9517IBV

Fixed Orifice Double Regulating Globe Valve with Isolation Ball Valve

Feature

DZR brass fixed orifice double regulating globe valve
Venturi insert
Positive shut-off with memory stop
Design according to BS7350
Tolerance on nominal Cvs ±3% (test according to BS7350)
Multi-turn adjustment (four full turns minimum)
Union ends (ASME B1.20.1 - NPSM) for tailpiece connections
FNPT, MNPT, Solder, EzPress and PEX (F1960) tailpieces available
Isolation ball valve with union nut for ON/OFF operation
FNPT, Solder, EzPress and PEX (F1960) available for ball valve
Blow-out proof stem, adjustable packing

DZR Dezincification Resistant

Meet BAA requirement

300WOG

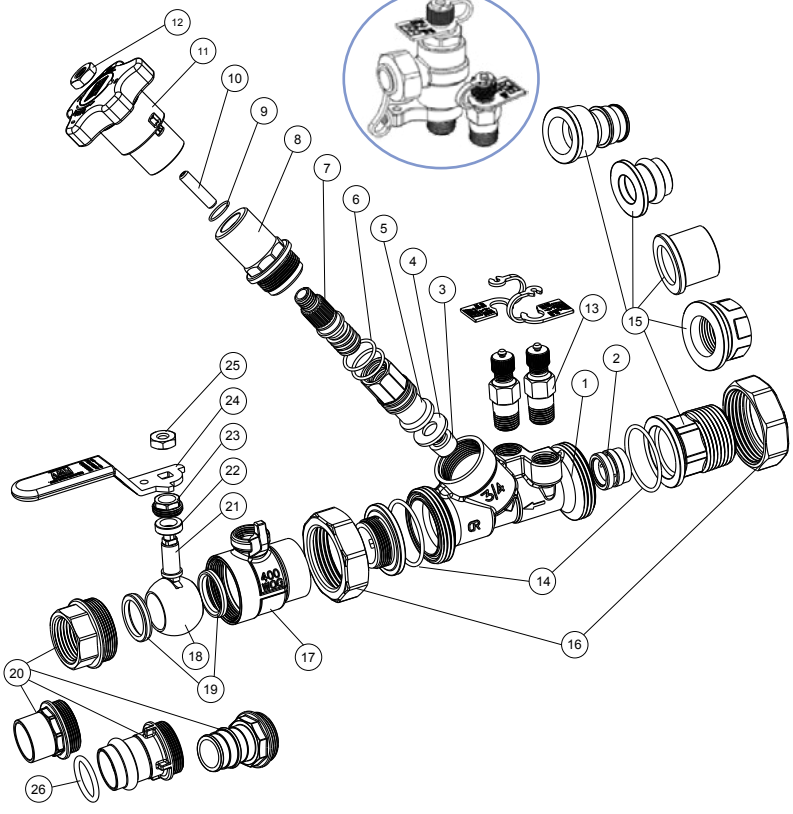
Working conditions:
Water: from 15°F to 260°F
below 32°F only for water with added antifreezing fluids
over 212°F only for water with added anti-boiling fluids

Material

	Part	Material	Specification
1	Body	DZR Brass	UNS C35330
2	Venturi insert	DZR Brass	UNS C35330
3	Balancing cone	DZR Brass	UNS C35330
4	Gasket disc	PTFE	-
5	Shutter	DZR Brass	UNS C35330
6	Disc O-ring	EPDM Perox	-
7	Disc stem	DZR Brass	UNS C35330
8	Bonnet	DZR Brass	UNS C35330
9	Stop spring ring	Spring steel	-
10	Stem	Brass	ASTM B124 C37700
11	Handwheel	ABS (blue)	-
12	Nut	Steel / Zn plated	-
13	Test point	DZR Brass[1]	UNS C35330
14	Union O-ring	EPDM Perox	NSF approved
15	Tailpiece[2]	DZR Brass	UNS C35330
16	Union nut	Brass	ASTM B283 C37700
17	Body	DZR Brass	UNS C35330
18	Ball	DZR Brass / Cr plated	UNS C35330
19	Seat	PTFE	-
20	Fixed end	DZR Brass	UNS C35330
21	Stem	DZR Brass	UNS C35330
22	Packing ring	PTFE	-
23	Packing nut	Brass	UNS C37700
24	Handle	Steel / Dc plated	-
25	Nut	Steel / Dc plated	-
26	O-ring	EPDM Perox	NSF approved

[1] Test points with EPDM Perox gaskets and polypropylene ties
[2] Any possbile combination of tailpiece available

