

Modular Type Regulator *Series AR*

Regulator Series AR



Pages 36 through 40

Regulator with back flow mechanism Series AR□K



Pages 43 through 48

Model	Port size	Accessory
AR10	M5 x 0.8	Bracket Square embedded type pressure gauge (except for AR10)
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	Round pressure gauge Panel mount
AR60	1	
AR20K	1/8, 1/4	
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	

Regulator AR10 to 60

How to Order



AR20



AR40

AR

30

F

03

BE

1N

Regulator

Body size

Thread type

Port size

10

20

25

30

40

50

60

Nil

Metric thread (M5)

Rc

N

NPT

F

G

Symbol

Port size

Body size

M5

M5

10

20

25

30

40

50

60

01

1/8

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●

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02

1/4

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●

●

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●

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03

3/8

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04

1/2

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06

3/4

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10

1

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●

●

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Op

Sym

1

N

R

Y

Z

N

* When Note 1

Note 2

Note 3

Accessories

Symbol

Nil

B

With

E

With

G

With

H

With

Note 1) Optional

Optional specifications

Symbol	Description	Applicable model
1 ^{Note 2)}	0.02 to 0.2MPa setting	AR10 to 60
N	Non-relieving	AR10 to 60
R	Flow direction: Right to left	AR10 to 60
Y	Upward handle	AR10 to 60
Z ^{Note 3)}	Name plate and pressure gauge in imperial units (PSI, °F)	AR10 to 60

* When more than one specification is required, indicate in ascending alphanumeric order.
Note 1) This product is for overseas use only according to the new Measurement Law.
(The SI unit type is provided for use in Japan.)

Note 2) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2MPa or more.

Note 3) For M5 and NPT thread types.



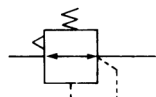
Accessories

Symbol	Description	Applicable model
Nil	—	—
B	With bracket	AR10 to 60
E	With square embedded type pressure gauge (with limit indicator)	AR20 to 60
G	With round pressure gauge (without limit indicator)	AR10
H	With round pressure gauge (with limit indicator)	AR20 to 60
H	With set nut (for panel mount)	AR10 to 40

Note 1) Optional parts are not assembled and are supplied loose at the time of shipment (except for option E).



JIS symbol



Page 41

Accessory/Optional specification combinations

⊙ : Combination available

○ : Varies depending on the model

□ : Combination not available

△ : Available only with NPT thread

Combination		Symbol	Accessory				Optional specification					Applicable regulator		
Accessory/Optional specifications			B	E	G	H	1	N	R	Y	Z	AR10	AR20 to 40	AR50 to 60
Accessories	With bracket (with set nut)	B		○	⊙		⊙	⊙	⊙	△	⊙	⊙	⊙	
	Square embedded type pressure gauge	E	⊙			⊙	⊙	⊙	⊙	△		⊙	⊙	
	Round pressure gauge	G	⊙			⊙	⊙	⊙	⊙	△	⊙	⊙	⊙	
	With set nut (for panel mount)	H		○	⊙		⊙	⊙	⊙	△	⊙	⊙		
Optional specifications	0.02 to 0.2MPa setting	−1	⊙	○	⊙	⊙		⊙	⊙	△	⊙	⊙	⊙	
	Non-relieving type	−N	⊙	○	⊙	⊙	⊙		⊙	△	⊙	⊙	⊙	
	Flow direction: Right to left	−R	⊙	○	⊙	⊙	⊙		⊙	△	⊙	⊙	⊙	
	Upward handle	−Y	⊙	○	⊙	⊙	⊙	⊙		△	⊙	⊙	⊙	
	Name plate and pressure gauge in imperial units (PSI, °F)	−Z	△	△	△	△	△	△	△		△	△	△	

