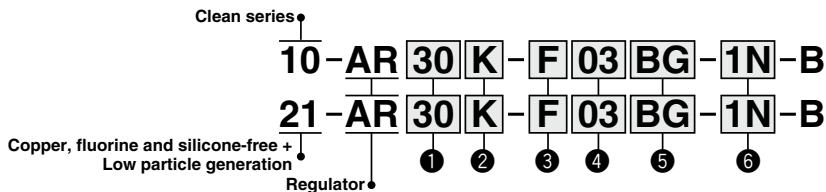


Series 10-AR-B Regulator

Series 10-AR□K-B Regulator with Backflow Function



How to Order



- Option/Semi-standard: Select one each for a to g.
- Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.

	Symbol	Description	① Body size						
			20	25	30	40	50	60	
② With backflow function	Nil	Without backflow function	●	●	●	●	●	●	
	K ^{Note 1)}	With backflow function	●	●	●	●	●	●	
③ Thread type	+								
	Nil	Rc	●	●	●	●	●	●	
	N	NPT	●	●	●	●	●	●	
	F	G	●	●	●	●	●	●	
④ Port size	+								
	01	1/8	●	—	—	—	—	—	
	02	1/4	●	●	●	●	—	—	
	03	3/8	—	●	●	●	—	—	
	04	1/2	—	—	—	●	—	—	
	06	3/4	—	—	—	—	●	—	
⑤ Option	a Mounting	Nil	Without mounting option	●	●	●	●	●	●
		B ^{Note 3)}	With bracket	●	●	●	●	●	●
		H	With set nut (for panel mounting)	●	●	●	●	—	—
	b Pressure gauge	+							
Nil		Without pressure gauge	●	●	●	●	●	●	
	G	Round type pressure gauge (without limit indicator)	●	●	●	●	●	●	
⑥ Semi-standard	c Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●	●	●	●
		1 ^{Note 4)}	0.02 to 0.2 MPa setting	●	●	●	●	●	●
	d Exhaust mechanism	+							
		Nil	Relieving type	●	●	●	●	●	●
		N	Non-relieving type	●	●	●	●	●	●
	e Flow direction	+							
		Nil	Flow direction: Left to right	●	●	●	●	●	●
		R	Flow direction: Right to left	●	●	●	●	●	●
	f Knob	+							
		Nil	Downward	●	●	●	●	●	●
	Y	Upward	●	●	●	●	●	●	
g Pressure unit	+								
	Nil	Name plate and pressure gauge in imperial units: MPa	●	●	●	●	●	●	
	Z ^{Note 5)}	Name plate: psi, Pressure gauge: Both MPa and psi	○ ^{Note 6)}	○ ^{Note 6)}	○ ^{Note 6)}	○ ^{Note 6)}	○ ^{Note 6)}	○ ^{Note 6)}	

Note 1) When using a non-relieving type with a backflow function, if the inlet pressure is increased slowly, the inlet pressure may continue to the outlet side.

Note 2) Option B, G, H are not assembled and supplied loose at the time of shipment.

Note 3) Assembly of a bracket and set nuts (10-/21-AR20(K)-B to AR40(K)-B)

Including 2 mounting screws for the 10-/21-AR50(K)-B, AR60(K)-B

Note 4) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more.

When the pressure gauge is attached, a 0.2 MPa pressure gauge will be fitted.

Note 5) For thread type: NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

Note 6) ○: For thread type: NPT only

Standard Specifications

Model	10-/21-AR20(K)-B	10-/21-AR25(K)-B	10-/21-AR30(K)-B	10-/21-AR40(K)-B	10-/21-AR40(K)-06-B	10-/21-AR50(K)-B	10-/21-AR60(K)-B
Port size	1/8, 1/4	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Pressure gauge port size	1/8						
Fluid	Air						
Ambient & fluid temperature	-5 to 60°C (No freezing)						
Proof pressure	1.5 MPa						
Maximum operating pressure	1.0 MPa						
Set pressure range	0.05 to 0.85 MPa						
Construction	Relieving type						
Grease	10-: Fluorine grease 21-: Lithium soap based grease						
Cleanliness class (ISO class)	10-: Class 3 21-: Class 3						

Accessory Part No.

