

- Allows quick relief of air when the supply air is less than set pressure
- Modular design connects with other SMC air preparation equipment



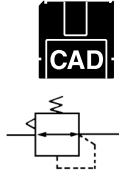
NAR4050-□□BG



NAR3050-□□BG



NAR2550



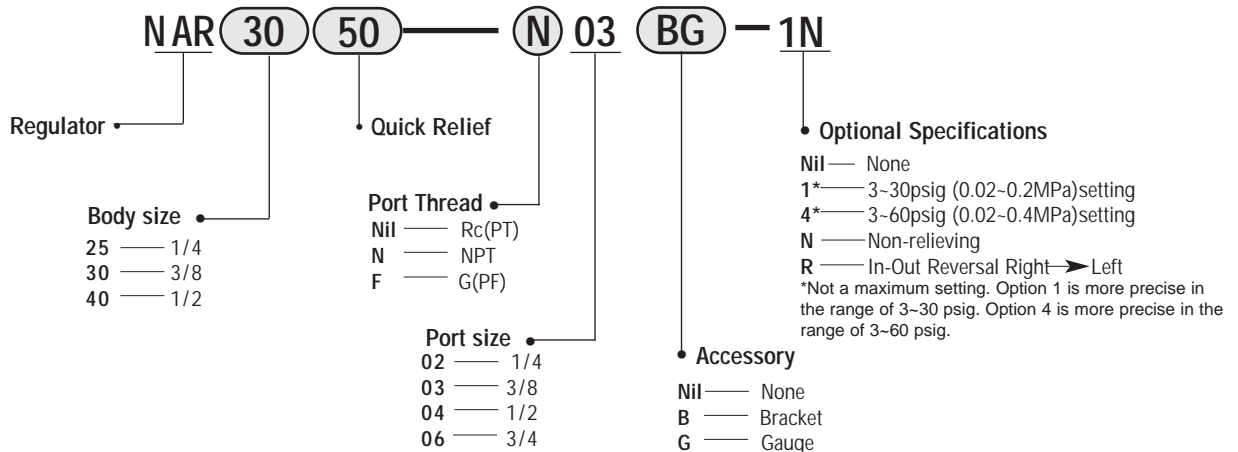
Specifications

Model	NAR2550	NAR3050	NAR4050	NAR4050-N06
Port size NPT	1/4 • 3/8	1/4 • 3/8	1/4 • 3/8 • 1/2	3/4
Proof pressure psig (MPa)	220 (1.5)			
Max. oper. press. psig (MPa)	150 (1.0)			
Regulating range psig (MPa)	7 ~ 120 (0.05 ~ 0.85)			
Port size for pressure gauge	1/8	1/8	1/4	1/4
Ambient and media temp.	23° ~ 140° F (-5° ~ 60° C)			
Construction	Relieving style			
Weight lbs. (Kgf)	0.60 (0.27)	0.90 (0.41)	1.85 (0.84)	2.07 (0.94)

Attachments/Accessories (Optional)

Type	Part No.			
	NAR2550	NAR3050	NAR4050	NAR4050-N06
Bracket	B220	B320	B420	B420
Pressure gauge	K40A-MP1.0-N01M	K40A-MP1.0-N01M	K50A-MP1.0-N02M	K50A-MP1.0-N02M