Standard specifications

Model	AR10	AR20	AR25	AR30	AR40	AR40-06	AR50	AR60
Port sizes	M5 x 0.8	1/8, 1/4	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Fluid	Air							
Proof pressure	1.5MPa							
Maximum operating pressure	1.0MPa							
Set pressure range	0.05 to 0.7MPa	0.05 to 0.85MPa						
Pressure gauge port size ^{Note 1)}	Rc 1/16 ^{Note 2)}	Rc, NPT, G 1/8	Rc, NPT, G 1/8	Rc, NPT, G 1/8	Rc, NPT, G 1/4	Rc, NPT, G 1/4	Rc, NPT, G 1/4	Rc, NPT, G 1/4
Relief pressure	Set pressure + 0.05MPa ^{Note 3)} [at relief flow rate of 0.1L/min (ANR)]							
Ambient and fluid temperature	-5 to 60°C (with no freezing)							
Construction	Relieving type							
Weight (kg)	0.06	0.26	0.21	0.29	0.44	0.47	1.17	1.22



Note 1) Pressure gauge connection threads are not required for regulator with a square embedded type pressure gauge (AR20 to AR60).

Note 2) Use a bushing (part no: 131368) when connecting the R 1/8 pressure gauge to the R 1/16 gauge port.

Note 3) Except for AR10.

Accessory part no.

Applicable model		AR10	AR20	AR25	AR30	AR40	AR40-06	AR50	AR60
Accessory									
Bracket assembly ^{Note 1)}		AR10P-270AS	AR20P-270AS	AR25P-270AS	AR30P-270AS	AR40P-270AS	AR40P-270AS	AR50P-270AS ^{Note 5)}	AR60P-270AS ^{Note 5)}
Set nut		AR10P-260S	AR20P-260S	AR25P-260S	AR30P-260S	AR40P-260S	AR40P-260S	— ^{Note 6)}	— ^{Note 6)}
Pressure gauge ^{Note 2)}	1MPa	Round	G27-10-R1	G36-10-□01	G36-10-□01	G36-10-□01	G46-10-□02	G46-10-□02	G46-10-□02
		Square embedded type ^{Note 4)}	—	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS
	0.2MPa	Round	G27-10-R1 ^{Note 3)}	G36-2-□01	G36-2-□01	G36-2-□01	G46-2-□02	G46-2-□02	G46-2-□02
		Square embedded type ^{Note 4)}	—	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS

Note 1) Assembly includes a bracket and set nuts.

Note 2) □ 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.

Contact P/A regarding the connection thread NPT and pressure gauge supply for PSI unit specifications.

Note 3) For 1.0MPa.

Note 4) Includes one O-ring and 2 mounting screws.

Note 5) Assembly includes a bracket and 2 mounting screws.

Note 6) Contact P/A regarding the set nuts for AR50 and AR60.

AR10 to 60

⚠ Specific Product Precautions

Be sure to read before handling.
Refer to pages 75 through 78 for safety instructions and F.R.L. unit precautions.

Mounting & Adjustment

⚠ Warning

1. Set the regulator while verifying the displayed values of the inlet and outlet pressure gauges. Turning the knob excessively can cause damage to the internal parts.
2. The pressure gauge included with regulators for 0.02 to 0.2MPa setting is for up to 0.2MPa use only. Exceeding 0.2MPa of pressure can damage the gauge. Nevertheless, the gauge for the AR10 regulator with 0.02 to 0.2MPa setting is for up to 1.0MPa use.
3. 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.

