

Automatic control valves series EU100



Main features

The automatic control valves of the EU100 series are designed to control water flow in water networks. The valves consist of a two-way main valve body and a hydraulic control circuit. The valve is actuated by the same hydraulic energy as the fluid, with consequent guarantee of independence and reliability of the equipment.

The various solutions proposed for the pilot system mean that the valve can be used for performing widely differing functions and applications.

**MODELS, cast iron construction:
DN 50-600 (PN 10-16)**

Versions with **needle valves** (standard)

Versions with **control unit EU900**
(basic valve EU100 + UR)

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INDUSTRIES

A Division of Watts Water Technologies Inc.



Automatic control valves of **series EU100** find application in flow control of water in water pipelines such as in waterworks, irrigation, fire-fighting as well as in residential and industrial systems. The valve consists of the two-way globe valve body (**Fig. 1**) with diaphragm plug and a hydraulic control circuit. This single valve body, which forms the basis of all the **EU100**, versions, equipped with one or more pilot systems, can be used in widely differing applications. In most cases, certain functions can be added to the system without removing the valve from the line.

Both the main and pilot valves are actuated by the hydraulic energy of the fluid thus ensuring independence and reliability of the equipment.

Thanks to the variety of functions, the valve covers a very wide range of applications and constitutes a very complete and reliable product line:

- Reduction and stabilization of downstream pressure
- Sustaining of upstream pressure
- Level control
- Flow control
- Flow shut-off

Main applications

- EU115 Reduction and stabilization of downstream pressure
- EU116 Sustaining of upstream pressure
- EU114 Flow control
- EU127 Piezometric level control
- EU110-14 Float level control
- EU110-10 Float level control but with overflow function
- EU113 Flow shut-off with electric remote control

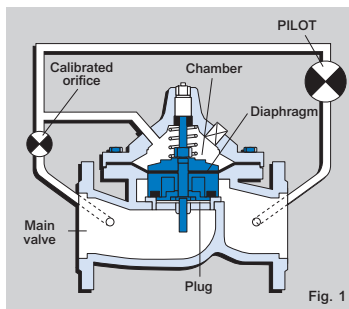
The more highly advanced models are equipped with a central control unit (**EU900**) of stainless steel construction, which allows the control action to be carried out in the required way by setting both opening and closing speeds, and the gradient of reaction to the deviations.

Instead the pilot devices determine the type of function and allow fixing the set-point of the parameter under control.

Principle of operation

The hydraulic control circuit, through which a small quantity of fluid flows, places the following into communication with each other :

- upstream port with pressure generally higher
- downstream port with pressure generally lower
- port of the control chamber with controlled intermediate pressure



An adjustable restrictor is installed on the outlet of the upstream port, and before communication with the control chamber; the pilot device is installed at the inlet of the downstream port; this pilot device determines the type of function and allows fixing the set-point of the parameter under control.

The plug, actuated by the energy supplied by the fluid under control through a diaphragm placed between the valve body and bonnet to form a control chamber, serves for regulating the section of flow through the valve body (Fig. 2-3-4). All valves are provided with a visual indicator of the plug stem position.

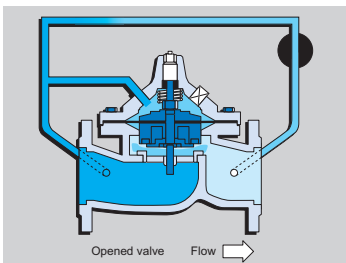


Fig. 2 : Opening
The valve is fully open when there is no pressure in the main chamber.

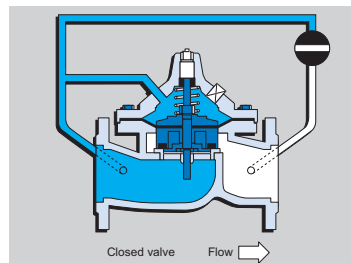


Fig. 3 : Closing
The valve is closed when pressure is applied to the chamber above the diaphragm.

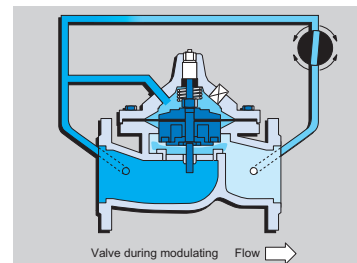
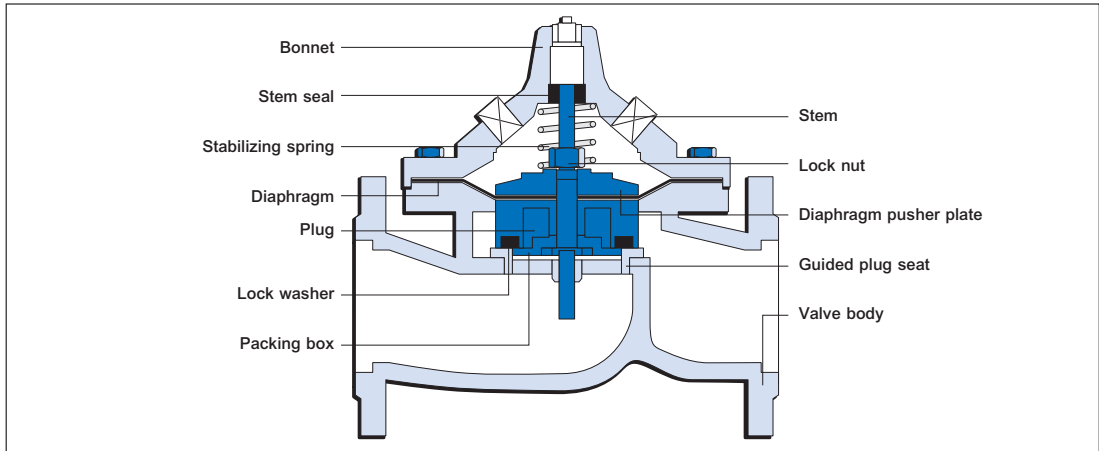


Fig. 4 : Control
Control can be obtained by installing a control system on the basic valve body, thus creating a pressure which controls valve opening.

