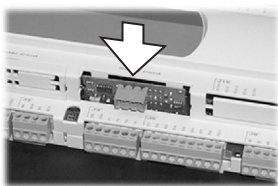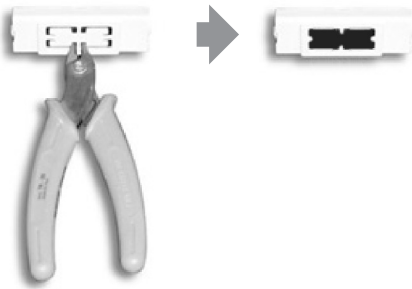**DAIKIN**

INSTALLATION MANUAL

Address card

EKAC200A

1

3

2

60 mm

20 mm

29 mm
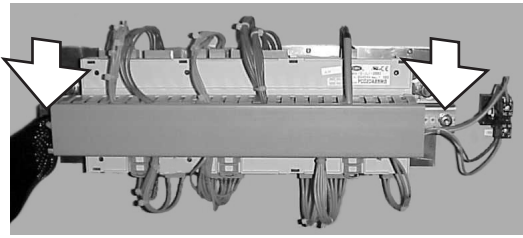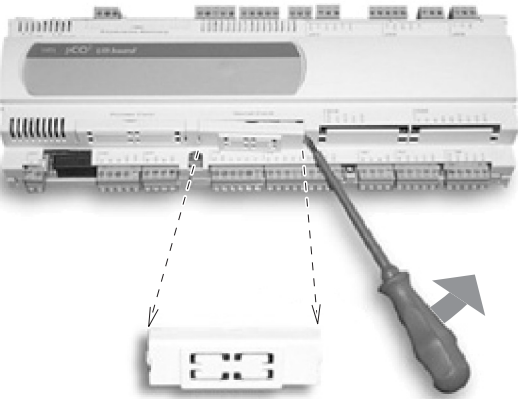
4

⚠ READ THIS MANUAL ATTENTIVELY BEFORE STARTING UP THE UNIT. DO NOT THROW IT AWAY. KEEP IT IN YOUR FILES FOR FUTURE REFERENCE.

IMPROPER INSTALLATION OR ATTACHMENT OF EQUIPMENT OR ACCESSORIES COULD RESULT IN ELECTRIC SHOCK, SHORT-CIRCUIT, LEAKS, FIRE OR OTHER DAMAGE TO EQUIPMENT. BE SURE ONLY TO USE ACCESSORIES MADE BY DAIKIN THAT ARE SPECIFICALLY DESIGNED FOR USE WITH THE EQUIPMENT AND HAVE THEM INSTALLED BY A PROFESSIONAL.
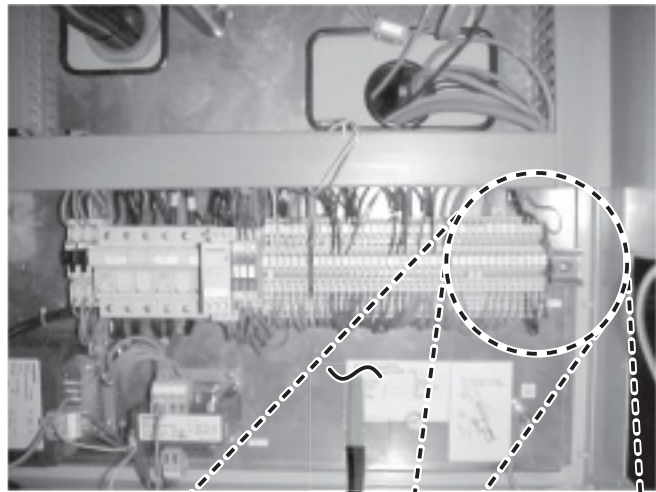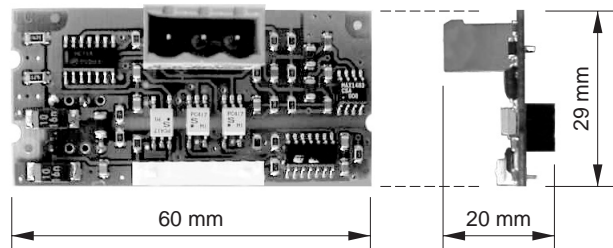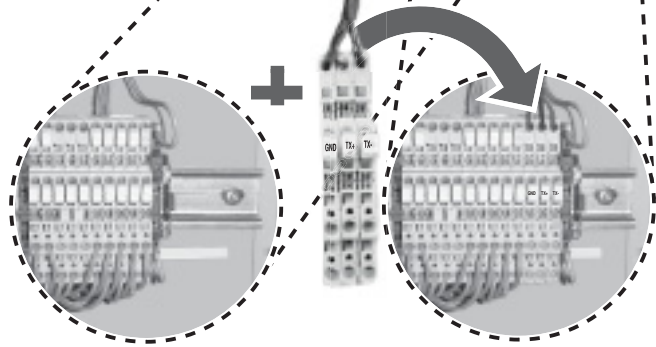
IF UNSURE OF INSTALLATION PROCEDURES OR USE, ALWAYS CONTACT YOUR DAIKIN DEALER FOR ADVICE AND INFORMATION.

