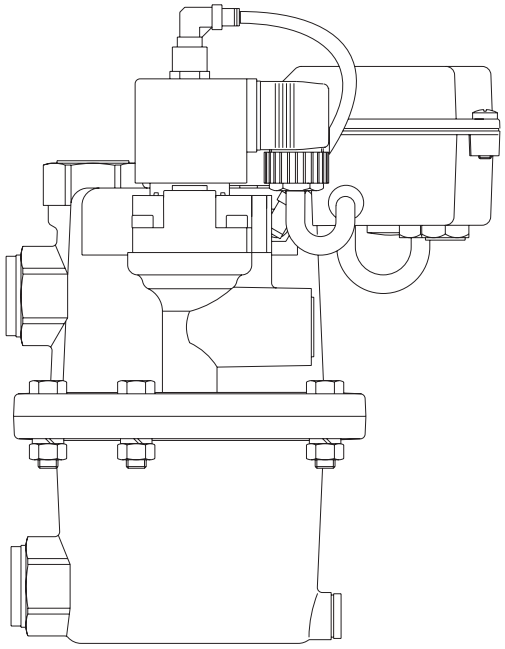
EN - English

Installation and operation manual

Condensate drain

BEKOMAT® 3 E Ex LP



II 2G Ex ib IIB T4 Gb
BVS 03 ATEX E 214 X

01-2996

Inhalt

1. Safety-related information

1.1. Pictograms and symbols

1.1.1. In this documentation

General note

Observe the installation and operation manual

General hazard symbol (danger, warning, caution)

Beware of explosive substances / risk of explosion

General hazard symbol (danger, warning, caution) for mains voltage and system components carrying mains voltage

1.1.2. On the device

ATEX marking

Observe the installation and operation manual
(on the type plate)

1.2. Signal words

DANGER	**Imminent hazard** Consequences of non-compliance: serious personal injury or even death
WARNING	**Potential hazard** Consequences of non-compliance: possibly serious personal injury or even death
CAUTION	**Imminent hazard** Consequences of non-compliance: possible personal injuries or damage to property
NOTE	**Additional notes, information, tips** Consequences of non-compliance: Suboptimal performance and potential issues during operation and maintenance. No hazard to people.

1.3. General safety instructions

DANGER	Explosion
	Danger to life through explosion, deflagration or fire
	• In facilities and facility areas where there is a risk of explosion or fire, all required safety and protective measures for the safe operation of the system components and equipment must be taken into account. • During all work, operation and maintenance observe the applicable regulations (e.g. ATEX, CENELEC, NEC, TRBS, national directives and regulations). • Sources of ignition must not be introduced into or have the potential to effect areas where there is a risk of explosion or fire. • If the handling of sources of ignition cannot be avoided for the time being, all the necessary measures to prevent a fire or explosion must be taken. • Only use tools approved for use in hazardous locations.

DANGER	Insufficient qualification
 	Inappropriate handling due to insufficient qualification can lead to explosions, serious property damage and personal injuries or death.
	• All the tasks described in this installation and operation manual may only be carried out by skilled technical personnel[1] with the qualifications described below. • The skilled technical personnel[1] must have read and understood the contents of the installation and operation manual before carrying out any tasks.

DANGER	Compressed gas leaks
	Contact with leaking or otherwise discharged compressed gas, condensate or non-secured system components poses a risk of serious injury or death.
	• Before carrying out any assembly, installation or maintenance work, depressurise the system. They may only be carried out by authorised skilled technical personnel[1]. • Use only pressure-resistant installation materials and suitable tools that are in proper working order. • Before pressurising the system, check all system components and make any necessary repairs. Open valves slowly to prevent pressure blow outs in operating state. • Always prevent people or objects from being affected by condensate or escaping compressed gas. • Prevent vibrations, oscillations and impact from being transferred to system components. • Carry out a leak test.

DANGER	Mains voltage
	Risk of electric shock with serious or even fatal injuries if contact is made with non-insulated, live components.
	• Observe all applicable regulations with respect to electrical installations (e.g. VDE 0100 / IEC 60364). • Only execute installation and maintenance work when the system has been de-energised. • Electrical work may only be carried out by authorised skilled technical personnel[1].

WARNING	Operation outside of limit values
	Exceeding or falling below limits poses a risk of injury and property damage, as well as of malfunction and failures.
	• The device must only be operated for the intended purpose and within the permissible limits specified on the type plate and in the technical data. • Strictly adhere to the prescribed operating times and maintenance intervals.

[1] Skilled technical personnel

Skilled technical personnel are people who, due to their professional qualification and knowledge in the field of measuring, control and pneumatic technology, and their knowledge of the country-specific regulations, applicable standards and directives are in a position to carry out the tasks described and foresee potential dangers independently. Special operating conditions e.g. aggressive media require additional knowledge. In addition, the requirements on “skilled technical personnel” set out in the Technical Rules for Operating Safety (TRBS) must be observed. It is the responsibility of the company operating the devices/system to ensure that the instructions in this manual are adhered to.

NOTE	Installation and operation manual
	Before reading, check that this installation and operation manual matches the device type. It contains important information and notes on safe operation of the device. For this reason, the installation and operation manual must always be read by the corresponding skilled technical personnel[1] before they start any tasks. A copy of the manual must be kept near the installation location of the device, where it is easily accessible at all times. In addition to this installation and operation manual, the national and company legal and safety regulations as well as accident prevention regulations required for the respective application must also be observed. This also applies to the use of accessories and spare parts.

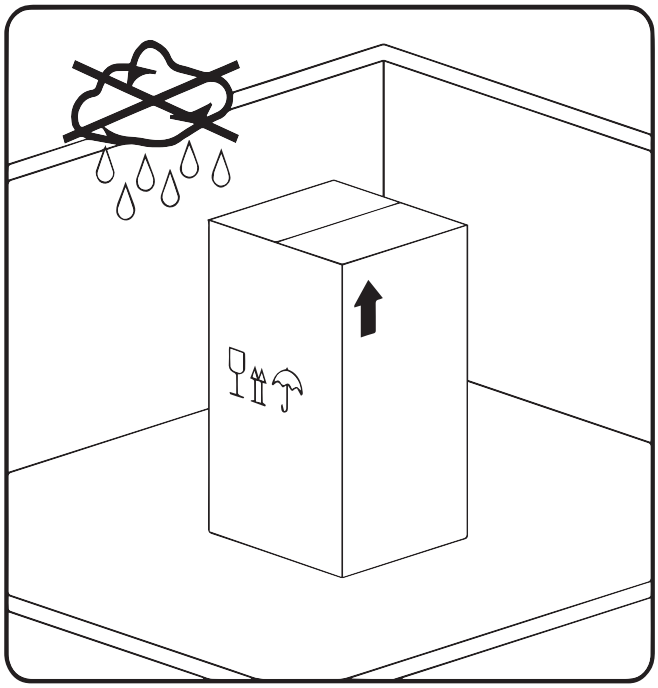
[1] Skilled technical personnel

Skilled technical personnel are people who, due to their professional qualification and knowledge in the field of measuring, control and pneumatic technology, and their knowledge of the country-specific regulations, applicable standards and directives are in a position to carry out the tasks described and foresee potential dangers independently. Special operating conditions e.g. aggressive media require additional knowledge. In addition, the requirements on “skilled technical personnel” set out in the Technical Rules for Operating Safety (TRBS) must be observed. It is the responsibility of the company operating the devices/system to ensure that the instructions in this manual are adhered to.

