



wilo 015-C Automatic Condensate Lifting Unit Instruction Manual

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Wilo-Plavis
Pioneering for You

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015-C Automatic Condensate Lifting Unit



Installation and operating instructions

Fig. 1

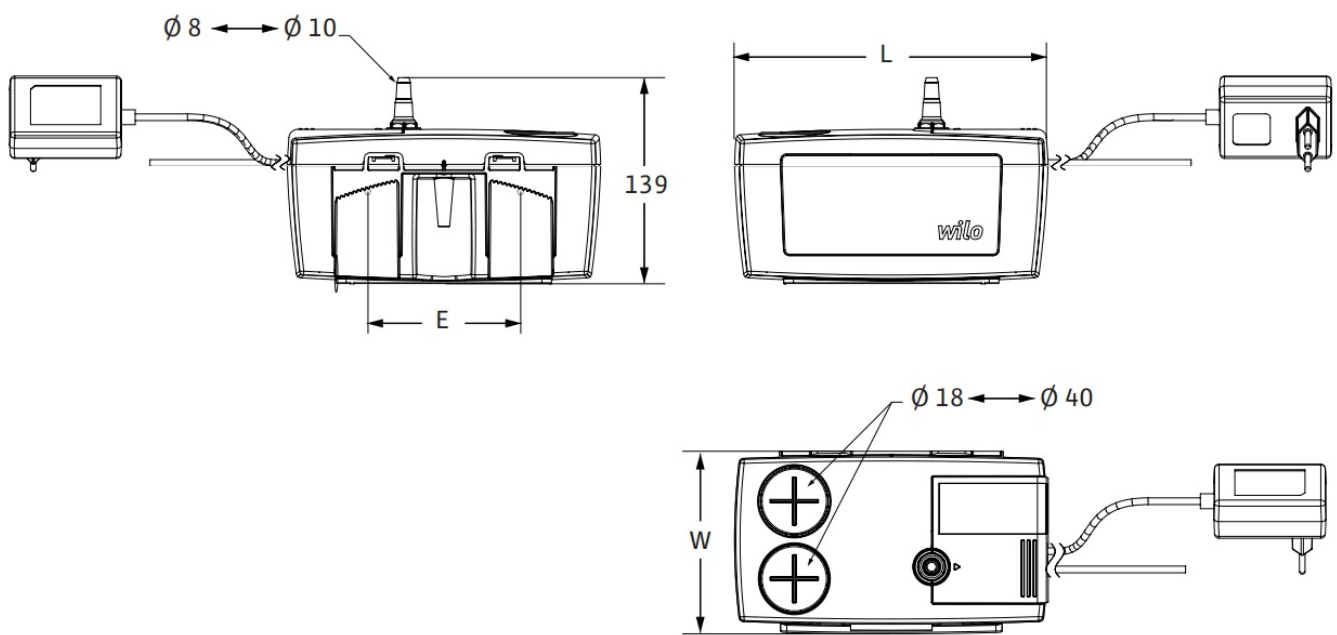
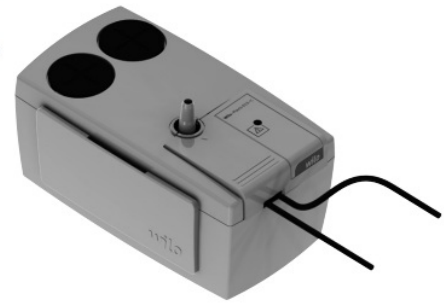


