

# Operating instructions



## Timer module

### Product family CosiTherm®

Type: UM

Copyright 2020 AFRISO-EURO-INDEX GmbH. All rights reserved.



Lindenstraße 20  
74363 Güglingen  
Telephone +49 7135 102-0  
Service +49 7135 102-211  
Telefax +49 7135 102-147  
info@afriso.com  
www.afriso.com

## 1 About these operating instructions

These operating instructions describe the timer module "UM" (also referred to as "product" in these operating instructions). These operating instructions are part of the product.

- You may only use the product if you have fully read and understood these operating instructions.
- Verify that these operating instructions are always accessible for any type of work performed on or with the product.
- Pass these operating instructions as well as all other product-related documents on to all owners of the product.
- If you feel that these operating instructions contain errors, inconsistencies, ambiguities or other issues, contact the manufacturer prior to using the product.

These operating instructions are protected by copyright and may only be used as provided for by the corresponding copyright legislation. We reserve the right to modifications.

The manufacturer shall not be liable in any form whatsoever for direct or consequential damage resulting from failure to observe these operating instructions or from failure to comply with directives, regulations and standards and any other statutory requirements applicable at the installation site of the product.

## 2 Information on safety

### 2.1 Safety messages and hazard categories

These operating instructions contain safety messages to alert you to potential hazards and risks. In addition to the instructions provided in these operating instructions, you must comply with all directives, standards and safety regulations applicable at the installation site of the product. Verify that you are familiar with all directives, standards and safety regulations and ensure compliance with them prior to using the product.

Safety messages in these operating instructions are highlighted with warning symbols and warning words. Depending on the severity of a hazard, the safety messages are classified according to different hazard categories.



## DANGER

DANGER indicates a hazardous situation, which, if not avoided, will result in death or serious injury.

## NOTICE

NOTICE indicates a hazardous situation, which, if not avoided, can result in equipment damage.

In addition, the following symbols are used in these operating instructions:



This is the general safety alert symbol. It alerts to injury hazards or equipment damage. Comply with all safety instructions in conjunction with this symbol to help avoid possible death, injury or equipment damage.



This symbol alerts to hazardous electrical voltage. If this symbol is used in a safety message, there is a hazard of electric shock.

## 2.2 Intended use

CosiTherm® is a single room temperature controller used to control the temperature in rooms with underfloor heating system (heat/cool).

The product is a part of CosiTherm® and may only be used to program the temperature reduction and the additional pump running time.

Any use other than the application explicitly permitted in these operating instructions is not permitted and causes hazards.

Verify that the product is suitable for the application planned by you prior to using the product. In doing so, take into account at least the following:

- All directives, standards and safety regulations applicable at the installation site of the product
- All conditions and data specified for the product
- The conditions of the planned application

In addition, perform a risk assessment in view of the planned application, according to an approved risk assessment method, and implement the appropriate safety measures, based on the results of the risk assessment. Take into account the consequences of installing or integrating the product into a system or a plant.

When using the product, perform all work and all other activities in conjunction with the product in compliance with the conditions specified in the operating instructions and on the nameplate, as well as with all directives, standards and safety regulations applicable at the installation site of the product.

## 2.3 Predictable incorrect application

The product must never be used in the following cases and for the following purposes:

- In conjunction with products which are used for health-saving or life-saving purposes or whose operation may incur hazards to humans, animals or property.

## 2.4 Qualification of personnel

Only appropriately trained persons who are familiar with and understand the contents of these operating instructions and all other pertinent product documentation are authorized to work on and with this product.

These persons must have sufficient technical training, knowledge and experience and be able to foresee and detect potential hazards that may be caused by using the product.

All persons working on and with the product must be fully familiar with all directives, standards and safety regulations that must be observed for performing such work.

## 2.5 Personal protective equipment

Always wear the required personal protective equipment. When performing work on and with the product, take into account that hazards may be present at the installation site which do not directly result from the product itself.