Option	Model	10-/21-AR20(K)-B	10-/21-AR25(K)-B	10-/21-AR30(K)-B	10-/21-AR40(K)-B	10-/21-AR40(K)-06-B	10-/21-AR50(K)-B	10-/21-AR60(K)-B
Bracket assembly ^{Note 1)}		AR20P-270AS	AR25P-270AS	AR30P-270AS	AR40P-270AS		AR50P-270AS ^{Note 2)}	
Set nut		AR20P-260S	AR25P-260S	AR30P-260S	AR40P-260S		— ^{Note 3)}	— ^{Note 3)}
Pressure gauge ^{Note 4)}	Standard	10: G49-10-□01, 21: G49-10-□01-MS-X3						
	0.02 to 0.2 MPa setting	10: G49-4-□01, 21: G49-4-□01-MS-X3						

Note 1) Assembly of a bracket and set nuts.

Note 2) Assembly includes a bracket and 2 mounting screws.

Note 3) Please consult with SMC regarding the set nuts for the 10-/21-AR50(K)-B and AR60(K)-B.

Note 4) □ in part numbers for a round pressure gauge indicates a type of connection thread. No indication is necessary for R; however, indicate N for NPT.

Please contact SMC regarding the connection thread NPT and pressure gauge supply for Both MPa and psi unit specifications.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

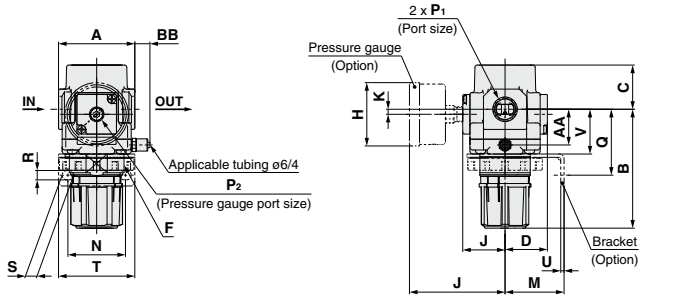
Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

Dimensions

10-₂₁-AR20-B to 40-06-B



Panel fitting dimension

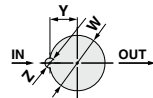
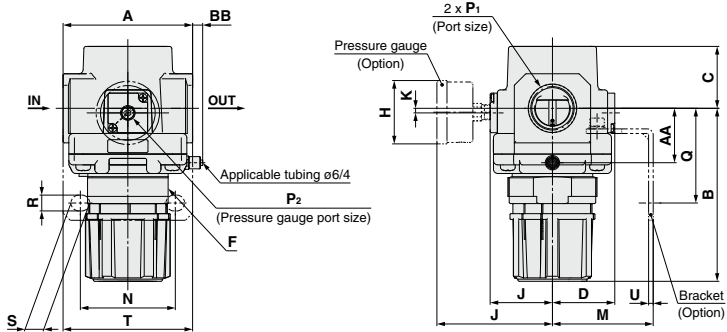


Plate thickness
 10-/21-AR20-B-30-B: Max. 3.5
 10-/21-AW40-B: Max. 5

10-₂₁-AR50-B/60-B

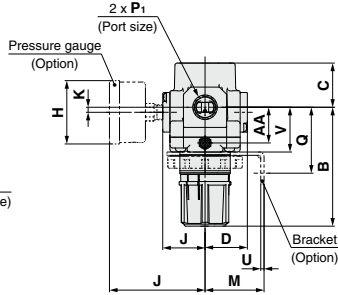
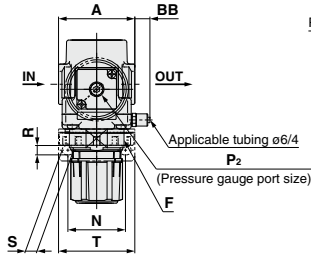


