DRV/E Series

Compact pressure reducing valves

Technical Data Sheet

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WATTS®

Description

DRV/E Series pressure reducing valves reduce downstream fluid pressure to the desired value and keep it constant even in the event of substantial fluctuations in upstream flow rate and/or pressure, by varying the pressure drop. **DRV/E Series** pressure reducing valves are designed for use in:

- water **distribution systems** for stabilising the water pressure in the distribution network, to avoid excessive water draw-off from the taps, to protect the system by keeping the pressure below the maximum permissible pressure;
- **compressed air** systems to keep the network pressure constant irrespective of fluctuations caused by the compressors;
- downstream of **inert gas** tanks or cylinders to reduce the gas storage pressure to the values required for use.

DRV/E

Compact diaphragm pressure reducing valve with compensated seat.
CW617N brass body and reinforced technopolymer cap.
FF threaded connections. 1/4" pressure gauge connection.
Maximum upstream pressure: 25 bar and adjustable downstream pressure: 1.5÷6 bar.
Max. fluid temperature: 30°C.
Suitable for water, compressed air and inert gases.

Type	Part No.	DN	Weight (Kg)
DRV/E	0502015	1/2" FF	0.27
DRV/E	0502020	3/4" FF	0.42

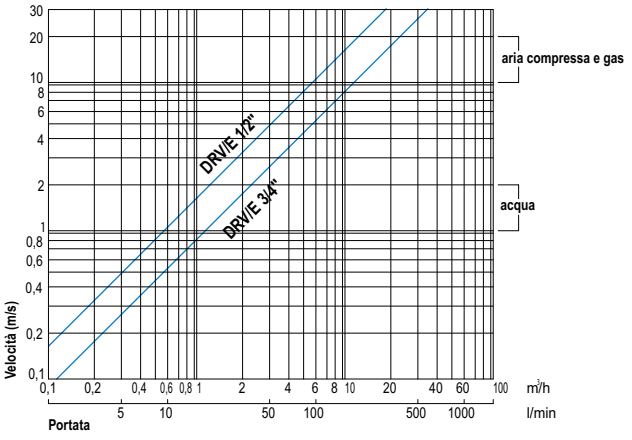
DRV/E Series pressure reducing valves are of compensated seat type and ensure that outlet pressure remains almost entirely unaffected by fluctuations in inlet pressure. The disc is designed in such a way that the inlet pressure generates two equal and opposing forces, which cancel each other out. Only two forces are therefore exerted on the disc: the force of the control spring, which tries to open the disc, and the force generated by the outlet pressure on the diaphragm, which tries to close it.

Technical features	
Upstream pressure	Max. 25 bar
Downstream pressure	Adjustable, 1.5÷6 bar
Pressure control	Clockwise to increase pressure Anticlockwise to reduce pressure
Connections	FF threaded
Pressure gauge connection	1/4"
Maximum operating temperature	30°C

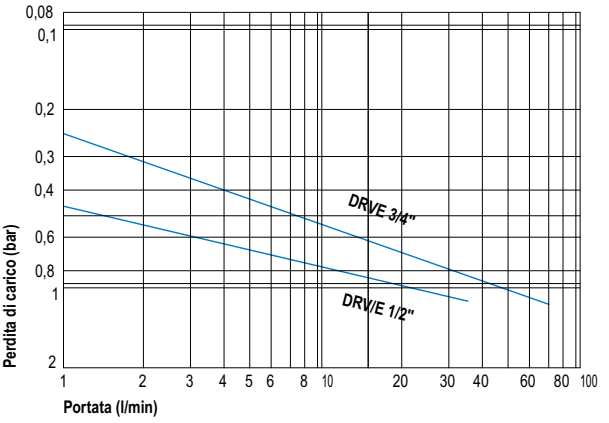
Design characteristics	
Body	CW617N brass
Cap	Reinforced technopolymer
Spring	Galvanised steel
Diaphragm	Nylon-reinforced NBR
Disc seal	Viton
Other seals	NBR

