

Straight DZR Brass Automatic Balancing Valve with Isolation Ball Valve

**Feature**

- DZR brass automatic balancing valve
- Flow regulated by interchangeable cartridge (see cartridge section)
- Union end for tailpiece connections
- FNPT, MNPT, and Solder tailpieces available
- Isolation ball valve with union nut for ON/OFF operation
- FNPT and Solder version available for ball valve
- Blow-out proof stem, adjustable packing

300WOG

**Working conditions:**

Water: from 15°F to 260°F

below 32°F only for water with added antifreezing fluids

over 212°F only for water with added anti-boiling fluids

(Ethylene-Glycolic and propylene-glycolic mix up to 50% may be used)

**Flow range:**

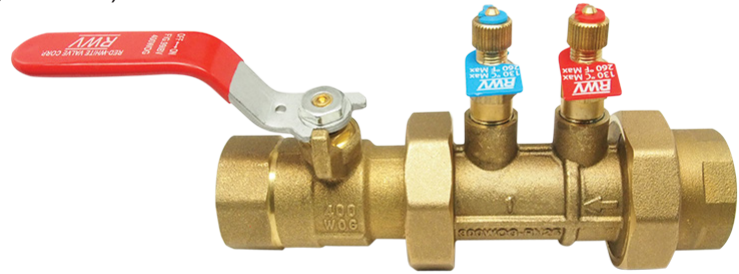
1/2" - 3/4"-L 0.32 GPM - 3.17 GPM

3/4" - 1-1/4"L 2.06 GPM - 15.1 GPM

1-1/4" - 2" 7.29 GPM - 41.2 GPM

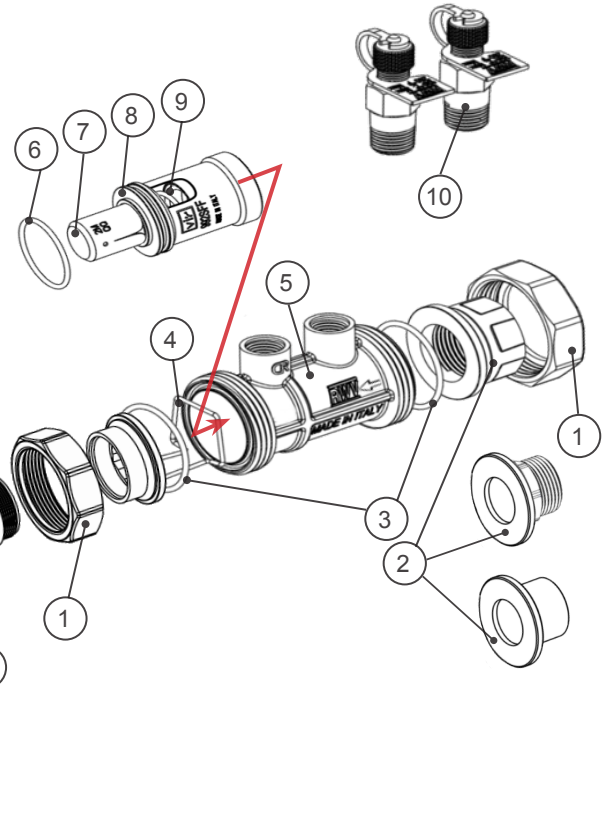
2"-H 25.4 GPM - 127 GPM

Working ΔP depending on selected cartridge



**Material**

	Part	Material	Specification
1	Union nut	Brass	ASTM B283 C37700
2	Tailpiece	DZR Brass	UNS C35330
3	Union O-ring	EPDM Perox	-
4	Spring retainer	Stainless steel	AISI 302
5	Body	DZR Brass	UNS C35330
6	Cartridge O-ring	EPDM Perox	-
7	Piston	Stainless steel	-
8	Cartridge body	DZR Brass	UNS C35330
9	Cartridge spring	Stainless steel	AISI 302
10	Test point	DZR Brass <sup>1</sup>	UNS C35330
11	Fixed end	DZR Brass	UNS C35330
12	Seat	PTFE	-
13	Ball	DZR Brass / Cr plated	UNS C35330
14	Body	DZR Brass	UNS C35330
15	Stem	DZR Brass	UNS C35330
16	Packing ring	PTFE	-
17	Packing nut	Brass	UNS C37700
18	Handle	Steel / Dc plated	-
19	Nut	Steel / Dc plated	-



