

High Sensitive Altitude ACV - E3127-00 / E4127-00



This valve is a globe pattern hydraulically operated automatic valve that maintains the constant level of a reservoir and water tower, regardless of upstream pressure variations.

The modulating control ensures a smooth regulation and absence of water hammer, as the valve will react proportionally to the variations in demand.

Normally equipped with visual position indicator, and entirely made in ductile cast iron with FBT epoxy coating and stainless steel, the valve is designed to reduce head loss, throttling noise and cavitation damage.

Flange drilling according to EN 1092/2, different on request.

Certification and testing according to EN 1074.

Version	DN (mm)	PN 10		PN 16	
		Mass (kg)	References	Mass (kg)	References
E3127-00	80	27.00	E32A8016P00	27.00	E32A8016P00
E3127-00	100	34.00	E32B1016P00	34.00	E32B1016P00
E3127-00	125	50.00	E32B1216P00	50.00	E32B1216P00
E3127-00	150	101.00	E32B1516P00	101.00	E32B1516P00
E3127-00	200	153.00	E32B2010P00	153.00	E32B2016P00
E3127-00	250	283.00	E32B2510P00	283.00	E32B2516P00
E3127-00	300	463.00	E32B3010P20	463.00	E32B3016P00
E3127-00	400	859.00	E32B4010P00	859.00	E32B4016P00
E3127-00	500	862.00	E32B5010P00	862.00	E32B5016P00
E3127-00	600	1002.00	E32B6010P00	1002.00	E32B6016P00

		PN 10		PN 16	
Version	DN (mm)	Mass (kg)	References	Mass (kg)	References
E4127-00	40/50	21.00	E42A5016P00	21.00	E42A5016P00
E4127-00	65	23.00	E42A6516P00	23.00	E42A6516P00
E4127-00	80	28.00	E42A8016P00	28.00	E42A8016P00
E4127-00	100	42.00	E42B1016P00	42.00	E42B1016P00
E4127-00	150	86.00	E42B1516P00	86.00	E42B1516P00
E4127-00	200	140.00	E42B2010P00	140.00	E42B2016P00
E4127-00	250	249.00	E42B2510P00	249.00	E42B2516P00
E4127-00	300	423.00	E42B3010P00	423.00	E42B3016P00
E4127-00	400	784.00	E42B4010P00	784.00	E42B4016P00
E4127-00	600	2250.00	E42B6010P00	2250.00	E42B6016P00

Applications

- To perform the level control of elevated tanks and water towers.
- Through the high sensitivity pilot to control the water level, without accessing the tank and the need of any piping and pilots.
- On the tank and reservoirs outlet supply lines to control the consumption by means of the storage static pressure.

Accessories

- Linear position transmitter with 4-20 mA output.
- On-off position transmitter.
- Pressure measurement kit.
- Self-flushing and high capacity filter.

Notes for engineer

- Inlet pressure, outlet pressure, flow rate and application are required for the proper sizing and cavitation analysis.
- For the proper functioning a minimum of 0,25 bar static value acting on the pilot is needed. Consider the use of a sustaining pilot for low pressure conditions and/or the CSFL mechanical flow regulator.

Additional features

- FR altitude automatic control valve with back-flow prevention.
- Upstream pressure sustaining and altitude control valve.
- -5 altitude automatic control valve with on-off solenoid control.
- The valve can be supplied without the regulation device on request.