## 2.6 Modifications to the product

Only perform work on and with the product which is explicitly described in these operating instructions. Do not make any modifications to the product which are not described in these operating instructions.

## 3 Transport and storage

The product may be damaged as a result of improper transport or storage.

### NOTICE

#### **INCORRECT HANDLING**

- Verify compliance with the specified ambient conditions during transport or storage of the product.
- Use the original packaging when transporting the product.
- Store the product in a clean and dry environment.
- Verify that the product is protected against shocks and impact during transport and storage.

**Failure to follow these instructions can result in equipment damage.**

---

## 4 Product description

### 4.1 Controls



#### Set key:

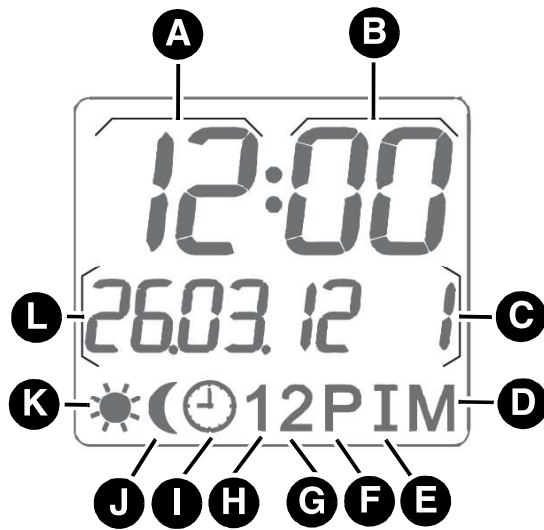
If main screen is active:

1. Press the Set key
  - Select the operating mode "Day", "Night" or "Timer".
2. Hold down the Set key for 3 seconds
  - Select the date and time.
3. Press the Set key
  - Confirm the settings.

#### Menu key:

4. Press the Menu key
  - Navigate in the main menu
  - Increase the adjustment values.
5. Hold down the Menu key for 3 seconds
  - Activate fast forward.

## 4.2 Display elements



- A. Time hours (format: 24 h)
- B. Time minutes
- C. Weekday (1: Mon - 7: Sun)
- D. Indicator Menu active
- E. Switching output Interval function active
- F. Switching output Additional Pump Running Time active
- G. Switching channel "Timer2" active
- H. Switching channel "Timer1" active
- I. Timer mode active
- J. Night mode active
- K. Day mode active
- L. Date (format DD.MM.YY)



## 4.3 Overview of the individual CosiTherm® components

Component	Versions	Explanation
Base module	BM	-
Timer module	UM	-
Wireless module for timer module	FM	With internal antenna
	FMA	With external antenna
Room temperature sensor	D	Wire
	FT	Wireless, temperature
	FTF	Wireless, temperature and humidity
Controller module	D2	Wired with 2 control circuits
	D6	Wired with 6 control circuits
	F2	Wireless with 2 control circuits
	F6	Wireless with 6 control circuits
	F2A	With external antenna and 2 control circuits
	F6A	With external antenna and 6 control circuits

## 4.4 Function

The display shows the date, time and day of the week. The product features two independently programmable switching channels for temperature reduction. A total of nine programmable memory blocks are available. The additional pump running time can be set via the product. The product has a valve and pump protection function. The product features a hundred year calendar and switches between daylight saving time and winter time.

## 4.5 Approvals, conformities, certifications

The product complies with:

- EMC Directive (2014/30/EU)

## 4.6 Technical data

Parameter	Value
<b>General specifications</b>	
Dimensions (W x H x D)	37 x 93 x 28 mm
Weight	33 g
Housing material	ABS
Temperature reduction	4K
<b>Functions</b>	
Timing	Date, time, weekday (leap year detection), switching between daylight saving time and winter time
Switching channels for temperature reduction	2, independently programmable
Memory blocks for temperature reduction	9, independently programmable
Valve and pump protection function	0 to 15 minutes (adjustable)
Additional pump running time	0 to 15 minutes (adjustable)
<b>Ambient conditions</b>	
Ambient temperature storage	-10 ... 60 °C
Ambient temperature operation	-10 ... 60 °C
Max. humidity	Non-condensing
<b>Supply voltage</b>	
Nominal voltage	DC 3.3 V, via base module
Nominal power	3 mW
Battery power	> 3 months
Output	DC
<b>Electrical data</b>	
Degree of protection (EN 60529)	IP 30