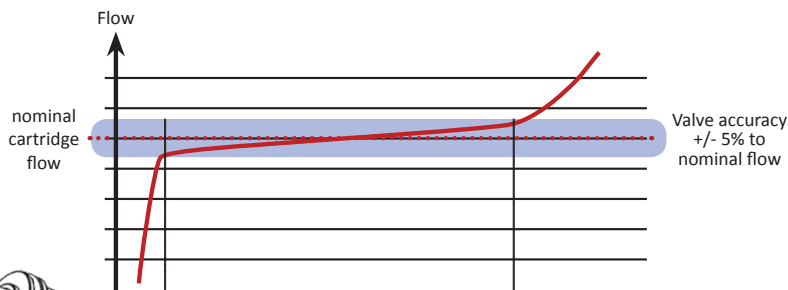
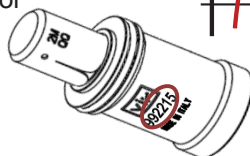
<sup>1</sup> Test points with EPDM Perox gaskets and polypropylene ties

### Straight DZR Brass Automatic Balancing Valve with Isolation Ball Valve

#### Cartridge

Cartridges are available for different flow rates and in different ranges of working differential pressure. The minimum and maximum working  $\Delta P$  depend on the specific cartridge model.

A numeric code is marked on the cartridge body univocally identifying it (example for KRR992215.1880).



#### 1/2" 3/4"-L

##### Mini

RWV Code	Flow (GPM)	Range $\Delta P$ (psi)
KRR991202.1880	0.32	2.2-25
KRR991203.1880	0.48	2.3-32
KRR991204.1880	0.63	2.3-32
KRR991205.1880	0.79	2.3-32
KRR991206.1880	0.95	2.3-32
KRR991207.1880	1.11	2.3-32
KRR991208.1880	1.27	2.3-32
KRR991209.1880	1.43	2.3-32
KRR991210.1880	1.59	2.3-32
KRR991211.1880	1.74	2.5-32
KRR991212.1880	1.90	2.5-32
KRR991213.1880	2.06	2.5-32
KRR991214.1880	2.22	2.5-32
KRR991215.1880	2.38	2.5-32
KRR991216.1880	2.54	2.5-32
KRR991218.1880	2.85	2.6-32
KRR991220.1880	3.17	2.8-32

#### 3/4" 1" 1 1/4"-L

##### Small (Standard Pressure Range)

RWV Code	Flow (GPM)	Range $\Delta P$ (psi)
KRR992213.1880	2.06	2.5-35
KRR992215.1880	2.38	2.5-35
KRR992217.1880	2.69	2.5-35
KRR992219.1880	3.01	2.5-35
KRR992221.1880	3.33	2.6-35
KRR992224.1880	3.80	2.6-35
KRR992227.1880	4.28	2.6-35
KRR992230.1880	4.76	2.6-35
KRR992233.1880	5.23	2.6-35
KRR992236.1880	5.71	2.6-35
KRR992240.1880	6.34	2.6-35
KRR992245.1880	7.13	2.8-35
KRR992250.1880	7.93	2.8-35
KRR992255.1880	8.72	3.0-35
KRR992260.1880	9.51	3.2-35
KRR992266.1880	10.5	3.5-35
KRR992272.1880	11.4	3.5-35

#### 3/4" 1" 1 1/4"-L

##### Small (High Pressure Range)

RWV Code	Flow (GPM)	Range $\Delta P$ (psi)
KRR992318.1880	2.85	4.2-64
KRR992320.1880	3.17	4.6-64
KRR992323.1880	3.65	4.8-64
KRR992327.1880	3.96	4.8-64
KRR992329.1880	4.60	4.8-64
KRR992332.1880	5.07	4.8-64
KRR992336.1880	5.71	4.8-64
KRR992340.1880	6.34	4.8-64
KRR992345.1880	7.13	4.8-64
KRR992350.1880	7.93	4.8-64
KRR992355.1880	8.72	4.9-64
KRR992361.1880	9.67	5.2-64
KRR992368.1880	10.8	5.2-64
KRR992375.1880	11.9	5.2-64
KRR992380.1880	12.7	5.2-64
KRR992386.1880	13.6	5.8-64
KRR992395.1880	15.1	5.8-64

#### 1 1/4" 1 1/2" 2"

##### Medium (Standard Pressure Range)

RWV Code	Flow (GPM)	Range $\Delta P$ (psi)
KRR994246.1880	7.29	2.0-33
KRR994250.1880	7.93	2.0-33
KRR994255.1880	8.72	2.0-33
KRR994258.1880	9.19	2.0-33
KRR994262.1880	9.83	2.0-33
KRR994267.1880	10.6	2.2-33
KRR994274.1880	11.7	2.2-33
KRR994283.1880	13.2	2.2-33
KRR994290.1880	14.3	2.2-33
KRR994297.1880	15.4	2.2-33
KRR994210.1880	16.6	2.2-33
KRR994212.1880	19.0	2.2-33
KRR994213.1880	20.6	2.3-33
KRR994214.1880	22.8	2.5-33
KRR994216.1880	24.7	2.5-33
KRR994217.1880	26.6	2.6-33
KRR994218.1880	28.5	2.8-33
KRR994220.1880	31.1	2.8-33

