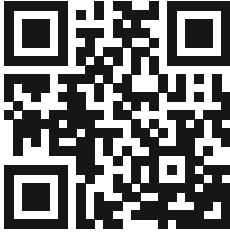


Wilo-DrainLift MINI5-XS/C **Wilo-DrainLift MINI5-XS/WC**



en User manual



DrainLift MINI5
<https://qr.wilo.com/459>

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1 Safety

1.1 About these instructions

These instructions form part of the product. Compliance with the instructions is essential for correct handling and use:

- Read the instructions carefully before all activities.
- Keep the instructions in an accessible place at all times.
- Pass the instructions on to a subsequent owner.
- Observe all product specifications.
- Observe the markings on the product.

The language of the original operating instructions is German. All other languages for these instructions are translations of the original operating instructions.

Failure to observe the instructions will result in danger to persons or damage to property. The manufacturer is not liable for damage caused by:

- Improper use.
- Incorrect operation.

1.2 Identification of safety instructions

In these installation and operating instructions, safety instructions are displayed as follows:

- Danger to persons: Safety instructions are **preceded by a corresponding symbol** and are shaded in grey.
- Damage to property: Safety instructions start with a signal word and are displayed **without** a symbol.

Signal words

- **DANGER!**

Failure to follow the instructions will result in serious injuries or death!

- **WARNING!**
Failure to follow the instructions can lead to (serious) injury!
- **CAUTION!**
Failure to follow the instructions can lead to potentially irreparable property damage.
- **NOTICE!**
Useful information on handling the product

Symbols

These instructions use the following symbols:



Danger of bacterial infection

1.3 Personnel qualifications

- Persons aged 16 and over
Have a trained specialist for systems technology for sanitary facilities perform commissioning and maintenance work.
- Have read and understood the installation and operating instructions

Children and persons with limited abilities in the household

This device can be used by children from 8 years of age as well as people with reduced physical, sensory or mental capacities or lack of experience and knowledge if they are supervised or instructed on the safe use of the device and they understand the dangers that can occur. Children are not allowed to play with the device. Cleaning and user maintenance must not be carried out by children without supervision.

1.4 Fluids hazardous to health

Hazardous germs form in sewage. There is a danger of bacterial infections!

- All connections must be tight.

- Wipe up drips immediately.
- Fluids may flow into the room in the event of an accident.

1.5 Personal protective equipment

The aforementioned branded products constitute non-binding suggestions. Similar products from other brands can also be used. WILO SE does not assume any liability for the aforementioned products.

- Safety gloves (EN 388): uvex phynomic wet
- Safety glasses (EN 166): uvex skyguard NT

If there is the possibility of coming into contact with the fluid, also wear the following protective equipment:

- Respiratory mask (EN 149): Half mask 3M series 6000 with filter 6055 A2

1.6 Electrical connection

- Mains connection with correctly installed protective earth conductor.
- Install residual-current device (RCD) with 30 mA.
- Fuse protection at the mains connection: max. 10 A.
- The product is ready for operation when the plug is put in the socket. We recommend switching the socket via a separate on/off switch.
- Never pull the connection cable.
- Do not connect products with a damaged connection cable! Have the connection cable replaced by a qualified electrician or the customer service.

1.7 Installation

- For all work, disconnect the product from the power supply (pull plug) and secure it against being switched on again without authorisation (switch off fuse).
- Fingers can be crushed when installing the connection and sealing ports as well as the pump. Perform work carefully.

- Install floor fixation (buoyancy safeguards).
- To keep operating noise as low as possible, place soundproof mat between the product and the wall.
- Do not install damaged or defective products.

