

J48

Gas Pressure Regulator

Inlet Pressure 5 psig

Nominal Diameter $\frac{3}{4}$ " – 2"



Applications

- Industrial
- Commercial

Brief information

Operation: The J48 is a highly versatile proven range of Industrial Low Pressure Regulators, suitable for a wide range of pressure reduction applications. The regulator includes a quick release spring adjustment mechanism unit. This enhancement provides easy access for spring adjustment and routine maintenance. The J48 is available in sizes from $\frac{3}{4}$ " to 6", the larger sizes being described in a separate leaflet. Also available and described on separate leaflets are the zero, H (high inlet), and HL (high inlet, low outlet) versions.

Application: The J48 is a service and appliance regulator suitable for a wide range of domestic, commercial and industrial applications. All units are designed for natural, liquefied petroleum and manufactured gases.

The J48 can be installed in both horizontal and vertical pipelines, with certain sizes available with angled connections for meter services applications. The J48 has positive lock up.

Control: A comprehensive range of springs is available. The outlet pressure can be easily and accurately adjusted by turning the spring adjustment unit located under the top cap. This provides virtually frictionless adjustment and eliminates "spring wind up". The complete spring adjustment mechanism can be removed easily for maintenance and spring changes. If required the units can be supplied factory set with a security seal at extra cost.

Technical Data: Maximum inlet pressure: 5 psig
Maximum outlet Pressure: 64"wc

Approvals

Jeavons J48 Series models are AGA / CGA approved to the following specifications:

CGA 6.3	- M95 / ANSI Z21.18 – 1995
CGA 6.3a	- M98 / ANSI Z21.18a – 1998
CGA 6.3b	- M100 / ANSI Z21.18b – 2000

Servicing: The J48 has been designed for ease of access, inspection and servicing of all internal components. A standard soft spares kit is available for all sizes.

$\frac{3}{4}$ " - 1"	reference number 52980K003
$1\frac{1}{4}$ " - $1\frac{1}{2}$ "	reference number 52980K004
2"	reference number 52980K005

Main features

- Sizes $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ ", $1\frac{1}{2}$ " & 2"
(for $2\frac{1}{2}$ " – 6" see separate leaflet)
- Temperature range
-4°F to +158°F
- Threaded connections to NPT (other threads may be available upon request)
- Fully inlet pressure balanced
- Full lock-up capability
- Internal impulse
- Spring loaded
- Quick release spring adjustment
- Excellent outlet pressure control



J48: Low Pressure Regulator

Regulating Capacities

All capacities in SCFH 0.64 s.g.

Setting Flow Rate: 100 SCFH

REGULATOR SIZE: 3/4"

OUTLET PRESSURE SETTING ("wc) / DROOP (%)

	4"		7"		8"		11"		20"	
	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%
Pin "wc										
6	216	221	-	-	-	-	-	-	-	-
8	247	441	252	464	-	-	-	-	-	-
10	278	472	296	561	318	587	-	-	-	-
Pin PSIG										
0.50	344	530	366	786	406	883	477	883	-	-
0.75	375	574	433	861	552	971	728	1104	441	927
1.00	318	618	477	927	750	993	883	1192	795	1280
1.50	362	618	525	949	949	1170	1059	1280	1015	1523
2.00	371	662	556	927	1059	1280	1148	1324	1192	1633
3.00	291	552	592	927	1280	1457	1368	1545	1589	1810
5.00	256	503	534	993	1501	1545	1368	1501	2119	2295

REGULATOR SIZE: 1"

OUTLET PRESSURE SETTING ("wc) / DROOP (%)

Setting Flow Rate: 100 SCFH

	4"		7"		8"		11"		20"	
	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%
Pin "wc										
6	313	459	-	-	-	-	-	-	-	-
8	397	552	353	795	-	-	-	-	-	-
10	441	790	455	883	441	883	-	-	-	-
Pin PSIG										
0.50	662	927	662	971	618	1059	574	1324	-	-
0.75	662	927	971	1148	927	1236	861	1633	750	1589
1.00	839	1015	1104	1280	1170	1324	1059	1766	1015	1854
1.50	1413	1457	1104	1324	1148	1457	1324	1898	1368	1942
2.00	1236	1368	1192	1457	1589	1589	1501	2031	1457	1986
3.00	1368	1501	1368	1589	1368	1677	1457	2119	1545	2207
5.00	1501	1810	1501	1986	1545	2207	1677	2207	1766	2428

REGULATOR SIZE: 1 1/4"

OUTLET PRESSURE SETTING ("wc) / DROOP (%)

Setting Flow Rate: 100 SCFH

	4"		7"		8"		11"		20"	
	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%
Pin "wc										
6	640	1324	-	-	-	-	-	-	-	-
8	795	1545	706	1324	-	-	-	-	-	-
10	817	1677	883	1589	795	1589	-	-	-	-
Pin PSIG										
0.50	883	1920	1015	1986	1148	2031	1280	2119	-	-
0.75	883	1810	1236	2384	1413	2604	1854	2913	1280	2163
1.00	927	1722	1457	2516	1722	3002	2207	3399	1854	3046
1.50	971	1722	1942	2604	2295	3531	2825	4061	2649	4105
2.00	971	1810	2340	3002	2825	3840	2472	4635	3134	4767
3.00	927	2163	2913	3576	3752	4591	4061	5518	3973	5959
5.00	706	1413	4238	4856	5076	6180	3002	7019	5297	7504

J48: Low Pressure Regulator

Regulating Capacities

All capacities in SCFH 0.64 s.g.