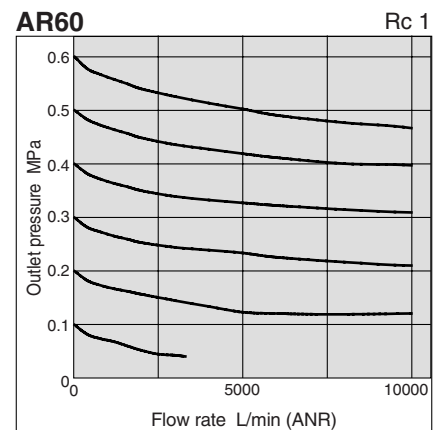
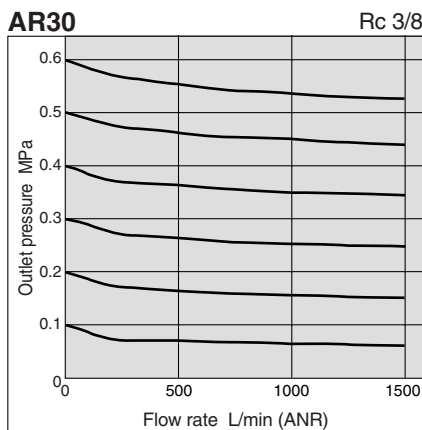
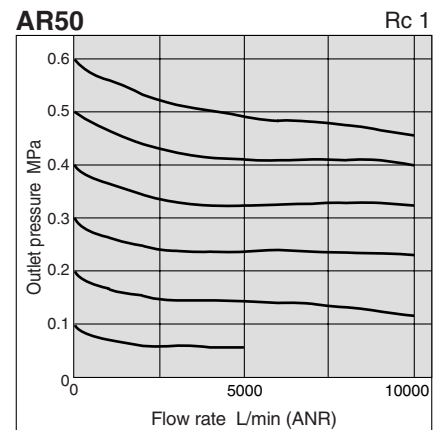
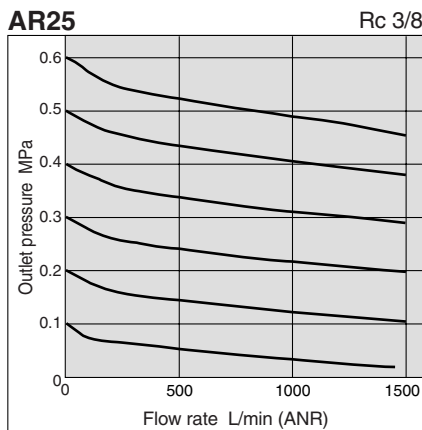
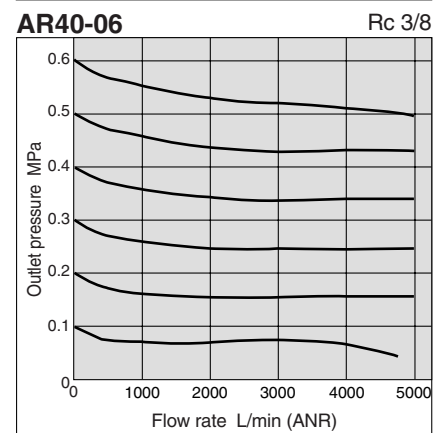
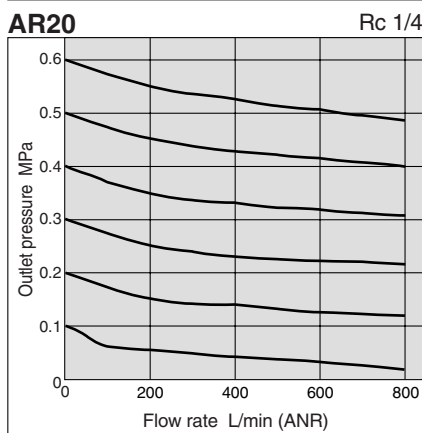
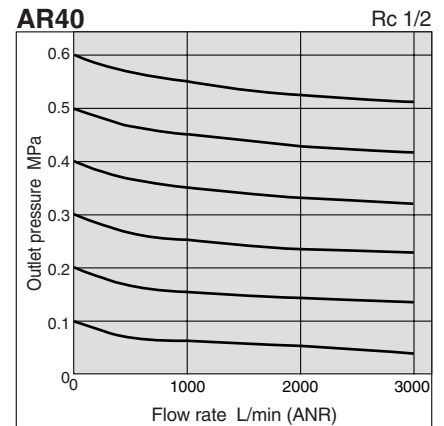
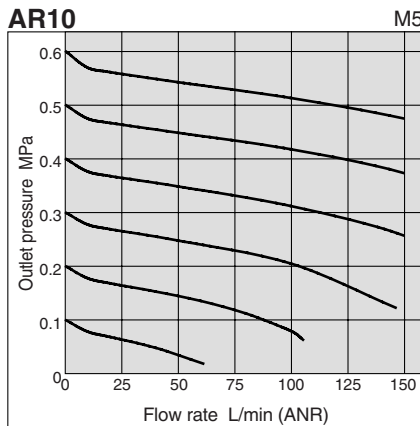
- Pull the pressure regulator knob to unlock. (You can visually verify this with the "orange mark" that appears in the gap.)
- Push the pressure regulator knob to lock. When the knob is not easily locked, turn it left and right a little and then push it (when the knob is locked, the "orange mark", i.e., the gap will disappear).