1.8 Removal

- For all work, disconnect the product from the power supply (pull plug) and secure it against being switched on again without authorisation (switch off fuse).
- Ventilate the room properly.
- Wipe up drips immediately.
- Drain the tank prior to removal. If the tank is not emptied, the sewage can flow directly into the room when the pipework is loosened.
 - Pump out the fluid using a diaphragm hand pump (provided by the customer).
 - Include an emergency drain during installation. **NOTICE! The emergency drain cannot be added later on.**

1.9 Operating fluid

The installed pump is filled with white oil. If the seal is defective, the oil enters the pumping fluid and the sewer.

2 Application/use

2.1 Intended use

- For installation in rooms or as a concealed-wall installation.
- For backflow resistant drainage of
 - Drainage points below the backflow level
 - Drainage points that cannot be drained via the natural downward slope.

Fluids	DrainLift MINI5-XS/C	DrainLift MINI5-XS/WC
Condensate (pH value from 2.5)	•	–
Sewage without faeces	•	•
Sewage containing faeces	–	•

Sewage pumping according to 12050








- Wilo-DrainLift MINI ... **XS:** The sewage lifting unit meets the requirements of EN 12050-2:2001.

- Wilo-DrainLift MINI ... **XS/WC**: The sewage lifting unit meets the requirements of EN 12050-3.

For units compliant with 12050-3, observe the following points:

- All connected drainage fixtures are installed in the same room.
- A further toilet is located above the backflow level.

Permitted discharge points (drainage fixtures)

	Wash basin	Bathtub	Shower	Bathroom/toilet	Dishwasher	Washing machine	Condensing boiler
							
DrainLift MINI5-XS/C	•	•	•	–	•	•	•*
DrainLift MINI5-XS/WC	•	–	•	•	–	–	–

* The lifting unit must not **only** be used as a condensate lifting unit. If a condensing boiler is attached, regular flow must be ensured via a further inlet.

2.2 Improper use

Do not introduce the following fluid and solids:

- Sewage from drainage objects that are located above the backflow level and can be drained by natural fall.
- Debris, ash, rubbish, glass, sand, plaster, cement, lime, mortar, fibrous materials, textiles, paper towels, wet-wipes (e.g. fleece cloths, moist toilet paper wipes), nappies, cardboard, coarse paper, synthetic resins, tar, kitchen waste, grease, oil
- Toxic, aggressive and corrosive fluids, such as heavy metals, biocides, pesticides, acids, bases, salts, swimming-pool water
- Cleaning agents and disinfectants (e.g. with dichloromethane, methylene chloride or acetone)
- Dishwashing or laundry detergents in excess amounts, and such that have a disproportionately high degree of foam formation
- Drinking water

Intended use also includes compliance with this manual. Any other use is regarded as non-compliant with intended use.

3 Product description

3.1 Description

DrainLift MINI5-XS/C

Compact lifting unit with submersible pump, ready for connection. Level measurement performed by a level sensor. Venting is integrated in the inner cover and equipped with an active carbon filter. The lifting unit is also equipped with a buzzer and a potential-free alarm contact (max switching capacity: 42 V=, 500 mA, contact type: normally closed contact (NC)). If there is high water in the tank, an alarm sounds by means of the buzzer. An external alarm signal can also be connected via the potential-free contact. The tank lid seals the unit perfectly.

Up to four connections are available:

- 1x 40 mm inlet (DN 40) without non-return valve, located on top, closed ex-works.
- 2x 40/50 mm inlets (DN 40/50) with non-return valve, horizontal position on left and right side, open ex-works.
- 1x 32/40 mm discharge port (DN 32/40) with non-return valve, located on top, open ex-works. If necessary, the discharge port can be positioned horizontally on the right side. The associated opening is closed ex-works.

DrainLift MINI5-XS/WC

Compact, fully submersible lifting unit with submersible pump, ready for connection. The submersible pump is equipped with a rotating blade. The blade reliably shreds faeces in sewage. Level measurement performed by a level sensor. Venting is integrated in the inner cover and equipped with an active carbon filter. The lifting unit is also equipped with a buzzer and a potential-free alarm contact (max switching capacity: 42 V=, 500 mA, contact type: normally closed contact (NC)). If there is high water in the tank, an alarm sounds by means of the buzzer. An external alarm signal can also be connected via the potential-free contact. The tank lid seals the unit perfectly.