Optional:
Fig. 95TP-SD
High pressure
TP with drain

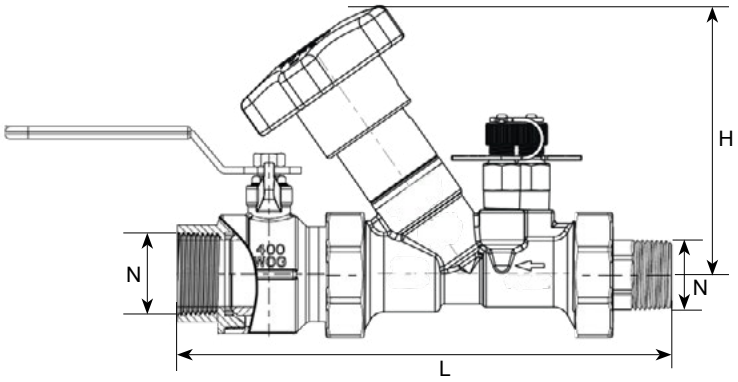


WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Dimension, Weight

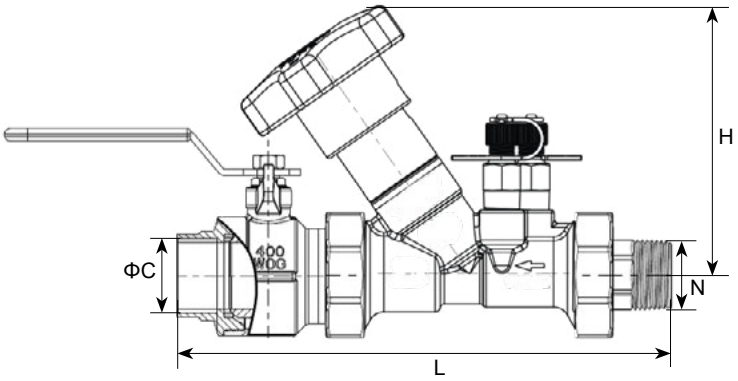
9517IBV-MF

Size	N	H [in]	L [in]	Weight [lb]	Flow range [GPM]
X-½"	½ - 14 NPT	4.06	6.77	2.08	0.12-0.36
U-½"	½ - 14 NPT	4.06	6.77	2.08	0.27-0.71
L-½"	½ - 14 NPT	4.06	6.77	2.08	0.49-1.17
½"	½ - 14 NPT	4.06	6.77	2.08	0.98-2.35[1]
¾"	¾ - 14 NPT	4.06	7.28	2.81	2.19-5.15[1]
1"	1 - 11.5 NPT	4.06	8.08	3.39	4.09-9.56[1]



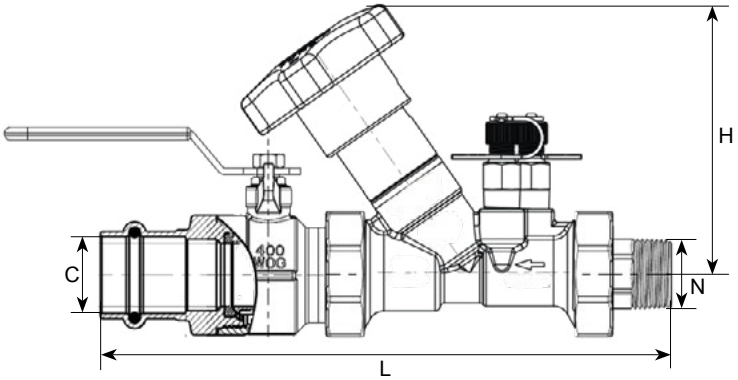
9517IBV-MS

Size	N	ΦC[2] [in]	H [in]	L [in]	Weight [lb]	Flow range [GPM]
X-½"	½ - 14 NPT	0.627-0.631	4.06	5.34	1.63	0.12-0.36
U-½"	½ - 14 NPT	0.627-0.631	4.06	5.34	1.63	0.27-0.71
L-½"	½ - 14 NPT	0.627-0.631	4.06	5.34	1.63	0.49-1.17
½"	½ - 14 NPT	0.627-0.631	4.06	5.34	1.63	0.98-2.35[1]
¾"	¾ - 14 NPT	0.877-0.881	4.06	5.78	1.94	2.19-5.15[1]
1"	1 - 11.5 NPT	1.128-1.131	4.06	6.66	2.49	4.09-9.56[1]



