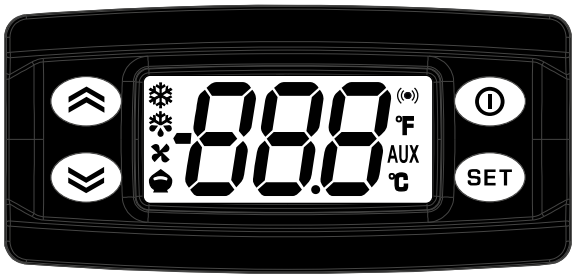
eliwell

by Schneider Electric

9IS5467100

IDPlus 961-974 -HC

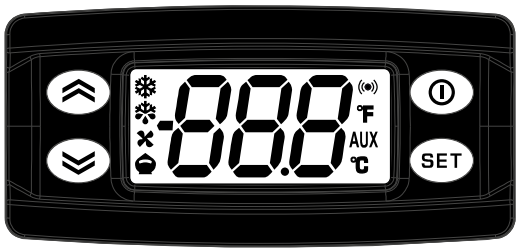


EN **Electronic controllers for refrigeration units**

www.eliwell.com

USER INTERFACE

IDPlus 961 -HC



IDPlus 974 -HC

KEYS	
UP **Press and release** • Scrolls through menu options • Increases values **Press and hold for at least 5 seconds** • Function can be configured by the user (see parameter **H31**) • Manual defrost function enabled (**H31=1**) by default	**DOWN** **Press and release** • Scrolls through menu options • Decreases values **Press and hold for at least 5 seconds** • Function can be configured by the user (see parameter **H32**) • Disabled (**H32=0**) by default
STAND-BY (ESC) **Press and release** • Goes back up one level from current menu • Confirms parameter value **Press and hold for at least 5 seconds** • Activates the Stand-by function (OFF) (when outside the menus)	**SET (ENTER)** **Press and release** • Displays alarms (if present) • Opens Machine Status menu **Press and hold for at least 5 seconds** • Open programming menu • Confirms commands

ICONS	
REDUCED SET / ECONOMY Flashing: reduced setpoint active Rapid flashing: access to level 2 parameters Off: otherwise	**ALARM** Permanently on: alarm tripped Flashing: alarm acknowledged Off: different
COMPRESSOR Permanently on: compressor active Flashing: delay, protection or activation blocked Off: different	**DEFROST** Permanently on: defrost active Flashing: manual activation or from digital input Off: otherwise
°C Permanently on: display in °C (**dro** = 0) Off: otherwise	°F Permanently on: display in °F (**dro** = 1) Off: otherwise
1 **HEATING STATUS (IDPlus 961 -HC)** Permanently on: compressor in HEAT Off: otherwise	2 **DIGITAL INPUT STATUS (IDPlus 961 -HC)** Flashing: manual activation or from digital input Off: otherwise
FANS (IDPlus 974 -HC) Permanently on: fans on Off: otherwise	AUX **AUX (IDPlus 974 -HC)** Permanently on: AUX output active Flashing: manual activation or from digital input (AUX) Off: AUX output not active

(*) The device carries out a Lamp Test when turned on; the display and ICONs flash for a few seconds, to verify their integrity and ensure they are working properly.

(*) To activate the LOC function: - enter the “Basic Commands” menu by pressing set.
- press keys ⏻ and ⌃ within 2 seconds.

If the LOC function is active, on entering the “Programming Menu”, the text LOC appears.
The LOC function parameters activate as read-only. To disable the keypad lock, repeat the procedure.

ELECTRICAL CONNECTIONS

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power from all equipment including connected devices prior to removing any covers or doors, or installing or removing any accessories, hardware, cables or wires.
- Always use the correctly rated voltage sensing device to confirm the power is off where and when indicated.
- Replace and secure all covers, accessories, hardware, cables and wires.
- Verify the earthing connections on all earthed devices.
- Use only the specified voltage when operating this equipment and any associated products.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

POTENTIAL OF OVERHEATING AND FIRE

- Use this device only at the specified voltage.
- Do not use with loads other than those indicated in the technical specification.
- Do not exceed the maximum permitted current; for higher loads, use a meter with sufficient power capacity.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

- Use appropriate safety interlocks where personnel and/or equipment hazards exist.
- Install and operate this equipment in an enclosure appropriately rated for its intended environment and secured by a keyed or tooled locking mechanism.
- Power line and output circuits must be wired and fused in compliance with local and national regulatory requirements for the rated current and voltage of the particular equipment.
- Do not use this equipment in safety-critical machine functions unless the equipment is otherwise designated as functional safety equipment and conforming to applicable regulations and standards.
- Do not disassemble, repair, or modify this equipment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WIRING GUIDELINES

⚠⚠ DANGER

LOOSE WIRING CAN RESULT IN ELECTRIC SHOCK AND FIRE

Tighten the connections in compliance with the technical specifications for the torque values.

Failure to follow these instructions will result in death or serious injury.

Use copper conductors (obligatory).
The table below shows the type and size of cables to use for screw terminals with spacing 5.08 mm (0.2 in.):

mm / *in.* **6.5 / *0.26***								
mm^2	0.2…2.5	0.2…2.5	0.25…2.5	0.25…2.5	2 x 0.2...0.75	2 x 0.2…0.75	2 x 0.25...0.75	2 x 0.5...1.5
AWG	*24…14*	*24…14*	*24...14*	*24...14*	*2 x 24…18*	*2 x 24…18*	*2 x 24…18*	*2 x 20...16*

 Ø 3.5 mm (*0.14 in.*)		N•m	0.5...0.6
		lb-in	*4.42...5.31*

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

The signal cables (probes, digital inputs, communication and relative power supplies) of the device must be laid separately from the power cables.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

NOTICE

UNINTENDED EQUIPMENT OPERATION

- Use cables up to 10 m (32.80 ft) in length for the Input/Output terminals (probes and digital inputs).
- Use cables up to 3 m (9.84 ft) in length for TTL connection.

Failure to follow these instructions can result in equipment damage.

The NTC temperature probes do not feature any connection polarity and can be extended using normal bipolar cable. Lengthening the probe wiring affects the electromagnetic compatibility (EMC) of the instrument.

NOTICE

UNINTENDED EQUIPMENT OPERATION DUE TO ELECTROSTATIC DISCHARGE

Before handling the equipment, always discharge the static electricity from the body by touching an earthed surface or type-approved antistatic mat.

Failure to follow these instructions can result in equipment damage.

FLAMMABLE REFRIGERANT GASES

The use of flammable refrigerant gases depends on many factors, including current local, regional and/or national standards.

The devices and corresponding accessories described in this document use components and, more specifically, electromechanical relays tested in accordance with IEC standard 60079-15 and classed as nC components (non-incendive electrical devices with protection 'n').

Compliance with IEC standard 60079-15 is considered sufficient - and therefore ideal - for commercial refrigeration and HVAC systems which use flammable refrigerant gases, such as R290. Nevertheless, other limitations, devices, sites and/or machine types (refrigerators, vending machines and dispensers, bottle coolers, ice machines, chiller cabinets for self-service, etc.) may be involved or lead to restrictions and/or other constraints.

The use and application of information contained in this document requires experience in the design and parameter setup/programming of refrigeration and HVAC control systems. Only you, namely the original manufacturers of the machine, the installers, or the users, can be aware of the conditions and factors present, in addition to applicable standards during machine design, installation, setup, operation and maintenance (or related processes). As such, only you can decide the suitability of the automation and the corresponding equipment, and the resulting safety features and interlocks which can be utilized in an efficient and suitable manner at the sites in which the relevant equipment needs to be put into service. When the automation and control equipment - and any other related equipment or software - are selected for a particular application, the applicable local, regional and national standards and regulations must also be taken into consideration.

