

# **MULTIMAT Rainwater Unit**

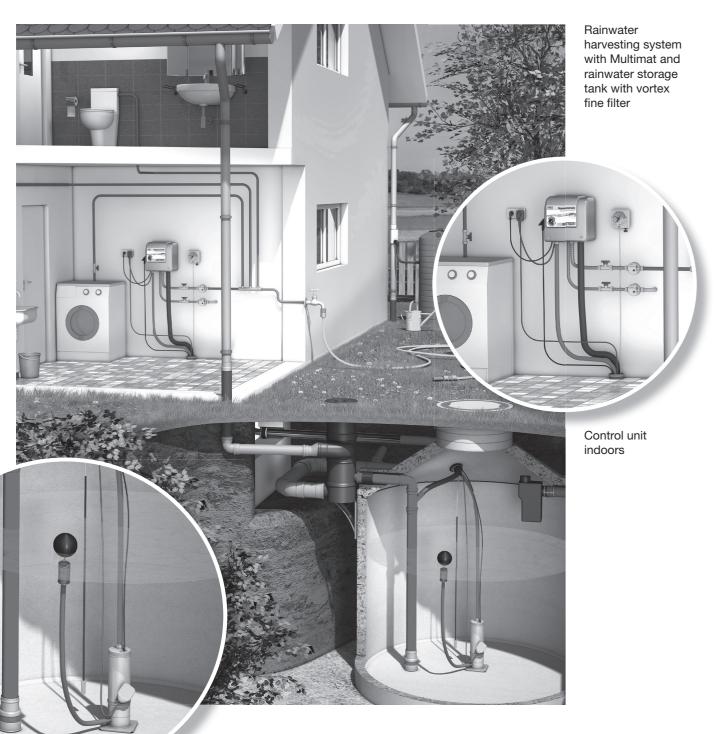
## **OPERATING INSTRUCTIONS**

- Reliable in operation thanks to pressure pump system
- Automatically tops up storage tank with daily requirement of mains water
- Energy-efficient technology





WISY Rainwater Harvesting



Multigo in storage tank

**Benefits:** 

- Extremely compact
- Highly reliable in operation thanks to pressure pump system, free of suction line problems
- No pump noise indoors
- Controls the rainwater harvesting system, monitors the fill level of the storage tank, and automatically tops up the storage tank with mains water when required.



## **MULTIMAT** rainwater unit

## Operating instructions for the rainwater units Multimat 205 (RW 9025) Multimat 407 (RW 9047)

These installation instructions include information relating to the following:

- General description, applications and proper use
- Safety information and warning notices
- Delivery, scope of supply and design
- Recommended accessories
- Design, operating principle
- Installation requirements
- Installation
- Commissioning
- Maintenance, servicing
- Repairs
- Troubleshooting guide
- Technical data
- Materials
- Environmental guidance
- Guarantee conditions
- Company name and address



Failure to heed the information indicated by this symbol could result in serious or fatal injury.



Failure to heed the information indicated by this symbol could result in injury or death by electric shock. Failure to heed the information indicated by this symbol could result in damage to the equipment, or damage caused by the equipment.

## **Applications**

The WISY MULTIMAT rainwater unit is a complete rainwater harvesting system with submersible pressure pump, control unit and automatic mains water top-up of the storage tank.

The maximum permissible mains water pipe pressure is 4.0 bar. A pressure reducing valve must be installed if the mains pressure rating is higher than 4.0 bar.

The Multimat consists of a wall unit with control unit and the mains water top-up system. It is designed for indoor installation in the utility room.

The Multigo submersible pressure pump with floating suction filter is installed in the storage tank and held upright by means of a lifting strap.

The Multimat is capable of supplying clear, filtered rainwater to toilet cisterns, washing machines and garden irrigation systems in single-family or two-family homes. It is ideal for use with long extraction pipes. Thanks to the submersible pump, the Multimat makes virtually no noise inside the house.

The Multimat cannot be used to supply appliances which take in water at a rate of less than 5 litres per minute (e.g. drip irrigation systems, outlets must close completely, the rainwater circuit must be leak-tight). The starting frequency must not exceed 20 starts per hour. A suitable expansion vessel can be installed in the rainwater circuit in order to reduce the starting frequency. Improper use of the equipment, e.g. to pump water containing dirt or sand particles, can result in destruction of the pump.

