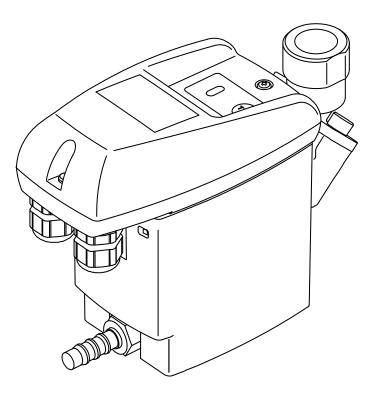


EN - english

# Instructions for installation and operation

# Condensate drain

BEKOMAT® 32U (BM32U)



#### Dear customer,

Thank you for deciding in favour of the BEKOMAT<sup>®</sup> 32U condensate drain. Please read the installation and operating instructions carefully before mounting and starting up the BEKOMAT<sup>®</sup> 32U, and follow our directions. Perfect functioning of the BEKOMAT<sup>®</sup> 32U, and thus reliable condensate discharge, can only be guaranteed when the provisions and notes stipulated here are strictly adhered to.

1	Pictograms and symbols	4
2	Safety instructions	4
3	Proper use	6
4	Exclusion from the scope of application	6
5	Technical data	7
6	Electrical data	8
7	Dimension drawing	9
8	Climate zones and performance data	10
9	Function	11
10	Installation	14
11	Electrical installation	17
12	Inspection and maintenance	21
13	Troubleshooting and fault elimination	24
14	Elements and components	25
15	Recommended spare parts	25
16	Accessories	26
17	Declaration of conformity	28

### 1 Pictograms and symbols



Observe the installation and operating instructions



Observe the installation and operating instructions (on the type plate)



General danger symbol (danger, warning, caution)



General danger symbol (danger, warning, caution) for supply voltage and supply voltage-carrying plant components

#### 2 Safety instructions



#### Please check whether or not these instructions correspond to the device type.

Adhere to all advice given in these operating instructions. They include essential information which must be observed during the installation, operation and maintenance. Therefore it is imperative for the service technician and the responsible operator / technical staff to read these operating instructions prior to installation, start-up and maintenance.

The operating instructions must be accessible at any time at the place of application of the  ${\sf BEKOMAT}^{\circledast}$  32U .

In addition to these operating instructions, local or national regulations must be complied with, if necessary.

Make sure that the BEKOMAT<sup>®</sup> 32U is operated only within the permissible limit values indicated on the type plate. Any deviation involves a risk for persons and materials, and may result in malfunction and service failures.

If you have any queries regarding these installation- and operating instructions, please contact BEKO TECHNOLOGIES GMBH.



#### Danger!

Compressed air!

Risk of serious injury or death through contact with quickly or suddenly escaping compressed air or through bursting plant components or plant components which are not secured.

#### Measures:

- Do not exceed the maximum operating pressure (see type plate).
- Only carry out service measures when the system is pressureless.
- Use pressure-resistant installation material only.
- The feed pipe must be tubed firmly. Discharge pipe: short, fixed pressure hose onto pressure-resistant pipe.
- Make sure that persons or objects cannot be hit by condensate or escaping compressed air.



#### Danger!

Supply voltage!

There is the risk of an electric shock involving injury or death when coming into contact with non-insulated components carrying supply voltage.

#### Measures:

- During electric installations, all regulations in force need to be adhered to (e.g. VDE 0100 / IEC 60364).
- When the control unit is open, service and installation works must only be undertaken when the system is deactivated.
- The removed control unit has no IP degree of protection.
- All types of electrical works must be carried out by authorised and qualified personnel only.

#### Further safety instructions:

- For installation and operation, the national regulations and safety codes in force must also be adhered to.
- Do not use the BEKOMAT<sup>®</sup> 32U in hazardous areas.
- Regarding the inlet screw joints, excessive tightening forces must be avoided. This applies in particular to conical screw joints.
- The BEKOMAT<sup>®</sup> 32U will only function when voltage is applied.
- Do not use the test button for permanent drainage.
- Use genuine spare parts only. This is imperative to ensure perfect functioning.

#### Additional advice:

- The removed control unit has no IP degree of protection.
- During installation, use spanner flat at the feed pipe (wrenchsize SW27) as a back rest.
- The service unit must not be dismantled.

#### Caution!

Malfunction during operation!



Through incorrect installation and poor maintenance, malfunction may occur at the BEKOMAT<sup>®</sup>.

Condensate which is not discharged may cause damage to plants and in production processes.

#### Measures:

- Condensate drainage which is reliable in performance directly optimises the compressed-air quality.
- To prevent damage and breakdowns, it is imperative to observe the following:
  - Exact compliance with the specifications of use and with the performance parameters of the BEKOMAT<sup>®</sup>, in connection with the case of application (see "Proper use" section)
  - Exact compliance with the installation- and operation instructions in this manual
  - Regular maintenance and control of the BEKOMAT<sup>®</sup> in accordance with the instructions in this
    operating manual

# 3 Proper use

- The BEKOMAT<sup>®</sup> 32U is an electronically level-controlled condensate drain for compressed-air plants.
- The device is employed within the permissible performance parameters (see "Technical data").
- The BEKOMAT<sup>®</sup> 32U is able to drain condensate under operating pressure from the plant components virtually without compressed-air loss.
- For its function, the BEKOMAT<sup>®</sup> 32U requires a supply voltage and an operating pressure (see "Technical data").
- As far as the employment in plants with increased demands on compressed air is concerned (food industry, medical technology, laboratory equipment, special processes etc.), the operator must decide on measures for the monitoring of the compressed-air quality. These have an effect on the safety of the subsequent processes and may prevent damage to persons and plants.
- It is the task of the operator to ensure that the indicated conditions are met during the entire operating time.