When using flammable refrigerant gases, machine compliance with all current regulations and standards must be checked after this controller and related equipment has been installed. Although all the declarations and information contained herein should be considered accurate and reliable, they are not covered by warranty. The information provided herein does not absolve the user from the responsibility of carrying out their own checks and verification processes in terms of any applicable standards.

⚠ WARNING

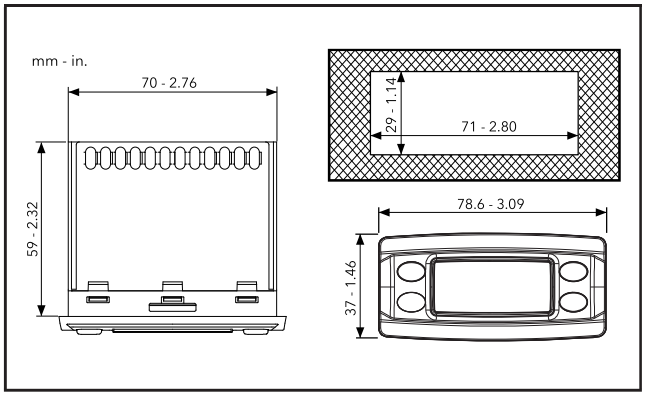
REGULATORY INCOMPATIBILITY

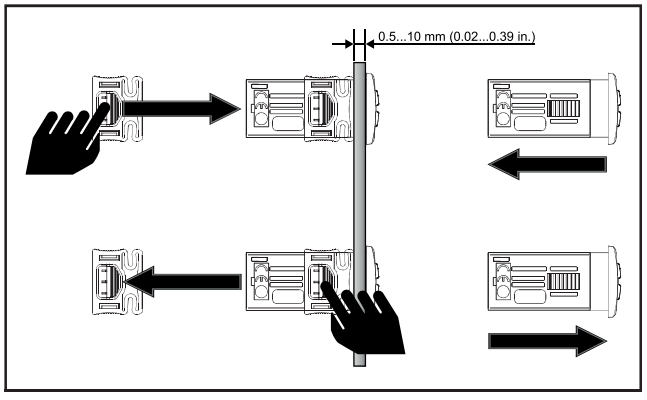
Make sure that all equipment used and the systems designed comply with all applicable local, regional and national laws.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

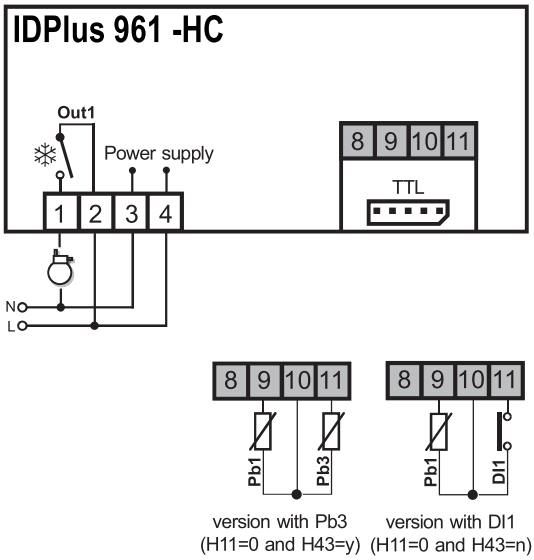
MOUNTING - DIMENSIONS

The device is designed for panel mounting.
Drill a 71x29 mm (2.80x1.14 in) hole and insert the device; lock it with the special brackets provided.
Keep the area around the instrument cooling slots adequately ventilated.
The panel must be between 0.5 mm (0.02 in.) and 10 mm (0.39 in.) thick.





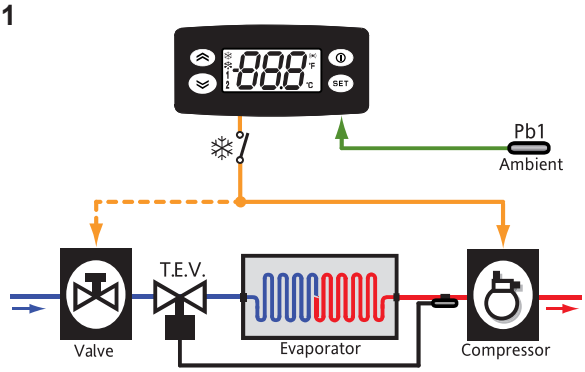
IDPlus 961 -HC CONNECTIONS



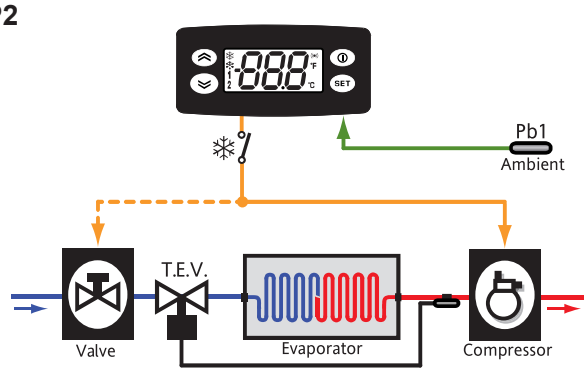
F = Functions H = Inputs and Outputs R = Relay Output	AP1	AP2	AP3	AP4
Cooling application	X	X	-	X
Heating application	-	-	X	-
F - End of defrost due to timeout	X	-	-	X
F - Pb1 alarm	X	X	X	X
F - Overheating	-	-	-	X
H - Pb1 present	X	X	X	X
H - Pb3 / DI1 enabled	-	-	-	Pb3
R - Compressor	X	X	-	X
R - Heaters	-	-	X	-

TERMINALS			
1-2	Out1 relay	**10-9**	Probe Pb1
3-4	Power supply input	**10-11**	Digital Input 1 (DI1) / probe Pb3
N-L	Power supply	**TTL**	TTL serial port

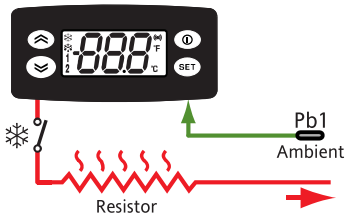
AP1



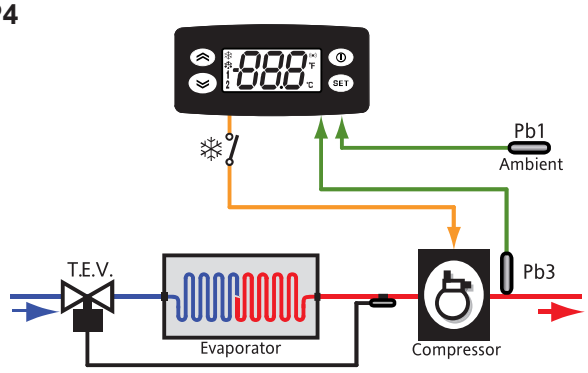
AP2



AP3

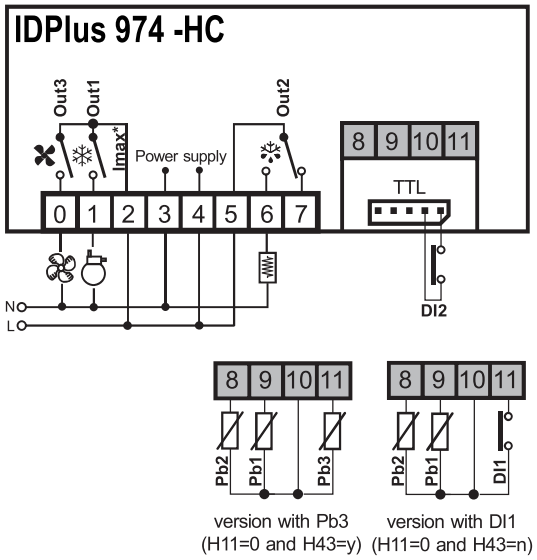


AP4



Ambient	= Ambient	**Valve**	= Valve
Evaporator	= Evaporator	**Compressor**	= Compressor
Resistor	= Heater	**T.E.V.**	= Electronic expansion valve

