

# Instructions for Installation and Operation

## BEKOMAT® 10

from series No.  
283500

Dear Customer,

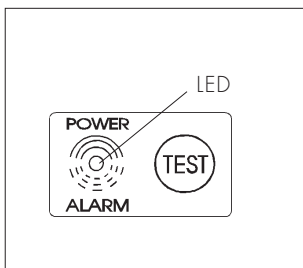
Thank you for deciding in favour of the condensate drain BEKOMAT 10. Please read the present instructions carefully before installing your BEKOMAT 10 unit and putting it into service. The perfect functioning of the condensate drain BEKOMAT 10 - and thus reliable condensate discharge - can only be guaranteed if the commendations and conditions stated here are adhered to.

### APPLICATION AND FUNCTION

Although unwanted, condensate is unavoidable during the production of compressed air. In order to prevent damage to compressor, refrigeration dryer or other parts of your plant, it is absolutely essential to remove the continuously accumulating condensate from the system. The BEKOMAT 10 condensate drain discharges the condensate reliably and without unnecessary loss of compressed air. On the one hand, this represents an energy saving and on the other, the condensate can subsequently be safely fed into an ÖWAMAT unit for further treatment



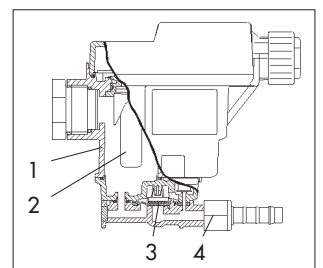
discharge mode with a rhythm of 2 to 3 seconds. The condensate is collected in the container (1) of the BEKOMAT 10 unit. A capacitive sensor (2) continuously registers the liquid level and passes a signal to the electronic control as soon as the container is filled. The pilot valve is activated immediately and the diaphragm (3) opens the outlet line (4) for discharging the condensate. When the BEKOMAT unit has been emptied, the outlet line is closed again quickly and tightly without wasting compressed air.



according to legal requirements.

During normal operation, the operating light will be on continuously. During each discharge procedure, the LED will be off for a short period. In the event of a disturbance (e.g., overloading), the valve will keep opening in order to clear the fault. The LED will flash at the same time.

The test button enables you to carry out a functional test. After pressing the button, the BEKOMAT device will switch to the



### IMPORTANT INFORMATION

**1. Do not exceed the operating pressure of 16 bar!**

**NOTE:** Maintenance work must only be carried out when the device is not under pressure!

**2. Only use installation material approved for the relevant pressure range!**

The feed line (1/2") must be firmly fixed. Employ a suitable pressure hose for the condensate discharge line (hose size: inside dia. = 10 mm)

**3. For locking or holding in position during installation, user spanner area on connection part (spanner size 32).**

**4. The electrical installation must be carried out in compliance with the applicable electrotechnical regulations!**

**NOTE:** Maintenance work is only allowed when the device is in a de-energized condition! Electrical work must always be performed by a properly qualified person.

**5. Ensure suitable environmental conditions!**

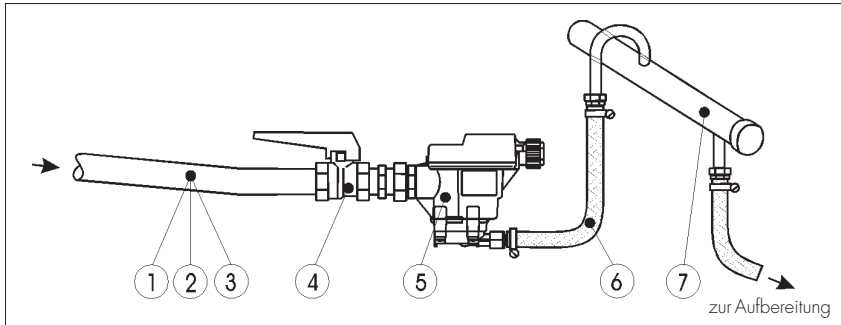
The BEKOMAT 10 condensate drain must not be used in areas where there is a danger of frost, in hazardous areas with potentially explosive atmospheres or for explosive fluids.

**6. The BEKOMAT 10 will only function when voltage is being applied to the device.**

# BEKOMAT® 10

## INSTALLATION

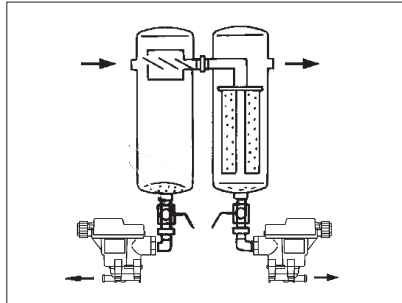
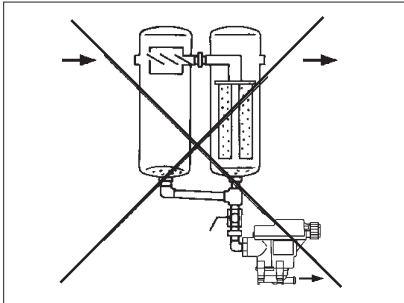
It is essential to follow these instructions for installations!