1.4. Transport and storage

Despite the great care taken when packaging this equipment, transport damage cannot be fully ruled out. Please therefore remove all packaging material immediately after receipt and inspect the device for any possible transport damage. If you notice any damage, immediately notify the carrier company and BEKO TECHNOLOGIES GmbH or one of its agents.

CAUTION	Damage caused during transport or storage
	Inappropriate transport or storage, or the use of unsuitable lifting equipment, might cause damage to the device.
	• The device may only be transported and stored by trained authorised and skilled personnel. • If you detect any damage, do not put the device into operation. • Always adhere to the permissible storage and transport temperatures. • Never expose the device to continuous, direct sunlight or heat radiation.



The device must be stored in the original packaging. Seal the packaging and store it in a dry and frost-free room. Ensure that the ambient conditions do not fall below or exceed the limits specified on the type plate.

Always take suitable measures to protect the device against the elements even in a packaged condition.

While in storage, secure the device so that it cannot topple over or fall, and protect it against vibration.

NOTE	Recycling packaging material
	• The packaging material is recyclable. Dispose of the packaging material according to the applicable statutory regulations.

1.5. Intended use

The **BEKOMAT®** is an electronically level-controlled condensate drain for compressed air systems. At the specified operating pressure, it drains condensate from system components with virtually zero loss of compressed air. A version with a no-load drain / no-load valve ensures that the **BEKOMAT®** is also suitable for systems with a low operating pressure, such as multi-stage compressors.

Only suitable for use with original spare parts and accessory parts.

The **BEKOMAT® 3 E Ex LP** can be used in hazardous locations in conformity with the following ATEX/EPL code:

II 2G Ex ib IIB T4 Gb

Permissible media are: **Ethane, methane, town gas, compressor oils, diesel fuel, ethylene, propane, heating oils, Group II fluids in accordance with PED**

For more information about the ATEX marking, see 2.6.1 on page 15.

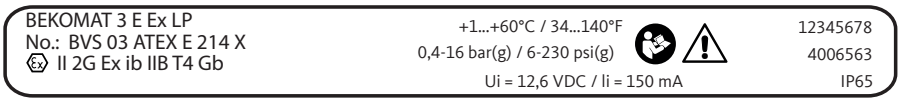
The **BEKOMAT®** must not be used in areas subject to frost.

It may only be operated for the intended purpose and within the specifications stated in the technical data. Do not operate the unit with any substances or gas/vapour mixtures other than those listed above. Any other use of this system, which exceeds the intended use, is hereby deemed to be improper and can cause a hazard for the safety of people and the environment.

2. Product information

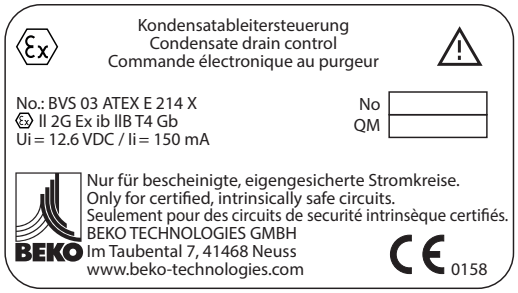
2.1. Type plate

The type plate is attached to the device housing. It lists all the important specifications for the **BEKOMAT®**. Please have this information on hand when contacting the manufacturer or supplier.



Example illustration

Designation	Description
BEKOMAT 3 E Ex LP	Type
0,4-16 bar(g) / 6-230 psi(g)	Operating pressure
+1...+60°C / 34...140°F	Operating temperature
12 VDC / <1,9 W	Operating voltage
4006563	Order number
12345678	Serial number

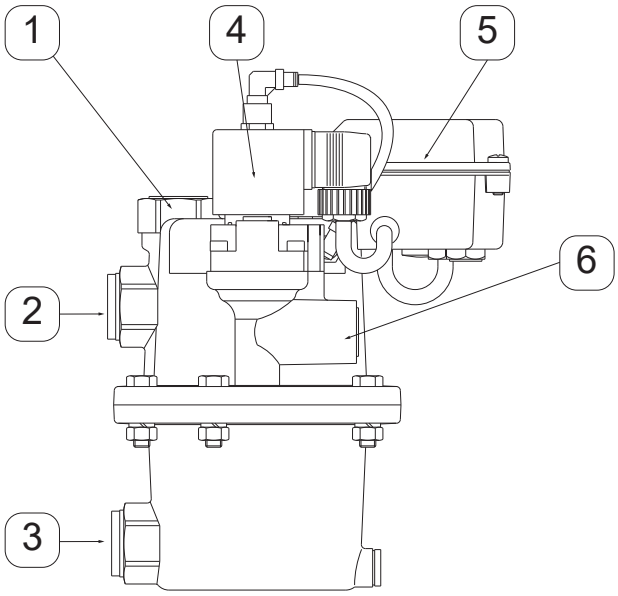


Example illustration

Designation	Description
No.: BVS 03 ATEX E 214 X	Type test certificate
II 2G Ex ib IIB T4 Gb	Marking in accordance with ATEX and EPL
Ui = 12.6 VDC	Maximum input voltage
Ii = 150 mA	Maximum input current

NOTE	Handling of type plate
	Never damage, remove or make the type plate illegible.

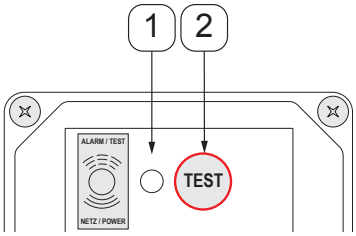
2.2. Product overview and description



1 Top condensate inlet / venting line
2 Middle condensate inlet
3 Bottom condensate inlet
4 Solenoid valve
5 Electronics housing
6 Condensate drain solenoid valve

2.3. Control and display elements

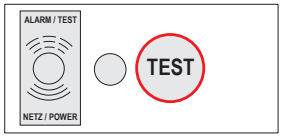
The display and control elements of the **BEKOMAT®** are on the electronics housing.