2. A knob cover is available to prevent careless operation of the knob. Refer to Features 1 for details.
3. Contact P/A when using the regulator between a solenoid valve and an actuator.

Flow Characteristics (Representative values)

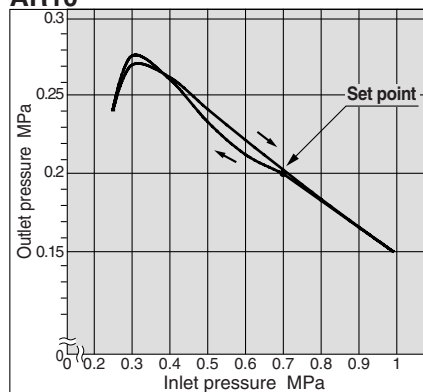
Condition: Inlet pressure 0.7MPa



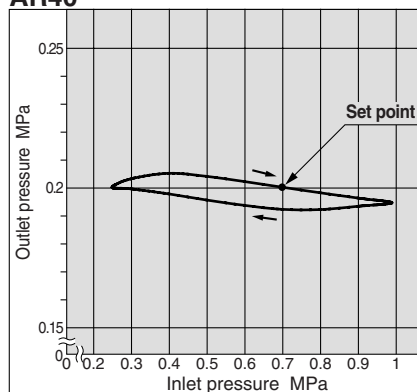
Pressure Characteristics (Representative values)

