IDNext 971 P/B -HC

Electronic controllers compatible with flammable refrigerant gases

Parameters Tables

by Schneider Electric

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User Parameters IDNext 971 P/B

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
SEt	Control setpoint with range between the minimum **LSE** setpoint and the maximum **HSE** setpoint. The setpoint value is set in the 'Machine Status' menu.	**LSE**...**HSE**	°C/°F		3.0	3.0	0.0	-18.0
diF	Compressor relay activation differential; the compressor stops when the setpoint value is reached (as indicated by the control probe) and restarts at a temperature value equal to the setpoint plus the differential value.	0.1...30.0	°C/°F		2.0	2.0	2.0	2.0
LSE	Minimum setpoint value.	-67.0...**HSE**	°C/°F		-55.0	-55.0	-55.0	-55.0
HSE	Maximum setpoint value.	**LSE**...302	°C/°F		140.0	140.0	140.0	140.0
dEt	Defrost timeout. Determines the maximum duration of the defrost	1...250	min		30	30	30	30
dS1	Evaporator 1 defrost end temperature (measured by probe Pb2)	-67.0...302	°C/°F		8.0	8.0	8.0	0.0
dit	Time interval between one defrost and the next	0...250	hours		6	6	6	6
FSt	Fan disabling temperature; a value, read by the evaporator probe.	-67.0...320	°C/°F		8.0	8.0	8.0	8.0
Fdt	Fan activation delay time after a defrost.	0...250	min		0	0	0	0
dt	Dripping time.	0...250	min		0	0	0	0
dFd	Used to select or deselect the exclusion of the evaporator fans during defrosting. • **n**(0) = no • **y**(1) = yes (fan excluded - off).	n/y	flag		y	y	y	y
HAL	Maximum temperature alarm. Temperature value (in an absolute or relative value - see **Att**) which, when exceeded, will lead to the activation of alarm signaling.	**LAL**...302	°C/°F		150.0	150.0	150.0	150.0
LAL	Minimum temperature alarm. Temperature value (in an absolute or relative value - see **Att**) which, when not reached, will lead to the activation of alarm signaling.	-67,0...**HAL**	°C/°F		-50.0	-50.0	-50.0	-50.0
CA1 (!)	Positive or negative temperature value to be added to the value of Pb1.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
CA2 (!)	Positive or negative temperature value to be added to the value of Pb2.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
PS1	When enabled (**PS1**≠0) this is the access key for the user parameters.	0...250	num		0	0	0	0
H42	Probe Pb2 present. • **n**(0) = not present • **y**(1) = present.	n/y	flag		y	y	y	y
tAb	Reserved: read-only parameter.	/	/		/ (not in applications)			

Note: the “User” menu parameters also include **PA2**, which allows access to the "Installer" menu.

Note: for the full list of parameters, see the section "**Installer parameters**".