Fig. 2



Wilo-Plavis 011-C



Wilo-Plavis 013-C



Wilo-Plavis 015-C

Fig. 3

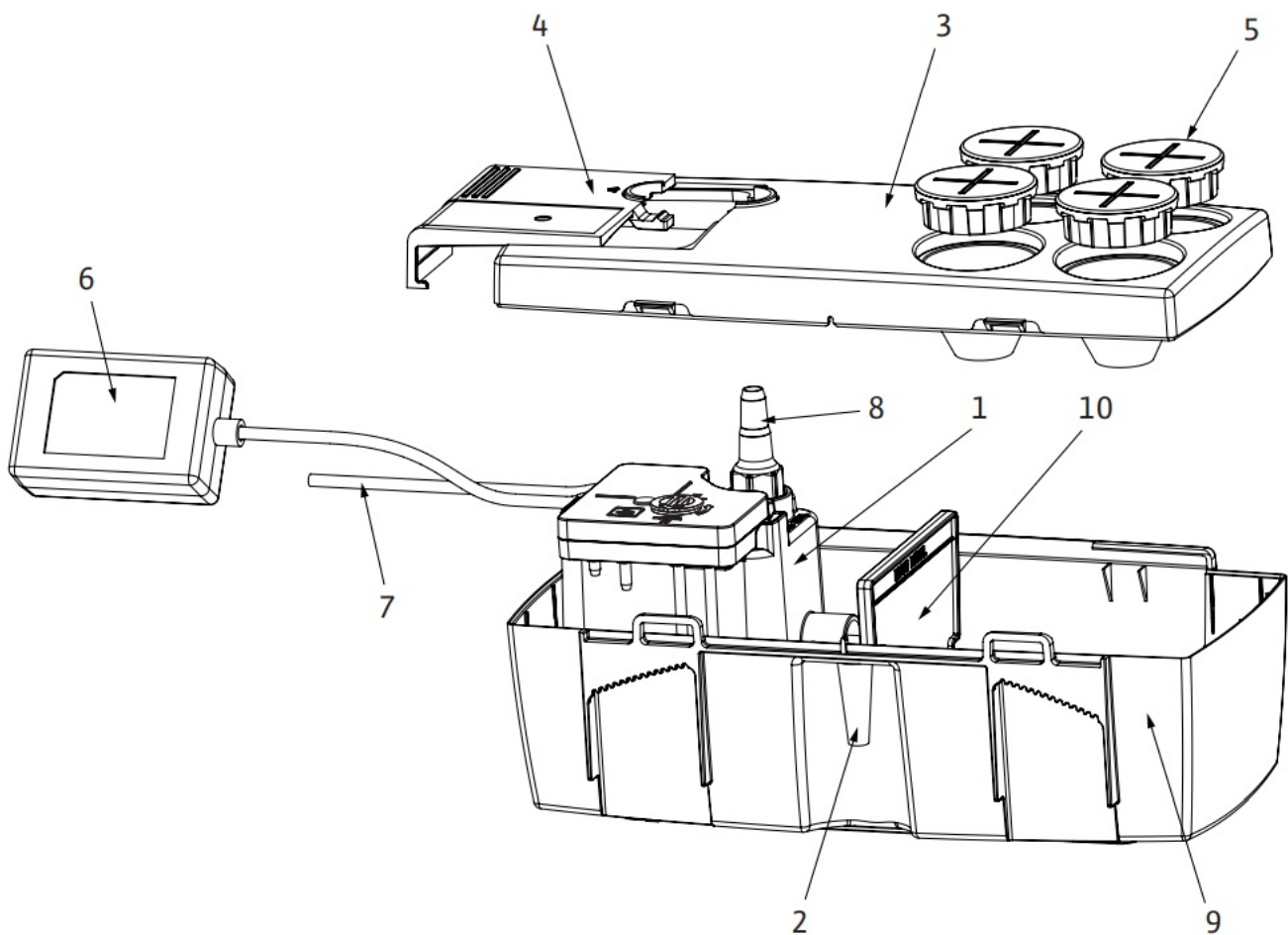