## 5 Mounting

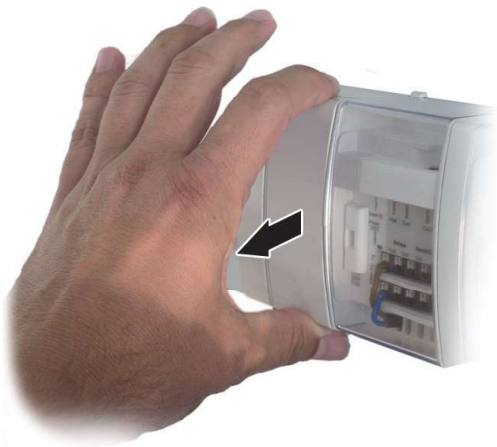
### NOTICE

#### ELECTROSTATIC DISCHARGE

- Always earth yourself before touching electronic components.
- Do not touch the product to plug it in; use the anti-electrostatic film to plug the product into the slot.

**Failure to follow these instructions can result in equipment damage.**

#### 5.1 Mounting the product



1. Remove the cover from the base module.
2. Plug the product into the slot of the base module.

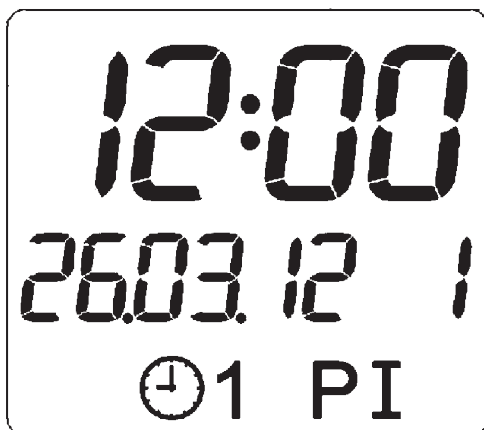


## 6 Operation

### 6.1 Main screen

The main screen of the timer module shows the following information:

- Current time
- Current day
- Current weekday
- Operating mode
  - "Day" ☀
  - "Night" ☾
  - "Timer" 🕒
- Status of switching channels "Timer1" and "Timer2" in operating mode "Timer"
- Status of switching channels "Interval function" and "Additional pump running time"



*Fig. 1: Example of main screen: 12:00 p.m. March 26, 2012, Monday, operating mode Timer, switching channel Timer1 active, Additional Pump Running Time active and Interval function active*

## 6.2 Setting the operating mode

The following operating modes are available:

- Day mode ☀  
(heating control without temperature reduction)
- Night mode ☾  
(heating control with permanent temperature reduction)
- Timer mode 🕒  
(heating control with temperature reduction according to programmed switching times)
- When the main display is active, briefly press the Set key to change the operating mode in the sequence Day, Night, Timer

