



Modular Type Regulators *Series AR*

Regulator Series AR	Model	Port size	Options
 <p data-bbox="167 958 496 992">Pages 346 through to 355</p>	AR10	M5 x 0.8	
	AR20	1/8, 1/4	
	AR25	1/4, 3/8	
	AR30	1/4, 3/8	
	AR40	1/4, 3/8, 1/2	
	AR40-06	3/4	
	AR50	3/4, 1	
 <p data-bbox="167 1384 496 1417">Pages 346 through to 355</p>	AR20K	1/8, 1/4	Bracket Square embedded type pressure gauge (except the AR10) Round type pressure gauge Digital pressure switch (except the AR10) Panel mount
	AR25K	1/4, 3/8	
	AR30K	1/4, 3/8	
	AR40K	1/4, 3/8, 1/2	
	AR40K-06	3/4	
	AR50K	3/4, 1	
	AR60K	1	

AC

AF□

AR

AL

AW□

A□G

AV

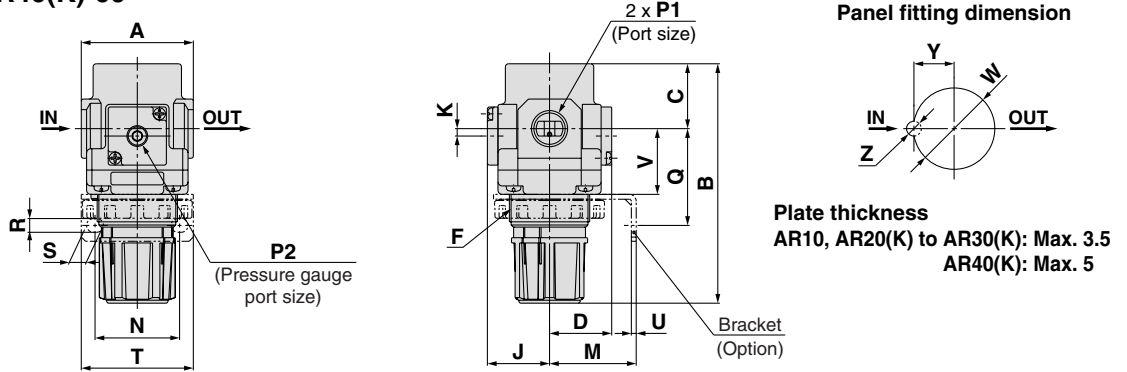
AF800
AF900

Regulator *Series AR10 to AR60*

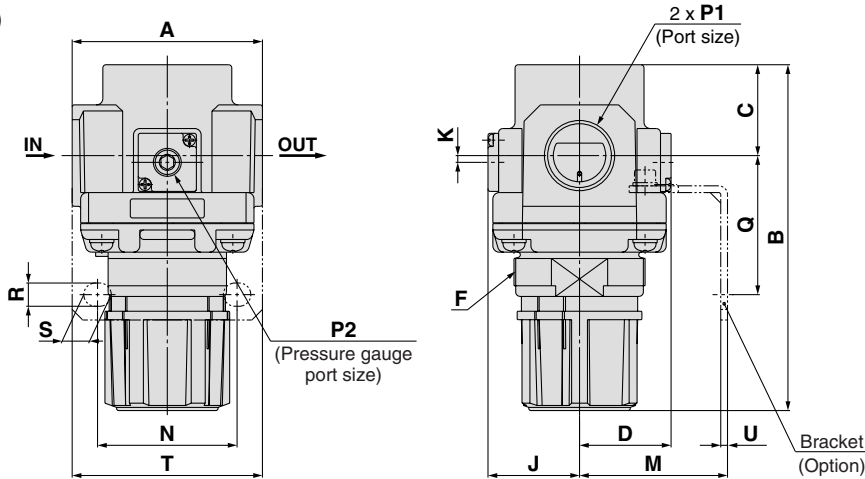
Regulator with Backflow Function *Series AR20K to AR60K*

Dimensions

AR10, AR20(K) to AR40(K)-06



AR50(K), AR60(K)



Applicable model	AR20(K) to AR60(K)		AR10, AR20(K) to AR60(K)	AR20(K) to AR60(K)
Option	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with color zone)
Dimensions				

Model	Standard specifications										Optional specifications						
	P1	P2	A	B ^{Note 1)}	C	D	F	J	K	H	J	H	J	H	J	H	J
AR10	M5 x 0.8	1/16	25	58	11	12.5	M18 x 1	13	0	—	—	—	—	ø26	26	—	—
AR20(K)	1/8, 1/4	1/8	40	94	26.5	28.5	M28 x 1	28.5	2 ^{Note 2)}	□28	29.5	□27.8	40	ø37.5	65	ø37.5	65
AR25(K)	1/4, 3/8	1/8	53	101	28	27.5	M32 x 1.5	27.5	0	□28	28.5	□27.8	39	ø37.5	64	ø37.5	64
AR30(K)	1/4, 3/8	1/8	53	116	31	29.5	M38 x 1.5	29.5	3.5	□28	30.5	□27.8	41	ø37.5	66	ø37.5	66
AR40(K)	1/4, 3/8, 1/2	1/4	70	128	36	34	M42 x 1.5	34	3.5	□28	35	□27.8	45	ø42.5	74	ø42.5	74
AR40(K)-06	3/4	1/4	75	129	36	34	M42 x 1.5	34	3	□28	35	□27.8	45	ø42.5	74	ø42.5	74
AR50(K)	3/4, 1	1/4	90	169	43	43.5	M62 x 1.5	43.5	3.3	□28	44.5	□27.8	55	ø42.5	84	ø42.5	84
AR60(K)	1	1/4	95	176	46	43.5	M62 x 1.5	43.5	3.3	□28	44.5	□27.8	55	ø42.5	84	ø42.5	84