Installer Parameters IDNext 971 P/B

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
SEt	Control setpoint with range between the minimum **LSE** setpoint and the maximum **HSE** setpoint. The setpoint value is set in the 'Machine Status' menu.	**LSE**...**HSE**	°C/°F		3.0	3.0	0.0	-18.0
CP (Compressor)								
diF	Compressor relay activation differential; the compressor stops when the setpoint value is reached (as indicated by the control probe) and restarts at a temperature value equal to the setpoint plus the differential value.	0.1...30.0	°C/°F		2.0	2.0	2.0	2.0
LSE	Minimum setpoint value.	-67.0...**HSE**	°C/°F		-55.0	-55.0	-55.0	-55.0
HSE	Maximum setpoint value.	**LSE**...302	°C/°F		140.0	140.0	140.0	140.0
HC	The regulator implements either cold operation (set "**C**(0)") or for hot (set "**H**(1)").	C/H	flag		0	0	0	0
ont	Regulator power-on time for a inoperable probe: • if **Ont** = 1 and **OFt** = 0 compressor is always on • if **Ont** = 1 and **OFt** > 0 compressor in duty cycle mode	0...250	min		15	15	15	15
oFt	Regulator power-off time for a inoperable probe: • if **OFt** = 1 and **Ont** = 0 compressor is always off • if **OFt** = 1 and **Ont** > 0 compressor in duty cycle mode	0...250	min		15	15	15	15
don	Compressor relay activation delay time after request	0...250	s		0	0	0	0
doF	Delay time after power-off: the delay time indicated must elapse between deactivation of the compressor relay and the next power-on.	0...250	min		0	0	0	0
dbi	Delay time between power-ons; the delay time indicated must elapse between two consecutive compressor power-ons.	0...250	min		0	0	0	0
Cit	Minimum compressor activation time before it can be deactivated. If **Cit** = 0 it is not active.	0...250	min		0	0	0	0
CAt	Maximum compressor activation time before it can be deactivated. If **CAt** = 0 it is not active.	0...250	min		0	0	0	0
odo (!)	Delay in activating outputs after the controller is powered on or after a power failure. **0** = not active.	0...250	min		0	0	0	0
dcS	"Deep Cooling Cycle" setpoint	-67.0...302	°C/°F		0.0	0.0	0.0	0.0
tdC	"Deep Cooling Cycle" duration	0...250	min		0	0	0	0
dcc	Defrost activation delay after a "Deep Cooling Cycle"	0...250	min		0	0	0	0
dEF (Defrost)								
dty	Type of defrost. • **0** = electric defrost or due to stoppage - compressor OFF during defrost • **1** = cycle inversion (hot gas) defrost; compressor on during defrost • **2** = defrost with "Free" mode; defrost independent of compressor.	0/1/2	num		0	0	0	0
doH	Defrost cycle activation delay from the call	0...250	min		0	0	0	0
dEt	Defrost timeout. Determines the maximum duration of the defrost	1...250	min		30	30	30	30
dS1	Evaporator 1 defrost end temperature (measured by probe Pb2)	-67.0...302	°C/°F		8.0	8.0	8.0	0.0
dPo	Defrost activation request at power-on, if the temperature measured by Pb2 allows. • **n**(0) = no • **y**(1) = yes.	n/y	flag		n	n	n	n
tCd	Minimum period of time with the compressor ON or OFF before defrost is activated.	-127...127	min		0	0	0	0

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
Cod	Time with the compressor OFF before defrost is activated	0...250	min		0	0	0	0
dMr	Enables the defrost count reset in the case of manual defrosting. • **n** = count reset does not take place • **y** = count reset takes place	n/y	flag		n	n	n	n
d00	Compressor running time before defrost is activated	0...250	hours		0	0	0	0
d01	**d00** unit of measure. • **0** = hours • **1** = minutes • **2** = seconds.	0/1/2	num		0	0	0	0
dit	Time interval between one defrost and the next	0...250	hours		6	6	6	6
d11	**dit** unit of measure. • **0** = hours • **1** = minutes • **2** = seconds.	0/1/2	num		0	0	0	0
d20	Can be used to activate the defrost when the compressor is off. • **0** = disabled. Defrost is not activated. • **1** = enabled. Defrost is activated when the compressor is off.	0/1	flag		0	0	0	0
d40	Enables/disables use of probe Pb2. • **0** = disabled. Defrost does not take Pb2 into account • **1** = enabled. Defrost runs according to the value read by Pb2 (only refers to defrost with threshold)	0/1	flag		0	0	0	0
d41	Sets the defrost activation threshold	-67.0...302	°C/°F		0.0	0.0	0.0	0.0
d42	Sets the maximum time for which the evaporator can remain under the threshold **d41**	0...250	min		0	0	0	0
d43	Sets the type of time count in which the evaporator temperature remains under the threshold value. • **0** = count independent of the compressor status • **1** = count with compressor on (when the compressor is off the count begins again) • **2** = count independent of the compressor status. The count stops when the temperature rises above the threshold **d41** • **3** = count with compressor on and until the temperature rises above the threshold **d41**	0...3	num		0	0	0	0
d44	Sets the threshold management mode. • **0** = absolute value (for example: **d41** = -25°C means that the threshold temperature is exactly -25°C) • **1** = relative value (negative offset, relative to the value measured by the defrost probe Pb2 (if **d40** = 1) at the end of the first cooling cycle or on power-on)	0/1	flag		0	0	0	0
Fan (Fans)								
FPt	Sets whether parameter **FSt** is expressed as an absolute temperature value or as a value relative to the Setpoint. • **0** = absolute • **1** = relative.	0/1	flag		0	0	0	0
FSt	Fan disabling temperature; a value, read by the evaporator probe.	-67.0...320	°C/°F		8.0	8.0	8.0	8.0
FAd	Evaporator fan trigger differential.	0.1...25.0	°C/°F		2.0	2.0	2.0	2.0
Fdt	Fan activation delay time after a defrost.	0...250	min		0	0	0	0
dt	Dripping time.	0...250	min		0	0	0	0

