Attention, the manufacturer gives up any responsibility in case of direct and indirect damage that is relate to poor installation, incorrect intervention or adjustments, insufficient maintenance, incorrect by using and which are eventually caused by other causes that the points referred to in the conditions sales. This appliance is intended only for professional use and must be operated by qualified by persons. Parts that have been secured by the manufacturer or authorized worker after the setting rebuild.

## 2. TECHNICAL DATA

The label with technical data is located on the side or back panel of the device. Please read the wiring diagram and all the following information in the attached manual before installation.

| Net Width [mm] | Net Depth [mm] | Net Height [mm] | Net Weight [kg] | Power electric [kW] | Loading |
|---|---|---|---|---|---|
| 1420 | 2000 | 2000 | 230.00 | 0.640 | 230 V / 1N - 50 Hz |

| Climate class | Gross depth [mm] | Gross Height [mm] | Insulation thickness [mm] | Max ambient temperature [°C] | Maximum device temperature [°C] |
|---|---|---|---|---|---|
| 5 | 850 | 2100 | 70 | 43 | 8 |

| Minimum device temperature [°C] | Number of cavities | Number of doors | Number of grids | Number of GN / EN | Gross Volume [m3] |
|---|---|---|---|---|---|
| -2 | 2 | 2 | 8 | 8 | 2.678 |

| Net Volume [m3] | Gross Weight [kg] | Gross Width [mm] |
|---|---|---|
| 2.272 | 250.00 | 1500 |

## 3. LOCATION ELECTRIC

For the correct operation and placement of the appliance, it is necessary to observe the following all prescribed standards for the given market. Unpack the device and check that the device has not been damaged during transport. Place the device on a horizontal surface (maximum unevenness up to 2°). Small unevenness can be leveled with adjustable feet. If the device will be placed in such a way that it will be in contact with the walls of the furniture, these must withstand a temperature of up to 60°C. Installation, adjustment, commissioning must be performed by a qualified person who is authorized to perform such operations, according to applicable standards. The device can be installed separately or in series with devices of our production. A minimum distance of 10 cm from flammable materials must be observed. In this case, it is necessary to secure the appropriate modifications to ensure the thermal insulation of the combustible parts. The appliance must only be installed on a non-flammable surface or against a non-flammable wall. **Parts of the appliance provided by the manufacturer. or his representative, the worker performing the installation may not rebuild the product.**

## 4. SAFETY MEASURES FOR FIRE PROTECTION

- the appliance may only be operated by adults
- the appliance may be used safely in accordance with applicable market standards:

Fire protection in spaces with special risk or danger

Protection against the effects of heat

- the appliance must be placed so that it stands or hangs firmly on a non-combustible surface

Objects of flammable substances must not be placed on the appliance at a distance less than a safe distance from it (the smallest distance between the appliance and flammable substances is 10 cm).

Table: degree of flammability of building materials included in st. flammability of substances and products

| Degree of flammability | Building materials |
|---|---|
| A - non-flammable | granite, sandstone, concrete, brick, ceramic tiles, plaster |
| B - Not easily flammable | Acumin, Heraclitus, Lihnos, Itaver |
| C1 - highly flammable | wood, hardwood, plywood, hard paper, umakart |
| C2 - moderately flammable | chipboards, solodur, cork boards, rubber, flooring |
| C3 - Highly flammable | wood fiber boards, polystyrene, polyurethane, PVC |

- information on the degree of flammability of common building materials is given in the table above. Appliances must be installed in a safe manner. During installation, the relevant design, safety and hygiene regulations must also be respected:
- fire safety of local appliances and heat sources
- fire protection in areas with special risk or danger
- protection against the effects of heat

## 5. INSTALLATION

**Important:** The manufacturer does not provide any warranty for defects arising as a result of incorrect use, failure to follow the instructions contained in the attached user manual and mishandling of appliances. Installation, modification and repair of appliances for large kitchens, as well as their dismantling due to possible damage to the gas supply, can only be carried out on the basis of a maintenance contract, this contract can be concluded with an authorized dealer, while technical regulations and standards and regulations must be observed regarding installation, electrical supply, gas connection and work safety. Technical instructions for installation and adjustment, for use by specialized technicians ONLY. The instructions that follow refer to a technician qualified for installation to carry out all operations in the most correct manner and according to the applicable standards. Any activity related to regulation etc. must only be performed with the device disconnected from the network. If it is necessary to keep the appliance under voltage, the utmost care must be taken. The type of appliance for extraction is declared on the nameplate, it is an A1 appliance.