### 4 Exclusion from the scope of application

- The BEKOMAT<sup>®</sup> 32U as a condensate drain **alone cannot** guarantee a defined compressed-air quality, for this purpose, other additional technical devices are required.
- BEKOMAT<sup>®</sup> 32U is **not** suitable for use in plants carrying vacuum or atmospheric ambient pressure or in ex-areas.
- The BEKOMAT<sup>®</sup> 32U must not be exposed to permanent direct solar or thermal radiation.
- The BEKOMAT<sup>®</sup> 32U must not be installed and operated in areas with an aggressive atmosphere.
- The BEKOMAT<sup>®</sup> 32U is not heatable and, therefore, not suitable for the use in areas where frost is likely to occur.
- The BEKOMAT<sup>®</sup> 32U is not suitable for CO<sub>2</sub> plants.

# 5 Technical data

min./max. operating pressure	0,816 bar (12230 psi)
min./max. temperature	+1+70 °C (+34+158 °F)
Condensate inflow	G ½ (NPT ½) internal max. screw-in depth 13,5 mm (½")
Condensate outflow	G ¼ Ø 8 10 mm hose connector
Condensate	oil-contaminated + oil-free
Housing	aluminium + plastic, glass fibre-reinforced
Weight (empty)	1.0 kg (2.2 lbs)

This product has been tested to the requirements of CAN/CSA-C22.2 No. 61010-1-12, third edition, including a later version of the same standard incorporating the same level of testing requirements.

Max. performance for the "blue" climate zone – see also Chapter "Climate zones and performance data"

max. compressor performance	5 m³/min (175 scfm)
max. refrigdryer performance	10 m³/min (350 scfm)
max. filter performance	50 m³/min (1750 scfm)

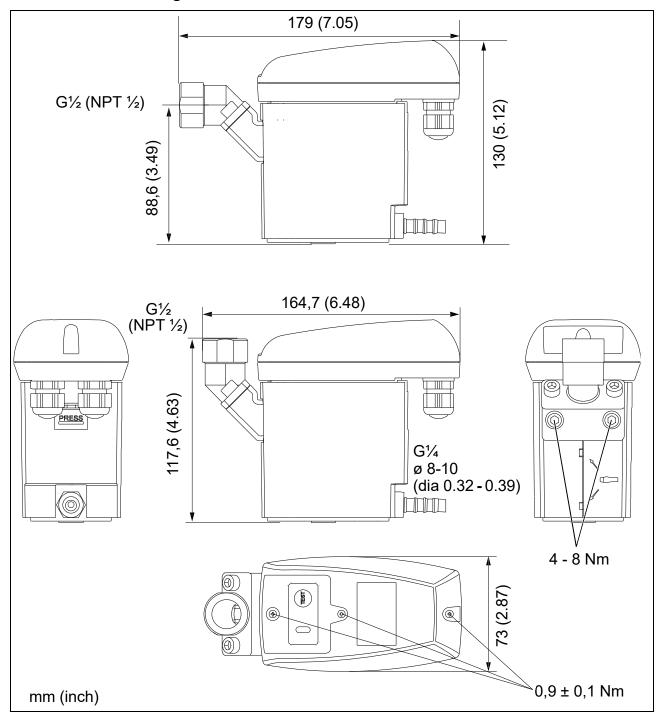
#### 6 **Electrical data**

Supply voltage (see type plate)	95240 VAC ±10% (5060 Hz) /100125 VDC ±10% or 2448 VAC ±10% (5060 Hz) / 1872 VDC ±10%
Power consumption	P = 0.6 3 VA (W)
Recommended cable-jacket diameter	Ø 5.010 mm (0.20"0.39")
Recommended wire cross-section Spring-loaded terminal (voltage supply/relay)	0.751.5 mm² (AWG 1620)
Recommended wire cross-section Screw terminal (voltage supply)	0.752.5 mm² (AWG 1420)
Recommended wire cross-section Spring-loaded terminal (external test)	0.751.0 mm² (AWG 1820)
Recommended wire cross-section Screw terminal (relay/external test)	0.751.5 mm² (AWG 1620)
Recommended stripping of cable jacket (voltage supply/relay)	~ 30 mm (~ 1.18")
Recommended stripping of cable jacket (external test)	~ 90 mm (~ 3.54")
Recommended length of the wire end tube Spring-loaded terminal	~ 8 mm (~ 0.31 inch)
Recommended length of the wire end tube Screw terminal	~ 6 mm (~ 0.24 inch)
Connection data of the potential-free contact Switch to load *)	AC: max. 250V / 1A DC: max. 30V / 1A
Connection data of the potential-free contact Switch to low signal *)	min. 5 VDC / 10 mA
Connection data of the external test contact	on the unit side 5 VDC; switching current $\geq$ 0,5 mA
Protection class	IP 67
Overvoltage category (IEC 61010-1)	11

VAC = V alternating current VDC = V direct current

The switching of loads means that the properties of the contact are no longer suitable for the switching of low signals. \*)

# 7 Dimension drawing



# 8 Climate zones and performance data

Climate zone	Max. compressor performance m³/min.	Max. dryer performance m³/min.	Max. filter performance m³/min.
green	6,0	12,0	60,0
blue	5,0	10,0	50,0
red	3,5	7,0	35,0

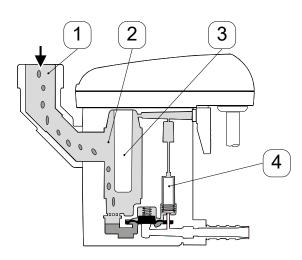
The indicated performance data are based on a moderate climate and apply to Europe, large parts of Southeast Asia, North and South Africa, parts of North and South America (climate zone: blue).

