

PRESSURE ACTUATED WATER REGULATING VALVES

Type CWR, AWR, GWR, MWR & SWR

SAGINOMIYA

GENERAL DESCRIPTION

- Type CWR, 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 glycol, 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	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	0.78 to 1.77 {8.0 to 18.0}						0.88 {9}	0.8					
AWR- 1203GLW			3/8"	Rc	0.59 to 1.77 {6.0 to 18.0}								1.96 {20}	0.98 {10}	R: 0.74 {7.5}	17.8	
AWR- 1504GLW			1/2"								0.74 {7.5}	1.0					
AWR- 2006GLW			3/4"														1.8
AWR- 2510GLW			1"														
AWR- 3212GLW			1-1/4"														11.2
AWR- 4014FLW			1-1/2"								R: 0.74 {7.5}	21.6					
GWR- 5020FLWR			Cast Iron	2"	H: 1.23 {12.5}												
GWR- 5020FLWH				2-1/2"	0.74 {7.5}						11.2						
GWR- 6524FLWR		Flange	2"	R: 0.74 {7.5}													
GWR- 6524FLWH					2-1/2"	H: 1.23 {12.5}											
MWR- 4014FLW		Bronze	1-1/2"	0.59 to 1.77 {6.0 to 18.0}	1.96 {20}		60	1 {10}	0.74 {7.5}	17.8							
MWR- 5020FLWR			2"	R: 0.74 {7.5}													
MWR- 5020FLWH			2-1/2"	H: 1.23 {12.5}													
MWR- 6524FLWR						0.74 {7.5}					11.2						
MWR- 6524FLWH			H: 1.23 {12.5}														

* Pressure at which valve starts opening.

• AWR, GWR & MWR with flange connection are supplied with JIS 10K (0.98 MPa) round companion flanges (JIS B2220 2239) and bolts/nuts.

PRESSURE ACTUATED VALVES 3-WAY

Unit: MPa {kgf/cm²}

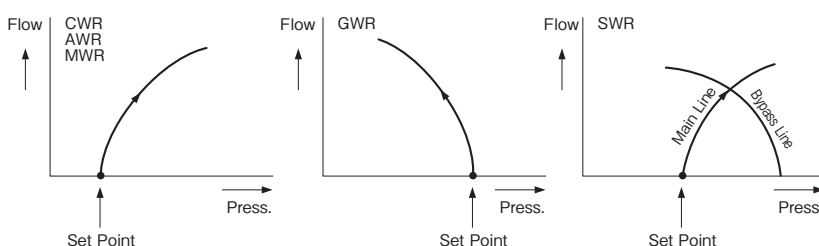
Catalog No.	Kind of Refrigerant	Valve Body Material	Connection		Press. Range	Max. Working Press.	Max. Water Temp. (°C)	Max. Water Press.	* Factory Setting	Wt. (kg)
			Size	Style						
SWR-	Fluorinated Refrigerants	Bronze	1/2"	Rc	0.59 to 1.77 {6 to 18}	1.96 {20}	60	0.98 {10}	0.74 {7.5}	1.1
			3/4"							1.5
			1"							2.5
			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.

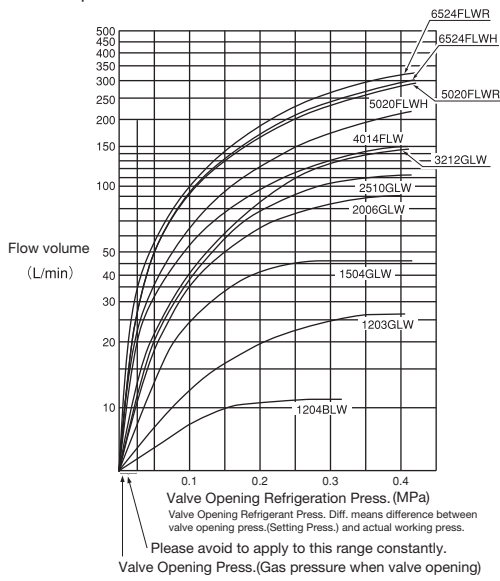
Catalog No.	Change in Press. Setting
AWR- 1204BLW	Approx. 0.1MPa
1203GLW	
AWR- 1504GLW	Approx. 0.075MPa
GWR- 2006GLW	
SWR- 2510GLW	
3212GLW	
AWR- 4014FLW	Approx. 0.09MPa
MWR- 5020FLW	
GWR- 6524FLW	