1. Feed pipe at least ½"!
2. No filters in feed line
3. Slope in feed line > 1%!
4. Only use ball valves!
5. Design pressure:  
min. 0.8 bar (overpressure)
6. For each metre of rising slope in the outlet line, the required minimum pressure will increase by 0.1 bar. The rise of the outlet line must not exceed 5 metres!
7. Collecting line min. ½"!

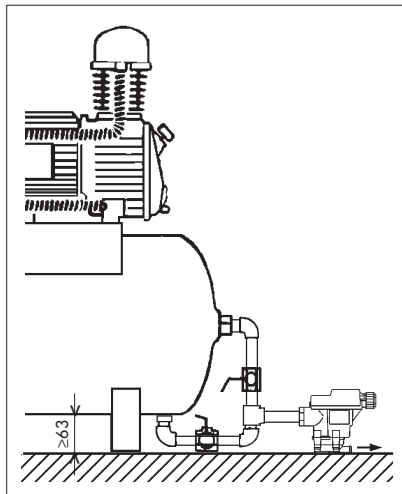
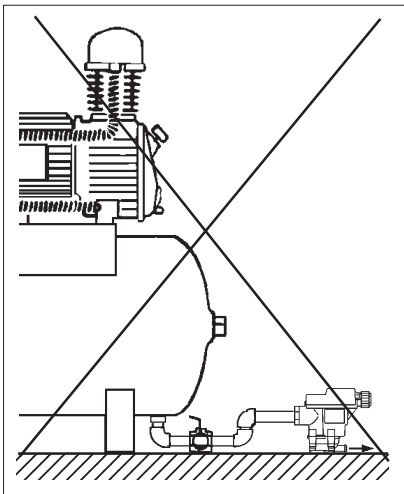
- wrong -

- correct -



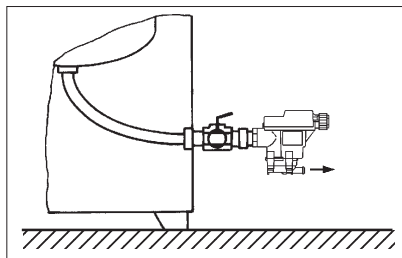
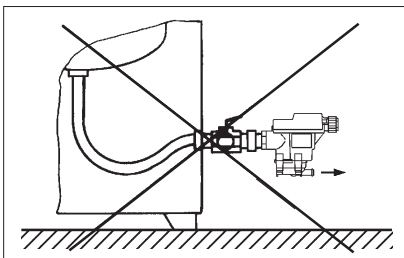
### Note: Pressure differences!

Each condensate source must be drained separately!



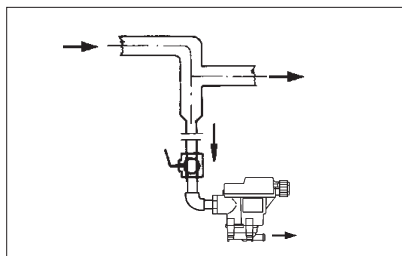
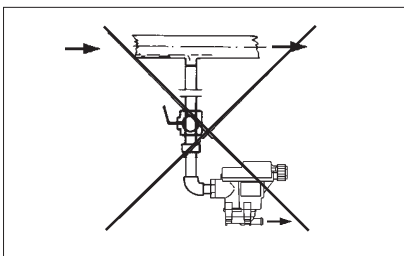
### Note: Venting!

If the feed line cannot be laid with sufficient slope, it will be necessary to install a venting line!



### Note: Continuous slope

It is important to avoid water pockets when using a pressure hose as a feed line!

