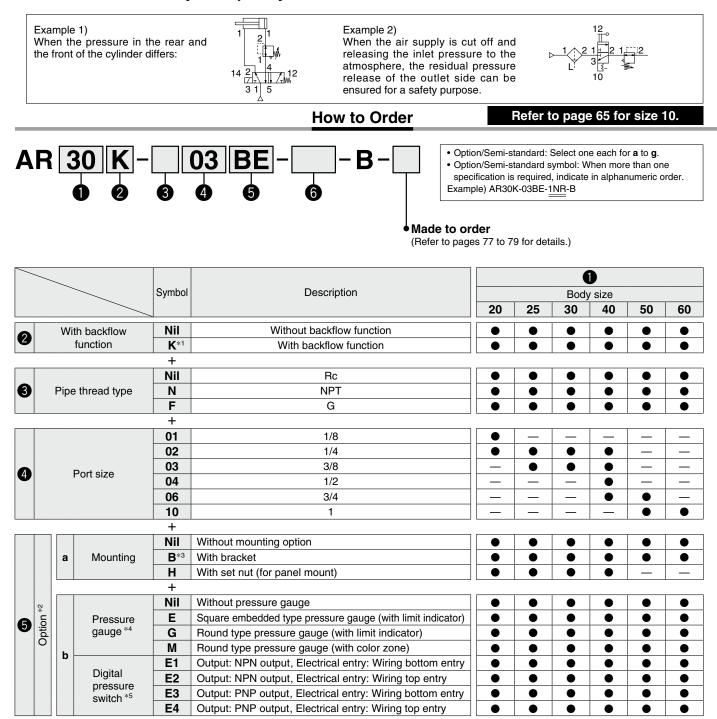


 With the backflow function, it incorporates a mechanism to exhaust the air pressure in the outlet side reliably and quickly.



# Regulator AR20-B to AR60-B Series Regulator with Backflow Function AR20K-B to AR60K-B Series



AC

AF + AR + AL

AW+AL

AF

AFM / AFD

AB

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AR20-B, AR20K-B AR40-B, AR40K-B

								•				AF+AR
		<u> </u>	_	Symbol	Description			Body				œ
				Cymbol	Description	20	25	<b>30</b>	<b>40</b>	50	60	I+AR
			Set	Nil	0.05 to 0.85 MPa setting			•	•			AFM+
		С	pressure *6	1	0.02 to 0.2 MPa setting				•			+
				+								AF
		d	Exhaust	Nil	Relieving type			$\bullet$	•		$\bullet$	
		u	mechanism	N	Non-relieving type				•		$\bullet$	Σ
	pr			+								AFM
	Semi-standard	е	Flow direction	Nil	Flow direction: Left to right			•	•		$\bullet$	AW+,
6	sta	6	Tiow direction	R	Flow direction: Right to left				$\bullet$		$\bullet$	A
	i.			+								
	လီ	f	Knob	Nil	Downward				$\bullet$		•	۲ ا
		•	KIIOD	Y	Upward				•		$\bullet$	le le
				+								μ
				Nil	Name plate and pressure gauge in SI units: MPa			•	•		•	5
		g	Pressure unit	<b>Z</b> *7	Name plate and pressure gauge in imperial units: psi	0*9	0*9	0*9	0*9	0*9	0*9	Attachment
				<b>ZA</b> *8	Digital pressure switch: With unit selection function	$\triangle^{*10}$	$\triangle^{*10}$	$\triangle^{*10}$	$\triangle^{*10}$	$\triangle^{*10}$	$\triangle^{*10}$	Ā

\*1 Set the inlet pressure to at least 0.05 MPa higher than the set pressure.

\*2 Options B, G, H, M are not assembled and supplied loose at the time of shipment. \*3 Assembly of a bracket and set nuts (applicable to the AR20(K)-B to AR40(K)-B).

Including 2 mounting screws for the AR50(K)-B and AR60(K)-B \*4 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for

standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type. \*5 When choosing with H (panel mount), the installation space for lead wires will not

be secured. In this case, select "wiring top entry" for the electrical entry. (Select "wiring bottom entry" when the semi-standard Y is chosen simultaneously.)

\*6 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.

\*7 For pipe thread type: NPT.

This product is for overseas use only according to the new Measurement Act. (The SI unit type is provided for use in Japan.)

Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special.

The digital pressure switch will be equipped with the unit selection function, setting to psi initially

\*8 For optimistics: E1, E2, E3, E4. This product is for overseas use only according to the new Measurement Act. (The SI unit is provided for use in Japan.)

\*9 O: For pipe thread type: NPT only

\*10 △: Select with options: E1, E2, E3, E4.