INTRODUCTION

Thank you for purchasing the EKAC200A address card. This address card will enable you to communicate with your chiller through a Building Management System or supervisory system. Please refer to the Gateway Installation Manual for more information and a detailed overview of how the communication works.

CHILLER RANGE

This specific address card is designed to function with chillers of the range ER(*)40~60MZ, EUWA(*)40~200MZ, EUW(*)40~200MX and EUWL(*)40~200MX.

(*) = A, B, C, ...Z

YOUR ADDRESS CARD KIT

The kit you have just purchased consists of:
- 1 address card (type EKAC200A) with connector
- 1 connection wire with three connected terminals

Screw connector	Wire	Terminal
GROUND	black	Terminal GND
RX+/TX+	black	Terminal TX+
RX-/TX-	black	Terminal TX-

DESCRIPTION OF THE ADDRESS CARD

Measurements

See figure 4.

Connection to the chiller

The connection is made automatically when you insert the address card into the PCB. The connection occurs through three pins:

Pin	Meaning
1	Ground
2	RX+/TX+
3	RX-/TX-

BEFORE YOU HANDLE THE ADDRESS CARD

If handled inappropriately, your address card may suffer damage. Hold your address card by the edges. Never touch the rear end of the card with your hands.

⚠ Before starting up the unit for the first time, make sure that it has been properly installed. It is therefore necessary to read the installation manual supplied with the unit and the recommendations listed in "Checks before initial start-up" carefully.

HOW TO INSTALL THE ADDRESS CARD?

⚠ Turn the power off before installing the address card.

Install the address card

1   Remove the controller, loosen the two bolts. (See figure 1)

2   Install the adresscard. (See figure 2)
- **Step 1**: Remove the cover. Use a screwdriver to unplug it.
- **Step 2**: Remove the knock-out hole on the cover using a wire-cutter.
- **Step 3**: Install the adresscard frimly by pushing it vertically into the controller.
- **Step 4**: Place the cover back on the controller.

3   Put the controller back in place and fasten the two bolts. (See figure 1)

Connect the address card to the controller

1   Install the three terminals on the main rail. (See figure 3)
- **Step 1**: Shift the ground terminal and endstop to the right.
- **Step 2**: Install the three terminals by clicking them onto the main rail. Keep the GND, TX+ and TX- in that order.
- **Step 3**: Shift the ground terminal and endstop back in place and fix them securely.

2   Plug in the wire into the adresscard on the controller.

3   Put the wire into the cable duct.

Connect the field rail to the gateway or to the other address card

There are two possibilities:
- If the chiller is the first in line or the only one to connect to a gateway, connect it to the gateway directly.
- If the chiller is a chiller in line and not the first one in line, connect it to another chiller.

