

Constant level control E3110-10 / E4110-10



The automatic valve E3110-10 / E4110-10, thanks to the stainless steel proportional pilot, maintains the level of a tank constant accumulation, regardless of the variations in the flow rate and upstream pressure.

The needle valve, positioned on the chamber, allows the adjustment of the response time of the valve, in order to avoid shock phenomena of aries in the closing phase.

Made with stainless steel and ductile iron coated with epoxy paint with FBT technique (fluid bed technology), the valve has been designed to reduce pressure drops, vibrations and damages related to cavitation phenomenon.

		PN 10		PN 16	
Version	DN (mm)	Mass (kg)	References	Mass (kg)	References
E3110-10	80	25.00	E30A8016P10	25.00	E30A8016P10
E3110-10	100	32.00	E30B1016P10	32.00	E30B1016P10
E3110-10	125	47.00	E30B1216P10	47.00	E30B1216P10
E3110-10	150	54.00	E30B1516P10	54.00	E30B1516P10
E3110-10	200	97.00	E30B2010P10	97.00	E30B2016P10
E3110-10	250	172.00	E30B2510P10	172.00	E30B2516P10
E3110-10	300	287.00	E30B3010P10	287.00	E30B3016P10
E3110-10	400	496.00	E30B4010P10	496.00	E30B4016P10
E3110-10	500	862.00	E30B5010P10	862.00	E30B5016P10
E3110-10	600	1002.00	E30B6010P10	1002.00	E30B6016P10

		PN 10		PN 16	
Version	DN (mm)	Mass (kg)	References	Mass (kg)	References
E4110-10	40/50	19.00	E40A5016P10	19.00	E40A5016P10
E4110-10	65	21.00	E40A6516P10	21.00	E40A6516P10
E4110-10	80	26.00	E40A8016P10	26.00	E40A8016P10
E4110-10	100	39.00	E40B1016P10	39.00	E40B1016P10
E4110-10	150	84.00	E40B1516P10	84.00	E40B1516P10
E4110-10	200	138.00	E40B2010P10	138.00	E40B2016P10
E4110-10	250	247.00	E40B2510P10	247.00	E40B2516P10
E4110-10	300	421.00	E40B3010P10	421.00	E40B3016P10
E4110-10	400	784.00	E40B4010P10	784.00	E40B4016P10
E4110-10	600	2250.00	E40B6010P10	2250.00	E40B6016P10

Applications

- In break-section tanks and in pipelines gravity when control is necessary proportional level, within the limits of pilot adjustment.
- For checking the level in tanks and where it is it is necessary to keep the level constant with a continuous modulation.

Accessories

- Open-close indicator.
- Manometers.
- Self-cleaning high-capacity filter.
- Modulation systems for accurate regulation with low flow rates and high-pressure differentials.
- Manual opening limiter.

Notes for the designer

- Avoid high points in the pipes connecting the valve to the pilot in order to prevent the formation of air pockets.
- For correct functioning it is necessary a minimum pressure of 0.6 bar on the pilot; Lower values may cause malfunctions. In this case, consider using a low flow support pilot and the manual opening limiter.

Optional configurations

- Constant level control valve with anti-backflow system.
- Level control valve constant with rapid overflow pilot.

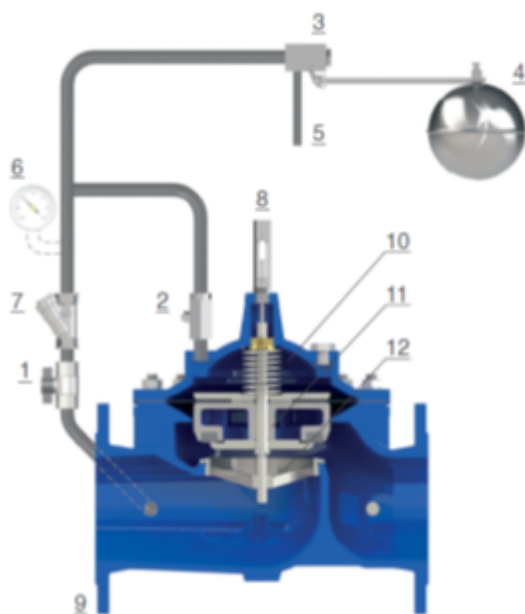
Operating conditions

- Fluid: treated water.
- Minimum pressure: 0.6 bar on the pilot.
- Maximum pressure: 16 bar.
- Recommended operating pressure: 6 bar.
- Superior on request.
- Maximum temperature: 70 °C.

Constant level pilot adjustment

- Standard stroke 85 mm; different on request.

Operation (for DN 150-600)



The E3110-14 / E4110-14 valve is regulated by a two-way proportional level control pilot (3), stainless steel, connected to the valve by a tube with an internal diameter of at least 9 mm (not supplied).

When the tank level drops, the pilot (3) opens proportionally, discharging outside (5) pressure from the valve chamber (10).

The consequent rise of the shutter (11) generates a flow through the seat (12). If instead the level of the tank rises, the pilot (3) modulates in closing; reducing the discharge into the atmosphere (5) the pressure in chamber (10) increases, resulting in descent of the shutter (11) towards the seat (12), and decreased flow through the valve.

A fixed orifice is inserted in the filter (7) which is necessary for circuit operation.

The needle valve (2) also regulates the flow in and out of the chamber (10), to prevent pressure surges during closing.

Installation diagram



In the installation diagram of the, connected to the pilot (2) by means of a single pipe, sectioning devices (1) are recommended to allow maintenance and a filter (3), upstream, to prevent the entry of impurities into the main valve. The pilot must be placed in a position protected from turbulence caused by the flow feeding the tank. In case of static pressure higher than 6 bar, an anti-cavitation system and a direct-acting pressure reducer are recommended.

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