Up to five connections are available:

- 1x 40 mm inlet (DN 40) without non-return valve, located on top, closed ex-works.
- 2x 40/50 mm inlets (DN 40/50) with non-return valve, horizontal position on left and right side, open ex-works.
- 1x 110 mm toilet connection (DN 110), located in front, open ex-works. If necessary, the WC connection can be positioned horizontally on the left side. The associated opening is closed ex-works.
- 1x 32/40 mm discharge port (DN 32/40) with non-return valve, located on top, open ex-works. If necessary, the discharge port can be positioned horizontally on the right side. The associated opening is closed ex-works.

3.2 Type key

Example:	Wilo-DrainLift MINI5-XS/WC-EF
MINI5	Convenient, small lifting unit
XS	Size
WC	Connection versions <ul style="list-style-type: none"> • C = without toilet connection • WC = with toilet connection
EF	Mains plug version <ul style="list-style-type: none"> • EF = CEE 7/7 (shockproof plug) for type E and F sockets • I = type I plug for type I sockets

3.3 Technical data

	DrainLift MINI5-XS/C	DrainLift MINI5-XS/WC
Approved field of application		
Max. delivery head	See rating plate	See rating plate
Max. volume flow	See rating plate	See rating plate
Fluid temperature	3 to 50 °C (37 to 122 °F)	3 to 50 °C (37 to 122 °F)
Max fluid temperature, short-term	75 °C (167 °F) for 30 min	75 °C (167 °F) for 30 min
Ambient temperature	3 to 40 °C (37 to 104 °F)	3 to 40 °C (37 to 104 °F)

Operating mode	S3 15%	S3 15%
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Electrical data

Mains connection	1~230 V, 50 Hz	1~230 V, 50 Hz
Power consumption [P_1]	750 W (1.0 hp)	700 W (0.9 hp)
Rated power [P_2]	450 W (0.6 hp)	420 W (0.6 hp)
Rated current [I_N]	3.5 A	3.4 A
Speed [n]	2800 rpm	2800 rpm
Activation type	Direct	Direct
Protection class	IP44	IP44
Cable length	1.3 m (4 ft)	1.3 m (4 ft)

Plug

DrainLift MINI5- ... -EF	CEE 7/7 (shockproof plug)	CEE 7/7 (shockproof plug)
DrainLift MINI5- ... -I	I	I

Volume and weights

Tank volume	9 l (2.4 US.fl.gal.)	9 l (2.4 US.fl.gal.)
Max. switching volume	3.2 l (0.9 US.fl.gal.)	2.7 l (0.7 US.fl.gal.)
Weight	7.5 kg (16.5 lb)	8 kg (17.6 lb)

3.4 Operating modes

Operating mode	DrainLift MINI ... -XS	DrainLift MINI ... -XS/WC	Explanation
Standard	•	•	<p>The entire switching volume is used in this operating mode. At the end of the drainage procedure, the lifting unit briefly runs the slurping operation. This flushes the pump and vents the level measurement.</p> <p>The slurping operation can take 2 or 3 seconds if the path of the discharge line is unfavourable. If the slurping operation is noisy, you can switch to “Silent mode”.</p>
“Silent mode”	o	–	<p>The lower deactivation point is slightly higher and the switching volume is reduced in this operating mode. This means the slurping operation is omitted at the end of the drainage procedure.</p> <p>CAUTION! Do not use the “silent mode” for the WC version. This will lead to an increased risk of clogging!</p>