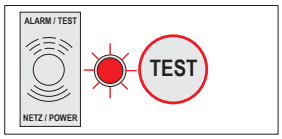
1 **Alarm / test LED**
Indicates the current operating state of the **BEKOMAT®**.

2 **Test button**
Is used for depressurising or for manual drainage of the **BEKOMAT®**.

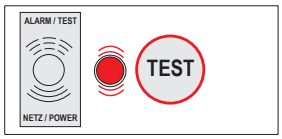
NOTE	No permanent draining
	Do not use the test button for permanent draining.



Alarm / test LED is off
The **BEKOMAT®** is not running and is currently not being powered.

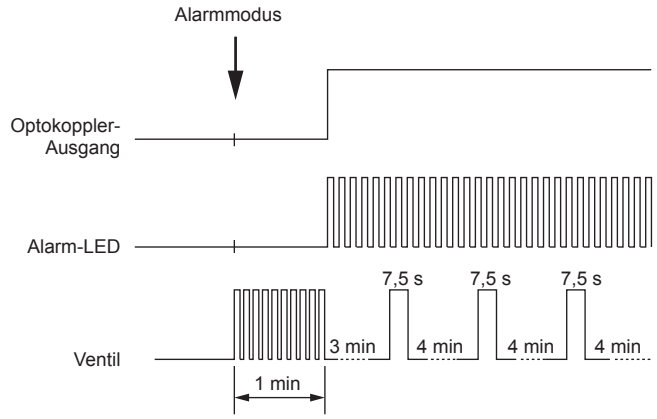


Alarm / test LED lights up solid
The **BEKOMAT®** is being powered and is running in normal mode.



Alarm / test LED flashes
The **BEKOMAT®** is in alarm mode or the test button is being pressed.

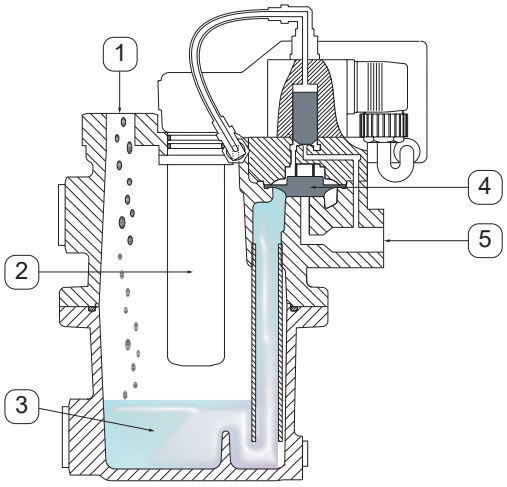
Alarm mode:
The **BEKOMAT®** is monitored by its electronic and sensor systems. If a fault is detected during operation, the **BEKOMAT®** will switch to alarm mode. This can be caused by a blocked condensate discharge line or overload. In alarm mode the solenoid valve opens cyclically to eliminate the malfunction independently. If the fault is still present after one minute, the red alarm LED flashes and the opto-coupler outlet switches. From now on, the valve opens every four minutes for 7.5 seconds until the malfunction has been eliminated independently or through maintenance. After the fault has been eliminated, the **BEKOMAT®** will automatically return to normal mode.



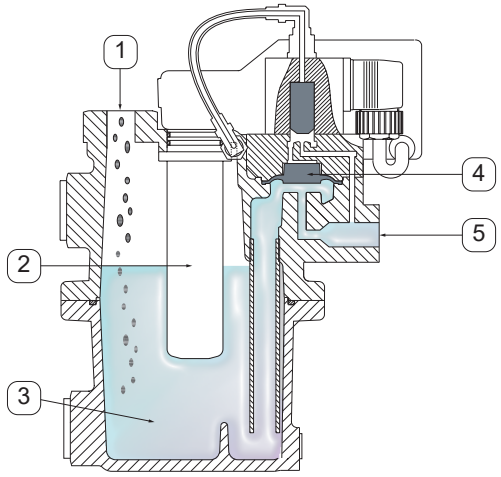
NOTE	Additional information
	For more information about how the **BEKOMAT®** works, see function 2.4 on page 12.

2.4. How it works

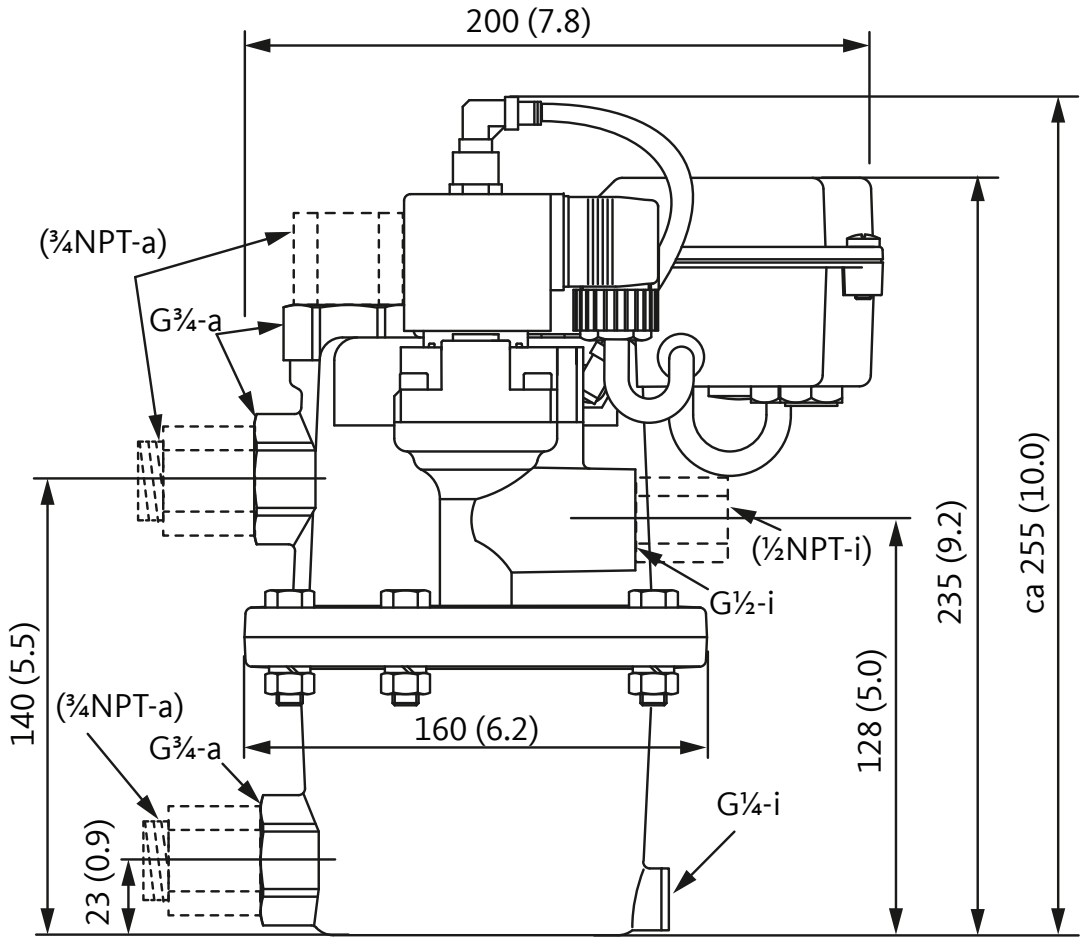
The **BEKOMAT® 3 E Ex LP** has a solenoid valve **[4]** for condensate discharge:



If the positive operating pressure is greater than or equal to 0.4 bar, condensate will be discharged with the solenoid valve **[4]**. The condensate flows through the top condensate inlet **[1]** and collects in the housing **[3]**. The capacitive dual sensor **[2]** monitors the filling level of the condensate. When a certain filling level has been reached, the condensate is drained via the condensate drain **[5]**.



2.5. Dimensions



mm (inch)
i = innen/inside
a = außen/outside

2.6. Technical data

II 2G Ex ib IIB T4 Gb

CE 0158 IP 65

General data	BEKOMAT 3 E Ex LP
Device group	II
Device category	2G
Type of protection	ib
Explosion group	IIB
Temperature class	T4
Device protection level	Gb
Min./max. storage/transport temperature	+1 … +60 °C
Min./max. ambient temperature	+1 … +60 °C
Min./max. media temperature	+1 … +60 °C
Condensate inlet (optional: NPT thread)	3 x G¾, female
Condensate drain (optional: NPT thread)	Solenoid valve: G½, female
Condensate	Oil-contaminated Oil-free, often aggressive condensate Aggressive condensate from gas compressors
Weight	3.4 kg (empty)
Materials	Stainless steel
Performance data	**BEKOMAT 3 E Ex LP**
Peak condensate quantity at 0.4 bar(g)	144 l/h
Rated discharge performance at 0.4 bar(g)	14 l/h
Peak condensate quantity at 1 bar(g)	230 l/h
Rated discharge performance at 1 bar(g)	22 l/h
Peak condensate quantity at 7 bar(g)	544 l/h
Rated discharge performance at 7 bar(g)	52 l/h
Min./max operating overpressure	0.4(g) … 16 bar(g) (see type plate)
Electrical data	**BEKOMAT 3 E Ex LP**
Operating voltage (connection to intrinsically safe voltage supply with the following data)	V_{nom} = 12.0 V / V_{max} = 12.6 V I_i = 150 mA / P_i = 1.9 W L_i = Negligible C_i = 3.6 µF
Power consumption	P ≤ 1.9 W
Cable diameter, round	8 … 11 mm
Cable diameter, shielded / metal-clad	8 … 11 mm
Conductor cross-sectional area	3 x 0.75 … 1.5 mm² (AWG 16 … 20)
Screw tightening torque, screwed cable gland	2 Nm
Degree of protection	IP 65
Valve circuit	Vo = 12.6 V (max.) Io = 150 mA (max.) / Po = 1.9 W (max.)
Alarm output	Opto-coupler output for the operation of a NAMUR interface in accordance with DIN EN 60947-5-6 Vi = 13.5 V (max.) / Ii = 62 mA (max.) / Pi = 125 mW (max.) Ci: negligible / Li: negligible
Solenoid valve	EN IEC 60079-0:2018 EN 60079-11:2012 II2G Ex ia IIC T6/T4 Gb EPS 18 ATEX 1088X PX55

2.6.1. ATEX and EPL code for hazardous location equipment

II	**Device group II** Suitable for use in industrial hazardous locations; **not** in mines
2G	**Device category 2G** Suitable for areas where an explosive atmosphere consisting of gases, vapours, mists or air mixtures is likely to occur occasionally, rarely or for a short period only (zones 1 and 2).
Ex ib	**Type of protection ib – intrinsically safe** Intrinsically safe in conformity with EN 60079-11
IIB	**Explosion group IIB** Suitable for gases and vapours with a maximum experimental safe gap (MESG) of 0.5 to 0.9 mm and a minimum ignition current (MIC) ratio of 0.45 to 0.8.*
T4	**Temperature class T4 (<135 °C)** Suitable for gases and vapours with an ignition temperature greater than 135 °C and less than or equal to 200 °C.
Gb	**Equipment protection level Gb** Suitable for areas where an explosive atmosphere consisting of gases, vapours, mists or air mixtures is likely to occur occasionally, rarely or for a short period only. (Zone 1 and 2)

*based on = 1

3. Installation

3.1. Warning notices

DANGER	Explosion
	Danger to life through explosion, deflagration or fire
	• During all work, operation and maintenance observe all the applicable regulations (e.g. ATEX, CENELEC, NEC, TRBS, national directives and regulations). • Take all the protective measures for potentially explosive areas. Normal operation may only be started after the effectiveness of the necessary explosion protection measures has been ensured. • Only use tools approved for use in hazardous locations.

DANGER	Insufficient qualification, explosion
 	Inappropriate handling due to insufficient qualification can lead to explosions, serious property damage and personal injuries or death.
	• All the tasks described in this installation and operation manual may only be carried out by skilled technical personnel[1] with the qualifications described below. • The skilled technical personnel[1] must have read and understood the contents of the installation and operation manual before carrying out any tasks.

DANGER	Compressed gas leaks
	Incorrect assembly and installation, as well as non-secured system components, pose a risk of serious injury or death.
	• Depressurise the system before carrying out any assembly or installation work. • Use only pressure-resistant installation materials and suitable tools that are in proper working order. • Before pressurising the system, check all system components and make any necessary repairs. Open valves slowly to prevent pressure blow outs in operating state. • Always prevent people or objects from being affected by condensate or escaping compressed gas. • Prevent vibrations, oscillations and impact from being transferred to system components. • Carry out a leak test.