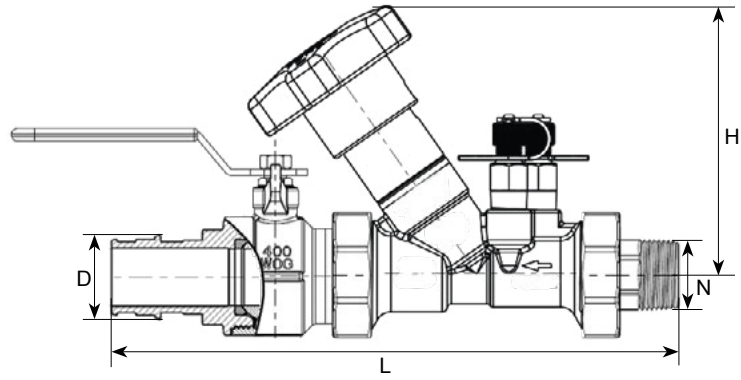
9517IBV-MP

Size	N	C [in]	H [in]	L [in]	Weight [lb]	Flow range [GPM]
X-½"	½ - 14 NPT	0.64	4.06	7.27	1.99	0.12-0.36
U-½"	½ - 14 NPT	0.64	4.06	7.27	1.99	0.27-0.71
L-½"	½ - 14 NPT	0.64	4.06	7.27	1.99	0.49-1.17
½"	½ - 14 NPT	0.64	4.06	7.27	1.99	0.98-2.35[1]
¾"	¾ - 14 NPT	0.89	4.06	8.05	2.46	2.19-5.15[1]
1"	1 - 11.5 NPT	1.14	4.06	9.03	3.26	4.09-9.56[1]



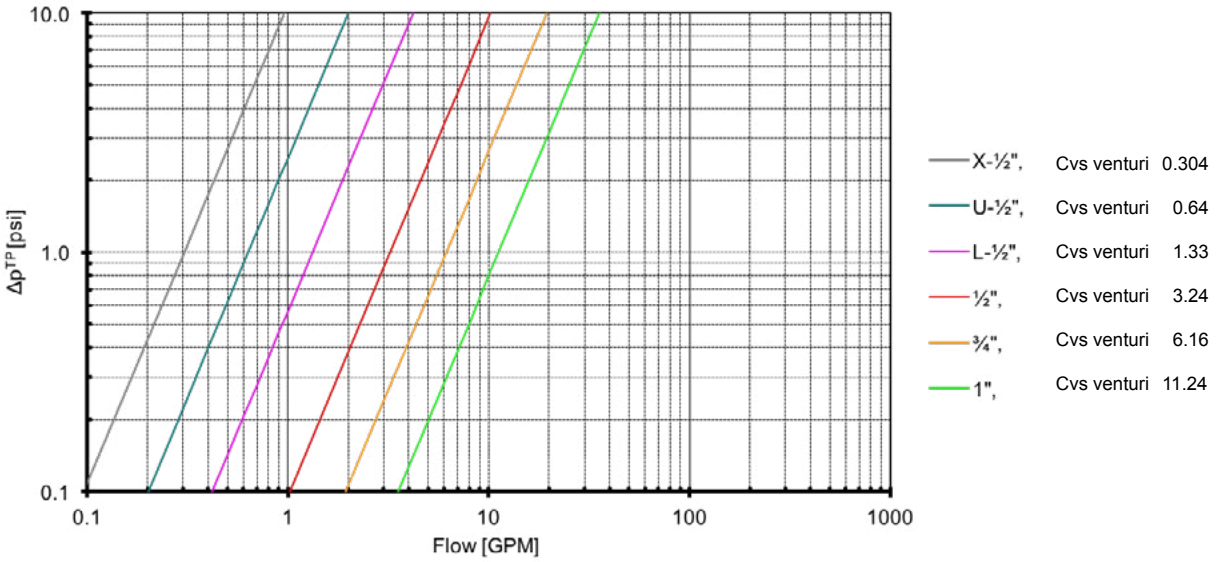
9517IBV-ME

Size	N	D [in]	H [in]	L [in]	Weight [lb]	Flow range [GPM]
X-½"	½ - 14 NPT	½" F1960	4.06	7.02	1.88	0.12-0.36
U-½"	½ - 14 NPT	½" F1960	4.06	7.02	1.88	0.27-0.71
L-½"	½ - 14 NPT	½" F1960	4.06	7.02	1.88	0.49-1.17
½"	½ - 14 NPT	½" F1960	4.06	7.02	1.88	0.98-2.35[1]
¾"	¾ - 14 NPT	¾" F1960	4.06	7.78	2.37	2.19-5.15[1]
1"	1 - 11.5 NPT	1" F1960	4.06	8.77	3.06	4.09-9.56[1]