Design features common to all models (EU100)
Main valve

Mechanical properties

Body and bonnet	Spheroidal cast iron GGG40 with internal/external epoxy finish (min. thickness 150 microns)
Bonnet bushing	Self-lubricating sintered bronze
Trim	Steel AISI (316, 303, 302)
Seat O-ring	NBR nitrile rubber
Diaphragm	BUNA-N- nitrile rubber 70° shore reinforced with nylon FDA compliant, European approvals DN 50 - 150 single sheet 1,3 mm thick DN 200 - 600 double sheet 3,2 mm thick

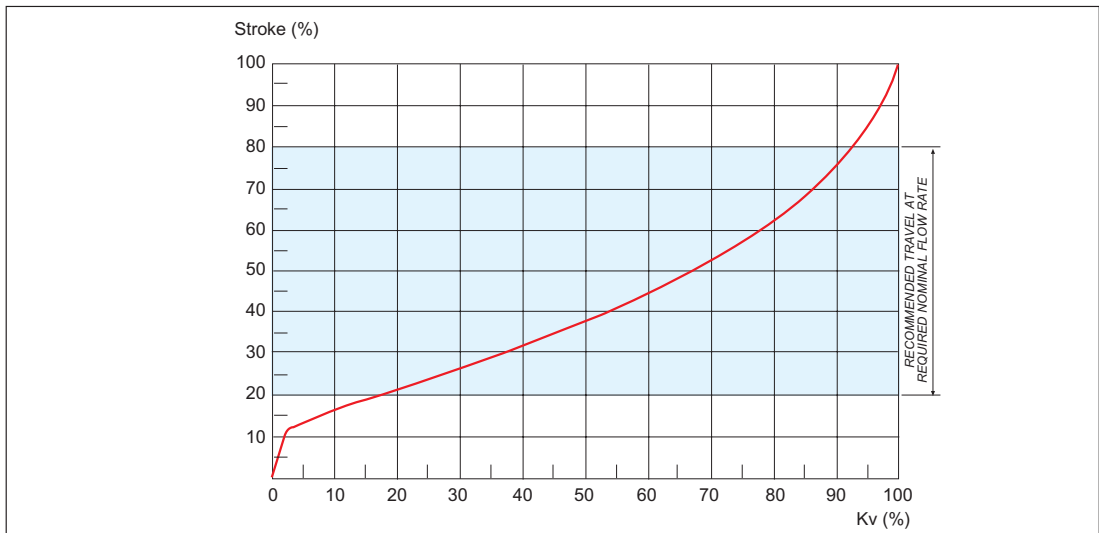
Conformity with standards

Face-to-face dimensions	ISO 5752 series 1 - DIN 3202 series F1 - NFE 29305 series 1
Flanging	ISO7005-2, PN 10, PN16
Standard testing	ISO 5208, NFE 29311
Testing on open valve (body and bonnet)	40 bar
Testing of plug (hydraulic seal)	28 bar

Hydraulic characteristics

DN	50	65	80	100	125	150	200	250	300	350	400	500	600
Kv	47	52	58	120	215	228	456	847	1370	1450	1767	2480	3205
Stroke (mm)	14	14	14	21	28	29	43	57	71	73	85	100	114
Chamber volume (l)	0.1	0.1	0.1	0.3	0.6	0.7	2.0	4.7	9.5	9.8	15.1	24.6	35.9

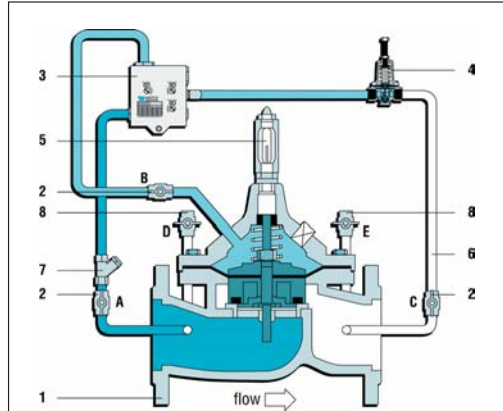
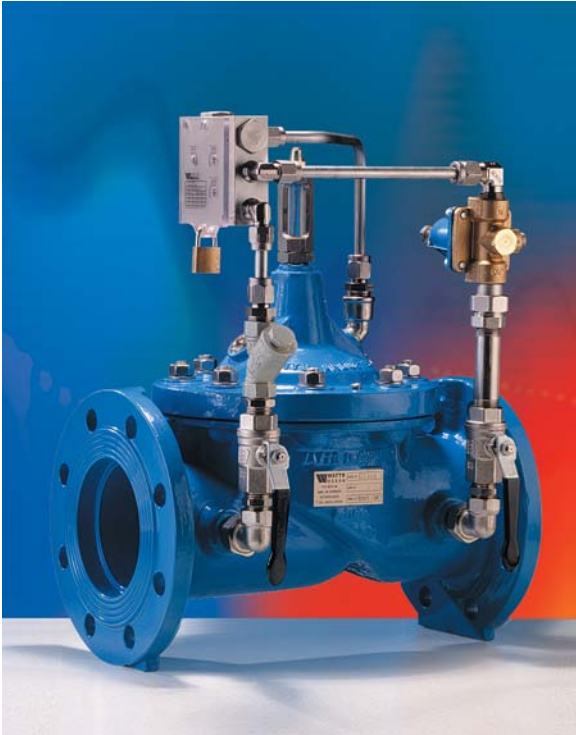
Volumetric coefficient kv represents the flow rate in m³/h at 20 °C causing a pressure drop of 1,0 bar in the fully open valve using water as fluid at 15°C.