## 6. CONNECTING THE ELECTRICAL CABLE TO THE NETWORK

Installation of the electrical supply - this supply must be separately secured. Ato with the corresponding circuit breaker of rated current depending on the power input of the installed device. Check the power consumption of the device on the production label on the back panel (or side) of the device. The connected ground wire must be longer than the other wires. Connect the device directly to the network, it is necessary to insert a switch between the device and the device with a minimum distance of 3 mm between the individual contacts, which corresponds to the applicable standards and load. The earth supply (yellow-green) must not be interrupted by this switch. Connect the device to the mains if the socket has adequate protection. In any case, the supply cable must be located so that it does not reach a temperature of 50 degrees higher than the environment at any point. Before the appliance is connected to the network, it is necessary to first make sure that:

- the supply circuit breaker and the internal distribution can withstand the current load of the appliance (see matrix label)
- the distribution board is equipped with effective grounding according to the standards of the relevant market and the conditions given by law
- the socket or switch in the supply is easily accessible from the appliance
- the electrical supply to the device must be made of oil-resistant material

**We disclaim any responsibility in the event that these standards are not respected and in the event of**

**a violation of the above principles. Before first use, you must clean the device, see chapter """"cleaning and maintenance"""". The appliance must be grounded using a screw with a grounding mark.**

- Do not insert the plug of the power supply into the electrical outlet. sockets and do not pull out the zel. sockets with wet hands and pulling on the power cord!
- Do not use extension cords or multiple sockets.
- **The mains connection point must have a maximum of the following impedance: ZMAX = 0.042 + j 0.026 Ω for the phase conductors and 0.028 + j 0.017 Ω for the neutral conductor.**

| Model | Number of sections | Max. ambient temperature | storage space | Refrigerant | Voltage (V/Hz) | Power input (W) | efficiency at 43 °C (%) | Indoor temperature (°C) | Dimension (cm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| SCH 2D | 2 | 43 °C | for GN 1/1 | R290 | 230 / 50 | 400 | 60 | -2 / +8 | 136 x 70 x 85 h | 140 |
| SCH 3D | 3 | 43 °C | for GN 1/1 | R290 | 230 / 50 | 400 | 60 | -2 / +8 | 186 x 70 x 85 h | 220 |
| SCH 4D | 4 | 43 °C | for GN 1/1 | R290 | 230 / 50 | 600 | 60 | -2 / +8 | 236 x 70 x 85 h | 220 |
| LS 70 | 1 | 43 °C | for GN 2/1 | R290 | 230 / 50 | 580 | 60 | -2 / +8 | 71 x 80 x 200 h | 140 |
| LS 140 | 2 | 43 °C | for GN 2/1 | R290 | 230 / 50 | 720 | 60 | -2 / +8 | 142 x 80 x 200 h | 220 |
| SM 2D | 2 | 43 °C | for GN 1/1 | R290 | 230 / 50 | 400 | 60 | -18 / -24 | 136 x 70 x 85 h | 140 |
| SM 3D | 3 | 43 °C | for GN 1/1 | R290 | 230 / 50 | 400 | 60 | -18 / -24 | 186 x 70 x 85 h | 220 |
| SM 4D | 4 | 43 °C | for GN 1/1 | R290 | 230 / 50 | 600 | 60 | -18 / -24 | 236 x 70 x 85 h | 220 |
| MS 70 | 1 | 43 °C | for GN 2/1 | R290 | 230 / 50 | 580 | 60 | -18 / -24 | 71 x 80 x 200 h | 140 |
| MS 140 | 2 | 43 °C | for GN 2/1 | R290 | 230 / 50 | 720 | 60 | -18 / -24 | 142 x 80 x 200 h | 220 |
| LS 2350 | 2 | 43 °C | for GN 2/1 | R290 | 230 / 50 | 540 | 60 | -2 / +8 | 71 x 80 x 200 h | 165 |
| LM 2350 | 2 | 43 °C | for GN 2/1 | R290 | 230 / 50 | 720 | 60 | -2 / +8; -18 / -24 | 71 x 80 x 200 h | 165 |

Dixell control panel

The 32×74 mm Dixell model is a microprocessor-based controller, particularly suitable for applications at normal temperatures. It is equipped with a relay output for compressor control and an input for a PTC or NTC temperature sensor. The instrument also has a digital input for alarm signalling or starting defrost. The appliance can be fully configured with special parameters that can be easily programmed with the keypad.

