

Data Sheet

# CF2+ Wireless Floor Heating Control System

## CF-MC Master Controller

Application



CF-MC is the Master Controller in Danfoss' CF2+ wireless floor heating control system. 2-way wireless communication between CF-MC and other wireless CF2+ system components ensures a high level of transmission security and makes it possible to perform Link test of the signals.

Transmission range is up to 30 m in normal buildings. If transmission is reduced or blocked by building or interior elements, a CF-EA external antenna (accessory) can be used to avoid the obstacles.

CF-MC is connected directly to 230 V power supply, and it provides all actuator outputs with with 24 V.

CF-MC Master Controller includes features like:

- 2-way wireless transmission at 868.42MHz, for higher transmission security
- Direct link test option on each system component
- Wireless assignment of room thermostats and other system components
- 5 or 10 short-circuit protected outputs with LED indication
- Outputs for 24V NC or NO actuators
- Valve motion for all outputs for approx. 12 min. every 14th day with no heat demand

- PWM (Pulse Width Modulation) principle
- Input (On/Off) for heating / cooling
- Input for PT1000 pipe sensor
- Input (On/Off) for global standby (can also be used for CF-DS dew-point sensor)
- Relay for pump control with automatic pump motion
- Relay for boiler control, activated only at heat demand
- Easy cable fixing at each actuator output for several cable types
- Automatic self diagnosis of errors

Larger CF2+ systems can consist of 2 or 3 CF-MC Master Controllers with up to 30 outputs. Systems with more Master Controllers can be accessed by a single wireless CF-RC Remote Controller, which gives access to even more functionality and features, e.g.

- Individual settings for each Master Controller output
- Override and locking of local room temperature settings
- Setback and period programming
- System status etc.
- Forecast
- Low energy optimizer
- Control of cooling applications

Find more information in data sheet and instruction for CF-RC.

Ordering

Product	Type	Outputs	Supply	Code no.
Master Controller	CF-MC	10 / 24 VDC	230 VAC	<b>088U0240</b>
Master Controller	CF-MC	5 / 24 VDC	230 VAC	<b>088U0245</b>

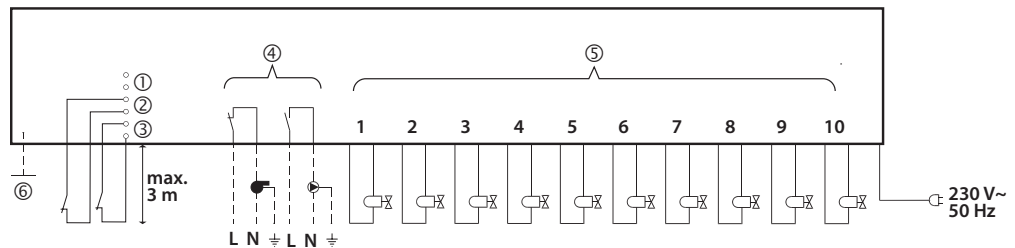
Accessories

Product	Type	Code no.
External antenna with 2 m cable	CF-EA	<b>088U0250</b>
Cable extension for external antenna, 5 m	CF-EC	<b>088U0255</b>
TWA-A 24 V NC actuator for Danfoss valves	TWA-A	<b>088H3110</b>
TWA-A 24 V NO actuator for Danfoss valves	TWA-A	<b>088H3111</b>

### Technical specifications

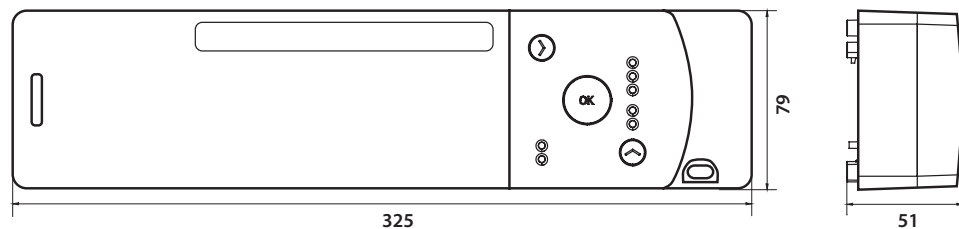
Supply voltage	230 VAC
Output voltage	24 VDC
Number of outputs	5 / 10
Transmission frequency	868.42 MHz
Transmission range	up to 30 m (in normal buildings)
Transmission power	< 1 mW
Max. running load of actuator output	35 VA (total for all outputs)
Max. load for pump relay	230 V, 8 A / 2 A (inductive)
Max. load for boiler relay	230 V, 8 A / 2 A (inductive)
Approvals	CE
Standard	EN 60730
Directives	R&TTE, LVD, EMC
IP class	30
ErP class	(2%)
Length of mains cable	1.5 m
Weight	700 g

### Connection Diagram



- ① PT 1000 pipe sensor
- ② Global standby
- ③ Heating/Cooling
- ④ Relay outputs
- ⑤ Actuator outputs
- ⑥ External antenna

### Dimensions



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