

Programming Guide

Temperature controller for walk-in coolers and freezers Type **AK-RC 204B, 205C**



Modbus Parameters AK-RC 204B (080Z5001)

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale
rE - Regulation/Control							
SP Set Point	200	0	-5000	9900	Float	R/W	0.01
C0 Probe 1 cal.	202	0	-2000	2000	Float	R/W	0.01
C1 Probe 1 Diff.	203	200	10	2000	Float	R/W	0.01
C2 HSE SP	204	9900	C3	9900	Float	R/W	0.01
C3 LSE SP	205	-5000	-5000	C2	Float	R/W	0.01
C4 Delay type	206	0	0	1	Integer	R/W	1
C5 Delay time	207	0	0	120	Integer	R/W	1
C6 COOL on fail	208	2	0	3	Integer	R/W	1
C7 COOL time ON	209	10	0	120	Integer	R/W	1
C8 COOL time OFF	210	5	0	120	Integer	R/W	1
C9 Max. dur. CC	211	0	0	48	Integer	R/W	1
C10 SP var. CC	212	-5000	C3-SP	0	Float	R/W	0.01
C12 SP var.	213	0	C3-SP	C2-SP	Float	R/W	0.01
C19 Max t ON PD	214	0	0	120	Integer	R/W	1
C20 Max t. PD	215	0	0	15	Integer	R/W	1
C21 Probe disp.	216	1	0	3	Integer	R/W	1
C22 St fan/cool	217	0	0	1	Integer	R/W	1
C23 Fan ON delay	218	0	0	999	Integer	R/W	1
C27 S3 calibr.	222	0	-2000	2000	Float	R/W	0.01
Switch SP Change	22101	0	0	1	Boolean	R/W	1
SP Change state	22151	0	0	1	Boolean	R	1
Switch Cont. Cyc	22103	0	0	1	Boolean	R/W	1
Cont.Cycle state	22153	0	0	1	Boolean	R	1
deF - Defrost							
d0 Defrost freq.	230	6	0	96	Integer	R/W	1
d1 Defrost dur.	231	Inl	0	255	Integer	R/W	1
d2 Def. message	232	2	0	2	Integer	R/W	1
d3 Message dur.	233	5	0	255	Integer	R/W	1
d4 End def temp	234	800	-5000	5000	Float	R/W	0.01
d5 Init. def.	235	0	0	1	Integer	R/W	1
d6 Init def del	236	0	0	255	Integer	R/W	1
d7 Def type	237	Inl	0	3	Integer	R/W	1
d8 Time btw def.	238	0	0	1	Integer	R/W	1
d9 Drip time	239	1	0	255	Integer	R/W	1
Turn on Defrost	22110	0	0	1	Boolean	R/W	1
Turn off Defrost	22111	0	0	1	Boolean	R/W	1
Defrost state	22152	0	0	1	Boolean	R	1
Fan - Fan Control							
F0 Stp fan Temp.	250	4500	-5000	5000	Float	R/W	0.01
F1 Probe 2 diff.	251	200	10	2000	Float	R/W	0.01
F2 Stop FAN/COMP	252	0	0	2	Integer	R/W	1
F3 Fans on def.	253	Inl	0	1	Integer	R/W	1
F4 Delay af def.	254	2	0	99	Integer	R/W	1
F5 Fan stp ev T	255	5000	-5000	5000	Float	R/W	0.01
F6 Fan ON Cycle	256	2	0	15	Integer	R/W	1
F7 Fan OFF Cycle	257	2	0	15	Integer	R/W	1