Compressor

The regulation is carried out according to the temperature measured by the thermostat sensor with a positive difference from the desired values. The compressor starts when the temperature rises above the sum of the setpoint and the hysteresis. When the temperature drops to the setpoint, the compressor switches off again. In the event of a sensor failure the thermostat, the moment of start and stop of the compressor is determined by the parameters "COn" and "COF".

Defrost

Defrosting is done by simply stopping the compressor. The "ldF" parameter controls the interval between defrost cycles and the "MdF" parameter controls the length of the defrost cycle.

# 7. INSTRUCTIONS FOR USE

Front panel controls (fig. 1)



When the device is plugged into the mains, the indoor fan will start working. The fan runs continuously when the switch is in the OFF position (recommended for beverages, packaged foods and when the device is full). If you require that your food does not lose moisture (suitable for meat and confectionery products, for example), you can switch the switch to the ON position and then the fan works in a special mode to keep the humidity in the room higher so that your product doesn't dry out as much. Beware, the device is not equipped with a water generator, so it does not maintain a controlled, certain percentage of humidity.

| | |
|---|---|
| | Main switch |
| | Display of the last alarm status<br>In programming mode, it is used to move through the parameter list and to increase the displayed value. |
| | Display of the last alarm status<br>Hold to switch on the additional output.<br>In programming mode, it is used to move through the parameter list and to decrease the displayed value. |
| | Starting manual defrosting |
| SET | Display the desired value. In the programming mode, it is used to select a parameter or confirm an operation. |
| | Humidity control |

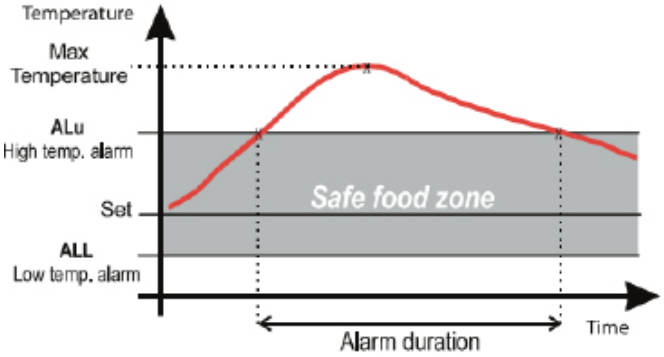
| | Key combinations |
|---|---|
| + | Lock and unlock the keyboard. |
| SET + | Enter programming mode. |
| SET + | Return to display the room temperature value. |

| LED | MODE | FEATURES |
|---|---|---|
| | lit | Compressor in operation |
| | flashing | Start delay enabled |
| | lit | Defrost on |
| | flashing | Dripping takes place |
| | lit | Alarm occurrence |
| | lit | Fan on |
| | flashing | Fan delay after defrost is in progress |
| | lit | The continuous cycle is ongoing |
| | lit | energy saving switched on |

| | | |
|---|---|---|
| °C/°F | lit | Units |
| °C/°F | flashing | Programming phase |

TEMPERATURE ALARM RECORDING (HACCP FUNCTION)

The XR20C controller signals and records temperature alarms, their duration and the maximum temperature reached. See Fig. Upper temperature alarm







Display of alarm, length and max/min temperature reached

If the alarm light is on, the alarm is logged. To display the type of alarm, max. and min. temperature reached and the length of the alarm, proceed as follows:

1. Press or
2. The display shows the message "HAL" for upper temperature alarm or "LAL" for lower temperature alarm followed by the Max (Min) temperature reached. The message "tiM" (tiMe) is then displayed, followed by Length
in hours and minutes.
3. The instrument then displays the measured temperature

Note : If the alarm still persists, the "tiM" parameter displays the partial length.

Note : An alarm is recorded if the temperature returns to normal.

