

DZR Brass Pressure Independent Control Valve (PICV) with Tailpieces

Feature

DZR brass pressure independent control valve (PICV)
 Max. ΔP working pressure 60psi
 Flow accuracy: +/-5% of maximum flow or
 +/-10% of the set flow, whichever is greater
 Union ends for tailpieces connections
 FNPT, MNPT, and Solder tailpieces available
 100% full stroke-independent of valve setting
 M30x1.5 threads for linear actuator

Meet BAA requirement

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)

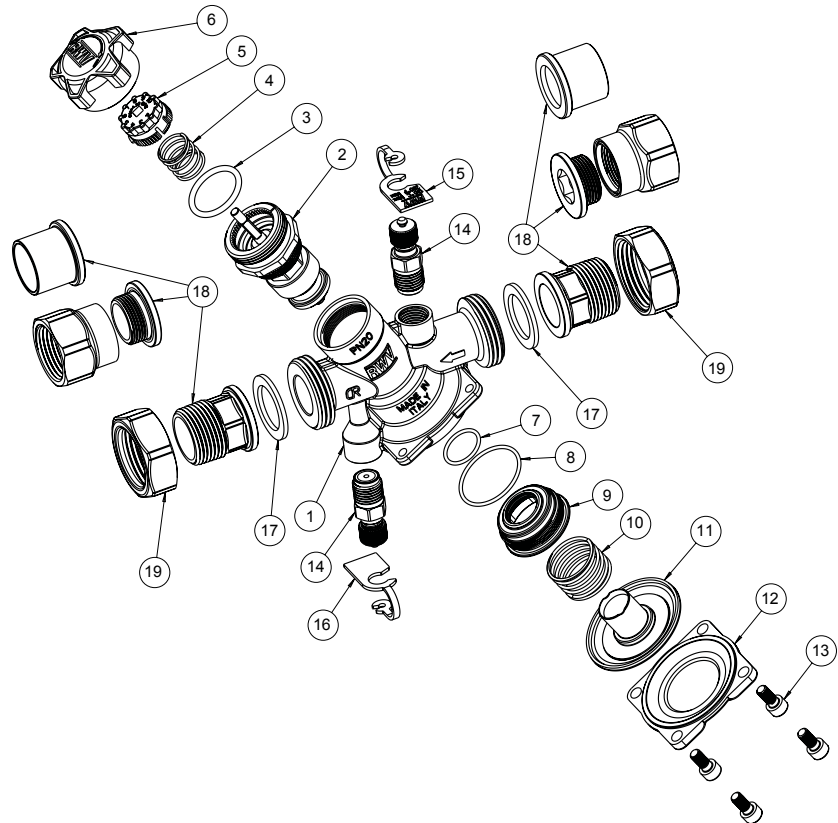


Material

	Part	Material	Specification
1	Body	DZR brass	UNS C35330
2	Flow reg. assembly	DZR brass ¹	UNS C35330
3	O-ring	EPDM Perox	-
4	Spring	Stainless steel	AISI 302
5	Dial	Polyamide	-
6	ON/OFF cap	Polyamide	-
7	Seat/cursor O-ring	EPDM Perox	-
8	Seat/body O-ring	EPDM Perox	-
9	Diaphragm seat	DZR brass	UNS C35330
10	Spring	Stainless steel	AISI 302
11	Diaphragm Assy ²	EPDM/SS	EPDM/AISI 303
12	Base plate	DZR brass	UNS C35330
13	Allen screw	Stainless steel	AISI 304
14	Test point	DZR brass	UNS C35330
15	Tie (Red)	Polyamide	-
16	Tie (Blue)	Polyamide	-
17	Gasket	EPDM Perox	-
18	Tailpiece	DZR brass	UNS C35330
19	Union nut	Brass	ASTM B283 C37700

¹ With stainless steel spring (AISI 302) and EPDM Perox gaskets

² In two pieces, with EPDM Perox diaphragm



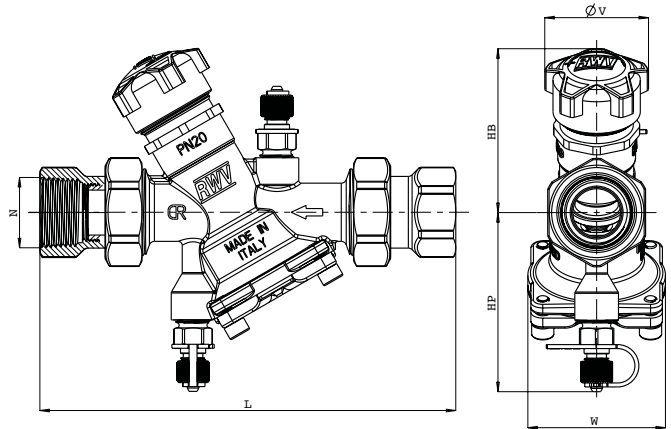
DZR Brass Pressure Independent Control Valve (PICV) with Tailpieces

