

Wilo PLAVIS 015-C-2G Automatic Condensate Lifting Unit Instruction Manual

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Wilo-Plavis ...-C Pioneering for You

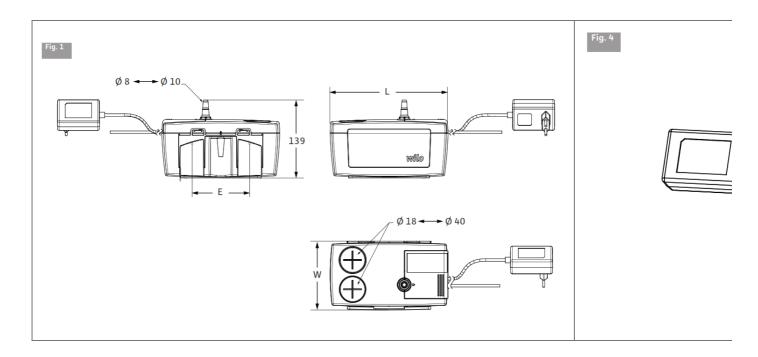


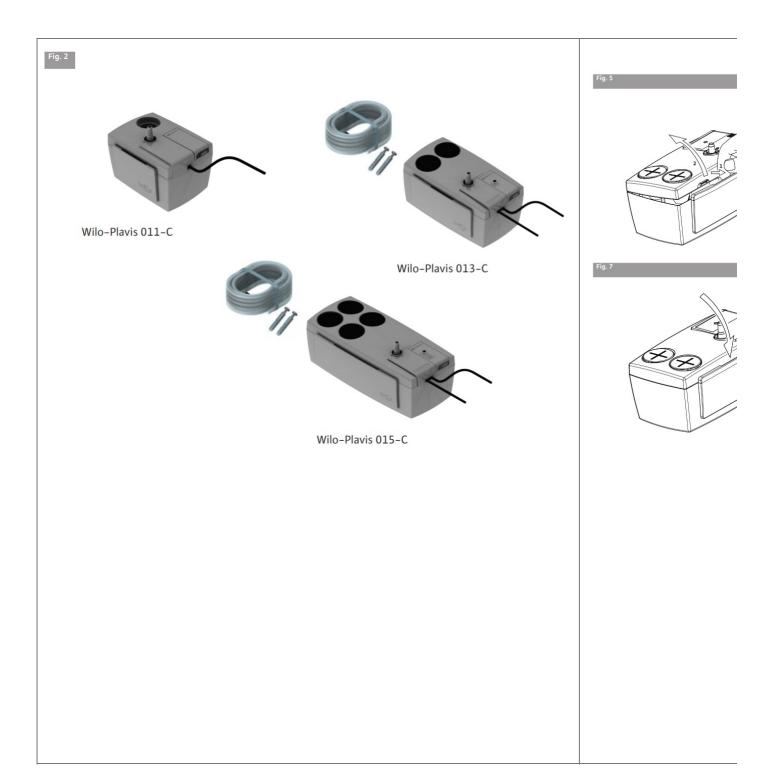
Installation and operating instructions 4 210 255-Ed.04 / 2016-11-Wilo

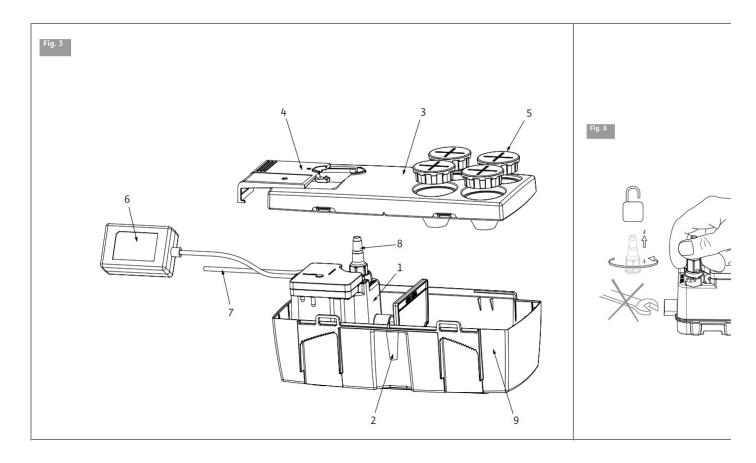
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About this document

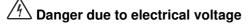
The language of the original operating instructions is English. All other languages of these instructions are translations of the original operating instructions. These installation and operating instructions are an integral part of the product. They must be kept readily available at the place where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







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. Nonobservance 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 this 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 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 authorized 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

Unauthorized 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 authorized 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 catalog/datasheet.