To clear a recorded alarm or a still active alarm

1. In alarm viewing mode, press the SET button for more than 3 seconds before the recorded
alarm (the message rSt is displayed).
2. Confirm the operation and the rSt message will flash. The measured temperature is displayed.

MAIN FUNCTIONS

Display the desired value

1. Press the SET button briefly and the display will show the desired value.
2. To return to the current temperature, press SET again briefly or wait 5 seconds.

Change the desired value

1. Hold down the SET button for more than 2 seconds.
2. The setpoint will be displayed and the light will flash.

3. The set value can be changed by pressing the ▲ or ▼ buttons (within 10 s).
4. The newly set value can be saved by pressing the SET button again or automatically after 10 s.

Humidity control

When the LED lights up . Press the button to change the fan mode. The LED is permanently lit.
In this mode, the humidity in the chamber is increased and energy consumption is reduced.

Starting manual defrosting

Press and hold the DEF button for more than 2 seconds.

Change the value of any parameter

1. Press the SET and ▼ buttons simultaneously for 3 seconds to switch the instrument to programming mode
(the and lights will start flashing).
2. Select the desired parameter.
3. Press the SET button to display the current value (only the indicator flashes)
4. Use the ▲ or ▼ buttons to set the desired value
5. Press the SET button to save the value and move to the following
parameter.
Exit: Press the SET and ▲ buttons at the same time or wait 15 seconds.
NOTE: The new value will be saved in both cases.

The hidden menu contains all the instrument parameters

Enter the hidden menu

1. Enter the programming mode by pressing the SET and ▼ buttons for 3 seconds (the and lights will flash).
2. When the parameter appears on the display, hold down the SET buttons for another 7 seconds.
The Pr 2 message is displayed and immediately the Hy parameter.

You are now in the hidden menu

3. Select the desired parameter.
4. Press the SET button to display its value. (Only is flashing now.)
5. Use the ▲ or ▼ button to change this value.
6. Press the SET button to store the new value in memory and move on to the next parameter.
Exit: Press the SET + buttons or wait for 15 seconds.
How to move a parameter from the hidden menu to the first level list and vice versa

Any parameter placed in the HIDDEN MENU can be removed or placed in the "FIRST LEVEL" list (user list) by pressing the SET and ▼ buttons.

If a parameter from the HIDDEN MENU is in the first level list, the decimal point is enabled.

Keypad lock

1. Hold down the ▲ and ▼ buttons simultaneously for at least 3 seconds.
2. A POF message is displayed and the keyboard is locked. Now only the setpoint setting or min/max recorded temperature can be monitored.
3. If any key is pressed for more than 3 seconds, a POF message will be displayed.

Unlocking the keyboard again

Hold down the ▲ and ▼ buttons simultaneously for at least 3 seconds.

Continuous cycle

If defrosting is not in operation, a continuous cycle can be started by pressing the ▲ button for more than 3 seconds.

The compressor will operate in a continuous cycle according to par. "CCt". It can be stopped again before the set time has elapsed with the button ▲.

PARAMETERS

Note: Parameters in italics are only in the hidden menu.

REGULATION

| | |
|---|---|
| Hy | Hysteresis: (0.1 to 25.5 °C / 1 to 255 °F) Hysteresis of the control intervention for the desired value. The compressor starts when the temperature rises to the desired value plus Hy hysteresis. Compressor shutdown occurs when the temperature drops to the desired value. |
| N | Minimum setpoint: (-50°C to SET; -58°F to SET): sets the minimum acceptable setpoint. |
| US | Maximum setpoint: (SET to 110 °C, SET to 120 °F): sets the maximum acceptable setpoint. |
| Ot | Thermostat room sensor calibration: (-12 to 12 °C, -120 to 120 °F) Allows compensation possible off set of the thermostat sensor. |
| OdS | Delay of control outputs after switching on the device: (0 to 255 min) This function is activated when the device is switched on. the device and prevents the outputs from being activated for the time set by this parameter. |
| AC | Minimum compressor cycle: (0 to 50 min) Minimum interval between stopping and restarting by starting the compressor. |
| CCt | Compressor on time - continuous cycle (fast freeze cycle): (0.0 - 24.0 hours, in 10 min increments) Allows you to set the length of the continuous cycle : the compressor runs uninterrupted for CCt. It is used, for example, when filling the space with new products. |

| | |
|---|---|
| COn | Compressor start-up in case of a faulty probe: (0 to 255 min) Time during which the compressor runs in case of a faulty probe<br>space sensor malfunction. At Con=0 the compressor is always running |
| COF | Compressor shutdown in case of a faulty probe: (0 to 255 min) Time during which the compressor is shut down when<br>space sensor malfunction. At COF=0 the compressor always runs. |
| CH | Type of control: CL = cooling, Ht = heating. |