Read more on this in the installation manual of the gateway.

HOW TO OPERATE THE ADDRESS CARD?

For more information, consult the following documents:

■ The chiller installation manual: installing BMS address card + defining the BMS settings.

■ Installation manual of gateway.

■ Operation manual of gateway.

THE VARIABLES DATABASE

The BMS or supervisory system and the address card communicate through a fixed set of variables, also called address numbers. Hereafter, you will find the information you need about the digital, integer and analog variables that the BMS or supervisory system can read from or write to the chiller's address card.

| NOTE | For the possible values of a direct or user parameter, refer to the chiller operation manual. |

Digital variables

Adress	Read/Write	Description	Comment			
			ER	EUWA	EUW	EUWL
1	R	Unit status: monitoring	0 = Off, 1 = On			
2	W	Unit status: control	If 1 is written then toggle status of unit. (after this action the controller reset this parameter)			
3	R	Remote On/off enabled	0= No, 1 =Yes (Yes if changeable digital inputs 'REMOTE ON/OFF" is selected)			
4	R	General Alarm	0 = no alarm, 1 = alarm			
5	R	General Unit alarm	0 = no alarm, 1 = alarm			
6	R	General Circuit 1 alarm	0 = no alarm, 1 = alarm			
7	R	General Circuit 2 alarm	0 = no alarm, 1 = alarm			
8	R	—	—			
9	R	General Network alarm	0 = no alarm, 1 = alarm			
10	R	General Warning alarm	0 = no alarm, 1 = alarm			
11	R	DI1 (0 = open, 1 = closed)	High pressure switch C1			
12	R	DI2	Reverse phase protector C1			
13	R	DI3	Overcurrent relay C1			
14	R	DI4	Discharge thermal protector C1			
15	R	DI5	Compressor thermal protector C1			
16	R	DI6	Emergency stop			
17	R	DI7	Flow-switch			
18	R	DI8	Changeable Input 1			
19	R	DI9	Changeable Input 2			
20	R	DI10	Changeable Input 3			
21	R	DI11	Active 25% load [a]	Changeable Input 4		
22	R	DI12	Active 40% load	High pressure switch C2 [b]		
23	R	DI13	Active 70% load	Reverse phase protector C2 [b]		
24	R	DI14	Active 100% load	Overcurrent relay C2 [b]		
25	R	DI15	—	Discharge thermal protector C2 [b]		
26	R	DI16	—	Compressor thermal protector C2 [b]		
27	R	DI17	—			
28	R	DI18	—			
29	R	DO1	Compressor star C1			
30	R	DO2	Compressor delta C1			
31	R	DO3	Compressor on C1			
32	R	DO4	12% C1			
33	R	DO5	40% C1			
34	R	DO6	70% C1			
35	R	DO7	General situation of alarm			
36	R	DO8	Air/water flowcontact	Pump		
37	R	DO9	Fanstep 1 of C1	Fanstep 1 of C1	25% C1 [a]	Fanstep 1 of C1
38	R	DO10	Fanstep 2 of C1	Fanstep 2 of C1	25% C2 [a][b]	Fanstep 2 of C1
39	R	DO11	Fanstep 3 of C1	Fanstep 3 of C1	70% C2 [b]	Fanstep 3 of C1
40	R	DO12	Evaporator heatertape		Changeable output 1	
41	R	DO13	Changeable output 1		Changeable output 2	
42	R	DO14	—	Compressor star C2 [b]		
43	R	DO15	—	Compressor delta C2 [b]		
44	R	DO16	—	Compressor on C2 [b]		
45	R	DO17	—	12% C2 [b]		
46	R	DO18	—	40% C2 [b]		
47	R	AO1 [c]	—	25% C1 [a]	—	25% C1 [a]
48	R	AO2 [c]	—	70% C2 [b]	—	70% C2 [b]
49	R	AO3 [c]	—	25% C2 [a][b]	—	25% C2 [a][b]
50	R	AO4 [c]	—	Fanstep 1 of C2 [b]	—	Fanstep 1 of C2 [b]
51	R	AO5 [c]	—	Fanstep 2 of C2 [b]	—	Fanstep 2 of C2 [b]
52	R	AO6 [c]	—	Fanstep 3 of C2 [b]	—	Fanstep 3 of C2 [b]
53	R	25% Capacity Coils C1	0 = no, 1 = yes			
54	R	25% Capacity Coils C2 [b]	0 = no, 1 = yes			
55	R	EEV1 [d]	0 = no, 1 = yes			
56	R	EEV2 [b][d]	0 = no, 1 = yes			
57	R	High pressure setback active C1	0 = no, 1 = yes			
58	R	High pressure setback active C2 [b]	0 = no, 1 = yes			