Setting Flow Rate: 100 SCFH

REGULATOR SIZE: 1½"

OUTLET PRESSURE SETTING ("wc) / DROOP (%)

	4"		7"		8"		11"		20"	
	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%
Pin "wc										
6	750	1545	-	-	-	-	-	-	-	-
8	927	1810	750	1501	-	-	-	-	-	-
10	1104	1986	927	1898	971	1898	-	-	-	-
Pin PSIG										
0.50	1501	2428	1192	2472	1280	2516	1501	2516	-	-
0.75	2119	2958	1677	3134	1633	3222	2340	3664	1501	2516
1.00	2604	3487	1898	3708	2031	3796	2869	4503	2119	3708
1.50	3487	4547	2737	4591	2825	4723	3929	5606	2958	5297
2.00	4105	5121	4061	5385	3531	5562	4767	6489	3399	6357
3.00	5827	6710	6136	6798	5739	6710	6268	7725	4856	7769
5.00	8167	8520	7504	7902	7946	8829	8387	10153	7063	10418

REGULATOR SIZE: 2"

OUTLET PRESSURE SETTING ("wc)/ DROOP (%)

Setting Flow Rate: 150 SCFH

	4"		7"		8"		11"		20"	
	10%	20%	10%	20%	10%	20%	10%	20%	10%	20%
Pin "wc										
6	1148	2295	-	-	-	-	-	-	-	-
8	1457	3267	1413	2649	-	-	-	-	-	-
10	1854	4238	1810	3443	1766	3399	-	-	-	-
Pin PSIG										
0.50	3002	5297	3090	4944	3002	4856	2560	4679	-	-
0.75	5694	8608	5297	7284	5341	6710	3973	7240	3090	5297
1.00	6180	10594	7504	10153	7637	9579	6842	9712	5297	7946
1.50	5739	12802	11919	13243	11919	13684	11919	13022	9712	11036
2.00	5959	11919	13243	14126	15892	16333	15671	15980	11919	14567
3.00	4414	11919	11036	17657	11477	18099	11477	19776	12360	16774
5.00	4414	11477	4414	11477	11698	14567	11919	15009	16333	18540

The above tests are performed with the regulator set at a constant inlet pressure, a predetermined flow rate and the required outlet pressure. The flow rate is then increased whilst keeping the inlet pressure constant. The capacities are recorded when the outlet pressure has fallen by 10% and 20% from the set point.

The capacities on the previous pages are given in SCFH of natural gas (0.64 SG). For other gases multiply the capacity by:

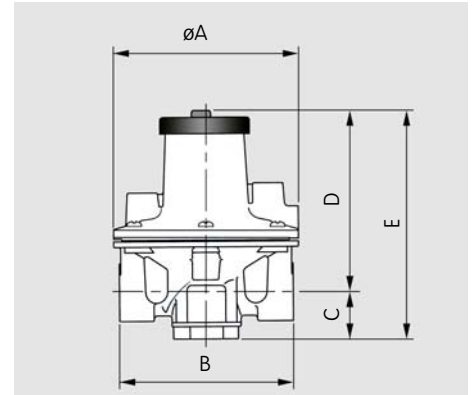
GAS	SG
Air	1.00
Towns Gas	0.50
Propane	1.53
Propane / Air	1.20

$$\sqrt{\frac{0.64}{\text{gas sg}}}$$

J48: Low Pressure Regulator

Dimensions and Weights

SIZE	A	B	C	D	E	Weight
¾" & 1"	5.27"	4.92"	1.34"	5.20"	6.53"	2.20 lb
1¼" & 1½"	7.28"	6.10"	1.77"	5.87"	7.64"	4.19 lb
2"	9.21"	7.87"	2.05"	6.57"	8.62"	6.83 lb



Material Specifications

A summary of the material specification for the J48 is given for reference. All material has been selected to provide maximum durability and reliability in service.

Components	Specification
Body, cover, spring adjusting bush, spring adjusting screw and bottom plug.	Aluminum Alloy
Top cap, locking lever, spring holder, diaphragm spacer, valve spacer and valve disc holder.	Acetal Resin (Top cap and locking lever UV stabilised)
Diaphragm plate.	Mild steel
Main diaphragm, secondary diaphragm, valve disc and "O" rings.	Nitrile (Buna)
Springs	Carbon Steel
Impulse tube	Brass

Quality:

Elster Jeavons is committed to a programme of continuous quality enhancement. All equipment designed and manufactured by the Elster-Instromet group benefits from the group's quality assurance standards which are approved to EN ISO9001:2000.

Loading Springs

All springs are color coded for ease of identification.

Spring Range "wc	¾" & 1"	1¼" & 1½"	2"
2 – 6	70017P098 Yellow	70017P104 Red / Yellow	70017P109 Dark Blue / Yellow
5 – 10	70017P099 Black	70017P105 Red / Black	70017P110 Dark Blue / Black
9 – 14	70017P100 Orange	70017P106 Red / Orange	70017P111 Dark Blue / Orange
10 – 30	70017P101 Yellow / Black	70017P103 Yellow / Orange	70017P112 Yellow / Dark Green
28 – 40	70017P102 Pink / Gold	70017P107 Pink / Silver	70017P108 Gray / Gold
36 - 64	70017P103 Yellow / Orange	70017P108 Gray / Gold	

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