Wall unit for the building

Submersible pressure pump for storage tank

Proper use

Improper use



### Safety instructions

Read the operating instructions carefully before commencing assembly and installation work and store them in a safe place for future reference.

This equipment is not suitable for use/operation by anyone who suffers from any kind of physical, mental or sensory disability unless they are under the supervision of a competent person who is responsible for their safety, or unless they have been instructed by this person in the proper, safe use and operation of the equipment. They must be aware of and understand the potential hazards. Children must not be allowed to operate or play with the equipment or carry out any maintenance work.

The Multigo pump and float switch must never be lifted or pulled by the power cable.

No one must be allowed to climb inside the storage tank while the Multigo submersible pressure pump and the float switch are connected to the power supply. The electric plugs of the pump and float switch must be removed from the sockets to disconnect them from the power supply before any repair or maintenance work is performed on the Multimat rainwater unit or before any inspection or maintenance work is carried out in the storage tank. The storage tank must never be left unsupervised when it is open.

No one except specially trained personnel is allowed to climb inside the rainwater storage tank. They must be supervised at all times and wear appropriate protective gear (e.g. recovery harness). If the earth-leakage circuit-breaker or fuse trips, the trip cause must be identified and rectified by the manufacturer / by a contractor appointed by the manufacturer.

If the power cable of the Multigo submersible pressure pump or float switch is found to be damaged, it must be replaced by the manufacturer.

Installation work which involves particular hazards (e.g. risk to mains water supply or the electrical installation) must always be carried out by a properly qualified, approved plumber or electrician who is at least qualified in the following technical areas:

- Selection of appropriate tools and suitable electrical and installation materials.
- IP degrees of protection
- Correct methods of installing electrical and other materials
- TN-C system, TN-S system and appropriate additional measures where necessary.
- Drinking water protection in accordance with DIN EN 1717

Failure to install the equipment properly can endanger your own life and the lives of people who use the equipment.

The system must be connected to a 230 V, single-phase AC (50 Hz) supply. Failure to adhere to these instructions and/or unauthorized interference with the MULTIMAT shall exempt WISY AG from any liability for any personal injuries, property damage and/or damage to individual components of the MULTIMAT system.

## Delivery / shipment of the unit

The Multimat rainwater unit is normally shipped in two cardboard packages. The cardboard packages must not be dropped, crushed or handled with force. As soon as the packages are received, they must be inspected for any signs of damage.

The cardboard packages or their contents must be stored in a safe, dry and frost-free area and protected against the ingress of dirt or contaminants.





Weitere Hinweise



### Scope of supply and design

#### Wall unit for indoor installation

- RW 9025, RW 9047: Stainless-steel wall unit with Zeta 02 pump controller, cut-in pressure 1.5 bar with operating state indicator and pressure gauge
- Open mains water outlet ½"
- Cover
- Intermediate plug for the connection of the float switch to the mains outlet

#### Rainwater storage tank equipment

- RW 9025: Multigo 205 submersible pressure pump with 20 m cable, base plate, 3 m strap + hook, pump connections 1" nozzle
   RW 9047: Multigo 407 submersible pressure pump with 20 m electric cable, base plate, 3 m strap + hook, pump connections 11/4" nozzle
- RW 9025, RW 9047: Float switch (yellow) for control of mains water top-up, with 20 m electric cable, with stainless-steel strip for attachment to the pump housing
- RW 9025: Floating fine suction filter 1", hose length 1 m
   RW 9047: Floating fine suction filter 11/4", hose length 1 m

#### **Accessories**

(not supplied with the unit)

- Pressure hoses made of EPDM (item DS 2003)
- Flexible tube DN 50 PE for mains water top-up (item WD 2000, WD 2021)
- Flexible cable 3 x 1,5 mm² to extend electric cable if required (item KV 3005), cable connectors for installation in the storage tank (item KV 4000)
- Wall / tube penetration WD 110/2 with dia. 11 cm (item WD 2110)
- Hose connection Set wit two stainless steel braided hoses ¾" with pressed fittings ready to connect to the wall unit. Length 0,5 m (1,64ft.) 2 ball valves with ¾" inside thread, one of them with dirt trap (item RW 7800)

## Design and operating principle

The Multimat rainwater unit provides all the pump and control technology required to operate a rainwater harvesting system.