Dimension, Weight, Flow

9707T-FF

Size	N	L [in]	HP [in]	HB [in]	W [in]	ØV [in]	Wt. [lb]	Flow [GPM]
L ½"	½ - 14NPT	5.61	2.40	2.44	1.7	1.6	1.36	0.12-0.62
½"	½ - 14NPT	5.61	2.40	2.44	1.7	1.6	1.36	0.48-2.38
H ½"	½ - 14NPT	5.35	2.67	2.44	2.0	1.6	1.80	0.99-4.93
¾"	¾ - 14NPT	6.19	2.67	2.44	2.0	1.6	1.99	0.99-4.93
H ¾"	¾ - 14NPT	6.39	2.93	2.96	2.4	1.6	2.98	1.90-9.51
1"	1 - 11.5NPT	7.52	2.93	2.96	2.4	1.6	3.39	1.90-9.51
H 1"	1 - 11.5NPT	7.65	3.65	2.99	3.2	1.6	5.31	3.18-15.9
1¼"	1¼ - 11.5 NPT	8.71	3.65	2.99	3.2	1.6	5.82	3.18-15.9

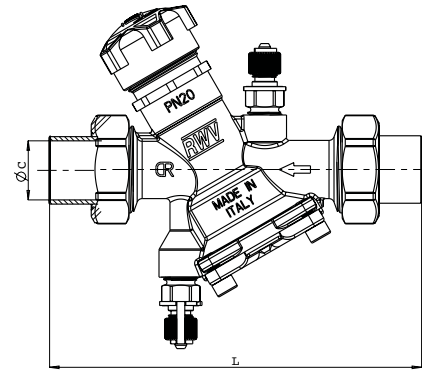
* Option for mail tailpiece available



9707T-SS

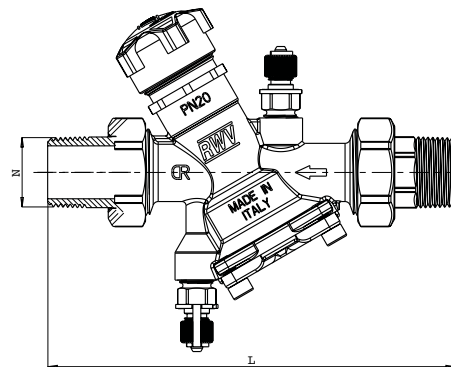
Size	ØC	L [in]	HP [in]	HB [in]	W [in]	ØV [in]	Wt. [lb]	Flow [GPM]
L ½"	0.627-0.631	4.46	2.40	2.44	1.7	1.6	1.11	0.12-0.62
½"	0.627-0.631	4.46	2.40	2.44	1.7	1.6	1.11	0.48-2.38
H ½"	0.627-0.631	4.98	2.67	2.44	2.0	1.6	1.68	0.99-4.93
¾"	0.877-0.881	5.54	2.67	2.44	2.0	1.6	1.71	0.99-4.93
H ¾"	0.877-0.881	6.44	2.93	2.96	2.4	1.6	2.84	1.90-9.51
1"	1.128-1.131	7.13	2.93	2.96	2.4	1.6	3.01	1.90-9.51
H 1"	1.128-1.131	8.11	3.65	2.99	3.2	1.6	5.22	3.18-15.9
1¼"	1.378-1.381	8.27	3.65	2.99	3.2	1.6	5.23	3.18-15.9

