Data sheet
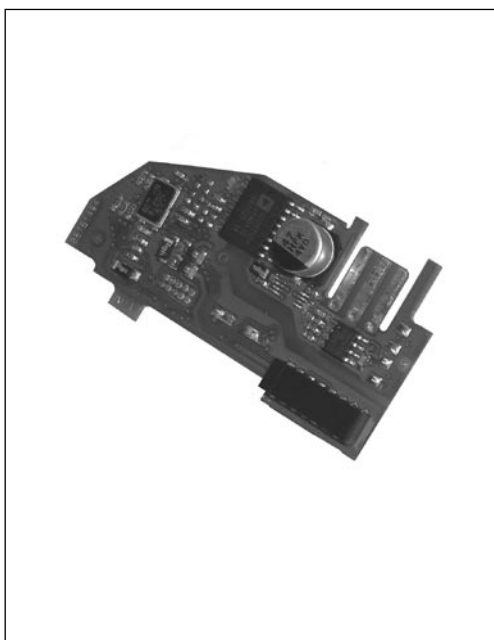
ECA 71
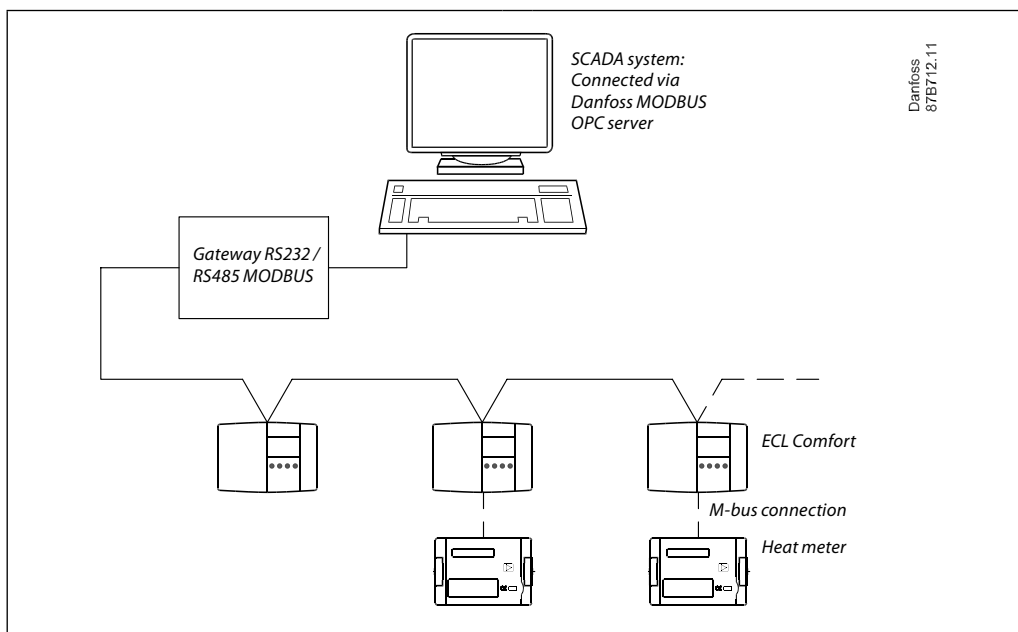# MODBUS for the ECL Comfort 200/300 series

Application

The ECA 71 MODBUS communication module makes it possible to establish a MODBUS network with standard network components. Via a SCADA system (OPC Client) and the Danfoss OPC server it is possible to control ECL Comfort controllers in the 200/300 series remotely.

ECA 71 can be used for all application cards in the ECL Comfort 200 series as well as in the 300 series (as of controller version 1.04).

The following parameters (card dependent) can be read and / or set:
• Sensor values
• References and desired values
• Manual override
• Output status
• Mode indicators and status
• Heat curve and parallel displacement
• Flow and return temperature limitations
• Schedules
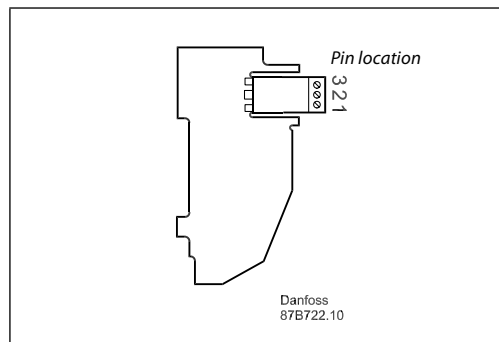• Heat meter data (if ECA 73 is mounted)

Application example

SCADA system: Connected via Danfoss MODBUS OPC server

Danfoss
87B712.11

Gateway RS232 / RS485 MODBUS

ECL Comfort

M-bus connection

Heat meter

Ordering

Type	Description	Code No. (Parts list No.)
ECA 71	MODBUS communication module	087B1126
	Documentation available on http://heating.danfoss.com: Instructions, ECA 71 protocol Instructions, ECA 71 / 72 installation and user guide	 (087R9775, English) (087R9769, English)

Technical data

Storage temperature	-40 °C - 70 °C
Ambient temperature	0 - 50 °C
Installation	Rear slot ECL Comfort controller
Module weight	12 g
Transceiver type	RS 485 MODBUS
Communication speed	38.4 KB/s half duplex / 19.2 KB/s half duplex
Read performance	Single parameter (PNU): 200 parameters/minute @ 19.2 KB/s
	Compressed read: up to 16 x 200/minute @ 19.2 KB/s
Network	According to the standard Modbus Serial Line Implementation Guide V1.0. See also the Danfoss data sheet on SCADA systems (VD.KP.F1.02).

Pin connection

Pin 1	Network connection MODBUS B / DATA + / D1
Pin 2 (middle)	Common / SGND
Pin 3	Network connection MODBUS A / DATA - / D0

Compatibility with optional ECA modules

ECA 60-63	ECA 73	ECA 80	ECA 82	ECA 83	ECA 84	ECA 86	ECA 87	ECA 88
Yes	Yes	Yes	No	Yes	No	Yes	No	Yes

Max. 2 ECA modules can be connected.

*Additional documentation for ECA 71 is available on **http://heating.danfoss.com***