(a) Only available if circuit has 25% capacity step
(b) Only available for units with 2 circuits
(c) Analog output used as digital output
(d) EEV = Electronic Expansion Valve

Integer variables

Adress	Read/Write	Description	Comment: ER	Comment: EUWA	Comment: EUW	Comment: EUWL
1	R	BMSallowedyes	0 = N, 1 = Y			
2	R	Malfunction code of unit safety	0 = no safety, 1 = "F0", 2 = "AE", … (refer to overview)			
3	R	Malfunction code of C1 safety	0 = no safety, 1 = "U1", 2 = "E3", … (refer to overview)			
4	R	Malfunction code of C2 safety	0 = no safety, 1 = "U1", 2 = "E3", … (refer to overview)			
5	R	—	0 = no safety, 1 = "U1", 2 = "E3", … (refer to overview)			
6	R	Malfunction code of network safety	0 = no safety, 1 = "U4", 2 = "CA", … (refer to overview)			
7	R	Malfunction code of warning	0 = no safety, 1 = "AE", 2 = "A9", … (refer to overview)			
8	R/W	Cooling/Heating mode setting	—	—	0 = "COOLING (EVAP)" 1 = "HEATING (COND)" 2 = "DOUBLE THERM"(only if no remote C/H)	—
9	R/W	Running mode	0 = "MANUAL CONTROL" 3 = "EXTERNAL THERM."	0 = "MANUAL CONTROL" 1 = "INL WATER STEP" 2 = "OUTL WATER STEP"		
10	R	Active mode	0 = "MANUAL MODE", 1 = "INLSETP1 E: ", 2 = "INLSETP2 E: ", 3 = "OUTSETP1 E: ", 4 = "OUTSETP2 E: ", 5 = "INLSETP1 C: ", 6 = "INLSETP2 C: ", 7 = "SP1E: C:", 8 = "SP2E: C:", 9 = "THERMOSTAT"			
11	R	Actual thermostat step				
12	R	Max. number of thermostat step				
13	R	Status of circuit 1	0 = "OFF-CAN STARTUP", 1 = "OFF-TIMER BUSY", 2 = "ON – 12% STAR", 3 = "ON – 12% DELTA ", 4 = "ON – 25% DELTA", 5 = "ON – 40% DELTA", 6 = "ON - 70% DELTA", 7 = "ON - 100% DELTA", 8 = "ON - 25% (LIMIT)",			
14	R	Status of circuit 2	9 = "ON - 40% (LIMIT)", 10 = "ON - 70% (LIMIT)", 11 = "ON - 100% (LIMIT)", 12 = "OFF- 0% (LIMIT)", 13 = "OFF-FREEZE UP DIS", 14 = "OFF-SAFETY ACTIVE"			
15	R	Running hours compressor 1 (Higher part)	Running hours = Higher part x 1000 + Lower part			
16	R	Running hours compressor 1 (Lower part)				
17	R	Running hours compressor 2 (Higher part)[a]				
18	R	Running hours compressor 2 (Lower part)[a]				
19	R	Actual fan1 step	0 = "OFF", 1 = "LOW", 2 = "MED", 3 = "HIGH"			
20	R	Actual fan2 step[a]	0 = "OFF", 1 = "LOW", 2 = "MED", 3 = "HIGH"			
21	R/W	Manual setting of compressor 1	If 25% = Yes 0 = "0%", 1 = "25%", 2 = "40%", 3= "70%", 4 = "100%"			
22	R/W	Manual setting of compressor 2 [a]	If 25% = No 0 = "0%", 1 = "40%", 2 = "70%", 3 = "100%"			
23	R/W	Manual setting of fans C1	0 = "OFF", 1 = "LOW", 2 = "MED", 3 = "HIGH"			
24	R/W	Manual setting of fans C2	0 = "OFF", 1 = "LOW", 2 = "MED", 3 = "HIGH"			
25	R/W	Loadup time in inlet control				
26	R/W	Loaddown time in inlet control				
27	R/W	Loadup time in outlet control				
28	R/W	Loaddown time in outlet control				
29	R/W	DICN: Nr Of Slaves [b]				
30	R	DICN: Master or slave [b]	0 = Master, 1 = Slave1, 2 = Slave2, 3 = Slave3			
31	R/W	DICN: Mode [b]	0 = "NORMAL",1 = "STANDBY", 2 = "DISCONN. ON/OFF"			
32	R	DICN: Status of master [b]	0 = "NORMAL",1 = "STANDBY", 2 = "DISCONN.", 3 = "SAFETY"			
33	R	DICN: Status of S1 [b]	0 = "NORMAL",1 = "STANDBY", 2 = "DISCONN.", 3 = "SAFETY"			
34	R	DICN: Status of S2 [b]	0 = "NORMAL",1 = "STANDBY", 2 = "DISCONN.", 3 = "SAFETY"			
35	R	DICN: Status of S3 [b]	0 = "NORMAL",1 = "STANDBY", 2 = "DISCONN.", 3 = "SAFETY"			
36	R	EEV1 Status [c]	0 = "NO WARNINGS",1 = "VALVE OPEN", 2 = "BATTERY CHARGED", 3 = "EEPROM ERR."			
37	R	EEV2 Status [c]	0 = "NO WARNINGS",1 = "VALVE OPEN", 2 = "BATTERY CHARGED", 3 = "EEPROM ERR."			
38	R	EEV1 Battery Status [c]	0 = "DISCONNECTED",1 = "HIGH INT.RES.", 2 = "NOT RECHARGE", 3= "DOWN", 4 = "OK"			
39	R	EEV2 Battery Status [c]	0 = "DISCONNECTED",1 = "HIGH INT.RES.", 2 = "NOT RECHARGE", 3= "DOWN", 4 = "OK"			
40	R	Unittype1	0 = "AW", 1 = "WW"			
41	R	Unittype2	0 = "CO", 1 = "HO", 2 = "HR", 3 = "RH", 4 = "HP", 5 = "RC", 6 = "CA"			
42	R	Unittype3	0 = "40",1 = "50", 2 = "60", 3 = "80", 4 = "100", 5 = "120", 6 = "140", 7 = "160", 8 = "180", 9 = "200"			
43	R	Number of circuits				
44	R	Number of Evaporators				
45	R	Refrigerant	0 = "R134a", 1 = "R407C"			
46	R	MOW	0 = "8°C", 1 = "5°C", 2 = "4°C", 3 = "2°C", 4 = "0°C", 5 = "-5°C", 6 = "-10°C"			

(a) Only available for units with 2 circuits
(b) DICN = Daikin Integrated Chiller Network
(c) EEV = Electronic Expansion Valve

Adress	Read/Write	Description	Comment			
			ER	EUWA	EUW	EUWL

47	R/W	Limitation 1 setting of C1	If 25% = Yes
			    0 = "0%", 1 = "25%", 2 = "40%", 3 = "70%", 4 = "100%"
			If 25% = No
			    0 = "0%", 1 = "40%", 2 = "70%", 3 = "100%"			

