



**C10**  
Bronze  
Pressure Reducing Valve  
Direct Acting  
For Water, Air & Gasses  
BSPB Threaded

**Bailey Birkett**



The C10 balanced pressure reducing valve range is designed for use on water/air (gas) applications and for installations which have varying inlet pressures and capacities. It is particularly suitable where positive shut-off is required under "no flow" conditions and where compact size and economy are essential.

The C10 pressure regulator is operated by a spring loaded piston and has a balanced main valve which ensures that the outlet dead-end pressure is unaffected by changes of inlet pressure.

**Approvals, Features & Benefits**

- Direct acting
- Soft disc for positive shut off
- Integral strainer
- Fully balanced piston
- Simple design
- Self actuation/regulation

**Pressure & Temperature**

Maximum inlet pressure:-  
27 bar

Reduced pressure range\*:-

Maximum : 4.8 bar  
Minimum : 0.7 bar

Temperature range:-  
-18 to 82°C

\*Outlet pressure should not be less than 10% of the inlet pressure.

DN	15 (1/2")	20 (3/4")	25 (1")	32 (1 1/4")	40 (1 1/2")	50 (2")
A	77.0	84.2	98.0	119.1	114.5	171.5
B	33.4	35.5	40.4	50.6	55.7	66.5
C	77.0	84.2	98.0	119.1	144.5	171.5
Weight Kg	0.8	1.0	1.3	3.3	5.9	9.4

**MATERIALS**

Body	Bronze
Seat Ring	Stainless Steel
Diaphragm & Seals	EPDM
Seat Disc	EPDM
Strainer	Stainless Steel

**AIR CAPACITY (l/s) at 15°C - Rise to dead end 20%**

Inlet (bar)	Outlet (bar)	15	20	25	32	40	50
1	0.65	1.8	3.0	4.7	6.5	8.4	10.3
	0.58	2.0	3.3	5.1	7.0	9.1	11.1
2	1.60	3.3	5.5	8.3	11.6	15.0	16.4
	0.58	4.6	7.8	11.8	16.4	21.2	26.0
5	0.58	4.9	8.2	12.5	17.4	22.5	27.6
	4.00	9.0	15.0	23.0	31.9	41.2	50.5
	3.00	11.6	19.4	29.6	41.0	53.0	65.0
	2.00	12.3	20.6	31.4	43.5	56.3	68.9
10	0.58	12.3	20.6	31.4	43.5	56.3	68.9
	4.00	24.7	41.2	62.7	87.0	113.0	138.0
15	1.00	24.7	41.2	62.7	87.0	113.0	138.0
	4.00	37.0	61.8	94.0	130.0	169.0	207.0
20	1.50	37.0	61.8	94.0	130.0	169.0	207.0
	4.00	49.3	82.4	125.0	174.0	225.0	276.0
25	2.00	49.3	82.4	125.0	174.0	225.0	276.0
	4.00	61.7	103.0	157.0	217.0	282.0	345.0
27	2.50	61.7	103.0	157.0	217.0	282.0	345.0
	4.00	66.6	111.0	169.0	235.0	304.0	372.0
	2.70	66.6	111.0	169.0	235.0	304.0	372.0

To calculate capacities at a different rise at dead end multiply capacity by the figures below

5% - 0.25 • 10% - 0.50 • 15% - 0.75 • 20% - 1.00

**WATER CAPACITY (l/s) - Rise to dead end 1 Bar**

Pressure Differential (bar)	15	20	25	32	40	50
1.00	0.56	0.90	1.42	2.08	2.88	3.87
2.00	0.73	1.17	1.83	2.69	3.71	4.98
3.00	0.83	1.33	2.09	3.06	4.23	5.68
4.00	0.90	1.44	2.26	3.32	4.58	6.15
5.00	0.93	1.48	2.32	3.41	4.71	6.33
6.00	0.94	1.50	2.35	3.45	4.76	6.40
7.00	0.94	1.51	2.36	3.47	4.79	6.44
8.00	0.94	1.51	2.36	3.47	4.79	6.44
9.00	0.94	1.51	2.36	3.47	4.79	6.44
10.0	0.94	1.51	2.36	3.47	4.79	6.44
15.00	0.94	1.51	2.36	3.47	4.79	6.44
20.00	0.94	1.51	2.36	3.47	4.79	6.44
24.30	0.94	1.51	2.36	3.47	4.79	6.44

To calculate capacities at a different rise at dead end multiply capacity by the figures below

NPS 1/2" - 1" : 0.35 bar - 0.34 • 0.7 bar - 0.72 • 1.4 bar - 1.19  
NPS 1 1/4" - 2" : 0.35 bar - 0.26 • 0.7 bar - 0.68 • 1.4 bar - 1.29