For dry and / or cool climate (climate zone: green), the following factor applies:

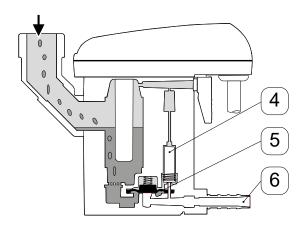
performance in the "blue" climate zone approx. x 1.2

For warm and / or humid climate (tropics; climate zone: red), the following factor applies: performance in the "blue" climate zone approx. x 0.7

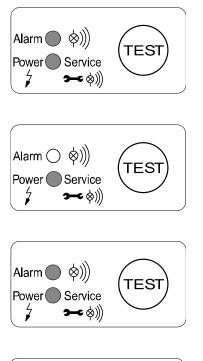
# 9 Function

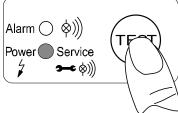


Via the inlet line (1) the condensate flows into the BEKOMAT<sup>®</sup> 32U and accumulates in the housing (2). A capacitively functioning sensor (3) continuously registers the filling level and relays a signal to the electronic control as soon as the container is filled.

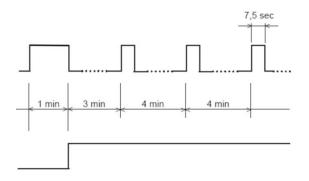


The pilot valve (4) is activated and the membrane (5) opens the outlet line to discharge the condensate (6). When the BEKOMAT<sup>®</sup> 32U is empty, the outlet line is reclosed tightly in time before unnecessary compressed-air losses occur.





Switching sequence of the valve in the alarm mode



Trouble indication via a potential-free contact

At the BEKOMAT<sup>®</sup> 32U, two LEDs indicate the individual operating states.

When applying supply voltage, the BEKOMAT<sup>®</sup> 32U carries out a **self-test**.

Both LEDs are lit for approximately 1 second, subsequently, the device changes over to the **"ready-to-operate"** state.

#### Ready to operate, voltage is applied.

In the event that the condensate discharge is disturbed, an alarm mode will start which is indicated by the flashing of the red alarm LED. **Malfunction/alarm** 

Test of the valve function (manual drainage): press and hold the button for approximately 2 s. Test of the alarm function (see below): press and hold the button for at least 1 min. **Do not use for permanent drainage.** 

#### Alarm mode:

In the event that the BEKOMAT<sup>®</sup> is not empty after one minute, a trouble indication is released:

- The alarm LED flashes.
- The alarm relay switches over (the signal can be picked off potential-freely).
- The valve opens every four minutes for 7.5 seconds.
- When the malfunction has been eliminated, the BEKOMAT<sup>®</sup> will switch back automatically into the normal mode.

#### Possible trouble sources include:

- Mistakes during installation
- Dropping below the minimum pressure
- Excessive accumulation of condensate (excess load)
- Blocked / obstructed outlet line
- Extreme amount of dirt particles
- Frozen pipework

The BEKOMAT<sup>®</sup> 32U releases a maintenance message for a service that is to be carried out.

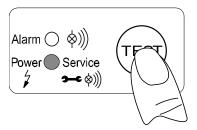
Depending on the operating mode, a visual maintenance message (service) is activated which signalises the replacement of the service unit.

The maintenance message is indicated by the flashing supply voltage-LED "Power".

The maintenance message is released after  $2 \times 8.760$  h or one million switching cycles. The maintenance signal is released when one of these two values is reached.

In the event of a power outage or when the energy supply is deactivated, the status of the timer will be maintained.

The activities to be carried out regarding maintenance are described in the chapter entitled "Check and maintenance".



Prior to the replacement of the service unit, a reset needs to be carried out. The control unit is released by actuating the arresting hook. When removed, the TEST button must be pressed and held for at least five seconds.



Alarm () (\$)

Power Service

▰◈测

TEST

# 10 Installation



#### Danger!

Compressed air!

Risk of serious injury or death through contact with quickly or suddenly escaping compressed air or through bursting plant components or plant components which are not secured.

#### Measures:

- Do not exceed the maximum operating pressure (see type plate).
- Only carry out service measures when the system is pressureless.
- Use pressure-resistant installation material only.

Malfunction during operation!

- The feed pipe must be tubed firmly. Discharge pipe: short, fixed pressure hose onto pressure-resistant pipe.
- Make sure that persons or objects cannot be hit by condensate or escaping compressed air.

#### Caution!



Through incorrect installation and poor maintenance, malfunction may occur at the BEKOMAT<sup>®</sup>.

Condensate which is not discharged may cause damage to plants and in production processes.

#### Measures:

- Condensate drainage which is reliable in performance directly optimises the compressed-air quality.
- To prevent damage and breakdowns, it is imperative to observe the following:
  - Exact compliance with the specifications of use and with the performance parameters of the BEKOMAT<sup>®</sup>, in connection with the case of application (see "Proper use" section)
  - Exact compliance with the installation- and operation instructions in this manual
  - Regular maintenance and control of the BEKOMAT<sup>®</sup> in accordance with the instructions in this operating manual



It is imperative to observe all hazard statements and warnings listed here.

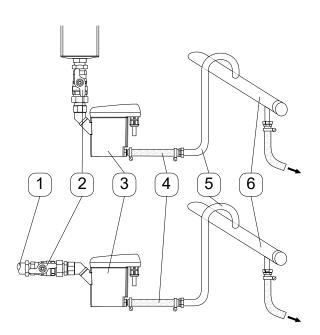
Please also observe all regulations and notes regarding industrial safety and fire prevention at the place of installation.

As a matter of principle, only use suitable and appropriate tools and materials in a proper condition. Do not use aggressive cleaners and improper devices such as high-pressure cleaners.

Please note that condensates may contain aggressive or harmful components. Therefore, skin contact should be avoided.