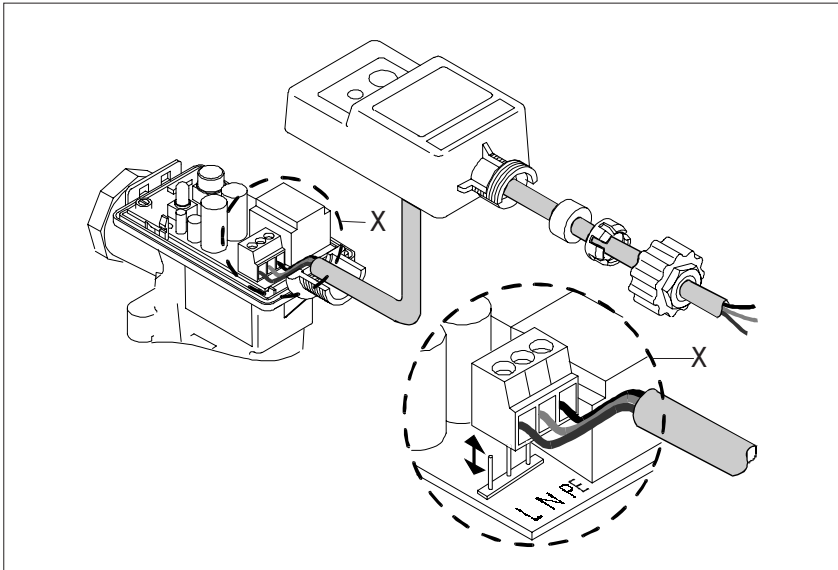


### Note: Deflector area!

If drainage is to take place directly from a line, it is advisable to arrange the piping so that the air flow is diverted.

# BEKOMAT® 10

## ELECTRICAL INSTALLATION



### Note:

Leave adequate cable length to facilitate removal of the device.

Check type plate for permissible mains voltage and ensure conformity!

### Mains voltage input (standard):

$$P \leq 0.5 \text{ VA}$$

$$U = 230 \text{ Vac} \pm 10\% (50-60 \text{ Hz})$$

Recomm. connection cable: 0.75 mm<sup>2</sup>

Recomm. fuse protection: 0.5 A (mt)

## NOTES ON MOUNTING AND MAINTENANCE

**Before carrying out any installation, maintenance or repair work, please make sure that the device is in a pressureless state! Before carrying out any electrical work, the device must be disconnected from the power supply!**

### BEKOMAT 10 functional test

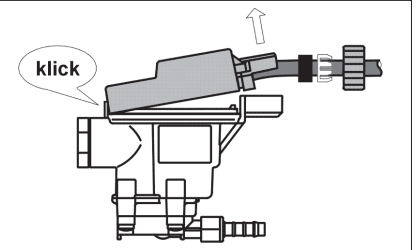
1. Press test button for at least 1 second.
2. Valve will keep opening, condensate is being discharged.

### Cleaning, checking of wearing parts and replacements

1. Shut off feed line (or switch system to a pressureless state)
2. Press test button of BEKOMAT to switch device to a pressureless state
3. Undo the 4 screws at the bottom (if necessary remove BEKOMAT unit first)  
Dismantle BEKOMAT unit
4. Clean, check all wearing parts and replace where necessary

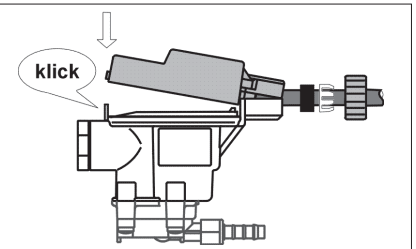
### Opening of top cover

1. Undo union nut
2. Push back clamping fixture and sealing ring
3. Move cover upwards at the back (cable may need corresponding adjustment) and lift up until the click stop opens.



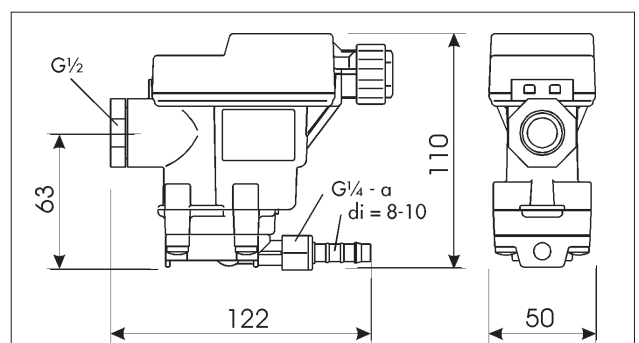
### Closing of top cover

1. Put down top cover at the back end first
2. Press down cover at the front until it snaps into place
3. Push sealing ring and clamping fixture into threaded joint
4. Tighten union nut