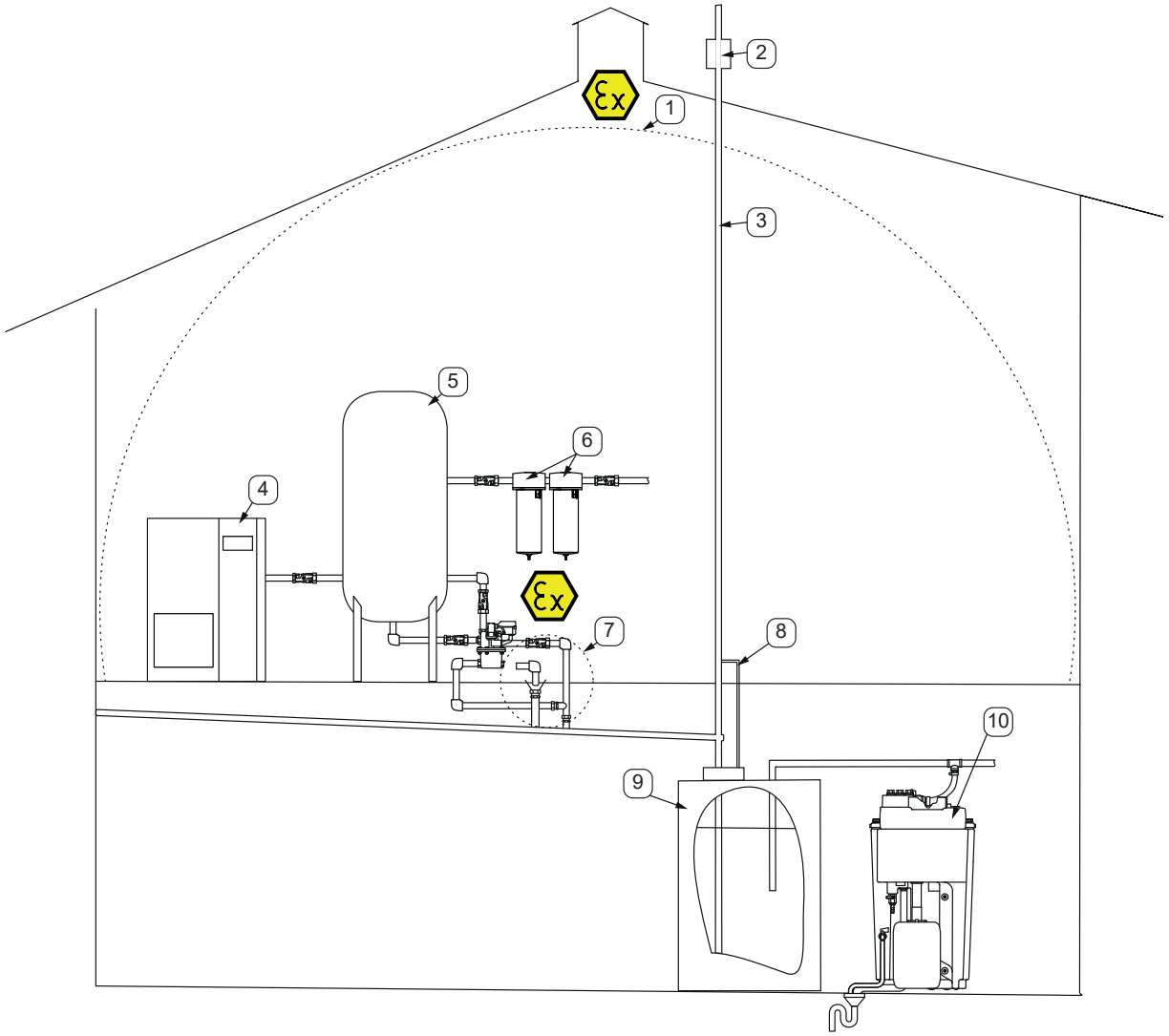
[1] Skilled technical personnel

Skilled technical personnel are people who, due to their professional qualification and knowledge in the field of measuring, control and pneumatic technology, and their knowledge of the country-specific regulations, applicable standards and directives are in a position to carry out the tasks described and foresee potential dangers independently. Special operating conditions e.g. aggressive media require additional knowledge. In addition, the requirements on “skilled technical personnel” set out in the Technical Rules for Operating Safety (TRBS) must be observed. It is the responsibility of the company operating the devices/system to ensure that the instructions in this manual are adhered to.

3.2. Installation example

The following diagram shows one possible way to install the **BEKOMAT® 3 E EX LP** in a hazardous location **[1]**. If the pipe for the **BEKOMAT®** condensate drain is left open, there may be an additional zone at the no-load valve **[7]**.

DANGER	Explosion
	Danger to life through explosion, deflagration or fire
	• During all work, operation and maintenance observe all the applicable regulations (e.g. ATEX, CENELEC, NEC, TRBS, national directives and regulations). • The following diagram is only one possible installation example out of many and may deviate from pertinent on-site conditions. It does not replace the operating company's obligation to define zones and check the effectiveness of the steps taken to prevent explosions after installation work.



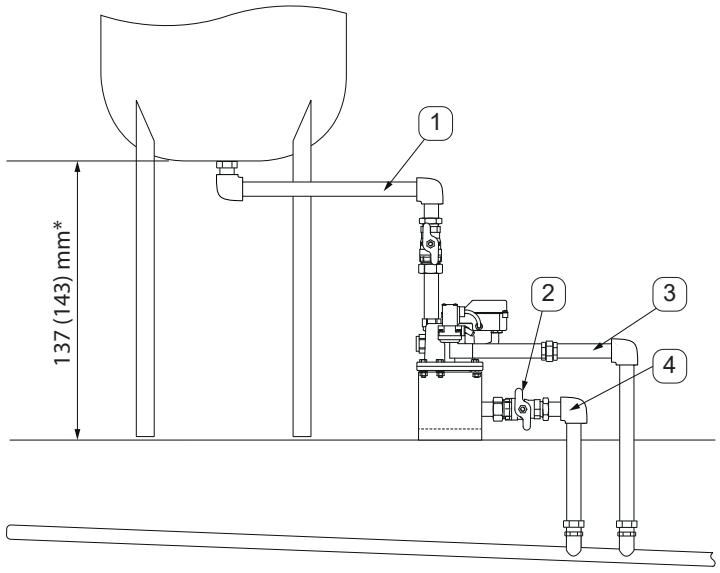
1 Explosive atmosphere (zone)
2 Flashback preventer
3 Degassing line
4 Compressor
5 Compressed air vessel
6 Filter
7 Explosive atmosphere (zone)
8 Residual degassing line
9 Deaerator
10 Condensate processing (oil/water separator)

3.3. Installation steps

The following diagrams show possible installation approaches for the **BEKOMAT® 3 E EX LP** based on the corresponding condensate accumulation rate.