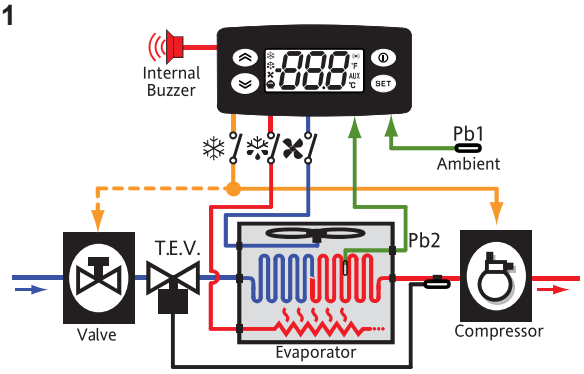
IDPlus 974 -HC CONNECTIONS



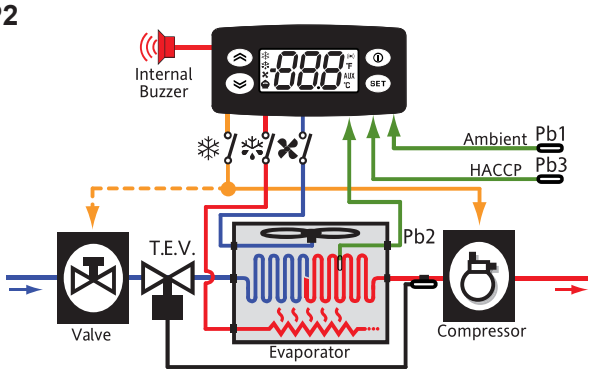
F = Functions H = Inputs and Outputs R = Relay Output	AP1	AP2	AP3	AP4
Cooling application	X	X	X	X
F - End of defrost due to timeout	X	X	X	X
F - HACCP	-	X	-	-
F - Pb1 alarm	X	X	X	X
H - Pb1 present	X	X	X	X
H - Pb2 present	X	X	X	X
H - Pb3 / DI1 enabled	-	Pb3	DI	-
H - Buzzer	X	X	X	X
R - Compressor	X	X	X	X
R - Heaters	X	X	-	-
R - Fans	X	X	X	X
R - Auxiliary	-	-	X	-
R - Reversing valve	-	-	-	X

TERMINALS			
0-2	Out3 relay	**10-8**	Probe Pb2
1-2	Out1 relay	**10-9**	Probe Pb1
3-4	Power supply input	**10-11**	Digital Input 1 (DI1) / probe Pb3
5-6-7	Out2 relay	**TTL**	TTL serial port or Digital Input 2 (DI2)
N-L	Power supply	**Imax***	Maximum current 17 A

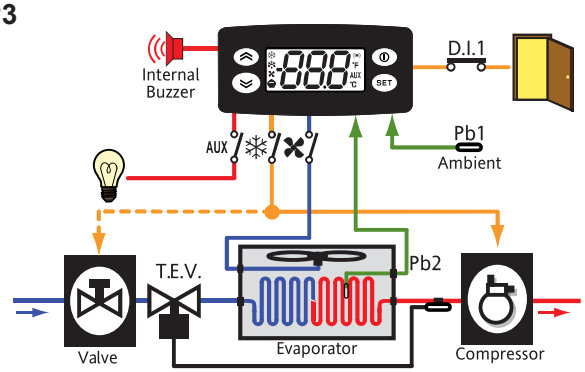
AP1



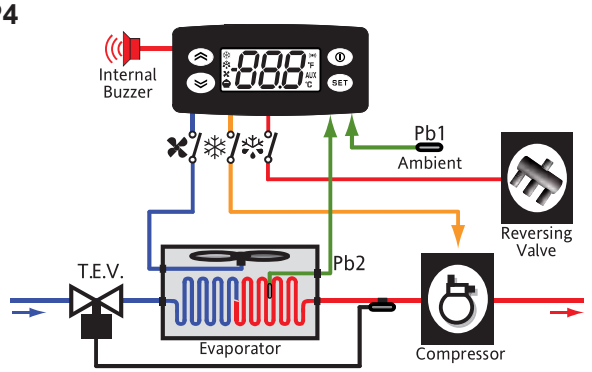
AP2



AP3



AP4



Ambient	= Ambient	**Valve**	= Valve
Evaporator	= Evaporator	**T.E.V.**	= Electronic expansion valve
Compressor	= Compressor	**AUX**	= AUX
Reversing valve	= Reversing valve	**Internal buzzer**	= Internal buzzer

TECHNICAL SPECIFICATIONS

The product complies with the following harmonized standards: EN 60730-1 and EN 60730-2-9.

Construction of control:	Electronic automatic Incorporated Control
Purpose of control:	Operating control (non-safety related)
Method of mounting:	Panel mounting with 71x29 mm (2.80x1.14 in.) drilling template
Type of action:	Type 1.B action
Pollution degrée:	2
Overvoltage category:	II
Rated impulse voltage:	2500 V
Power supply:	230 Vac (±10%) 50/60 Hz
Power draw (maximum):	4.5 VA
Ambient operating conditions:	Temperature: -5...55°C (23...131°F) Humidity: 10…90% RH (non-condensing)
Transportation and storage conditions:	Temperature: -30...85°C (-22...185°F) Humidity: 10…90% RH (non-condensing)
Insulating material group:	IIIa
Software class:	A
Operating time:	Long period (IEC/EN60730)

Loads:

Model	Relay	EU (max 250 Vac)	USA (max 240 Vac)
IDPlus 961 -HC	**Out 1**	12(8) A	12 FLA / 72 LRA
IDPlus 974 -HC	**Out 1**	12(8) A	12 FLA / 72 LRA
	Out 2	NO 8(4) A NC 6(3) A	NO 8 A - NC 6 A resistive NO 4.9 FLA / 29.4 LRA
	Out 3	5(2) A	5 A resistive 2 FLA / 12 LRA

FURTHER INFORMATION

Mechanical Characteristics

Dimensions:	Frontal 78.6x37 mm (3.09x1.46 in.), depth 59 mm (2.32 in.) (excluding terminals)
Mounting panel thickness:	0.5...10.0 mm (0.02...0.39 in.)
Terminals:	screw-type
Connectors:	TTL serial for connection of CopyCard, UNICARD or DI2 (**IDPlus 974 -HC** only)

Input Characteristics

Display range:	**ntc**: -50...110°C (-58...230°F); **Ptc**: -55...140°C (-67...284°F); **Pt1000**: -55.0...150°C (-67°F...302°F); (on 3-digit display with +/- sign)
Accuracy:	**ntc**/**Ptc**/**Pt1000**: -55...70°C (-67...158°F): Better than 0.5% of integral-scale +1 digit. **Pt1000**: 70...150°C (158...302°F): Better than 0.6% of integral-scale +1 digit.
Resolution:	0.1°C (0.1°F)
Buzzer:	YES (depends on model)
Analogue Inputs:	**IDPlus 961 -HC**: 1* ntc/Ptc/Pt1000 input **IDPlus 974 -HC**: 2* ntc/Ptc/Pt1000 inputs
Digital Inputs:	**IDPlus 961 -HC**: 1 voltage free digital input (DI1*) **IDPlus 974 -HC**: 2 voltage free digital inputs (DI1* and DI2**) (*) **DI1** can also be configured as a probe input (**H11**=0 and **H43**=y) (**) **DI2**, if activated, should be connected to terminals 1-2 of the TTL connector (**IDPlus 974 -HC**)

NOTE: Contact our sales office for the relay and power supply ratings

NOTE: The technical specifications stated in this document regarding the measurement (range, accuracy, resolution, etc.) refer strictly to the instrument and not to any accessories provided, such as the probes.