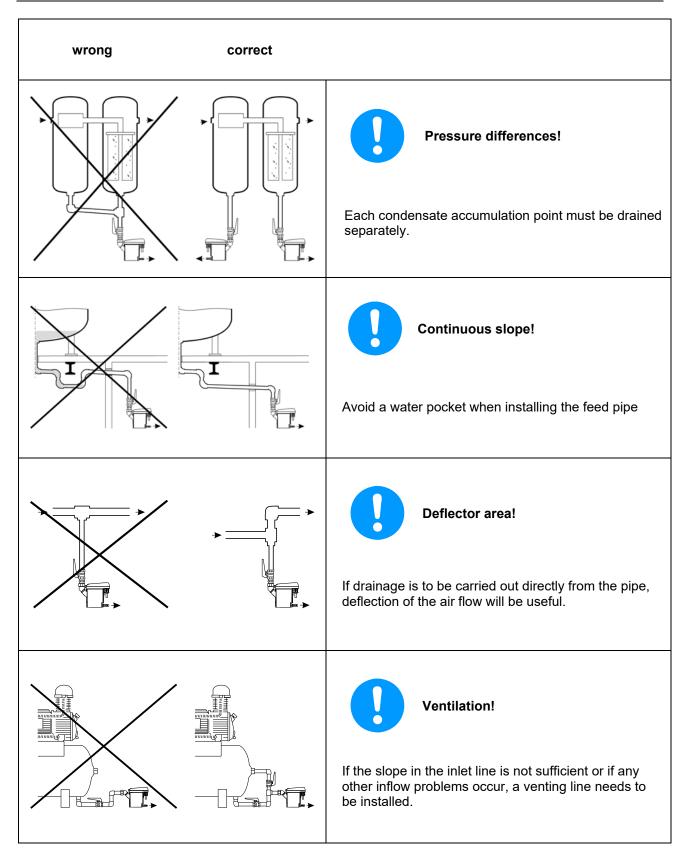
Condensate is subject to mandatory waste disposal. As such, it must be collected in suitable containers, and disposed of or processed properly.

#### Installation instructions:



- Only the displayed installation position of the BEKOMAT<sup>®</sup> (3) is permissible. Never install in a horizontal or any other tilted position.
- Feed pipe (1) and ball valve (2) at least G<sup>1</sup>/<sub>2</sub>.
- No filter or screen in the inlet line.
- Slope in the inlet line >1%.
- Use ball valves (2) only.
- Operating pressure: min. 0,8 bar (12 psig), max. 16 bar (230 psig).
- Short pressure hose (4) fixed on a pressure-resistant pipe.
- The required minimum pressure increases by 0,1 bar (1,4 psi) per metre gradient in the discharge pipe (5).
- Discharge pipe (5) rising by max. 5 m (16,4ft).
- Install manifold (6) <sup>1</sup>/<sub>2</sub>" with a slope of 1%.
- Introduce the discharge pipe (5) from the top into the manifold (6).
- Prior to the start-up, always carry out a leak test and verify the correct engagement of the control unit.

# Installation



### **11** Electrical installation



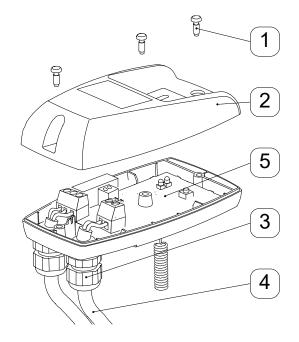
Danger!

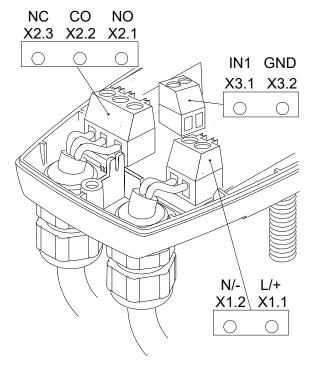
Supply voltage!

There is the risk of an electric shock involving injury or death when coming into contact with non-insulated components carrying supply voltage.

#### **Measures:**

- During electric installations, all regulations in force need to be adhered to (e.g. VDE 0100 / IEC 60364).
- When the control unit is open, service and installation works must only be undertaken when the system is deactivated.
- The removed control unit has no IP degree of protection.
- All types of electrical works must be carried out by authorised and qualified personnel only.







#### Note:

#### Power supply connection:

- 1. Read the permissible supply voltage on the type plate and make sure this voltage is observed.
- For the supply voltage, a reliably accessible separator must be provided close-by (e.g. power plug or switch), which separates all current-carrying conductors.
- 3. At a low-voltage supply (< 50 VAC / < 75 VDC), only use a protective extra-low-voltage.
- 4. Carry out installation in accordance with VDE 0100 / IEC 60364.
- 5. Observe the terminal assignment.
- 6. Do not install when the device is energised.
- 7. Unscrew the screws (1) and remove the upper part of the cover (2).
- 8. Unscrew the threaded cable connection (3), remove the plug (if there is one), and lead the cable (4) for the power supply through.
- Connect the cable (4) with terminals X1 (1.1, 1.2) (5).
- 10.Install the cables as shown (see also terminal assignment in the following text).
- 11. Tighten the threaded cable connection (3) with a slightly sealing effect.
- 12.Put on the upper part of the cover (2) and tighten the screws (1) fingertight.

# Connection of the potential-free contact and of the external test:

- 1. Selection of the suitable cable.
- 2. Connection to X2 and X3, as shown in the adjacent illustration.
- 3. The installation steps are the same as for the power supply connection.
- If the potential-free contact carries voltage that is dangerous in the case of contact, a corresponding separator must also be provided, as described above.
- 5. When using the potential-free contacts and the connection external test, sufficient clearance to the other parts of the unit, or suitable insulation in accordance with EN 60664-1 must be ensured.
- 6. When using a multiwire, common line for the connection of the potential-free contact and the external test, this line must be suitable for the highest occurring voltage and the intended temperature range with regard to its nominal ratings.