DISPLAY, RESOLUTION

| | |
|---|---|
| CF | Units of measurement: °C=Celsius, °F=Fahrenheit NOTE : When the units of measurement are changed, the parameters SET, Hy, LS, US, Ot, ALU, ALL must also be checked and changed if necessary. |
| rES | Resolution (°C): (in = 1 °C; dE = 0.1 °C) decimal display. |

DEFROSTING

| | |
|---|---|
| IdF | Defrost Interval: (1 to 120 hours) Specifies the time interval between the start of two defrost cycles. |
| MdF | Maximum defrost duration: (0 to 255 min) sets the maximum defrost duration. |
| dFd | Temperature displayed during defrost: (rt = measured temperature; it = temperature at start of defrost; SEt<br>= requested value; dEF = "dEF" message ) |
| dAd | Max. display delay after defrost: (0 to 255 min). Sets the maximum time between the end of<br>defrost and the start of the actual temperature display. |

| ALARMS | |
|---|---|
| ALC | Alarm type setting: (Ab; rE) Ab= absolute temperature: the alarm temperature is given by ALL or<br>ALU. rE = alarm temperature is related to the setpoint. The alarm is activated when the temperature exceeds<br>values "SET+ALU" or "SET-ALL" . |
| ALU | Upper temperature limit for alarm: (SET up to 110 °C, SET up to 230 °F) When this temperature is reached, the<br>delay "ALd" to activate the alarm. |
| ALL | Lower temperature limit for alarm: (-50 °C to SET, -58 °F to SET) When this temperature is reached, the alarm occurs after<br>aLd delay to activate the alarm. |
| ALd | Temperature alarm delay: (0 to 255 min) Interval between alarm detection and alarm signaling. |
| dAO | Delay (exclusion) of alarm after switching on the device: ( 0 to 23.5 h) Time after switching on the device when<br>all temperature alarms are excluded. |

| DIGITAL INPUT | |
|---|---|
| i1P | Digital input polarity: oP: digital input is activated by disconnecting the contact; CL: digital input<br>is activated by switching on the contact. |

| | |
|---|---|
| i1F | Digital input configuration: EAL = external alarm: "EA" message is displayed; bAL = door contact: "the message "CA" is displayed; PAL = pressure switch: "the message "CA" is displayed; dEF = de-frost activation<br>cycle; LHt = no function; Htr = mode switching (cooling - heating). AUS = not in operation |
| did | Digital input alarm delay: (0 to 255 min) delay between detection of external alarm condition<br>(i1F = EAL or i1F = bAL) and its signalling, door opening signalling delay (i1F = dor)<br>and the time interval for counting pressure switch activations (i1F = PAL). |
| nPS | Number of times the pressure switch is turned on: (0 to 15) Number of times the pressure switch is turned on, at intervals greater than<br>an alarm is sounded (i1F = PAL) |
| from | Compressor and fan status when door is opened: no, Fan = normal, CPr, F_C = compressor<br>will shut down. |

| Read more | |
|---|---|
| PbC | Sensor type: Allows you to set the sensor type: PtC = PTC; ntC = NTC |
| rEL | Instrument software version |
| PtB | Parameter table code: read-only |

DIGITAL INPUTS

The digital contact can be programmed with the "i1F" parameter for five functions.

DOOR SWITCH INPUT (I1F=DOR)

When the door position signal is input to the device and according to the set value of the "odc" parameter, the relay outputs can be changed as follows:

no, Fan = no compressor is affected

CPr, F_C = compressor switches off

After the time interval has elapsed (set by the "did" parameter), the alarm is activated when the door is opened, the display shows the message "dA" and the control restarts. The alarm is deactivated when the digital input is deactivated. The alarms for the upper and lower temperature are blocked when the door is opened.

GENERAL ALARM (I1F=EAL)

If the digital input is activated, the unit waits for a "did" interval before reporting the "EAL" alarm. The status of the outputs will not change, the alarm will be terminated as soon as the digital input is no longer activated.