#### **Standard Specifications**

Model	AR20-B	AR25-B	AR30-B	AR40-B	AR40-06-B	AR50-B	AR60-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		1/8										
Fluid		Air										
Ambient and fluid temperature *2		–5 to 60°C (with no freezing)										
Proof pressure				1.5 MPa								
Maximum operating pressure				1.0 MPa				] [				
Set pressure range			(	0.05 to 0.85 MPa	a			1				
Construction		Relieving type										
Weight [kg]	0.16	0.21	0.29	0.44	0.47	1.17	1.22	]				

\*1 Pressure gauge connection threads are not available for F.R.L. unit with a square embedded type pressure gauge or with a digital pressure switch.
\*2 -5 to 50°C for the products with the digital pressure switch

# AR20-B to AR60-B Series AR20K-B to AR60K-B Series

### **Options/Part No.**

Option		Model	AR20(K)-B	AR25(K)-B	AR30(K)-B	AR40(K)-B	AR40(K)-06-B	AR50(K)-B	AR60(K)-B		
Brack	et assem	nbly *1	AR23P-270AS	AR28P-270AS	AR33P-270AS	AR43P	-270AS	AR52P-270AS			
Set nu	ıt		AR23P-260S	AR28P-260S	AR33P-260S	AR43F	P-260S	*2			
	Round	Standard		G36-10-□01			G46-1	0-□01			
	type *3	0.02 to 0.2 MPa setting		G36-4-□01			G46-4	I-□01			
Pressure	Round type *3	Standard		G36-10-□01-L		G46-10-□01-L					
gauge	(with color zone)	0.02 to 0.2 MPa setting		G36-4-□01-L			G46-4-	⊡01-L			
	Square *4	Standard		GC3-10AS [GC3P-010AS (Pressure gauge cover only)]							
	embedded type	0.02 to 0.2 MPa setting		GC	3-4AS [GC3P-0	-010AS (Pressure gauge cover only)]					
Dista		NPN output, Wiring bottom entry		IS	E35-N-25-MLA [	ISE35-N-25-M	Switch body onl	y)]			
Digita		NPN output, Wiring top entry		ISI	E35-R-25-MLA [	ISE35-R-25-M (	Switch body onl	y)]			
press		PNP output, Wiring bottom entry		ISI	E35-N-65-MLA [	ISE35-N-65-M (	Switch body on	y)]			
SWILCI		PNP output, Wiring top entry	ISE35-R-65-MLA [ISE35-R-65-M (Switch body only)]								

\*1 Assembly of a bracket and set nuts. Including 2 mounting screws for the AR50(K)-B and AR60(K)-B

\*2 Please consult with SMC regarding the set nuts for the AR50(K)-B and AR60(K)-B.

\*3 □ in part numbers for a round pressure gauge indicates a pipe thread type. No indication is necessary for R; however, indicate N for NPT. Please contact SMC regarding the pressure gauge supply for psi unit specifications.

\*4 Including one O-ring and 2 mounting screws. []: Pressure gauge cover only

\*5 In addition to the pressure switch body, lead wire with connector (2 m), adapter, lock pin, O-ring (1 pc.), mounting screw (2 pcs.) are attached.

[]: Switch body only. (Regarding how to order the digital pressure switch, refer to the Web Catalog.)

## A Specific Product Precautions

I Be sure to read this before handling the products. Refer to the back cover for safety instructions. For F.R.L. units I precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual", http://www.smcworld.com

#### Selection

## 🗥 Warning

1. Residual pressure disposal (outlet pressure removal) is not possible for the AR20-B to AR60-B even though the inlet pressure is exhausted. When the residual pressure disposal is performed, use the regulator with a backflow function (AR20K-B to AR60K-B).

#### Maintenance

## \land Warning

1. When using the regulator with backflow function between a solenoid valve and an actuator, check the pressure gauge periodically. Sudden pressure fluctuations may shorten the durability of the pressure gauge. A digital pressure gauge is recommended for such situation or as deemed necessary.

#### Mounting/Adjustment

## \land Warning

- 1. Set the regulator while verifying the displayed values of the inlet and outlet pressure gauges. Turning the regulator knob excessively can cause damage to the internal parts.
- 2. Do not use tools on the pressure regulator knob as this may cause damage. It must be operated manually.

## Caution

- 1. Be sure to unlock the knob before adjusting the pressure and lock it after setting the pressure. Failure to follow this procedure can cause damage to the knob and the outlet pressure may fluctuate.
  - · Pull the pressure regulator knob to unlock. (You can visually verify this with the "orange mark" that appears in the gap.)
  - Push the pressure regulator knob to lock. When the knob is not easily locked, turn it left and right a little and then push it (when the knob is locked, the "orange mark", i.e., the gap will disappear).

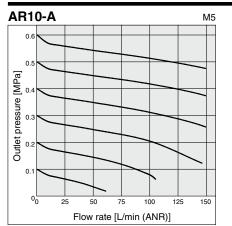


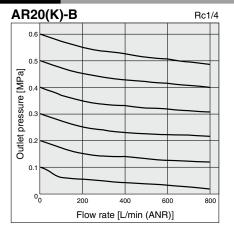
2. A knob cover is available to prevent careless operation of the knob. Refer to page 112 for details.