#### Terminal assignment supply voltage (operating voltage)

Х	1		X 2		Х	3
+/T	-/N	ON	СО	NC	1N1	GND
phase	neutral	normally open	common	normally closed	external test (IN1)	GND
1.1	1.2	2.1	2.2	2.3	3.1	3.2

- Power supplyX 1.1 L/+
- X 1.2 N/-
- L = Outer conductor
- N = Neutral conductor

#### Terminal assignment low voltage (operating voltage)

Х	1		X 2		Х	3
+/7	-/N	ON	СО	NC	1N1	GND
power	power	normally open	common	normally closed	external test (IN1)	GND
1.1	1.2	2.1	2.2	2.3	3.1	3.2

Po	Power supply				
•	X 1.1	L/+			
•	X 1.2	N/-			

#### Terminal assignment of the potential-free contact and of the external test

Х	1	X 2		Х	3		
+/-	-/N	ON	ОЭ	NC	١N١	GND	
power	power	normally open	соттол	normally closed	external test (IN1)	GND	
1.1	1.2	2.1	2.2	2.3	3.1	3.2	

Fault indication/potential-free contact:

- X 2.1 n.o.
- X 2.2 com.
- X 2.3 n.c.

n.c. - com. closed in the event of malfunction or power failure n.o. - com. closed during normal operation (closed current principle)

The contacts X2.1 - 2.3 are potential-free.

External test / remote control:

- X 3.1 external test (IN1)
- X 3.2 GND

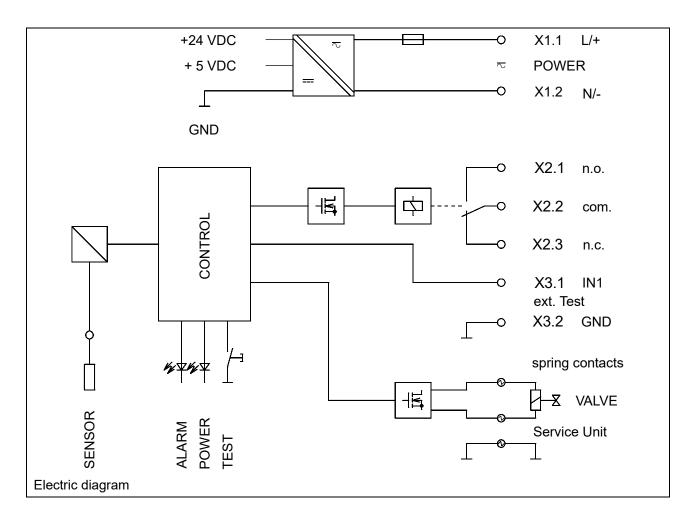
Contacts connected = test active = discharge Contacts open = test inactive

The contacts X 3.1 -3.2 are not potential-free.



#### Note:

At a low-voltage supply (< 50 VAC / < 75 VDC), only use a protective extra-low-voltage. Tighten the threaded cable connection with a slightly sealing effect.



# 12 Inspection and maintenance

Danger!



# Compressed air!

Risk of serious injury or death through contact with quickly or suddenly escaping compressed air or through bursting plant components or plant components which are not secured.

#### Measures:

- Do not exceed the maximum operating pressure (see type plate).
- Only carry out service measures when the system is pressureless.
- Use pressure-resistant installation material only.
- The feed pipe must be tubed firmly. Discharge pipe: short, fixed pressure hose onto pressure-resistant pipe.
- Make sure that persons or objects cannot be hit by condensate or escaping compressed air.



### Danger!

Supply voltage!

There is the risk of an electric shock involving injury or death when coming into contact with non-insulated components carrying supply voltage.

#### Measures:

- During electric installations, all regulations in force need to be adhered to (e.g. VDE 0100 / IEC 60364).
- When the control unit is open, service and installation works must only be undertaken when the system is deactivated.
- The removed control unit has no IP degree of protection.
- All types of electrical works must be carried out by authorised and qualified personnel only.

#### Caution!

Malfunction during operation!

Through incorrect installation and poor maintenance, malfunction may occur at the  ${\sf BEKOMAT}^{\$}$  .

Condensate which is not discharged may cause damage to plants and in production processes.

#### Measures:

- Condensate drainage which is reliable in performance directly optimises the compressed-air quality.
- To prevent damage and breakdowns, it is imperative to observe the following:
  - Exact compliance with the specifications of use and with the performance parameters of the BEKOMAT<sup>®</sup>, in connection with the case of application (see "Proper use" section)
  - Exact compliance with the installation- and operation instructions in this manual
  - Regular maintenance and control of the BEKOMAT<sup>®</sup> in accordance with the instructions in this
    operating manual



It is imperative to observe all hazard statements and warnings listed here.

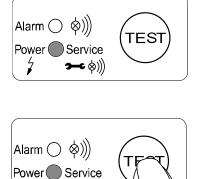
Please also observe all regulations and notes regarding industrial safety and fire prevention at the place of installation.

As a matter of principle, only use suitable and appropriate tools and materials in a proper condition.

Do not use aggressive cleaners and improper devices such as high-pressure cleaners.

Please note that condensates may contain aggressive or harmful components. Therefore, skin contact should be avoided.

Condensate is subject to mandatory waste disposal. As such, it must be collected in suitable containers, and disposed of or processed properly.