Fig. 4

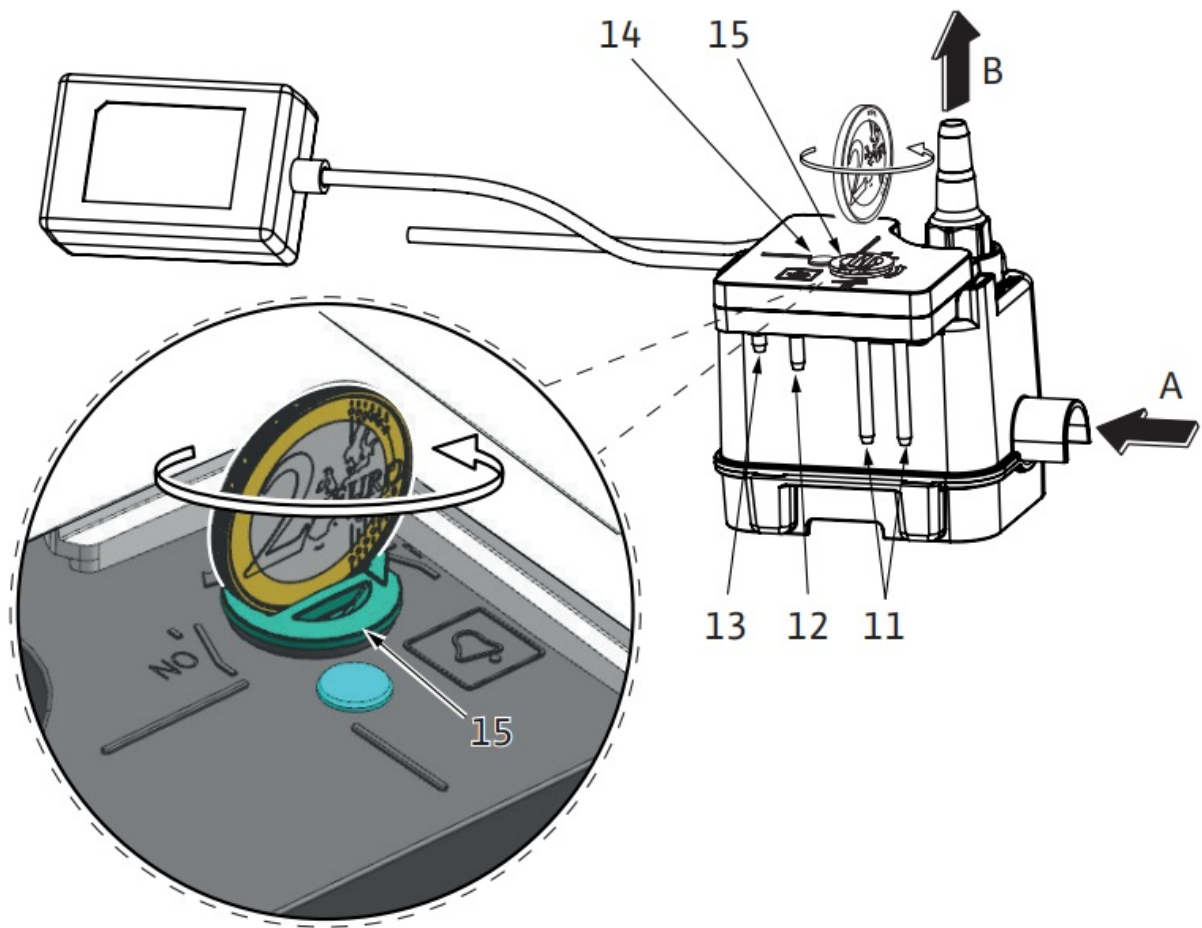


Fig. 5

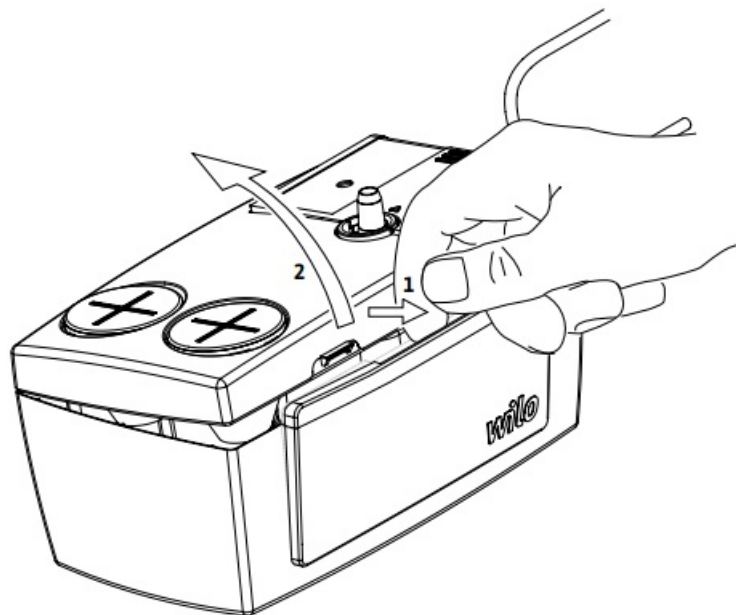


Fig. 6