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

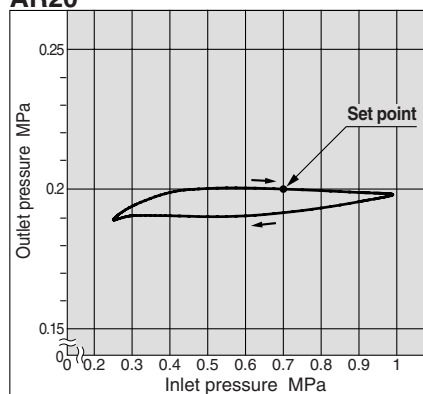
AR10



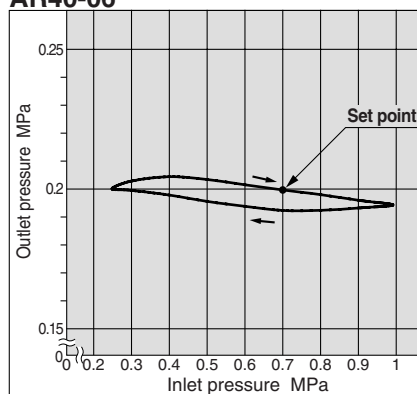
AR40



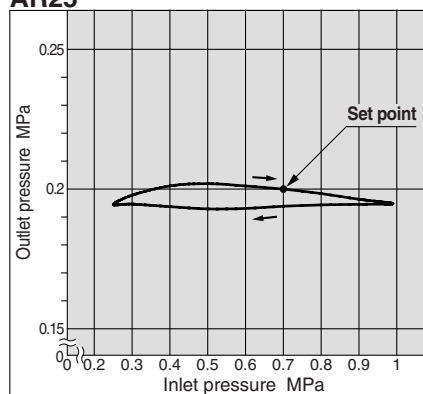
AR20



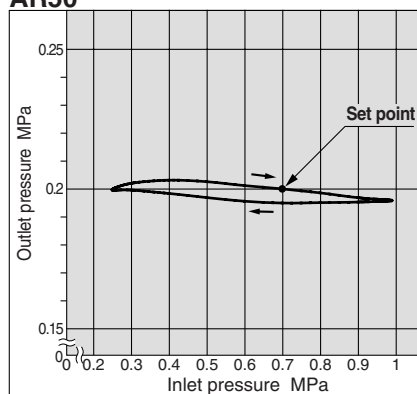
AR40-06



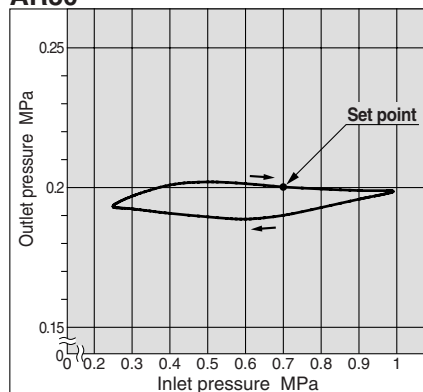
AR25



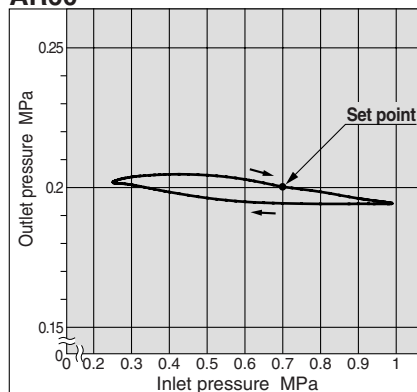
AR50



AR30

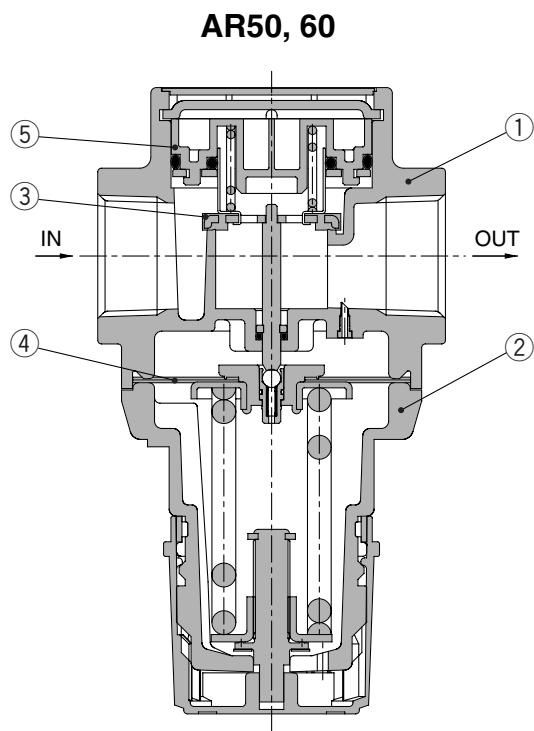
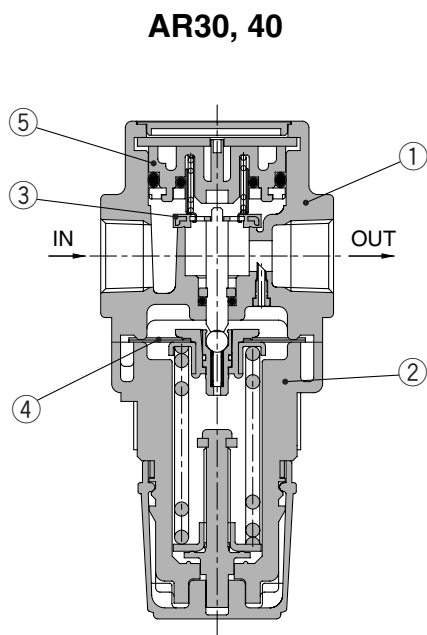
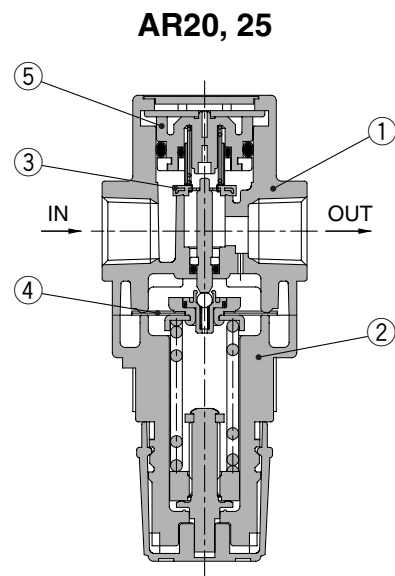
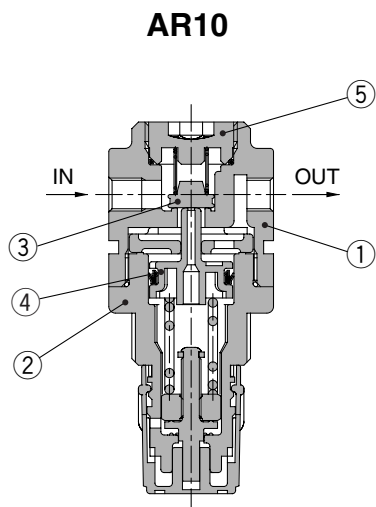