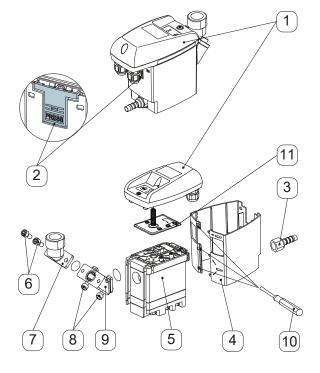
━ �)))

5

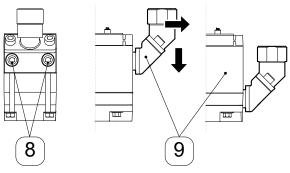
#### Maintenance recommendation:

After 2 x 8,760 operating hours or one million switching cycles, a maintenance message is released. The green power LED flashes. Afterwards, or at the latest after two years (2 x 8,760 operating hours), the service unit (5) needs to be replaced.

 Prior to the replacement of the service unit, a reset needs to be carried out. The control unit is released by actuating the arresting hook. When removed, the TEST button below the LED must be pressed and held for at least five seconds.

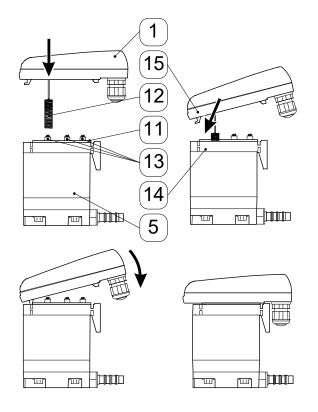


- 2. Remove the control unit (1) by pressing the arresting hook (2)
- 3. Unfasten the BEKOMAT<sup>®</sup> 32U from the outlet (3).
- 4. Remove the design shell (4) (if there is one) using a screwdriver (10).
- 5. Detach the service unit (5) from the tubing at the inlet by removing the union nut.
- or remove the screws (6) from the angle nozzle (7).



M<sub>max</sub> = 4...8 Nm

- 7. **or** remove the screws (8) at the intermediate adapter (9) and remove the latter from the service unit by pulling it downwards.
- Check whether or not the new service unit (5) goes with the control unit (1). (model designation and colour of the arresting hook (2)).
- 9. Installation of the new service unit (5) in reverse order.



#### Installation of the control unit on the service unit:

- 1. Check whether or not the service unit (5) goes with the control unit (1) (model designation and colour of the arresting hook).
- 2. Check whether or not the sealing mat (11) and the contact springs (13) are clean, dry, and free from impurities.
- Introduce the sensor (12) into the sensor tube plate (14).
- 4. Hang the hook (15) of the control unit (1) in the sensor tube plate (14).
- Press the control unit (1) against the service unit
   (5) and snap into place.

#### Start-up subsequent to maintenance measures:

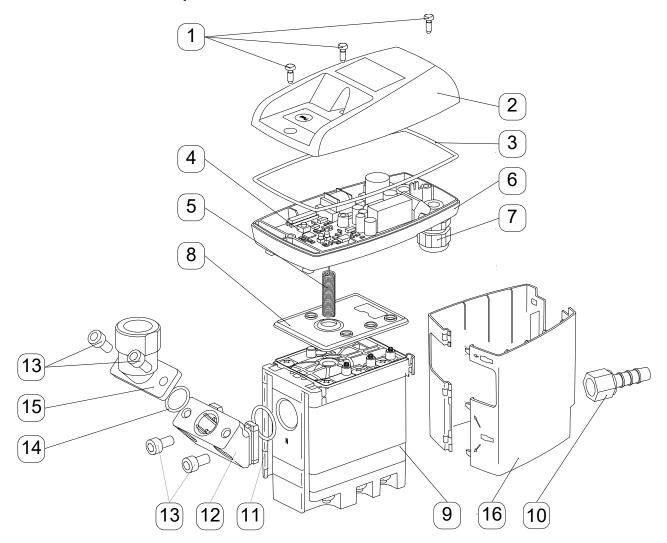
Always carry out prior to the start-up:

- Leak test of the screwed connector
- Check of the electrical connections
- · Check of the correct engagement of the control unit

# 13 Troubleshooting and fault elimination

Symptoms	Possible reasons	Measures
Alarm () \$))) Power () Service	Supply voltage incorrect Circuit board defective	Check voltage on the ID plate Check the connections and the supply voltage Check the circuit boards for possible damage
Alarm       ♦)))         Power       Service         \$\scale{2}\$       >→         All LEDs are continuously on       on	Failure during the start of the programme Circuit board defective	Separate the device from the supply voltage and reactivate after > 5 s Check the circuit boards for possible damage
Alarm (♦))) Power Service ↓ → ♦))) Test button pressed, but no condensate discharge	Feed pipe and/or discharge pipe blocked or obstructed Wear and tear Circuit board defective Service unit defective Minimum pressure not reached Maximum pressure exceeded	Check feed and discharge pipe Check whether or not the valve opens audibly (press the test button several times for >2 seconds) Check the circuit board for possible damage Check the operating pressure
Alarm (\$))) Power Service \$\frac{1}{2} \rightarrow \$\theta\)) Condensate discharge	Feed pipe without sufficient slope Cross section not large enough Condensate accumulation too high (surge) Service unit extremely dirty	Install feed pipe with a slope Replace the service unit
only when the test button is pressed Alarm ○ �i)) Power ● Service Ź → �i)) Device blows off continuously	Service unit defective or dirty	Replace the service unit

### 14 Elements and components



- 1 Screw 3.5 x 10
- 2 Upper part of the cover
- 3 Moulded gasket
- 4 Circuit board
- 5 Sensor
- 6 Lower part of the cover
- 7 Cable bushing
- 8 Sealing mat

- 9 Service unit
- 10 Hose connector
- 11 O-ring 20 x 2
- 12 Intermediate adapter
- 13 Screw M6 x 12
- 14 O-ring 14 x 1.78
- 15 Angle adaptor
- 16 Design shell