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale
AL - Alarm Configuration							
A0 Alarms setup	260	1	0	1	Integer	R/W	1
A1 Max alarm S1	261	9900	A2	9900	Float	R/W	0.01
A2 Min alarm S1	262	-5000	-5000	A1	Float	R/W	0.01
A3 St. up delay	263	0	0	120	Integer	R/W	1
A4 Delay af def	264	0	0	99	Integer	R/W	1
A5 Del. temp AL	265	30	0	99	Integer	R/W	1
A6 Del. ext AL	266	0	0	120	Integer	R/W	1
A7 Dly e AL OFF	267	0	0	120	Integer	R/W	1
A8 Def. warning	268	0	0	1	Integer	R/W	1
A9 Relay polar	269	0	0	1	Integer	R/W	1
A10 Alarm diff.	270	100	10	2000	Float	R/W	0.01
A12 Op door dly	272	10	0	120	Integer	R/W	1
bcn - Basic Configuration							
b00 Del Start up	280	0	0	255	Integer	R/W	1
b01 Light time	281	0	0	999	Integer	R/W	1
b10 Pass. Funct.	282	0	0	2	Integer	R/W	1
PAS Password	283	0	0	99	Integer	R/W	1
b22 Acc Alarm	287	1	0	1	Integer	R/W	1
Unt Work units	288	0	0	1	Integer	R/W	1
Switch standby	22100	0	0	1	Boolean	R/W	1
Standby state	22150	0	0	1	Boolean	R	1
Turn on Mute	22105	0	0	1	Boolean	R/W	1
Mute state	22155	0	0	1	Boolean	R	1
InO - Input/Output							
I00 Con. Probes	290	2	1	2	Integer	R/W	1
I10 Dig. 1 setup	291	InI	0	8	Integer	R/W	1
I11 Dig. 1 pol.	292	InI	0	1	Integer	R/W	1
I20 Dig. 2 setup	293	InI	0	10	Integer	R/W	1
I21 Dig. 2 pol.	294	InI	0	1	Integer	R/W	1
Dig. Input 1 st.	1104	0	0	1	Boolean	R	1
Dig. Input 2 st.	1105	0	0	1	Boolean	R	1
o00 AUX1 setup	295	InI	0	4	Integer	R/W	1
Switch AUX1	22107	0	0	1	Boolean	R/W	1
Switch LIGHT	22104	0	0	1	Boolean	R/W	1
COOL relay st.	1108	0	0	1	Boolean	R	1
DEFIRST relay st.	1109	0	0	1	Boolean	R	1
FAN relay state	1110	0	0	1	Boolean	R	1
AUX1 remote st.	22157	0	0	1	Boolean	R	1
Light state	22154	0	0	1	Boolean	R	1
AUX1 remote st.	22157	0	0	1	Boolean	R	1
Light state	22154	0	0	1	Boolean	R	1
AUX2 remote st.	22158	0	0	1	Boolean	R	1
HCP - HACCP Alarm							
h1 HACCP temp	301	9900	-5000	9900	Float	R/W	0.01
h2 HACCP delay	302	0	0	255	Integer	R/W	1

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale
tid - Device Information							
Inl wizard	798	0	0	13	Integer	R	1
Pd Pump down	799	Inl	0	1	Integer	R	1
Alarm/Alert Status							
Alarm- Max S1	20000	0	0	1	Boolean	R	1
Alarm- Min S1	20001	0	0	1	Boolean	R	1
Alarm- door op.	20002	0	0	1	Boolean	R	1
Alarm- Ext. AL.	20003	0	0	1	Boolean	R	1
Alarm- S.Ext AL	20004	0	0	1	Boolean	R	1
Probe S1 error	20005	0	0	1	Boolean	R	1
Probe S2 error	20006	0	0	1	Boolean	R	1
Probe S3 error	20007	0	0	1	Boolean	R	1
Alarm- Moist S2	20008	0	0	1	Boolean	R	1
Alarm- Moist S3	20009	0	0	1	Boolean	R	1
Alarm HACCP	20010	0	0	1	Boolean	R	1
Alert- def time	20011	0	0	1	Boolean	R	1
Alert- Pdown Pd	20012	0	0	1	Boolean	R	1
Alert- Pdown LP	20013	0	0	1	Boolean	R	1
Alert- P.F. HCP	20014	0	0	1	Boolean	R	1
Alert- HCP	20015	0	0	1	Boolean	R	1
In all groups							
Probe S1 Temp.	1100	-32767	-5000	10000	Float	R	0.01
Probe S2 Temp.	1101	-32767	-5000	10000	Float	R	0.01
Probe S3 Temp.	1102	-32767	-5000	10000	Float	R	0.01
SP effective	1103	0	-5000	9900	Float	R	0.01