* Option for mail tailpiece available



9707T-MM

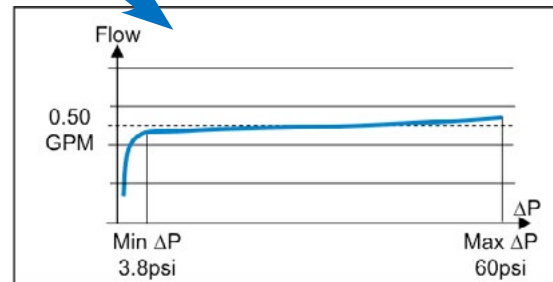
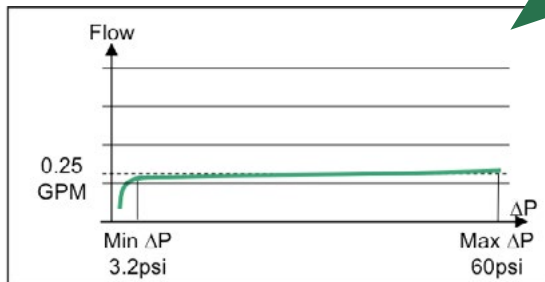
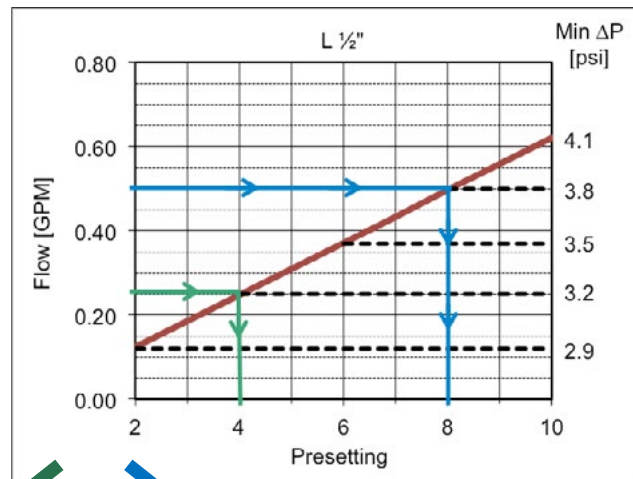
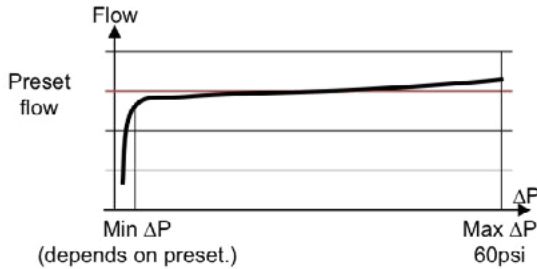
Size	N	L [in]	HP [in]	HB [in]	W [in]	ØV [in]	Wt. [lb]	Flow [GPM]
L ½"	½ - 14NPT	5.50	2.40	2.44	1.7	1.6	1.20	0.12-0.62
½"	½ - 14NPT	5.50	2.40	2.44	1.7	1.6	1.20	0.48-2.38
H ½"	½ - 14NPT	6.02	2.67	2.44	2.0	1.6	1.77	0.99-4.93
¾"	¾ - 14NPT	6.06	2.67	2.44	2.0	1.6	1.81	0.99-4.93
H ¾"	¾ - 14NPT	6.89	2.93	2.96	2.4	1.6	2.98	1.90-9.51
1"	1 - 11.5NPT	7.60	2.93	2.96	2.4	1.6	3.05	1.90-9.51
H 1"	1 - 11.5NPT	8.58	3.65	2.99	3.2	1.6	5.31	3.18-15.9
1¼"	1¼ - 11.5 NPT	8.66	3.65	2.99	3.2	1.6	5.42	3.18-15.9



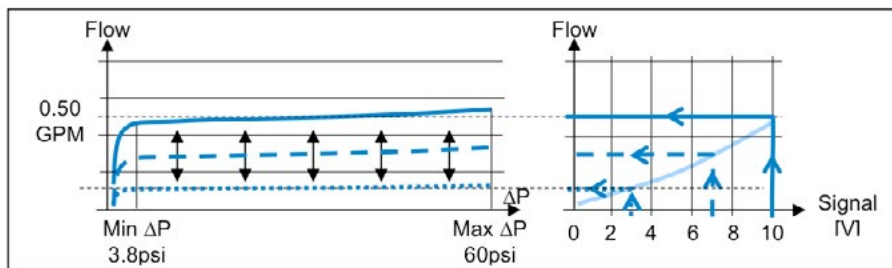
DZR Brass Pressure Independent Control Valve (PICV) with Tailpieces

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.