#### 1 1/4" 1 1/2" 2"

##### Medium (High Pressure Range)

RWV Code	Flow (GPM)	Range $\Delta P$ (psi)
KRR994362.1880	9.83	3.9-61
KRR994368.1880	10.8	3.9-61
KRR994374.1880	11.7	3.9-61
KRR994379.1880	12.5	3.9-61
KRR994383.1880	13.2	3.9-61
KRR994391.1880	14.4	4.1-61
KRR994310.1880	15.9	4.1-61
KRR994311.1880	17.6	4.1-61
KRR994312.1880	19.0	4.2-61
KRR994313.1880	20.6	4.2-61
KRR994314.1880	22.0	4.2-61
KRR994316.1880	26.0	4.4-61
KRR994318.1880	27.7	4.5-61
KRR994319.1880	30.1	4.5-61
KRR994321.1880	32.7	4.6-61
KRR994322.1880	35.4	4.9-61
KRR994324.1880	38.0	5.1-61
KRR994326.1880	41.2	5.5-61

#### 2"-H

##### Large

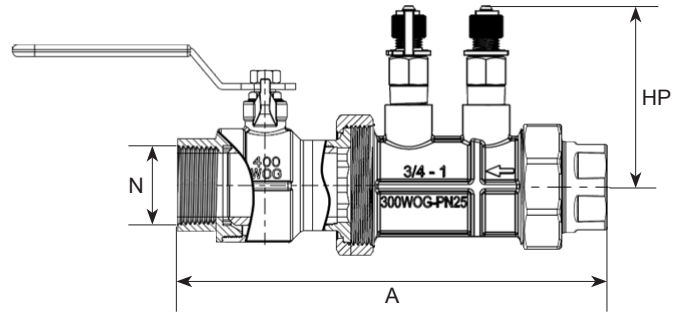
RWV Code	Flow (GPM)	Range $\Delta P$ (psi)
KRR996216.1880	25.4	2.0-33
KRR996218.1880	28.5	2.0-33
KRR996220.1880	31.7	2.0-33
KRR996222.1880	34.9	2.2-33
KRR996224.1880	38.0	2.2-33
KRR996227.1880	42.8	2.2-33
KRR996230.1880	47.6	2.3-33
KRR996233.1880	52.3	2.3-33
KRR996236.1880	57.1	2.3-33
KRR996240.1880	63.4	2.5-33
KRR996245.1880	71.3	2.5-33
KRR996250.1880	79.3	2.8-33
KRR996255.1890	87.2	2.8-33
KRR996260.1880	95.1	3.0-33
KRR996266.1880	105	3.0-33
KRR996273.1880	116	3.6-33
KRR996280.1880	127	4.1-33

Straight DZR Brass Automatic Balancing Valve with Isolation Ball Valve

Dimension, Weight

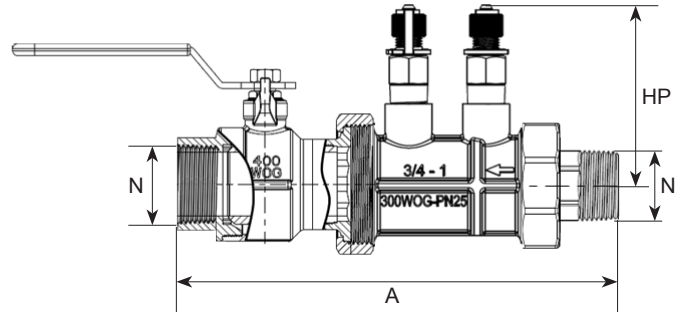
9907IBV-FF

Size	N	A	HP	Valve Wt.	Cart. Wt.
		[in]	[in]	[lb]	[lb]
1/2"	1/2 - 14 NPT	5.02	2.34	1.13	0.10
3/4"-L	3/4 - 14 NPT	5.55	2.34	1.24	0.10
3/4"	3/4 - 14 NPT	5.99	2.60	1.82	0.21
1"	1 - 11.5 NPT	6.38	2.60	2.13	0.21
1 1/4"-L	1 1/4 - 11.5 NPT	8.59	2.87	4.43	0.21
1 1/4"	1 1/4 - 11.5 NPT	8.66	2.87	4.86	0.56
1 1/2"	1 1/2 - 11.5 NPT	9.73	2.87	5.58	0.56
2"	2 - 11.5 NPT	12.17	2.87	12.44	0.56
2"-H	2 - 11.5 NPT	12.75	3.62	13.34	3.01