How To Order

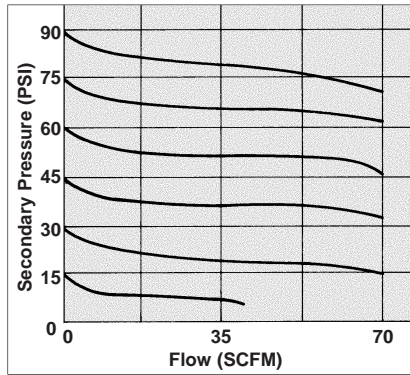


Regulator with Quick Relief
NAR 2550, 3050, 4050

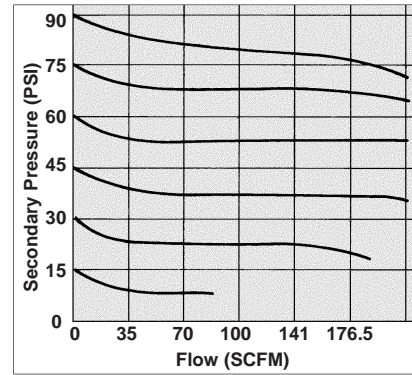
Flow Characteristics

Conditions: Supply pressure 100 psi

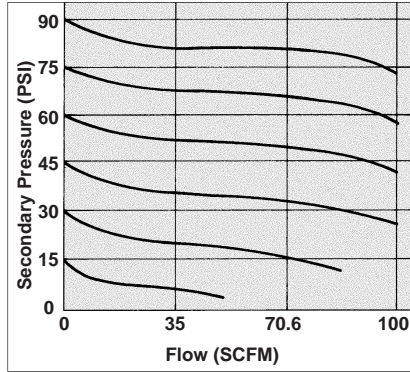
NAR2550 NPT 3/8



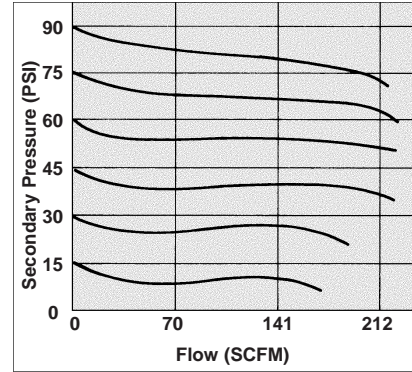
NAR4050 NPT 1/2



NAR3050 NPT 3/8



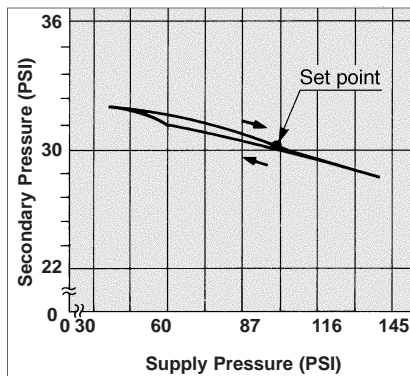
NAR4050-N06 NPT 3/4



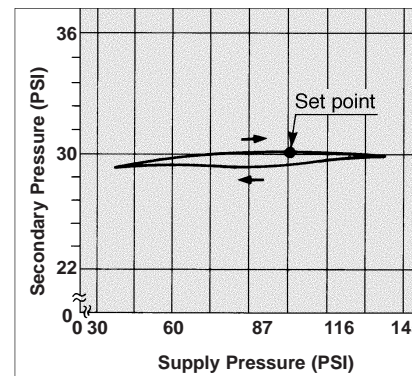
Pressure Characteristics

Conditions: Supply pressure 100 psi
Secondary pressure 30psi
Flow rate .7 SCFM

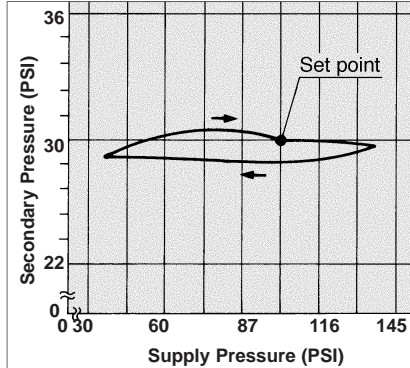
NAR2550 NPT 3/8



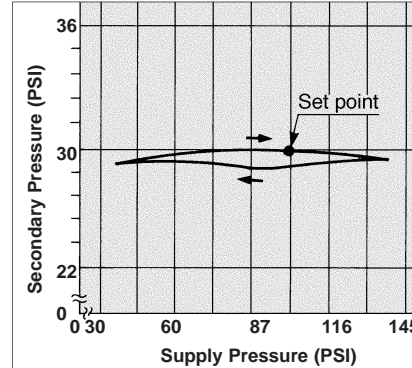
NAR4050 NPT 1/2



NAR3050 NPT 3/8



NAR4050-N06 NPT 3/4



⚠ Precautions

Be sure to read before handling. Refer to page 6 for Safety Instructions and precautions common to products mentioned in this volume and refer to pages 7 and 8 for more detailed precautions of every series.