Valve plug stroke/Kv chart


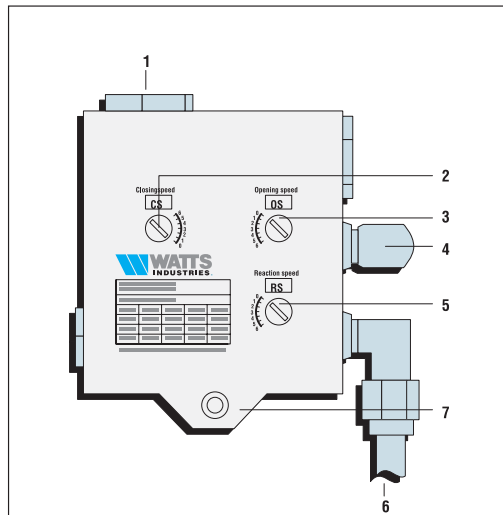
EU100-UR

Models with central control unit (**EU900**)

The more advanced models are equipped with a central control unit (EU900), of AISI 303 stainless steel construction, which allows the control action to be carried out as required by setting both the flow opening and closing speed as well as the gradient of reaction to the deviations.



- 1 Valve body
- 2A-B-C Ball valve 3/8" (DN 50-80) - 1/2" (DN 100-600)
- 3 Control unit EU900 of AISI 303 stainless steel construction
- 4 Pilot (bronze ASTM B62/stainless steel AISI 303 or 316/nickel-plated brass)
- 5 Position indicator
- 6 Pilot circuit pipes and fittings, nickel-plated brass/stainless steel AISI 303 or 316
- 7 Y-strainer seat (DN 3/8-1/2")
- 8D-8E Piezometric ports with ball valve (DN 3/8-1/2")



- EU900**
- 1 Outlet connection towards control chamber
 - 2 Setting, closing speed
 - 3 Setting, opening speed
 - 4 Outlet connection towards pilot
 - 5 Setting of gradient of reaction to deviations
 - 6 Inlet connection for upstream port
 - 7 Positioning of plate padlock

Table for sizing

To ensure correct valve sizing and to avoid undesirable operating behaviour (noise, excessive wear, poor adjustment) as a result of under or over-sizing, use the table given below, based on the flow rate in m/s in the valve inlet section.

DN	Minimum (*)				Max. Recommended		Permanent maximum		Intermittent maximum	
	$\Delta P \leq 2,5 \text{ bar}$		$\Delta P > 2,5 \text{ bar}$		$V = 2,3 \text{ m/s}$		$V = 3,4 \text{ m/s}$		$V = 4,3 \text{ m/s}$	
	l/s	m ³ /h	l/s	m ³ /h	l/s	m ³ /h	l/s	m ³ /h	l/s	m ³ /h
50	0.35	1.25	1.07	3.85	4	15	7	25	8	29
65	0.35	1.25	1.07	3.85	8	28	11	40	14	50
80	0.35	1.25	1.07	3.85	12	43	17	61	22	79
100	0.35	1.25	1.07	3.85	18	65	27	97	34	122
125	0.83	3.0	2.56	9.20	28	101	42	151	53	191
150	0.83	3.0	2.56	9.20	41	148	60	216	76	274
200	1.63	5.85	5.00	18.00	72	259	107	385	135	486
250	2.56	9.20	7.85	28.25	113	407	167	601	211	760
300	3.75	13.50	11.53	41.50	162	583	240	864	304	1094
350	3.75	13.50	11.53	41.50	221	796	327	1177	413	1487
400	5.28	19.00	16.25	58.50	289	1040	427	1537	540	1944
500	7.36	26.50	22.64	81.50	451	1624	667	2401	844	3038
600	10.00	36.00	30.70	110.50	650	2340	961	3460	1215	4374
	Distribution						Irrigation		Fire-fighting	

(*) If the valve works permanently with minimum flow, please consult Watts Industries

Alternatively it is possible to use the relationship binding flow rate, pressure drop and Kv valid only for water at 15°C with volumetric mass $\rho = 1000 \text{ kg/m}^3$

$$Kv = \frac{Q}{\sqrt{\Delta p}}$$

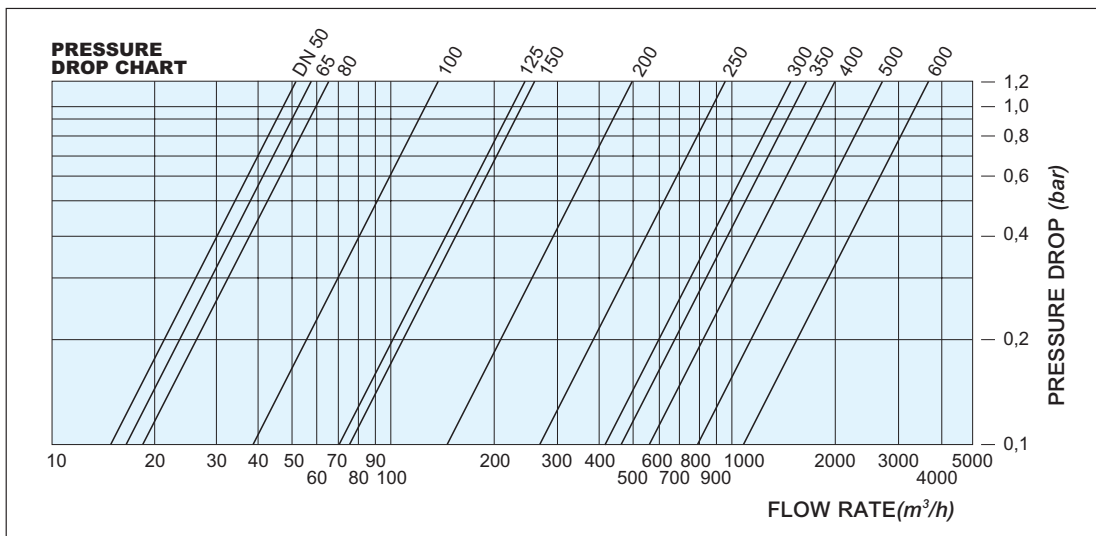
Q = valve flow rate (max. value) in m³/h

Δp = minimum pressure drop available for the valve (bar)

Kv = theoretical flow coefficient of the valve to be sized

To ensure a minimum reserve in valve operation, the following inequality should be observed : $1.25 Kv \leq Kvs$.

Determination of pressure drops



Alternatively use the inverse of the previous relationship, i.e. : $\Delta P = \left(\frac{Q}{Kv}\right)^2$

Cavitation chart

An excessively high pressure differential could cause deterioration of the valve by cavitation.