General

See start of the document.

Safety

See the start of the document.

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-Plavix ...-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 toward 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 local regulations before being sent to the drains.

Product information

5.1 Technical data				
Designation	Wilo-Plavis 011-C	Wilo-Plavis 013-C	Wilo-Plavis 015-C	
Supply voltage	1 – 100-240 Vac			
Frequency	50/60 Hz	50/60 Hz		
Supply cable	1.5 m	1.5 m		
Alarm cable		1.5 m		
Power consumption	< 20 W	< 20 W		
Rated current	0.2 A	0.2 A		
Protection class	IP X4	IP X4		
Ambient temperature	from + 5 -C to + 40 C	from + 5 -C to + 40 C		
Alarm relay contact	-	- 42 V rms 1A		
Delivery head	Max 4 m	Max 4 m		
Admissible fluid	pH > 2.5	pH > 2.5		
Admissible fluid temperature	from + 5 °C to + 60 '0	from + 5 °C to + 60 'C.		
Sound-pressure level	< 40 dBA at 1 m	< 40 dBA at 1 m		
Dimensions (L x W)	152 x 116 mm	210 x 123 mm	275 x 129 mm	
Tank volume	0.7 L	1.1 L	1.6 L	
Net weight (± 10 %)	700 gr	750 gr	1,000 gr	

5.2 Scope of delivery

- Wilo-Plavis ...-C
- + 2 fastening screws Ø 4
- + 5 m drainage pipe \emptyset 8 x 11 (based on the model)
- + Installation and operating instructions (fig. 2)

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 Low-level probes 11 High-level probes 12 Alarm probe (based on the model) 13 Alarm indicator (based on the model) A Suction B Drainage
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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 the 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 a defect (based on the model). This alarm probe activates the alarm relay that may be connected via the alarm cable

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 center-to-center distance of 75 mm (Wilo-Plavix 011-C), 105 mm (WiloPlavis 013-C), and 165 mm (Wilo-Plavix 015-C). Use bolts that are customized 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



 \angle 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 the connection of the alarm cable.

Max contact load: see table § 5.1

The alarm relay is normally delivered open; the contact closes when the alarm level is reached or exceeded.

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 11)
- Ensure that the product stops once the low level is reached (fig. 4, item 10) For Wilo-Plavix 013-C and Wilo-Plavix 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. For Wilo-Plavix 015-C, the neutralisation plate is used to separate the neutralization beads and the pump block.
- The product is ready to operate

Maintenance

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

DANGER! Risk of death! In the 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 authorized 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

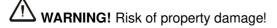
The interior of the tank must be regularly cleaned

- · Disassemble the condensate collecting tank
- 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.



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).

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 ope n	The bending radius of the piping m ust be at least 60 mm	
The product starts too often	The non-return valve does not clos e	Clean the non-return valve	
	Condensate volume flow is too hig	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/do es not drain	

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

Your device contains valuable raw materials which can be recycled. Therefore, please take your device to your local collection point in your town or district.

Subject to change without prior notice will SE 09/2016

EU/EC DECLARATION OF CONFORMITY

We, the manufacturer, declaring that the products of the series

Plavix 013-C: The serial number is marked on the product site plate

In their delivered state comply with the following relevant directives:_ Low voltage 2014/35/EU from April 20th, 2016

- _ Electromagnetic compatibility 2014/30/EU from April 20th 2016
- _ Restriction of the use of certain hazardous substances 2011/65/EU and with the relevant national legislation, comply also with the following relevant harmonized European standards :

Original declaration

60335-2-41

61000-6-1:2007

61000-6-3+A1:2011

61000-6-4+A1:2011

61000-6-2:2005

Dortmund,

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Documents / Resources



<u>Wilo PLAVIS 015-C-2G Automatic Condensate Lifting Unit</u> [pdf] Instruction Manual PLAVIS 015-C-2G, Automatic Condensate Lifting Unit, Condensate Lifting Unit, Automatic Lifting Unit, Lifting Unit, Unit

References

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