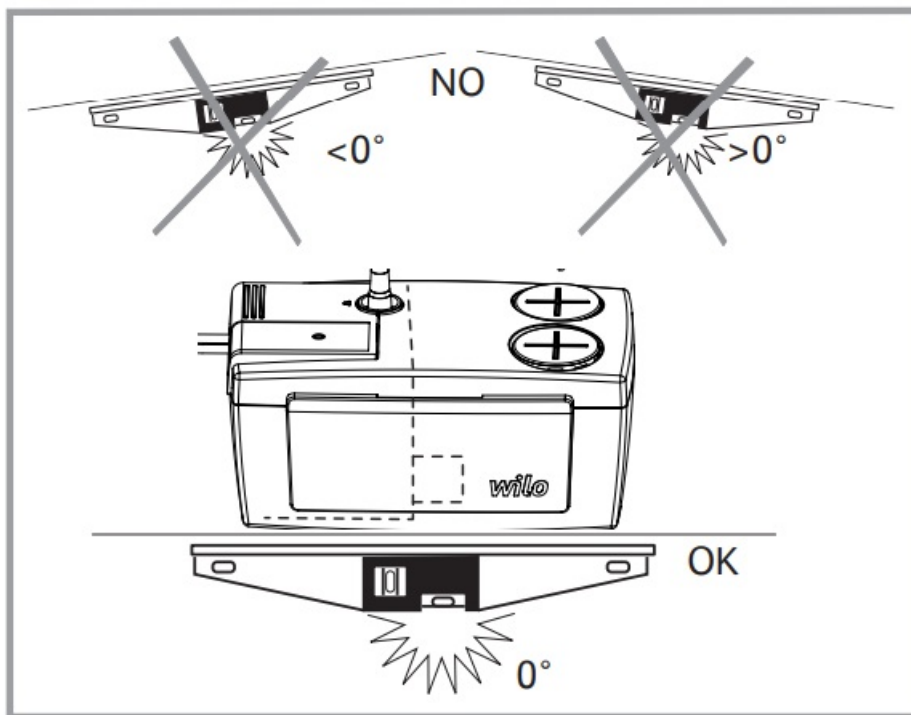


Fig. 7

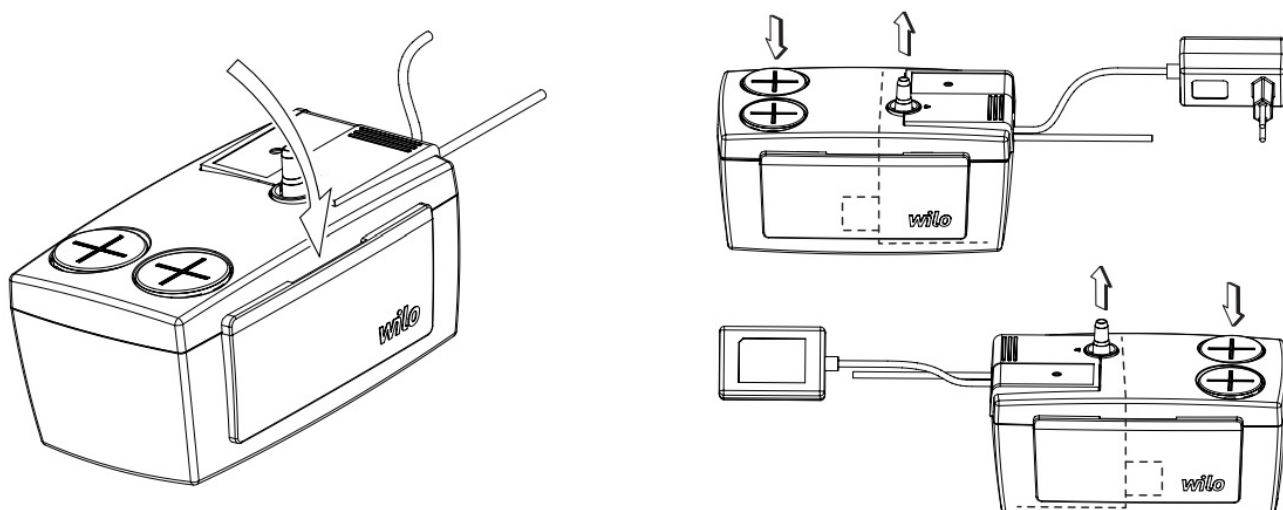
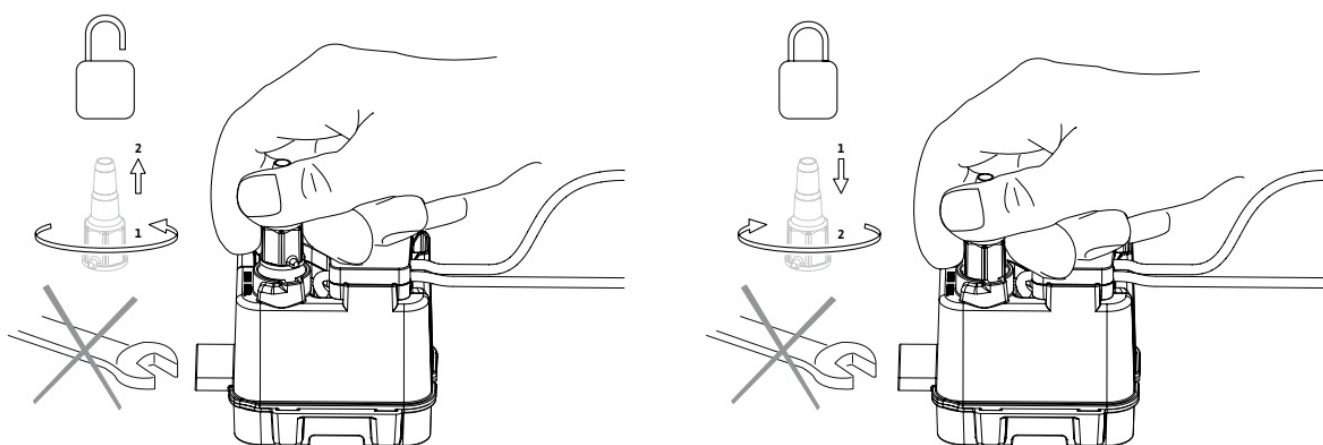