LOADING DEFAULT APPLICATIONS

The procedure for loading one of the default applications is:

- when the device is powered up, hold down set: the label **AP1** will appear;
- browse the various applications (**AP1...AP4**) using the ⌃ and ⌄ keys;
- select the desired application using the set key or cancel the procedure by pressing the ⏻ key; alternatively wait for the timeout;
- if the operation is successful, the display will show "**y**", if not, it will show "**n**";
- after a few seconds the instrument will return to the main display.

Loading one of the pre-set Applications will restore the original factory settings.

NOTICE

UNINTENDED EQUIPMENT OPERATION

Verify all the relevant parameters after uploading a default application.

Failure to follow these instructions can result in equipment damage.

DEFAULT PARAMETER SETTINGS

The devices can be used to set the parameters to the default values, by loading one of the pre-set applications **AP1...AP4** (see paragraph "LOADING DEFAULT APPLICATIONS").

SETPOINT EDIT LOCK

The keypad can be locked by entering the "Basic Commands" menu using the set key and pressing ⏻ and ⌃ within 2 seconds or through suitable programming of the "LOC" parameter (see "diS" folder).
With the keypad locked the Setpoint is read-only.

MANUAL DEFROST CYCLE ACTIVATION

Press and hold down the key for more than 5 seconds ⌃. It is only activated if the temperature conditions are fulfilled.
Otherwise, the display will flash 3 times to indicate that the operation will not be performed.

ACCESSING AND USING THE MENUS

Resources are organized in menus. Press and release set to access the “Machine Status” menu.
Press and hold set for longer than 5 seconds to access the “Programming” menu. Either do not press any keys for 15 seconds (timeout) or press the ⏻ key to confirm the last value displayed.

PASSWORDS

Password **PA1**: used to access the “**User**” (**User**) parameters. Password protection is disabled (**PA1**=0) by default. To enable it (**PA1**≠0): press and hold set for longer than 5 seconds, scroll through the parameters using ⌃ and ⌄ until you see the label **PS1**, press set to display the value, modify it using ⌃ and ⌄, then save it by pressing set or ⏻. If enabled, it will be required in order to access the User parameters.

Password **PA2**: allows access to the “**Installer**” parameters (**Inst**). The password is enabled (**PA2**=15) by default. To modify it (**PA2**≠15): press and hold set for longer than 5 seconds, scroll through the parameters using ⌃ and ⌄ until you see the label **PA2**, press set, set the value “15” using ⌃ and ⌄, then confirm using set. Scroll through the folders until you find the label diS and press set to enter. Scroll through the parameters using ⌃ and ⌄ until you see label **PS2**, press set to display the value, modify it using ⌃ and ⌄, then save it by pressing set or ⏻.

The visibility of **PA2** is:

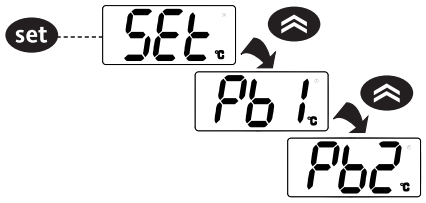
1) **PA1**≠0 and **PA2**≠0: Press and hold set for more than 5 seconds to view **PA1** and **PA2**. Select **PA1** to access the User parameters or **PA2** to access the Installer parameters.

2) Otherwise: Password **PA2** is amongst the level1 parameters. If enabled, it will be required when accessing the “Installer” parameters; to enter it, proceed as instructed for password **PA1**.

If the value entered is incorrect, label **PA1**/**PA2** will be shown again. Repeat the procedure.

MACHINE STATUS MENU

Press and release the set key to access the “Machine Status” menu. If no alarms are active, the “SEt” label appears. Press ∧ and ∨ to scroll through the folders in the menu:



- **AL**: alarms folder (**only visible if alarms are active**);
- **SEt**: Setpoint configuration folder;
- **Pb1**: probe 1 - Pb1 value folder;
- **Pb2**: probe 2 - Pb2* value folder (model **IDPlus 974 -HC** only);
- **Pb3**: probe 3 - Pb3 value folder **;

*** folder displayed if Pb2 present (H42 = y)**

**** folder displayed if Pb3 present (H11 = 0 and H43 = y)**

Programming the setpoint: To view the Setpoint value, press the set key when the “SEt” label is displayed. The Setpoint value appears in the display. To change the Setpoint value, press the ∧ and ∨ keys within 15 seconds. Press set to confirm the change.

Displaying the probes: When the label Pb1, Pb2 or Pb3 is displayed, press set and the associated probe value will appear (**NOTE**: the value cannot be changed).

PROGRAMMING MENU

To access the “Programming” menu, press and hold the set key for at least 5 seconds. If PASSWORD protection is activated, a prompt will appear: enter **PA1** for “User” parameters or **PA2** for “Installer” parameters (see “PASSWORD” section).

‘**User**’ parameters: When the menu is accessed, the display will show the first parameter (e.g. “diF”). Press ∧ and ∨ to scroll through all parameters in the current level. Select the desired parameter by pressing set. Press ∧ and ∨ to change it and set to save the change.

‘**Installer**’ parameters: When the menu is accessed, the display will show the first folder e.g. “CP”). Press ∧ and ∨ to scroll through the current level folders. Select the desired folder using set. Press ∧ and ∨ to scroll through the parameters in the current folder and select the parameter using set. Press ∧ and ∨ to change it and set to save the change.

NOTE: Switched off and then on again the device each time the configuration of the parameters is changed.

USING THE COPYCARD

The CopyCard must be connected to the TTL serial port and allows the rapid programming of instrument parameters. Access the “Installer” parameters by entering **PA2**, then scroll through the folders using ⌃ and ⌄ until the FPr folder is displayed. Select it using set, scroll through the parameters using ⌃ and ⌄ and select the function using set (for example UL).

- **Upload** (UL): select UL and press set. With this function, the programming parameters are uploaded from the instrument to the card. If the operation is successful, the display will show “**y**”, otherwise it will show “**n**”.
- **Format** (Fr): This command is used to format the card (necessary when using it for the first time). **NOTE**: formatting with the Fr parameter will delete all data present. This operation cannot be reversed.
- **Download**: Connect the MFK with the device switched off. At power-on, data will automatically start downloading from the USB key to the instrument. At the end of the lamp test, the display will show “dLy” if the operation was successful and “dLn” if not.

NOTE: After the download, the instrument will use the newly uploaded map settings.

CONTROLLER ON/OFF

To switch the controller off, press and hold the ⏻ key for more than 5 seconds. In this condition, the adjustment algorithms and defrost cycles are disabled and the text “OFF” will appear on the display.

DIAGNOSTICS

Alarms are always indicated by the buzzer (if present) and the alarm icon (•).
To silence the buzzer, press and release any key, the relative icon will continue to flash.

NOTE: if alarm exclusion times have been set (see **AL** folder in the parameters table) the alarm will not be indicated.