## Regulator AR10-A Series Regulator AR20-B to AR60-B Series Regulator with Backflow Function AR20K-B to AR60K-B Series

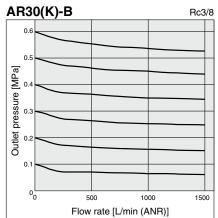


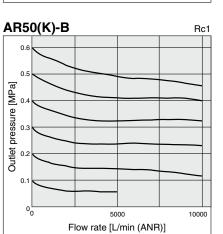


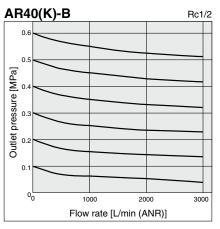


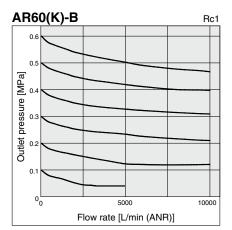
AR25(K)-B Rc3/8

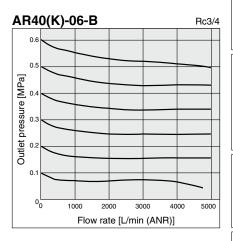
Condition: Inlet pressure of 0.7 MPa













AC

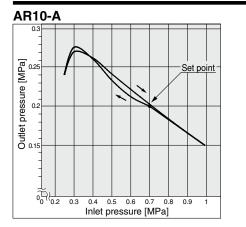
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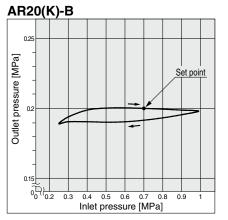
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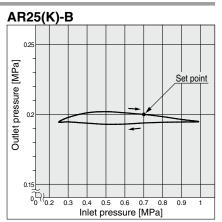
# AR10-A Series AR20-B to AR60-B Series AR20K-B to AR60K-B Series

Pressure Characteristics (Representative values)

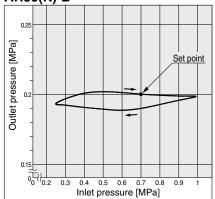
Conditions: Inlet pressure of 0.7 MPa, Outlet pressure of 0.2 MPa, Flow rate 20 L/min (ANR)



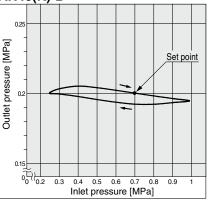




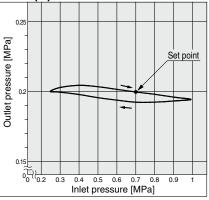


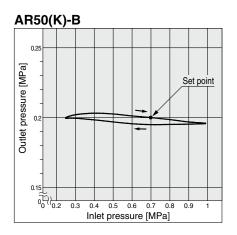


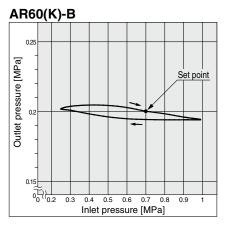




### AR40(K)-06-B



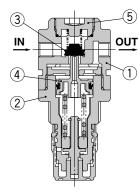




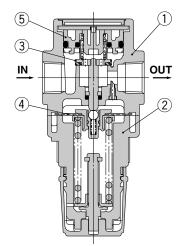
# Regulator AR10-A Series Regulator AR20-B to AR60-B Series Regulator with Backflow Function AR20K-B to AR60K-B Series

## Construction

AR10-A



## AR30(K)-B/AR40(K)-B



## **Component Parts**

No.	Description	Material	Model	Color
		Zinc die-cast	AR10-A	
1	Body	Aluminum die-cast	AR20(K)-B to AR60(K)-B	White
			AR10-A	
2	Bonnet	Zinc die-cast     AR10-A       Aluminum die-cast     AR20(K)-B to AR60(K)-B       Polyacetal     AR20(K)-B to	White	
		Aluminum die-cast		

## Replacement Parts

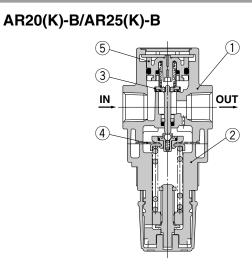
No.	Description	Material	Part no.									
3	Valve	HNBR	AR10P-090S									
4	Piston assembly	Polyacetal	AR10P-150AS									
5	Valve guide assembly	Polyacetal	131329									