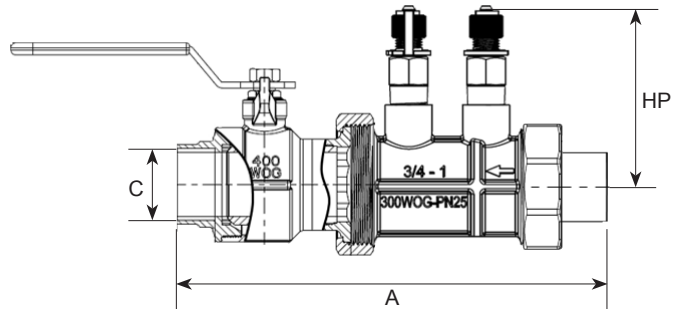
9907IBV-MF

Size	N	A	HP	Valve Wt.	Cart. Wt.
		[in]	[in]	[lb]	[lb]
1/2"	1/2 - 14 NPT	5.37	2.34	1.12	0.10
3/4"-L	3/4 - 14 NPT	5.49	2.34	1.06	0.10
3/4"	3/4 - 14 NPT	6.24	2.60	1.81	0.21
1"	1 - 11.5 NPT	6.84	2.60	2.07	0.21
1 1/4"-L	1 1/4 - 11.5 NPT	8.69	2.87	4.25	0.21
1 1/4"	1 1/4 - 11.5 NPT	8.94	2.87	4.86	0.56
1 1/2"	1 1/2 - 11.5 NPT	10.42	2.87	5.56	0.56
2"	2 - 11.5 NPT	12.09	2.87	12.00	0.56
2"-H	2 - 11.5 NPT	12.75	3.62	13.34	3.01



9907IBV-SS

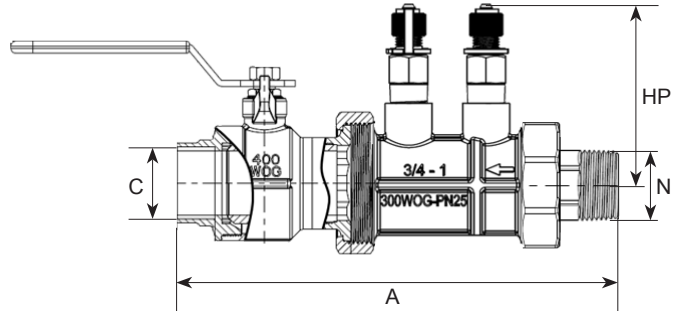
Size	C	A	HP	Valve Wt.	Cart. Wt.
	[in]	[in]	[in]	[lb]	[lb]
1/2"	0.627-0.631	4.84	2.34	1.08	0.10
3/4"-L	0.877-0.881	5.38	2.34	1.13	0.10
3/4"	0.877-0.881	6.41	2.60	1.60	0.21
1"	1.128-1.131	6.66	2.60	1.88	0.21
1 1/4"-L	1.378-1.381	9.22	2.87	4.21	0.21
1 1/4"	1.378-1.381	9.54	2.87	4.48	0.56
1 1/2"	1.628-1.632	10.33	2.87	4.99	0.56
2"	2.128-2.132	13.2	2.87	12.30	0.56
2"-H	2.128-2.132	13.48	3.62	12.53	3.01



Straight DZR Brass Automatic Balancing Valve with Isolation Ball Valve

99071BV-MS

Size	C [in]	A [in]	HP [in]	Valve Wt. [lb]	Cart. Wt. [lb]
1/2"	0.627-0.631	5.38	2.34	1.14	0.10
3/4"-L	0.877-0.881	5.65	2.34	1.18	0.10
3/4"	0.877-0.881	6.63	2.60	1.68	0.21
1"	1.128-1.131	6.9	2.60	1.89	0.21
1 1/4"-L	1.378-1.381	9.42	2.87	4.30	0.21
1 1/4"	1.378-1.381	9.42	2.87	4.58	0.56
1 1/2"	1.628-1.632	10.65	2.87	5.15	0.56
2"	2.128-2.132	13.46	2.87	12.52	0.56
2"-H	2.128-2.132	13.48	3.62	12.53	3.01



Installation

The valve must be installed with the flow matching the arrow marked on the valve body.

To obtain the best performance:

- Verify system is properly flushed prior to installig the cartridge
- Use at least one strainer for each installation
- Ensure water quality is in accordance with DVI 2035

