



CAREL

IR33 Refrigeration Series

Set Point

PRESS & HOLD "SET" for 1 second "St" will be displayed.

On releasing the button the current value of set point will be displayed.

PRESS ARROW "UP" or "DOWN" to set the desired value for set point 1.**

PRESS "SET" to confirm the value.

Block level access

Once level F or C has been accessed and a parameter code is displayed:

PRESS & HOLD "PRG" for 1 second to display block code.

PRESS ARROW "UP" or "DOWN" to select the desired block code.

PRESS "SET" to enter the block. The first parameter of this block will be displayed.

Please note

Please read these instructions in conjunction with the parameter list. It is recommended that the controllers be programmed before connecting or activating the plant to be controlled (eg. Compressors...).

** If the controller keypad is locked, the value will not change. See parameter H2.

Literature available

User manual: +030220441
Connections manual: +030220445
IR33 Refrigeration applications guide

Frequent parameters (F)

PRESS & HOLD "PRG" for approx 5 seconds.

The first frequent parameter "St" will be displayed.

A) PRESS ARROW "UP" or "DOWN" until reaching the parameter to be modified.

B) PRESS "SET" to display the associated value.

C) PRESS ARROW "UP" or "DOWN" to increase or decrease the value.

D) PRESS "SET" to temporarily save the value.

Repeat the operations A - D to set other parameters.

E) PRESS & HOLD "PRG" for 5 seconds to permanently save the new values.

All parameters (C)

PRESS & HOLD "PRG" & "SET" for 5 seconds until the displays shows 0.

PRESS ARROW "UP" or "DOWN" to enter the password value "22" then SET.

Repeat the operations A - E to set other parameters and save.

HACCP parameters

To view the HACCP alarms details:

PRESS & HOLD "SET" & "def", "Han" will be displayed.

To clear the HACCP alarms when in HACCP menu:

PRESS & HOLD "SET" & "def" for 5 seconds, "rES" will be displayed.

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Technical literature can be downloaded from www.carel.com

CAREL IR33 Summary of operating parameters (v1.633)

Code	Block	Parameter	Model	Unit	Type	Min.	Max.	Def.	New
/2	Pro	Measurement stability	MSC	-	C	1	15	4	
/3	Pro	Probe display speed	MSC	-	C	0	15	0	
/4	Pro	Virtual probe	MSC	-	C	0	100	0	
/5	Pro	Select °C or °F (0 = °C)	MSC	flag	C	0	1	0	
/6	Pro	Decimal point (0 = decimal point)	MSC	flag	C	0	1	0	
/tl	Pro	Sensor shown on controller display (1= Control sen)	MSC	-	C	1	7	1	
/tE	Pro	Sensor shown on remote display	MSC	-	C	0	6	0	
/P	Pro	Type of probe (0= standard Carel NTC)	MSC	-	C	0	2	0	
/A2	Pro	Probe 2 configuration (eg 0=absent, 1=product probe, 2=evaporator probe, 3=condenser probe, 4=antifreeze)	M-C	-	C	0	4	2	
/A3	Pro	Probe 3 configuration (options: same as /A2)	MSC	-	C	0	4	0	
/A4-5	Pro	Probe 4-5 configuration (options: same as /A2)	MSC	-	C	0	4	0	
/c1	Pro	Calibration of probe 1	MSC	°C/°F	C	-20	20	0.0	
/c2-4	Pro	Calibration of probe 2-3-4 /c2=probe 2, /c3=probe 3	MSC	°C/°F	C	-20	20	0.0	
St	Ctl	Temperature set point	MSC	°C/°F	F	r1	r2	0.0	
rd	Ctl	Controller differential	-SC	°C/°F	F	0.1	20	2.0	
m	Ctl	Dead Zone (when used 1 Heat 1 Cool)	-SC	°C/°F	C	0	60	4	
rr	Ctl	Reverse (heat) diff in dead zone control	-SC	°C/°F	C	0.1	20	2	
r1	Ctl	Minimum Set Point allowed	MSC	°C/°F	C	-50	r2	-50	
r2	Ctl	Maximum Set Point allowed	MSC	°C/°F	C	r1	200	60	
r3	Ctl	Mode 0=cool with defrost,1=cool only, 2=heating	-SC	flag	C	0	2	0	
r4	Ctl	Value to increase Set Point by from Digital Input	MSC	°C/°F	C	-20	20	3.0	
r5	Ctl	Enable temperature monitoring	MSC	flag	C	0	1	0	
rt	Ctl	Temperature monitoring interval	MSC	hours	F	0	999	-	
rH	Ctl	Max temperature recorded during period rt	MSC	°C/°F	F	-	-	-	
rL	Ctl	Min temperature recorded during period rt	MSC	°C/°F	F	-	-	-	
c0	CnP	Comp. and fan start delay at power up	-SC	min	C	0	15	0	
c1	CnP	Minimum time between 2 comp starts	-SC	min	C	0	15	0	
c2	CnP	Minimum compressor OFF time	-SC	min	C	0	15	0	
c3	CnP	Minimum compressor ON time	-SC	min	C	0	15	0	
c4	CnP	Duty setting	-SC	min	C	0	100	0	
cc	CnP	Duration of continuous cycle	-SC	hours	C	0	15	0	
c6	CnP	Alarm bypass after continuous cycle	-SC	hours	C	0	15	2	
c7	CnP	Maximum Pump-Down (PD) time	-SC	sec	C	0	900	0	
c8	CnP	Comp. start delay after opening Pump Down valve	-SC	sec	C	0	60	5	
c9	CnP	Enable autostart with Pump Down operation	-SC	flag	C	0	1	0	
c10	CnP	Select Pump-Down by time or pressure switch	-SC	flag	C	0	1	0	
c11	CnP	Second compressor start delay	-SC	s	C	0	250	4	
d0	dEF	Defrost type (0=elec / temp,1= H.Gas / temp 2 = elec / time, 3 = hot gas / time ...)	-SC	flag	C	0	4	0	
dl	dEF	Interval between defrosts (if not using real time)	-SC	hours	F	0	250	8	
dt1	dEF	End defrost temperature, (if d0 = 0 or 1)	-SC	°C/°F	F	-50	200	4.0	
dt2	dEF	End defrost temperature, aux evap (if selected)	-SC	°C/°F	F	-50	200	4.0	
dP1	dEF	Maximum defrost duration	-SC	min	F	1	250	30	
dP2	dEF	Maximum defrost duration, 2nd evap (if selected)	-SC	min	F	1	250	30	
d3	dEF	Defrost- delay starting defrost after stopping comp	-SC	min	C	0	250	0	
d4	dEF	Defrost at power up (0 = no, 1 = yes)	-SC	flag	C	0	1	0	