## [AR20(K)-B to AR60(K)-B]

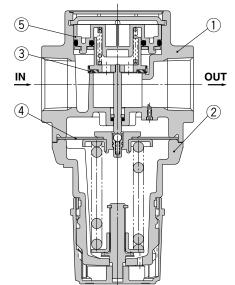
No.	Description	Material		Part no.									
NO.	Description		AR20(K)-B	AR25(K)-B	AR30(K)-B	AR40(K)-B	AR40(K)-06-B	AR50(K)-B	AR60(K)-B				
3	Valve	Brass, HNBR	AR20P-410S	AR25P-410S	AR30P-410S	AR40F	AR40P-410S		AR60P-410S				
4	Diaphragm assembly	Weatherable NBR	AR20P-150AS	AR25P-150AS	AR30P-150AS	AR40P	AR40P-150AS		-150AS				
5	Valve guide assembly	Polyacetal	AR20P-050AS	AR25P-050AS	AR30P-050AS	AR40P-050AS		AR50P-050AS	AR60P-050AS				
6	Check valve assembly $^{\ast 1}$	—	AR23KP-020AS										

**SMC** 

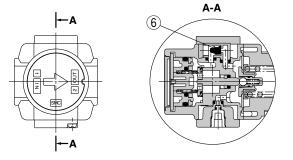
\*1 Check valve assembly is applicable for a regulator with backflow function (AR20K-B to AR60K-B) only. Assembly of a check valve cover, check valve body assembly and 2 mounting screws



## AR50(K)-B/AR60(K)-B



## AR20K-B to AR60K-B (Regulator with Backflow Function)



AR AFM / AFD AF

AC

AF + AR + AL

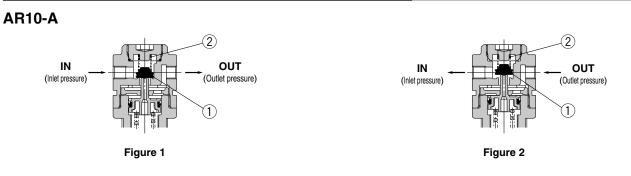
AW+AL

AF+AR

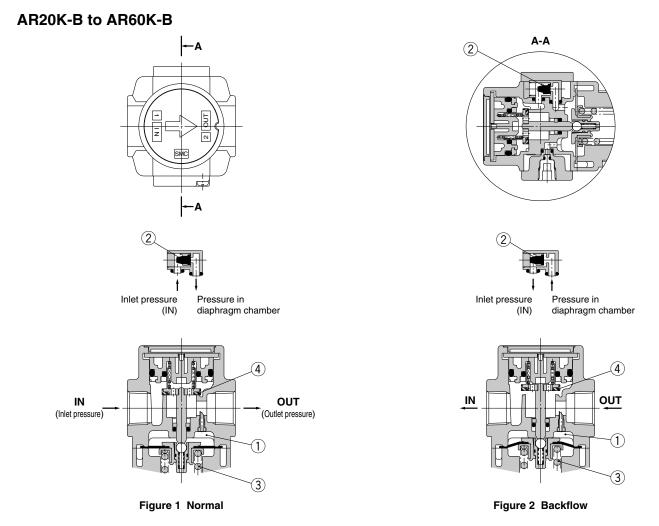
Attachment AW + AFM AF + AF + AFM + AR

# AR10-A Series AR20K-B to AR60K-B Series

## Working Principle (Regulator with Backflow Function)



When the inlet pressure is higher than the regulating pressure, the check valve operates as a normal regulator (Figure 1). When the inlet pressure is shut off and exhausted, any inlet pressure applied to the valve ① will be lost. The force for seating the valve ① is the valve spring force ② only. When the valve ① is opened using the outlet force, the outlet pressure will be exhausted at the inlet side (Figure 2). When the set pressure is 0.15 MPa or less, the valve ① may not open due to the valve spring ② force.

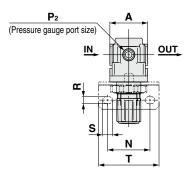


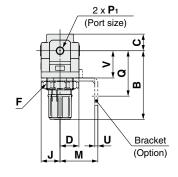
When the inlet pressure is higher than the regulating pressure, the check valve (2) closes and operates as a normal regulator (Figure 1). When the inlet pressure is shut off and released, the check valve (2) opens and the pressure in the diaphragm chamber (1) is released into the inlet side (Figure 2). This lowers the pressure in the diaphragm chamber (1) and the force generated by the spring (3) lifts the diaphragm. The valve (4) opens through the stem, and the outlet pressure is released to the inlet side (Figure 2).