To avoid this, refer to the cavitation chart which has been calculated according to the following data:

- pressure of saturated vapour at 10°C = 0,0122 bar
- cavitation index (σ) measured using the formula:

$$P2 \geq 0,286 \times P1 - 0,715 \text{ [bar]}$$

where :

- P1 (bar) = max. inlet pressure into the valve
- P2 (bar) = min. outlet pressure from the valve without risk of cavitation

From the chart, by joining points P1 and P2 it can be seen whether the valve works in

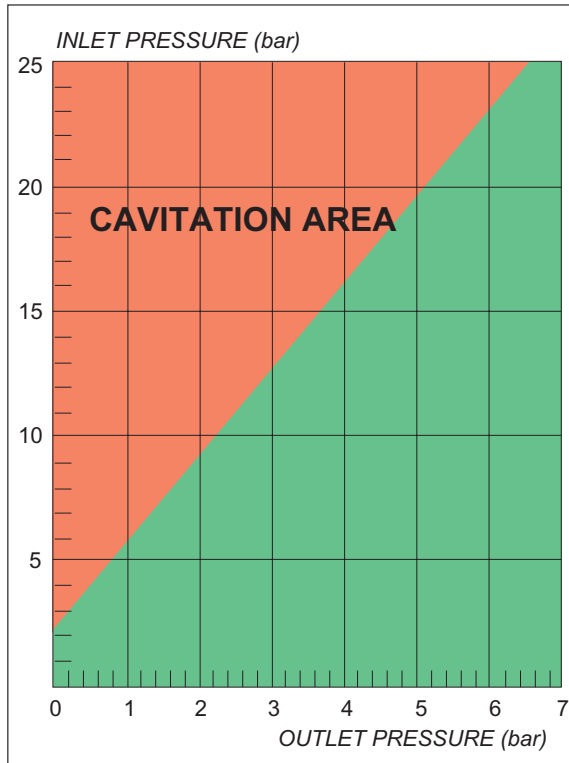
Green area no risk of cavitation or damage

Red area possible cavitation and risk of rapid damage to the valve

If necessary, reduce the pressure differential with two or more valves in series.

Example :

- Stabilize a downstream pressure of 5 bar with an upstream pressure of 9 bar. The intersection of the straight lines plotted, starting from the values indicated, lies in the green area where there is no cavitation. In this case the use of just one valve is sufficient.
- Stabilize a downstream pressure of 3 bar with an upstream pressure of 16 bar. The intersection of the straight lines plotted, starting from the values indicated, lies in the red area where there is cavitation. It is necessary to reduce the pressure by using two valves, the first valve reduces from 16 to 5 bar, while the second from 5 to 3 bar.



Operational limits

Max. fluid velocity (measured at inlet section)

Basic valve EU100 (control chamber connected to valve outlet)

- Continuous maximum 3.4 m/s
- Intermittent maximum 4.3 m/s average (for higher velocities, please contact Watts Industries)

Minimum average differential pressure required to open the valve

Basic valve EU100 (control chamber connected to valve outlet)

- With standard spring 0.10 bar
- With reinforced spring 0.25 bar

Control valve

- With standard spring 0.25 bar (*)
- With reinforced spring 0.50 bar (*)

(*) If the main valve (DN 150 e oltre) is mounted in vertical position, it is advisable to change the standard spring with the reinforced one.

Caution : special installations could modify the data given above.

Operating temperature 2-70 °C



Adjustment range of the pilot device :

STANDARD : 1.4 - 12 bar

ON REQUEST :

0.1 - 2.0 bar

7.0 - 21.0 (stainless steel pilot)

EU115

Reduction and stabilization of **downstream** pressure. Version with needle valves.

Automatic diaphragm valve with function of reducing and stabilizing the **downstream** pressure. The upstream pressure (higher) is converted, downstream, to a lower and constant level also in the presence of upstream overpressures and/or variations in the flow rate.

Type	Part number	DN	PN	Kvs
EU115	0527001	50	10/16	47
EU115	0527002	65	10/16	52
EU115	0527003	80	10/16	58
EU115	0527004	100	10/16	120
EU115	0527005	125	10/16	215
EU115	0527006	150	10/16	228
EU115	0527008	200	16	456
EU115	0527010	250	16	847
EU115	0527012	300	16	1370
EU115	0527014	350	16	1450
EU115	0527016	400	16	1767
EU115	0527018	500	16	2480
EU115	0527020	600	16	3205



EU115-UR

Version with control unit EU900.

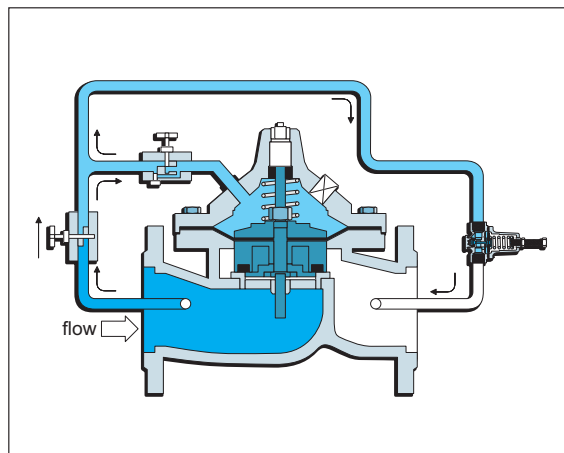
Type	Part number	DN	PN	Kvs
EU115-UR	0527050	50	10/16	47
EU115-UR	0527065	65	10/16	52
EU115-UR	0527080	80	10/16	58
EU115-UR	0527100	100	10/16	120
EU115-UR	0527125	125	10/16	215
EU115-UR	0527150	150	10/16	228
EU115-UR	0527200	200	10	456
EU115-UR	0527201	200	16	456
EU115-UR	0527250	250	10	847
EU115-UR	0527251	250	16	847
EU115-UR	0527300	300	10	1370
EU115-UR	0527301	300	16	1370
EU115-UR	0527350	350	10	1450
EU115-UR	0527351	350	16	1450
EU115-UR	0527400	400	10	1767
EU115-UR	0527401	400	16	1767
EU115-UR	0527500	500	10	2480
EU115-UR	0527501	500	16	2480
EU115-UR	0527600	600	10	3205
EU115-UR	0527601	600	16	3205

Application examples

- To reduce too high supply pressures in distribution networks
- To reduce the distribution pressure when the supply comes from a source situated at a relatively high level
- As emergency supply to hold the downstream network at a preset minimum pressure during periods of heavy consumption
- To reduce pressure in irrigation systems

Additional functions

On request the additional non-return function is available (EU115-3)





EU116

Sustaining of **upstream** pressure. Version with needle valves.

