



automatic transmission ZETA 02

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Instructions for installation and operation

valid from number ZT 17 1

- For all common pumps can be used
- Reduction of CO₂ emissions by up to 97%
- Energy savings of up to 128 kWh/Year
- Energy cost savings of up to 32,- E per year
- ZETA 02 switches the pump on and off as needed and protects the pump from dry running
- Deutsches utility model DGM 2020 13011 190.9
- energy-efficient and programmable electronics, Standby less than 0.2 watts



WISY
rainwater harvesting

ZETA 02 automatic gearshift

Installation and use requires detailed knowledge of these operating instructions!

Installation instructions and technical information for the highly efficient WISY pump controls ZETA 02 and ZETA 02/V

key to symbols

	Failure to follow these instructions may result in serious or fatal injuries.		Failure to observe the instructions may result in death from electric shock.		Failure to observe these instructions may result in damage to the device or electric shock through the device.
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Contents

This installation manual contains the following information:

- Area of application and intended use
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- Declaration of conformity

Highly efficient control unit (standby < 0.2 W) for pumps

- Protects the pump from dry running
- Pressure display by pressure gauge
- Operating display via LED



Description and area of application

The highly efficient WISY pump control ZETA 02 (ZETA 02/V) is suitable for controlling multi-stage, dry-installed centrifugal pumps and for controlling multi-stage underwater pressure pumps, especially pumps in rainwater utilization systems. ZETA 02 must be installed vertically. Approved media for the use of ZETA 02 are filtered rainwater and drinking water, the temperature must not exceed 35°C.

ZETA 02 is available in two versions. The standard version switches the pump on at a system pressure of 1.5 bar; with the ZETA 02/V control unit, the switch-on pressure can be set between 1.5 and 2.8 bar. The following information for ZETA 02 in these instructions applies accordingly to ZETA 02/V.

ZETA 02 starts the pump after a withdrawal point has been opened and the switch-on pressure has been reached. The pump remains in operation as long as water is being withdrawn. Once water withdrawal has ended and the pump-specific system pressure has been reached, the pump is switched off.

ZETA 02 protects the pump by switching it off when there is a lack of water (dry-run protection). It then makes 52 start-up attempts within 48 hours to check whether water is present again. ZETA 02 should be installed in a dry, dust- and frost-free room. The operating status of the pump and the system pressure can be read directly on the control unit.

Improper use

ZETA 02 cannot be used to control pumps with a current consumption > 8 amps. ZETA 02 cannot be installed in shafts, cisterns or outdoors. No device other than the pumps described above may be connected to ZETA 02.



For use in systems with a water withdrawal of less than 2 liters / minute (e.g.

Additional measures must be taken for systems with contaminated water (e.g. drip irrigation). ZETA 02 is not suitable for use in systems with contaminated water (e.g. sand, dirt or abrasive substances) or for pumping media other than clear water.

safety instructions

These operating instructions must be read carefully and kept for future reference. The supply voltage for ZETA 02 must be between 100 V and 240 V (50 Hz / 60 Hz). Please check whether the pump connected to ZETA 02 is suitable for the existing mains voltage! ZETA 02 must never be lifted or pulled by the power cable. The power cable must not be laid over sharp edges, pulled or crushed. Before operation, the power plug and power cable must be checked for damage. If there is any damage, immediately call an authorized customer service department (electrician) and have the damage repaired.

ZETA 02 / ZETA 02/V must not be operated or used by persons with reduced mental, physical or sensory capabilities unless they are supervised by a person responsible for their safety or have been instructed by this person how to use or operate the controls. They must have understood the potential hazards.

Children must not operate or play with Zeta 02 / ZETA 02/V.



When ZETA 02 is connected to the power supply, the cistern must not be opened and no one should ever climb into it. An open cistern must also never be left unattended! Climbing into the rainwater storage tank may only be carried out by specialist companies, only under supervision and with adequate security (e.g. rescue belt system). Before carrying out any maintenance work on ZETA 02 or the pump connected to it, the power plug must be pulled out.



