Intelligent Electronic Zero Air Loss Series

CONDENSATE AUTO DRAIN

Operating Instruction Manual

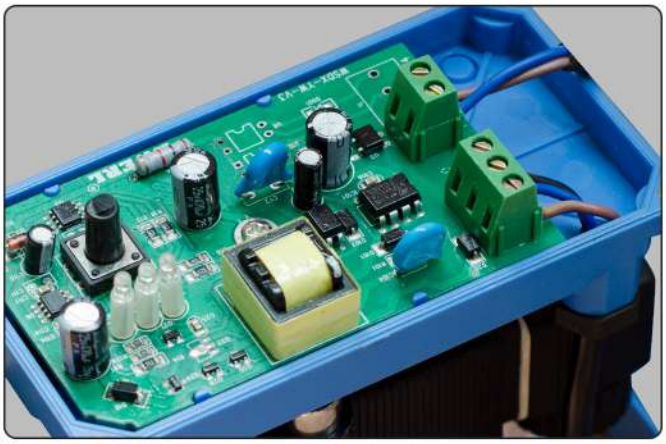
Model: BK-LS50, BK-55, BK-80, BK-90
BK-350, BK-1500, BK2500

BECKDG KWERL®

INTELLIGENT ELECTRONIC CONTROLLED DRAIN

Dependable condensate drainage without pressure loss

Condensate is an unavoidable result of air compression. If not reliably drained off at all collection points, it can cause costly downtime and damage to the compressed air system through corrosion. Electronic controlled level-sensing condensate drains from BECKDG are therefore the perfect choice to perform this important task.



Intelligent electronic controls

All collected condensate is discharged without any loss of compressed air. This not only maximises compressed air use but also leads to considerable energy savings. All electrical components are splash-proof.

Self-monitoring

Should an issue with condensate drainer occur, the drain valve is briefly cycled to open for one minute. If the situation remains, a message is triggered and the valve opens every 4 minutes for 8 seconds. Once the blockage is cleared, the drain reverts back to normal operation.

Durable level sensor

The durable and non-wearing capacitive level sensor forms the basis for safe, reliable condensate drainage. The drain also works perfectly under conditions with high levels of contamination.

TECHNICAL DATA

Model	BK-LS50	BK-55	BK-80	BK-90	BK-350	BK-1500	BK-2500	BK-1300	BWD-110
Pressure. Min/Max.	0.8 ~ 16 Bar								
Temperatura. Min/Max.	1 °C ~ 60 °C								
Condensate Feed.	1/2"	1/2"	1/2"	1/2"	2 X 1/2"	3 X 3/4"	2 X 3/4"	3/4"	1/2"
Condensate Discharge.	1/8"	1/4"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	3/8"
Peak Compressor Performance. (m^3/Min)	3	3.5	7	8	30	85	950	20	20
Peak Dryer Performance. (m^3/Min)	6	6	14	16	50	165	1800	45	40
Peak Filter Performance. (m^3/Min)	30	30	55	60	180	700	2600	130	90
Supply Voltage.	110AC±10% (50~60Hz)		110~220V AC±10% (50~60Hz)					/	
Dimensions. W*D*H.(mm)	160*170*150	170*68*116	160*66*140	190*66*156	185*92*165	230**120*180	280*280*286	180*232*190	190*82*106
Weight.(kg)	0.73	0.75	0.9	0.98	2.1	2.85	5.9	3.9	0.98
Material	Plastics		Aluminium Alloy						
Protection class.	IP 53								

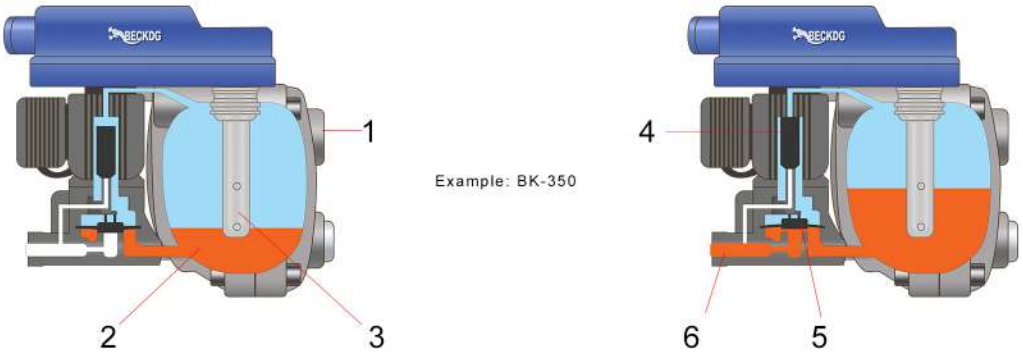
HEATING

Thermostatically controlled to prevent freezing in ambient temperatures down to - 25 °C

IMPORTANT INFORMATION

- Do not apply pressure exceed the max operating pressure.
- Do not press and hold the Test Buttom.
- Do not install the products in dangerous (explosive) areas.
- Shut the condensate feed line and discharge pressure from the system before installing or maintainance.
- Always use materials and components suitable for safety srandard.
- Always use standard tools.
- Fit an automatic temperature control device (heater) (option) when the Product is installed in arears exposed to freezing.
- Electrical installation must be performed by qualified technician.
- The Drain is activated only when it is connected to power.
- Always use authentic components provided by **BECKDG** for replacement to be protected under warranty.