<table>
<tr><th>Parameter</th><th>Description</th><th>Range</th><th>MU</th><th>Custom</th><th>Default</th><th>AP1</th><th>AP2</th><th>AP3</th></tr>
<tr><td>dFd</td><td>Used to select or deselect the exclusion of the evaporator fans during defrosting.
n(0) = no
y(1) = yes (fan excluded - off).</td><td>n/y</td><td>flag</td><td></td><td>y</td><td>y</td><td>y</td><td>y</td></tr>
<tr><td>FCo</td><td>Evaporator fan operating mode.
<table>
<tr><th rowspan="2">Pb2</th><th rowspan="2">H42</th><th rowspan="2">FCo</th><th colspan="2">day</th><th colspan="2">night</th></tr>
<tr><th>Cn</th><th>Cf</th><th>Cn</th><th>Cf</th></tr>
<tr><td rowspan="4">ok</td><td rowspan="4">y</td><td>0</td><td>T</td><td>Off</td><td>T</td><td>Off</td></tr>
<tr><td>1</td><td>T</td><td>T</td><td>T</td><td>T</td></tr>
<tr><td>2</td><td>T</td><td>DCd</td><td>T</td><td>DCn</td></tr>
<tr><td>3</td><td>T</td><td>DCd</td><td>T</td><td>DCn</td></tr>
<tr><td rowspan="4">ko</td><td rowspan="4">y</td><td>0</td><td>On</td><td>Off</td><td>On</td><td>Off</td></tr>
<tr><td>1</td><td>On</td><td>On</td><td>On</td><td>On</td></tr>
<tr><td>2</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
<tr><td>3</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
<tr><td rowspan="4">no</td><td rowspan="4">n</td><td>0</td><td>On</td><td>Off</td><td>On</td><td>Off</td></tr>
<tr><td>1</td><td>On</td><td>On</td><td>On</td><td>On</td></tr>
<tr><td>2</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
<tr><td>3</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
</table>
Headings legend:
Pb2 = probe Pb2 status (ok = present; ko = in E2 error and no = absent; day = day mode; night = night mode; Cn = compressor on; Cf = compressor off.
Status legend:
T = thermostat controlled fans; On = fans on; Off= fans off; DCd = Day duty cycle or DCn = Night duty cycle.</td><td>0...3</td><td>num</td><td></td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>Fon</td><td>Day duty cycle: time with fans on.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>FoF</td><td>Day duty cycle: time with fans off.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Fnn</td><td>Night duty cycle: time with fans on.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>FnF</td><td>Night duty cycle: time with fans off.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>ESF</td><td>"Night" mode activation.
n(0) = no
y(1) = yes.</td><td>n/y</td><td>flag</td><td></td><td>n</td><td>n</td><td>n</td><td>n</td></tr>
<tr><td colspan="9">AL (Alarms)</td></tr>
<tr><td>Att</td><td>Sets the absolute or relative value for parameters HAL and LAL.
0 = absolute value
1 = relative value</td><td>0/1</td><td>flag</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>AFd</td><td>Alarm differential.</td><td>0,1...25,0</td><td>°C/°F</td><td></td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td></tr>
<tr><td>HAL</td><td>Maximum temperature alarm.
Temperature value (in an absolute or relative value - see Att) which, when exceeded, will lead to the activation of alarm signaling.</td><td>LAL...302</td><td>°C/°F</td><td></td><td>150.0</td><td>150.0</td><td>150.0</td><td>150.0</td></tr>
<tr><td>LAL</td><td>Minimum temperature alarm.
Temperature value (in an absolute or relative value - see Att) which, when not reached, will lead to the activation of alarm signaling.</td><td>-67,0...HAL</td><td>°C/°F</td><td></td><td>-50.0</td><td>-50.0</td><td>-50.0</td><td>-50.0</td></tr>
<tr><td>PAo</td><td>Alarm exclusion time when switching on the controller, after a power failure.</td><td>0...10</td><td>min*10</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>dAo</td><td>Temperature alarm exclusion time after defrosting.</td><td>0...999</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>oAo</td><td>Alarm signaling delay after deactivation of the digital input (door closure). Alarm refers to high and low temperature alarms.</td><td>0...10</td><td>hours</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>tdo</td><td>Door open alarm activation delay time.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>tAo</td><td>Temperature alarm signaling delay time.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
</table>

