

PRESSURE ACTUATED WATER REGULATING VALVES

Type CWR, AWR, GWR, MWR & SWR

SAGINOMIYA

GENERAL DESCRIPTION

- Type CRW, AWR & MWR: 2-way press. actuated water regulating valves, open on pressure increase.
- Type GWR: 2-way press. actuated water regulating valves, open on pressure decrease.
- Type SWR: 3-way press. actuated water regulating valves.
- Pressure connection: 1/4" flare nut (Standard)
- Body material: Bronze for water and brine, cast iron for water only



Type AWR



Type SWR

TYPE NUMBER SELECTION (SPECIFICATIONS)

PRESSURE ACTUATED VALVES 2-WAY

Unit: MPa {kgf/cm²}

Catalog No.		Kind of Refrigerant	Valve Body Material	Connection		Press. Range	Max. Working Press.	Max. Water Temp. (°C)	Max. Water Press.	* Factory Setting	Wt. (kg)				
				Size	Style										
CWR-	803GLWQ1	Fluorinated Refrigerants	Bronze	3/8"	Rc (FPT)	0.6 to 1.8 {6.0 to 18.0}	2 {20}	60	1 {10}	0.75 {7.5}	0.45				
AWR-	1204BLW			1/2"	Flare	0.59 to 1.76 {6.0 to 18.0}	1.96 {20}			0.98 {10}	0.88 {9}	0.8			
	1203GLW			3/8"	Rc (FPT)						0.74 {7.5}	0.66			
AWR-GWR-	1504GLW			1/2"								0.8			
	2006GLW			3/4"								1.0			
	2510GLW			1"								1.8			
	3212GLW			1-1/4"								2.1			
	4014FLW		1-1/2"	10.5											
	5020FLWR * 1		2"	* 1 R: 0.59 to 1.18 {6.0 to 12.0}	17.0										
	5020FLWH * 2		2-1/2"	* 2 H: 1.08 to 1.76 {11.0 to 18.0}	20.0										
	6524FLWR * 1				Flange	0.59 to 1.18 {6.0 to 12.0}	R: 0.74 {7.5}			10.5					
	6524FLWH * 2		Bronze	1-1/2"							* 1 R: 0.59 to 1.18 {6.0 to 12.0}	H: 1.23 {12.5}	17.0		
MWR-	4014FLW			2"										* 2 H: 1.08 to 1.76 {11.0 to 18.0}	20.0
	5020FLWR * 1			2-1/2"											
	5020FLWH * 2														
	6524FLWR * 1														
6524FLWH * 2															

* Pressure at which valve starts opening.

• AWR, GWR & MWR with flange connection are supplied with JIS 10K (0.98 MPa) round companion flanges (JIS B2238, 2239) and bolts/nuts.

PRESSURE ACTUATED VALVES 3-WAY

Unit: MPa {kgf/cm²}

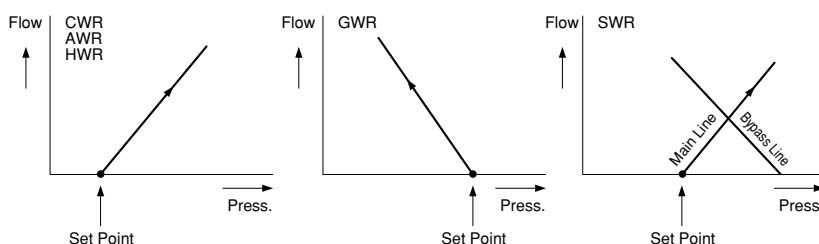
Catalog No.		Kind of Refrigerant	Valve Body Material	Connection		Press. Range	Max. Working Press.	Max. Water Temp. (°C)	Max. Water Press.	* Factory Setting	Wt. (kg)
				Size	Style						
SWR-	1504GLW	Fluorinated Refrigerants	Bronze	1/2"	Rc (FPT)	0.59 to 1.76 {6 to 18}	1.96 {20}	60	0.98 {10}	0.74 {7.5}	1.1
	2006GLW			3/4"							1.5
	2510GLW			1"							2.5
	3212GLW			1-1/4"							3.0

* Pressure at which main valve starts opening.

• Pressure range: Main line opening point

VALVE ACTION

Set Point is pressure for valve opening. Each characteristic of valves is different as follows.