- A submersible pressure pump draws the rainwater stored in the tank and feeds it safely under pressure to the appliances.
- A mains water top-up system with solenoid valve which automatically feeds mains water into the rainwater storage tank via an open outlet (in accordance with DIN EN 1717 – formerly DIN 1988/4).

The solenoid valve of the mains water top-up system in the indoor utility room is controlled by a float switch on the Multigo pump in the storage tank. The distance between the switching points is limited, the rise in water level caused by mains water top-up is just four centimetres. The Multigo submersible pump in the storage tank is controlled by the highly efficient ZETA 02 pump controller. If a valve at an appliance is opened (e.g. toilet flushing system), the pressure in the rainwater circuit decreases. When the cut-in pressure of 1.5 bar is reached, the ZETA 02 pump controller switches the pump on. The ZETA 02 leaves the pump in operation while extraction points are open. Once all the valves at the appliances are closed again, the pump controller switches the pump off. The ZETA 02 pump controller provides dry run protection for the pump when the water level in the tank is low. It is not permissible to extract water at any point between the Multigo pump and the ZETA 02 pump controller, the pipe cross section must be 1".

## **Installation requirements**

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The MULTIMAT system must be installed by a specialist installation company, i.e. by properly qualified, approved installation specialists and electricians. This is a basic requirement for maintaining the validity of the manufacturer's guarantee. The wall unit of the MULTIMAT with the open mains water outlet must be installed at least 15 cm above the backflow level in a frost-free room which has a floor drain. It must be ensured that the pipe for mains water top-up can be installed at a gradient (at least 1%) from the wall unit to the rainwater storage tank. In addition, a vertical clearance of at least 30 cm must be left below the tundish of the mains water top-up system.

The highest extraction point above the lower edge of the wall unit must not exceed 15 metres! For operating points in excess of 15 metres, please contact our technical support team for advice.

When installing the wall unit and routing the water pipes, make sure that they are not exposed to any substantial heat source. Heat sources can cause the pressure to rise in the pump controller or pipes. Piping or hoses must be cleaned or flushed through before use to remove any deposits of dirt/dust caused by building or installation work!

#### Installation

Installation of the indoor wall-mounting bracket

Use the mounting accessories to mount the wall unit horizontally on the wall. Take note of the installation requirements.

All water hoses must connected to the wall unit from below. The 3/4" connection with flexible hose with stainless-steel braiding and isolating valve is connected to the mains water supply. The downward 1" connection of the pump controller is connected to the rainwater pipe from the storage tank.

The adjacent 1" connection is connected to the rainwater circuit of the house, e.g. using WISY item RW 7001. This connection must also be flat-sealing, flexible, without tension and sufficiently pressure-resistant.

Installation of the Multigo submersible pressure pump

Attach the float switch to the pump using a clamp; clearance from the pump foot 30 cm. The float switch must be positioned opposite the suction connection for the floating suction filter.



Place the Multigo pump with float switch and floating suction filter in an upright position on the base of the rainwater storage tank. Important: The submersible pump must never be lowered or lifted by the electric cable. The pump must always be lowered or lifted by the lifting strap. Use the stainless-steel hook to attach the lifting strap in the access shaft so that the strap is under tension.

It must be ensured that the pump cannot topple over. Screw the 1" nozzle with integrated non-return valve and 1  $\frac{1}{4}$ " outside thread into the discharge connector of the pump (Multimat 205) /  $\frac{1}{4}$ " nozzle (Multimat 407) (Item No. ST 1010 / Item No. ST 1011).

Pull the electric supply cable for the pump and the cable of the float switch, the pressure hose (1", see accessories) and the flexible tube (DN 50, see accessories) for the mains water top-up system through the duct pipe between the storage tank and the building.

Use adapter flexible tube HT (see accessories) to connect the flexible tube for the mains water top-up system in the building to the DN 50 connector of the mains water tundish on the wall unit. Make sure that the tube is installed vertically downwards from the DN 50 connector to provide a sufficient clearance before routing it to the left or right (if necessary). Use a Y-piece to connect the flexible tube to the calming inlet in the rainwater storage tank.

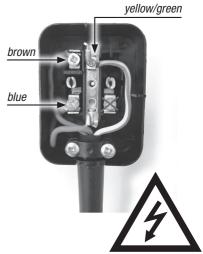
Fit the pressure hose to the nozzle at the discharge connector of the pump and secure using a hose clamp (stainless-steel band + stainless-steel screw!). Make a pressure-resistant connection between the submersible pressure pump and the indoor pump controller, cross section of the pumped rising main at least 1" for Multimat 205, or 11/4" for Multimat 407.