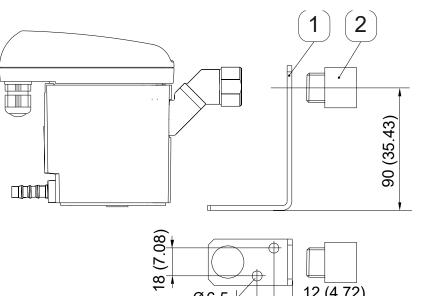
# 15 Recommended spare parts

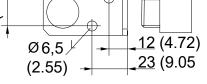
Available sets of spare parts	Contents	Order number
Service unit	8, 9, 11*	4023571
Gasket kit	3, 8, 11*	4024392
Design shell*	16*	4010167
Connection adapter*	11*, 12*, 13*, 14*, 15*	4010155

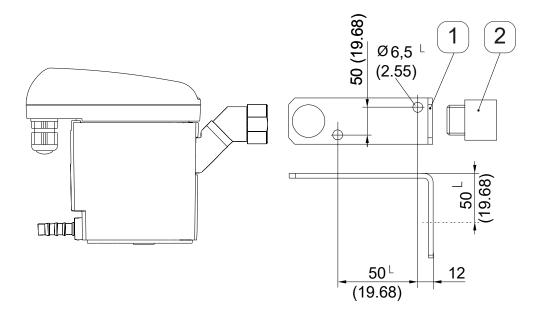
\* Not for BEKOMAT 32U built-in

# 16 Accessories

Available accessory sets	Contents	Order number
Mounting brackets for wall and base	1 Mounting bracket 2 Extension G ½ 20 long	4010105







Available accessory sets	Contents	Order number
Outlet set With a hose and installation material	Tubing piece 10x3x800 Grommet 9-G½ Ms Hose clamp 12-22/9 A2	2000045

### 17 Declaration of conformity

BEKO TECHNOLOGIES GMBH Im Taubental 7 41468 Neuss

GERMANY

Tel: +49 2131 988-0 www.beko-technologies.com



# EU-Konformitätserklärung

Wir erklären hiermit, dass die nachfolgend bezeichneten Produkte den Anforderungen der einschlägigen Richtlinien und technischen Normen entsprechen. Diese Erklärung bezieht sich nur auf die Produkte in dem Zustand, in dem sie von uns in Verkehr gebracht wurden. Nicht vom Hersteller angebrachte Teile und/oder nachträglich vorgenommene Eingriffe bleiben unberücksichtigt.

Produktbezeichnung:	Kondensatableiter
Modelle:	BEKOMAT® 31U, 32U, 32UV, 33U, 33UV
Spannungsvarianten:	95240 VAC ±10% (5060 Hz) / 100125 VDC ±10% oder
	2448 VAC ±10% (5060 Hz) / 1872 VDC ±10%
Max. Betriebsdruck:	16 bar (g)
Produktbeschreibung und Funktion:	Kondensatableiter zur elektronisch niveaugeregelten Ableitung von Kondensat im Druckluftnetz.

#### Niederspannungs-Richtlinie 2014/35/EU Angewandte harmonisierte Normen:

EN 61010-1:2010

Die Geräte mit einer Betriebsspannung von 24...48 VAC und 18...72 VDC fallen nicht in den Anwendungsbereich der Niederspannungs-Richtlinie.

EMV-Richtlinie 2014/30/EU

Angewandte harmonisierte Normen:

EN 55011: 2009 + A1: 2010, Gruppe 1, Klasse B EN 61326-1:2013

#### ROHS II-Richtlinie 2011/65/EU

Neuss, 13.10.2017

Die Vorschriften der Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten werden erfüllt.

Der Hersteller trägt die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung.

Unterzeichnet für und im Namen von:

BEKO

BEKO TECHNOLOGIES GMBH

i.V. Christian Riedel Leiter Qualitätsmanagement International

EU\_decl\_BM3xU\_de\_10\_2017.docx

**BEKO** TECHNOLOGIES GMBH Im Taubental 7 41468 Neuss

GERMANY

Phone: +49 2131 988-0 www.beko-technologies.com



# **EU Declaration of Conformity**

We hereby declare that the products named below comply with the stipulations of the relevant directives and technical standards. This declaration only refers to products in the condition in which they have been placed into circulation. Parts which have not been installed by the manufacturer and/or modifications which have been implemented subsequently remain unconsidered.

Product designation:	Condensate drain
Туре:	BEKOMAT <sup>®</sup> 31U, 32U, 32UV, 33U, 33UV
Supply voltage versions:	95240 VAC ±10% (5060 Hz) / 100125 VDC ±10% or
	2448 VAC ±10% (5060 Hz) / 1872 VDC ±10%
Maximum operating pressure:	16 bar (g)
Product description and function:	Condensate drain for the electronically level-controlled discharge of condensate in the compressed-air system.

#### Low Voltage Directive 2014/35/EU

Applied harmonised standards:

EN 61010-1:2010

The devices with working voltage of 24...48 VAC and 18...72 VDC are not in the scope of the Low-Voltage Directive.

#### EMC Directive 2014/30/EU

Applied harmonized standards:

EN 55011: 2009 + A1: 2010, group 1, class B EN 61326-1:2013

#### **RoHS II Directive 2011/65/EU**

The products meet the requirements laid down in European Directive 2011/65/EU concerning the restriction of the use of certain hazardous substances in electrical and electronic devices.

The manufacturer shall have sole responsibility for issuing this declaration of conformity.