48	R/W	Limitation 1 setting of C2 [a]				
49	R/W	Limitation 2 setting of C1				
50	R/W	Limitation 2 setting of C2 [a]				
51	R/W	Limitation 3 setting of C1				
52	R/W	Limitation 3 setting of C2 [a]				
53	R/W	Limitation 4 setting of C1				
54	R/W	Limitation 4 setting of C2 [a]				
101	R	SoftCode	1 = "FLDKNMCH0A", 2 = "FLDKNMCHLA"			
102	R	SoftVersionHigh	Software version = V SoftVersionHigh.SoftVersionLow			
103	R	SoftVersionLow	Software version = V SoftVersionHigh.SoftVersionLow			
104	R	BootVersionHigh	Bootversion = V BootVersionHigh.BootVersionLow			
105	R	BootVersionLow	Bootversion = V BootVersionHigh.BootVersionLow			
106	R	BiosVersionHigh	Software version = V BiosVersionHigh.BiosVersionLow			
107	R	BiosVersionLow	Software version = V BiosVersionHigh.BiosVersionLow			
108	R	EEV1SwVersion [c]				
109	R	EEV1HwVersion [c]				
110	R	EEV2SwVersion [c]				
111	R	EEV2HwVersion [c]				

(a) Only available for units with 2 circuits
(b) DICN = Daikin Integrated Chiller Network
(c) EEV = Electronic Expansion Valve