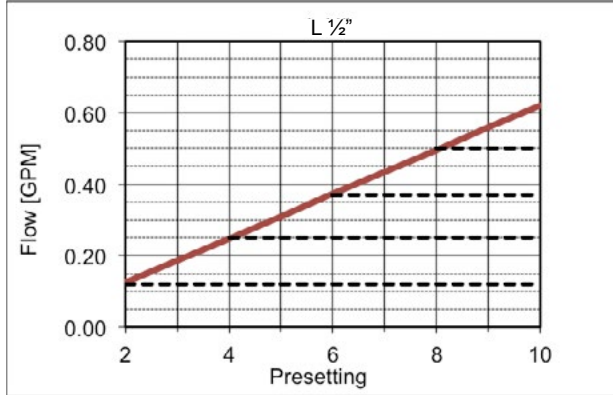


To set the flow rate:

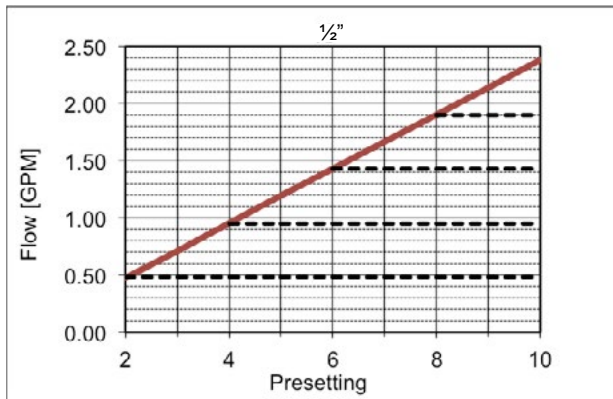
- a) push down the dial
- b) rotate the scale until the desired value aligns with the mark on the bonnet
- c) release the dial, this will automatically lock in the preset position



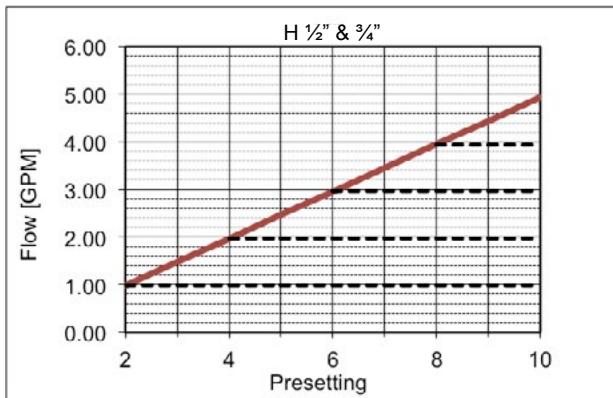
DZR Brass Pressure Independent Control Valve (PICV) with Tailpieces



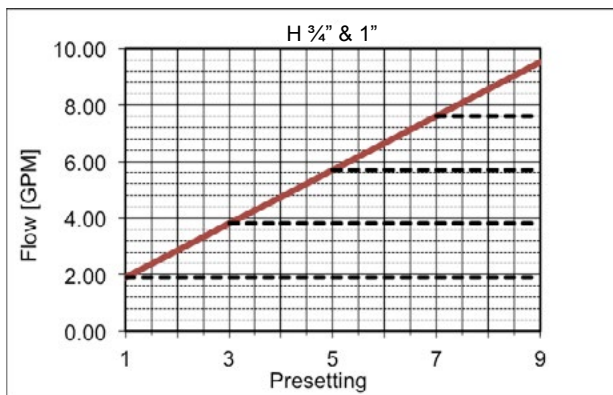
L 1/2"	Flow	ΔP min.
Preset	[GPM]	[psi]
2	0.12	2.9
3	0.19	3.0
4	0.25	3.2
5	0.31	3.3
6	0.37	3.5
7	0.43	3.6
8	0.50	3.8
9	0.56	3.9
10	0.62	4.1



1/2"	Flow	ΔP 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

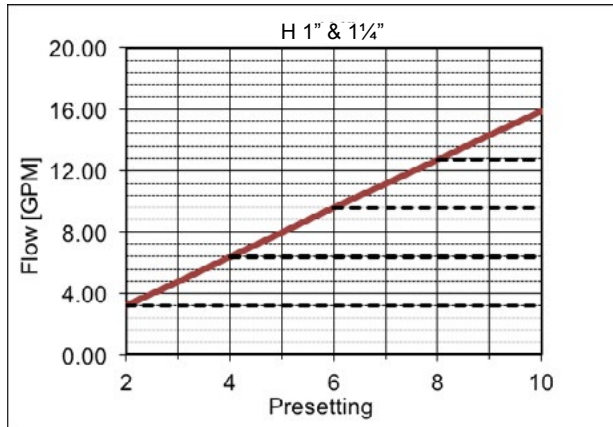


3/4"	Flow	ΔP min.
Preset	[GPM]	[psi]
2	0.99	3.5
3	1.48	3.6
4	1.97	3.8
5	2.47	4.1
6	2.96	4.4
7	3.45	4.6
8	3.94	4.9
9	4.44	5.1
10	4.93	5.2



1"	Flow	ΔP 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) with Tailpieces



1 1/4"	Flow	ΔP 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