

### Feature

DZR brass pressure independent control valve (PICV)  
 Threaded M/M for union ends (ASME B1.20.1 - NPSM)  
 Max. ΔP working pressure 60psi  
 Flow accuracy: +/-5% of maximum flow or +/-10% of the set flow, whichever is greater

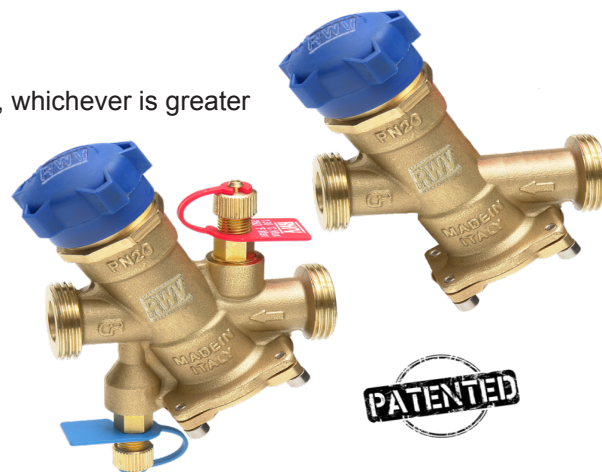
Available in:  
 - Fig. 9700R, without test points  
 (this does not allow the installation of test points)  
 - Fig. 9707R, with test points  
 100% full stroke-independent of valve setting  
 M30x1.5 threads for linear actuator

300WOG

Working conditions

Water: 15°F - 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 mixtures up to 50% may be used)



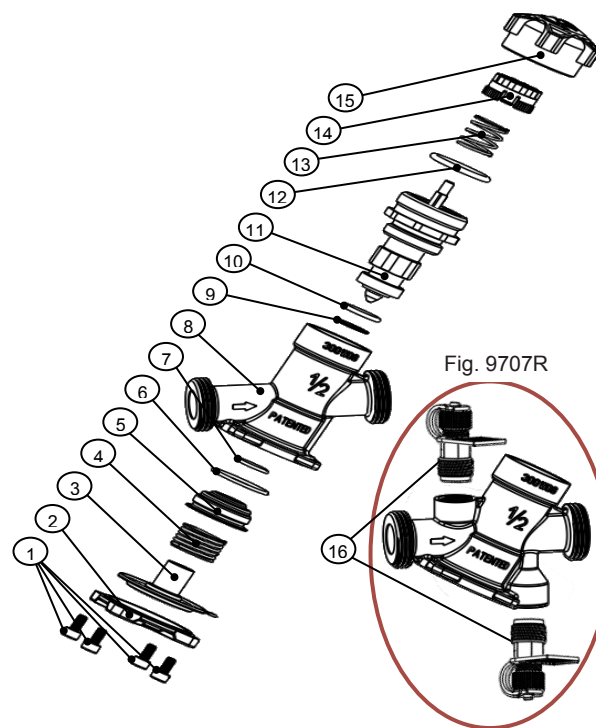
### Material

	Part	Material	Specification
1	Allen screw	Stainless steel	AISI 304
2	Plug	DZR brass	UNS C35330
3	Diaphragm Assy <sup>1</sup>	EPDM/SS	EPDM/AISI 303
4	Spring	Stainless steel	AISI 302
5	Diaphragm seat	DZR brass	UNS C35330
6	Seat/body O-ring	EPDM Perox	-
7	Seat/cursor O-ring	EPDM Perox	-
8	Body	DZR brass	UNS C35330
9	Washer	DZR brass	UNS C35330
10	Disc gasket	EPDM Perox	-
11	Flow reg. assembly	DZR brass <sup>2</sup>	UNS C35330
12	O-ring	EPDM Perox	-
13	Spring	Stainless steel	AISI 302
14	Dial	Polyamide	-
15	ON/OFF cap	Polyamide	-
16	Test point	DZR brass <sup>3</sup>	UNS C35330