# AR10-A Series AR20-B to AR60-B Series AR20K-B to AR60K-B Series

## Dimensions

## AR10-A



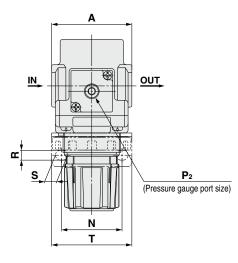


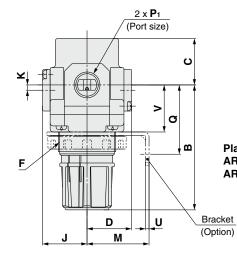
Panel mounting dimensions



Plate thickness AR10-A: Max. 3.5

## AR20(K)-B to AR40(K)-06-B





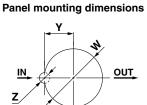
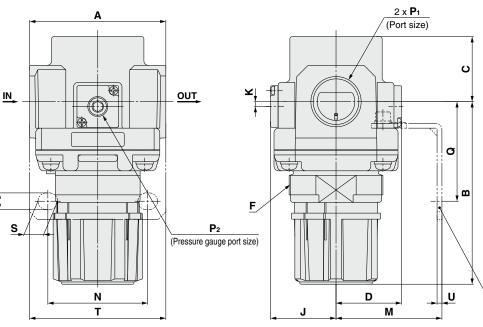


Plate thickness AR20(K)-B to AR30(K)-B: Max. 3.5 AR40(K)-B : Max. 5

Bracket

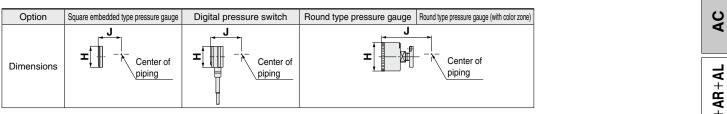
(Option)

## AR50(K)-B/AR60(K)-B



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# Regulator **AR10-A** Series Regulator AR20-B to AR60-B Series Regulator with Backflow Function **AR20K-B to AR60K-B Series**



												Ор	tional sp	ecificatio	ons		
Model				Standar	d specif	ications				Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (with color zone)	
	<b>P</b> 1	P2	Α	<b>B</b> *1	С	D	F	J	Κ	Н	J	Н	J	Н	J	Н	J
AR10-A	M5 x 0.8	1/16	25	47.4	11	12.5	M18 x 1	12.5		—		_		ø26	26	—	_
AR20(K)-B	1/8, 1/4	1/8	40	67.4	26.5	28.5	M28 x 1	28.5	2 *2	□28	29.5	□27.8	40	ø37.5	65	ø37.5	66
AR25(K)-B	1/4, 3/8	1/8	53	71.9	28	27.5	M32 x 1.5	27.5	0	□28	28.5	□27.8	39	ø37.5	64	ø37.5	65
AR30(K)-B	1/4, 3/8	1/8	53	85.6	30.7	29.4	M38 x 1.5	29.4	3.5	□28	30.4	□27.8	40.9	ø37.5	65.9	ø37.5	66.9
AR40(K)-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	34.8	□27.8	45.3	ø42.5	71.3	ø42.5	71.3
AR40(K)-06-B	3/4	1/8	75	93.2	35.8	33.8	M42 x 1.5	33.8	3	□28	34.8	□27.8	45.3	ø42.5	71.3	ø42.5	71.3
AR50(K)-B	3/4, 1	1/8	90	125.2	43	43.3	M62 x 1.5	43.3	3.2	□28	44.3	□27.8	54.8	ø42.5	80.8	ø42.5	80.8
AR60(K)-B	1	1/8	95	129.6	46	43.3	M62 x 1.5	43.3	3.2	□28	44.3	□27.8	54.8	ø42.5	80.8	ø42.5	80.8

	Optional specifications												
Model			Br	acket mo	unt			Panel mount					
	М	N	Q	R	S	Т	U	v	W	Y	Z		
AR10-A	25	28	30	4.5	6.5	40	2	18	18.5	—	—		
AR20(K)-B	30	34	43.9	5.4	15.4	55	2.3	24.7	28.5	14	6		
AR25(K)-B	30	34	43.9	5.4	15.4	55	2.3	25.7	32.5	16	6		
AR30(K)-B	41	40	45.8	6.5	8	53	2.3	31.1	38.5	19	7		
AR40(K)-B	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7		
AR40(K)-06-B	50	54	55.5	8.5	10.5	70	2.3	37	42.5	21	7		
AR50(K)-B	70	66	65.8	11	13	90	3.2	—	—	—	_		
AR60(K)-B	70	66	65.8	11	13	90	3.2	—	—	—	—		

\*1 The dimension of B is the length when the filter regulator knob is unlocked.
\*2 For the AR20(K)-B only, the position of the pressure gauge is above the center of the piping.

Attachment AW+AFM AF+AFM+AR AF+AR AF+AR AW+AL AF+AR+AL

AL

A₹

AF

**SMC** 

## AR20-B to AR60-B Regulator Made to Order Made to Order

Please contact SMC for detailed dimensions, specifications and lead times.



#### **1** Special Temperature Environment

Special materials are used in the manufacturing of seals and resin parts to allow them to withstand various temperature conditions in cold or tropical (hot) climates.