SERIOUS ALARM (I1F=BAL)

If the digital input is activated, the unit waits for a "did" interval before reporting the "CA" alarm. The output relay will disconnect and the alarm will be terminated when the digital input is no longer activated.

PRESSURE SWITCH (I1F=PAL)

If the number of activations of the pressure switch reaches "nPS" during the "did" time interval, then the message "CA" is displayed. The compressor will be switched off and the control process will stop. The compressor is always switched off when the digital input is active. If the number of activations in the interval is

reached, turn the unit off and on and the regulation will restart.

START DEFROST (I1F=DFR)

When the conditions for start-up are established, defrosting will start. After defrosting is complete, normal control will only restart if the digital input is blocked. Otherwise, the unit waits for the "Mdf" safe interval time to expire.

CHANGE HEATING - COOLING ACTION (I1F=HTR)

This function allows changing the controller action from cooling to heating and vice versa.

POLARITY OF DIGITAL INPUTS

The polarity of the digital inputs depends on the "I1P" parameters:

CL = digital input is activated when the contact is switched

OP = digital input is activated when the contact is opened

INSTALLATION AND ASSEMBLY

The control panel is mounted in the panel in a cut-out hole with dimensions 29x71 mm and fixed with a special clamp, which is included in the delivery. To achieve IP65 protection, use RG-C gaskets under the front panel. The permissible operating ambient temperature range for trouble-free operation is 0 to 60 °C. Do not place the device in areas subject to severe vibration, corrosive gases, excessive dirt or moisture. The same recommendations apply to the sensors used. Ensure free air flow around the cooling vents.

ELECTRICAL WIRING

The units are equipped with a screw terminal block allowing connection of wires with a cross section of up to 2.5 mm2. Before connecting wires, make sure that the supply voltage used matches the unit's settings. Route the leads from the sensors separately from the power leads, from the leads to the controlled appliances and from the power leads. Take care not to exceed the maximum allowable load of the relay. If more powerful switching is required, use a suitable external relay.

SENSOR CONNECTION

The sensor should be mounted with the tip up to prevent damage due to accidental fluid ingress. It is recommended that the sensor be placed away from stronger airflow to achieve a correct measurement of the average room temperature. Place the defrost termination temperature sensor between the evaporator fins in the coldest point where the greatest amount of of ice, away from the heater or the warmest point during defrost to prevent premature termination of defrost.

USING THE HOT KEY

How to program the "hot key" from the device (reading)

1. Program the device with the buttons.

2. When the instrument is switched on, insert the programming key "Hot key" and press the button , the message "uPL" will be displayed and "End" will flash.

3. Press the "SET" button and the "End" message will stop flashing.

4. Turn the unit off, remove the "Hot Key" programming key and turn the unit back on.

Note: The message "Err" will be displayed if the programming and data transfer is incorrect. In this case, press the button again to restart reading, or remove the "Hot key" and repeat the operation.

How to program the device using the "hot key" (write)

1. Switch off the device.

2. Insert the programmed "Hot Key" into the 5 PIN connector and switch on the device.

3. The parameters from the "Hot Key" are automatically entered into the instrument's memory; the message "doL" is displayed and "End" flashes.

4. After 10 seconds, the device restarts and starts working with the new parameters.

5. Remove the programming key "Hot Key"..

Note: The message "Err" will be displayed if the programming and data transfer is incorrect. In this case turn the device off and on if you want to restart writing, or remove the "Hot key" and repeat the operation.

ALARM SIGNALLING

| **Reporting** | **Cause** | **Outputs** |
|---|---|---|
| P1 | Thermostat sensor failure | According to the settings of the Con and COF parameters |
| HA | Upper temperature alarm | Output unchanged |
| LA | Lower temperature alarm | Output unchanged |
| dA | Doors open | Compressor and fan restart |
| "EA" | External alarm | Output unchanged |
| "CA" | Serious external alarm (i1F=bAL) | All outputs off |
| "CA" | Serious external alarm (i1F=PAL) | All outputs off |

CORRECTING THE ALARM STATUS

The sensor alarm "P1" is activated a few seconds after occurrence. Deactivation occurs after a short time when normal sensor activity is restored. Before replacing the sensor, first check the wiring. Temperature alarms "HA" and "LA" are automatically deactivated when temperatures return to normal or defrosting starts.