Signed for and on behalf of:

Neuss, 13/10/2017

BEKO TECHNOLOGIES GMBH

i.V. Christian Riedel Head of International Quality Management

# Α

Accessories 26 Accessory sets 26 Alarm mode 12 Angle adapter 25 Angle nozzle 22

### В

blows off 24 Both LEDs are continuously on 24

#### С

Circuit board 25 Climate zone blue 10 green 10 red 10 Climate zones 10 Components 25 Condensate discharge disturbed 24 Control unit 23

# D

Danger compressed air 4, 14, 21 Danger supply voltage 5, 17, 21 Data 7 Declaration of conformity 28 Deflector area 16 Degree of protection 5, 17, 21 Design shell 25 Dimension drawing 9 Dimensions 9

#### Ε

Electric diagram 20 Electrical data 8 Electrical installation 17 Elements 25 Exclusion from the scope of application 6 Exclusion of a field of application 6

# F

Failure 24 Fault clearance 24 Fault diagnosis 24 Fault elimination 24 Feed pipe 16 Field of application 6 Filling level 11 Function 11

#### Н

Hose connector 25

Inlet line 11 Inspection 21 Installation 14 Installation and operating instructions 4 Installation and operating instructions 4 Instructions, safety instructions 4 Intermediate adapter 23, 25

# L

Lower part of the cover 25

#### Μ

Maintenance 21 Maintenance recommendation 22 Malfunction 24 Membrane 11 Mounting 14

### Ν

No condensate discharge 24 No LED lights up 24

# 0

Order number 25, 26 Outlet line 11

# Ρ

Performance data 10 Pictograms 4 Pilot valve 11 Pressure differences 16 Proper use 6

# Q

Qualified personnel 5, 17, 21

# R

Recommended spare parts 25

#### S

Safety instructions 4 Self-test 12 Sensor 25 Sensor tube plate 23 Service measures 4, 14, 21 Service unit 22, 25 Sets of spare parts 25 Slope 16 Spare parts 5, 25 Symbols 4

# т

Technical data 7 Trouble sources 12 Troubleshooting 24 **U** Upper part of the cover 25 V Venting line 16 W Water pocket 16

#### Headquarter

Deutschland / Germany BEKO TECHNOLOGIES GMBH Im Taubental 7 D - 41468 Neuss Tel. +49 2131 988 0 Mobil +49 / (0) 174 / 376 03 13 beko@beko-technologies.de

#### Benelux

BEKO TECHNOLOGIES B.V. Veenen 12 NL - 4703 RB Roosendaal Tel. +31 165 320 300 benelux@beko-technologies.com

#### España / Spain

BEKO Tecnológica España S.L. Torruella i Urpina 37-42, nave 6 E - 08758 Cervelló Tel. +34 93 632 76 68 Mobil +34 610 780 639 info.es@beko-technologies.es

#### Italia / Italy

BEKO TECHNOLOGIES S.r.I Via Peano 86/88 I - 10040 Leinì (TO) Tel. +39 011 4500 576 Fax +39 0114 500 578 info.it@beko-technologies.com

#### South East Asia

BEKO TECHNOLOGIES S.E.Asia (Thailand) Ltd. 75/323 Soi Romklao, Romklao Road Sansab Minburi Bangkok 10510 Tel. +66 2-918-2477 info.th@beko-technologies.com

#### United Kingdom

BEKO TECHNOLOGIES LTD. Unit 11-12 Moons Park Burnt Meadow Road North Moons Moat Redditch, Worcs, B98 9PA Tel. +44 1527 575 778 info@beko-technologies.co.uk

#### 中华人民共和国 / China

BEKO TECHNOLOGIES (Shanghai) Co. Ltd. Rm. 606 Tomson Commercial Building 710 Dongfang Rd. Pudong Shanghai China P.C. 200122 Tel. +86 21 508 158 85 info.cn@beko-technologies.cn

#### 中華人民共和國香港特別行政區 /

Hong Kong SAR of China BEKO TECHNOLOGIES LIMITED Unit 1010 Miramar Tower 132 Nathan Rd. Tsim Sha Tsui Kowloon Hong Kong Tel. +852 5578 6681 (Hong Kong) Tel. +86 147 1537 0081 (China) tim.chan@beko-technologies.com

#### 日本 / Japan

BEKO TECHNOLOGIES K.K KEIHIN THINK Building 8 Floor 1-1 Minamiwatarida-machi Kawasaki-ku, Kawasaki-shi JP - 210-0855 Tel. +81 44 328 76 01 info@beko-technologies.jp

臺灣 / Taiwan BEKO TECHNOLOGIES Co.,Ltd 16F.-5 No.79 Sec.1 Xintai 5th Rd., Xizhi City New Taipei City 221 Taiwan (R.O.C.) Tel. +886 2 8698 3998 info.tw@beko-technologies.tw

#### France

BEKO TECHNOLOGIES S.à.r.l. Zone Industrielle 1 Rue des Frères Rémy F - 57200 Sarreguemines Tél. +33 387 283 800 info@beko-technologies.fr

#### Česká Republika / Czech Republic

BEKO TECHNOLOGIES s.r.o. Na Pankraci 58 CZ - 140 00 Praha 4 Tel. +420 24 14 14 717 / +420 24 14 09 333 Mobil +420 605 274 743 info.cz@beko-technologies.cz

#### India

BEKO COMPRESSED AIR TECHNOLOGIES Pvt. Ltd. Plot No.43/1 CIEEP Gandhi Nagar Balanagar Hyderabad IN - 500 037 Tel +91 40 23080275 / +91 40 23081107 madhusudan.masur@bekoindia.com

#### Polska / Poland

BEKO TECHNOLOGIES Sp. z o.o. ul. Pańska 73 PL - 00-834 Warszawa Tel. +48 22 314 75 40 Mobil +49 173 28 90 700 info.pl@beko-technologies.pl

#### USA

BEKO TECHNOLOGIES CORP. 900 Great Southwest Pkwy SW US - Atlanta, GA 30336 Tel. +1 404 924-6900 Fax +1 (404) 629-6666 beko@bekousa.com

Translation of the original manual/instructions.

Original instructions are in German.

Subject to technical modifications without notice / errors excepted.

bekomat\_32u\_manual\_en\_01-1611\_v01.