If the residual current device/electrical fuse is triggered, the cause must be found and eliminated by the manufacturer/a representative of the manufacturer. A damaged power cable of the ZETA 02 control unit must be replaced by the manufacturer/a representative of the manufacturer.

delivery and storage

The WISY pump control ZETA 02 is delivered in a cardboard box. The cardboard box must not be knocked or dropped. The product must be checked for damage immediately upon delivery. The cardboard box and, if applicable, the already unpacked device must be stored in a protected, dry place, free from dust and frost, and protected from contamination.

scope of delivery

The WISY pump control ZETA 02 is equipped with: ÿ integrated

Schuko socket

ÿ 1.5 m long power cable with Schuko plug

ÿ only ZETA 02/V: Adjustment screw for switch-on pressure (top ÿ Input

external thread: 1" (bottom

ÿ Output external thread: 1" (side

ÿ Pressure gauge for system pressure display, installation possible on both sides ÿ

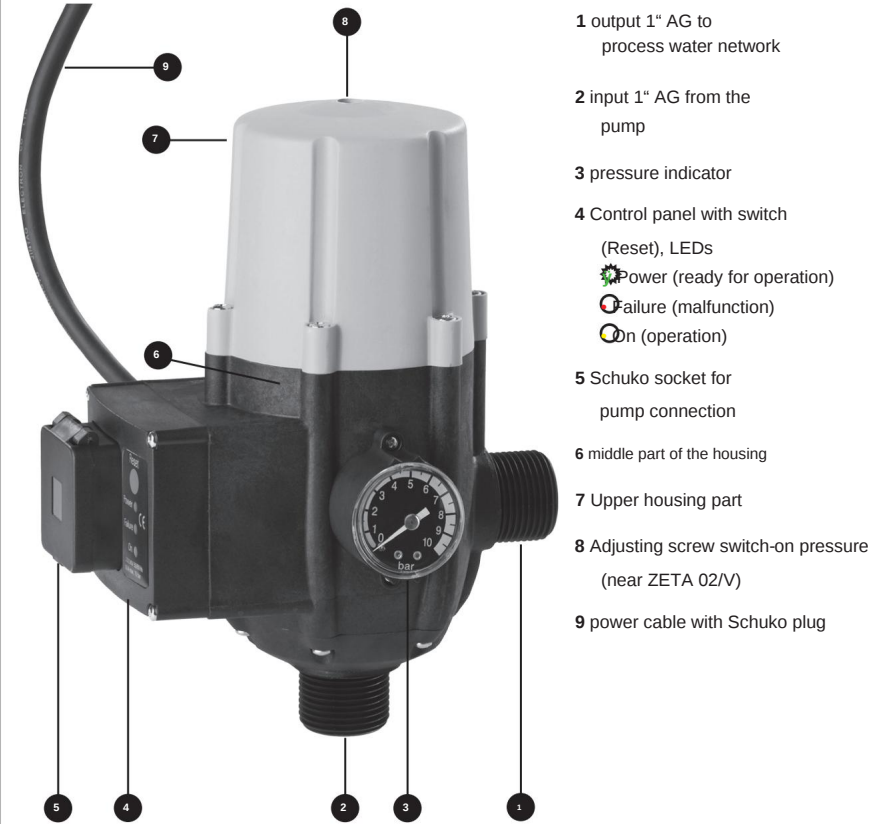
Switch for manual switching on and programming (RESET

ÿ Lamp ready for use (POWER

ÿ FAILURE light ÿ Pump in operation

light (ON

What is what?



designs

ÿ ZETA 02, switch-on pressure 1.5 bar, 2 x 1"-AG (Article ZT 02 00)

ÿ ZETA 02/V, switch-on pressure adjustable from 1.5 – 2.8 bar, 2 x 1"-AG (Article ZT 02 10)

ÿ ZETA 02 Special versions for pumps, rainwater plants and separation stations on request

Recommended accessories

ÿ 1" connecting hose, stainless steel coated, with 1" union nut and 1" nipple, for flexible and sound-damped connection (Article VD 9928) ÿ

3/4" connecting hose with 1" union nut and 3/4" nipple, stainless steel coated, with ball valve 3/4", for flexible and sound-insulated connection to the house installation (article VS 9953)

functionality

The ZETA 02 switchgear starts the connected pump fully automatically from the standby operating mode (ready-to-use light, power) when the switch-on pressure is reached in the service water network. During water extraction, ZETA 02 measures the flow rate and the pump remains in operation (pump in operation light, on). After the extraction point is closed, the pump is switched off (ready-to-use light, power).

