

Spring Loaded Regulator

J50 is a balanced valve, piston or diaphragm sensed spring-loaded pressure regulator used for quick control of outlet pressure. Heavy duty construction, accurate and reliable, ideal for high and low pressure applications.

For an operational overview, please refer to pages 18 and 19.



Standard Features

Valve Size:

- 1/4" BALANCED

Materials of construction:

- BODY - STAINLESS STEEL - BS EN 10088 1.4541
- SPRING HOUSING - STAINLESS STEEL - BS EN 10088 1.4401
- SEAT - STAINLESS STEEL - BS EN 10088 1.4401
- TRIM - PCTFE
- ELASTOMERS - HIGH NITRILE
- HANDWHEEL - PLASTIC OR ALUMINIUM

Connections:

- LINE 3/8" BSPP; GAUGE 1/4" BSPP (INLET & OUTLET)

Maximum Inlet Pressure:

- 750 BAR (10880 PSI)

Outlet Pressure Range:

- 0.1 - 550 BAR (1.5 - 7975 PSI)

Pressure Release for down stream venting:

- VENTING 1/8" BSPP CONNECTION

Media:

- LIQUID AND GASES

Weight:

- 3.6 Kg ST STL; 2.2 Kg ALU

Additional Features

- NON VENTING
- LOCKING DEVICE
- PANEL MOUNTING BRACKET
- BASE MOUNTING
- FILTER - 25 MICRON (NOT HYDRAULIC VERSION)
- DIFFERENTIAL CONTROL

Options

Valve Size:

- 1/16" UNBALANCED (FOR GASES - INC FILTER)

Materials of construction:

- BODY - BRASS - BS EN 12164 CW614N (OXY ONLY)
- BODY - ALUMINIUM - L168 T6511
- ELASTOMERS - FLUOROCARBON OR EPDM

Connections:

- NPT LINE, GAUGE AND VENT CONNECTIONS

Applications

- Marine industries
- Gas & Oil industries
- Off shore / aggressive environments
- Oxygen use approved
- CO₂ Blanketing
- Air Compressors
- Gas Analyser / Instrumentation
- Gas distribution / mixing
- Pressure test rigs
- Piloting for Dome loaded regulators
- Fire control systems
- NACE

Ordering Information

TYPE	VALVE SEAT SIZE	MATERIAL OPTION	CONNECTIONS	OUTLET PRESSURE	RELEASE OPTION	ELASTOMER	OPTIONS	HYDRAULIC	2ND OPTIONS
J50	C (1/4") Y (1/16")	B9 (ST/STL) T0 (ALUM.)	E2 (3/8" BSPP) A2 (3/8" NPT)	M (0.1-5 BAR) P (0.1-10 BAR) R (2-20 BAR) T (3.5-35 BAR) W (5.2-52 BAR) X (7-70 BAR) Y (10.3-103BAR) Z (15-150 BAR) 3 (25-250 BAR) 4 (25-275 BAR) 8 (55-550 BAR)	R (RELEASE) N (NO RELEASE)	N (NITRILE) V (FLUOROCARBON) E (EPDM)	(BLANK NOT REQUIRED) F (FILTER) P (PANEL MOUNT) FP (FILTER & PANEL MOUNT)	(BLANK NOT REQUIRED) H (HYDRAULIC)	(BLANK NOT REQUIRED) 004 (SEALED HOUSING) 005 (LOCKING VERSION) 006 (TRAVEL STOP)

N.B. FILTER OPTION ONLY AVAILABLE ON VALVES ORDERED WITH 1/4" SEAT SIZE
HYDRAULIC OPTION ONLY AVAILABLE ON VALVES ORDERED WITH 1/16" SEAT SIZE

ORDERING INFORMATION EXAMPLE:

J50CT0E2MRNFP

Notes

Technical Specifications

Pressure

	PRESSURE	BODY MATERIAL
TEST (PROOF) PRESSURE	1125 BAR (16310 PSI) 825 BAR (11960 PSI)	STAINLESS STEEL ONLY ALUMINIUM
MAXIMUM INLET PRESSURE	750 BAR (10880 PSI) 550 BAR (7975 PSI)	STAINLESS STEEL ONLY ALUMINIUM

Outlet Pressure Ranges

PRESSURE	SENSING
0.1 - 5 BAR (1.5 - 72.5 PSI)	DIAPHRAGM
0.1 - 10 BAR (1.5 - 150 PSI)	DIAPHRAGM
2 - 20 BAR (30 - 300 PSI)	DIAPHRAGM
3.5 - 35 BAR (50 - 508 PSI)	PISTON
5.2 - 52 BAR (510 - 754 PSI)	PISTON
7 - 70 BAR (102 - 1015 PSI)	PISTON
10.3 - 103 BAR (150 - 1500 PSI)	PISTON
15 - 150 BAR (218 - 2175 PSI)	PISTON
25 - 250 BAR (362 - 3625 PSI)	PISTON
25 - 275 BAR (362 - 4000 PSI)	PISTON
55 - 550 BAR (798 - 7980 PSI) (STAINLESS STEEL BODY ONLY)	PISTON

Leakage

STANDARD	BUBBLE TIGHT (TYPICALLY 10^{-6} atm.cm ³ /sec ⁻¹)
ON REQUEST	HELIUM LEAK TESTED TO 10^{-8} atm.cm ³ /sec ⁻¹