ALARMS

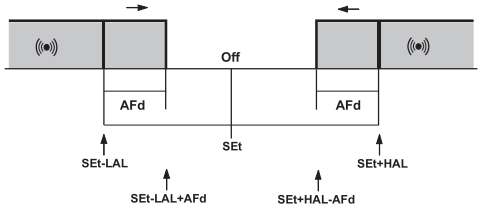
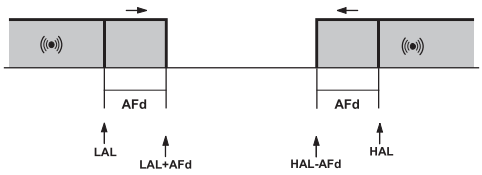
Label	Description	Cause	Effect	Problem solving
E1	Probe 1 in error	• Measured values are outside operating range • Probe inoperable/short-circuited/open	• Label **E1** displayed • Alarm icon permanently on • Disabling of maximum and minimum alarms regulator • Compressor operation based on parameters **Ont** and **OFt**.	• Verify probe type (**H00**) • Verify probe wiring • Replace probe
E2	Probe 2 in error only on **IDPlus 974 -HC**	• Measured values are outside operating range • Probe inoperable/short-circuited/open	• Label **E2** displayed • Alarm icon permanently on • Defrost will end due to Timeout (**dEt**) • The evaporator fans will be ON if the compressor is ON, and will operate based on parameter **FCO** if the compressor is OFF.	• Verify probe type (**H00**) • Verify probe wiring • Replace probe
E3	Probe 3 in error	• Measured values are outside operating range • Probe inoperable/short-circuited/open	• Label **E3** displayed • Alarm icon permanently on	• Verify probe type (**H00**) • Verify probe wiring • Replace probe
AH1	Alarm due to HIGH Temperature Pb1	Value read by probe Pb1 > **HAL** after time of **tAO**. (see “MAXIMUM/MINIMUM TEMPERATURE ALARMS”)	• Recording of label **AH1** in folder AL • No effect on regulation	Wait for temperature value read by Pb1 to return below **HAL**.
AL1	Alarm due to LOW Temperature Pb1	Value read by probe Pb1 < **LAL** after time of **tAO**. (see “MAXIMUM/MINIMUM TEMPERATURE ALARMS”)	• Recording of label **AL1** in folder AL • No effect on regulation	Wait for temperature value read by Pb1 to return above **LAL**

Label	Description	Cause	Effect	Problem solving
EA	Alarm External	Digital input activation (**H11** = ±5)	• Label **EA** recorded in folder AL • Alarm icon permanently on • Regulation blocked if **rLO**=y	Verify and remove the external cause which triggered the alarm on the digital input.
OPd	Alarm Door Open	Digital input activation (**H11** = ±4) (for a time greater than **tdO**)	• Recording of label **Opd** in folder AL • Alarm icon permanently on • Regulator blocked	• Close the door • Delay function defined in **OAO**
Ad2	Defrost due to timeout	End of defrost cycle due to timeout rather than due to defrost end temperature **dSt** being detected by Pb2.	• Recording of label **Ad2** in folder AL • Alarm icon permanently on	Await next defrost cycle for automatic return to normal
COH	Alarm due to Over Heating	Pb3 exceeded the value set by parameter **SA3**.	• Label **COH** recorded in folder AL • Alarm icon permanently on • Regulation locked (Compressor)	Wait for the temperature to return to a value of (**SA3-dA3**).
nPA	Alarm Pressure switch alarm	Activation of pressure switch alarm by general pressure switch.	If the number **N** of pressure switch activations is **N < PEn**: • Folder **nPA** recorded in folder AL with the number of pressure switch activations • Regulation inhibited (Compressor and Fans)	Verify and remove the cause of the alarm on the digital input (Automatic Reset)
PAL	Alarm Pressure switch alarm	Activation of pressure switch alarm by general pressure switch.	If the number **N** of pressure switch activations is **N = PEn**: • Label **PAL** displayed • Recording of label **PA** in folder AL • Alarm icon permanently on • Regulation inhibited (Compressor and Fans)	• Switch the device off and back on again • Reset alarms by entering the functions folder and selecting the **rAP** (Manual Reset) function

Label	Description	Cause	Effect	Problem solving
HC n	Value Pb3 Max/Min when out of range	Stores the Max/Min value read by Pb3 when it exceeds the range **SLH...SHH**. "**n**" represents the number of times the range is exceeded.	• Recording of folder "**HC n**" in folder AL • Alarm icon permanently on • No effect on regulation	**N.B.**: "**n**" can assume values from 1 to 8. If **n**>8, folder HC8 will flash and the system will overwrite the folders starting from **n**=1.
tC n	Pb3 out-of-range time	Stores the time for which the Pb3 value remains outside of the range **SLH...SHH**. "**n**" represents the number of times the range is exceeded.	• Recording of folder "**tC n**" in folder AL • Alarm icon permanently on • No effect on regulation	**N.B.**: "**n**" can assume values from 1 to 8. If **n**>8, folder tC8 will flash and the system will overwrite the folders starting from **n**=1.
bC n	Value read by Pb3 on return from a blackout	Stores the value read by Pb3 on return from a blackout. "n" represents the sequential number of blackouts that have occurred.	• Recording of folder "**bC n**" in folder AL • No effect on regulation	**N.B.**: "**n**" can assume values from 1 to 8. If **n**>8, folder bC8 will flash and the system will overwrite the folders starting from **n**=1.
bt n	Pb3 out-of-range time during a blackout	Stores the time for which the Pb3 value remains out of range during a blackout. "**n**" represents the sequential number of blackouts that have occurred.	• Recording of folder "**bt n**" in folder AL. The value contained will be 0 if the value of Pb3 has remained within the range, ≠ 0 if the value has gone outside of the range. • No effect on regulation	**N.B.**: "**n**" can assume values from 1 to 8. If **n**>8, folder bt8 will flash and the system will overwrite the folders starting from **n**=1.

NOTE: to delete the folders "**HC n**", "**tC n**", "**bC n**" and "**bt n**" in folder AL, launch the **rES** function in folder FnC.

MAXIMUM/MINIMUM TEMPERATURE ALARMS

	Temperature as a value relative to the setpoint (A0 = 1)	**Temperature as an Absolute value (A0 = 0)**
		
Minimum temperature alarm	Temperature ≤ **SEt + LAL ***	Temperature ≤ **LAL** (**LAL** with sign)
Maximum temperature alarm	Temperature ≥ **SEt + HAL ****	Temperature ≥ **HAL** (**HAL** with sign)
Reset from minimum temperature alarm condition	Temperature ≥ **SEt + LAL + AFd** or ≥ **SEt -** I**LAL**I **+ AFd** (LAL<0)	Temperature ≥ **LAL + AFd**
Reset from maximum temperature alarm condition	Temperature ≤ **SEt + HAL - AFd** (HAL>0)	Temperature ≤ **HAL - AFd**
	*** if LAL is negative, SEt + LAL < SEt** **** if HAL is negative, SEt + HAL < SEt**	

IDPlus 961 -HC PARAMETERS TABLE

NOTE: The '**User**' parameters are shown with grey background (▭).

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
SEt	Temperature regulation setpoint.	LSE...HSE	°C/°F	0.0	0.0	0.0	-2.0
	COMPRESSOR (folder "CP")						
diF	diFferential. Compressor relay activation differential.	0.1...30.0	°C/°F	2.0	2.0	2.0	0.1
HSE	Higher SEt. Maximum value that can be assigned to the setpoint.	LSE...302	°C/°F	140	140	140	5.0
LSE	Lower SEt. Minimum value that can be assigned to the set point.	-58.0...HSE	°C/°F	-55.0	-55.0	-55.0	-10.0
OSP	Temperature value to be added to the setpoint if reduced set enabled (Economy function).	-30.0...30.0	°C/°F	3.0	3.0	0.0	0.0
HC	Regulation method. **C** (0) = Cool; **H** (1) = Heat	C/H	flag	C	C	H	C
Ont	Controller switch-on time in the event of error probe. If **Ont**=1 and **OFt**=0, the compressor will always stay on; If **Ont**=1 and **OFt**>0, it operates in dutycycle mode.	0...250	min	0	0	0	0
OFt	Controller switch-off time in the event of error probe. If **OFt**=1 and Ont=0, the controller will always stay OFF; If **OFt**=1 and **Ont**>0, it operates in dutycycle mode.	0...250	min	1	1	1	1
dOn	Compressor relay activation delay after request.	0...250	s	0	0	0	0
dOF	Delay after switching off and subsequent switch-on.	0...250	min	0	0	0	0
dbi	Delay between two consecutive compressor switch-ons.	0...250	min	0	0	0	0
OdO	Delay in activating outputs after the instrument is switched on or after a power outage. **0** = not active.	0...250	min	0	0	0	0