Model	Optional specifications											
	Bracket mount							Panel mount				
	M	N	Q	R	S	T	U	V	W	Y	Z	
AR10	25	28	30	4.5	6.5	40	2	18	18.5	—	—	
AR20(K)	30	34	44	5.4	15.4	55	2.3	25	28.5	14	6	
AR25(K)	30	34	44	5.4	15.4	55	2.3	26	32.5	16	6	
AR30(K)	41	40	46	6.5	8	53	2.3	31	38.5	19	7	
AR40(K)	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	
AR40(K)-06	50	54	56	8.5	10.5	70	2.3	37	42.5	21	7	
AR50(K)	70	66	65.8	11	13	90	3.2	—	—	—	—	
AR60(K)	70	66	65.8	11	13	90	3.2	—	—	—	—	

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

- AC
- AF□
- AR
- AL
- AW□
- A□G
- AV
- AF800
- AF900

Regulator AR20 to AR60

Made to Order Specifications:

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



AR30-03-X425

① Special Temperature Environment

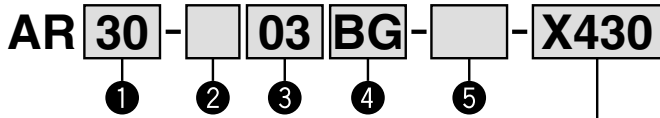
Special materials are used in the manufacturing of seals and resin parts to allow them to withstand various temperature conditions in cold or tropical (hot) climates.

Specifications

Made-to-order part no.	-X430	-X440
Environment	Low temperature	High temperature
Ambient temperature (°C)	-30 to 60	-5 to 80
Fluid temperature (°C)	-5 to 60 (with no freezing)	
Material	Rubber parts	Special NBR
	Main parts	FKM
	Metal (Aluminum die-cast), etc.	

Applicable Model

Model	AR25	AR30	AR40	AR40-06	AR50	AR60
Port size	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1



- 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.
Example) AR30-03BG-1NR-X430

For high/low temperature

X430	Low temperature
X440	High temperature

	Symbol	Description	① Body size					
			25	30	40	50	60	
② Thread type	Nil	Rc	●	●	●	●	●	
	N	NPT	●	●	●	●	●	
	F	G	●	●	●	●	●	
+								
③ Port size	02	1/4	●	●	●	—	—	
	03	3/8	●	●	●	—	—	
	04	1/2	—	—	●	—	—	
	06	3/4	—	—	●	●	—	
	10	1	—	—	—	●	●	
+								
④ Option	a Mounting	Nil	Without mounting option	●	●	●	●	●
		B	With bracket	●	●	●	●	●
	H	With set nut (for panel fitting)	●	●	●	—	—	
+								
b Pressure gauge	G	Round type pressure gauge (without limit indicator)	●	●	●	●	●	
+								
⑤ Semi-standard	c Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●	●	●
		1	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	Name plate and caution plate for bowl in imperial units: psi	○	○	○	○	○	

- Note 1) Option B, G, H are not assembled and supplied loose at the time of shipment.
 Note 2) Assembly of a bracket and set nuts (AR25 to AR40)
 Including 2 mounting screws for the AR50 and AR60
 Note 3) Mounting thread for pressure gauge: 1/8 for the AR25 to AR30; 1/4 for the AR40 to AR60. Pressure gauge type: G43
 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

② High Pressure

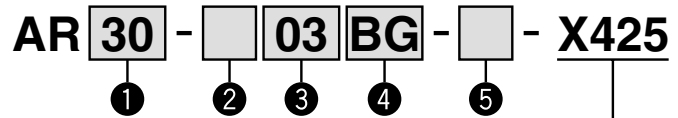
Strong materials are used in the manufacturing of air filters intended for high pressure operation. Also, construction modification allows a wider regulating pressure range.

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 1.6
Ambient and fluid temperature (°C)	-5 to 60 (with no freezing)

Applicable Model

Model	AR20	AR25	AR30	AR40	AR40-06	AR50	AR60
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



- 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-X425

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

- Note 1) Option B, G, H are not assembled and supplied loose at the time of shipment.
 Note 2) Assembly of a bracket and set nuts (AR20 to AR40)
 Including 2 mounting screws for the AR50 and AR60
 Note 3) Mounting thread for pressure gauge: 1/8 for AR20 to AR30, 1/4 for AR40 to AR60. Pressure gauge type: G46-20-□
 Note 4) 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 5) ○: For thread type: NPT only