Fig. 8



Safety instructions

About this document

The language of the original operating instructions is English. All other languages of these instructions are translations of the original operating instructions. These installation and operating instructions are an integral part of the product. They must be kept readily available at the place where the product is installed. Strict adherence to these instructions is a precondition for the proper use and correct operation of the product.

These installation and operating instructions correspond to the relevant version of the product and the underlying safety standards valid at the time of going to print. EC declaration of conformity: A copy of the EC declaration of conformity is a component of these operating instructions. If a technical modification is made on the designs named there without our agreement, this declaration loses its validity.

Safety

These operating instructions contain basic information which must be adhered to during installation, operation and maintenance. For this reason, these operating instructions must, without fail, be read by the service technician and the responsible specialist/operator before installation and commissioning.

It is not only the general safety instructions listed under the main point "safety" that must be adhered to but also the special safety instructions with danger symbols included under the following main points.



General danger symbol



Danger due to electrical voltage



Note

2.1 Personnel qualifications

The installation, operating, and maintenance personnel must have the appropriate qualifications for this work. Area of responsibility, terms of reference and monitoring of the personnel are to be ensured by the operator. If the personnel are not in possession of the necessary knowledge, they are to be trained and instructed. This can be accomplished if necessary by the manufacturer of the product at the request of the operator.

2.2 Danger in the event of non-observance of the safety instructions

Non-observance of the safety instructions can result in risk of injury to persons and damage to the environment and the product/unit. Non observance of the safety instructions results in the loss of any claims to damages.

In detail, non-observance can, for example, result in the following risks:

- Danger to persons from electrical, mechanical and bacteriological influences,
- Damage to the environment due to leakage of hazardous materials.
- Property damage
- Failure of important product/unit functions
- Failure of required maintenance and repair procedures

2.3 Safety consciousness on the job

The safety instructions included in these installation and operating instructions, the existing national regulations for accident prevention together with any internal working, operating and safety regulations of the operator are to be complied with.

2.4 Safety instructions for the operator

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

- If hot or cold components on the product/the unit lead to hazards, local measures must be taken to guard them

against touching.

- Guards protecting against touching moving components (such as the coupling) must not be removed whilst the product is in operation.
- Leakages (e.g. from the shaft seals) of hazardous fluids (which are explosive, toxic or hot) must be led away so that no danger to persons or to the environment arises. National statutory provisions are to be complied with.
- Highly flammable materials are always to be kept at a safe distance from the product.
- Danger from electrical current must be eliminated.

Local directives or general directives [e.g. IEC, VDE etc.] and local power supply companies must be adhered to.