<sup>1</sup> In two pieces, with EPDM Perox diaphragm

<sup>2</sup> With stainless steel spring (AISI 302) and EPDM Perox gaskets

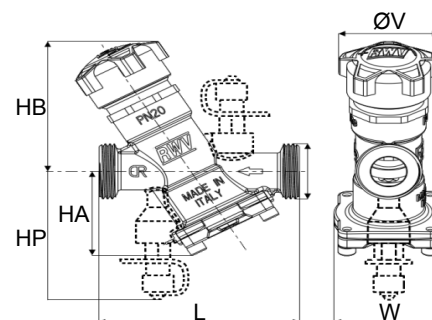
<sup>3</sup> Test points with EPDM gaskets and polypropylene ties



### Dimension

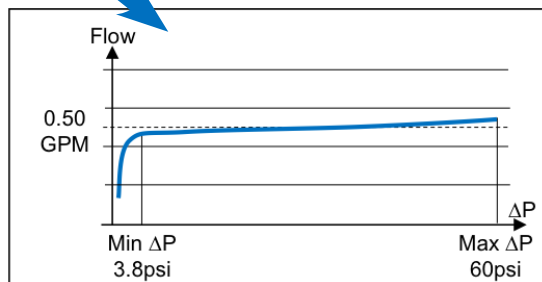
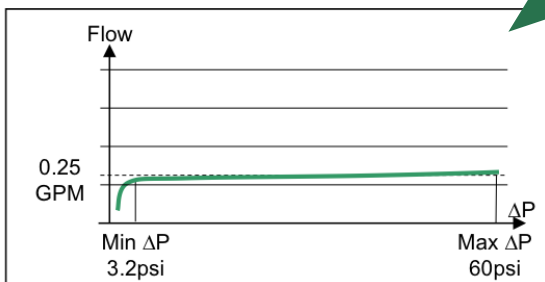
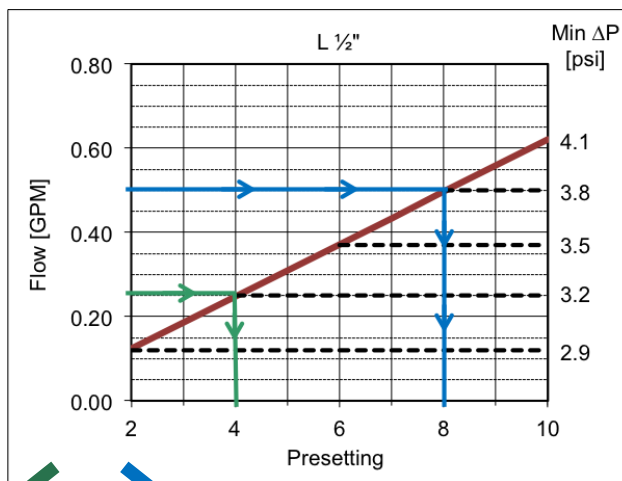
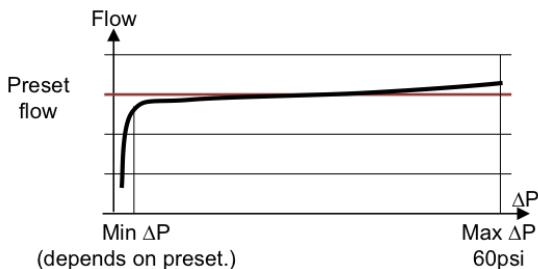
Size	N	L	HA	HP	HB	W	ØV	Weight <sup>1</sup>	Flow
	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[lb]	[GPM]
L ½"	¾"	3.09	1.53	2.40	2.44	1.7	1.6	0.84/0.93	0.12-0.62
½"	¾"	3.09	1.53	2.40	2.44	1.7	1.6	0.84/0.93	0.48-2.38
¾"	1"	3.62	1.87	2.73	2.44	2.0	1.6	1.26/1.32	0.99-4.93
1"	1¼"	4.53	2.21	3.08	2.96	2.3	1.6	2.43/2.49	1.90-9.51
1¼"	1½"	5.51	3.07	3.61	2.99	3.2	1.6	4.32/4.44	3.18-15.9