#### Specifications

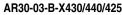
			cation	S									
M	ade-	to-c	order par	t no.		-X430				-X44	0		
En	viro	nme	ent		Lov	v temperature	е		High	tempe	eratur	е	
Am	bien	t te	mperatur	e [°C]		-30 to 60			-	-5 to 8	30		
			perature			-5 to 60	) (wi	th no f	reezi	ng)			
			Rubber		S	pecial NBR				FKM			
Ма	teria	al⊢	Main par		Metal (Aluminum die-cast, etc.)								
Ар	pli		ble M		I					, ,			
	Mod	el	AR25	-B A	R30-B	AR40-B	AR	40-06-B	AR	50-B	AR60-B		
P	ort s	ize	1/4, 3		/4, 3/8	1/4, 3/8, 1/2		3/4	-	4, 1			
A	R	3	0-0		03			_	В	- 🗙	(43	30	
				2	3	4	E						
• 0	Optio	n/S	emi-stan	dard s	ymbol: \	e each for <b>a</b> to When more d, indicate in	-		te	or hi empo	erat	ure	
a	llpha	nur	neric ord AR30-03	er.	•	X43 X44	_	ow ter ligh te	· ·				
					<u> </u>								
		<u> </u>	< l>	Symbol	I I	Description			В	ody si	ze		
			$\sim$					25	30	40	50	60	
				Nil									
2	Pipe	e thr	read type	N	Rc NPT				•	•	•	•	
9				F		G		•	•	Ō	•	•	
				+									
				02		1/4		•	•	•	_	-	
				03		3/8		•	•	•	—	-	
8		Por	t size	04		1/2		_	-		-	-	
				06		3/4		-	-		•	-	
				+		1					•	•	
				Nil	Withou	t mounting opt	tion					•	
		_	Manutina	<b>B</b> *2				•	•		٠	•	
	*1	а	Mounting	н	With s							_	
4	Option *1				(for pa	nel mount)				-			
	ő		5	+	D						1		
		b	Pressure gauge	G*3		type pressure ga ut limit indicato		•		•	•	•	
			gauge	+			, ,	L	L	1	L	I	
			Set	Nil	0.05 to	0.85 MPa set	ting				•	•	
		С	pressure	1*4		0.2 MPa setti		•	•	Ĭ	۲	•	
		_		+			_						
		d	Exhaust	Nil		ing type		•		•	•	•	
		ŭ	mechanism	N	Non-re	elieving type					•		
	ard		Flore	+	Eloure	raation: Laft to	aht						
	pul	е	Flow direction	Nil R		rection: Left to ri rection: Right to	•						
6	-sta		ancouorr	+	1 IOW UI		ion			-	•	-	
	Semi-standard		16.1	Nil	Downy	vard				•		•	
	Ň	f	Knob	Y	Upwar				٠		٠		
				+									
		g	Pressure	Nil	gauge	plate and press in SI units: MPa	a	•	•	•	•	•	
		9	unit	<b>Z</b> *5	Name plate and pressure gauge in imperial units: psi			⊖*6	○*6	○*6	○*6	⊖*6	

\*1 Options B, G, H are not assembled and supplied loose at the time of shipment. \*2 Assembly of a bracket and set nuts (AR25-B to AR40-B)

Including 2 mounting screws for the AR50-B and AR60-B

- \*3 Mounting thread for pressure gauge: 1/8, Pressure gauge type: G43
   \*4 The only difference from the standard specifications is the spring for the regulator. It does not restrict the setting of 0.2 MPa or more. When the pressure gauge is
- attached, a 0.4 MPa pressure gauge will be fitted. \*5 For pipe thread type: NPT. This product is for overseas use only according to the new Measurement Act. (The SI unit type is provided for use in Japan.)

\*6 O: For pipe thread type: NPT only



### 2 High Pressure

Strong materials are used in the manufacturing of regulators intended for high pressure operation. Also, construction modification allows a wider set pressure range.

#### **Specifications**

Made-to-order part no.	-X425
Proof pressure [MPa]	3.0
Maximum operating pressure [MPa]	2.0
Set pressure range [MPa]	0.1 to 1.7
Ambient and fluid temperature [°C]	-5 to 60 (with no freezing)

#### Applicable Model

Model	AR20-B	AR25-B	AR30-B	AR40-B	AR40-06-B	AR50-B	AR60-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

#### 03 BG AR|30 -B-X425 5 For high pressure

• Option/Semi-standard: Select one each for a to f.

· Option/Semi-standard symbol: When more than one specification is

required, indicate in alphabetic order.

