

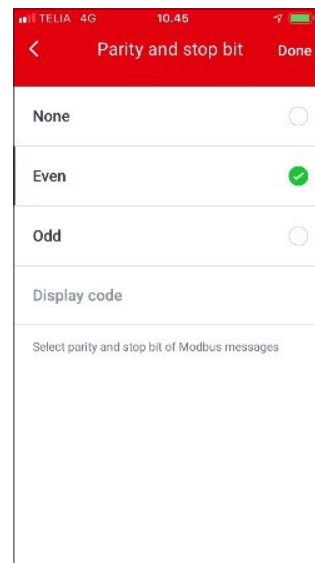
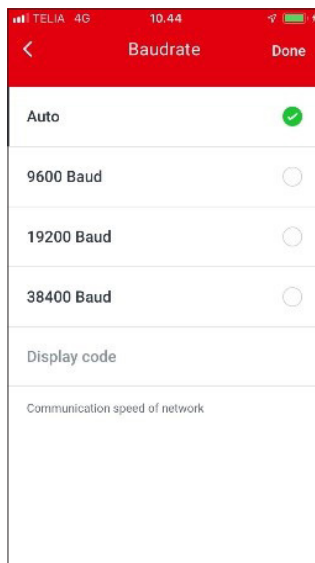
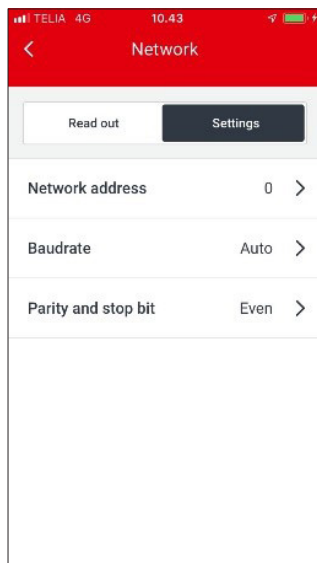
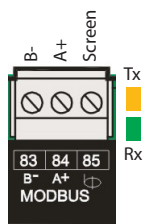
Programming Guide

Basic Modbus parameter list **AK-CC55 Compact**

SW Ver. 2.0x



Danfoss AK-CC55 Compact Case controllers



Copyright, Limitation of Liability and Revision Rights

This publication contains information proprietary to Danfoss. By accepting and using this interface description the user agrees that the information contained herein will be used solely for operating equipment from Danfoss or equipment from other vendors provided that such equipment is intended for communication with Danfoss AK-CC55 Compact Controllers over the RS 485 Modbus serial communication link.

This publication is protected under the Copyright laws of Denmark and most other countries.

Danfoss does not guarantee that a software program produced according to the guidelines provided in this manual will function properly in every physical, hardware or software environment.

Although Danfoss has tested and reviewed the documentation within this interface description, Danfoss makes no warranty or representation, either express or implied, with respect to this documentation, including its quality, performance, or fitness for a particular purpose.

In no event shall Danfoss be liable for direct, indirect, special, incidental, or consequential damages arising out of the use, or the inability to use information contained in this interface description, even if advised of the possibility of such damages.

In particular, Danfoss is not responsible for any costs including but not limited to those incurred as a result of lost profits or revenue, loss or damage of equipment, loss of computer programs, loss of data, the costs to substitute these, or any claims by third parties.

Danfoss reserves the right to revise this publication at any time and to make changes in its contents without prior notice or any obligation to notify previous users of such revisions or changes.

Modbus Communication

Danfoss AK-CC55 controllers are using Modbus RTU.
 Communication speed is default "auto detection"
 Default communication settings are "8 bit, Even parity, 1 stop bit".

Network address can be set via AK-UI55 setting display and Network address as well as Network communication settings can be changed via the AK-UI55 Bluetooth display and the AK-CC55 Connect service app. For further information see AK-CC55 Documentation.