If the pump is no longer supplied with enough water during operation, ZETA 02 registers the lack of water flow and the pump is switched off. If the tap is still open, the pump starts again automatically twice after 10 seconds each, then twice after 3 minutes each and then 48 times at one-hour intervals. If there is still no water available, the Failure LED lights up and the pump must be started manually.

installation requirements

The installation of ZETA 02 must be carried out by a specialist company, a master craftsman (installation or electrical trade). This is a prerequisite for the manufacturer's warranty obligation.

! The switchgear must be installed in a frost-free room with a floor drain. Pipes or hoses that have become dirty during construction and assembly work must be cleaned or flushed before connection. Protective caps on the ZETA 02 switchgear must be removed before connecting the hoses or lines. When laying the water pipes, make sure that they are not exposed to any heat source. A heat source can lead to an increase in pressure in the system and cause damage.

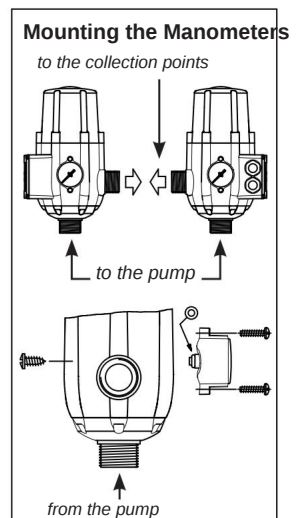
Montage

The ZETA 02 switchgear should always be installed vertically, with the yellow cap facing upwards. The (water) connection at the bottom is connected to the pump using a suitable pressure pipe/screw connection; the cross-section must be at least 1". The side (water) connection is flexibly connected to the service water network.

All (water) connections must be sufficiently pressure-resistant, stress-free and flat-sealing.

If ZETA 02 is used to control an underwater pressure pump, the WISY stainless steel wall bracket is required for secure installation.

The pressure gauge is to be mounted with two fastening screws. Use lubricant for the O-ring. The pressure gauge must be visible from the front. The pressure gauge connection on the opposite side is to be closed with the stainless steel screw without sealant.



commissioning

- Vent the pump and the line from the pump to the control unit ZETA 02 and Rinse thoroughly!
- Open valves on the consumers
- Plug the pump's power plug into the socket of the ZETA 02 control unit
- Connect ZETA 02 to the electrical network, the pump will start POWER indicator lights up.
- As soon as the air has been evacuated from the pipe network, close the consumer valves After reaching the maximum operating pressure (= max. delivery head of the pump), the Pump switched off, the system is ready for operation.
- After commissioning, check the switch-on pressure on the pressure gauge, all connections Check the pressure gauge and screw plug for leaks and the pressure gauge after switching off for constant pressure.

programming

The reset button on the Zeta 02 control panel has two functions, pump start and programming.

Pump start: if the reset button is pressed briefly, the pump starts.

Switching to programming mode: If the reset button is pressed and held, all three LEDs light up after 6 seconds. After a total of 10 seconds, Zeta 02 is in programming mode 1 (green LED flashes quickly). To get to programming mode 2, the reset button must be pressed for a total of 20 seconds (green LED flashes slowly).

Programming mode 1, run-on time: if the reset button is pressed for ten seconds, the green LED flashes, Zeta 02 is now in programming mode 1, selection of the run-on time after water extraction has ended.

Programming mode 2, protection parameters: if the reset button is pressed for 20 seconds, Zeta 02 is in programming mode 2, selection of the protection parameters pump stop during cycles and during continuous operation.