If a PE tube is used as the pumped rising main into the building, the (vertical) connection to the pump in the rainwater storage tank must be made using a flexible pressure hose so as to ensure that the pump can be removed for servicing.

The pumped rising main must be flushed through before it is connected to the wall unit / pump controller.

Do not install any flow resistances (water meters, backflush filters, cocks, etc.) in the pumped rising main between the pump and the wall unit / pump controller.

#### **Electrical connection**



The cables of the pump and float switch must be attached by cable ties without stress or tension to the pressure hose. The lengths of cable left inside the storage tank must be selected to ensure that the pump can be removed from the tank and placed on the ground using the lifting strap; the electric cables must not restrict the movement of the float switch or the floating suction filter.

The pump cable has an electric plug. The free end of the float switch cable must be connected to the adapter plug. Please follow the safety instructions in this document when connecting the cable.

The mains power connection (AC, single-phase, 230 V, 50 Hz) of the MULTIMAT (pump + float switch) must be protected by an earth-leakage circuit breaker (0.03 A) and a 16 A fuse.

If the electric cables of the pump and float switch need to be extended, a sufficient degree of protection must be provided, see Accessories.

### **Commissioning**

Insert the adapter plug with float switch control cable connected into the electric socket. Insert the plug of the solenoid valve of the mains water top-up system into the adapter plug. Mains water flows through the open mains water outlet through the flexible tube into the calming inlet of the storage tank. As soon as the minimum water level is reached, the float switch floats to the top and de-energizes the solenoid valve. The solenoid valve then closes.

While the rainwater storage tank is filling with water, the process must be monitored to check that the mains water is passing safely through the open outlet into the tundish / rainwater storage tank.

After the flow of mains top-up water ceases, the water level in the storage tank must be checked and, if necessary, adjusted (see Installation: Installation of the Multigo submersible pressure pump).

Important: The pumps must never be allowed to operate without water! Make sure that there is sufficient water in the storage tank! Two thirds of the submersible pump must be submerged in water, the float switch for controlling top-up with mains water must be floating (= "OFF" position, no top-up).

The pumped rising main must be flushed through before it is connected to the pump controller / wall unit. Dirt particles impair proper functioning of the pump controller and can cause damage to the submersible pressure pump, the appliances and the process water circuit. The pumped rising main must be filled with water before it is connected to the pump controller.

- Connect the pumped rising main (of the Multigo) to the wall unit / ZETA 02 pump controller.
- 2. Make sure that all hoses, tubes and electric cables are properly connected.
- 3. Open the valves at the appliances.
- **4.** Insert the electric plug of the submersible pump into the electric socket of the pump controller.
- 5. Insert the electric plug of the pump controller into a second wall socket, the pump starts up.
- 6. As soon as the system has been bled, close the valves at the appliances! The MULTIMAT unit is ready to operate as soon as the maximum system pressure is reached. After the submersible pump shuts down, the pressure must remain constant at around 4.7 bar (RW 9008) or 4.9 bar (RW 9012) when the valves at the appliances are closed.
- **7.** Finally, check that all tube / hose connections are water-tight.
- **8.** If necessary, program the Zeta 02 pump controller to suit your own requirements. Please read the separate programming instructions on page 11 and ff.





### Maintenance and servicing

#### Inspections/tests at 6-month intervals:

- check the water tightness of the Multimat Systemand the water connections
- Check the system pressure indication
- switch on and switch off point of the pressure control unit
- Check that the mains water top-up system is functioning properly and that the water can flow freely and without backflow when the solenoid valve is fully open

#### Inspections/tests at 12-month intervals:

- Inspect the dirt trap at the isolating valve of the mains water connection, clean if necessary (contact specialist for assistance if necessary)
- Inspect the floating fine suction filter at the submersible pump in the storage tank; if necessary, clean with water jet or using a brush with extended handle from ground level (contact specialist for assistance if necessary).

Ten years after the system has been commissioned, the mains water top-up solenoid valve and the diaphragm of the pump controller must be replaced (specialist).

## Repairs

All repair work must be carried out by the manufacturer or by contractors who have been explicitly approved by the manufacturer.

Repairs, modifications to components or modifications to the factory-assembled MULTIMAT components carried out by unauthorized persons shall invalidate the guarantee.