Analog variables

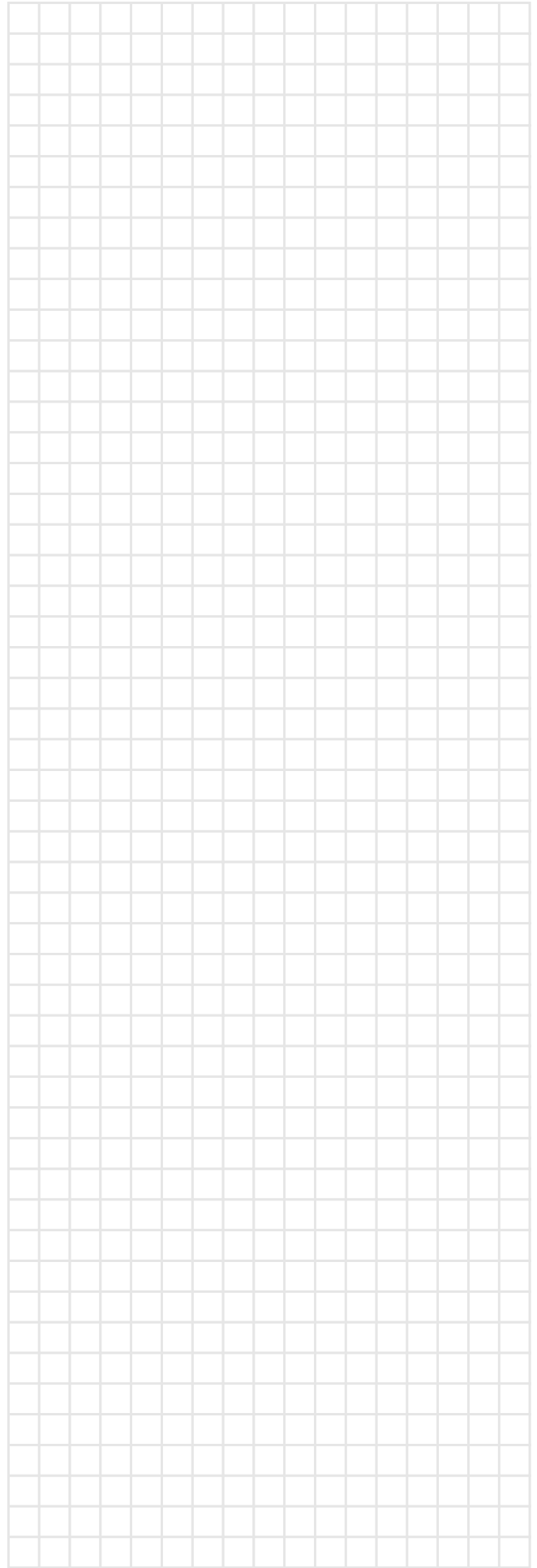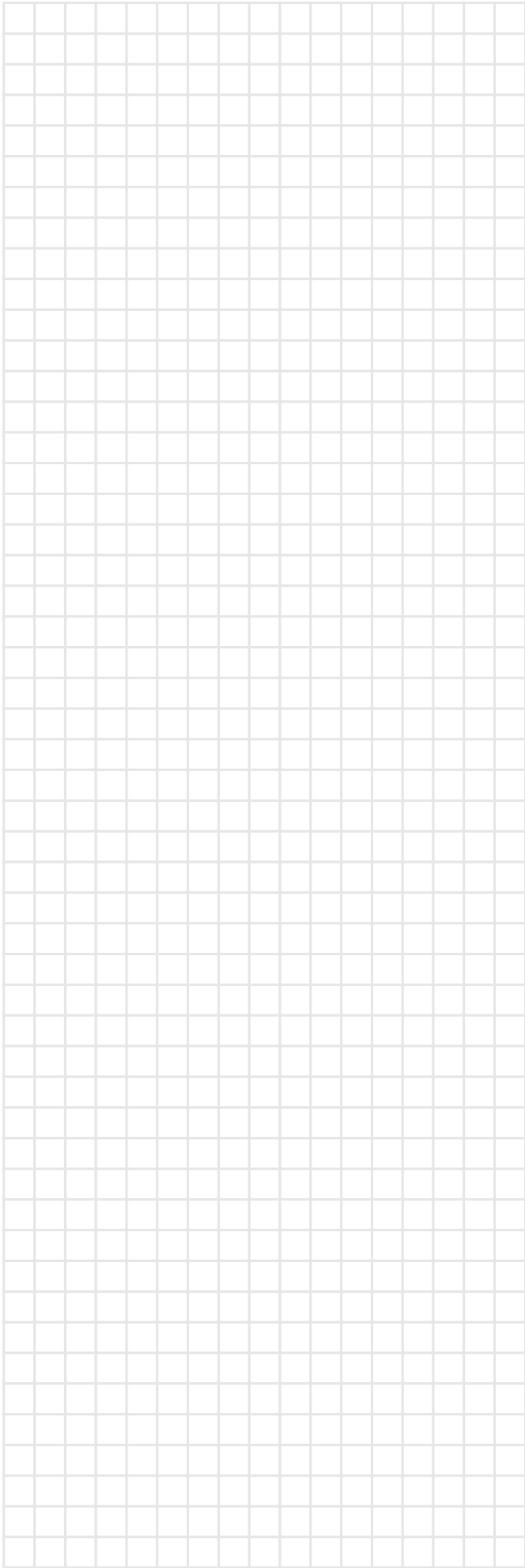| Adress	Read/Write	Description	Comment			
			ER	EUWA	EUW	EUWL
1	R	Analog input 1	High pressure C1			
2	R	Analog input 2 (or AI of EEV[a])	Low pressure C1			
3	R	Analog input 3	—	Evaporator Outlet water sensor DICN [b](optional on Master)		
4	R	Analog input 4	—	Evaporator Inlet water sensor		
5	R	Analog input 5	—	Evaporator mixed outlet temperature		
6	R	Analog input 6	Ambient	Ambient	Condenser Inlet water sensor	Ambient
7	R	Analog input 7	—	High pressure C2 [c]		
8	R	Analog input 8 (or AI of EEV[a])	—	Low pressure C2 [c]		
9	R	Analog input 9	—	Evaporator Outlet water sensor C1		
10	R	Analog input 10	—	Evaporator Outlet water sensor C2 [c]		
11	R	AI1 converted in °C				
12	R	AI2 converted in °C (or AI of EEV[a])				
13	R	AI7 converted in °C				
14	R	AI8 converted in °C (or AI of EEV[a])				
15	R	Active inlet evaporator setpoint				
16	R	Active outlet evaporator setpoint				
17	R	Active inlet condensor setpoint				
18	R/W	Inlet setpoint 1 Evaporator				
19	R/W	Inlet setpoint 2 Evaporator				
20	R/W	Outlet setpoint 1 Evaporator				
21	R/W	Outlet setpoint 2 Evaporator				
22	R/W	Inlet setpoint 1 Condensor				
23	R/W	Inlet setpoint 2 Condensor				
24	R/W	Step length inlet control				
25	R/W	Step length outlet control				
26	R/W	Step difference outlet				