2.5 Safety instructions for installation and maintenance work

The operator must ensure that all installation and maintenance work is carried out by authorised and qualified personnel, who are sufficiently informed from their own detailed study of the operating instructions.

Work on the product/unit must only be carried out when at a standstill. It is mandatory that the procedure described in the installation and operating instructions for shutting down the product/unit be complied with.

Immediately on conclusion of the work, all safety and protective devices must be put back in position and/or recommissioned.

2.6 Unauthorised modification and manufacture of spare parts

Unauthorised modification and manufacture of spare parts will impair the safety of the product/personnel and will make void the manufacturer's declarations regarding safety.

Modifications to the product are only permissible after consultation with the manufacturer. Original spare parts and accessories authorised by the manufacturer ensure safety.

The use of other parts will absolve us of liability for consequential events.

2.7 Improper use

The operating safety of the supplied product is only guaranteed for conventional use in accordance with Section 4 of the operating instructions. The limit values must on no account fall under or exceed those specified in the catalogue/data sheet.

Transport and interim storage

When you receive the equipment, check that it has not been damaged during transport. If you notice any defects, take all necessary measures with the carrier in the time provided.



WARNING! The environment may cause damage.

If the equipment delivered must be installed subsequently, store it in a dry place and protect it from shock and any other effects (humidity, frost, etc.).

Transport and storage temperatures: -30 °C to +60 °C.

Handle the product with care so as not to damage it prior to installation.

Intended use

The Wilo-Plavis ...-C product is designed for pumping condensates emitted by the following systems:

- Boiler
- Air-conditioning system
- Cooling and refrigeration system
- Air dehumidification

The product is suitable for pumping collected condensates that cannot be sent towards the drains or drained from the building by the natural slope.



DANGER! Risk of explosion!

Do not use this pump to convey flammable or explosive liquids.



WARNING!

The condensates from boilers are aggressive due to their acidity. Always wear gloves and protective glasses for maintenance work.

The condensates from boilers must be processed (potentially neutralized) in compliance with the local regulations before being sent to the drains.

5.2 Scope of delivery

- Wilo-Plavis ...-C
- + 2 fastening screws Ø 4
- + 5 m drainage pipe Ø 8 x 11 (based on the model)
- + Bag with granules for pH neutralisation (Plavis 015-C)
- + Installation and operating instructions

Description and function

6.1 Description (fig. 3, 4)

1. Pump set
2. Tank overflow safety level (based on the model)
3. Tank cover
4. Hatch (based on the model)
5. Plug adapter (based on the model)
6. Power supply
7. Alarm cable (based on the model)
8. Non-return valve
9. Tank
10. Granulated chamber wall for neutralisation
11. Low-level probes
12. High-level probes
13. Alarm probe (based on the model)
14. Alarm indicator (based on the model)
15. Alarm switch (based on the model)

A Suction

B Drainage

6.2 Function

- The condensates are collected in the tank
- The level of liquid is automatically controlled by the electronic card
- The pump starts when the liquid level reaches the high-level probe, and stops when the liquid level has descended to the low-level probe

- The condensates are drained away through the drainage piping
- The product is equipped with an alarm probe in case of defect (based on the model). This alarm probe activates the alarm relay that may be connected via the alarm cable

Product information

5.1 Technical data

Designation	Wilo-Plavis 011-C I Wilo-Plavis 013-C		Wilo-Plavis 015-C		
Supply voltage	1 – 100-240 Vac				
Frequency	50/60 Hz				
Supply cable	1.5 m				
Alarm cable	– I	1.5 m			
Power consumption	< 20 W				
Rated current	0.6 – 0,2 A				
Protection class	IP X4				
Ambient temperature	from + 5 °C to + 40 °C				
Alarm relay contact	–	I 230 V rms 1A			
Delivery head	Max. 4 m				
Admissible fluid	pH > 2.5				
Admissible fluid temperature	from + 5 °C to + 60 °C				
Sound-pressure level	< 40 dBA at 1 m				
Dimensions a x On	152 x 116 mm	210 x 123 mm	275 x 129 mm		
Tank volume	0.71	1.	1.,61	* with granules	* 0,8 l
Net weight (± 10 %)	700 gr	750 gr	1 000 g r		* 1 800 gr

Installation and electrical connection



WARNING! Physical injuries

The applicable regulations for the prevention of accidents must be complied with.