Operating mode	DrainLift MINI ... -XS	DrainLift MINI ... -XS/WC	Explanation
"Depth suction"	o	o	<p>In the "standard" operating mode (factory setting), the lowest inlet height is 95 mm (3.7 in). Depth suction is possible if a lower discharge point is required (e.g., showers). The level measurement of the unit must be converted for this purpose. The switching volume remains the same.</p> <p>With depth suction, the lowest (most minimal) inlet height is 65 mm (2.6 in).</p> <p>NOTICE! "Silent mode" is not available for this operating mode.</p>

Key

- = factory setting, o = can be activated if necessary, – = unsuitable operating mode

3.5 Alarm signal with potential-free contact

The lifting unit is equipped with an alarm signal (buzzer) and an alarm contact. An alarm sounds if the pump operates continuously. The alarm contact also switches: The relay deactivates, the contact closes. When the pump switches off, the alarm falls silent and the alarm contact opens again.

An external alarm signal (e.g. signal light) can be connected via the alarm contact:

- Max. switching capacity: 42 V=, 500 mA
- Type of contact: potential-free
- How it works: Normally closed contact (NC)

3.6 Scope of delivery

DrainLift MINI5-XS/C

- Discharge port
 - 1x collar for HT pipe DN 32/40 (32/40 mm)
 - 2x 32–50 mm hose clips
- Inlet connection
 - 2x inlet connections DN 50 (50 mm)
 - 2x collars for HT pipe DN 40/50 (40/50 mm)
 - 2x non-return valve
 - 2x 50–70 mm pipe clamps
 - 2x 32–50 mm hose clips
 - 2x sealing plug
 - 6x O-rings
- Install floor fixation (buoyancy safeguards): 2x mounting brackets with screws and wall plugs
- Kit for emergency drainage (drainage hose, hose clip, sealing plug)
- Kit for horizontal discharge port
- Kit for depth suction
- Installation and operating instructions

DrainLift MINI5-XS/WC

- Discharge port
 - 1x collar for HT pipe DN 32/40 (32/40 mm)
 - 2x 32–50 mm hose clips
- Toilet connection
 - 1x collar for HT pipe DN 110 (110 mm)
 - 1x clamp ring
 - 1x 110–130 mm hose clip
- Inlet connection
 - 2x inlet connections DN 50 (50 mm)
 - 2x collars for HT pipe DN 40/50 (40/50 mm)
 - 2x non-return valve
 - 2x 50–70 mm pipe clamps
 - 2x 32–50 mm hose clips
 - 2x sealing plug
 - 6x O-rings
- Install floor fixation (buoyancy safeguards): 2x mounting brackets with screws and wall plugs
- Kit for emergency drainage (drainage hose, hose clip, sealing plug)
- Kit for horizontal discharge port
- Kit for depth suction
- Installation and operating instructions

4 Storage

- Completely empty tank and disinfect the lifting unit.
- Storage conditions:
 - Maximum: -40 to +70 °C (-40 to 158 °F), max. humidity: 90%, non-condensing.
 - Recommended: 5 to 25 °C (41 to 77 °F), relative humidity: 40 to 50%.
- Coil the connection cable and attach to the tank.
- Protect the lifting unit and plug from high water (submersion).
- All connections must be tight.
- Protect against direct exposure to sunlight. Extreme heat can cause damage to the plastic parts!

NOTICE! Keep the original packaging to ensure proper storage.

5 Installation

CAUTION

Beware of housing damage through PVC adhesive!

PVC adhesives damage the plasticizer of the plastic. Even small amounts on the housing lead to a total loss.

Do not allow PVC adhesives to come into contact with the unit:

- Remove and dispose of drips with a separate towel.
 - Clean hands thoroughly.
 - Exchange used work gloves.
-

5.1 Consulting guide

Protective equipment

- Safety gloves (EN 388): uvex phynomic wet
- Safety glasses (EN 166): uvex skyguard NT

For existing installation (replacement/retrofitting), also wear the following protective equipment:

- Respiratory mask (EN 149): Half mask 3M series 6000 with filter 6055 A2

Electrical connection

Ensure an appropriate socket is present for the electrical connection:

- EF version: Type E or type F socket
- I version: Type I socket
- Carry out the installation work according to local regulations for wet-room installation.