Modbus Parameters AK-RC 205C (080Z5002)

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale
rE - Regulation/Control							
SP Set Point	200	0	-5000	9900	Float	R/W	0.01
C0 Probe 1 cal.	202	0	-2000	2000	Float	R/W	0.01
C1 Probe 1 Diff.	203	200	10	2000	Float	R/W	0.01
C2 HSE SP	204	9900	C3	9900	Float	R/W	0.01
C3 LSE SP	205	-5000	-5000	C2	Float	R/W	0.01
C4 Delay type	206	0	0	1	Integer	R/W	1
C5 Delay time	207	0	0	120	Integer	R/W	1
C6 COOL on fail	208	2	0	3	Integer	R/W	1
C7 COOL time ON	209	10	0	120	Integer	R/W	1
C8 COOL time OFF	210	5	0	120	Integer	R/W	1
C9 Max. dur. CC	211	0	0	48	Integer	R/W	1
C10 SP var. CC	212	-5000	C3-SP	0	Float	R/W	0.01
C12 SP var.	213	0	C3-SP	C2-SP	Float	R/W	0.01
C19 Max t ON PD	214	0	0	120	Integer	R/W	1
C20 Max t. PD	215	0	0	15	Integer	R/W	1
C21 Probe disp.	216	1	0	3	Integer	R/W	1
C22 St fan/cool	217	0	0	1	Integer	R/W	1
C23 Fan ON delay	218	0	0	999	Integer	R/W	1
C27 S3 calibr.	222	0	-2000	2000	Float	R/W	0.01
Switch SP Change	22101	0	0	1	Boolean	R/W	1
SP Change state	22151	0	0	1	Boolean	R	1
Switch Cont. Cyc	22103	0	0	1	Boolean	R/W	1
Cont.Cycle state	22153	0	0	1	Boolean	R	1
deF - Defrost							
d0 Defrost freq.	230	6	0	96	Integer	R/W	1
d1 Defrost dur.	231	Inl	0	255	Integer	R/W	1
d2 Def. message	232	2	0	2	Integer	R/W	1
d3 Message dur.	233	5	0	255	Integer	R/W	1
d4 End def temp	234	800	-5000	5000	Float	R/W	0.01
d5 Init. def.	235	0	0	1	Integer	R/W	1
d6 Init def del	236	0	0	255	Integer	R/W	1
d7 Def type	237	Inl	0	3	Integer	R/W	1
d8 Time btw def.	238	0	0	1	Integer	R/W	1
d9 Drip time	239	1	0	255	Integer	R/W	1
Turn on Defrost	22110	0	0	1	Boolean	R/W	1
Turn off Defrost	22111	0	0	1	Boolean	R/W	1
Defrost state	22152	0	0	1	Boolean	R	1
Fan - Fan Control							
F0 Stp fan Temp.	250	4500	-5000	5000	Float	R/W	0.01
F1 Probe 2 diff.	251	200	10	2000	Float	R/W	0.01
F2 Stop FAN/COMP	252	0	0	2	Integer	R/W	1
F3 Fans on def.	253	Inl	0	1	Integer	R/W	1
F4 Delay af def.	254	2	0	99	Integer	R/W	1
F5 Fan stp ev T	255	5000	-5000	5000	Float	R/W	0.01
F6 Fan ON Cycle	256	2	0	15	Integer	R/W	1
F7 Fan OFF Cycle	257	2	0	15	Integer	R/W	1