Select the pump run-on time after water extraction stops

Mode 1 - LED Power (green) flashes quickly

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

flashes quickly lights up does not light up	5 seconds follow-up time (default setting)
flashes quickly does not light up lights up	3 seconds follow-up time
flashes quickly lights up lights up	1 second follow-up time

The selected run-on time is saved when the Reset button is pressed continuously for ten seconds until the Power LED (green) stops flashing and lights up continuously.

Pump stop during cycles (more than 25 starts / hour) / pump stop during continuous operation (longer than 10 minutes)

Mode 2 - LED Power (green) flashes slowly

Press the reset button for 20 seconds until the Power LED (green) changes to the slower flashing mode. Release the button. You can now activate the pump stop during cycles (with more than 25 starts per hour) and pump stop after a running time of more than 10 minutes parameters by briefly pressing the button.

D off - no time-dependent pump stop, pump runs as long as water is drawn

D on - Pump stop after 10 minutes pump running time

T off - no pump stop during cycles

T on - Pump stop at more than 25 starts per hour

 flashes slowly  does not light up  does not light up	D off	T off
 flashes slowly  lights up  does not light up	D off (default setting)	Tone (default setting)
 flashes slowly  does not light up  lights up	D on	T off
 flashes slowly  lights up  lights up	D on	T on

The selected parameters are saved when the Reset button is pressed continuously for ten seconds until the Power LED (green) stops flashing and lights up continuously.

Disturbance

If one of the parameters D or T has caused the pump to stop, only the Failure LED (red) lights up. If a lack of water (dry running) has caused the pump to stop, the Power (green) and Failure (red) LEDs light up.

expansion tank

If the withdrawal volume is less than 2 liters per minute, the pump begins to cycle and is switched on and off frequently. This cycling can cause major damage to the pump. If such operating conditions are to be expected, for example with drip irrigation, we recommend installing a suitable membrane expansion tank.

Version ZETA 02/V with adjustable switch-on pressure

The switch-on pressure for ZETA 02/V must be set when the system is depressurized.

The switch-on pressure is set using the adjusting screw on the top of the switch when the system is depressurized. To do this, read the pressure displayed at the moment of switch-on on the pressure gauge. After the pump stops, disconnect the ZETA 02/V from the power supply and open a consumer; the pressure gauge shows 0 bar. If the switch-on pressure is to be increased, turn the adjusting screw clockwise. Reconnect the ZETA 02/V to the power supply and the pump will start. When you start the pump again, check the switch-on pressure and, if necessary, proceed as described above until the desired switch-on pressure is reached.

For ZETA 02/V to function properly, the pump must be able to achieve a delivery head 8 m (0.8 bar) higher than the set switch-on pressure.

maintenance, repair



If maintenance work is carried out with the cistern open, ZETA 02, the connected pump and all other electrical systems must be disconnected from the power supply. The safety instructions (see point Safety Instructions) must be observed!

semi-annual check:

• the watertightness of the ZETA system and the water pipe connections

• the pressure display in standby and the on and off pressures

Exchange:

Ten years after commissioning, the membrane of ZETA 02 must be replaced (specialist company)

repairs

Repair work may only be carried out by the manufacturer or by companies expressly commissioned by the manufacturer. Repairs or modifications to the components of the ZETA 02 control system carried out by the user will void the warranty.

Technical data

ZETA 02	
supply voltage	100 V to 240 V
Maximum current consumption of the connected pump 8 amps	
frequency of the alternating voltage	50 to 60 Hz
protection class	IP 44
Maximum ambient temperature	45°C
Maximum water temperature	35°C
Maximum flow	10,000 l/h
switch-on pressure ZETA 02	1,5 bar
switch-on pressure ZETA 02/V	from 1.5 to 2.8 bar
Max. permissible operating pressure	10 bar

Troubleshooting tips

Please also note the error message under the point Programming!