Automatic diaphragm valve with function of sustaining the **upstream** pressure at a constant and adjustable level. When the preset upstream pressure tends to fall, it is sustained by gradually reducing the flow rate; when, instead, the level of the upstream pressure tends to rise, it is limited by gradually increasing the flow rate at the outlet (**relief or overpressure function**).

Adjustment range of the pilot device :

STANDARD : 1.4 - 12 bar

ON REQUEST :

0.1 - 2.0 bar

7.0 - 21.0 (stainless steel pilot)

Type	Part number	DN	PN	Kvs
EU116	0528001	50	10/16	47
EU116	0528002	65	10/16	52
EU116	0528003	80	10/16	58
EU116	0528004	100	10/16	120
EU116	0528005	125	10/16	215
EU116	0528006	150	10/16	228
EU116	0528008	200	16	456
EU116	0528010	250	16	847
EU116	0528012	300	16	1370
EU116	0528014	350	16	1450
EU116	0528016	400	16	1767
EU116	0528018	500	16	2480
EU116	0528020	600	16	3205



EU116-UR

Version with control unit EU900.

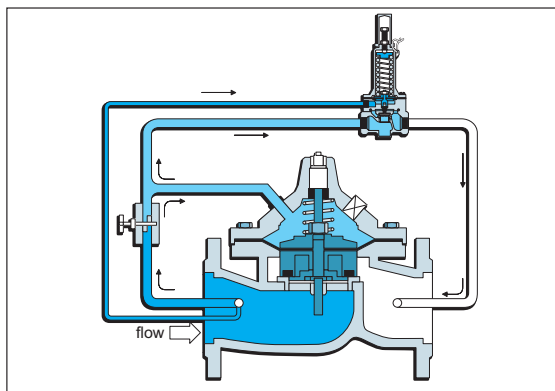
Type	Part number	DN	PN	Kvs
EU116-UR	0528050	50	10/16	47
EU116-UR	0528065	65	10/16	52
EU116-UR	0528080	80	10/16	58
EU116-UR	0528100	100	10/16	120
EU116-UR	0528125	125	10/16	215
EU116-UR	0528150	150	10/16	228
EU116-UR	0528200	200	10	456
EU116-UR	0528201	200	16	456
EU116-UR	0528250	250	10	847
EU116-UR	0528251	250	16	847
EU116-UR	0528300	300	10	1370
EU116-UR	0528301	300	16	1370
EU116-UR	0528350	350	10	1450
EU116-UR	0528351	350	16	1450
EU116-UR	0528400	400	10	1767
EU116-UR	0528401	400	16	1767
EU116-UR	0528500	500	10	2480
EU116-UR	0528501	500	16	2480
EU116-UR	0528600	600	10	3205
EU116-UR	0528601	600	16	3205

Application examples

- Protection against overpressures in distribution networks
- To sustain a preset minimum upstream pressure
- Filling of the tank by sustaining a preset minimum pressure in the supply pipe with or without distribution

Additional functions

On request the additional non-return function is available (EU116-3)





Adjustment range (standard) of the differential pressure of the pilot device : 0.2 - 1 bar

Flow rate range : see table below

EU114

Flow rate control. Version with needle valves.

Automatic diaphragm valve with function of controlling the flow rate of the fluid passing through the valve at a constant and adjustable level. Normally the max. acceptable tapping rate is preset. The flow rate is measured continuously by means of a calibrated diaphragm inserted in the flange before the valve without modifying the face-to-face dimensions of the valve. The valve is provided with two piezometric ports connected to the special pilot device which allows field setting of the valve through the use of a differential pressure gauge.

Type	Part number	DN	PN	Kvs
EU114	0526001	50	10/16	47
EU114	0526002	65	10/16	52
EU114	0526003	80	10/16	58
EU114	0526004	100	10/16	120
EU114	0526005	125	10/16	215
EU114	0526006	150	10/16	228
EU114	0526008	200	16	456
EU114	0526010	250	16	847
EU114	0526012	300	16	1370
EU114	0526014	350	16	1450
EU114	0526016	400	16	1767
EU114	0526018	500	16	2480
EU114	0526020	600	16	3205



EU114-UR

Version with control unit EU900.

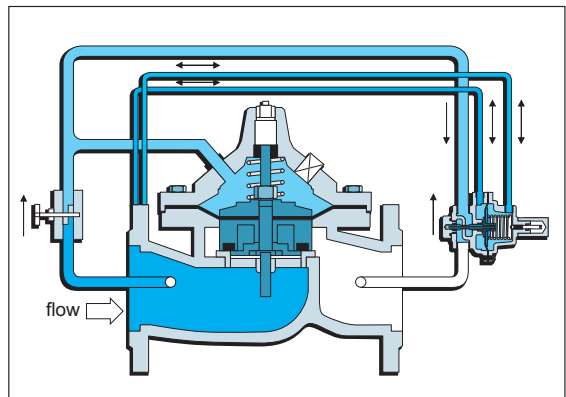
Type	Part number	DN	PN	Kvs
EU114-UR	0526050	50	10/16	47
EU114-UR	0526065	65	10/16	52
EU114-UR	0526080	80	10/16	58
EU114-UR	0526100	100	10/16	120
EU114-UR	0526125	125	10/16	215
EU114-UR	0526150	150	10/16	228
EU114-UR	0526200	200	10	456
EU114-UR	0526201	200	16	456
EU114-UR	0526250	250	10	847
EU114-UR	0526251	250	16	847
EU114-UR	0526300	300	10	1370
EU114-UR	0526301	300	16	1370
EU114-UR	0526350	350	10	1450
EU114-UR	0526351	350	16	1450
EU114-UR	0526400	400	10	1767
EU114-UR	0526401	400	16	1767
EU114-UR	0526500	500	10	2480
EU114-UR	0526501	500	16	2480
EU114-UR	0526600	600	10	3205
EU114-UR	0526601	600	16	3205