Example) AR30-03BG-NR-B-X425

	<			Cumbel	Description			6	_		
				Symbol	Description			Body			
						20	25	30	40	50	60
				Nil	Rc				•		
2	Pip	e th	read type	N	NPT		•	•	•	•	Ŏ
9				F	G	ě	Ō	ě	ě	ě	ŏ
				+			-	-			
				01	1/8		—	—	_	_	—
				02	1/4	•	•		•	_	—
6		Der	4 -:	03	3/8	-	•		•	—	—
8		Por	t size	04	1/2	—	—	—	•	_	—
				06	3/4	—	—	—	•	$\bullet$	—
				10	1	_	—	—	—		
				+							
	Option *1			Nil	Without mounting option				•		
		a	Mounting	<b>B</b> *2	With bracket			•	۲	۲	$\bullet$
		a	wounting	н	With set nut						
4					(for panel mount)			•	•		
		_	r	+							
		b	Pressure	<b>G</b> *3	Round type pressure switch		•	•	•	•	•
		_	gauge		(with limit indicator)			-	-	•	•
				+			-	-	-		
		c	Exhaust	Nil	Relieving type		•	•	•	•	
			mechanism	N	Non-relieving type			$\bullet$	•	•	•
				+			_	_	_	_	_
	-	d	Flow	Nil	Flow direction: Left to right		•	•	•	•	•
	Semi-standard		direction	R +	Flow direction: Right to left		•	•	•	•	•
	ano		1		D						
6	i-st	e	Knob	Nil Y	Downward		•	•	•	•	-
	em			Y +	Upward		•	•	•	•	•
	Ś			+							
		f	Pressure	Nil	Name plate and pressure gauge in SI units: MPa	•	•	•	•	•	•
	f unit		<b>Z</b> *4	Name plate and pressure gauge in imperial units: psi	○*5	0*5	○*5	○*5	○*5	○*5	

\*1 Options B, G, H are not assembled and supplied loose at the time of shipment.
 \*2 Assembly of a bracket and set nuts (AR20-B to AR40-B)

Including 2 mounting screws for the AR50-B and AR60-B

\*3 Mounting thread for pressure gauge: 1/8, Pressure gauge type: G46-20-□
\*4 For pipe thread type: NPT. This product is for overseas use only according to the new Measurement Act. (The SI unit type is provided for use in Japan.)

\*5 O: For pipe thread type: NPT only





Please contact SMC for detailed dimensions, specifications and lead times.



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## **3 0.4 MPa Setting**

The setting specification is 0.4 MPa. When a pressure gauge is included, the display will show a range from 0 to 0.4 MPa.

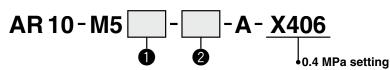
#### Specifications

Made-to-order part no.	-X406
Proof pressure [MPa]	1.5
Maximum operating pressure [MPa]	1.0
Set pressure range [MPa] *1	0.05 to 0.4

\*1 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.

#### Applicable Model

Model	AR10
Port size	M5



## **≜**Caution

• The AR10 comes with a backflow function as a standard feature. When using the AR10 as with backflow function, backflow may not occur with the set pressure of 0.15 MPa or less.

<ul> <li>Option/Semi-standard: Select one each for a to f.</li> </ul>	
Casting (Casali at a selected as used as 1. ) At the second at the second	

Option/Semi-standard symbol: When more than one specification is required, indicate in alphabetic order. Example) AR10-M5BG-NR-A-X406

		Symbol	Description	Body size		
		a	Mounting	Nil B*3	Without mounting option With bracket	
•	n *2	a	wounting	H	With blacket With set nut (for panel mount)	•
V	Option			+		
	0	b	Pressure gauge *4	Nil	Without pressure gauge	•
		D	Pressure gauge	G	Round type pressure gauge (without limit indicator)	•
				+		
		с	Exhaust mechanism	Nil	Relieving type	•
		č	Exhaust meenamism	N	Non-relieving type	•
				+		
	ard	d	Flow direction	Nil	Flow direction: Left to right	•
_	Semi-standard	u	TIOW direction	R	Flow direction: Right to left	•
2	sta			+		
-	<del>'</del> =	е	Knob	Nil	Downward	•
	Se	e	11100	Y	Upward	•
				+		
		f	Pressure unit	Nil	Name plate and pressure gauge in SI units: MPa	•
			r ressure unit	<b>Z</b> *5	Name plate and pressure gauge in imperial units: psi	

\*2 Options B, G, H are not assembled and supplied loose at the time of shipment.

Assembly of a bracket and set nuts.
A 1.0 MPa pressure gauge will be fitted.
This product is for overseas use only according to the new Measurement Act. (The SI unit type is provided for use in Japan.)

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Please contact SMC for detailed dimensions, specifications and lead times.



## 3 0.4 MPa Setting

The setting specification is 0.4 MPa. When a pressure gauge is included, the display will show a range from 0 to 0.4 MPa.

#### Specifications

Made-to-order part no.	-X406
Proof pressure [MPa]	1.5
Maximum operating pressure [MPa]	1.0
Set pressure range [MPa] *1	0.05 to 0.4

\*1 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.