Type of fault	Caused	remedy
pump is running continuously.	a) Water loss of more than 1.5 l/min in the network. b) The switch (RESET) is blocked. c) PCB defective.	a) Check the entire installation, taps, toilets, etc. b) Press the switch several times. If it remains blocked, contact customer service. c) Replace the circuit board (contact customer service).
The pump does not start. a) Lack of water,	dry-run protection is activated, light (FAILURE) is on. b) The pump is blocked. The lamp (FAILURE) is on, the safety system has been triggered. After pressing the switch (RESET) the lamp (ON) lights up, but the pump does not start. c) PCB defective. d) Fault in the power supply. e) Insufficient pump pressure. The safety system has been triggered and the LED (FAILURE) is on. f) Air entering the suction line of the pump. The pressure gauge shows values that are significantly lower than normal or that fluctuate greatly. The safety system has been triggered and the pump has stopped. The LED (FAILURE) is on.	a) Reason for water shortage Remove, vent pump (in the case of submersible pump, pressure line to ZETA 02) before restarting (if necessary). contact customer service). b) Contact customer service. c) Replace the circuit board (contact customer service). d) Check that the electrical power supply is correct. LED (POWER) must light up. e) Check that the pump the required pressure of 0.8 bar above the switch-on pressure of the Zeta 02 is reached. f) Hose and pipe connections Check and repair any leaks on the suction side of the pump (call customer service if necessary).
The pump constantly switches on and off.	a) Leak in the system.	a) Process water network according to Check ZETA 02 for water losses due to unclosed or dripping taps, toilet flushing systems that do not close and broken garden hoses, close taps or replace them. repair (if necessary, contact customer service).

environmental information

Disposal / recycling of transport packaging

The packaging of the ZETA 02 is recyclable and can be recycled as waste paper!

Disposal / recycling of the old device

Old electrical and electronic devices often still contain valuable materials that can be reused. However, they also contain harmful substances that were necessary for the device to function and be safe. These substances can be harmful to human health and the environment if disposed of in residual waste or if handled incorrectly. Therefore, never put your old device in the residual waste!

Use the municipal collection points set up in your area to return and recycle defective electrical or electronic devices!



Guarantee

Duration and start of the guarantee

The warranty is valid for 24 months, starting from the date of purchase by the buyer.
Replacement delivery for warranty reasons does not extend the original warranty.

WISY assumes the warranty obligation for ZETA 02 if the following conditions are verifiably met:

conditions of the guarantee

1. The device was purchased from a WISY dealer in the Federal Republic of Germany
When purchasing from a WISY dealer in other countries of the European Union, different or additional conditions may apply.
2. The device was commissioned by the WISY customer service or
by a specialist company.

Warranty claims can only be asserted if the complaint is received by us in writing within 14 days of the defect being discovered.

Content and scope of the guarantee

WISY will remedy any functional defects that occur within the warranty period free of charge – either by repairing or replacing the parts in question.
Any further claims for damages are excluded unless liability is stipulated by law.

Limitation of Warranty

The warranty does not cover faults or defects that are due to:

- ÿ Incorrect assembly or installation, e.g. non-compliance with the applicable VDE regulations or the installation instructions.
- ÿ Improper use or use
- ÿ Connecting unauthorized devices to ZETA 02
- ÿ External influences, e.g. transport damage, damage caused by impact or shock
Damage caused by weather influences or other natural phenomena.
- ÿ Repairs or modifications carried out by unauthorized third parties become.

Konformitätserklärung

Due to its structure, technology and design, the control unit
ZETA 02 / ZETA 02/V complies with the requirements of
the following EC directives:

Directive 2004/108/EC on the electromagnetic compatibility of
electronic products in the version of 15 December 2004

Directive 2006/95/EC on electrical equipment
for use within certain voltage limits (Low Voltage Directive) in the
version of 12 December 2006

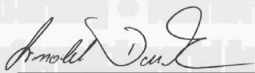
Manufacturer

WISY AG
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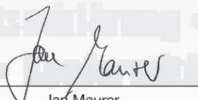
**Name of the authorized representative
the technical documentation**

WISY AG
Oberdorfstraße 26
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Kefenrod, 15. Juli 2014



Arnold Denk
Vorstand
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