<sup>1</sup> Without test points / with test point

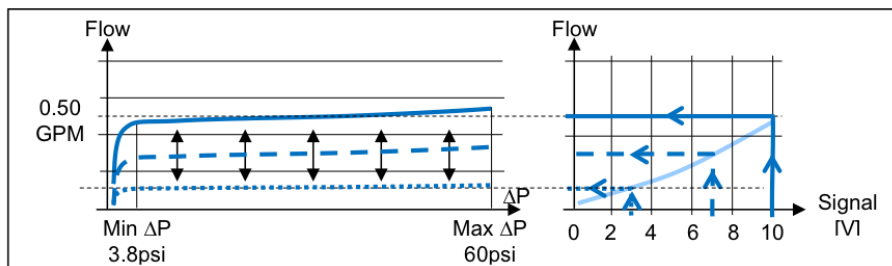


**Presetting**

Valve presetting ensures the maximum flow is constant (by means of dynamic balancing).  
 Presetting also determines the minimum working differential pressure of the valve.



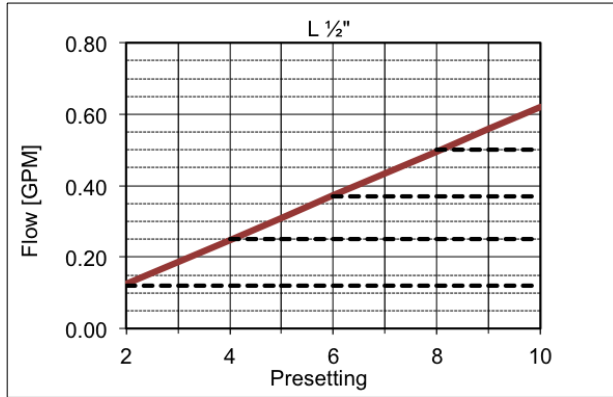
The flow regulating assembly determines the stroke length. When coupled with a modulating actuator, the control signal and the actual output flow is proportional (example for a RWV actuator with control signal 0-10V).  
 In the above example, at 0.5 GPM a presetting of 8 is determined on a L 1/2" valve. The valve will start to operate at a ΔP of 3.8 psi.



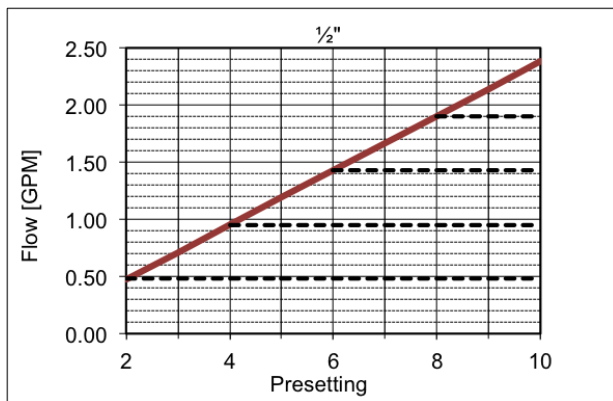
To set the flow rate:

- a) push down the dial
- b) rotate the scale until the desired value aligns with the mark on the bonnet
- c) release the dial, this will automatically lock in the preset position