#### **Materials**

Multigo 205, 407 submersible pressure pump

- Stainless steel 1.4301 (outer casing)
- Stainless steel 1.4057 (shaft)
- PPE+PS, glass-fibre-reinforced (impeller)
- Stainless steel 1.4301 (motor cover)
- Brass (bearing casing)

#### Float switch

- Polypropylene (casing)
- Polyamide, PG 11 (cap nut)
- Neoprene tube

#### Floating suction filter

- Stainless steel 1.4301 (suction strainer)
- Polyurethane (suction tube)
- Polyethylene (float)

#### Pump controller

Polyamide, polypropylene (casing)

#### Wall unit

Stainless steel 1.4301

#### Open mains water outlet

- Stainless steel (tundish)
- Brass (solenoid valve)

Screw connections, pump connections, isolating valve

Brass, stainless steel

#### Connecting hoses

Natural rubber with stainless steel braiding

## **Troubleshooting guide**

Type of fault	Cause	Remedy
MULTIMAT is not supplying water to appliance(s)	a) Storage tank is empty, isolating valve for mains water pipe is closed ZETA 02 dry run protection is active  b) Air is entering the pump / the pumped rising main via the floating suction filter  c) ZETA 02 is not switching on the pump  d) The pump is blocked. e) The power supply is interrupted	a) Open the isolating valve, vent the Multigo and the entire system, start the pump using RESET button on ZETA 02 b) Check position of the floating suction filter in the storage tank, and correct if necessary; vent the system c) Press the RESET button! Contact customer service if necessary d) Contact customer service e) Check the electrical connection, call customer service if necessary.
The ZETA 02 pump controller is continuously switching the pump on and off	Leak in the system, valves at appliances are not completely closed	Check the appliance valves and the indoor rainwater circuit for leaks
Pump is running continuously	a) Water loss of more than 0.7 l/min from the system     b) Electronic components (printed circuit board) in the pump controller are defective	a) Check the appliance valves and indoor rainwater circuit for leaks     b) Replace the printed circuit board (customer service)
The pump is not producing enough pressure	a) The filter body of the floating suction filter is dirty b) Air is entering the pump / the pumped rising main via the floating suction filter c) The pump is defective	a) Clean the exterior surface of the filter body with a water jet or using a fine brush     b) Check position of the floating suction filter in the storage tank, correct if necessary c) Contact customer service
Earth-leakage circuit breaker has tripped	a) Water or moisture on electrical components b) Pump controller is defective  c) Pump or pump cable is defective d) Float switch or float switch cable is defective	a) Check electric cable at ZETA 02, at solenoid valve and between pump / float switch and wall unit, contact customer service! b) Check pump controller, contact customer service c) Contact customer service. d) Contact customer service
Continuous top-up with mains water even though water level in storage tank is sufficient	a) Pump float switch is blocked and cannot float b) Solenoid valve for mains water top-up system is not closing	Pull solenoid valve plug with adapter plug out of the socket, close isolating valve for mains water pipe and a) Check float switch, remove blockage (customer service) b) Check proper functioning, replace if necessary, contact customer service
Mains water top-up system is not working	a) Isolating valve for mains water pipe is closed     b) Solenoid valve is not opening     c) Float switch is not sending signal to solenoid valve	a) Open isolating valve  b) Check solenoid valve and connecting cable, as well as float switch at pump if necessary, replace if required (customer service)  c) Check float switch, replace if necessary (customer service)