FLOW CAPACITY

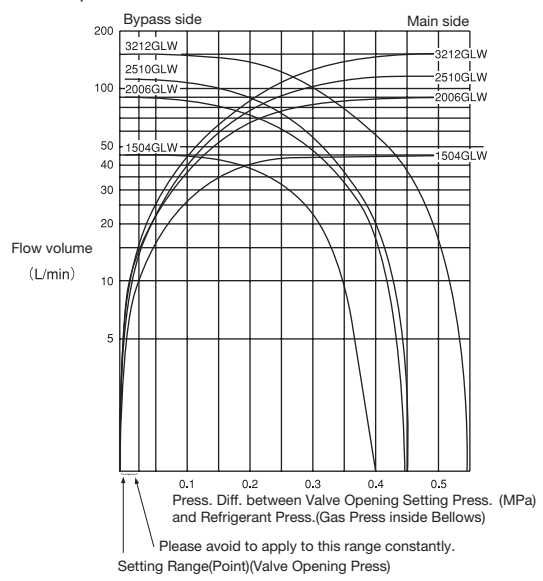
Flow Capacity shows respectively refrigeration press. diff. at horizontal axis and flow rate of cooling water at vertical axis considering water press. diff. before and behind a valve with 0.1 MPa. (press. diff. between inlet and outlet of valve)

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.

Type AWR, MWR, GWR
water pressure difference before and behind a valve: 0.1MPa

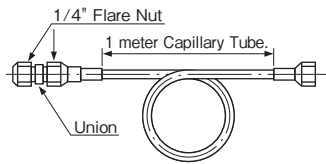


Type SWR
water pressure difference before and behind a valve: 0.1MPa



ACCESSORY

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

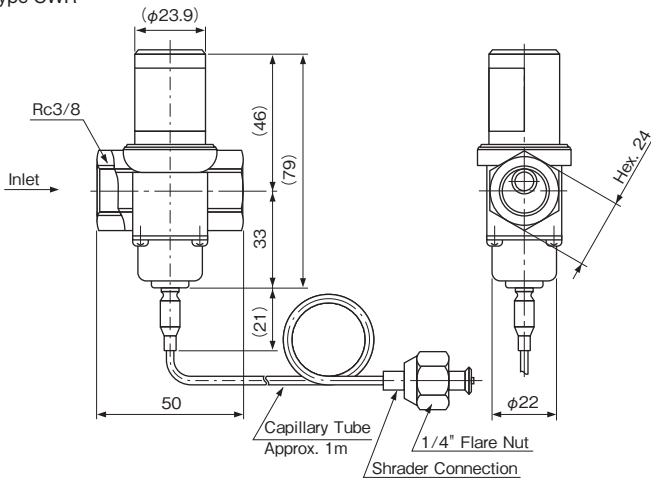


COMPENSATION COEFFICIENTS

Press. Drop Across Valve: MPa {kgf/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

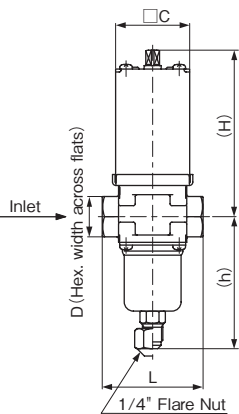
DIMENSIONS

Type CWR

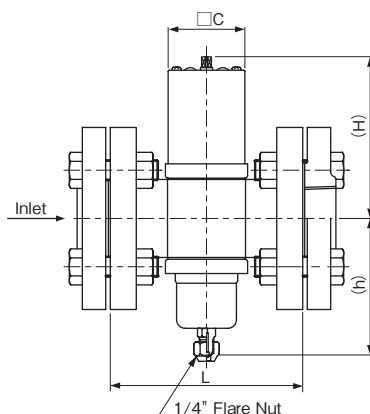


Catalog No.	Unit: mm						
	D	L	H	h	h ₁	□C	
AWR-	1204BLW	—	100	90	70	40	
	1203GLW	22	55	91	72		
AWR-GWR-	1504GLW	27	70	100	83	42	
	2006GLW	32	80	104	87		
	2510GLW	40	90	116	97		
AWR-MWR-GWR-	3212GLW	50	100	121	102	59	
	4014FLW	—	148	125	105		
	5020FLW	—	173	180	155		
SWR-	6524FLW	—	179	180	155	89	
	1504GLW	27	70	100	31		114
	2006GLW	32	80	104	39		
SWR-	2510GLW	40	90	116	44	141	
	3212GLW	50	100	121	54		156

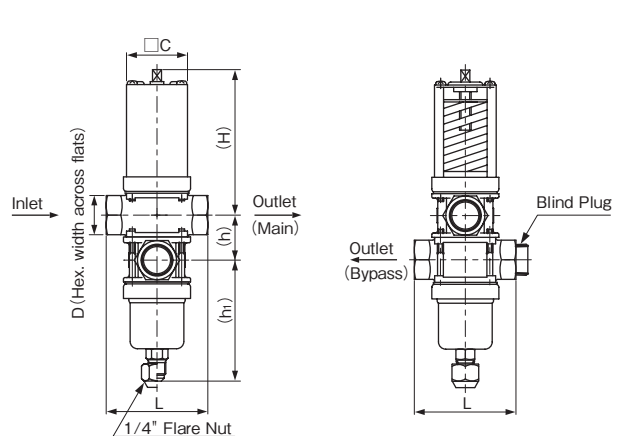
Type AWR-G, GWR-G



Type AWR-F, MWR-F, GWR-F



Type SWR



Unit: mm