NOTE	Installation instructions
	• Install a separate **BEKOMAT®** at each point where condensate accumulates. • Do not use any tapered threaded joints. • Keep pipe length as short as possible. • Do not fit a filter/dirt trap into the condensate inlet. • Only use ball valves for the condensate inlet. • The venting line must be above the max. possible condensate level. • Observe minimum assembly heights

BEKOMAT® 3 E Ex LP – condensate accumulation rate < 360 l/h

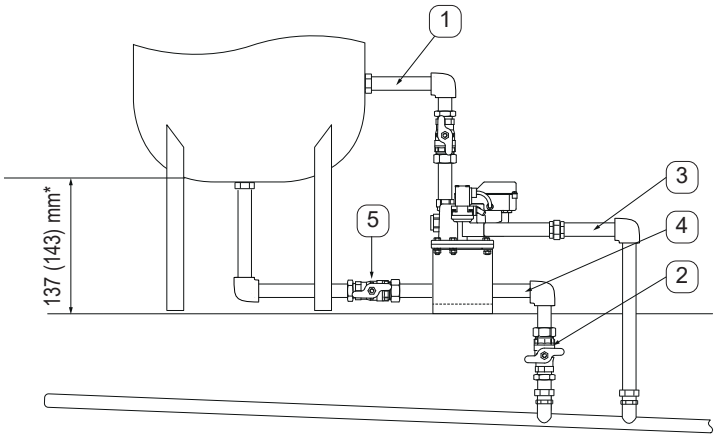


*Mindesteinbauhöhe (mit Bodenhalter)
Minimum installation height (with floor bracket)

1. ***Top condensate inlet (diameter ≥ ¾")*** Hard-pipe and route with a continuous downward slope (≥ 1°)
2. ***Manual condensate drain valve (diameter ≥ ¼") recommended*** Hard-pipe
3. ***Solenoid valve condensate drain (diameter ≥ ½")*** Hard-pipe and route with a continuous downward slope (≥ 1°)
4. ***Manual condensate drain (diameter ≥ ¼")*** Hard-pipe and route with a continuous downward slope (≥ 1°)

i Using a floor bracket for installation is recommended.

BEKOMAT® 3 E Ex LP – condensate accumulation rate > 360 l/h



*Mindesteinbauhöhe (mit Bodenhalter)
Minimum installation height (with floor bracket)

1. ***Venting line (diameter ≥ ¾")*** Hard-pipe
2. ***Manual condensate drain valve (diameter ≥ ¼") recommended*** Hard-pipe
3. ***Solenoid valve condensate drain (diameter ≥ ½")*** Hard-pipe and route with a continuous downward slope (≥ 1°)
4. ***Manual condensate drain (diameter ≥ ¼")*** Hard-pipe and route with a continuous downward slope (≥ 1°)
5. ***Bottom condensate inlet (diameter ≥ ¾")*** Hard-pipe and route with a continuous downward slope (≥ 1°)

i Using a floor bracket for installation is recommended.

4. Electrical installation

4.1. Installation instructions

DANGER	Insufficient qualification
	Inappropriate handling due to insufficient qualification can lead to explosions, serious property damage and personal injuries or death.
	• All the tasks described in this installation and operation manual may only be carried out by skilled technical personnel[1] with the qualifications described below. • The skilled technical personnel[1] must have read and understood the contents of the installation and operation manual before carrying out any tasks.

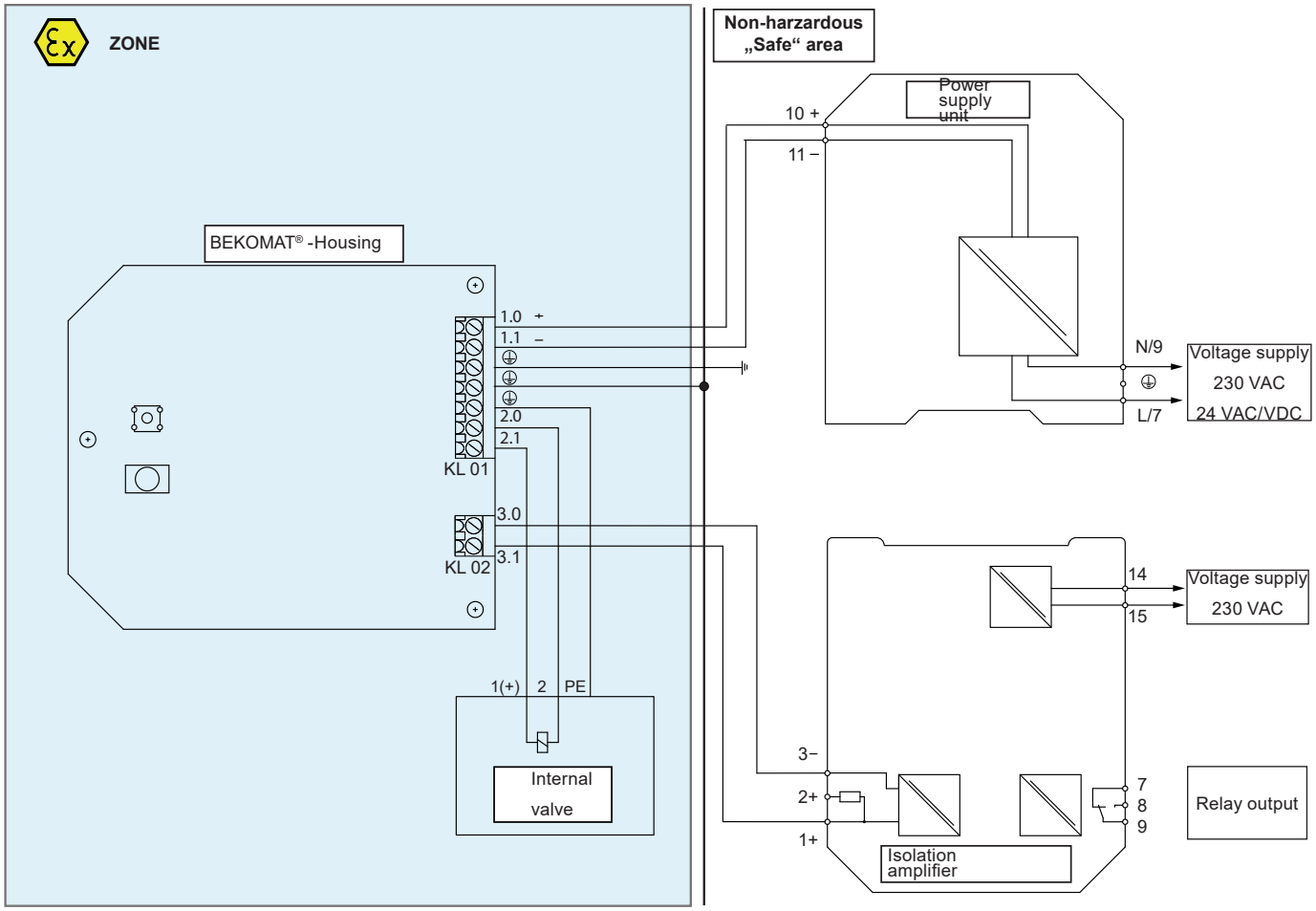
DANGER	Explosion
	Danger to life through explosion, deflagration or fire
	• During all work, operation and maintenance observe all the applicable regulations (e.g. ATEX, CENELEC, NEC, TRBS, national directives and regulations). • Take all the protective measures for potentially explosive areas. Normal operation may only be started after the effectiveness of the necessary explosion protection measures has been ensured. • Only use tools approved for use in hazardous locations. • Only use cables designed for the specific area of application. • Make sure to connect the cables with an appropriate strain-relief fitting. • Observe the inserted cables' maximum thermal load.