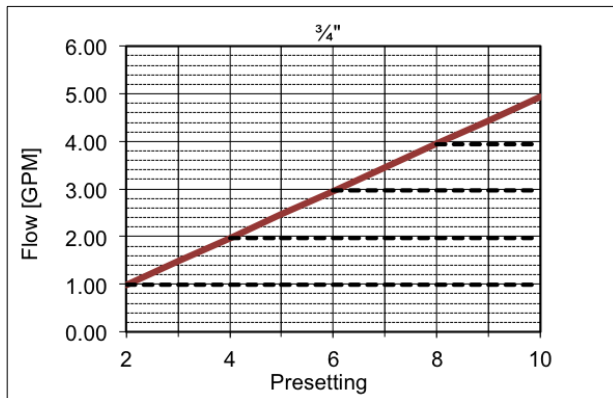




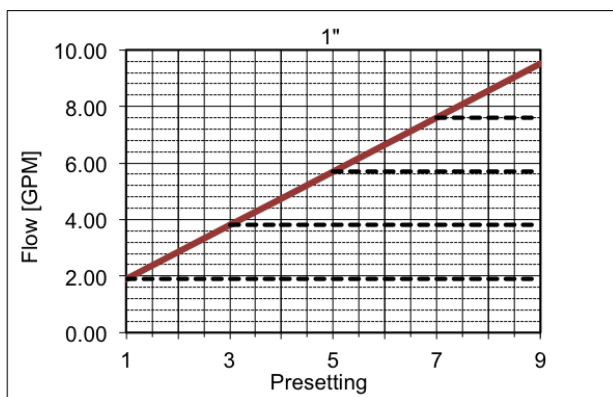
L 1/2"	Flow	$\Delta P$ min.
Preset	[GPM]	[psi]
2	0.12	2.9
3	0.19	3.0
4	0.25	3.2
5	0.31	3.3
6	0.37	3.5
7	0.43	3.6
8	0.50	3.8
9	0.56	3.9
10	0.62	4.1



1/2"	Flow	$\Delta P$ min.
Preset	[GPM]	[psi]
2	0.48	3.5
3	0.71	3.6
4	0.95	3.8
5	1.19	4.1
6	1.43	4.4
7	1.67	4.6
8	1.90	4.9
9	2.14	5.1
10	2.38	5.2

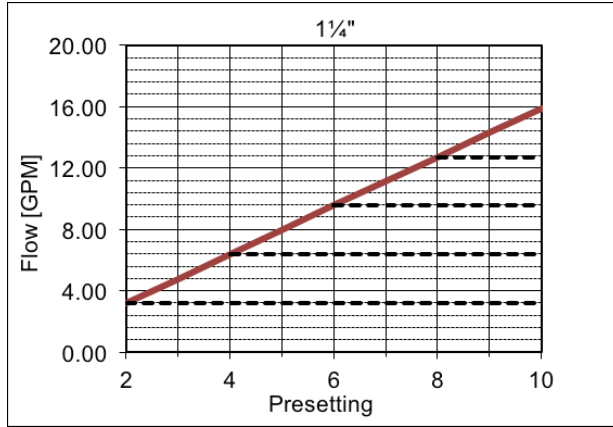


3/4"	Flow	$\Delta P$ min.
Preset	[GPM]	[psi]
2	0.99	3.5
3	1.48	3.6
4	1.97	3.8
5	2.47	4.1
6	2.96	4.4
7	3.45	4.6
8	3.94	4.9
9	4.44	5.1
10	4.93	5.2



1"	Flow	$\Delta P$ min.
Preset	[GPM]	[psi]
2	1.90	3.5
3	2.85	3.6
4	3.80	3.8
5	4.75	4.1
6	5.70	4.4
7	6.65	4.6
8	7.60	4.9
9	8.55	5.1
10	9.50	5.2

### DZR Brass Pressure Independent Control Valve (PICV)



1 1/4"	Flow	$\Delta P$ min.
Preset	[GPM]	[psi]
2	3.17	3.5
3	4.76	3.6
4	6.34	3.8
5	7.93	4.1
6	9.51	4.4
7	11.1	4.6
8	12.7	4.9
9	14.3	5.1
10	15.9	5.2