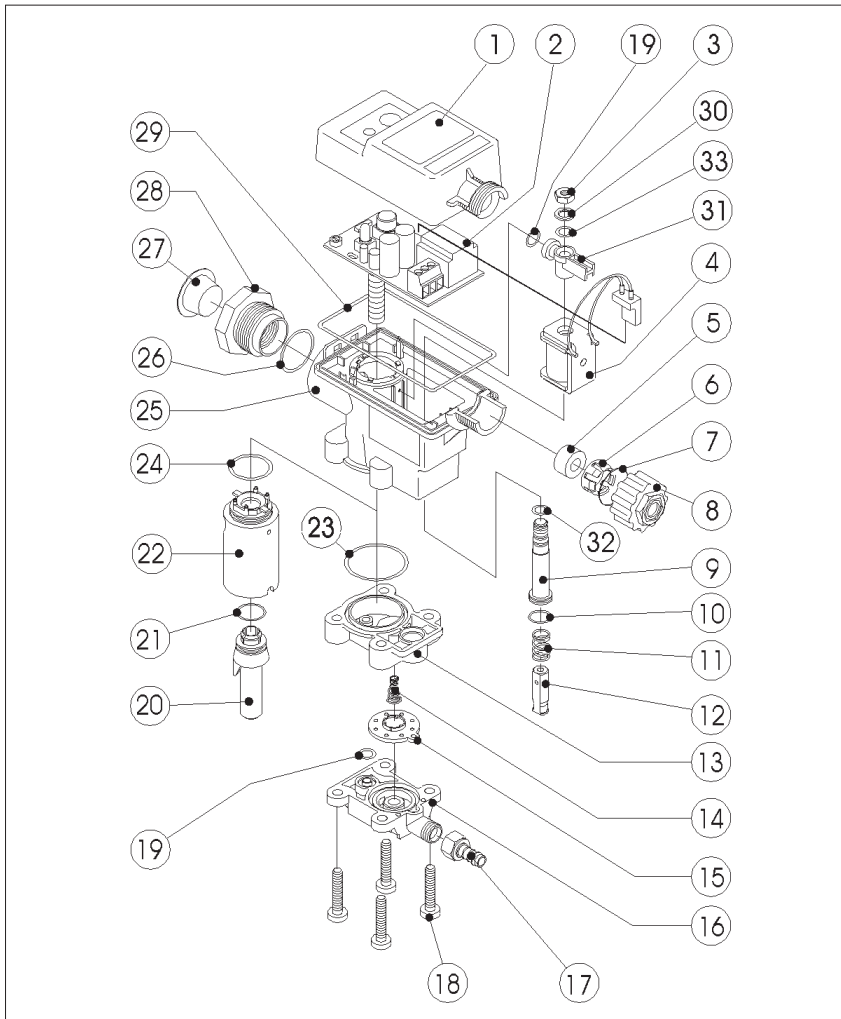
## TECHNICAL DATA

Peak compressor performance	m <sup>3</sup> /min	1,5
Peak refrigeration dryer performance	m <sup>3</sup> /min	3
Condensate temperature, min/max	°C	+1 / +60
Operating pressure, min/max	bar (ü)	0,8 / 16
Condensate feed	Zoll	G½
Condensate discharge (hose size)	Zoll (mm)	G¼ (di=8-10)
Weight (empty)	g	370
Power supply	Vac/Hz	230/50-60
Max. power input	VA	0,5



# BEKOMAT® 10

## COMPONENTS



- 1 Top cover
- 2 Electronic printed circuit board
- 3 Hexagon nut M6
- 4 Solenoid
- 5 Sealing ring
- 6 Clamping fixture
- 7 Dust protection disk
- 8 Union nut
- 9 Guide pipe
- 10 O-ring 10 x 1
- 11 Pressure spring for valve core
- 12 Valve core
- 13 Diaphragm cap
- 14 Pressure spring for diaphragm
- 15 Diaphragm
- 16 Diaphragm seat
- 17 Hose connector, compl.
- 18 Screws M5 x 25
- 19 O-ring 6 x 1,5
- 20 Sensor tube
- 21 O-ring 13 x 1.5
- 22 Earthing tube
- 23 O-ring 28 x 1.5
- 24 O-ring 18.77 x 1.78
- 25 Housing
- 26 O-ring 20.35 x 1.78
- 27 Closing element
- 28 Connection part
- 29 Cord packing 240 x 2
- 30 Washer 11,9 x 6,7 x 1,5
- 31 Control-air cover
- 32 O-ring 4 x 1,5
- 33 O-ring 6,07 x 1,78

## SETS OF SPARE PARTS

Designation		Contents (position No.)	Order no.
<b>Set of wearing parts</b>	*)	11, 12, 14, 15, 19, 23	XE KA10 101
<b>Set of seals</b>	*)	10, 15, 19, 21, 23, 24, 26, 29, 32, 33	XE KA10 102
<b>Diaphragm seat, complete</b>	*)	13, 14, 15, 16, 18, 19, 23	XE KA10 103
<b>Valve, complete</b>	*)	3, 4, 9, 10, 11, 12, 14, 15, 19, 23, 30-33	XE KA10 104
<b>Top cover, complete</b>		1, 5, 6, 8, 29	XE KA10 005

\*) When ordering spare parts, always specify the serial number of the BEKOMAT 10!