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
dAt	Defrost ended due to timeout alarm indication. • **n**(0) = alarm not activated • **y**(1) = alarm activated.	n/y	flag		0	0	0	0
EAL	An external alarm inhibits the regulators. • **0** = does not inhibit the regulators • **1** = compressor and defrost inhibited • **2** = fans, compressor and defrost inhibited;	0/1/2	flag		n	n	n	n
rFt	Low refrigerant alarm signaling delay.	0...250	min		0 (non nelle applicazioni)			
Lit (Lights and digital inputs)								
dOd	Digital input shuts off utilities. • **0** = disabled • **1** = disables fans • **2** = disables compressor • **3** = disables fans and compressor.	0...3	num		0	0	0	0
dAd	Digital input activation delay	0...250	min		0	0	0	0
dCo	Compressor switch-off delay from door opening.	0...250	min		1	1	1	1
PrE (Pressure switch)								
PEn	Number of errors permitted per minimum/maximum 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	Compressor activation delay after pressure switch deactivation	0...255	min		0	0	0	0
EnS (Energy Saving)								
oSP	Temperature value to be added to the setpoint in the case of an enabled reduced set (Economy function).	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
odF	Differential offset during an energy saving cycle or reduced set.	0.1...30.0	°C/°F		2.0	2.0	2.0	2.0
Add (Communication)								
Adr	Modbus protocol controller address.	1...247	num		1 (not in applications)			
bAU	Modbus Baudrate selection. • **96** (0) = 9600 baud • **192** (1) = 19200 baud • **384** (2) = 38400 baud	96/192/384	num		96 (not in applications)			
Pty	Modbus parity bit. • **n**(0) = none • **E**(1) = even • **o**(2) = odd.	n/E/o	num		E (not in applications)			
diS (Display)								
dro	Selects the unit of measure used when displaying the temperature read by the probes. (**0** = °C, **1** = °F). **Note**: changing from °C to °F or vice-versa does NOT change the **SEt**, **diF** values, etc. (example: **SEt** = 10°C becomes 10°F).	0/1	flag		0	0	0	0
CA1 (!)	Positive or negative temperature value to be added to the value of Pb1.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
CA2 (!)	Positive or negative temperature value to be added to the value of Pb2.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
CAi	Activation of the calibration value. • **0** = Adds the value to the temperature value displayed • **1** = Adds the value to the temperature used by the regulators and not to the one displayed • **2** = Adds the value to the temperature used by the regulators and to the temperature displayed.	0/1/2	num		2	2	2	2
LoC	Keypad lock. • **n**(0) = Keypad lock disabled • **y**(1) = Keypad lock enabled (on startup or when 30 seconds have passed since the last action carried out on the user interface)	n/y	flag		y	y	y	y

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
ddd	Selects the type of value to show on the display. • **0** = setpoint • **1** = Pb1 probe • **2** = Pb2 probe • **3** = Pb3 probe.	0...3	num		1	1	1	1
ddL	Display mode during defrosting. • **0** = display the temperature read by Pb1 • **1** = inhibits reading on the value of Pb1 at the start of defrost and until the setpoint is reached • **2** = displays label **dEF** during defrost until the setpoint is reached.	0/1/2	num		0	0	0	0
Ldd	Display unlock timeout value - label **dEF**	0...250	min		30	30	30	30
ndt	Display with decimal point. • **n**(0) = no • **y**(1) = yes.	n/y	flag		y	y	y	y
FSE	Sets the value (COEFF) used by the low-pass filter to calculate the temperature value to be displayed. • **0** = disabled • **1** = 200 • **2** = 100 • **3** = 50 • **4** = 25 • **5** = 12 • **6** = 6 • **7** = 3.	0...7	num		0	0	0	0
FdS	Filter disabling threshold.	-67.0...302	°C/°F		0.0	0.0	0.0	0.0
Ftt	Time that has passed beyond the value of **FdS** before the filter is disabled.	0...250	min		0	0	0	0
FHt	Filter sampling interval.	1...250	s		1	1	1	1
PS1	When enabled (**PS1**≠0) this is the access key for the user parameters.	0...250	num		0	0	0	0
PS2	When enabled (**PS2**≠0) this is the access key for the installer parameters.	0...250	num		15	15	15	15
CnF (Configuration)								
H00	Selects the probe type. • **0** = PTC • **1** = NTC • **2** = Pt1000.	0/1/2	flag		1	1	1	1
H08	Stand-by operating mode. • **0** = display off; the regulators are active and the device signals possible alarms by reactivating the display • **1** = display off; the regulators and the alarms are blocked • **2** = the display shows the label “OFF”; the regulators and alarms are inhibited.	0/1/2	num		2	2	2	2
H11	Configurazione ingresso digitale 1 (**DI**)/ polarità. • **0** = disabilitato • **±1** = sbrinamento • **±2** = set ridotto • **±3** = ausiliario • **±4** = micro-porta • **±5** = allarme esterno • **±6** = stand-by • **±7** = pressostato • **±8** = abbattimento rapido • **±9** = luce • **±10** = risparmio energetico **Nota**: • segno “+” indica che l’ingresso è attivo se il contatto è chiuso. • segno “-” indica che l’ingresso è attivo se il contatto è aperto.	-10...+10	num		0	0	0	0