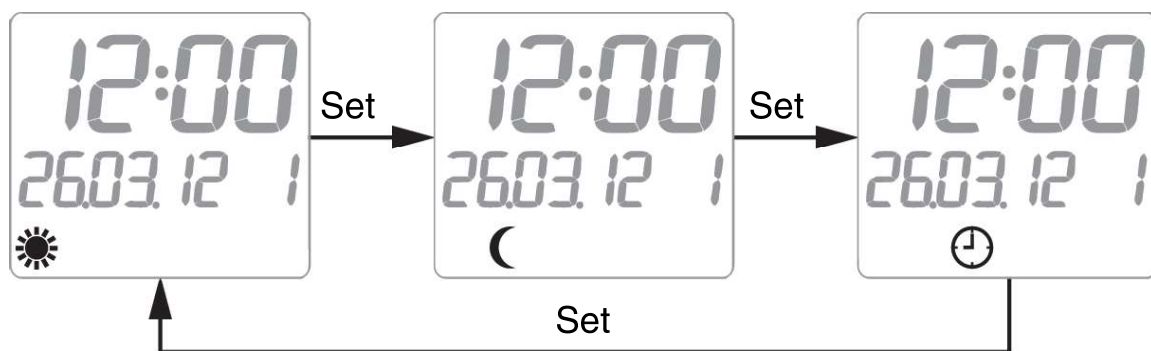


Fig. 2: Navigation structure operating modes Day, Night, Timer

## 6.3 Setting time and date

1. Hold down the Set key until the "Hours" flash.
2. Keep pressing the Menu key until the required hour is displayed.
3. Press the Set key to save the value.
  - The "Minutes" start to flash.
4. Keep pressing the Menu key until the required minute is displayed.
5. Press the Set key to save the value.
  - The Seconds counter is reset to "0".
6. Set the date and the weekday in the same way as described above.

## 6.4 Menu

The following parameters can be set via the menu:

- Switching times (**t1 – t9**) for switching channels "Timer1" and "Timer2"
  - Interval point in time and interval duration (**Int**)
  - Additional Pump Running Time (**Pu**)
  - Teach-in function for EnOcean® wireless (BASE).
    - This function is only available if the product and a wireless module for the timer module FM/FMA are plugged into the base module.
1. Press the Menu key to scroll through the menu.
    - The system returns to the main screen after you have scrolled through the menu and displayed last menu item.
  2. After 60 seconds, the display automatically switches back to the main screen.