DN	50	60	80	100	125	150	200
Flow rate	4-10	12-37	10-25	30-45	35-120	35-120	110-280
(m ³ /h)	10-25	15-45	20-40	30-80	60-200		
	25-35	30-50					
	35-55						
	45-75						

Other models on request

Application examples

- Limitation of max. flow rate of a pump (protection of the overpressure pump from a surge in upstream pressure; protection of a submersible pump and water well equipment from a surge in flow rate due to an increase in the groundwater level)
- limitation in flow rate between two distribution networks operating at different pressures





EU127

Piezometric level control. Version with needle valves.

Automatic diaphragm valve with function of **piezometric level control** of the tank (piezometric tower).

The valve shuts off the flow on reaching the max. tank level and is re-opened in proportion to a lower level determined by the inertia of the pilot (variable from 0.3 to 10 m w.g.) according to the adjustment range selected. The piezometric pilot device is fastened on the main valve located at the tank base and is connected to the latter with piezometric tubes (not supplied with the valve).

Adjustment range of the pilot device :
 STANDARD : 3 - 20 m.w.g.
 ON REQUEST :
 1-6 m.w.g., or else 15-65 m.w.g.

Type	Part number	DN	PN	Kvs
EU127	0529001	50	10/16	47
EU127	0529002	65	10/16	52
EU127	0529003	80	10/16	58
EU127	0529004	100	10/16	120
EU127	0529005	125	10/16	215
EU127	0529006	150	10/16	228
EU127	0529008	200	16	456
EU127	0529010	250	16	847
EU127	0529012	300	16	1370
EU127	0529014	350	16	1450
EU127	0529016	400	16	1767
EU127	0529018	500	16	2480
EU127	0529020	600	16	3205



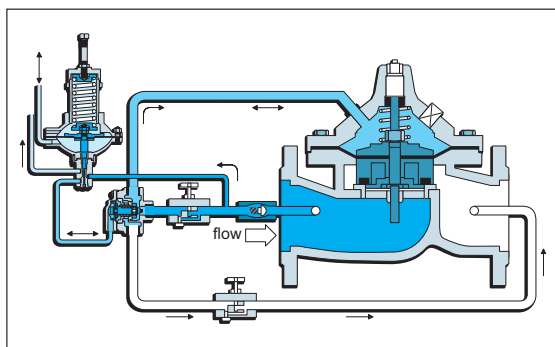
EU127-UR

Version with control unit EU900.

Type	Part number	DN	PN	Kvs
EU127-UR	0529050	50	10/16	47
EU127-UR	0529065	65	10/16	52
EU127-UR	0529080	80	10/16	58
EU127-UR	0529100	100	10/16	120
EU127-UR	0529125	125	10/16	215
EU127-UR	0529150	150	10/16	228
EU127-UR	0529200	200	10	456
EU127-UR	0529201	200	16	456
EU127-UR	0529250	250	10	847
EU127-UR	0529251	250	16	847
EU127-UR	0529300	300	10	1370
EU127-UR	0529301	300	16	1370
EU127-UR	0529350	350	10	1450
EU127-UR	0529351	350	16	1450
EU127-UR	0529400	400	10	1767
EU127-UR	0529401	400	16	1767
EU127-UR	0529500	500	10	2480
EU127-UR	0529501	500	16	2480
EU127-UR	0529600	600	10	3205
EU127-UR	0529601	600	16	3205

Application examples

- water reserves in tanks, water towers, wells, etc.





EU110-14

Float level control. Version with needle valves.

Automatic diaphragm valve with function of **float level control** of storage tanks in general. Valve **EU110-14** scloses the flow at the max. tank level and opens at the minimum level.

The main valve is normally installed at the base of the storage tank on the supply pipe; the float pilot device is normally placed inside the tank above the maximum level.

The float operating rod allows setting the differential between max. level and min. level between 0.5 and 2 metres. Standard rod length 2 metres.

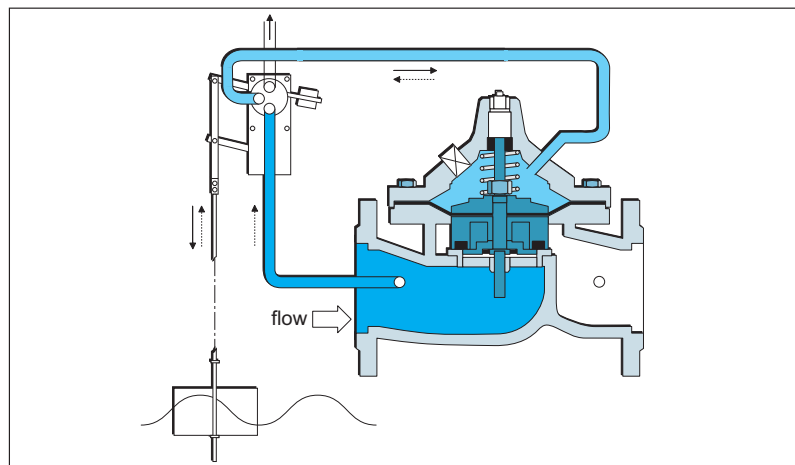
Type	Part number	DN	PN	Kvs
EU110-14	0522041	50	10/16	47
EU110-14	0522042	65	10/16	52
EU110-14	0522043	80	10/16	58
EU110-14	0522044	100	10/16	120
EU110-14	0522045	125	10/16	215
EU110-14	0522046	150	10/16	228
EU110-14	0522048	200	16	456
EU110-14	0522050	250	16	847
EU110-14	0522052	300	16	1370
EU110-14	0522054	350	16	1450
EU110-14	0522056	400	16	1767
EU110-14	0522058	500	16	2480
EU110-14	0522060	600	16	3205



EU110-14-UR

Version with control unit EU900.