WARNING! Risk of electric shock

Any danger posed by electricity must be eliminated.

7.1 Receipt of the product

Unwrap the product and remove the packaging while ensuring respect for the environment.

7.2 Mechanical installation



WARNING! Risk of property damage!

Position the product horizontally on a level surface.

- Inspect the tank cleanliness; if necessary, clean it with water
- Select a location appropriate for the device's dimensions so that the fittings are accessible (fig. 1)
- Install the product in a dry, well ventilated place away from frost. The product is not designed for external use
- Do not install anything underneath the product in case of drainage of condensate via the overflow
- Do not cover the product



NOTE: The pump set (fig. 1) of the product may, based on the location of use, be inserted into the tank on the right or on the left (based on the model).

- Unclip the cover (fig. 5)
- Move the pump set (fig. 6)
- Reattach the cover (fig. 7)
- In the case of wall fixation:

Mark the drilling holes with a centre-to-centre distance of 75 mm (Wilo-Plavis 011-C), 105 mm (Wilo-Plavis 013-C) and 165 mm (Wilo-Plavis 015-C).

Use bolts that are customised for the material of the wall. Attach the product to the wall using 2 Ø 4 mm screws.

7.3 Connection to piping network

- Inspect the tank cleanliness; if necessary, clean it with water



WARNING! Danger due to malfunction!

Non-compliant inlet and drainage fittings cause installation malfunctions. Flexible inlet and drainage pipes must not in any case be jammed or bent after assembly. The bending radius of the drainage pipe must be greater than 60 mm.



WARNING!

The condensates from boilers are aggressive due to their acidity. Always wear gloves and protective glasses for maintenance work. Ensure the height of the lifting station does not exceed the delivery head.

- Notch (based on the model) the plugs (fig. 3, item 5) for the inlet pipes of less than 32 mm in diameter, or remove the plugs if the pipe is between 32 and 40 mm in diameter.

A pipe with an 8 mm internal diameter is provided for the drainage of condensate (based on the model).

- Connect the inlet pipe(s) for condensate to the input holes (fig. 3, item 5).
- Connect the drainage pipe to the non-return valve (fig. 3, item 8) while trying not to mechanically damage the product, the pipe must insert freely into the non-return valve. If necessary, detach the non-return valve (fig. 8), connect the pipe, and reassemble the set on the product

7.4 Electrical connection

DANGER! Risk of electrocution! The electrical connection will only pose a risk of electrocution if it is not connected properly. The electrical connection must only be carried out by an electrician approved by the local energy supplier and in compliance with the applicable local regulations.

The system must be supplied with a circuit including a residual differential current device (RCD), with an allocated

operating differential current that does not exceed 30 mA.

- The system is ready to be connected. The current type and the network supply voltage must correspond with the indications on the rating plate.

7.5 Connection of alarm cable (based on the model)

NOTE: Take into account the installation and operating instructions for each device during connection of the alarm cable.

DANGER! Risk of electric shock!

Before connecting the alarm cable, make sure that the unit is voltage-free.

Max contact load: see table § 5.1 The alarm switch is delivered in the normally closed position (NC). This means that the contact opens when the alarm level is reached or exceeded. In order to use the normally open contact (NO) (so that the contact closes when the alarm level is reached or exceeded), carry out the following steps:

- Disengage the latch on the cover (Fig. 3, item 4).
- Rotate the alarm switch (Fig. 4, item 15) by half a turn in the direction of the arrow (Fig. 4).
- Snap in the cover.



NOTE: When the unit is voltage-free, the alarm switch functions as a normally open contact (NO).



NOTE: To return to the normally closed position (NC), rotate the alarm switch again in the direction of the arrow.

Commissioning

Function check

- Connect the mains plug
- Fill the product with clear water and ensure that the product starts up when the high level is reached (fig. 4, item 12)
- Ensure that the product stops once the low level is reached (fig. 4, item 11)

For Wilo-Plavis 013-C and Wilo-Plavis 015-C: In order to check the function of the alarm, disconnect the product electrically, fill the installation with clear water until overflow, and reconnect the product electrically. The visual alarm (and buzzer, based on the model) is activated as well as the alarm relay.

The Wilo-Plavis 015-C includes a bag with granules for pH neutralization in the scope of delivery.