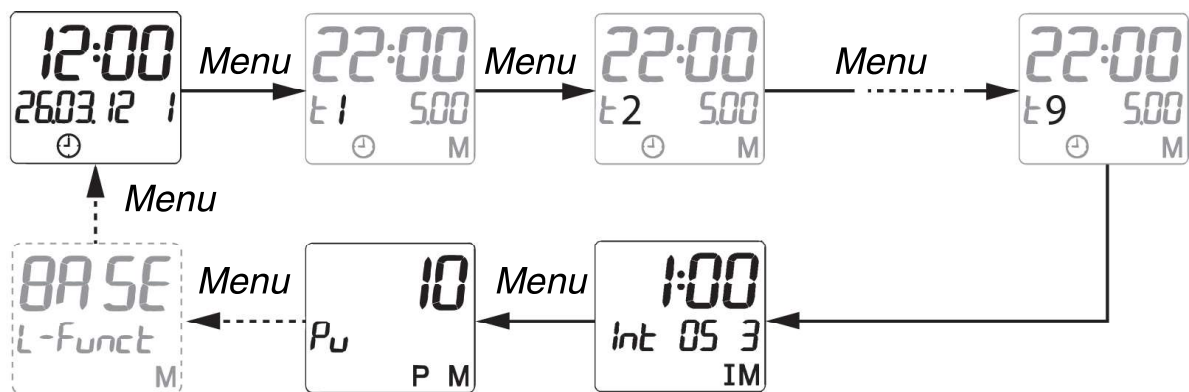


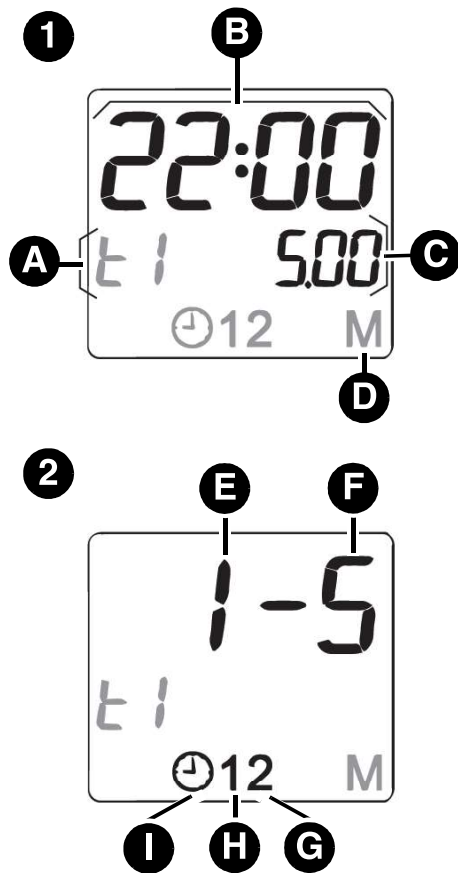
Fig. 3: Navigation structure menu

## 6.4.1 Programmable switching times

Per switching output ("Timer1" and "Timer2"), 9 memory blocks are available. The switching outputs "Timer1" and "Timer2" can store the following data:

- Start time
- End time
- Start weekday
- End weekday
- Switching channel "Timer1" active/inactive
- Switching channel "Timer2" active/inactive

The menu Switching Channels consists of 2 screens. After you confirm the last setting in screen 1, the product automatically switches to screen 2:



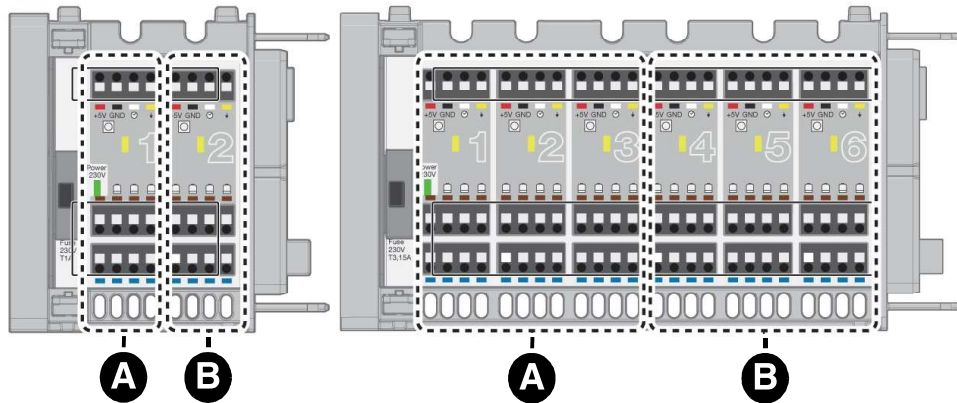
- A. Memory block indicator t-1 to t-9
- B. Start time (format: 24 h)
- C. End time (format: 24 h)
- D. Indicator Menu active
- E. Start weekday (1: Mon – 7: Sun)
- F. End weekday (1: Mon – 7: Sun)
- G. Switching channel "Timer2" active
- H. Switching channel "Timer1" active
- I. Timer mode active

To disable a memory block, the switching channels "Timer1" and "Timer2" must be inactive. The symbol "Timer" (I) flashes when both switching channels are inactive.



## 6.4.2 Assignment of the switching channels

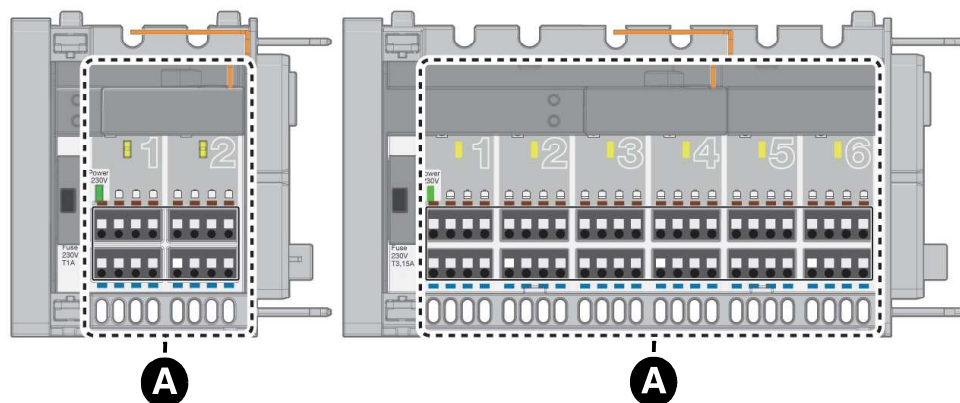
The controller modules (wired) are controlled as shown below:



A. Switching channel "Timer1"

B. Switching channel "Timer2"

The controller modules (wireless) are controlled as shown below:



A. Switching channel "Timer1"

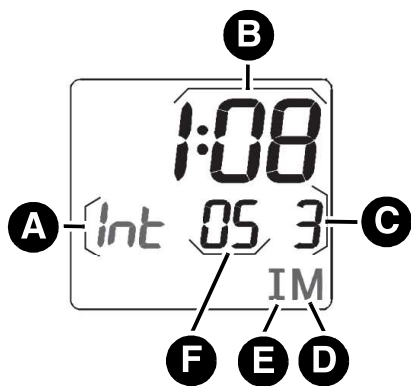
In the case of controller modules (wireless), switching channel "Timer1" controls all control circuits.

## 6.4.3 Setting the interval

If the Interval function is active, the pump is automatically switched on.

The following switching data can be programmed:

- Time
- Weekday
- Duration of interval
  - To disable the Interval function, you must set the duration of the interval to "0".



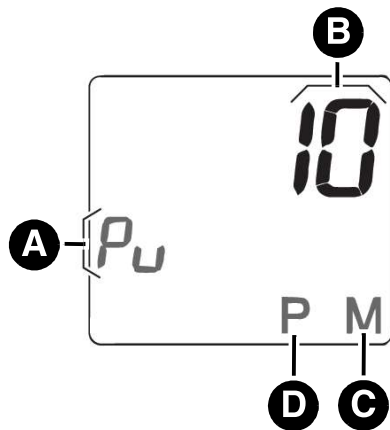
- A. Menu "Interval function"
- B. Time (format: 24 h)
- C. Weekday (3 = Wednesday)
- D. Indicator "Menu"
- E. Indicator "Interval function"
- F. Switch on duration of switching output "Interval" (0 to 15 minutes)

1. Keep pressing the Menu key until the Interval function screen is displayed.
2. Hold down the Set key for 3 seconds.
  - The "Hour" digits flash.
3. Keep pressing the Menu key until the required hour is displayed.
4. Press the Set key to save the hour.
  - The "Minute" digits flash.
5. Keep pressing the Menu key until the required minute is displayed.
6. Press the Set key to save.
  - The "Duration" digits flash.

7. Keep pressing the Menu key until the required interval (0 to 15 minutes) is displayed.
8. Press the Set key to save the interval.
  - The "Weekday" digits flash.
9. Keep pressing the Menu key until the required weekday (1 = Monday to 7 = Sunday) is displayed.
10. Press the Set key to save.

## 6.4.4 programming the Additional Pump Running Time function

You can program an additional pump running time from 0 to 15 minutes. To disable the Additional Pump Running Time function, you must set the duration to the value "0".



- A. Indicator "Menu Additional Pump Running Time Function" active
- B. Switch on duration (0 - 15 minutes)
- C. Indicator "Menu" active
- D. Switching output Additional Pump Running Time function active

The indicator for the switching output Additional Pump Running Time is only displayed if the menu Additional Pump Running Time is active or if the function Additional Pump Running Time is running.