Charts

Flow rate - speed

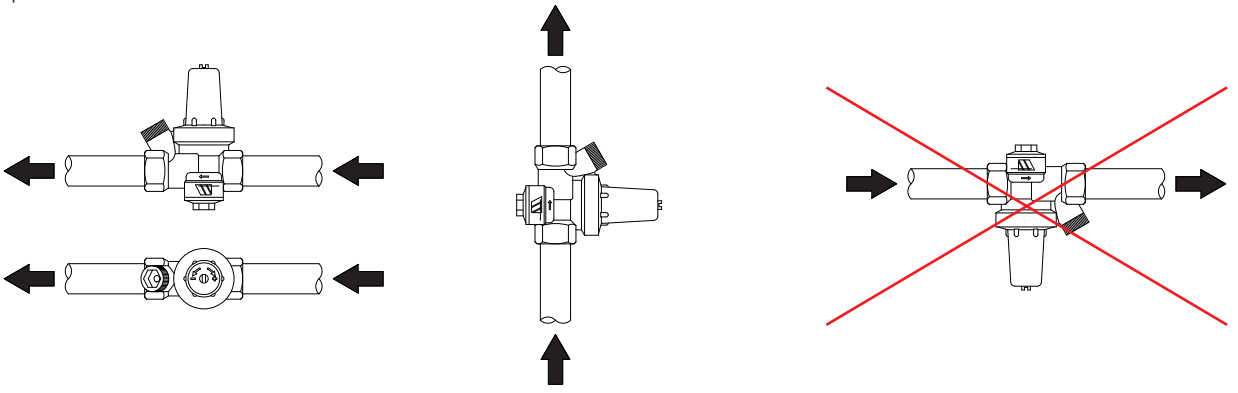


Flow rate - pressure drop



Installation

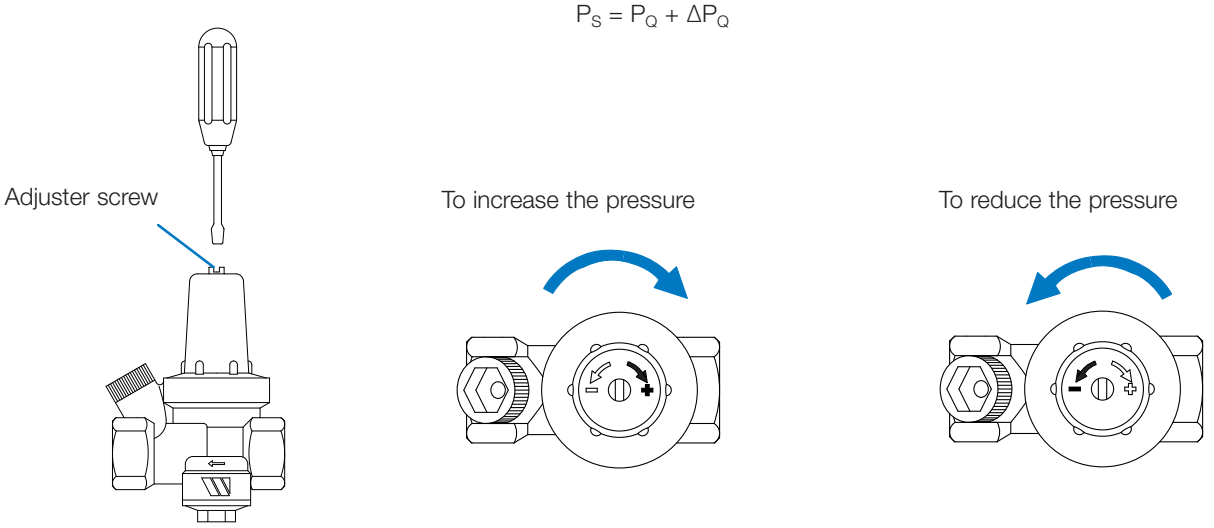
The pressure reducing valve can be installed either with the cap vertical (recommended) or with the cap horizontal but not upside down.



Setting

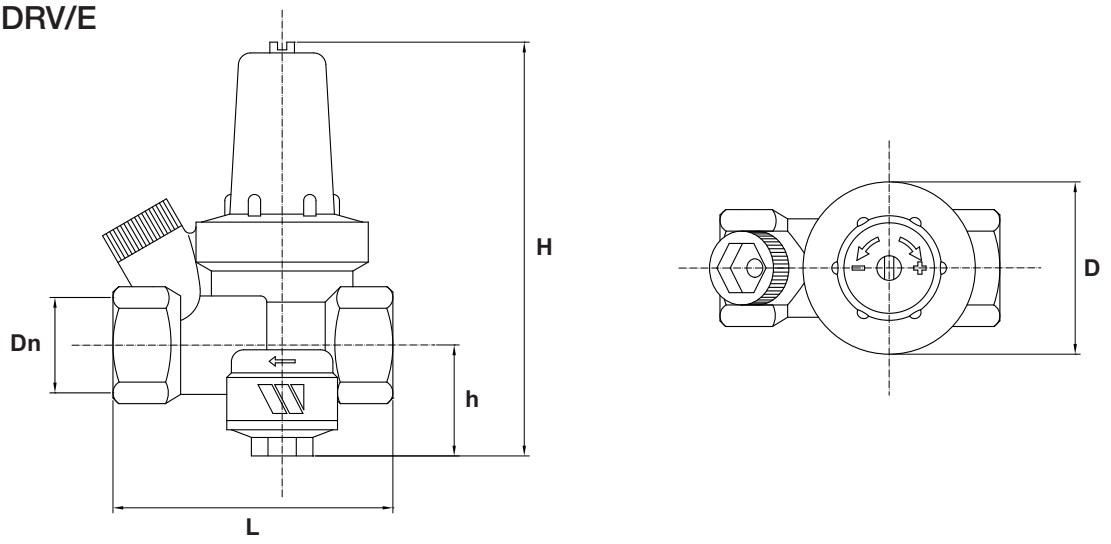
To adjust the outlet pressure, turn the screw located in the top of the pressure reducing valve with a normal screwdriver. Turn clockwise to increase the pressure (arrow marked +). Turn anticlockwise to reduce the pressure (arrow marked -). If the pressure reducing valve has been installed to ensure that the downstream pressure reaches a given value P_Q at a fixed flow rate Q, the downstream pressure must be set in static conditions P_S to a value equal to the desired pressure plus the pressure drop at that flow rate ΔP_Q.

$$P_S = P_Q + \Delta P_Q$$



Overall dimensions (mm)

DRV/E



DN	L	D	H	h
1/2”	64	42	93	23
3/4”	75	45	112	30

Specification text

DRV/E Series

Diaphragm pressure reducing valve with compensated seat **DRV/E Series** – WATTS brand – with DN 1/2”-3/4” female threaded connections. CW617N brass body. Reinforced technopolymer cap. Galvanised steel spring. Nylon-reinforced NBR diaphragm. DN 1/4” pressure gauge connection. PN 25 bar. Adjustable downstream pressure: 1.5÷6 bar with adjuster screw. Maximum operating temperature: 30°C.

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