Inlet pipe and discharge line

- Lowest (minimal) inlet height: 95 mm (3.7 in).
- Maximum distance between toilet and lifting unit: 1 m (39 in).
- Install gate valve in the discharge line.

The inlet height can be reduced from 95 mm (3.7 in) to 65 mm (2.6 in). The lifting unit must be converted for this purpose. See the “Depth suction assembly instructions” for more information.

Toilet/WC connection

- Only connect toilets (WC) to the “WC” version.
- A direct connection to the toilet is only possible for floor-mounted toilets.
- A concealed-wall installation is necessary for wall-hung toilets.
- Besides the toilet (WC), only one wash basin and shower may be connected.

Concealed-wall installation

- Ensure that the lifting unit is easily accessible, for example, to replace the active carbon filter.
- The lifting unit must be vented in the room.
- An appropriate number of sockets must be ensured: lifting unit, alarm switchgear, alarm signal, etc.
- Provide a gate valve in all inlets and the discharge lines.
- We recommend the installation of an alarm switchgear with moisture sensor. An alarm sounds if leakage occurs (e.g., burst pipe, accident).

Emergency drainage

The lifting unit has a connection for emergency drainage. The lifting unit can be emptied via the emergency drainage in case of a fault. The accessory “emergency drain” is included in the scope of delivery.

NOTICE! Connect the emergency drainage prior to installation. The emergency drainage cannot be connected later!

Further information and documentation

All further information and documentation can be found at the following web address:
<https://qr.wilo.com/459>

- Lifting unit assembly instructions
Article number: 6097578 (included in the scope of delivery!)
- Depth suction assembly instructions
Article number: 6097580
- Emergency drainage assembly instructions
Article number: 6097581
- Assembly instructions for the external alarm signal
Article number: 6097582

- Assembly instructions for the horizontal discharge port
Article number: 6097583
- Assembly instructions for exchanging the WC connection
Article number: 6097584

5.2 Symbols used in the assembly instructions



Danger of hand injuries (being crushed, cut)



Personal protective equipment: Wear protective gloves



Personal protective equipment: Wear safety glasses



Read the installation and operating instructions



Classification of the required safety gloves



Classification of the required safety glasses



Knife required



6 mm drill required



Drill required



Hammer required



Screwdriver for Phillips-head screws required



Screwdriver for interior hexagonal head screw required



Screwdriver for Torx screws required

5.3 Installing the lifting unit

- **NOTICE! Only use the included lubricant for installation.**
- Refer to the included assembly instructions for the individual installation steps.

6 Operation

6.1 Switching on and off

- Insert plug into socket. The lifting unit is immediately ready for operation.
We recommend switching the socket on and off using a separate switch.
- The drainage procedure starts automatically depending on the fill level of the tank.

6.2 Initial commissioning

Perform a test run before normal operation. Check the impermeability of all pipe connection during the test run.

1. Run clean water into the tank through every connected inlet.
⇒ As soon as the maximum fill level is reached in the tank, the lifting unit switches on.
2. Check all pipe connections for impermeability.

3. Repeat the drainage procedure.
 - ▶ The test run has been successful if at least two drainage procedures have run smoothly. The unit is ready for normal operation.
 - ▶ If the operating noise increases at the end of the drainage procedure, please see section .

6.3 Activating and deactivating “silent mode”

A green sliding switch can be found under the cover of the lifting unit in the middle. This sliding switch can be used to set the appropriate operating mode.

Sliding switch position



“Standard” operating mode activated (factory setting).



“Silent mode” activated.