Code	Block	Parameter	Model	Unit	Type	Min.	Max.	Def.	New
d5	dEF	Defrost delay at power up (if d4=1)	-SC	min	C	0	250	0	
d6	dEF	Display during def.(0=dF (flash),1=locked,2=dEF)	-SC	-	C	0	2	1	
dd	dEF	Dripping time after defrost	-SC	min	F	0	15	2	
d8	dEF	Bypass alarms after defrost	-SC	hours	F	0	15	1	
d8d	dEF	Alarm delay after door open - from dig input	-SC	min	C	0	250	0	
d9	dEF	Defrost priority over compressor protection	-SC	flag	C	0	1	0	
d1/d/2	dEF	Display defrost probe temp d/1=def P1,d/2=def P2)	MSC	°C/°F	F	-	-	-	
dC	dEF	Time basis for defrost (0=hr/min, 1=min/sec)	-SC	flag	C	0	1	0	
d10	dEF	Compressor run time for demand defrost	-SC	hours	C	0	250	0	
d11	dEF	Comp. run time temp set for demand defrost	-SC	°C/°F	C	-20	20	1.0	
d12	dEF	Advanced defrost enable	-SC	-	C	0	3	0	
dn	dEF	Nominal defrost duration (smart defrost)	-SC	-	C	1	100	65	
dH	dEF	Proportional factor for variation in 'dl' (smart DF)	-SC	-	C	0	100	50	
A0	ALn	Alarm and fan differential	MSC	°C/°F	C	0.1	20	2.0	
A1	ALn	Type of alarm for AL and AH (0=rel. 1=absolute)	MSC	flag	C	0	1	0	
AL	ALn	Low alarm temp (see A1 for absol. or relative)	MSC	°C/°F	F	-50	200	0.0	
AH	ALn	High alarm temp (see A1 for absol. or relative)	MSC	°C/°F	F	-50	200	0.0	
Ad	ALn	Low and high temperature alarm delay	MSC	min	F	0	250	120	
A4	ALn	Configuration of digital input 1	-SC	-	C	0	14	0	
A5	ALn	Configuration of digital input 2	MSC	-	C	0	14	0	
A6	ALn	Duty setting for comp from digital in alarm	-SC	min	C	0	100	0	
A7	ALn	External alarm delay if using digital input	-SC	min	C	0	250	0	
A8	ALn	Enable alarms 'Ed1' and 'Ed2' (defrost end on time)	-SC	flag	C	0	1	0	
A9	ALn	Configuration of digital input 3 (if available)	MSC	-	C	0	14	0	
Ado	ALn	Door switch light management mode	MSC	flag	C	0	1	0	
Ac	ALn	High condenser temperature alarm set point	-SC	°C/°F	C	0.0	200	70.0	
AE	ALn	High cond. temp. alarm differential	-SC	°C/°F	C	0.1	20	10.0	
AcD	ALn	High cond. temp. alarm delay	-SC	min	C	0	250	0	
AF	ALn	Light sensor off time	-SC	s	C	0	250	0	
ALF	ALn	Antifreeze alarm set point	MSC	°C/°F	C	-50	200	-5	
AdF	ALn	Antifreeze alarm delay	MSC	min	C	0	15	1	
F0	Fan	Fan management (0=according to F2,F3,Fd 1 = amb - evap, 2 = evap temp (F1 - A0)	---C	flag	C	0	2	0	
F1	Fan	Fan start temperature	---C	°C/°F	F	-50	200	5.0	
F2	Fan	Fans cycle with comp (0=no, 1=yes)	---C	flag	C	0	1	1	
F3	Fan	Fans in defrost (0 = on, 1 = off)	---C	flag	C	0	1	1	
Fd	Fan	Fans delay after dripping	---C	min	F	0	15	1	
F4	Fan	Condenser fan off temperature	MSC	°C/°F	C	-50	200	40.0	
F5	Fan	Condenser fan differential	MSC	°C/°F	C	0.1	20	5.0	
H0	CnF	Serial address	MSC	-	C	0	207	1	
H1	CnF	Function of relay 4 (0,1=alarm,2=aux,3=light..)	MSC	flag	C	0	11	1	
H2	CnF	Keypad and IR locking	MSC	flag	C	1	6	1	
H3	CnF	Remote control enabling code	MSC	-	C	0	255	0	
H4	CnF	Disable buzzer (0=enabled, 1 = disabled)	MSC	flag	C	0	1	0	
H5	CnF	Function of relay 5 (DN33 Din rail and PwrCompact	MSC	flag	C	0	11	1	
H6	CnF	Buttons to lock when keypad locked	MSC	-	C	0	255	0	
H8	CnF	Select output to activate with time band	MSC	flag	C	0	1	0	