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
dCS	“Blast Chilling” setpoint.	-58.0...302	°C/°F	0.0	0.0	0.0	0.0
tdC	“Blast Chilling” duration.	0...255	min	0	0	0	0
dCC	Defrost activation delay after a “Blast Chilling Cycle”.	0...255	min	0	0	0	0
	DEFROST (folder “dEF”)						
dit	Interval between the start of two consecutive defrost cycles.	0...250	hours	6	0	0	8
dCt	Selects the count mode for the defrost interval. **0** = compressor running time; **1** = device running time; **2** = every time the compressor stops, a defrost cycle is carried out.	0/1/2	num	1	1	1	1
dOH	Delay preceding start of first defrost after call.	0...59	min	0	0	0	0
dEt	Defrost timeout; determines the maximum defrost duration.	1...250	min	1	1	1	30
dPO	Determines whether or not the instrument must defrost at power-up. **n** (0) = no; **y** (1) = yes.	n/y	flag	n	n	n	n
	ALARMS (folder “AL”)						
Att	Can be used to select absolute (**Att=0**) or relative (**Att=1**) values for HAL and LAL parameters.	0/1	flag	0	0	0	0
AFd	Alarm differential.	1.0...50.0	°C/°F	2.0	2.0	2.0	2.0
HAL	Maximum temperature alarm.	LAL...302	°C/°F	150	150	150	50.0
LAL	Minimum temperature alarm.	-58.0...HAL	°C/°F	-50.0	-50.0	-50.0	-50.0
PAO	Alarm exclusion time on switching back on after power outage.	0...10	hours	0	0	0	0
dAO	Temperature alarm exclusion time after defrost.	0...999	min	0	0	0	0
OAO	Alarm signaling delay after digital input disabling.	0...10	hours	0	0	0	0

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
tdO	Door open alarm activation delay.	0...250	min	0	0	0	0
tAO	Delay preceding temperature alarm signal.	0...250	min	0	0	0	0
rLO	An external alarm locks the regulators. **n** (0) = does not lock; **y** (1) = locks.	n/y	flag	n	n	n	n
SA3	Probe 3 alarm set point.	-58.0...302	°C/°F	0.0	0.0	0.0	70.0
dA3	Probe 3 alarm differential.	1.0...50.0	°C/°F	1.0	1.0	1.0	10.0
	LIGHTS & DIGITAL INPUTS (folder "Lit")						
dOd	Digital input for switching off utilities. **0** = disabled; **1** = reserved; **2** = disables the compressor; **3** = reserved.	0...3	num	0	0	0	0
dAd	Activation delay for digital input.	0...255	min	0	0	0	0
dCO	Delay in deactivating compressor after door opened.	0...255	min	1	1	1	1
	PRESSURE SWITCH (folder "PrE")						
PEn	Number of errors allowed per maximum/minimum pressure switch input.	0...15	num	0	0	0	0
PEi	Minimum/maximum pressure switch error count interval.	1...99	min	1	1	1	1
PEt	Delay in deactivating compressor after door opened.	0...255	min	0	0	0	0
	COMMUNICATION (folder "Add")						
PtS	Selection of communication protocol. **T** (0) = Televis; **d** (1) = Modbus.	t/d	flag	t	t	t	t
dEA	Device address: indicates the device address to the management protocol.	0...14	num	0	0	0	0

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
FAA	Family address: indicates the device family to the management protocol.	0...14	num	0	0	0	0
Pty	Modbus parity bit. **n** (0) = none; **E** (1) = even; **or** (2) = odd.	n/E/o	num	n	n	n	n
StP	Modbus stop bit. **1b** (0) = 1 bit; **2b** (1) = 2 bit.	1b - 2b	flag	1b	1b	1b	1b
	DISPLAY (folder "diS")						
LOC	Basic commands edit lock. It is still possible to access parameter programming and edit the parameters. **n** (0) = no; **y** (1) = yes.	n/y	flag	n	n	n	n
PS1	Password PA1: if **PS1**≠0 it is the password to the "User" parameters.	0...250	num	0	0	0	0
PS2	Password PA2: if **PS2** ≠ 0 it is the password to the "Installer" parameters.	0...250	num	15	15	15	15
ndt	Display with decimal point. **n** (0) = no; **y** (1) = yes.	n/y	flag	y	y	y	y
CA1	Calibration 1. Temperature value to be added to the value of Pb1.	-12.0...12.0	°C/°F	0.0	0.0	0.0	0.0
CA3	Calibration 3. Temperature value to be added to the value of Pb3.	-12.0...12.0	°C/°F	0.0	0.0	0.0	0.0
ddL	Display mode during defrost. **0** = displays the temperature read by probe Pb1; **1** = locks recorded value of Pb1 at defrost start; **2** = displays label "dEF".	0/1/2	num	0	0	0	0
Ldd	Timeout value for display unlock - label dEF.	0...255	min	30	30	30	30

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
dro	Select the unit of measure used when displaying the temperature recorded by the probes. **0** = °C, **1** = °F. **NOTE**: switching between °C and °F DOES NOT modify the SEt, diF values, etc. (e.g. set=10°C becomes 10°F).	0/1	flag	0	0	0	0
ddd	Selects the type of value to show in the display. **0** = setpoint; **1** = probe Pb1; **2** = reserved; **3** = probe Pb3.	0...3	num	1	1	1	1
	HACCP (folder "HCP")						
SHH	Maximum HACCP alarm signals threshold.	-55.0...150	°C/°F	0.0	0.0	0.0	0.0
SLH	Minimum HACCP alarm signals threshold.	-55.0...150	°C/°F	0.0	0.0	0.0	0.0
drA	Minimum dwelling time in critical area for the event to be recorded. After this time a HACCP alarm will be logged and signaled.	0...99	min	0	0	0	0
drH	HACCP alarm reset time from last reset.	0...250	hours	0	0	0	0
H50	Enable HACCP and alarm relay functions. **0** = HACCP alarms NOT enabled; **1** = HACCP alarms enabled and alarm relay NOT enabled; **2** = HACCP alarms enabled and alarm relay enabled.	0/1/2	num	0	0	0	0
H51	HACCP alarm override time.	0...250	min	0	0	0	0
	CONFIGURATION (folder "CnF"): Switched off and on again the device each time the configuration of the parameters is changed						
H00	Probe type selection. **0** = Ptc; **1** = ntc; **2** = Pt1000.	0/1/2	num	1	1	1	1

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
H11	Configuration of digital input DI1/polarity. **0** = disabled; **±1** = defrost; **±2** = reduced set; **±3** = AUX; **±4** = door switch; **±5** = external alarm; **±6** = Stand-by; **±7** = pressure switch; **±8** = deep cooling; **± 9** = disable HACCP alarm logging. **NOTE**: • **+** sign indicates that the input is active if the contact is closed. • **-** sign indicates that the input is active if the contact is open.	-9...9	num	2	2	0	0
H21	Configurability of digital output 1 (❄). **0** = disabled; **1** = compressor; **2** = defrost; **3** = reserved; **4** = alarm; **5** = AUX; **6** = Stand-by.	0...6	num	1	1	1	1
H31	Configurability of UP key. **0** = disabled; **1** = defrost; **2** = AUX; **3** = reduced set; **4** = stand-by; **5** = reset HACCP alarms; **6** = disable HACCP alarms; **7** = deep cooling.	0...7	num	1	0	0	1
H32	Configurability of DOWN key. Same as **H31**.	0...7	num	0	0	0	0
H43	Probe Pb3 present. **n** (0) = not present; **y** (1) = present.	n/y	flag	n	n	n	y
rEL	Device version. Read-only parameter.	/	/	/	/	/	/
tAb	table of parameters. Reserved: read-only parameter.	/	/	/	/	/	/

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
	COPYCARD (“FPr” folder)						
UL	Upload. Transfer programming parameters from instrument to CopyCard/UNICARD.	/	/	/	/	/	/
Fr	Formatting. Deletion of data found on the CopyCard/UNICARD. **NOTE**: If parameter “Fr” is used, the data entered will be permanently lost. This operation cannot be reversed.	/	/	/	/	/	/
	FUNCTIONS (folder “FnC”)						

The following function is available inside folder “FnC”:

Function	Function label active	Function label not active	Alarm signaling
Reset pressure switch alarms	rAP	rAP	LED ON
Reset HACCP alarms	rES	rES	LED ON

NOTES: • To change the status of a given function, press the “SET” key.
• If the instrument is switched off, the function labels will return to the default status.

