

Stainless Steel Regulator Series NSR



NSR1000



NSR3000



NSR4000

Manufactured to meet clean room specifications.

Assembly is carried out in the clean room. (ASS 100).

Double Packing is used to prevent contamination.

Full data available upon request.

Specifications

Series	NSR 1000	NSR 3000	NSR 4000
Port size	10-32 Nom. (M5)	1/8, 1/4 NPT	1/4, 3/8, 1/2 NPT
Max. operating pressure	150psig (9.9kgf/cm ²), Proof Pressure: 225psig (15kgf/cm ²)		
Setting pressure	Low pressure model 1.5-30psig (0.1-2kgf/cm ²)		
	High pressure model 7-100psig (0.5-7kgf/cm ²)		
Ambient and fluid temperature	40 ~ 140°F (5 ~ 60°C)		
Construction*	Non relieving type (Standard), relieving type		

*Relieving type (NSR1101, NSR1111, NSR3101, NSR3111, NSR4101, NSR4111) only applicable for N₂ gas or air.

Fluid/Diaphragm Material

Series	Model	Fluid					Valve Diaphragm Material
		Deionized Water	Water	Air	N ₂ gas	O ₂ gas	
NSR1000	NSR10	●	●	●	●	●	Fluoro rubber & Fluoro resin lining
	NSR11	●	●	●	●	●	Fluoro rubber
NSR3000	NSR30	●	●				Fluoro rubber & Fluoro resin lining
	NSR40	●	●				Fluoro rubber & Fluoro resin lining
NSR4000	NSR31			●	●	●	Fluoro rubber
	NSR41			●	●	●	Fluoro rubber
NSR4000	NSR32			●	●	●	Fluoro rubber & Fluoro resin lining
	NSR42			●	●	●	Fluoro rubber & Fluoro resin lining

Consult factory for applications of other fluids.

Usage

Model	Port size	Max scale	Applicable Model
12B-D4	1/4 NPT	60psig	NSR3000
12B-D7	1/4 NPT	100psig	NSR4000
12B-D10	1/4 NPT	150psig	

Pressure gauge for NSR1000 is not available. Regulator and pressure gauge are packed separately.

NSR series is designed to regulate pressure of deionized water, N₂ gas, O₂ gas, or clean room air.

Applications: semiconductor manufacturing, explosive environments, medical industry, food industry, electronics, etc.

Superior corrosion resistance.

Materials in contact with fluid: 316 stainless steel and fluoro resin only.

Body: 316 stainless steel.

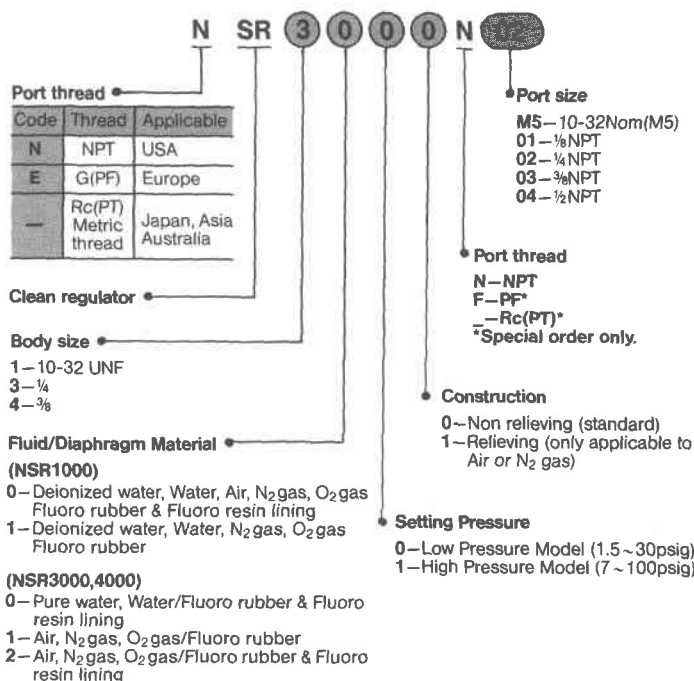
Other external metal surfaces: electroless nickel plated.

Superior pressure characteristics.

Panel mount type only.

Sliding parts which contact with fluid will not produce any abrasive powders.

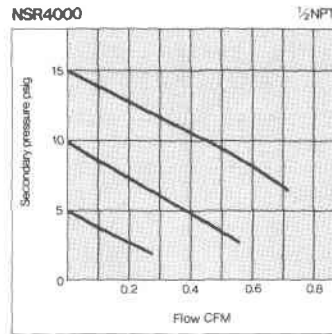
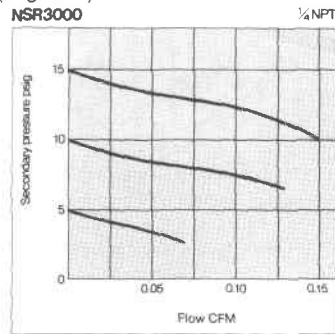
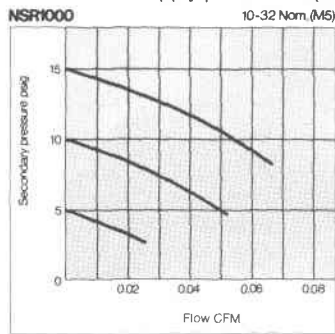
HOW TO ORDER



