

Excess Flow rate Cut-off - E3117-00 / E4117-00



The automatic valve is equipped with a highly sensitive pilot that, when the flow rate exceeds a set (adjustable) value, directs the upstream pressure into the valve control chamber causing it to close.

Reopening must be done manually.

If the flow rate remains below the set value, the valve remains fully open, with minimal pressure drops. Equipped with a visual position indicator in the standard version and made entirely of stainless steel and ductile iron coated with epoxy paint using a fluidized bed technique, the valve reduces pressure drops, vibrations and damage related to cavitation.

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
E3117-00	80	28.00	E37A8016P00	28.00	E37A8016P00
E3117-00	100	35.00	E37B1016P00	35.00	E37B1016P00
E3117-00	125	51.00	E37B1216P00	51.00	E37B1216P00
E3117-00	150	58.00	E37B1516P00	58.00	E37B1516P00
E3117-00	200	100.00	E37B2010P00	100.00	E37B2016P00
E3117-00	250	174.00	E37B2510P00	174.00	E37B2516P00
E3117-00	300	290.00	E37B3010P00	290.00	E37B3016P00
E3117-00	400	499.00	E37B4010P00	499.00	E37B4016P00
E3117-00	500	862.00	E37B5010P00	862.00	E37B5016P00
E3117-00	600	1002.00	E37B6010P00	1002.00	E37B6016P00

		PN 10		PN 16	
Version	DN (mm)	Mass (kg)	References	Mass (kg)	References
E4117-00	40/50	22.00	E47A5016P00	22.00	E47A5016P00
E4117-00	65	23.00	E47A6516P00	23.00	E47A6516P00
E4117-00	80	28.00	E47A8016P00	28.00	E47A8016P00
E4117-00	100	42.00	E47B1016P00	42.00	E47B1016P00
E4117-00	150	86.00	E47B1516P00	86.00	E47B1516P00
E4117-00	200	140.00	E47B2016P00	140.00	E47B2016P00
E4117-00	250	250.00	E47B2516P00	250.00	E47B2516P00
E4117-00	300	423.00	E47B3016P00	423.00	E47B3016P00
E4117-00	400	786.00	E47B4016P00	786.00	E47B4016P00
E4117-00	600	2252.00	E47B6016P00	2252.00	E47B6016P00

Applications

- In gravity pipelines to prevent depressurization of the system in the event of pump failure or pipe breakage.
- At the outlet of tanks and piezometric towers to interrupt the flow in the event of pump blockage and prevent the level from falling below a minimum value.
- In pipelines and distribution networks to interrupt the flow in the event of extreme events such as earthquakes.

Accessories

- Position indicator with 4-20 mA output.
- Opening/closing indicator.
- Manometers.
- Self-cleaning high capacity filter.

Directions for use

- Inlet and outlet pressure, flow rate and application are required for cavitation sizing and analysis.
- It is recommended to leave a section of pipe 3 diameters long upstream and downstream of the valve.

Optional configurations

- Excess flow shut-off valve with anti-backflow system.
- Excess flow shut-off valve with solenoid control valve.

Operating conditions

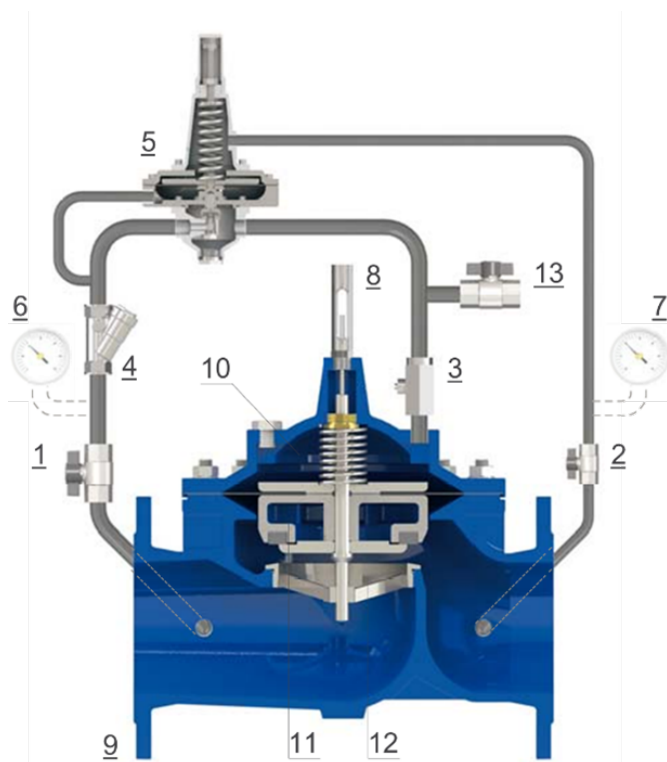
- Fluid: treated water.

