



XR59 Two Stage Pressure Regulator For Semiconductor Industry

OUTLINE

This regulator is developed for various semiconductor production devices and it is a 2 stage inexpensive regulator.

FEATURES

- The two stage adjustment is made in this regulator, so even if the primary pressure becomes unstable, the secondary pressure is constant and precise.
- For the needs from the supply process of semiconductor gas system, we recommend this inexpensive regulator.
- Also, for the materials of the seat and gas contact part, 316Lst.st.,inconel, teflon are used, so it is adequate to apply high purity gases and high corrosive fluids.

SPECIFICATION

Fluid :
Semiconductor process gases

Max.applied pressure :
20 MPa (200 kgf/cm²)

The first step setting pressure :
1.5 MPa (15 kgf/cm²)

Pressure adjusting range :
0.03 ~ 0.5 MPa (0.3 ~ 5 kgf/cm²)
0.03 ~ 1.0 MPa (0.3 ~ 10 kgf/cm²)

Max. flow :
50 L/min (normal)

Pressure gauge (Only to 4 port) :
Indication of primary & secondaryside
Dial size ••• 50 DIA.
Primary side 25 MPa (250 kgf/cm²)
Secondary side 1M Pa (10 kgf/cm²)
Connection ••• 1/4 NPT or 1/4 VCR

Operating temperature :
0 ~ 40°C

Connection :
1/4NPT (F) or 1/4VCR (F)

Leakage : (Helium leak rate)
EPgrade 2.03×10^{-10} Pa • m³/s or less (2×10^{-9} atm • cc/s or less)
BA grade 1.01×10^{-9} Pa • m³/s or less (2×10^{-8} atm • cc/s or less)

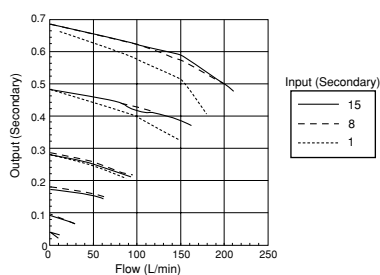
Roughness of gas contact part :
Gas contact part are of 2 grades
EPgrade ••• 1.0 μm Rmax.
(For some parts,roughness will be 3.0 μm)
BAGrade ••• 3.0 μm Rmax.

Gas contact part :
Body & Valve: 316L st.st.
Diaphragm: 316L st.st. + Teflon
Valve seat: Tef-zel
Valve spring: Inconel

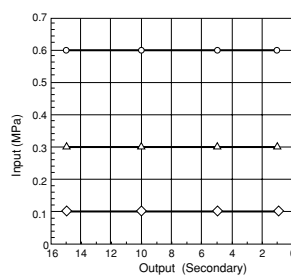
Treatment:
Use no oil & water

Weight:
Approx. 20 kg

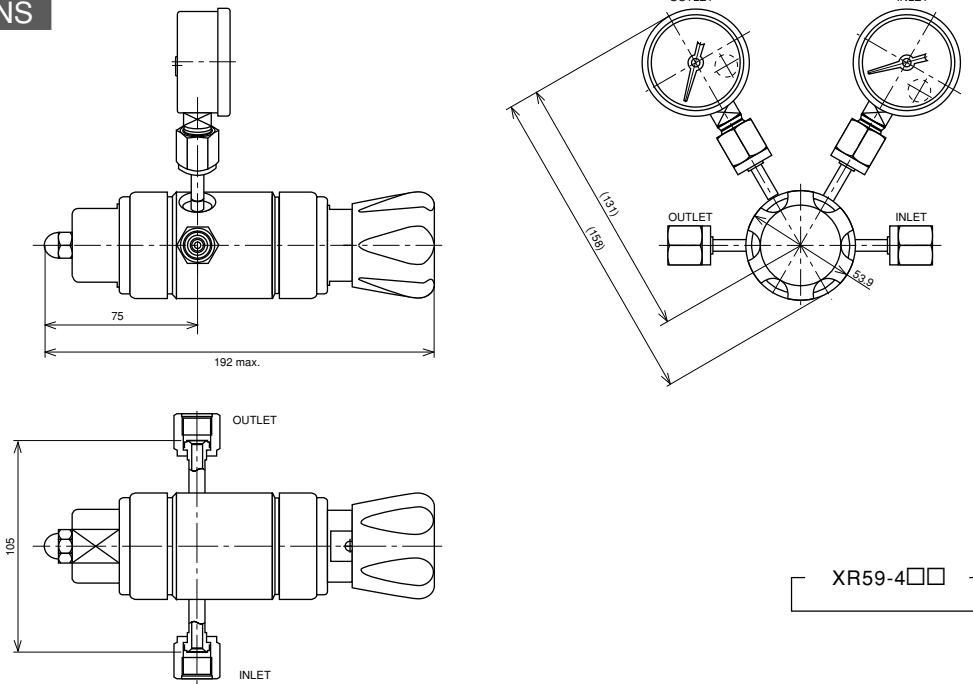
FLOW CHARACTERISTICS



PRESSURE CHARACTERISTICS

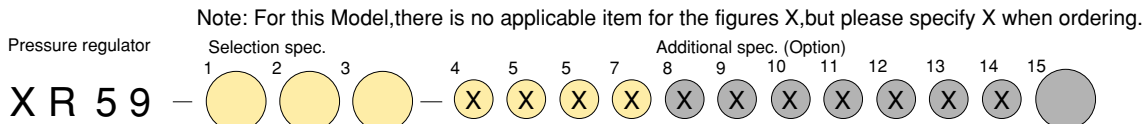


DIMENSIONS



Type No. constitution

Please specify Type No., each specification and range, when ordering.



Type No.

1 Number of port

2	2
4	4

2 Inner surface grade

B	BAGrade
E	EP grade

3 Form

15 Document

0	Nil
1	Please specify your requirement Drawing one sheet, Instruction manual, Inspection procedure, Mill sheet, test report

Mounting	Number of port	grade		Form	Connection		Output adjusting range
		BA	EP		Ping port	Gauge port	
	2	○	—	W	1/4 NPT (F)	—	1 MPa (10kgf/cm ²)
			○	X	1/4 NPT (F)	—	0.5MPa (5kgf/cm ²)
		○	○	A	1/4 VCR (F)	—	1 MPa (10kgf/cm ²)
			—	B	1/4 VCR (F)	—	0.5MPa (5kgf/cm ²)
	4 (Including the port for pressure gauge)	○	○	U	1/4 NPT (F)	1/4 NPT (F)	1 MPa (10kgf/cm ²)
			—	V	1/4 NPT (F)	1/4 NPT (F)	0.5MPa (5kgf/cm ²)
		○	—	O	1/4 VCR (F)	1/4 NPT (F)	1 MPa (10kgf/cm ²)
			—	P	1/4 VCR (F)	1/4 NPT (F)	0.5MPa (5kgf/cm ²)
		○	—	M	1/4 VCR (F)	1/4 VCR (F)	1 MPa (10kgf/cm ²)
			—	N	1/4 VCR (F)	1/4 VCR (F)	0.5MPa (5kgf/cm ²)

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