Type	Part number	DN	PN	Kvs
EU110-14-UR	0522061	50	10/16	47
EU110-14-UR	0522062	65	10/16	52
EU110-14-UR	0522063	80	10/16	58
EU110-14-UR	0522064	100	10/16	120
EU110-14-UR	0522065	125	10/16	215
EU110-14-UR	0522066	150	10/16	228
EU110-14-UR	0522068	200	16	456
EU110-14-UR	0522070	250	16	847
EU110-14-UR	0522072	300	16	1370
EU110-14-UR	0522074	350	16	1450
EU110-14-UR	0522076	400	16	1767
EU110-14-UR	0522078	500	16	2480
EU110-14-UR	0522080	600	16	3205





EU110-10

Overflow function. Version with needle valves.

Automatic diaphragm valve with function of **overflow function** has the reverse operation instead of valve EU110-14: opens the flow at the max. tank level and closes at the minimum level.

The main valve is normally installed at the base of the storage tank on the supply pipe; the float pilot device is normally placed inside the tank above the maximum level.

The float operating rod allows setting the differential between max. level and min. level between 0.5 and 2 metres. Standard rod length 2 meters.

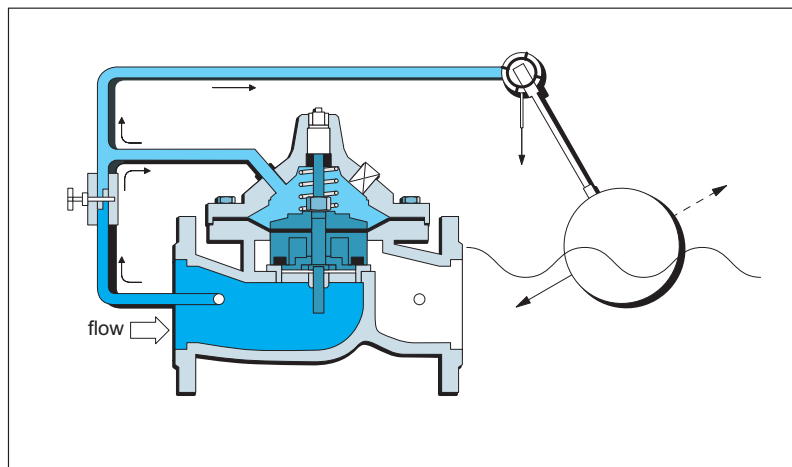
Type	Part number	DN	PN	Kvs
EU110-10	0522001	50	10/16	47
EU110-10	0522002	65	10/16	52
EU110-10	0522003	80	10/16	58
EU110-10	0522004	100	10/16	120
EU110-10	0522005	125	10/16	215
EU110-10	0522006	150	10/16	228
EU110-10	0522008	200	16	456
EU110-10	0522010	250	16	847
EU110-10	0522012	300	16	1370
EU110-10	0522014	350	16	1450
EU110-10	0522016	400	16	1767
EU110-10	0522018	500	16	2480
EU110-10	0522020	600	16	3205



EU110-10-UR

Version with control unit EU900.

Type	Part number	DN	PN	Kvs
EU110-10-UR	0522021	50	10/16	47
EU110-10-UR	0522022	65	10/16	52
EU110-10-UR	0522023	80	10/16	58
EU110-10-UR	0522024	100	10/16	120
EU110-10-UR	0522025	125	10/16	215
EU110-10-UR	0522026	150	10/16	228
EU110-10-UR	0522028	200	16	456
EU110-10-UR	0522030	250	16	847
EU110-10-UR	0522032	300	16	1370
EU110-10-UR	0522034	350	16	1450
EU110-10-UR	0522036	400	16	1767
EU110-10-UR	0522038	500	16	2480
EU110-10-UR	0522040	600	16	3205





EU113

Flow shut-off with electrical control. Version with needle valves.

Automatic diaphragm valve **with function of shutting off the flow passing through the valve via a remote electric control**. The pilot circuit is provided with a solenoid valve whose function must be specified either as normally open (NO) or normally closed (NC).

Type	Part number	DN	PN	Kvs
EU113	0525001	50	10/16	47
EU113	0525002	65	10/16	52
EU113	0525003	80	10/16	58
EU113	0525004	100	10/16	120
EU113	0525005	125	10/16	215
EU113	0525006	150	10/16	228
EU113	0525007	200	10	456
EU113	0525008	200	16	456
EU113	0525009	250	10	847
EU113	0525010	250	16	847
EU113	0525011	300	10	1370
EU113	0525012	300	16	1370
EU113	0525013	350	10	1450
EU113	0525014	350	16	1450
EU113	0525015	400	10	1767
EU113	0525016	400	16	1767
EU113	0525017	500	10	2480
EU113	0525018	500	16	2480
EU113	0525019	600	10	3205
EU113	0525020	600	16	3205



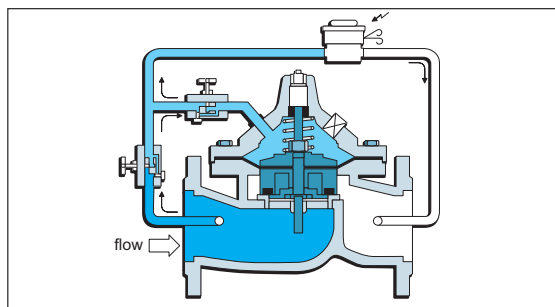
EU113-UR

Version with control unit EU900.