- Minimum pressure: 1,5 bar.
- Maximum pressure: 16 bar.
- Recommended operating pressure: 16 bar. Higher on request.
- Maximum temperature: 70 °C.

Flow pilot adjustment range

- The pilot is set to the required flow rate value . It is possible to vary the adjustment based on the table supplied with the valve.

How it works



The hydraulic valve is controlled by an adjustable high sensitivity two-way pilot (5), which senses the pressure drop across the valve as a function of the flow rate.

When the flow rate exceeds the maximum value established,

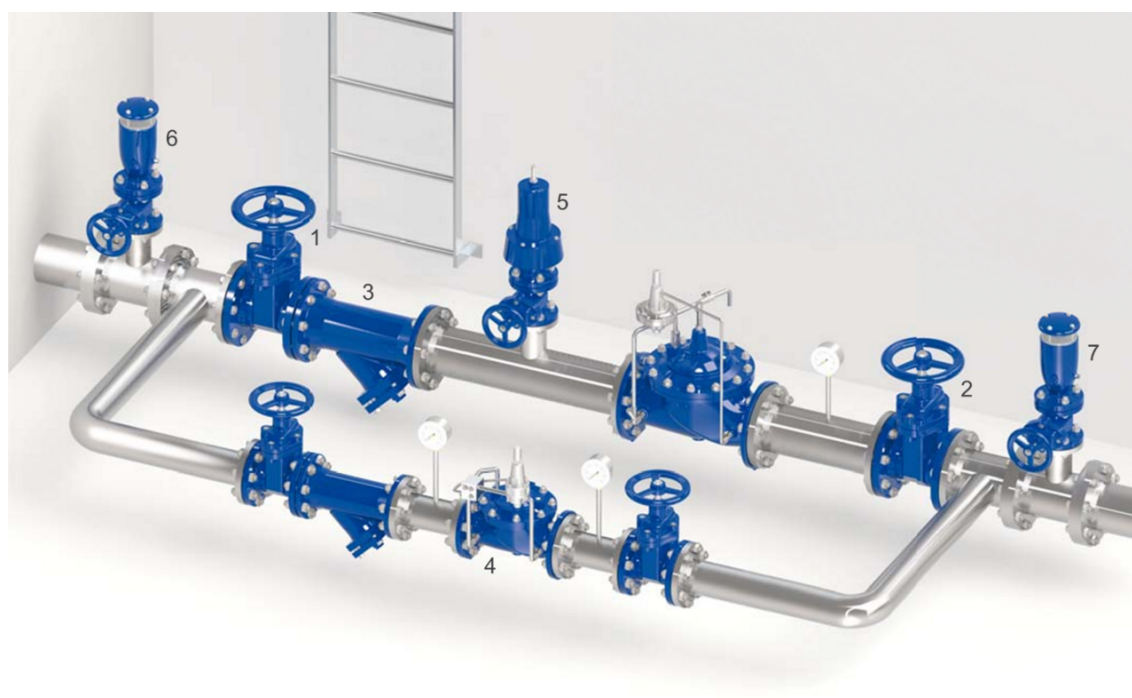
The differential of pressure increases and the pilot (5) opens. The pressure in the valve chamber (10) then reaches the level of the upstream one, with consequent closure of the shutter (11) on the site Of estate (12).

If there flow rate stay to the of below the calibration value the valve remains completely open.

Once the valve is closed it is necessary to reopen it manually, discharging water out of the circuit by means of the ball valve 13.

The flow into and out of the main chamber (10) and checked from the valve to pin (3), while a filter (4) prevents the entrance of debris and dirt in the circuit.

Installation diagram



The operation of the hydraulic valve, in certain conditions, can cause phenomena of uneven motion with pressure changes, for which it is necessary to insert rapid relief valves (5) upstream.

The installation diagram also includes support valves (4) on the bypass for maintenance, as well as anti-water hammer vents (6, 7) to allow degassing during operation and the entry and exit of air during emptying and filling of the pipeline.

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