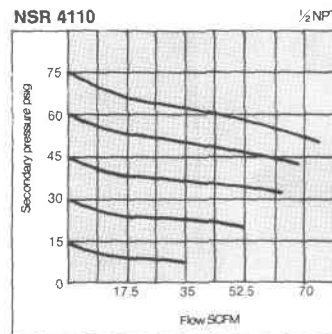
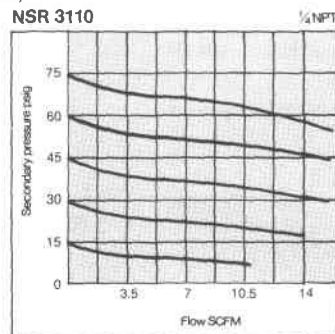
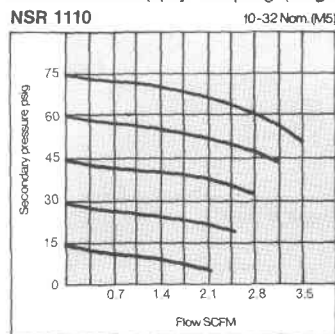
SMC PNEUMATICS INC.

Flow Characteristics

Fluid—Water/Supply pressure 30psig (2kgf/cm²)



Fluid—Air/Supply pressure 105psig (7kgf/cm²)



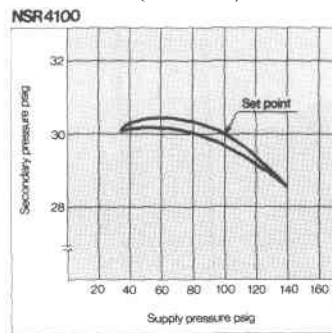
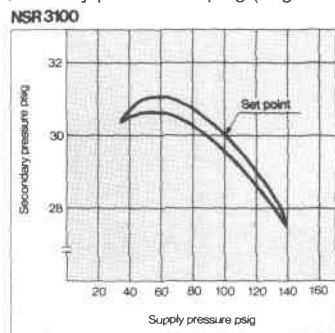
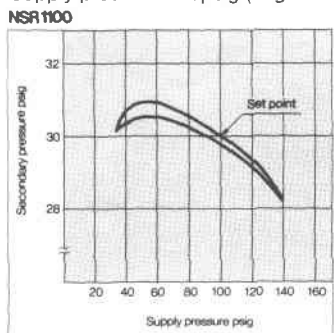
Precautions

Since the regulator is packed in clean room atmosphere, please be careful not to contaminate it upon opening.

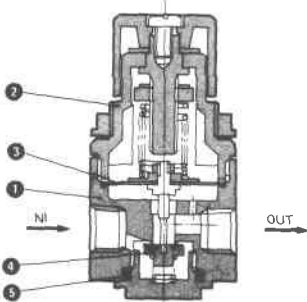
- Please unwrap in clean room.
- Don't overwrap sealing tape as it may enter the line.
- Be sure to connect the inlet piping to the side stamped "I". It will not work in reverse.
- Be sure to loosen the locknut before adjusting the knob by hand.
- After adjustment, tighten lock screw for tamper proof operation.

Pressure Characteristics

Supply pressure 100psig (7kgf/cm²), Secondary pressure 30psig (2kgf/cm²), Flow 0.7 SCFM (20Nℓ/min)

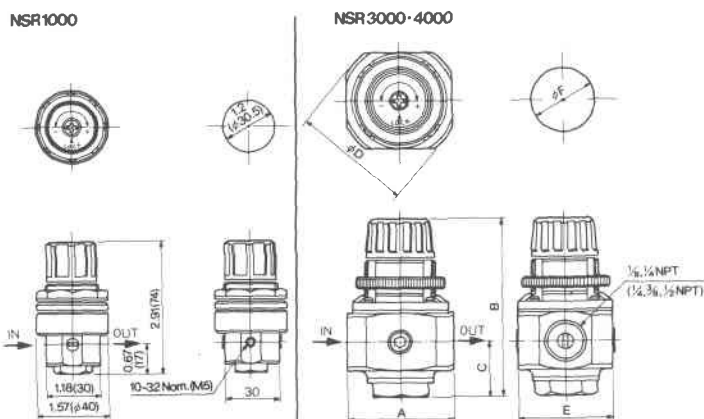


Construction Parts Material



No.	Description	Material
1	Body	316 Stainless steel
2	Bonnet	Nylon 6
3	Diaphragm	Fluoro rubber & Fluoro resin lining or only Fluoro rubber
4	Valve	316 Stainless steel Rubber lining: Fluoro resin
5	"O" ring	Fluoro rubber

Dimensions



Model	Port size (NPT)	A	B	C	øD	E	øF
NSR3000	1/8, 1/4	1.57 (40)	3.07 (78)	0.75 (19)	1.77 (45)	1.57 (40)	1.2 (30.5)
NSR4000	1/4, 3/8, 1/2	2.28 (58)	3.86 (98)	1.18 (30)	2.51 (64)	2.05 (52)	1.44 (36.5)

Millimeter in Parentheses

SMC Pneumatics Inc.

3011 N. Franklin Rd. P.O. Box 26640
Indianapolis, IN 46226 U.S.A.
Phone: 317-899-4440
Fax: 317-899-3102 Telex: 27-2184

Specifications subject to change without notice