Type	Part number	DN	PN	Kvs
EU113-UR	0525050	50	10/16	47
EU113-UR	0525065	65	10/16	52
EU113-UR	0525080	80	10/16	58
EU113-UR	0525100	100	10/16	120
EU113-UR	0525125	125	10/16	215
EU113-UR	0525150	150	10/16	228
EU113-UR	0525200	200	10	456
EU113-UR	0525201	200	16	456
EU113-UR	0525250	250	10	847
EU113-UR	0525251	250	16	847
EU113-UR	0525300	300	10	1370
EU113-UR	0525301	300	16	1370
EU113-UR	0525350	350	10	1450
EU113-UR	0525351	350	16	1450
EU113-UR	0525400	400	10	1767
EU113-UR	0525401	400	16	1767
EU113-UR	0525500	500	10	2480
EU113-UR	0525501	500	16	2480
EU113-UR	0525600	600	10	3205
EU113-UR	0525601	600	16	3205

Application examples

- remote interruption/resetting of the flow in the pipeline
- remote control of feeding of storage tanks

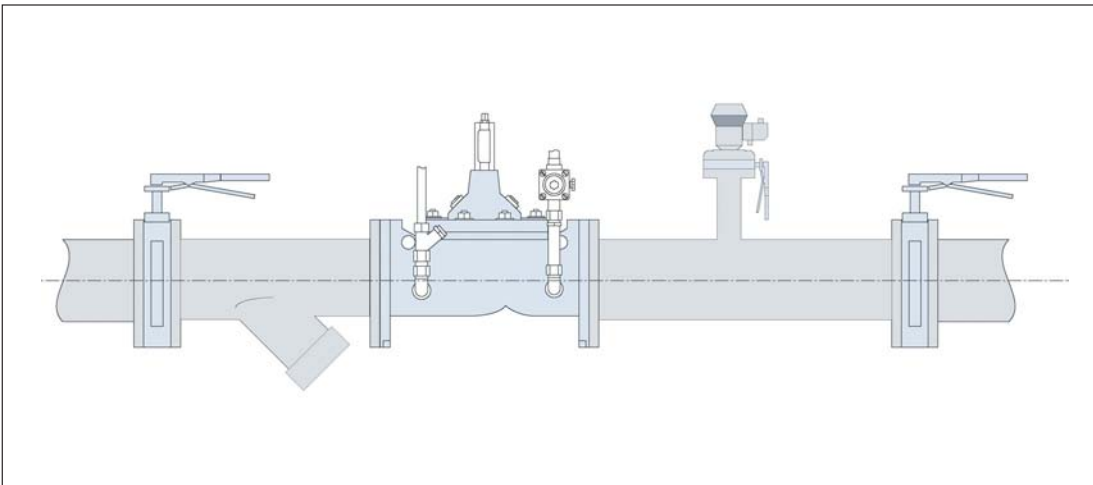




Installation

Each installation should have at least two isolating valves fitted on the main pipe before and after the valve, a by-pass branch with isolating valve (normally closed) and a temporary pipe joint which allows repair or replacement of the control valve.

Moreover it is advisable to install a strainer before the valve especially if the fluid is particularly laden with sand or foreign matter, and an air vent.



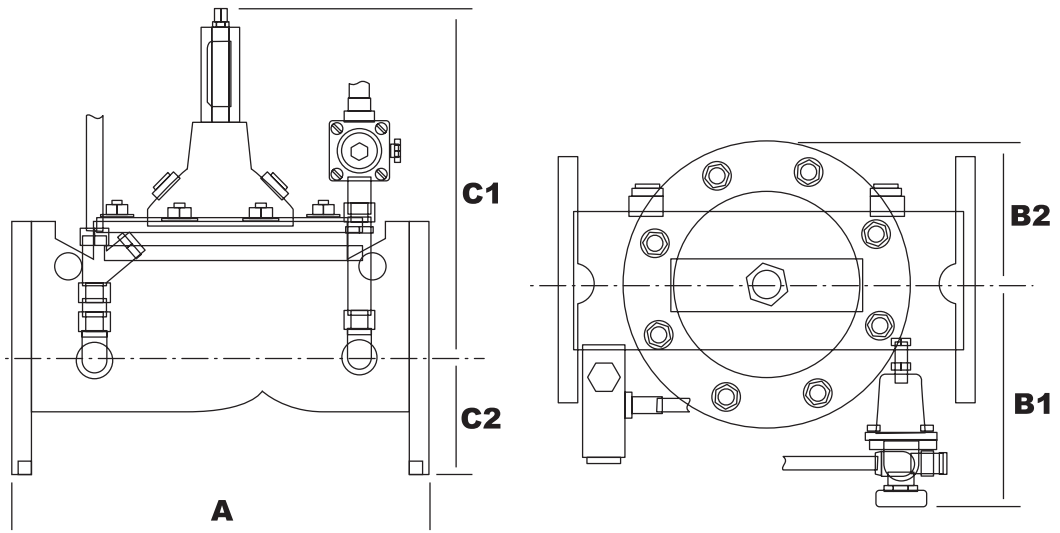
Discharge the water network to remove any residual impurities in the channel before installing the control valve.

Install the valve observing the direction of flow stamped on the valve body.

Allow possibility of access round the valve to the pilot circuit in order to leave the necessary room for disassembling the installation.

Never handle the valve by the pilot circuit.

Provide suitable protection means against freezing conditions also for the pilot circuit.

Overall dimensions and weights
EU100


DN	PN	A	B1	B2	C1	C2	Kg
50	10/16	230	160	85	265	85	20
65	10/16	290	170	85	265	95	25
80	10/16	310	175	85	265	100	30
100	10/16	350	190	120	310	110	40
125	10/16	400	200	150	385	125	60
150	10/16	480	210	150	385	145	70
200	10/16	600	235	200	460	170	130
250	10/16	730	280	255	570	200	260
300	10/16	850	305	300	650	230	450
350	10	980	330	300	650	255	560
350	16	980	330	300	650	260	560
400	10	1100	355	360	800	285	670
400	16	1100	355	360	800	290	670
500	10	1250	405	420	900	335	950
500	16	1250	405	420	900	360	950
600	10	1450	455	460	950	390	1350
600	16	1450	455	460	950	420	1350

Product range Watts Industries

- System disconnectors
- Backflow protection devices
- Check valves
- Safety units
- Safety relief valves
- Pressure reducing valves
- Automatic control valves
- Butterfly valves
- Shut off valves
- Measuring gauges
- Temperature control
- Expansion vessels
- Process switches
- Fuel products
- Gas products
- Electronic controls
- Installation protection products
- Radiator valves
- System products
- Manifolds and fittings



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