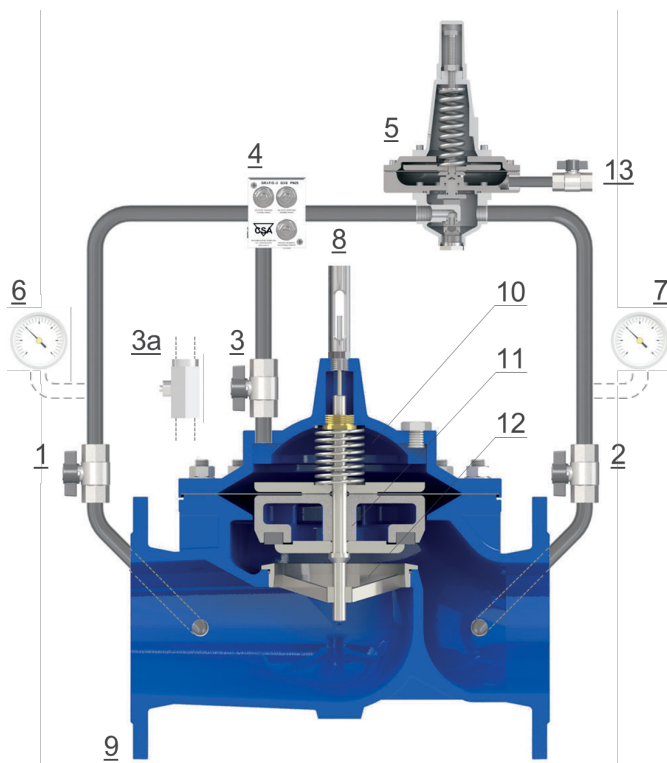
Operating conditions

- Fluid: treated water.
- Min. operating pressure on the valve: 0,7 bar.
- Minimum static pressure on the pilot: 0,25 bar.
- Max. operating press.: 16 bar.
- Recommended working pressure: 6 bar. Higher on request..
- Maximum temperature: 70°C.

Level pilot adjustment

- Blue spring: 0.3 to 1.8 bar.
- Red spring: 0.6 to 2.8 bar.
- Different values on request.

Operation



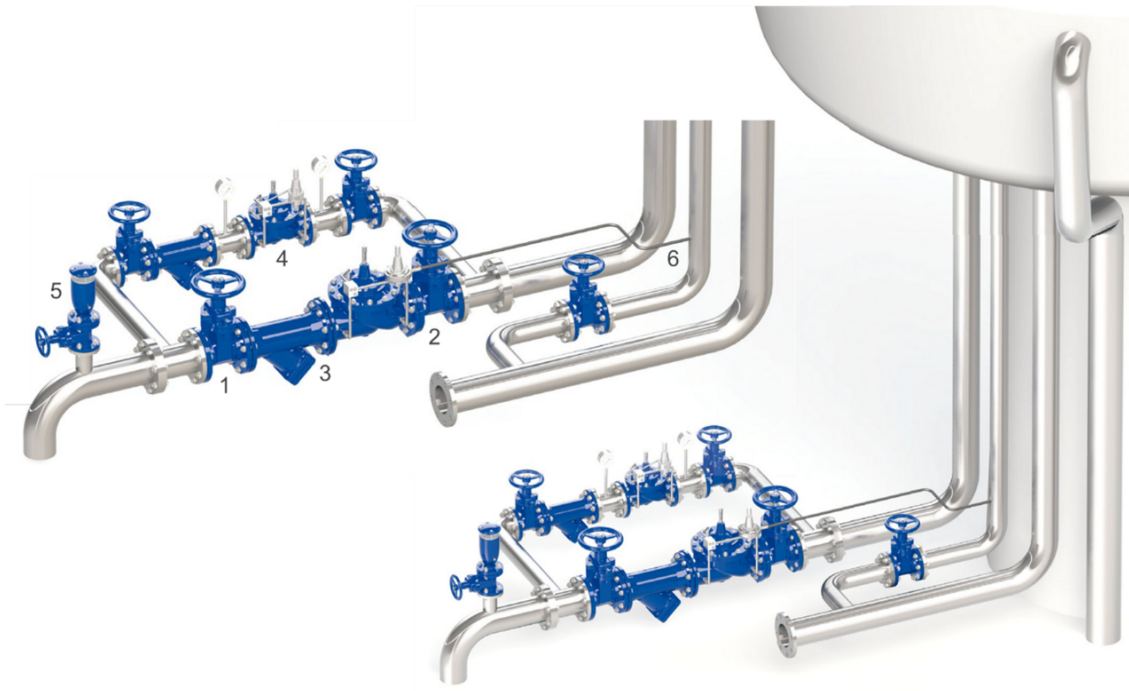
The E3127-00 valve is operated by a 2 ways high sensitivity pilot (5) sensing the static pressure of the level in need of regulation through the port (13).

Should the latter drop due to consumption, the pilot (5) will open proportionally, relieving pressure out of the main chamber (10) thus lifting the obturator upwards (11) to generate flow through the seat and refill the storage.

When the water level rises the pilot (5) will modulate throttling the flow through the circuit and diverting pressure back to the chamber (10), pushing the obturator downwards, and eventually closing the valve once the level has reached maximum set-point.

Pressure in and out of the main chamber (10) is controlled by the regulation device with filter (4), needed for the valve's response time and accuracy.

Installation diagram



Level control is obtained without any external piping and simply through a pilot sensing the static pressure coming from the water tower.

The lay-out includes sectioning devices (1, 2) and by-pass, where automatic control valves (4) are advised, for maintenance operations, and a filter (3) to prevent dirt from entering the main valve.

Anti-surge combination air valves FBA (5) are recommended upstream to release air pockets accumulated in working conditions, and to discharge large volumes of air during filling.

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