IDPlus 974 -HC PARAMETERS TABLE

NOTE: The '**User**' parameters are shown with grey background (▭).

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
SEt	Temperature regulation SEtpoint.	LSE...HSE	°C/°F	0.0	0.0	0.0	0.0
	COMPRESSOR (folder "CP")						
diF	diFferential. Compressor relay activation differential.	0.1...30.0	°C/°F	2.0	2.0	2.0	2.0
HSE	Higher SEt. Maximum value that can be assigned to the setpoint.	LSE...302	°C/°F	99.0	99.0	99.0	99.0
LSE	Lower SEt. Minimum value that can be assigned to the setpoint.	-58.0...HSE	°C/°F	-50.0	-50.0	-50.0	-50.0
OSP	Temperature value to be added to the setpoint if reduced set enabled (Economy function).	-30.0...30.0	°C/°F	3.0	0.0	0.0	3.0
HC	Regulation method. **C** (0) = Cool; **H** (1) = Heat	C/H	flag	C	C	C	C
Ont	Controller switch-on time in the event of error probe. If **Ont**=1 and **OFt**=0, the compressor will always stay on; If **Ont**=1 and **OFt**>0, it operates in duty cycle mode.	0...250	min	0	0	0	0
OFt	Controller switch-off time in the event of error probe. If **OFt**=1 and Ont=0, the controller will always stay OFF; If **OFt**=1 and **Ont**>0, it operates in duty cycle mode.	0...250	min	1	1	1	1
dOn	Compressor relay activation delay after request.	0...250	s	0	0	0	0
dOF	Delay after switching off and subsequent switch-on.	0...250	min	0	0	0	0
dbi	Delay between two consecutive compressor switch-ons.	0...250	min	0	0	0	0
OdO	Delay in activating outputs after the instrument is switched on or after a power outage. **0** = not active.	0...250	min	0	0	0	0
dCS	"Blast Chilling" setpoint.	-58.0...302	°C/°F	0.0	0.0	0.0	0.0

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
tdC	“Blast Chilling” duration.	0...255	min	0	0	0	0
dCC	Defrost activation delay after a “Blast Chilling Cycle”.	0...255	min	0	0	0	0
	DEFROST (folder “dEF”)						
dty	Type of defrost. **0** = electric defrost; **1** = reverse cycle defrost; **2** = defrost independent of compressor.	0/1/2	num	0	0	0	1
dit	Interval between the start of two consecutive defrost cycles.	0...250	hours	6	6	6	6
dCt	Selects the count mode for the defrost interval. **0** = compressor running time; **1** = device running time; **2** = Every time the compressor stops, a defrost cycle is carried out.	0/1/2	num	1	1	1	1
dOH	Delay preceding start of first defrost after call.	0...59	min	0	0	0	0
dEt	Defrost time-out; determines the maximum defrost duration.	1...250	min	30	30	30	30
dSt	Defrost end temperature - determined by probe Pb2.	-50.0...150	°C/°F	8.0	8.0	8.0	8.0
dPO	Determines whether or not the instrument must defrost at power-up. **n** (0) = no; **y** (1) = yes.	n/y	flag	n	n	n	n
	FANS (folder “FAn”)						
FSt	Fans disabling temperature.	-58.0...302	°C/°F	50.0	50.0	50.0	50.0
FAd	Fan activation differential.	1.0...50.0	°C/°F	2.0	2.0	2.0	2.0
Fdt	Fan activation delay after a defrost cycle.	0...250	min	0	0	0	0
dt	Dripping time.	0...250	min	0	0	0	0

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
dFd	Allows exclusion of the evaporator fans to be selected or not selected during defrost. **n** (0) = no (depending on parameter **FCO**); **y** (1) = yes (fan excluded).	n/y	flag	y	y	y	y
FCO	Selects or deselects fan deactivation at compressor OFF. **0** = fans off; **1** = thermostat-controlled fans; **2** = duty cycle.	0/1/2	num	0	0	0	0
Fon	Time fans remain ON during daytime duty cycle.	0...99	min	0	0	0	0
FoF	Time fans remain OFF during daytime duty cycle.	0...99	min	0	0	0	0
Fnn	Time fans remain ON during night-time duty cycle.	0...99	min	0	0	0	0
FnF	Time fans remain OFF during night-time duty cycle.	0...99	min	0	0	0	0
ESF	“Night” activation mode. **n** (0) = no; **y** (1) = yes.	n/y	flag	n	n	n	n
	ALARMS (folder “AL”)						
Att	Can be used to select absolute (**Att=0**) or relative (**Att=1**) values for HAL and LAL parameters.	0/1	flag	0	0	0	0
AFd	Alarm differential.	1.0...50.0	°C/°F	2.0	2.0	2.0	2.0
HAL	Maximum temperature alarm.	LAL...302	°C/°F	50.0	50.0	50.0	50.0
LAL	Minimum temperature alarm.	-58.0...HAL	°C/°F	-50.0	-50.0	-50.0	-50.0
PAO	Alarm exclusion time on switching back on after power outage.	0...10	hours	0	0	0	0
dAO	Temperature alarm exclusion time after defrost.	0...999	min	0	0	0	0
OAO	Alarm signaling delay after digital input disabling.	0...10	hours	0	0	0	0
tdO	Door open alarm activation delay.	0...250	min	0	0	0	0
tAO	Delay preceding temperature alarm signal.	0...250	min	0	0	0	0

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
dAt	Alarm indicating end of defrost as a result of timeout. **n** (0) = no; **y** (1) = yes.	n/y	flag	n	n	n	n
rLO	An external alarm locks the regulators. **n** (0) = does not lock; **y** (1) = locks.	n/y	flag	n	n	n	n
SA3	Probe 3 alarm set point.	-58.0...302	°C/°F	0.0	0.0	0.0	0.0
dA3	Probe 3 alarm differential.	1.0...50.0	°C/°F	1.0	1.0	1.0	1.0
	LIGHTS & DIGITAL INPUTS (folder "Lit")						
dOd	Digital input for switching off utilities. **0** = disabled; **1** = disables the fans; **2** = disables the compressor; **3** = disables fans and compressor.	0...3	num	0	0	0	0
dAd	Activation delay for digital input.	0...255	min	0	0	0	0
dCO	Delay in deactivating compressor after door opened.	0...255	min	1	1	1	1
AuP	AUX relay associated to door switch. **n** (0) = not associated; **y** (1) = associated.	n/y	flag	n	n	y	n
	PRESSURE SWITCH (folder "PrE")						
PEn	Number of errors allowed per maximum/minimum pressure switch input.	0...15	num	0	0	0	0
PEi	Minimum/maximum pressure switch error count interval.	1...99	min	1	1	1	1
PEt	Delay in deactivating compressor after door opened.	0...255	min	0	0	0	0
	COMMUNICATION (folder "Add")						
PtS	Selection of communication protocol. **T** (0) = Televis; **d** (1) = Modbus.	t/d	flag	t	t	t	t

