

# This product is discontinued!

## J48H & HL

Gas Pressure Regulator

Inlet Pressure 1 bar

Nominal Diameter 3/4" – 2"



### Applications

- Industrial
- Commercial

### Brief information

**Operation:** The J48H & HL are special versions of the highly versatile and proven range of the J48 industrial low pressure regulators. The J48H has higher inlet and outlet pressure rating, whilst the J48HL has a higher inlet pressure rating only, with the maximum outlet pressure as the standard J48. The J48HL includes the quick release spring adjustment mechanism unit. This enhancement provides easy access for spring adjustment and routine maintenance. The J48H and HL range is available in sizes from 3/4" to 2".

**Application:** The J48H and HL are special versions of the J48 service and appliance regulator and are suitable for a wide range of domestic, commercial and industrial applications. All units are designed for natural, liquefied petroleum and manufactured gases. The J48H and HL can be installed in both horizontal and vertical pipelines. The J48H and HL have been designed for high efficiency and sensitivity with maximum flow and minimum pressure loss.

**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. The design of this mechanism 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 J48HL can be supplied factory set with a security seal at extra cost.

**Technical Data:**

Maximum inlet pressure:	1 bar (14.5 psig)
Maximum Outlet Pressure J48HL:	160mbar (64" wg)
Maximum Outlet Pressure J48H:	750mbar (11 psig)

**Servicing:** The J48H and HL have been designed for ease of access, inspection and servicing of all internal components. A standard soft spares kit is available for all sizes.

### Main features

- Sizes 3/4", 1", 1 1/4", 1 1/2" & 2"
- Temperature range -20°C to +70°C
- Threaded connections to BS EN 10226 (ISO 7) or NPT (other threads may be available upon request)
- Fully inlet pressure balanced
- Full lock-up capability
- Internal impulse
- Spring loaded
- Quick release spring on J48HL
- Excellent outlet pressure control

	J48H	J48HL
3/4" - 1"	SK4806-06	SK4806-04
1 1/4" - 1 1/2"	SK4808-06	SK4808-04
2"	SK4809-06	SK4809-04



## J48H: Pressure Regulator

### Regulating Capacities

All capacities in SCMH 0.64 s.g.

Setting Flow Rate: 18 SCMH

REGULATOR SIZE:  $\frac{3}{4}$ "

OUTLET PRESSURE SETTING (mbar) / DROOP (%)

	140		280		500		750	
	10%	20%	10%	20%	10%	20%	10%	20%
Pin mbar								
200	46	75	-	-	-	-	-	-
350	48	85	66	100	-	-	-	-
500	50	86	75	129	-	-	-	-
700	58	88	76	145	88	150	-	-
1050	71	91	84	148	118	203	115	205

All capacities in SCMH 0.64 s.g.

Setting Flow Rate: 18 SCMH

REGULATOR SIZE: 1"

OUTLET PRESSURE SETTING (mbar) / DROOP (%)

	140		280		500		750	
	10%	20%	10%	20%	10%	20%	10%	20%
Pin mbar								
200	56	106	-	-	-	-	-	-
350	59	155	83	121	-	-	-	-
500	71	198	123	188	-	-	-	-
700	78	243	188	250	104	221	-	-
1050	101	285	248	321	134	313	181	283

All capacities in SCMH 0.64 s.g.

Setting Flow Rate: 18 SCMH

REGULATOR SIZE:  $1\frac{1}{4}$ "

OUTLET PRESSURE SETTING (mbar) / DROOP (%)

	140		280		500		750	
	10%	20%	10%	20%	10%	20%	10%	20%
Pin mbar								
200	96	153	-	-	-	-	-	-
350	126	213	128	206	-	-	-	-
500	150	263	181	275	-	-	-	-
700	178	313	229	335	193	325	-	-
1050	213	375	334	425	303	456	337	487

## J48H: Pressure Regulator Regulating Capacities

All capacities in SCMH 0.64 s.g.

Setting Flow Rate: 18 SCMH

REGULATOR SIZE: 1½"

OUTLET PRESSURE SETTING (mbar) / DROOP (%)

	140		280		500		750	
	10%	20%	10%	20%	10%	20%	10%	20%
Pin mbar								
200	119	201	-	-	-	-	-	-
350	225	321	150	236	-	-	-	-
500	369	431	293	344	-	-	-	-
700	519	563	481	513	263	421	-	-
1050	700	750	675	713	480	648	354	561

All capacities in SCMH 0.64 s.g.

Setting Flow Rate: 18 SCMH

REGULATOR SIZE: 2"

OUTLET PRESSURE SETTING (mbar) / DROOP (%)

	140		280		500		750	
	10%	20%	10%	20%	10%	20%	10%	20%
Pin mbar								
200	203	338	-	-	-	-	-	-
350	341	525	288	388	-	-	-	-
500	625	675	525	575	-	-	-	-
700	825	869	700	756	538	669	-	-
1050	1100	1100	1019	1050	888	963	-	-

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 SCMH of natural gas (0.64 SG).