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A0 Alarms setup	260	1	0	1	Integer	R/W	1
A1 Max alarm S1	261	9900	A2	9900	Float	R/W	0.01
A2 Min alarm S1	262	-5000	-5000	A1	Float	R/W	0.01
A3 St. up delay	263	0	0	120	Integer	R/W	1
A4 Delay af def	264	0	0	99	Integer	R/W	1
A5 Del. temp AL	265	30	0	99	Integer	R/W	1
A6 Del. ext AL	266	0	0	120	Integer	R/W	1
A7 Dly e AL OFF	267	0	0	120	Integer	R/W	1
A8 Def. warning	268	0	0	1	Integer	R/W	1
A9 Relay polar	269	0	0	1	Integer	R/W	1
A10 Alarm diff.	270	100	10	2000	Float	R/W	0.01
A12 Op door dly	272	10	0	120	Integer	R/W	1
bcn - Basic Configuration							
b00 Del Start up	280	0	0	255	Integer	R/W	1
b01 Light time	281	0	0	999	Integer	R/W	1
b10 Pass. Funct.	282	0	0	2	Integer	R/W	1
PAS Password	283	0	0	99	Integer	R/W	1
b22 Acc Alarm	287	1	0	1	Integer	R/W	1
Unt Work units	288	0	0	1	Integer	R/W	1
Switch standby	22100	0	0	1	Boolean	R/W	1
Standby state	22150	0	0	1	Boolean	R	1
Turn on Mute	22105	0	0	1	Boolean	R/W	1
Mute state	22155	0	0	1	Boolean	R	1
InO - Input/Output							
I00 Con. Probes	290	2	1	2	Integer	R/W	1
I10 Dig. 1 setup	291	InI	0	8	Integer	R/W	1
I11 Dig. 1 pol.	292	InI	0	1	Integer	R/W	1
I20 Dig. 2 setup	293	InI	0	10	Integer	R/W	1
I21 Dig. 2 pol.	294	InI	0	1	Integer	R/W	1
Dig. Input 1 st.	1104	0	0	1	Boolean	R	1
Dig. Input 2 st.	1105	0	0	1	Boolean	R	1
o00 AUX1 setup	295	InI	0	3	Integer	R/W	1
o10 AUX 2 setup	296	2	0	7	Integer	R/W	1
Switch AUX1	22107	0	0	1	Boolean	R/W	1
Switch LIGHT	22104	0	0	1	Boolean	R/W	1
Switch AUX2	22108	0	0	1	Boolean	R/W	1
COOL relay st.	1108	0	0	1	Boolean	R	1
DEFIRST relay st.	1109	0	0	1	Boolean	R	1
FAN relay state	1110	0	0	1	Boolean	R	1
AUX1 remote st.	22157	0	0	1	Boolean	R	1
Light state	22154	0	0	1	Boolean	R	1
AUX2 remote st.	22158	0	0	1	Boolean	R	1
HCP - HACCP Alarm							
h1 HACCP temp	301	9900	-5000	9900	Float	R/W	0.01
h2 HACCP delay	302	0	0	255	Integer	R/W	1

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale
tid - Device Information							
Inl wizard	798	0	0	13	Integer	R	1
Pd Pump down	799	Inl	0	1	Integer	R	1
Alarm/Alert Status							
Alarm- Max S1	20000	0	0	1	Boolean	R	1
Alarm- Min S1	20001	0	0	1	Boolean	R	1
Alarm- door op.	20002	0	0	1	Boolean	R	1
Alarm- Ext. AL.	20003	0	0	1	Boolean	R	1
Alarm- S.Ext AL	20004	0	0	1	Boolean	R	1
Probe S1 error	20005	0	0	1	Boolean	R	1
Probe S2 error	20006	0	0	1	Boolean	R	1
Probe S3 error	20007	0	0	1	Boolean	R	1
Alarm- Moist S2	20008	0	0	1	Boolean	R	1
Alarm- Moist S3	20009	0	0	1	Boolean	R	1
Alarm HACCP	20010	0	0	1	Boolean	R	1
Alert- def time	20011	0	0	1	Boolean	R	1
Alert- Pdown Pd	20012	0	0	1	Boolean	R	1
Alert- Pdown LP	20013	0	0	1	Boolean	R	1
Alert- P.F. HCP	20014	0	0	1	Boolean	R	1
Alert- HCP	20015	0	0	1	Boolean	R	1
In all groups							
Probe S1 Temp.	1100	-32767	-5000	10000	Float	R	0.01
Probe S2 Temp.	1101	-32767	-5000	10000	Float	R	0.01
Probe S3 Temp.	1102	-32767	-5000	10000	Float	R	0.01
SP effective	1103	0	-5000	9900	Float	R	0.01

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