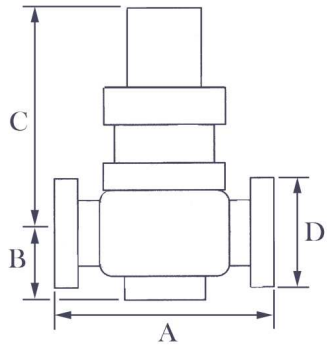

G4
2044

Carbon Steel
Pressure Reducing Valve
Pilot Operated
For Steam, Air & Gasses

Flanged PN16
ANSI150/300 & BST F/H
drillings available on request

Bailey Birkett

The G4 series of pilot operated pressure reducing valves provide extremely accurate levels of pressure regulation for steam, air and industrial gas applications.

The valve relies upon a stable pressure signal from the outlet pipework in order to maintain stable control of the outlet pressure. However, under certain operating conditions the signal pressure may be unstable in the immediate vicinity of the valve outlet and as a result may cause erratic control. This can be easily overcome by installing a balance pipe.

All G4 valves can be remotely controlled where necessary by connecting a balance pipe from the remote control port and into the outlet pipework at a point where stable pressures are likely to occur.

Features & Benefits

- Pilot operated
- Reliable
- Compact design
- Constant outlet pressure
- High capacity
- Positive shut-off
- Spares available

Pressure & Temperature

Inlet Pressure Range:-

0.7 to 16 bar*

*Steam duty 13 bar
Air duty 16 bar @ 120°C & 13 bar @ 220°C

Reduced Pressure range:-

0.07 to 15 bar**

**0.07 to 0.35 bar requires a low pressure top

Temperature Range:-

St. St. Seat (Standard): -20°C to 220°C
PTFE Seat: -20°C to 170°C

DN	65	80	100	125	150
A	254	286	343	419	419
B	130	146	178	248	248
C	286	286	324	419	419
D	190	210	255	380	380
Weight Kg	38	56	80	174	174

MATERIALS	
Body	Carbon Steel
Trim	Stainless Steel (Standard) • PTFE
Pilot Top	Bronze
Pilot Top Valve	Stainless Steel
Diaphragm	Stainless Steel
Piston	Bronze

SPRING SELECTION (BAR)	COLOUR CODE
0.07 to 3.5	Yellow
0.7 to 7.0	Black
2.8 to 10.5	White
3.5 to 14.0	Green
7.0 to 21.0	Red

AVAILABLE SPARES

Routine Service Pack.

Containing:-
Diaphragm, set of piston rings, pilot valve cap & set of joints.

Complete Repair Kit.

Containing:-
Diaphragm, set of piston rings, pilot valve assembly, main valve, main valve seat, main valve spring & set of joints.

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Capacity Charts/Sizing

DRY SATURATED STEAM CAPACITY (*kg/h*)

Inlet (bar)	Outlet (bar)	65	80	100	125	150
0.70	0.35	-	-	-	-	-
	0.07**	-	-	-	-	-
1.00	0.65	-	-	-	-	-
	0.55	-	-	-	-	-
	0.32**	1072	1337	2397	-	-
	0.07**	1072	1337	2397	-	-
2.00	1.65	-	-	-	-	-
	1.30	1418	1769	3171	4590	6538
	1.10	1540	1920	3442	4981	7095
	0.35	1540	1920	3442	4981	7095
	0.07**	1540	1920	3442	-	-
5.00	4.30	-	-	-	-	-
	4.00	2388	2978	5338	7727	-
	2.75	3219	4015	7196	10415	14834
	0.35	3219	4015	7196	10415	14834
	0.07**	3219	4015	7196	-	-
10.00	9.00	3024	3771	6759	9783	13934
	5.50	5932	7398	13260	19193	27335
	1.20	5932	7398	13260	19193	27335
	0.35	5932	7398	13260	-	-
15.00	14.00	3216	4011	7190	-	-
	12.00	6629	8267	14819	21448	30548
	8.25	8624	10755	19277	27901	39739
	2.90	8624	10755	19277	27901	39739
	0.80	8624	10755	19277	-	-

** Low pressure top required for outlet pressures below 0.35 Bar

The Max. & Min. outlet pressure for a given inlet pressure and valve size, can be determined from the above table. E.g. a 100mm valve with an inlet pressure of 15.0 bar has a maximum available outlet pressure of 14.0 bar and a minimum of 0.80 bar.

To ensure the above flows, it is critical the correct size of outlet pipe is used. Contact sales for further details.

For super heated steam the above capacities need to be derated, see table below

SUPER HEATED STEAM DERATING	FACTOR
0 to 10°C	Multiply by 0.96
10 to 50°C	Multiply by 0.92
50 to 75°C	Multiply by 0.89
75 to 100°C	Multiply by 0.86
100 to 150°C	Multiply by 0.82

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Capacity Charts/Sizing

AIR CAPACITY (*l/s @ 15°C*)

Inlet (bar)	Outlet (bar)	65	80	100	125	150
0.70	0.35	-	-	-	-	-
	0.07**	-	-	-	-	-
1.00	0.65	-	-	-	-	-
	0.55	-	-	-	-	-
	0.32**	357	445	797	-	-
	0.07**	357	445	797	-	-
2.00	1.65	-	-	-	-	-
	1.30	473	590	1057	1530	2180
	1.10	516	643	1153	1819	2377
	0.35	516	643	1153	1819	2377
	0.07**	516	643	1153	-	-
5.00	4.30	-	-	-	-	-
	4.00	765	954	1711	2477	3528
	2.75	1057	1318	2363	3803	4871
	0.35	1057	1318	2363	3803	4871
	0.07**	1057	1318	2363	-	-
10.00	9.00	912	1137	2039	2951	4204
	5.50	1928	2404	4309	7008	8882
	1.20	1928	2404	4309	7008	8882
	0.35	1928	2404	4309	-	-
15.00	14.00	908	1132	2029	-	-
	12.00	2099	2618	4692	6792	9673
	8.25	2796	3486	6249	10187	12882
	2.90	2796	3486	6249	10187	12882
	0.80	2796	3486	6249	-	-

** Low pressure top required for outlet pressures below 0.35 Bar

The Max. & Min. outlet pressure for a given inlet pressure and valve size, can be determined from the above table. E.g. a 100mm valve with an inlet pressure of 15 bar has a maximum available outlet pressure of 14.00 bar and a minimum of 0.80 bar.

To ensure the above flows, it is critical the correct size of outlet pipe is used. Contact sales for further details.
For gases other than air and temperatures other than 15°C please contact sales.

Estimated Air Capacities
1. Multiply chart capacity by 0.66 to give air flow in SCFM
2. Multiply chart capacity by 1.2 to give air flow in Nm3/h

Estimated Air Pressure Drops
For guidance, multiply the chart pressure drop by 1.23 to give an approximate air pressure drop.

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