For other gases multiply the capacity by:

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

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

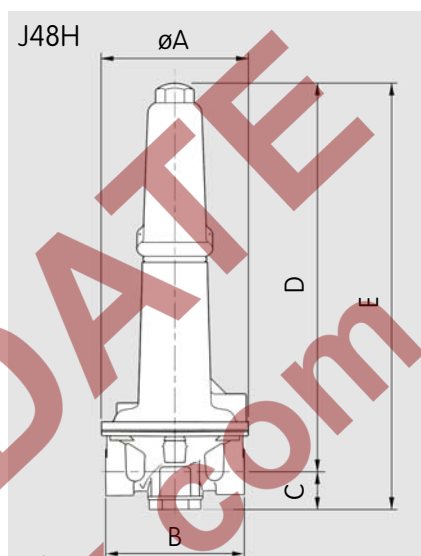
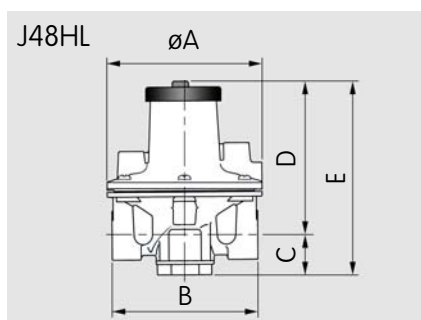
### CHOOSING THE CORRECT PIPE SIZE

The above tests were carried out with pipe size equal in diameter to the regulator and pressure tappings conforming to BS3554 Part 2 positioned 5 diameters from the regulator.

It is recommended that the actual velocity of the gas in the pipe is limited to 60 m/s (200 ft/s).

To do this, it may be necessary to select larger inlet and outlet pipe sizes if higher flow rates are being passed through the regulator.

# J48H & HL: Pressure Regulator



## Dimensions and Weights

SIZE	A	B	C	D	E	F	G	H Weight (Kg)	HL
3/4" & 1"	134	125	34	132	166	356	390	2.66	1.26
1 1/4" & 1 1/2"	185	155	45	149	194	369	414	3.90	2.35
2"	234	200	52	167	219	383	435	6.30	4.30

## Material Specifications

A summary of the material specification for the J48H & HL is given for reference. All material has been selected to provide maximum durability and reliability in service.

Components	Specification
Body, cover, spring adjusting bush (J48HL), spring adjusting screw (J48HL), bottom plug, valve spindle, valve disc holder, valve spacer, secondary diaphragm clamping plate, diaphragm spacer, secondary diaphragm adaptor plate, top cap (J48H).	Aluminium Alloy
Spring adjusting screw (J48H), spring location washer, diaphragm plate, spring adjusting screw locknut (J48H), top spring holder (J48H).	Mild steel
Top cap (J48HL), locking lever (J48HL), top spring holder (J48HL).	Acetal Resin (Top cap and locking lever UV stabilised)
Main diaphragm, secondary diaphragm, valve disc and "O" ring seals, secondary diaphragm adaptor plate gasket.	Nitrile (Buna)
Springs	Carbon Steel
Impulse tube	Brass

Note the main (J48H only) and the secondary diaphragms (J48H and HL) are reinforced.

## 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 ISO9001:2008.

## Loading Springs

All springs are colour coded for ease of identification.

Reg Type	Spring Range		3/4" & 1"	1 1/4" & 1 1/2"	2"
	mbar	"wg			
J48HL	5 – 15	2 – 6	J4806-007 Yellow	J4808-004 Red / Yellow	J4809-007 Dark Blue / Yellow
	12.5 - 25	5 – 10	J4806-004 Black	J4808-007 Red / Black	J4809-004 Dark Blue / Black
	22.5 – 35	9 – 14	J4806-005 Orange	J4808-008 Red / Orange	J4809-005 Dark Blue / Orange
	25 – 75	10 – 30	J4806-101 Yellow / Black	J4808-077 Yellow / Orange	J4809-066 Yellow / Dark Green
	70 – 100	28 – 40	J4806-079 Pink / Gold	J4808-075 Pink / Silver	J4809-065 Grey / Gold
	90 – 160	36 – 64	J4808-077 Yellow / Orange	J4809-065 Grey / Gold	
J48H	69 – 207	1 – 3 PSI	J4806-076 Light Green / Gold	J4808-063 Grey	J4806-078 Light Green / Pink
	207 – 350	3 – 5 PSI	J4806-077 Light Green / Silver	J4806-078 Light Green / Pink	J4809-058 White / Gold
	350 - 759	5 – 11 PSI	J4806-078 Light Green / Pink	J4808-064 Grey / Yellow	

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