FUNCTION



The condensate flows through the feed line (1) into the Drain and accumulates in the housing (2).

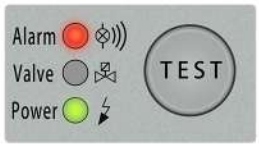
A capacitive sensor (3) continuously registers the liquid level and passes a signal to the electronic control as soon as the container is filled.

The pilot valve (4) is then activated and the diaphragm (5) opens the outlet line (6) for discharging the condensate.

When the container has been emptied, the outlet line is closed again quickly and tightly without compressed air loss.

• Ready for operation Voltage is being applied

• Discharge procedure Outlet line is open



• Malfunction Alarm mode is activated

• Test Manual drainage/alarm

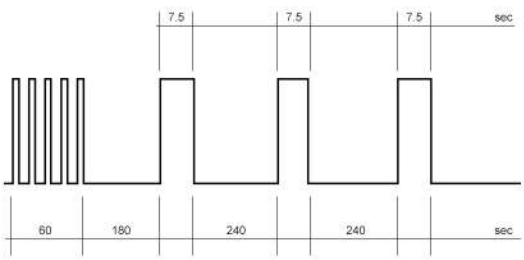
The test button is used for checking correct functioning.

Pressing	Effect
Short	Manual drainage
> 1 min	Alarm mode

When the microcontroller registers a malfunction, the device will automatically change to the alarm mode. The switching sequence of the valve (see illustration) continues until the fault is cleared (automatically or through maintenance). The red LED flashes as long as the device is in the alarm mode.

Malfunctioning could be caused in the following cases:

- Mistakes during installation
- Dropping below the necessary minimum pressure
- Excessive condensate quantities (overloading)
- Blocked/shut off outlet line
- Extreme amount of dirt particles
- Frozen piping



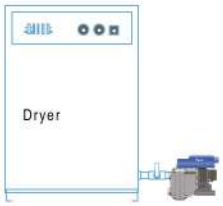
INSTALLATIOIN

Note:
Pressure Differences!

Each condensate source must be drained separately.

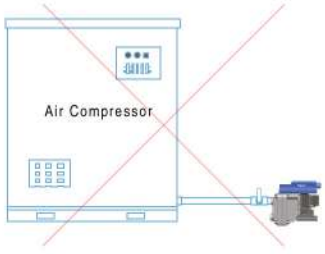
Note:
Deflector Area!

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



Note:
Continuous Slope!

It is important to avoid water pockets to ensure smooth feed.



Note:
Venting!

If with a long condensate feed line, it will be necessary to install a venting line.

Note:
Underpressure!

With a parallel piping to a tank, it will be necessary to install a venting line.

PRODUCT PICTURES

BK-LS50

BK-55

BK-80

BK-90

BK-350

BK-1500

BK-2500

Wearing Part Kits

MORE PRODUCTS

Float Controlled Zero Loss Drain

Pneumatic Auto Drain

Compact Timer Drain

Mechanical Condensate Drain

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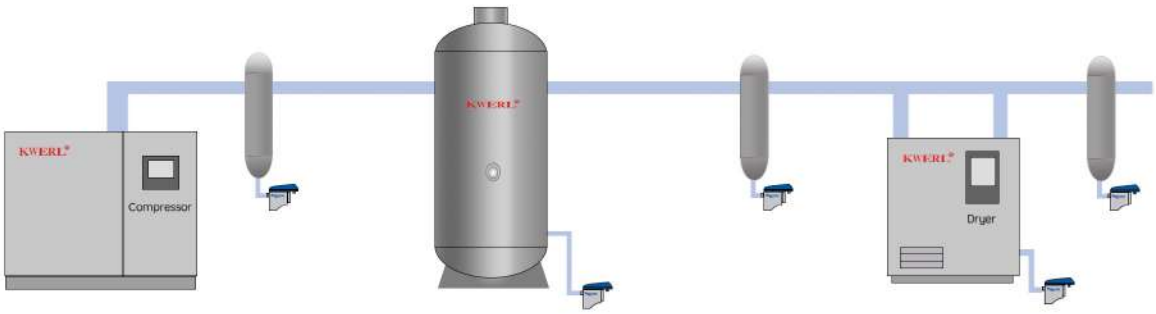

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