The "EA" and "CA" (i1F=bAL) alarms occur immediately after the digital input is deactivated and the "CA" (i1F=PAL) alarm occurs after the unit is switched off and on.

| **Mark.** | **Description** | **Scope** | **oC/oF** |
|---|---|---|---|
| Set | No value | LS ÷ US | 3.0/37 |
| Hy | Hysteresis | 0.1 ÷ 25.5 oC/ 1 ÷ 255 oF | 2.0/4 |
| N | Minimum desired value | -50 oC÷ SET<br>-58 oF÷ SET | -40/-40 |
| US | Maximum desired value | SET ÷ 110 oC<br>SET ÷ 230 oF | 110/230 |
| Ot | Calibration of the space sensor | -12 ÷ 12 oC/ -120 ÷ 120o | 0 |
| OdS | Regulation delay after start | 0 ÷ 255 min | 0 |
| AC | Minimum compressor cycle | 0 ÷ 50 min | 1 |
| CCt | Quick freeze cycle | 0.0 ÷ 24.h | 0.0 |
| Con | Switching on the compressor when the probe is defective | 0 ÷ 255 min | 15 |
| COF | Switching off the compressor in case of a faulty probe | 0 ÷ 255 min | 30 |
| CH | Regulation mode | CL=cooling, HT=heating | CL |
| CF | Measuring unit | oC- oF | oC/ oF |
| rES | Resolution | in ÷ dE | dE/- |
| IdF | Defrost interval | 1 ÷ 120 hours | 8 |
| MdF | Maximum defrost duration | 0 ÷ 255 min | 20 |
| dFd | Display when defrosting | rt, it, SEt, DEF | it |

| | | | |
|---|---|---|---|
| dAd | Maximum display delay after defrosting | 0 ÷ 255 min | 30 |
| ALc | Alarm configuration | rE=relative, AB=absolute | Ab |
| ALU | Upper temperature limit for alarm | SET ÷ 110 oC<br>SET ÷ 230 oF | 110/230 |
| ALL | Lower temperature limit for alarm | -50.0 oC÷ SET<br>-58 oFSET | -50/-58 |
| Ald | Temperature alarm delay | 0 ÷ 255 min | 15 |
| dAO | Start alarm delay | 0 ÷ 23h50´ | 1.30 |
| i1P | Digital input polarity | oP=unfastened, CL=fastened | CL |
| i1F | Digital Input Configuration | EAL, bAL, PAL, dor, dEF, LHt, Htr | EAL |
| did | Digital input alarm delay | 0 ÷ 255 min | 15 |
| Nps | Number of pressure switch activations | 0 ÷ 15 | 15 |
| from | Compressor and fan status when the door is open | well, FAN = normal,<br>CPr, F_C = compressor | from |
| PbC | Sensor type | Ptc, ntc | Ptc |
| rEL | Starting the software | - | 4.0 |
| PtB | Element code | - | - |

## 8. CLEANING AND MAINTENANCE

It is recommended to have the device checked with a specialist service at least once a year. All the interventions in the device can only be carried out by a qualified person who has the authorization to do so. **CAUTION!** The device must not be cleaned with direct or pressure water. Clean the equipment daily. Daily maintenance extends the life and efficiency of the equipment. Always turn off the main inlet to the device. Wash the stainless steel parts with a damp cloth with a detergent without coarse particles and wipe dry. Do not use abrasive or corrosive cleaning agents. Attention! Before using the device, it is necessary to remove the protective foil from the entire surface, and then wash it well with water with detergent, and then wipe it with a damp cloth. **ALERT!** The warranty does not apply to all consumables subject to normal wear (rubber seals, bulbs, glass and plastic parts, etc.). The warranty also does not apply to the device if the installation is not carried out in accordance with the instructions - an authorized worker according to the corresponding standards and if the equipment was unprofessionally manipulated (interventions in the internal equipment, etc.) or were operated by unhappy staff and contrary to the instructions for use, further The warranty does not apply to damage by natural effects or other external intervention. **Required service organization 2 times a year. After the lifetime, the shipping packaging and equipment are submitted to the collection, according to the regulations on waste management and hazardous waste.**