6.4 More than three months of downtime

The water may evaporate in the tank during longer periods of downtime. Solids in the tank may become encrusted as a result and the unit may become clogged. To prevent damage to the unit, observe the following points for downtime longer than three months:

- Flush the lifting unit with clean water via two drainage procedures every three months.
- Drain the tank if there is a risk of frost.
- Perform a test run before normal operation.

7 Removal



DANGER

Danger of bacterial infection!

Hazardous germs form in sewage. Contact with the sewage will occur during removal. Observe the following points to avoid infection:

- Wear protective equipment.
 - Safety gloves (EN 388): uvex phynomic wet
 - Safety glasses (EN 166): uvex skyguard NT
 - Respiratory mask (EN 149): Half mask 3M series 6000 with filter 6055 A2
- Ventilate the room.
- Wipe up drips immediately.

1. Flush the tank: Run clear water into the tank through an inlet. Carry out at least two pumping procedures.
2. Close the gate valve at all inlets and discharge lines.
3. Disconnect the lifting unit from the mains supply: Pull the plug and switch off the fuse.
4. Empty the tank, e.g., via the emergency drainage or diaphragm hand pump.
5. Remove the inlets and discharge lines from the tank.
6. Remove the floor fixation.

7. Remove the lifting unit.
8. Seal all pipes tight.
 - ▶ Lifting unit is dismantled.
 - ▶ Disinfect the installation location and lifting unit.
 - ▶ Store the lifting unit or dispose of it in accordance with regulations.

8 Maintenance and repair

8.1 Cleaning the lifting unit

- Clean housing with a damp cotton cloth.
- Only use household cleaners.
- **Do not** use the following cleaners:
 - **Aggressive or scouring cleaners.**
 - **Cleaners based on orange or lemon oils.**
 - **Industrial cleaners.**

8.2 Exchanging the active carbon filter

Exchange the active carbon filter annually to prevent unpleasant odours.

1. Remove the rectangular tank cover by pulling it up.
2. Remove the active carbon filter.
3. Insert the new active carbon filter. Suitable active carbon filters are available as accessories.
4. Reinsert the cover.

9 Fault

An alarm sounds if the lifting unit has a fault. Backflow into the drainage objects (water no longer drains off) is a sign that the lifting unit has failed. This can lead to leakage and fluid may escape. Observe the following points:

- Do not open the lifting unit.
- Ventilate the room.
- Do not drain any more sewage. Shut off the inlets.
- Correct faults in accordance with the following table.
- If the fault cannot be rectified, contact customer service or an emergency plumber.

DANGER! Hazardous germs form in sewage. There is a danger of bacterial infection upon contact with sewage! Clean up leaked fluid. Dispose of cleaning cloth. Disinfect hands.

Fault	Cause	Correction
Pump runs continuously for more than 3 minutes	Too much inflow volume	<ol style="list-style-type: none"> 1. Shut off all inlets. <ul style="list-style-type: none"> ⇒ Pumps switches off after approx. 1 minute. ⇒ Alarm falls silent. ⇒ If the pump does not switch off, go to “Level measurement fault”. 2. Check inlets. 3. Reopen all inlets. <ul style="list-style-type: none"> ▶ System works properly again.

Fault	Cause	Correction
Level measurement fault	Level sensor does not switch off pump	<ol style="list-style-type: none"> 1. Pull the plug. ⇒ Pump switches off. 2. Check inlets. 3. Wait 5 minutes until the pump has cooled down. 4. Reconnect plug. 5. pump starts. 6. Pump switches off after approx. 1 minute. <ul style="list-style-type: none"> ▶ System works properly again. ▶ If the alarm sounds again after approx. 4 minutes, pull plug and contact customer service.

10 Information on the collection of used electrical and electronic products

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



NOTICE

Disposal in domestic waste is prohibited!

In the European Union this symbol may be included 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:

- Hand over these products at designated, certified collection points only.
- 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. See www.wilo-recycling.com for more information about recycling.





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Pioneering for You



Local contact at
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