Selection

⚠ Warning

Do not use between the cylinder and the switching valve. To prevent a lag in the discharge time, use a regulator with a check valve.

Mounting/Adjustment

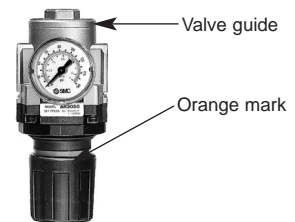
⚠ Warning

The adjustment handle must be operated manually. Using a tool to turn the handle could lead to damage. Set up the regulator while verifying the pressure that is indicated on the primary and the secondary pressure gauges. Turning the handle excessively could damage the internal parts.

⚠ Caution

Release the lock to adjust the pressure. After the adjustment, engage the lock. Failure to observe this procedure could damage the handle or cause the secondary pressure to fluctuate.

- 1) On the AR2550, pull the adjustment handle to release the lock and push the adjustment handle to engage the lock. If it does not lock easily, turn the handle slightly clockwise or counterclockwise before pushing it.
- 2) On the AR3050 and AR4050, pull the adjustment handle to release the lock. (An orange colored line is provided at the bottom of the adjustment handle for visual checking.) Push the adjustment handle to engage the lock. If it does not lock easily, turn the handle slightly clockwise or counterclockwise; then, push it until the orange colored line is no longer visible.



Install the valve guide (on the opposite side of the handle) 60mm away from the ground surface to facilitate maintenance inspection. To use this product between the solenoid valve and the actuator, contact SMC.

Construction/Parts List

NAR2550•3050•4050

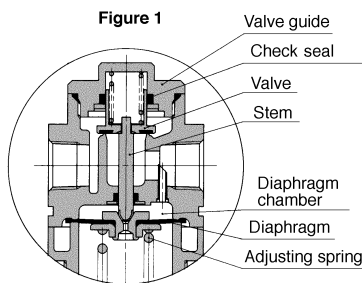
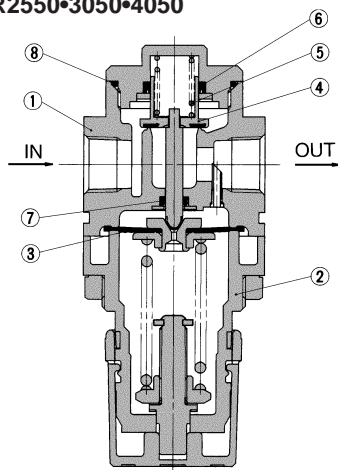
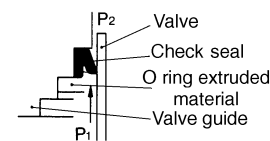
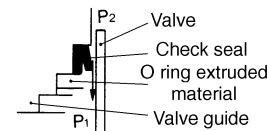


Figure 2



When the primary pressure is applied

Figure 3



When the primary pressure is exhausted

Component Parts

No.	Description	Material				Note
		NAR2550	NAR3050	NAR4050	NAR4050-06	
①	Body	Aluminum die casting				Platinum silver paint
②	Bonnet	Polycetal	Aluminum die casting			Black paint (NAR4050)