## **Technical data**

Madaines	
Multimat	
Power consumption	
Multimat (with Multigo) 205: Input power / rated output	1000 W / 000 W
	1000 W / 600 W
Multimat (with Multigo) 407: Input power / rated output	1330 W / 900 W
Solenoid valve	8 W
Standby (W)	< 0,2
Mains connection	230 V. 50 Hz
1-phase alternating current	200 11 00 1 12
Max. permissible rated current	10 A
Degree of protection	1.07
Multigo	   IP 68
ZETA 02 pump controller	IP 44
Float switch	IP 68
Water connections	55
Multigo 205 submersible pressure pump	1"-Tülle mit RV druckseitig;
Multigo 203 Submersible pressure pump	1"-Tülle saugseitig
Multigo 407 submersible pressure pump	1¼"-Tülle mit RV druckseitig;
	1¼"-IG saugseitig
ZETA 02 pump controller	2 x 1" AG
Open mains water outlet Multimat 205	½" IG
Open mains water outlet Multimat 407	34" IG
(OT=outside thread, IT= inside thread)	
Schalldruckpegel dB (A) in Dezibel bei RW-Betrieb im Gebäude	Praktisch 0 dB
Multigo 205	
Delivery head H <sub>max</sub>	48 m (480 kPa)
Flow rate Q <sub>max</sub>	75 l/min
Multigo 407	
Delivery head H <sub>max</sub>	49 m (490 kPa)
Flow rate Q <sub>max</sub>	125 I/min
-	123 (/11111
Multigo 205, 407 Max. immersion depth	20 m
· ·	
Max. water temperature	40° C 20
Max. starting frequency per hour  Pumped media	
Fumped media	Filtered rainwater, mains water (clear water without
	dirt or sand particles)
Top-up flow rate (mains pressure rating 3 bar)	
Multimat 205, pipe cross section 1/2"	bis ca. 44 l/min.
Multimat 407, pipe cross section 3/4"	bis ca. 108 l/min.
Electric connecting cable	
Multigo 205, 407	20 m, with plug (3x1mm²)
Float switch	20 m, open cable end (3x1mm²)
ZETA 02 (mains cable)	1,5 m, mit Stecker (3x1mm²)
Solenoid valve	1,5 m, mit Stecker (3x1mm²)



## ZETA 02 pump controller

#### **EXCERPT** FROM THE INSTALLATION AND OPERATING INSTRUCTIONS

VALID AS OF NUMBER ZT 17 1760

#### Scope of delivery

WISY's ZETA 02 pump controller is equipped with:

- Integral electric socket Mains cable, 1.5 m in length, with electric plug
- ZETA 02/V only: Adjusting screw for cut-in pressure (top)
- Inlet outside thread: 1" (at bottom)
- Outlet outside thread: 1" (at side)
- Pressure gauge for indicating the system pressure, can be mounted on either side
- Switch for manual switch-on and for programming (RESET)
- LED ready (POWER)
- LED fault (FAILURE)
- LED pump in operation (ON)



## **Operating principle**

When cut-in pressure is reached in the rainwater circuit, the ZETA 02 pump controller starts the connected pump fully automatically from standby mode (LED ready, POWER). While the extraction point is open, ZETA 02 measures the flow rate; the pump remains in operation (LED pump in operation, ON). When the extraction point closes, the pump is switched off (LED ready, POWER).

Should the supply of water to the pump become insufficient while it is in operation, ZETA 02 registers the loss of water flow and shuts down the pump (dry run protection, LED fault, FAILURE).

#### **Programming**

The Reset button on the Zeta 02 operator panel is used to perform two functions, i.e. pump start and programming.

**Pump start:** the pump starts if the Reset button is pressed briefly.

**Switchover to programming mode:** If the Reset button is pressed and held, all three LEDs will light up after 6 seconds. After a total of 10 seconds, the Zeta 02 will switch to programming mode 1 (green LED flashes rapidly). In order to switch the Zeta 02 to programming mode 2, the Reset button must be pressed and held for a total of 20 seconds (green LED flashes slowly).

**Programming mode 1, run-on time:** if the Reset button is pressed for 10 seconds, the green LED flashes and the Zeta 02 is now in programming mode 1 for selection of the pump run-on time following closure of the extraction point(s).

**Programming mode 2, protection parameters:** if the Reset button is pressed for 20 seconds, the Zeta 02 switches to programming mode 2 in which the protection parameters "Pump stop during rapid on/off cycling" and "Pump stop during continuous operation".

## Selection of the pump run-on time after closure of extraction points Mode 1 - LED POWER (green) flashes rapidly

Press the Reset button for 10 seconds until the LED POWER (green) flashes. Release the button. You can now select the pump run-on time by briefly pressing the button.

<ul><li>Flashing rapidly</li><li>Illuminated</li><li>Not illuminated</li></ul>	5 seconds run-on time (basic setting)
<ul><li>Flashing rapidly</li><li>Not illuminated</li><li>Illuminated</li></ul>	3 seconds run-on time
<ul><li>Flashing rapidly</li><li>Illuminated</li><li>Illuminated</li></ul>	1 seconds run-on time

The selected run-on time will be saved when the Reset button is pressed continuously for ten seconds until the LED POWER (green) stops flashing and is steadily illuminated.