Model	Standard specifications											Optional specifications												
	P ₁	P ₂	A B ^{Note 1)}		C	D	F	J	K	AA	BB	Round type pressure gauge		Bracket mounting size						Panel mount				
			H	J								M	N	Q	R	S	T	U	V	W	Y	Z		
10-/21-AR20-B	1/8, 1/4	1/8	40	67.4	26.5	28.5	M28 x 1	28.5	2 ^{Note 2)}	20.5	11	ø44	65.5	30	34	43.9	5.4	15.4	55	2.3	24.7	28.5	14	6
10-/21-AR25-B	1/4, 3/8	1/8	53	71.9	28	27.5	M32 x 1.5	27.5	0	21.3	9.8	ø44	64.5	30	34	43.9	5.4	15.4	55	2.3	25.7	32.5	16	6
10-/21-AR30-B	1/4, 3/8	1/8	53	85.6	30.7	29.4	M38 x 1.5	29.4	3.5	24.8	10.5	ø44	66.4	41	40	45.8	6.5	8	53	2.3	31.1	38.5	19	7
10-/21-AR40-B	1/4, 3/8, 1/2	1/8	70	91.7	35.8	33.8	M42 x 1.5	33.8	3.5	28.9	10.5	ø44	70.8	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7
10-/21-AR40-06-B	3/4	1/8	75	93.2	35.8	33.8	M42 x 1.5	33.8	3	30.4	8	ø44	70.8	50	54	55.5	8.5	10.5	70	2.3	37	42.5	21	7
10-/21-AR50-B	3/4, 1	1/8	90	125.2	43	43.3	—	43.3	3.2	40	7	ø44	80.3	70	66	65.8	11	13	90	3.2	—	—	—	—
10-/21-AR60-B	1	1/8	95	129.6	46	43.3	—	43.3	3.2	44.5	4.5	ø44	80.3	70	66	65.8	11	13	90	3.2	—	—	—	—

Note 1) The dimension of B is the length when the filter regulator knob is unlocked.
 Note 2) For the 10-/21-AR20-B only, the position of the pressure gauge is above the center of the piping.

Dimensions

¹⁰⁻₂₁₋AR20K-B to 40K-06-B



Panel fitting dimension

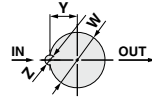
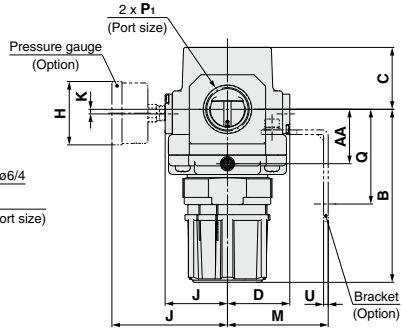
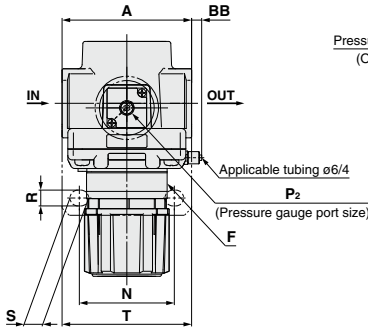


Plate thickness
 10-/21-AR20K-B-30K-B: Max. 3.5
 10-/21-AR40K-B: Max. 5

¹⁰⁻₂₁₋AR50K-B/60K-B



Model	Standard specifications											Optional specifications												
	P ₁	P ₂	A	B ^{Note 1)}	C	D	F	J	K	AA	BB	H	J	M	N	Q	R	S	T	U	V	W	Y	Z
10-/21-AR20K-B	1/8, 1/4	1/8	40	67.4	26.5	28.5	M28 x 1	28.5	2 ^{Note 2)}	20.5	11	ø44	65.5	30	34	43.9	5.4	15.4	55	2.3	24.7	28.5	14	6
10-/21-AR25K-B	1/4, 3/8	1/8	53	71.9	28	27.5	M32 x 1.5	27.5	0	21.3	9.8	ø44	64.5	30	34	43.9	5.4	15.4	55	2.3	25.7	32.5	16	6
10-/21-AR30K-B	1/4, 3/8	1/8	53	85.6	30.7	29.4	M38 x 1.5	29.4	3.5	24.8	10.5	ø44	66.4	41	40	45.8	6.5	8	53	2.3	31.1	38.5	19	7
10-/21-AR40K-B	1/4, 3/8, 1/2	1/8	70	91.7	35.8	33.8	M42 x 1.5	33.8	3.5	28.9	10.5	ø44	70.8	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7
10-/21-AR40K-06-B	3/4	1/8	75	93.2	35.8	33.8	M42 x 1.5	33.8	3	30.4	8	ø44	70.8	50	54	55.5	8.5	10.5	70	2.3	37	42.5	21	7
10-/21-AR50K-B	3/4, 1	1/8	90	125.2	43	43.3	—	43.3	3.2	40	7	ø44	80.3	70	66	65.8	11	13	90	3.2	—	—	—	—
10-/21-AR60K-B	1	1/8	95	129.6	46	43.3	—	43.3	3.2	44.5	4.5	ø44	80.3	70	66	65.8	11	13	90	3.2	—	—	—	—

Note 1) The dimension of B is the length when the filter regulator knob is unlocked.
 Note 2) For the 10-/21-AR20K-B only, the position of the pressure gauge is above the center of the piping.

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