(a) EEV = Electronic Expansion Valve
(b) DICN = Daikin Integrated Chiller Network
(c) Only available for units with 2 circuits

Overview integer values of safetycodes

	Value	Message safety menu	
Integer address 2: Malfunction code of unit safety	1	"0F0:EMERGENCY STOP"	
	2	"0AE:FLOW HAS STOPPED"	
	3	"0A4:FREEZE UP"	
	4	"0C9:INL E SENSOR ERR"	
	5	"0CA:OUT E SENSOR ERR"	
	6	"0H9:AMB T SENSOR ERR"	
	7	"0HC:INL C SENSOR ERR"	
Integer address 3: Malfunction code of C1 safety 4: Malfunction code of C2 safety		**Circuit safety 1**	**Circuit safety 2**
	1	"1U1:REV PHASE PROT"	"2U1:REV PHASE PROT"
	2	"1E3:HIGH PRESSURE SW"	"2E3:HIGH PRESSURE SW"
	3	"1E5:COMPR THERM PROT"	"2E5:COMPR THERM PROT"
	4	"1E6:OVERCURRENT"	"2E6:OVERCURRENT"
	5	"1F3:DISCH THERM PROT"	"2F3:DISCH THERM PROT"
	6	"1E4:LOW PRESSURE"	"2E4:LOW PRESSURE"
	7	"1A4:FREEZE UP"	"2A4:FREEZE UP"
	8	"1JA:HP TRANSM ERR"	"2JA:HP TRANSM ERR"
	9	"1JC:LP TRANSM ERR"	"2JC:LP TRANSM ERR"
	10	"1CA:OUT E SENSOR ERR"	"2CA:OUT E SENSOR ERR"
	11	"(1A9: EEV *** ERR)" [a] "1A9:EEV DRIVER ERROR" "1A9:EEV NOT CLOSED" "1A9:EEV SUPERHEAT ER" "1A9:EEV HIGH PRESSURE" "1A9:EEV EEPROM ERR" "1A9:EEV ST.MOTOR ERR" "1A9:EEV PROBE ERR"	"(2A9: EEV *** ERR)" [a] "2A9:EEV DRIVER ERROR" "2A9:EEV NOT CLOSED" "2A9:EEV SUPERHEAT ER" "2A9:EEV HIGH PRESSURE" "2A9:EEV EEPROM ERR" "2A9:EEV ST.MOTOR ERR" "2A9:EEV PROBE ERR"
Integer address 6: Malfunction code of network safety	1	"0U4:PCB COMM.PROBLEM"	
	2	"0CA:OUT E SENSOR ERR"	
	3	"0C9:INL E SENSOR ERR"	
Integer address 7: Malfunction code of warning	1	"0AE:FLOW HAS STOPPED"	
	2	"1A9:EEV BATTERY ERR" [a]	
	3	"2A9:EEV BATTERY ERR" [a]	

(a) EEV = Electronic Expansion Valve

NOTES

DAIKIN EUROPE NV