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
dEA	Device address: indicates the device address to the management protocol.	0...14	num	0	0	0	0
FAA	Family address: indicates the device family to the management protocol.	0...14	num	0	0	0	0
Pty	Modbus parity bit. **n** (0) = none; **E** (1) = even; **or** (2) = odd.	n/E/o	num	n	n	n	n
StP	Modbus stop bit. **1b** (0) = 1 bit; **2b** (1) = 2 bit.	1b - 2b	flag	1b	1b	1b	1b
	DISPLAY (folder "diS")						
LOC	Basic commands edit lock. It is still possible to access parameter programming and edit the parameters. **n** (0) = no; **y** (1) = yes.	n/y	flag	n	n	n	n
PS1	PAssword1: if **PS1**≠0 it is the password to the "User" parameters.	0...250	num	0	0	0	0
PS2	PAssword2: if **PS2** ≠ 0 it is the password to the "Installer" parameters.	0...250	num	15	15	15	15
ndt	Display with decimal point. **n** (0) = no; **y** (1) = yes.	n/y	flag	y	y	y	y
CA1	Calibration 1. Temperature value to be added to the value of Pb1.	-12.0...12.0	°C/°F	0.0	0.0	0.0	0.0
CA2	Calibration 3. Temperature value to be added to the value of Pb2.	-12.0...12.0	°C/°F	0.0	0.0	0.0	0.0
CA3	Calibration 3. Temperature value to be added to the value of Pb3.	-12.0...12.0	°C/°F	0.0	0.0	0.0	0.0
ddL	Display mode during defrost. **0** = displays the temperature read by probe Pb1; **1** = locks recorded value of Pb1 at defrost start; **2** = displays label "dEF".	0/1/2	num	0	0	0	0
Ldd	Timeout value for display unlock - label dEF.	0...255	min	30	30	30	30

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
dro	Select the unit of measure used when displaying the temperature recorded by the probes. **0** = °C, **1** = °F. **NOTE**: switching between °C and °F DOES NOT modify the SEt, diF values, etc. (e.g. set=10°C becomes 10°F).	0/1	flag	0	0	0	0
ddd	Selects the type of value to show in the display. **0** = Setpoint; **1** = probe Pb1; **2** = probe Pb2; **3** = probe Pb3.	0...3	num	1	1	1	1
	HACCP (folder "HCP")						
SHH	Maximum HACCP alarm signals threshold.	-55.0...150	°C/°F	0.0	10.0	0.0	0.0
SLH	Minimum HACCP alarm signals threshold.	-55.0...150	°C/°F	0.0	-10.0	0.0	0.0
drA	Minimum dwelling time in critical area for the event to be recorded. After this time a HACCP alarm will be logged and signaled.	0...99	min	0	10	0	0
drH	HACCP alarm reset time from last reset.	0...250	hours	0	24	0	0
H50	Enable HACCP and alarm relay functions. **0** = HACCP alarms NOT enabled; **1** = HACCP alarms enabled and alarm relay NOT enabled; **2** = HACCP alarms enabled and alarm relay enabled.	0/1/2	num	0	1	0	0
H51	HACCP alarm override time.	0...250	min	0	0	0	0
	CONFIGURATION (folder "CnF"): Switched off and on again the device each time the configuration of the parameters is changed						
H00	Probe type selection. **0** = Ptc; **1** = ntc; **2** = Pt1000.	0/1/2	num	1	1	1	1

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
H11	Configuration of digital input DI1/polarity. **0**= disabled; **±1**= defrost; **±2**= reduced set; **±3**= AUX; **±4**= door switch; **±5**= external alarm; **±6**= Stand-by; **±7**= pressure switch; **±8**= deep cooling; **± 9**= disable HACCP alarm logging. **NOTE**: • **+** sign indicates that the input is active if the contact is closed. • **-** sign indicates that the input is active if the contact is open.	-9...9	num	2	0	4	2
H12	Configuration of digital input DI2/polarity. Same as **H11**.	-9...9	num	0	0	0	0
H21	Configurability of digital output 1 (❄). **0** = disabled; **1** = compressor; **2** = defrost; **3** = fans; **4** = alarm; **5** = AUX; **6** = Stand-by.	0...6	num	1	1	1	1
H22	Configurability of digital output 2 (❄). Same as **H21**.	0...6	num	2	2	5	2
H23	Configurability of digital output 3 (✕). Same as **H21**.	0...6	num	3	3	3	3
H25	Enable/disable buzzer. **0** = Disabled; **4** = Enabled; **1-2-3-5-6-7-8** = not used.	0...8	num	4	4	4	4
H31	Configurability of UP key. **0** = disabled; **1** = defrost; **2** = AUX; **3** = reduced set; **4** = stand-by; **5** = reset HACCP alarms; **6** = disable HACCP alarms; **7** = deep cooling.	0...7	num	1	1	1	1
H32	Configurability of DOWN key. Same as **H31**.	0...7	num	0	0	0	0
H42	Probe Pb2 present. **n** (0) = not present; **y** (1) = present.	n/y	flag	y	y	y	y
H43	Probe Pb3 present. **n** (0) = not present; **y** (1) = present.	n/y	flag	n	y	n	n

PAR.	Description	Range	UM	AP1	AP2	AP3	AP4
rEL	Device version. Read-only parameter.	/	/	/	/	/	/
tAb	table of parameters. Reserved: read-only parameter.	/	/	/	/	/	/
	COPYCARD ("FPr" folder)						
UL	Upload. Transfer programming parameters from instrument to CopyCard/UNICARD.	/	/	/	/	/	/
Fr	Formatting. Deletion of data found on the CopyCard/UNICARD. **NOTE**: If parameter "Fr" is used, the data entered will be permanently lost. This operation cannot be reversed.	/	/	/	/	/	/
	FUNCTIONS (folder "FnC")						

The following function is available inside folder "FnC":

Function	Function label active	Function label not active	Alarm signaling
Reset pressure switch alarms	rAP	rAP	LED ON
Reset HACCP alarms	rES	rES	LED ON

NOTES: • To change the status of a given function, press the "SET" key.
• If the instrument is switched off, the function labels will return to the default status.

DISCLAIMER

RESPONSIBILITY AND RESIDUAL RISKS

The liability of Schneider Electric and Eliwell is limited to the correct and professional use of the product according to the directives referred to herein and in the other supporting documents, and does not cover any damage (including but not limited to) the following causes:

- unspecified installation/use and, in particular, in contravention of the safety requirements of the legislation in force in the country of installation and/or specified in this document;
- use on equipment which does not provide adequate protection against electrocution, water and dust in the actual installation conditions;
- use on devices which allow access to dangerous parts without the aid of a keyed or tooled locking mechanism;
- tampering with and/or modification of the product;
- installation/use on equipment that does not comply with the regulations in force in the country of installation.

CONDITIONS OF USE

Permitted use

The device must be installed and used in accordance with the instructions provided. In particular, parts carrying dangerous voltages must not be accessible under normal conditions. It must be adequately protected from water and dust with regard to the application, and must only be accessible using tools or a keyed locking mechanism (with the exception of the front panel). The device is suitable for use in household and commercial refrigeration appliances and/or similar equipment and has been tested in accordance with the harmonized European reference standards.

Prohibited use

Any use other than that expressly permitted is prohibited. The relays provided are of a functional type and can be subject to failure; any protection devices required by product standards, or suggested by common sense for obvious safety requirements, must be installed externally to the controller.

DISPOSAL

The equipment (or product) must be subjected to separate waste collection in compliance with the local legislation on waste disposal.

Eliwell Controls s.r.l.
Via dell'Industria, 15 - Z.I. Paludi
32016 Alpago (BL) ITALY
T: +39 0437 986 111
F: +39 0437 989 066
www.eliwell.com

Customer Technical Support
T: +39 0437 986 300
E: Techsuppeliwell@schneider-electric.com

Sales
T: +39 0437 986 100 (Italy)
T: +39 0437 986 200 (other countries)
E: saleseliwell@schneider-electric.com

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