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
H21	Configuration of digital output 1 (**Out1**). • **0** = disabled • **1** = compressor • **2** = defrost • **3** = evaporator fans • **4** = alarm • **5** = auxiliary • **6** = stand-by • **7** = light • **8** = buzzer • **9** = compressor 2 • **10** = reserved • **11** = condenser fans • **12** = heater deadband control • **13** = reserved	0...13	num		1	1	1	1
H22	Configuration of digital output 2 (**Out2**). • **0** = disabled • **1** = compressor • **2** = defrost • **3** = evaporator fans • **4** = alarm • **5** = auxiliary • **6** = stand-by • **7** = light • **8** = buzzer • **9** = compressor 2 • **10** = reserved • **11** = condenser fans • **12** = heater deadband control.	0...12	num		2	2	2	2
H25	Enables/disables the buzzer. • **0** = disabled • **1** = enabled.	0/1	flag		1	1	1	1
H31	Configuration of ⚠ key. • **0** = disabled • **1** = defrost • **2** = auxiliary • **3** = reduced set • **4** = stand-by • **5** = reserved • **6** = reserved • **7** = deep cooling • **8** = light.	0...8	num		1	1	1	1
H32	Configuration of ▽ key. Same as **H31**.	0...8	num		0	0	0	0
H33	Configuration of ⏻ key. Same as **H31**.	0...8	num		4	4	4	4
H34	Configuration of 💡 key. Same as **H31**.	0...8	num		0	0	0	0
H35	Configuration of ☆ key. Same as **H31**.	0...8	num		0	0	0	0
H42	Probe Pb2 present. • **n**(0) = not present • **y**(1) = present.	n/y	flag		y	y	y	y
H60	Display selected application. **0** = disabled; **1** = AP1; **2** = AP2; **3** = AP3.	0...3	num		1 (not in applications)			
tAb	Reserved: read-only parameter.	/	/		/ (not in applications)			
FPr (UNICARD)								
UL	Transfer of the programming parameters from the controller to the UNICARD.	/	/		- (not in applications)			
Fr	UNICARD formatting. Deletes all data on the UNICARD. **Note**: the use of parameter **Fr** results in the loss of all data entered. This operation cannot be reversed.	/	/		- (not in applications)			
FnC (Functions)								
tAL	Force alarm acknowledgment	/	/		- (not in applications)			
rAP	Reset pressure switch alarms	/	/		- (not in applications)			
Cnt	Reset TelevisAir diagnostic counters (see Reset TelevisAir diagnostic counters)	/	/		- (not in applications)			

Note: if one or more parameters in folder **CnF** or marked with (!) are changed, the controller must be switched off and then on again to make sure it works properly.

Eliwell Controls srl
Via dell'Industria, 15 Z.I. Paludi
32016 Alpago (BL) Italy
T +39 (0) 437 986 111
www.eliwell.com

Technical Customer Support
T +39 (0) 437 986 300
E techsuppeliwell@se.com

Sales
T +39 (0) 437 986 100 (Italy)
T +39 (0) 437 986 200 (other countries)
E saleseliwell@se.com

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