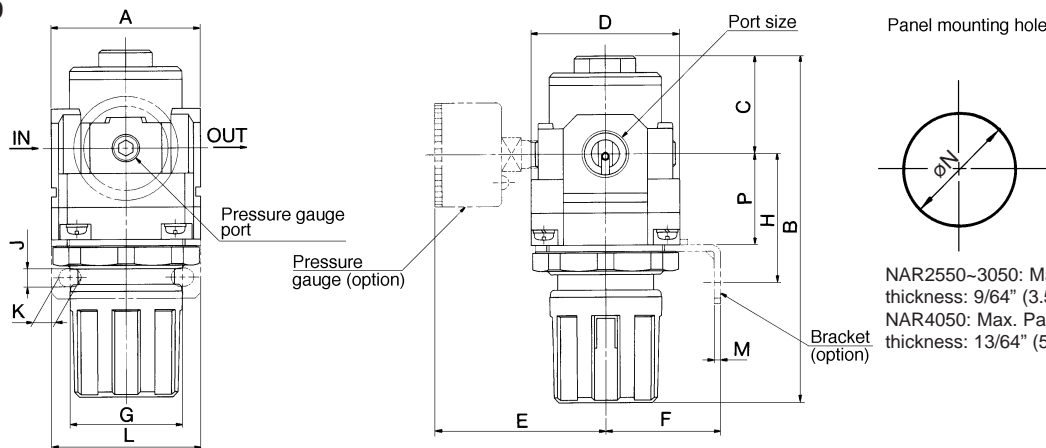
Replacement Parts

No.	Description	Material	Part no.			
			NAR2550	NAR3050	NAR4050	NAR4050-06
③	Diaphragm ass'y	NBR	1349161A	131515A	131614A	131614A
④	Valve ass'y	Brass/NBR	13144A	13154A	1316218A	1316219A
⑤	Valve spring	Stainless steel	13143	131558	131613	131613
⑥	Check packing	NBR	131446	1315101	131694	131694
⑦	O ring	NBR	P3	P5	P5	P5
⑧	O ring	NBR	P22	131545	131647	131647

When the primary pressure is higher than the set pressure, the check seal opens and the regulator works as a normal pressure relief valve. (See fig. 2). In the bottom valve chamber, the secondary pressure flows through the clearance between the valve and valve stem. When the primary pressure is blocked, the check seal folds and the pressure in the bottom valve chamber passes to the primary pressure side (see fig. 3). Because the flow area of the check seal is larger than that of the clearance between the valve and valve stem, differential pressure is created between the top and bottom chambers of the valve and the valve opens. The diaphragm is then pushed up by the pressure adjustment spring to let the valve fully open. The secondary pressure then rapidly discharges to the primary pressure side.

Dimensions

NAR2550•3050•4050



NAR2550~3050: Max. Panel thickness: 9/64" (3.5)mm
NAR4050: Max. Panel thickness: 13/64" (5mm)

inch (mm)

Model	Port size	A	B	C	D	E	With Bracket							N	P
							F	G	H	J	K	L	M		
NAR2550	1/4 • 1/8	2.09 (53)	4.04 (102.5)	.98 (25)	1.89 (48)	2.44 (62)	1.18 (30)	1.34 (34)	1.73 (44)	.21 (5.4)	.61 (15.4)	2.17 (55)	.09 (2.3)	1.32 (33.5)	.98 (25)
NAR3050	1/4 • 3/8	2.09 (53)	5.02 (127.5)	1.38 (35)	2.09 (53)	2.44 (62)	1.61 (41)	1.57 (40)	1.81 (46)	.26 (6.5)	.31 (8)	2.09 (53)	.09 (2.3)	1.67 (42.5)	1.28 (32.5)
NAR4050	1/4 • 3/8 • 1/2	2.76 (70)	5.89 (149.5)	1.48 (37.5)	2.76 (70)	2.76 (70)	1.97 (50)	2.13 (54)	2.13 (54)	.33 (8.5)	.41 (10.5)	2.76 (70)	.09 (2.3)	2.07 (52.5)	1.42 (36)
NAR4050-06	3/4	2.95 (75)	6.08 (154.5)	1.59 (40.5)	2.76 (70)	2.91 (74)	1.97 (50)	2.13 (54)	2.20 (56)	.33 (8.5)	.41 (10.5)	2.76 (70)	.09 (2.3)	2.07 (52.5)	1.50 (38)

- NAR2550 ——— SAC2000, #2
- NAR3050 ——— SAC2503, #2
- NAR4050 ——— SAC4000, #2
- NAR4050-06 ——— SAC4006, #2