The granulated chamber wall separates the granules from the pump hydraulics.

WARNING!

The granules for pH neutralisation are an irritant to the skin. Always wear gloves and safety goggles when carrying out maintenance work.

- Empty the water tank.
- Open the bag containing the granules carefully.
- Fill the granules in the part of the tank which is located opposite the pump hydraulics.
- Snap in the cover.

- The product is ready to operate

Maintenance

Only qualified staff are authorised to perform maintenance and repair work!



DANGER! Risk of death!

In case of work on electrical devices, there is a danger of death by electrocution.

Before performing maintenance and repair work, turn off the device/installation and protect it from any unintentional restart. In general, only a qualified electrical installer is authorised to repair damaged connection cables.

NOTE: For safety reasons, the motor unit of the condensate lifting station is not dismountable.

WARNING!

The condensates from boilers are aggressive due to their acidity. Always wear gloves and protective glasses for maintenance work.

9.1 Cleaning the tank

The interior of the tank must be regularly cleaned

- Stop the condensate inflow
- Disconnect the product power supply
- Disassemble the tank and clean it with water or a 5 % bleach solution
- Check that the probes are not clogged, and clean them if necessary
- Reassemble the tank
- Perform a function check (chapter 8)

9.2 Checking non-return valve

NOTE: Regularly check that the non-return valve and the gasket located beneath are not clogged or blocked.

- Disassemble the valve according to fig. 8.




WARNING! Risk of property damage!

Do not open the non-return valve.

- Check that the non-return valve is not clogged, and clean it if necessary.
- Reassemble the valve according to fig. 8.
- Perform a function check (chapter 8).

9.3 Recommended cleaning intervals of the probes

	Cleaning intervals	Product in use
Air-conditioning systems	Annually	Plavis 011-C Plavis 013-C
Gas condensing boiler	Annually	Plavis 011-C Plavis 013-C
Oil condensing boiler	Every six months	Plavis 015-C  NOTICE! Only using the neutralisation granulate (included in scope of delivery).

Faults, causes and remedies

Faults	Causes	Remedies
The product will not start	Power supply cut off	Check that the mains plug is correctly attached to the power supply. Check the supply voltage.
	Clogged probes	Clean the probes
	Damaged power cable	Return to customer service
The product will not drain	Inlet pipe for condensate is blocked	Clean the inlet pipe
	Drainage pipe blocked	Clean the drainage pipe
	Drainage pipe pinched or damaged	Reinforce the drainage pipe or replace it
	The non-return valve does not open	The bending radius of the piping must be at least 60 mm
The product starts too often	The non-return valve does not close	Clean the non-return valve
	Condensate volume flow is too high	Contact customer service
	The product is tilted too far	Check the level
The alarm is activated	The condensate has not been drained	See if the product does not start/does not drain
	Positioning error or incorrect switch position of normally closed or normally open contact	Check whether the switch position corresponds with the desired function of the contact: Normally closed contact (NC) or normally open contact (NO)
	Alarm switch is defective or damaged	Contact customer service

Spare parts

Spare parts must be ordered via a local specialist retailer and/or Wilo Customer Service.
To avoid queries and incorrect orders, all data on the rating plate should be submitted with each order.

Disposal

Information on the collection of used electrical and electronic products

Proper disposal and appropriate recycling of this product prevents damage to the environment and dangers to your personal health.



NOTICE: Disposal in domestic waste is forbidden!

In the European Union, this symbol can appear on the product, the packaging or the accompanying documentation. It means that the electrical and electronic products in question must not be disposed of along with domestic waste.


To ensure proper handling, recycling and disposal of the used products in question, please note the following points:

- Only hand over these products at designated, certified collecting points.
- Observe the locally applicable regulations!

Please consult your local municipality, the nearest waste disposal site, or the dealer who sold the product to you for information on proper disposal. For further information on recycling, go to www.wilo-recycling.com.

Subject to change without prior notice

Documents / Resources

	wilo 015-C Automatic Condensate Lifting Unit [pdf] Instruction Manual 015-C Automatic Condensate Lifting Unit, 015-C, Automatic Condensate Lifting Unit, Condensate Lifting Unit, Lifting Unit, Unit
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References

- [Recycling | WILO](#)
- [Wilo Corporate - Pioneering for You | WILO](#)
- [How to contact us | WILO](#)