

CONDENSATE DRAIN WITH NO-LOAD VALVE BEKOMAT® LA/LALP

SPECIAL



Beyond our standard range, BEKO offers a number of special BEKOMAT® condensate drains for applications that are not adequately covered by the usual products in the market.

In the case of multistage compressors, the condensate from intercoolers must be reliably removed, otherwise it will get into the next compressor stage. The consequence: a constant "drop attack" on the impeller.

With electronically level-controlled BEKOMAT® LA/LALP devices you can prevent the costly effect on the compressor stages:

+1:



**NO DAMAGE CAUSED BY RESIDUAL
CONDENSATE IN THE COMPRESSOR STAGES**

+2:



**MAXIMUM RUNNING PERFORMANCE.
NO SHORTENING OF IMPELLER LIFETIME**

+3:



**CUTTING UNNECESSARY OPERATING AND
MAINTENANCE COSTS**

+4:



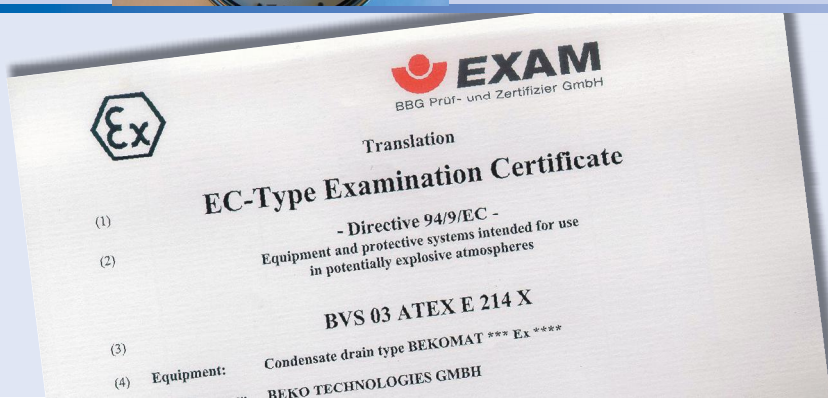
**ALL TYPES ARE ALSO AVAILABLE IN EXPLOSION-
PROTECTED VERSIONS. ATEX CERTIFIED
WITH BVS 03 ATEX E 214 X AND
CLASSIFICATION II 2G EEx ib IIB T4**



+5:



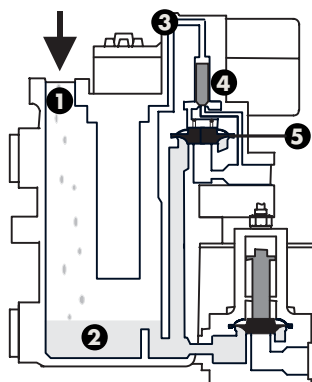
**LOW-PRESSURE DEVICES AVAILABLE AS FROM
0.4 BAR**



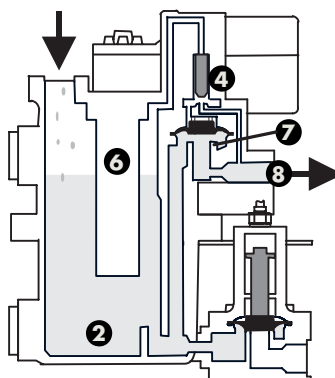
CONDENSATE DRAIN WITH NO-LOAD VALVE BEKOMAT® LA/LALP



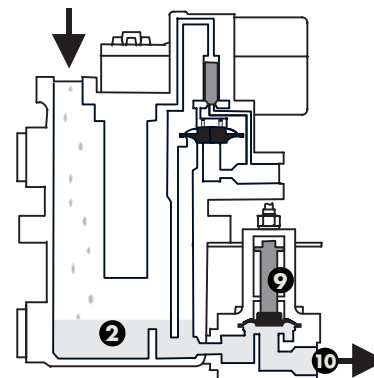
FUNCTION



Empty state



Filled state



Empty state

BEKOMAT® 3 CO LA shown as an example

Empty state – operating pressure >0.6 (LA) >0.4 (LALP) bar:

Condensate trickles through the inlet opening ① and collects in the container ②. The diaphragm valve ⑤ is closed, since the pilot supply line ③ and the solenoid valve ④ ensure pressure compensation above the valve diaphragm ⑤. The larger surface area above the diaphragm results in a high closing force, so that the valve seat is tight and leakproof.