Activation of pump stop during rapid on/off cycling (more than 25 starts per hour) / pump stop during continuous operation (for longer than 10 minutes)

Mode 2 - LED POWER (green) flashes slowly

Press the Reset button for 20 seconds until the LED POWER (green) switches to slower flashing mode. Release the button. You can now activate the parameters "Pump stop during rapid on/off cycling (more than 25 starts per hour)" and "Pump stop after continuous operation for more than 10 minutes" by briefly pressing the button.

**D** off - no timed stopping of pump, pump remains in operation while extraction points are open

**D** on - pump is stopped after 10 minutes of continuous operation

T off - pump is not stopped during rapid on/off cycling

Ton - pump is stopped in the event of more than 25 starts per hour

Flashing slowly  Not illuminated  Not illuminated	D off	T off
<ul><li>Flashing slowly</li><li>Illuminated</li><li>Not illuminated</li></ul>	D off (Basic setting)	T on (Basic setting)
<ul><li>Flashing slowly</li><li>Not illuminated</li><li>Illuminated</li></ul>	D on	T off
<ul><li>Flashing slowly</li><li>Illuminated</li><li>Illuminated</li></ul>	D on	T on

Die ausgewählten Parameter werden gespeichert, wenn der Taster Reset zehn Sekunden dauerhaft gedrückt wird, bis die LED Power (grün) aufhört zu blinken und dauerhaft leuchtet.

#### **Fault**

If one of the parameters C or R has caused the pump to stop, only the LED FAILURE (red) will light up. If lack of water (dry run) has caused the pump to stop, the LEDs POWER (green) and FAILURE (red) will light up.

#### **Expansion vessel**

If less than 2 litres of water is extracted per minute from the system, the pump starts rapid on/ off cycling, i.e. it switches on and off rapidly. This cycling behaviour can cause serious damage to the pump. If it is anticipated that the pump will behave in this way, e.g. because it is used to supply a drip irrigation system, we recommend the installation of a suitable diaphragm expansion vessel.

**Troubleshooting guide**Please note the information under the heading "Fault" in the "Programming" chapter above!

Type of fault	Cause	Remedy
The pump is running continuously.	a) Water loss of more than 1.5 I/min from the system. b) The switch (RESET) is blocked.	a) Inspect the entire installation, i.e. water taps, WCs, etc.     b) Operate the switch several times. If it remains blocked, contact customer service for advice.
	c) The printed circuit board is defective.	c) Replace the printed circuit board (ask for assistance from customer service).
The pump won't start.	a) Lack of water, dry run protection is activated, LED FAILURE is illuminated.	a) Rectify the reason for the lack of water, vent the pump (in the case of a submersible pump, pumped rising main to ZETA 02) before recommissioning the system (ask for assistance from customer service if necessary).
	b) The pump is blocked. The LED FAILURE is illuminated, the safety system has been tripped. After the switch (RESET) is pressed, the LED ON lights up but the pump does not start.	b) Ask for assistance from customer service.
	c) Printed circuit board defective.	c) Replace printed circuit board (ask for assistance from customer service).
	d) Fault in power supply.	d) Check whether the electrical power supply is in order. LED POWER must be illuminated.
	e) Insufficient pump pressure. The safety system has been tripped and LED FAILURE is illuminated.	e) Check whether the pump pressure is at least 0.8 bar above the cut-in pressure set on the Zeta 02.
	f) Ingress of air into suction line of pump. The pressure gauge is indicating pressure values that are clearly lower than normal, or are sharply fluctuating. The safety system has been tripped, the pump has stopped. The LED FAILURE is illuminated.	f) Inspect and repair the hose and tube connections at the suction end of the pump (ask for assistance from customer service if necessary).
The pump is switching on and off continuously.	a) Leak in the system.	a) Inspect the rainwater circuit downstream of the ZETA 02 for water loss caused by extraction points that are leaking or not closed, toilet flushing systems not closing properly, and damaged garden hoses; close or repair all extraction points (ask for assistance from customer service if necessary).

## **Environmental guidance**

Disposal / recycling of transport packaging

Disposal / recycling of old units

The Multimat rainwater unit is shipped in recyclable packaging. Please recycle it!

Waste electrical and electronic equipment often contains valuable materials which can be reused / recycled. However, they also contain harmful substances which are essential to the proper, safe operation of the equipment.

