STERLING separation Hd

ZL1300 Series

Zero Loss electronic condensate drains

Instructions for installation & maintenance



STELSEP ZL1300 is manufactured in various specifications for use in different markets across the world. Please ensure you take account of local regulations while installing and using the auto-drain, and always check pressure and voltage options are correct for your application before selecting or using the product.



Functional description



ZL1300 should be connected to a condensate drainage point (1) so that its reservoir (2) will collect condensate. Upon reaching a pre-determined level, the condensate triggers a capacitive (non-contact) sensor (3) that starts the drain sequence. The control PCB causes an electrical signal to operate the pilot valve (4), allowing system air pressure to lift the main valve diaphragm (5) from its seat for condensate discharge. As the reservoir level reduces, a second sensor triggers the control PCB, allowing system pressure to be re-applied above the main diaphragm causing it to shut off flow and preventing system air from being discharged to atmosphere through the condensate line. A strainer (7) is fitted in the outlet line to protect the main valve seat from damaging debris.

Installation pointers

Inlet pipe must slope down to ZL1300. Water traps (low spots) must be avoided to prevent air-locks which will prevent ZL1300 from working



When the ZL1300 is collecting condensate, any air displaced by the rising liquid level has to be able to return to the air system. Normally it will travel along the inlet pipe above the condensate flow. If the lower inlet is used, or there is a low spot in the pipe, collected liquid will block By default connect to the upper inlet. If lower inlet must be used to maintain slope, take a 'balancing line' to a suitable connecting point in the airline



the airflow. This is true of all such drains, and does not waste air as it remains a closed system.

If the inlet connection is near vertical, flexible tube can be used, provided it is well supported and low spots do not prevent the necessary air displacement.

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Electrical Installation

Please check the supply voltage before starting, and carry out any work in accordance with your appropriate regulations.

Remove cover (4 screws). Bring power cables through the cable glands and lid apertures and connect to marked terminals L,N,PE. on the central terminal block.

If potential-free remote alarm contacts are being used, connect cable through glands and lid aperture as above, and connect across N/O or N/C terminal pairs as indicated on the board graphics on the right hand side terminal block (as viewed from the cable entry side

Refit lid & tighten screws sufficiently to ensure a good seal

Maintenance

ZL1300 is a high quality product that is designed and engineered to give good service over an extended period of time.

However, it operates in an environment that is prone to contamination by rust and other debris including sticky oil deposits.

Therefore, at least annually it should be removed for cleaning and inspection/replacement of the wearing parts - especially the diaphragm.

Functional tests & diagnostics

- 1) **Condensate builds up, but no alarm shows.** Press 'TEST'. If ZL1300 operates repeatedly until build-up is cleared, but then build-up occurs again, there is an air lock in the inlet pipe. Check installation parameters.
- 2) Compressed air passes through ZL1300. Clean the valve seat and check/replace diaphragm
- 3) **Condensate isn't cleared, briefly pressing 'TEST' produces only a single operation**. The capacitive sensor may be thickly coated in oil/debris. Strip and clean the sensor cover in side the reservoir

Specifications

Model	Capacity	Pressure	Port size	Seal Material	Body	Voltage options	Weight	Operating ambient	Alarm fa- cility
ZL1300	Compressor 1300cfm (35m ³ /min)		1/2" BSP	NBR	ium ated	230VAC or 110VAC	2.0Kg	1C to +60C	Local on drain
ZL1300 RA	Dryer 2600cfm (70m ³ /min)	1-16 bar	1/2" BSP		Alumin hard co		4.4 lb	34F to 140F	local & con- tact for re- mote

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manufacturer & supplier of condensate management and air treatment products