[1] Suggested flow range applicability (BS7350)
[2] Tolerance field
If using a measuring manometer different from those proposed by RWV please verify that sensibility of the measuring device is compatible with indicated minimum flow (see flow measurement paragraph)

Flow Measurement

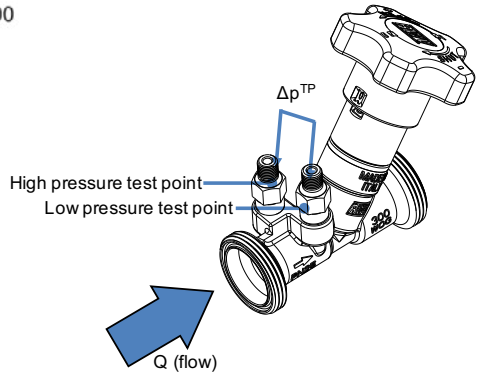


Q = flow rate in GPM

Δp = differential pressure signal generated through pressure test points

Cv = flow coefficient

$$Q = C_{vs}^{venturi} \cdot \sqrt{\Delta p^{TP}}$$

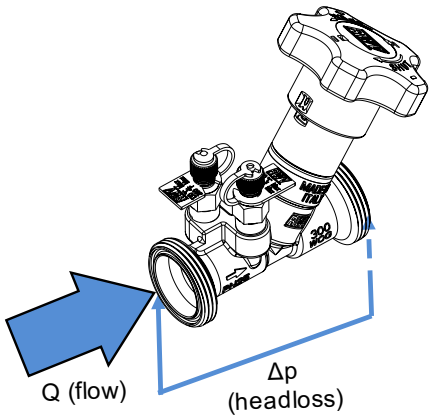


Headloss

Handwheel position	Cv (GPM/psi$^{0.5}$)					
	X-½"	U-½"	L-½"	½"	¾"	1"
0.5	0.061	0.177	0.160	0.474	0.47	1.70
0.7	0.072	0.206	0.186	0.474	0.54	2.00
1.0	0.124	0.283	0.287	0.613	0.67	2.42
1.3	0.169	0.331	0.394	0.717	0.81	2.82
1.5	0.193	0.355	0.440	0.809	0.90	3.12
1.7	0.217	0.387	0.501	0.902	0.99	3.48
2.0	0.250	0.445	0.586	0.99	1.12	4.13
2.3	0.267	0.511	0.67	1.10	1.25	4.83
2.5	0.274	0.517	0.70	1.18	1.39	5.28
2.7	0.280	0.527	0.74	1.32	1.62	5.63
3.0	0.291	0.563	0.83	1.60	2.24	6.09
3.3	0.294	0.578	0.86	1.88	2.94	6.49
3.5	0.299	0.594	0.89	2.03	3.39	6.64
3.7	0.302	0.595	0.92	2.12	3.75	6.80
4.0	0.303	0.603	0.95	2.19	4.06	7.10
4.4	0.305	0.605	0.98	2.22	4.24	7.21

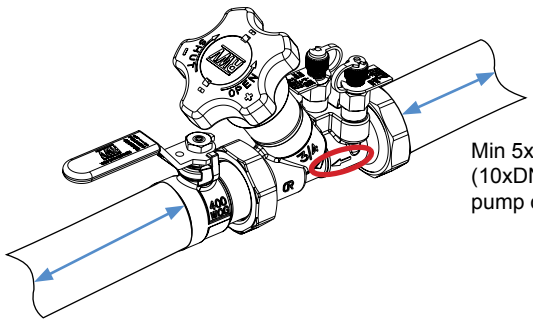
Formula linking flow Q (in GPM) and theoretical valve headloss Δp (in psi). Cv depends on handwheel position as indicated on table.