#### Applicable Model

<u> </u>																	
Ν	/lode	el	AR20(K)-B	AR25(K)	-B A	R30(K)-B	AR40(K)-B	AR40(K)-06-B	AR50(K)-B	AR60(K)-B							
Ро	ort si	ze	1/8, 1/4	1/4, 3/8	3	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1							
AI	R[	3	0 -	[ ]	03	3	]- 6	]-В- <u>Х</u> 4	<b>406</b> 4 мра	asetting							
• Op	otion/	/Serr	ni-standard: Se ni-standard syn R30K-03BE-NF	mbol: Wh	en m		e specificatior	n is required, indi	cate in alpha	betic order.							
/	<u> </u>	_															
				Sy	mbol		Description				Body size						
		_								20	25	30	40	50	60		
2	v	Vith h	ackflow functio	n I	Nil			thout backflow fun				•	•		•	•	
9					<b>K</b> *2		V	lith backflow funct	ion			•	•		•	•	
					+	1		Da					•				
8		Din	be thread type		Nil N			Rc NPT			•	•	•	•	•		
9		Γiμ	be intead type		F			G				•		•	•	<u> </u>	
					+			9			•	•	•	•	•		
					01			1/8				_	_	_	_		
					02			1/4			•	•	•		_	_	
			De de la c		03			3/8			_	•	•	•	_	_	
4			Port size		04	1/2					_	_		_	_		
					06			3/4			_	_	_	•	•	_	
					10	1					_	—	_	_		•	
					+												
					Nil		ounting option					•	•		•	•	
		а	Mounting		<b>B</b> *4	With brack						•	•		•	•	
					H	With set n	ut (for panel mo	ount)					•		-		
			1		+							- 1					
	*		Pressure gauge*		Nil		essure gauge				•	•	•	•	•	•	
6	ion				<u>E</u>	<u> </u>		pressure gauge (w		tor)	•	•	•	•	•	•	
	Option *3				<u>G</u> M			ge (with limit indic			•	•	•	•	•	•	
	-	b	Digital pressu switch		E1*6			ige (with color zon trical entry: Wiring			•	•	•	•	•	•	
					E1*0 E2*6			trical entry: Wiring				•		•	•		
					E3*6			trical entry: Wiring				•	÷	•	•	÷	
					E4*6			trical entry: Wiring				ě	ě	•	ě	ě	
					+		,,					- 1			- 1		
			Exhaust		Nil	Relieving	type					•	•		•	•	
		с	mechanism	n	Ν	Non-reliev	ing type					•	•	•	•	•	
			1	·	+												
	σ	d	Flow direction	I	Nil	Flow direct	tion: Left to rigi	nt				•	•		•	•	
	dar				R	Flow direct	tion: Right to le	eft					•			•	
6	Semi-standard				+												
$\bullet$	-i-S-	е	e Knob		Nil	Downward	ł					•	•	•	•	•	
	Sen	Ľ			Y	Upward						•	•			•	
	0)				+												
			Pressure unit		Nil			gauge in SI units			•	•	•	•	•	•	
		f			Z*7			gauge in imperial			0*9	O*9	O*9	O*9	O*9	O*9	
					ZA*8	Uigitai pre	ssure switch: V	Vith unit selection	IUNCTION		∆*10	∆*10	∆*10	∆*10	∆*10	∆*10	

\*2 Please set the inlet pressure to at least 0.05 MPa higher than the set pressure.

\*3 Options B, G, H are not assembled and supplied loose at the time of shipment.

\*4 Assembly of a bracket and set nuts. (AR20(K)-B to AR40(K)-B). Including 2 mounting screws for the AR50(K)-B and AR60(K)-B
 \*5 A 0.7 MPa pressure gauge will be fitted.

\*6 When choosing with H (panel mount), the installation space for lead wires will not be secured. In this case, select "wiring top entry" for the electrical entry. (Select "wiring bottom entry" when the semi-standard Y is chosen simultaneously.)

\*7 For pipe thread type: NPT. This product is for overseas use only according to the new Measurement Act. (The SI unit type is provided for use in Japan.) The digital pressure switch will be equipped with the unit selection function, setting to psi initially.

\*8 For options: E1, E2, E3, E4. This product is for overseas use only according to the new Measurement Act. (The SI unit is provided for use in Japan.) \*9 O: For pipe thread type: NPT only

\*10 A: Select with options: E1, E2, E3, E4.





## (4) Clean Series

For details, refer to the Clean Series/Low Particle Generation section of the Web Catalog.



## Standard model no.

Please contact SMC if a product with pressure gauge is desired.

Clean series

### **(5)** Copper, Fluorine and Silicone-free + Low Particle Generation

For details, refer to the Clean Series/Low Particle Generation section of the Web Catalog.

# 21 - Standard model no.

Copper, fluorine and silicone-free + Low particle generation

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