ADJUSTMENT

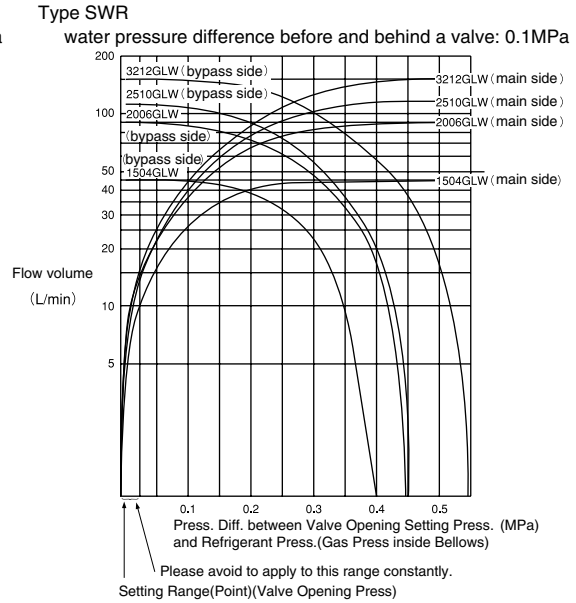
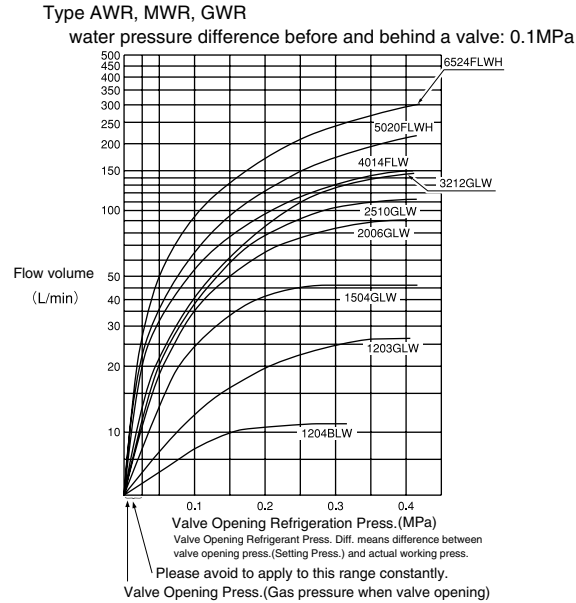
One full turn of adjusting screw changes pressure setting as shown below.

Catalog No.		Change in Press. Setting
AWR-	1204 BLW	Approx. 0.1MPa
	1203 GLW	
AWR-GWR-SWR-	1504 GLW	Approx. 0.1MPa
	2006 GLW	
	2510 GLW	Approx. 0.075MPa
	3212 GLW	
AWR-MWR-GWR-	4014 FLW	Approx. 0.09MPa
	5020 FLW	
	6524 FLW	

FLOW CAPACITY

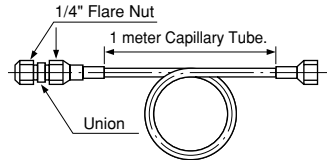
Flow Capacity shows respectively refrigeration press. diff. at horizontal axis and flow rate of cooling water at vertical axis considering water press. diff. before and behind a valve with 0.1 MPa. (press. diff. between inlet and outlet of valve)

In case of water press. diff. before and behind a valve is excepting for 0.1MPa, value is calculated multiplying by coefficient in compensation table.



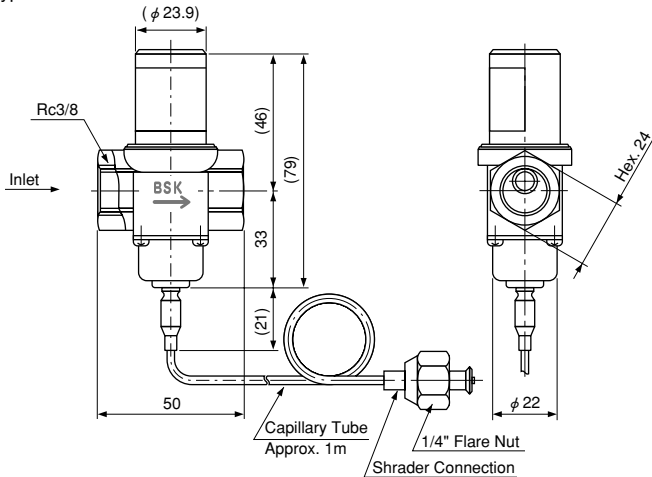
ACCESSORY

- Pressure dampening capillary tube assembly only attached for AWR-50, -65, MWR-50 and -65. Please use these for safety.




DIMENSIONS

Type CWR

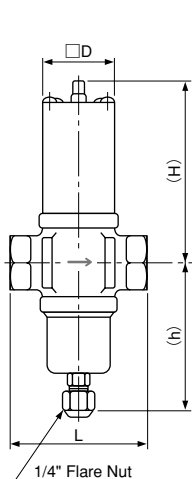


COMPENSATION COEFFICIENTS

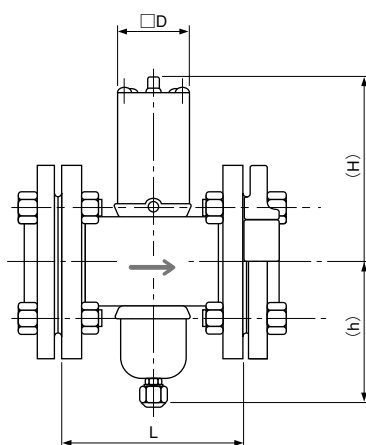
Press. Drop Across Valve: MPa {kg/cm ² }	Coefficient
0.2 {2}	1.4
0.1 {1}	1
0.03 {0.3}	0.55
0.05 {0.5}	0.7
0.07 {0.7}	0.8

Catalog No.		Unit: mm				
		L	H	h	h ₁	 D
AWR-	1204BLW	100	90	70	—	40
	1203GLW	55	91	72		
AWR-GWR-	1504GLW	70	100	83		42
	2006GLW	80	104	87		
	2510GLW	90	116	97		59
	3212GLW	100	121	102		
AWR-MWR-GWR-	4014FLW	148	125	105	89	
	5020FLW	173	180	155		
	6524FLW	179				
SWR-	1504GLW	70	100	31	83	42
	2006GLW	80	104	39	87	
	2510GLW	90	116	44	97	59
	3212GLW	100	121	54	102	

Type AWR, GWR-G



Type AWR, MWR, GWR-F



Type SWR