Code	Block	Parameter	Model	Unit	Type	Min.	Max.	Def.	New
HPr	CnF	Print profile	MSC	-	C	0	15	0	
H9	CnF	Enable set point change with time	MSC	flag	C	0	1	0	
Hdn	CnF	Number of default parameter sets	MSC	flag	C	0	6	0	
Hdh	CnF	Anti-sweat heater control offset	MSC	°C/°F	C	-50	200	0	
HrL	CnF	Enable remote ind. of light status	MSC	flag	C	0	1	0	
HrA	CnF	Enable remote ind. of aux status	MSC	flag	C	0	1	0	
HsA	CnF	Enable alarms on network devices	MSC	flag	C	0	1	0	
In	CnF	Standard control or master or slave	MSC	flag	C	0	6	0	
HAn/HFn	HcP	Number of events HA/HF occurred	MSC	-	C	0	15	-	
HA/HF	HcP	Date/time of most recent HA/HF	MSC	-	C	-	-	-	
y__	HcP	Year	****	years	*	0	99	-	
M__	HcP	Month	****	months	*	1	12	-	
d__	HcP	Day	****	days	*	1	7	-	
h__	HcP	Hour	****	hours	*	0	23	-	
n__	HcP	Minute	****	min	*	0	59	-	
t__	HcP	Duration	****	hours	*	0	99	-	
Htd	HcP	HACCP alarm delay	MSC	min	C	0	250	0	
td1-td8	rtc	Defrost time band 1/8	-SC	-	C	-	-	-	
d__	rtc	Day	****	days	*	0	11	0	
h__	rtc	Hour	****	hours	*	0	23	0	
n__	rtc	Minute	****	min	*	0	59	0	
ton	rtc	Light/aux ON time setting	-SC	-	C	-	-	-	
d__	rtc	Day	****	days	*	0	11	0	
h__	rtc	Hour	****	hours	*	0	23	0	
n__	rtc	Minute	****	min.	*	0	59	0	
tof	rtc	Light/aux OFF time setting	-SC	-	C	-	-	-	
d__	rtc	Day	****	days	*	0	11	0	
h__	rtc	Hour	****	hours	*	0	23	0	
n__	rtc	Minute	****	min.	*	0	59	0	
tc	rtc	RTC date/time setting	MSC	-	C	-	-	-	
y__	rtc	Years	****	years	0	0	99	00	
M__	rtc	Month	****	months	1	1	12	1	
d__	rtc	Day of the month	****	days	1	1	31	1	
u__	rtc	Day of the week	****	days	6	1	7	6	
h__	rtc	Hour	****	hours	0	0	23	0	
n__	rtc	Minute	****	min	0	0	59	0	

Code	Icon on the display	Alarm relay	Buzzer	Reset	Description
'rE'		flashing	active	active	automatic virtual control probe fault
'E0'		flashing	OFF	OFF	automatic room probe S1 fault
'E1'		flashing	OFF	OFF	automatic defrost probe S2 fault
'E2'		flashing	OFF	OFF	automatic probe S3 fault
'E3'		flashing	OFF	OFF	automatic probe S4 fault
'_'		no	OFF	OFF	automatic probe not enabled
'LO'		flashing	active	active	automatic low temperature alarm
'HI'		flashing	active	active	automatic high temperature alarm
'IA'		flashing	active	active	automatic immediate alarm from external contact
'dA'		flashing	active	active	automatic delayed alarm from external contact