Filled state – operating pressure >0.6 (LA) >0.4 (LALP) bar:

When the container ② has filled with condensate and the capacitive level sensor ⑥ signals at the maximum point, the solenoid valve is energized and the area above the valve diaphragm is vented. The valve diaphragm lifts off the valve seat ⑦, and the pressure in the housing forces the condensate into the discharge pipe ⑧. The valve will again be fully closed and leakproof before any compressed air can escape. Should the condensate discharge fail to function properly (blocked discharge pipe, faulty diaphragm), the device will change to the alarm mode after 60 seconds. In this case, the LED flashes and, if desired, the alarm signal is relayed via a potential-free contact. With explosion-protected devices (Ex), this is possible via a built-in optocoupler and a switching amplifier. While in the alarm mode, the solenoid valve will open every 4 minutes for a period of 7.5 seconds. Consequently, a BEKOMAT® unit filled in an unpressurized state will, under pressure, automatically revert to normal operating conditions and thus clear the alarm.

Operating pressure <0.6 (LA) <0.4 (LALP) bar:

BEKOMAT® LA and LALP devices are equipped with a second pressure-controlled discharge valve ⑩. This valve opens at a pressure of <0.6 bar or <0.4 bar with the LALP. In this manner, any existing condensate or, where appropriate, leaked cooling water can be discharged without pressure.

Subject to technical changes without prior notice; the information and data do not represent product characteristics within the meaning of the German Civil Code (BGB)

© Registered trademarks of
BEKO TECHNOLOGIES GmbH, Neuss



BEKO TECHNOLOGIES GMBH

Im Taubental 7
41468 Neuss
Germany

Phone +49 21 31 988-0
Fax +49 21 31 988-900
beko@beko.de

www.beko.de

CONDENSATE DRAIN WITH NO-LOAD VALVE BEKOMAT® LA/LALP

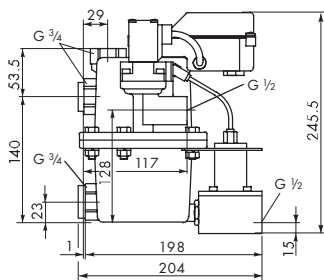


TECHNICAL DATA

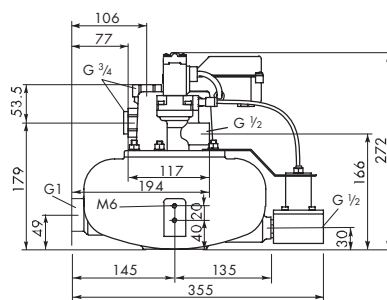
Type	Working press. min. – max. (bar)		Weight (kg)	Fluid type	Application Housing material	Connections	
	LA valve	Std. valve				Inlet	Outlet
3 CO LA	0–0.8	0.8–25	3.4	ö/öf	no-load drain aluminium, hard coated	3x G 3/4	1x G 1/2 no-load
3 CO LA LP	0–0.4	0.4–25	3.4	ö/öf	no-load drain, low Pressure aluminium, hard coated	3x G 3/4	1x G 1/2 no-load
3 CO EX LA	0–0.8	0.8–16	3.4	ö/öf	no-load drain, ex-protection aluminium, hard coated	3x G 3/4	1x G 1/2
3 CO EX LALP	0–0.4	0.4–5	3.4	ö/öf	no-load drain, low Pressure ex-protection aluminium, hard coated	3x G 3/4	1x G 1/2 no-load
6 CO LA	0–0.8	0.8–16	6.7	ö/öf	no-load drain aluminium, hard coated	2x G 3/4 1x G1	1x G 1/2 no-load
6 CO LA LP	0–0.4	0.4–5	6.7	ö/öf	no-load drain, low Pressure aluminium, hard coated	2x G 3/4 1x G1	1x G 1/2 no-load

ö = oil-contaminated condensate, öf = oil-free, often aggressive condensate

Type	Nominal throughput (l/h)					Peak throughput (l/h)				
	0 bar	1 bar	2 bar	4 bar	>7 bar	0 bar	1 bar	2 bar	4 bar	>7 bar
3 CO LA	105	17.5	22.4	42	49	105	250	320	600	700
3 CO LA LP	105	21	25.2	27.3	27.3	105	300	360	390	390
3 CO EX LA	105	13.6	17.4	32.5	38	105	192	245	460	537
3 CO EX LALP	105	16.3	19.5	21.1	21.1	105	230	276	299	299
6 CO LA	105	81	103	222	251	105	550	700	1500	1700
6 CO LA LP	105	111	125	127	129	105	750	850	860	870



BEKOMAT® 3 CO LA



BEKOMAT® 6 CO LA

These dimensioned drawings represent examples. Drawings of other versions upon request.

Subject to technical changes without prior notice; the information and data do not represent product characteristics within the meaning of the German Civil Code (BGB)

© Registered trademarks of
BEKO TECHNOLOGIES GmbH, Neuss



BEKO TECHNOLOGIES GMBH

Im Taubental 7
41468 Neuss
Germany

Phone +49 21 31 988-0
Fax +49 21 31 988-900
beko@beko.de

www.beko.de