DANGER	Mains voltage
	Risk of electric shock with serious or even fatal injuries if contact is made with non-insulated, live components.
	• Observe all applicable regulations with respect to electrical installations (e.g. VDE 0100 / IEC 60364). • Only execute installation and maintenance work when the system has been de-energised. • Electrical work may only be carried out by authorised skilled technical personnel[1].

[1] Skilled technical personnel

Skilled technical personnel are people who, due to their professional qualification and knowledge in the field of measuring, control and pneumatic technology, and their knowledge of the country-specific regulations, applicable standards and directives are in a position to carry out the tasks described and foresee potential dangers independently. Special operating conditions e.g. aggressive media require additional knowledge. In addition, the requirements on "skilled technical personnel" set out in the Technical Rules for Operating Safety (TRBS) must be observed. It is the responsibility of the company operating the devices/system to ensure that the instructions in this manual are adhered to.

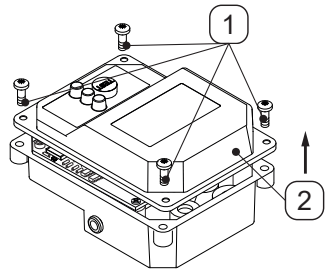
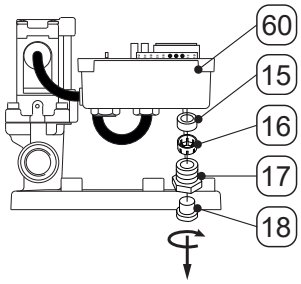
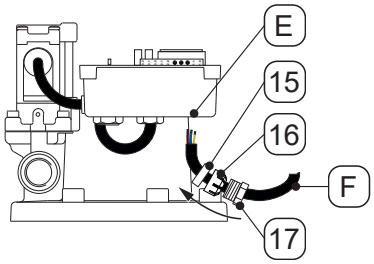
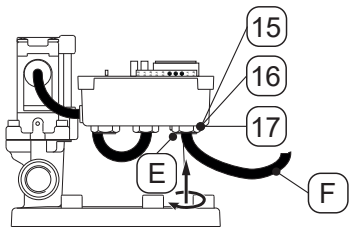
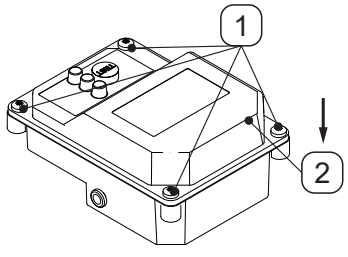
4.2. Connection diagram



4.3. Electrical connections

The power supply must be connected as indicated in the connection diagram with an intrinsically safe power supply unit.

NOTE	Information about intrinsically safe power supply units
	For more information on the intrinsically safe power supply unit see accessories 7.4 on page 25. For more information about the power supply of the intrinsically safe voltage supply see the separate installation and operation manual.

	1. Unscrew the four screws **[1]** from the top cover **[2]** and remove the top cover **[2]**.
	2. Unscrew the components **[15, 16, 17, 18]** of the right cable gland **[E]**.
	3. Slide the body **[17]**, with the thread pointing towards the end of the cable, onto the power supply cable **[F]**. 4. Slide the claw **[16]**, with the teeth pointing towards the body **[17]**, onto the power supply cable **[F]**. 5. Slide the seal ring **[15]** onto the power supply cable **[F]**. 6. Insert the power cable **[F]** into the right cable gland **[E]**. 7. Connect the power cable **[F]** as indicated in connection diagram “4.2. Connection diagram” on page 20.
	8. Tighten the power cable **[F]** and screw the cable gland components **[15, 16, 17]** into the right cable gland **[E]**. 9. Tighten the body **[17]** with a torque of 2 Nm.
	10. Set the top cover **[2]** in place and fasten it using the four screws **[1]**.

4.4. Equipotential bonding

The **BEKOMAT®** needs to be bonded with the provided earthing terminals. It must be ensured that these are integrated in the potential equalisation.

Install the equipotential bonding system as indicated in connection diagram 4.2 on page 20.

4.5. NAMUR interface

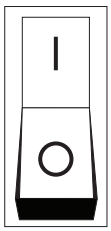
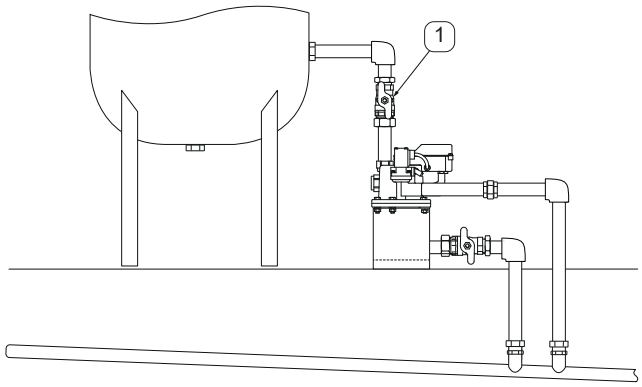
In order for faults to be detected in a timely manner during ongoing operation, the **BEKOMAT®** features a NAMUR interface that transmits fault messages. It is recommended to process NAMUR interface signals with an isolation amplifier and to relay them to a central control station.

Install the NAMUR interface as indicated in connection diagram 4.2 on page 20.

NOTE	Information about the NAMUR interface
	For more information about the power supply to the NAMUR interface see the separate installation and operation manual.

5. Commissioning

After completing assembly and all electrical installation work, the **BEKOMAT®** can be put into operation.

