

## Rate-of-Flow Control Valve (W-M114)

### ◆ Application:

The Watts W-M114 Rate-of-Flow Control Valve is designed to install on the pipe where flow needs to be controlled, no matter how the pressure in the pipe changes, the flow keeps in a set range, and the setting of the maximum flow can be adjusted according to the need, the valve can be installed on each branch pipe of water supply pipelines, to ensure that the entire pipeline will supply water to balance as planned. It's generally used in the water supply pipeline of industrial enterprises and residential building.

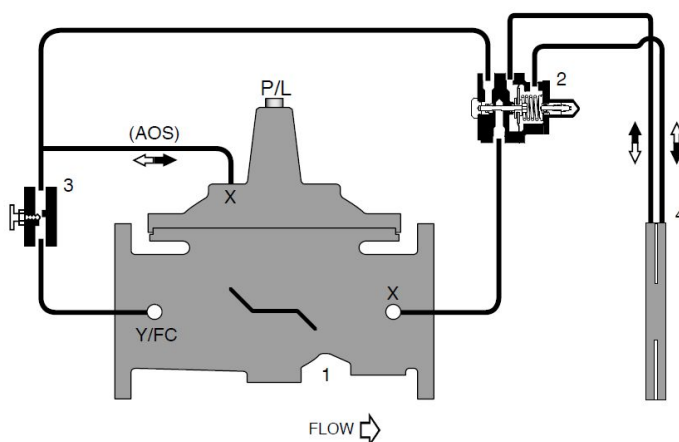


### ◆ Features:

1. Compact structure, reliable sealing;
2. Simple structure, convenient maintenance;
3. Stable flow control;
4. The main valve opening or closing speed can be adjusted by the needle valve.

### ◆ Working Principles:

The Watts ACV Rate-of-Flow Control Valve is designed to automatically limit flow rate to a constant, adjustable, maximum. It is controlled by a normally open, differential control pilot designed to: 1) Open (allowing fluid out of the main valve cover chamber) when the differential pressure across the orifice plate is below the adjustable set point, and, 2) Close (allowing fluid to fill the main valve cover chamber) when the differential pressure across the orifice plate is above the adjustable set point. A decrease in differential pressure causes the valve to modulate towards an open position, increasing flow rate. An increase in differential pressure causes the valve to modulate towards a closed position, decreasing flow rate.



1. Main Valve
2. Rate-of-Flow Control
3. Adjustable Closing Speed
4. Orifice Plate Assembly

### ◆ Technical Parameters:

Nominal Diameter:	DN50~DN200
Nominal Pressure:	PN16
Working Temperature:	0℃~80 ℃
Working Medium:	Water
Rate of flow:	

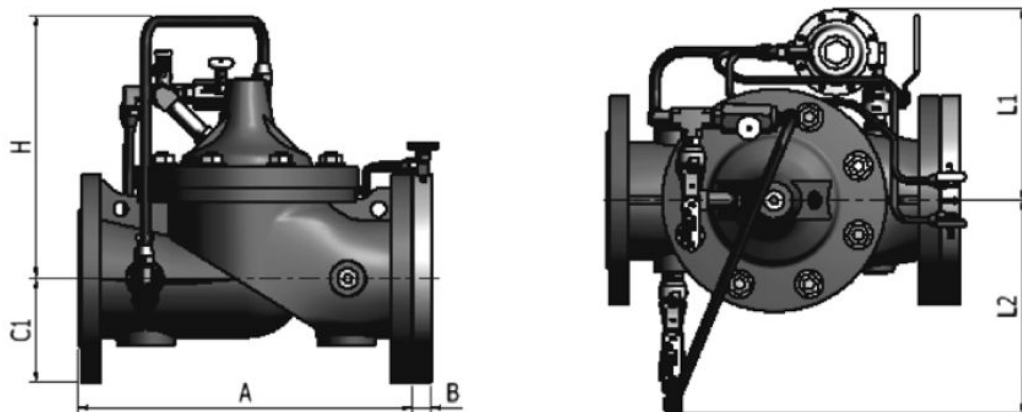
Size	DN	50	65	80	100	150	200
Rate of flow	M <sup>3</sup> /h	4~10 10~25 25~30	12~37 15~35	10~25 20~40 30~50 35~55 45~75	30~45 30~80	35~120 60~200	110~280

### ◆ Material:

Part	Body/Bonnet	Stem	Seat	Diaphragm	Sealing
Material	Ductile Iron	Stainless Steel	Stainless Steel	NBR+Nylon	NBR

### ◆ Installation Dimensions:

Connection Dimension: GB/T 17241.6;



Size	DN	A(mm)	B(mm)	H(mm)	C1(mm)	L1(mm)	L2(mm)
W-M114	DN50	230	19.05	246	82.5	186	142
	DN65	290	19.05	253	92.5	190	148
	DN80	310	19.05	248	100	195	150
	DN100	350	19.05	276	110	201	226
	DN150	480	19.05	316	142.5	-	320
	DN200	600	19.05	365	170	-	362

\*Please contact the local salesmen if the size ≥DN200 are needed.

### ◆ Typical Application:

1. Water plant and water source project;
2. Environmental protection;
3. Municipal facilities;
4. Electric power and utilities;
5. Construction industry.

**◆ Installation Instructions:**

- (1) In the process of transportation and installation, valve must avoid knock against, preventing surface coatings and accessories damage;
- (2) Water supply pipeline should be washed before rate-of-flow control valve installation, eliminating sand, gravel and other debris in the pipe;
- (3) The flow direction from inlet to outlet should be paid attention to in installation, and maintenance space around the valve is convenient to assemble;
- (4) The inlet and outlet of main valve should be installed with gate valve or butterfly valve for easy maintenance;
- (5) The size of main valve is the same as pipeline, and the flow which needs to be controlled is between the minimum flow and maximum flow;
- (6) The pressure gauge should be installed on the inlet and outlet of main valve for monitoring the pressure;
- (7) For the size below DN150, the main valve can be installed horizontally or vertically, but horizontal installation is better. The size above DN150 only can be installed horizontally;
- (8) If the main valve is installed with needle speed regulating valve, needle valve must be tweaked to closed position and then returned 1.5 to 2.5 circles for preliminary setting. After the main valve installation, concretely adjust it according to the system requirements;
- (9) Adjusting the bolt of pilot valve while setting the flow rate, and the bolt must be locked after adjusting;
- (10) If the control failure, it is necessary to check whether the control line is clear, especially whether the filter in the main valve is blocked, and the film of main valve and pilot valve is broken or not.