These substances pose a risk to human health and the environment if the products are disposed of as general (non-recyclable) household waste or are incorrectly handled. For this reason, you must never dispose of an old unit as general (non-recyclable) household waste. Use the recycling centres / facilities provided in your area to return defective electrical or electronic equipment so that it can be recycled!



## Konformitätserklärung

Produktbezeichnung

Einschlägige EG-Richtlinien

Angewandte harmonisierte Normen

Sonstige angewandte nationale Normen und Spezifikationen

Hersteller

Name des Bevollmächtigten der technischen Unterlagen

Kefenrod, 14. Februar 2013

Im Sinne der EG-Richtlinie Maschinen 2006/42/EG, Anhang II Teil 1 Abschnitt A

Hiermit erklären wir, dass die nachfolgend bezeichneten Maschinen allen Bestimmungen der EG-Richtlinie Maschinen i.d.F. 2006/42/EG entsprechen.

Regenwasserwerke Multimat Typ 205, Typ 407 Regenwasserwerke Optima 4, Optima 5, Optima Plus Regenwasserwerke Maxima Typ 205, Typ 407 Regenwasserwerk Sigma 3, Sigma 4, Regenwasserwerk Delta Trennstation SIGURA 9

Richtlinie Maschinen 2006/42/EG in der Fassung vom 17.05.2006

Richtlinie 2004/108/EG über die elektromagnetische Verträglichkeit in der Fassung vom 15.12.2004

EN ISO 13849-1:2008 Sicherheit von Maschinen - Sicherheitsbezogene Teile von Steuerungen - Teil 1: Allgemeine Gestaltungsleitsätze (ISO 13849-1:2006)

EN 809:1998+A1:2009 Pumpen und Pumpenaggregate für Flüssigkeiten - Allgemeine sicherheitstechnische Anforderungen

EN ISO 12100:2010 Sicherheit von Maschinen - Allgemeine Gestaltungsleitsätze - Risikobeurteilung und Risikominderung (ISO 12100:2010)

EN 60204-1:2006 Sicherheit von Maschinen -Elektrische Ausrüstung von Maschinen – Teil 1: Allgemeine Anforderungen

EN 60529 (VDE 0470-1) Schutzarten durch Gehäuse

DIN 1989 Regenwassernutzungsanlagen, Teil 1+4 DIN EN 1717 und DIN 1988-100 Schutz des Trinkwassers

WISY AG Oberdorfstraße 26 D-63699 Kefenrod

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> Arnold Denk Vorstand der WISY AG

Jan Maurer Vorstand der WISY AG

## WISY Regenwassernutzung



#### Guarantee

Period and commencement of the guarantee

This guarantee is valid for a period of 24 months and becomes effective on the date of purchase by the customer. Replacement of the product under guarantee will not extend the term of the original guarantee.

Terms and conditions of the guarantee

WISY shall meet its guarantee obligations for the rainwater unit if it can be demonstrated that the following conditions are fulfilled:

- **1.** The product has been purchased from an authorised specialist WISY retailer.
- 2. The product has been commissioned by the WISY customer service or by a specialist company.
  Claims can be made under the guarantee only if WISY receives notification in writing of any defect within 14 days of discovery of the defect.

Content and scope of the guarantee

WISY shall rectify any functional defects during the guarantee period by repairing or replacing defective components free of charge. Additional claims for damages shall be excluded to the extent permitted by law.

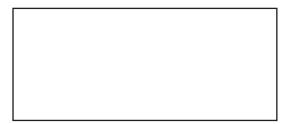
Limitation of the guarantee

Faults or defects which arise as a result of the following factors are not covered by the guarantee:

- Faulty assembly or installation, e.g. failure to comply with the valid VDE regulations or the operating instructions.
- Failure to provide a floor drain in the utility room / area in which wall unit is installed.
- Inappropriate use or exposure to excessive mechanical strain.
- The connection of equipment other than the submersible pump / float switch supplied with the product to the socket provided on the ZETA 02 / adapter plug.
- External influences, e.g. shipping damage, damage caused by shock impacts, damage caused by exposure to weather, damage caused by contaminants, damage caused by other natural phenomena.
- Repairs or modifications undertaken by unauthorized third parties.

#### Device no

The registered manufacturer device number of your product is as follows:





Fax +49 (0) 60 54-91 21-29 Internet: www.wisy.de E-Mail: info@wisy.de