Temperature Range

	TEMPERATURE	BODY MATERIAL
STANDARD	-10°C TO +100°C	ALL
OPTION	-40°C TO +150°C	CONSULT IVP

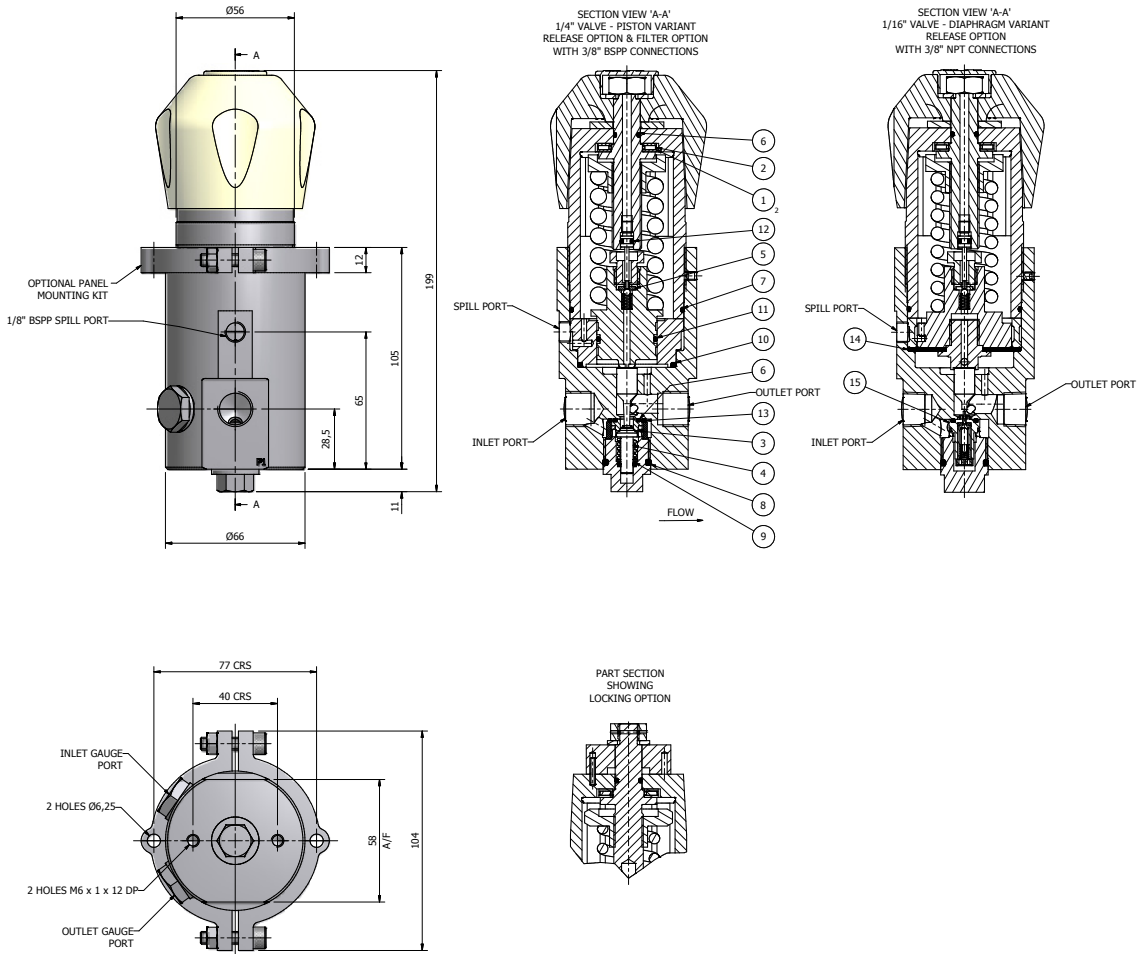
Valve Size

	1/4"	1/16"
NOMINAL SIZE	6.35mm (1/4")	1.6mm (1/16")
ORIFICE AREA A1	24mm ² (0.037 in ²)	0.9mm ² (0.014in ²)
PORT AREA A2	49mm ² (0.076in ²)	49mm ² (0.076in ²)
FLOW COEFFICIENT	Kv = 0.72 (Cv = 0.84)	Kv = 0.025 (Cv = 0.03)

Spares Code

SPARES	VALVE SEAT SIZE	OUTLET PRESSURE	RELEASE OPTION	ELASTOMER	HYDRAULIC
J50SPS	C (1/4") Y (1/16")	M (0.1-5 BAR) P (0.1-10 BAR) R (2-20 BAR) T (3.5-35 BAR) W (5.2-52 BAR) X (7-70 BAR) Y (10.3-103 BAR) Z (15-150 BAR) 3 (25-250 BAR) 4 (25-275 BAR) 8 (55-550 BAR)	R (RELEASE) N (NO RELEASE)	N (NITRILE) V (FLUOROCARBON) E (EPDM)	(BLANK NOT REQUIRED) H (HYDRAULIC)

Technical Specifications



Spares BOM

ITEM	DESCRIPTION	MATERIAL	QTY	REQUIRED													
1	BEARING WASHER	Steel	2	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2	NEEDLE ROLLER BEARING	Steel	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3	SEAT	St Stl. 10088 1.4401	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4	VALVE ASSY	Various	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	VALVE SEAT	PCTFE	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6	'O' RING	Rubber	2	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	'O' RING	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	'O' RING	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	'O' RING	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	'O' RING	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	'O' RING	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	'O' RING	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	'O' RING	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	DIAPHRAGM	Rubber	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	VALVE ASSY	Various	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*

1/4" VALVE - PISTON VARIANT - NO RELEASE

1/4" VALVE - PISTON VARIANT - RELEASE

1/4" VALVE - DIAPHRAGM VARIANT - NO RELEASE

1/4" VALVE - DIAPHRAGM VARIANT - RELEASE

1/16" VALVE - PISTON VARIANT - NO RELEASE

1/16" VALVE - PISTON VARIANT - RELEASE

1/16" VALVE - DIAPHRAGM VARIANT - NO RELEASE

1/16" VALVE - DIAPHRAGM VARIANT - RELEASE