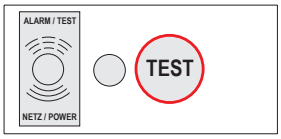
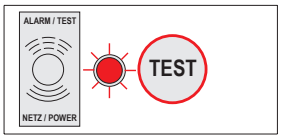
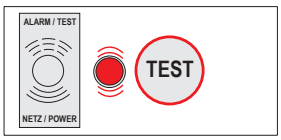
	1. **Power the BEKOMAT®**
	2. Slowly open the condensate inlet **[1]** valve and pressurise the **BEKOMAT®**.

6. Operation

In order to detect faults during ongoing operation, the **BEKOMAT®** features a NAMUR interface. It is recommended to process this at a central control centre in order to be informed in good time about malfunctions.

NOTE	Information about the NAMUR interface
	For more information about the power supply to the NAMUR interface see the separate installation and operation manual and the NAMUR interface 4.5 on page 22.

The following show the different operating states that the **BEKOMAT®** can assume.

	**Alarm / test LED is off** The **BEKOMAT®** is not running and is currently not being powered.
	**Alarm / test LED lights up solid** The **BEKOMAT®** is being powered and is running in normal mode.
	**Alarm / test LED flashes** The **BEKOMAT®** is in alarm mode or the test button is being pressed.

7. Maintenance and servicing

DANGER	Insufficient qualification
	Inappropriate handling due to insufficient qualification can lead to explosions, serious property damage and personal injuries or death.
	• Maintenance work may only be carried out by trained service personnel from BEKO TECHNOLOGIES GmbH or authorised partners.

7.1. Maintenance schedule

Maintenance	Interval
Functional test • Press the TEST button • Visual inspection	daily
Maintenance • Replace the set of wear parts • Leak test • Functional test • Check adhesive labels and replace if necessary • Check length of valve core • Check cable connections • Check Namur interface • Cleaning	annually

Functional test:
Test the **BEKOMAT®** daily to make sure it is working properly.

- To test the solenoid valve, press the test button briefly (for approx. two seconds).
  → The **BEKOMAT®** will start manual draining.
- To test the NAMUR interface, seal off the condensate inlet and press the test button for one minute.
  → The **BEKOMAT®** will start manual draining and trigger the alarm.

Please note that relatively large amounts of compressed gas can flow into the condensate collecting line during this test.

Maintenance:
Further information about maintenance will be provided on request.

7.2. Cleaning

To clean the **BEKOMAT®**, use a damp (not wet) cotton cloth or disposable wipe and a standard mild detergent / soap.

Spray a little detergent onto the clean cotton cloth or disposable cloth and carefully wipe the component. Then dry using a clean cloth or let it dry at room temperature. Observe all hygiene instructions applicable on the site.

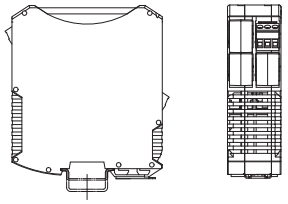
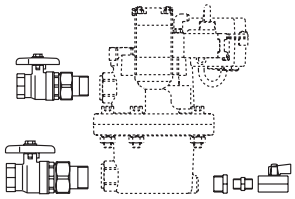
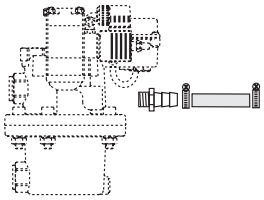
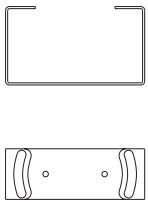
NOTE	Risk of property damage due to improper cleaning
	Cleaning with a wet cloth, hard or pointed implement or aggressive detergent can damage the components and integrated electronic components.
	• Never clean the device with a dripping wet cloth. • Do not use aggressive detergents. • Never clean the device with hard or pointed implements.

7.3. Spare parts

	Top cover	2800768

7.4. Accessories

The table below indicates possible accessories.

Illustration	Description	Order number*
	Ex-power supply unit	4005140 → Voltage: 5 … 230 VAC 4010890 → Voltage: 24 VAC/VDC
	Connection set	2000043
	Drain kit	2000046
	Floor bracket	2801260 → Material: Steel 2801263 → Material: Stainless steel

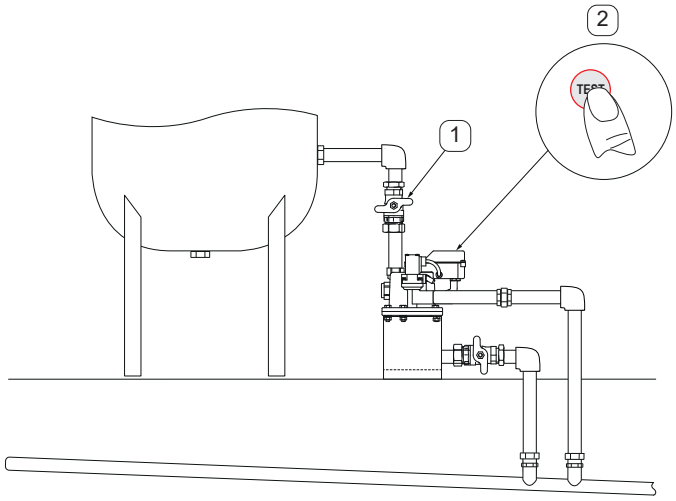
* Always provide the serial number of the **BEKOMAT®** with every spare parts order

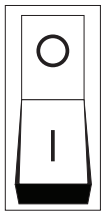
8. Troubleshooting

If malfunctions cannot be eliminated, the device should be sent in to us for repair. The device must be cleaned carefully first and packed in a break-proof way. A return dispatch declaration with detailed description of the malfunction must be enclosed with the faulty device. If your device has come into contact with pollutants, a decontamination declaration is also required. You will find corresponding templates on our website at www.beko-technologies.com. If you should return your device without a decontamination declaration and our Service department has doubts about the medium used, repairs will only be started once a respective declaration has been received. If the device has come into contact with pollutants, appropriate precautionary measures must be taken during cleaning!

9. Removal from service

The device can be put out of operation as follows:

<table>
<tr>
<td> 
</td>
<td>1. Close the top condensate inlet [1].

2. Press the test button [3] to reduce the residual pressure.</td>
</tr>
<tr>
<td>  </td>
<td>3. De-energize the BEKOMAT®</td>
</tr>
</table>

10. Disassembly and disposal

This device must be disposed of in compliance with European Directive 2012/19/EU. Used devices must not be disposed of with household waste!

If the device has come into contact with pollutants, this must be taken into special consideration during disposal!

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