Danfoss AK-CC55 controllers are Modbus compliant and **MODBUS Application Protocol Specification** can be found via below link

<http://modbus.org/specs.php>

AK-CC55 Documentation:
 AK-CC55 User Guides and Installation Guides can be found via www.danfoss.com:

<https://www.danfoss.com/en/products/electronic-controls/dcs/evaporator-and-room-control/#tab-overview>

Parameter list for Compact (084B4081)

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale	A
Readouts								
--- Sum alarm	2541	0	0	1	Boolean	R	1	
u00 Ctrl. State	2007	0	0	48	Integer	R	1	
u17 Ther. air	2532	0	-2000	2000	Float	R	0.1	
u26 EvapTemp Te	2544	0	-2000	2000	Float	R	0.1	
u20 S2 temp	2537	0	-2000	2000	Float	R	0.1	
u12 S3 air temp.	2530	0	-2000	2000	Float	R	0.1	
u16 S4 air temp.	2531	0	-2000	2000	Float	R	0.1	
u09 S5 temp	1011	0	-2000	2000	Float	R	0.1	
U72 Food temp	2702	0	-2000	2000	Float	R	0.1	
u23 EEV OD %	2528	0	0	100	Integer	R	1	X
U02 PWM OD %	2633	0	0	100	Integer	R	1	X
U73 Def.StopTemp	2703	0	-2000	2000	Float	R	0.1	
u57 Alarm air	2578	0	-2000	2000	Float	R	0.1	
u13 Night cond	2533	0	0	1	Boolean	R	1	
u90 Cutin temp.	2612	0	-2000	2000	Float	R	0.1	
u91 Cutout temp.	2513	0	-2000	2000	Float	R	0.1	
u21 Superheat	2536	0	-2000	2000	Float	R	0.1	X
u22 SuperheatRef	2535	0	-2000	2000	Float	R	0.1	X
Settings								
r12 Main switch	117	0	-1	1	Integer	RW	1	
r00 Cutout	100	20	-500	500	Float	RW	0.1	
r01 Differential	101	20	1	200	Float	RW	0.1	
--- Def. Start	1013	0	0	1	Boolean	RW	1	
d02 Def. Stop temp	1001	60	0	500	Float	RW	0.1	
A03 Alarm delay	10002	30	0	240	Integer	RW	1	
A13 HighLim Air	10019	80	-500	500	Float	RW	0.1	
A14 LowLim Air	10020	-300	-500	500	Float	RW	0.1	

Note: Parameters marked with "X" in the "A" (App mode column) is not present in all App modes (for further info see AK-CC55 User Guide).

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale	A
Alarms								
--- Contr. error	20000	0	0	1	Boolean	R	1	
--- RTC error	20001	0	0	1	Boolean	R	1	
--- Pe error	20002	0	0	1	Boolean	R	1	
--- S2 error	20003	0	0	1	Boolean	R	1	
--- S3 error	20004	0	0	1	Boolean	R	1	
--- S4 error	20005	0	0	1	Boolean	R	1	
--- S5 error	20006	0	0	1	Boolean	R	1	
--- High t.alarm	20007	0	0	1	Boolean	R	1	
--- Low t. alarm	20008	0	0	1	Boolean	R	1	
--- Door alarm	20009	0	0	1	Boolean	R	1	
--- Max HoldTime	20010	0	0	1	Boolean	R	1	
--- No Rfg. sel.	20011	0	0	1	Boolean	R	1	
--- DI1 alarm	20012	0	0	1	Boolean	R	1	
--- DI2 alarm	20013	0	0	1	Boolean	R	1	
--- Standby mode	20014	0	0	1	Boolean	R	1	
--- Case clean	20015	0	0	1	Boolean	R	1	
--- CO2 Alarm	20016	0	0	1	Boolean	R	1	
--- Refg.Leak	20017	0	0	1	Boolean	R	1	
--- Wrong IO cfg	20018	0	0	1	Boolean	R	1	
--- Max Def.Time	20019	0	0	1	Boolean	R	1	