$$\Delta p = \left(\frac{Q}{C_V} \right)^2$$

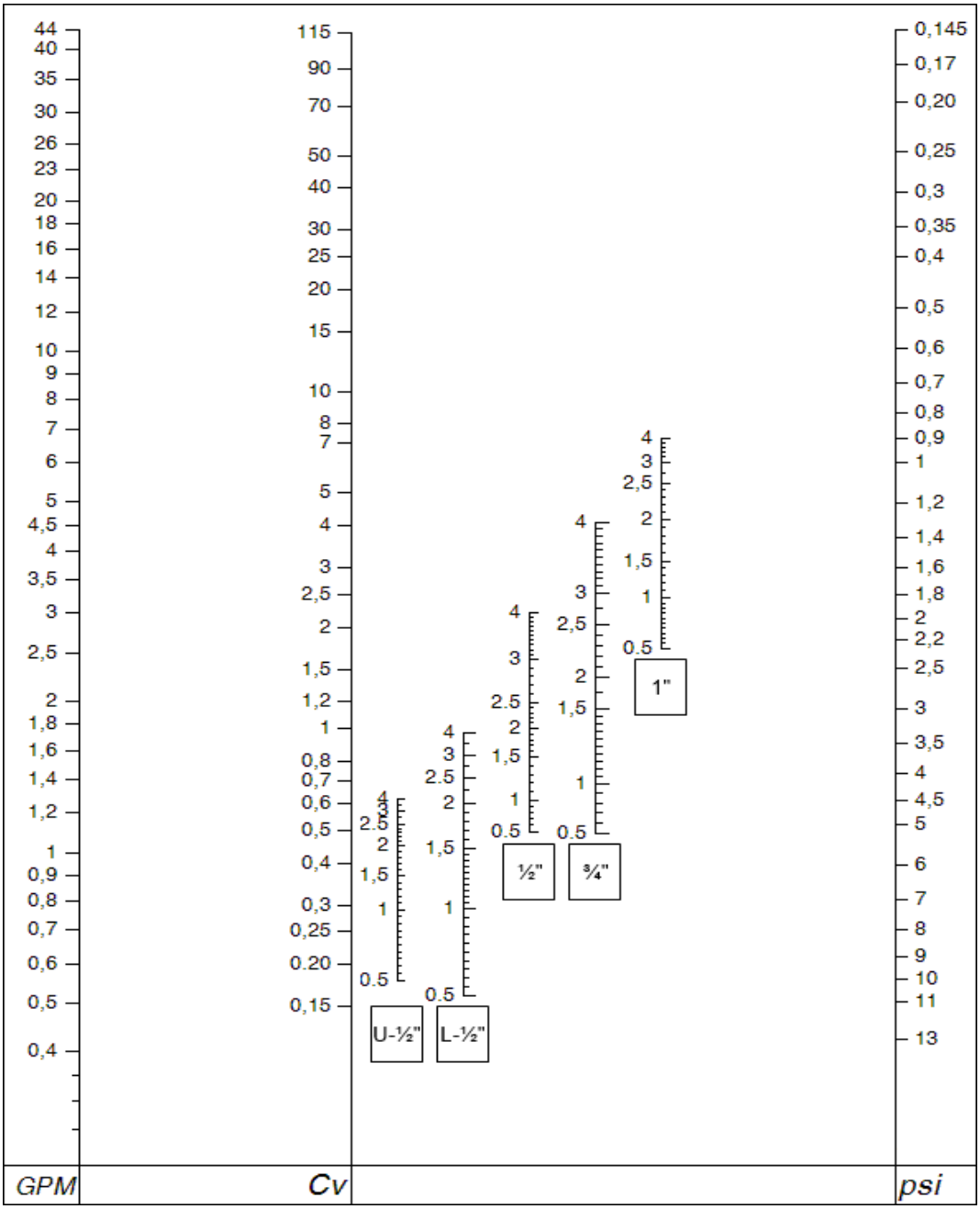


Installation

To obtain the best performances valve must be installed on a pipe with its same nominal size preceded by straight pipe lengths as per figure indications.

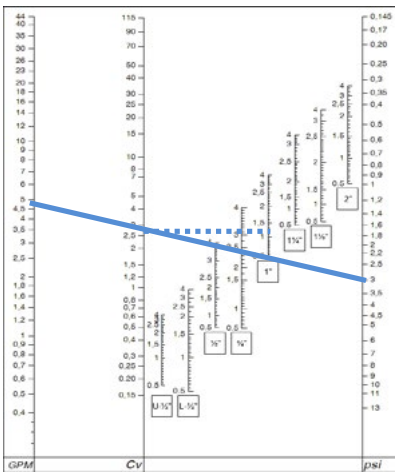


Presetting



Using the diagram above, it is possible to determine the presetting position of the valve with the given design flowrate and headloss:

1) draw a straight line joining design flowrate and design headloss;
2) determine design Cv value as intersection of drawn line and Cv axis;
3) draw a straight horizontal line from intersection previously identified and the specific valve size Axis;
4) intersection determines handwheel position to use for presetting.



In the example for a design flowrate of 5GPM and design Δp 3psi handwheel position of 1.35 is determined for a 1" valve