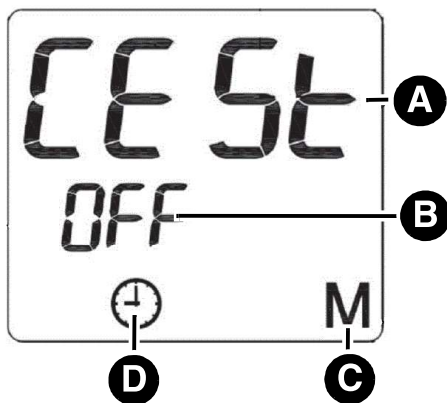
1. Keep pressing the Menu key until the Additional Pump Running Time function indicator "Pu" is displayed.
2. Hold down the Set key for 3 seconds.
  - The digits for the switch on duration blink.
3. Press the Menu key to adjust the required value.
4. Press the Set key to save.

## 6.4.5 Switching between daylight saving time and winter time (CEST)

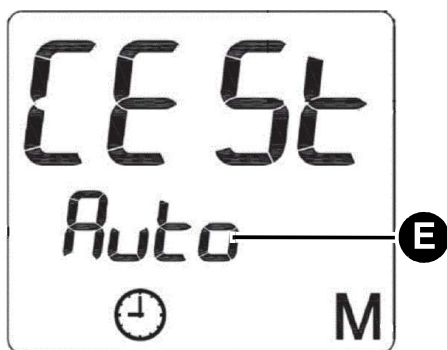
Enable or disable switching between daylight saving time and winter time.

"OFF": No automatic switching.

"Auto": Automatic switching between daylight saving time (Central European Summer Time CEST) and winter time.



- A. Indicator "daylight saving time and winter time setting"
- B. Switching between daylight saving time and winter time off
- C. Indicator "Menu active"
- D. Indicator "Timer function"



- E. Automatic switching between daylight saving time and winter time

1. Hold down the Set key for 3 seconds.
2. Press the Menu key.
  - The indicator flashes and toggles between "Auto" and "Off".
3. Press the Set key to save.

## 6.4.6 Restoring the factory settings

A "Reset" restores the factory settings.

- Time and date are not reset.

1. Hold down the Menu key and the Set key simultaneously for 10 seconds.

- The display shows "Reset".

- The factory defaults are restored.

Parameter	Function	Default value
t-1	Start time	22.00 (10:00 p.m.)
	End time	05.00 (05:00 a.m.)
	Start weekday	1
	End weekday	5
	Switching channel "Timer1"	Active
	Switching channel "Timer2"	Active
t-2	Start time	23.00 (11:00 p.m.)
	End time	06.00 (06:00 a.m.)
	Start weekday	6
	End weekday	7
	Switching channel "Timer1"	Active
	Switching channel "Timer2"	Active
T-3 to t-9	Start time	0.00 (midnight)
	End time	0.00 (midnight)
	Start weekday	0
	End weekday	0
	Switching channel "Timer1"	Inactive
	Switching channel "Timer2"	Inactive

Parameter	Function	Default value
Interval function	Time	1.00 (1:00 a.m.)
	Duration of interval	5 minutes
	Weekday	3 (Wednesday)
Additional pump running time	Switch-on duration	0 minutes

## 7 Maintenance

The product is maintenance-free.

## 8 Troubleshooting

Any malfunctions that cannot be removed by means of the measures described in this chapter may only be repaired by the manufacturer.

## 9 Decommissioning, disposal

Dispose of the product in compliance with all applicable directives, standards and safety regulations.

Electronic components must not be disposed of together with the normal household waste.



1. Disconnect the product from mains.
2. Dismount the product (see chapter "Mounting", reverse sequence of steps).
3. Dispose of the product.

## 10 Returning the device

Get in touch with us before returning your product.

## 11 Warranty

See our terms and conditions at [www.afriso.com](http://www.afriso.com) or your purchase contract for information on warranty.

## 12 Spare parts and accessories


### NOTICE

#### DAMAGE DUE TO UNSUITABLE PARTS

- Only use genuine spare parts and accessories provided by the manufacturer.

**Failure to follow these instructions can result in equipment damage.**

#### Product

Product designation	Part no.	Figure
Timer module "UM"	78113	

#### Spare parts and accessories

Product designation	Part no.	Figure
Wireless module for timer module "FMA"	78122	