AR60



AR10 to 60

Construction




Parts list

No.	Description	Material			Note
		AR10, 20	AR25 to 40 (-60)	AR50, 60	
1	Body	Zinc die-cast	Aluminum die-cast		Platinum silver
2	Bonnet	Polyacetal		Aluminum die-cast	Black

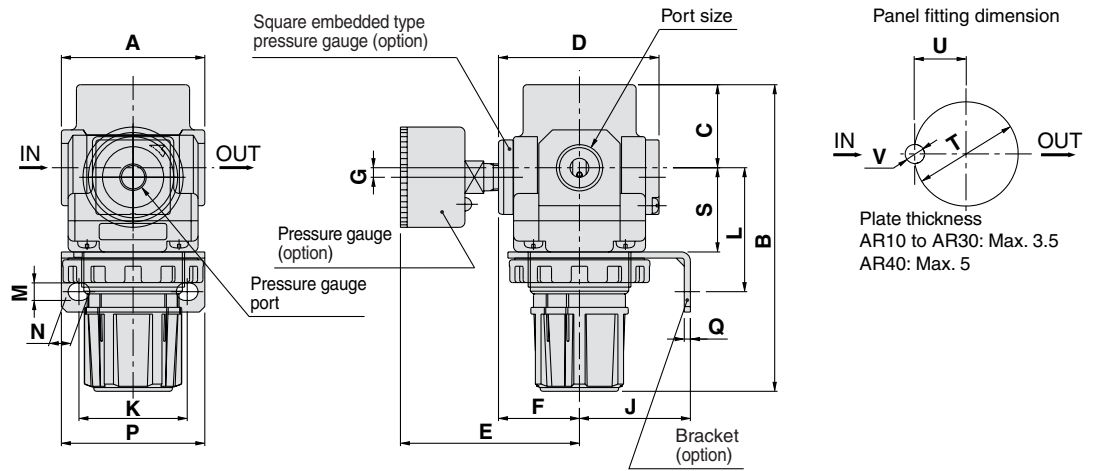
Replacement parts

No.	Description	Materials	Part no.							
			AR10	AR20	AR25	AR30	AR40	AR40-06	AR50	AR60
3	Valve assembly	Stainless steel Brass, HNBR	AR10P-090S	AR20P-090AS	AR25P-090AS	AR30P-090AS	AR40P-090AS	AR40P-090AS	AR50P-090AS	AR60P-090AS
4	Diaphragm assembly	Weatherability NBR	AR10P-150AS (Note)	AR20P-150AS	AR25P-150AS	AR30P-150AS	AR40P-150AS	AR40P-150AS	AR50P-150AS	AR50P-150AS
5	Valve guide assembly	POM	131329	AR20P-050AS	AR25P-050AS	AR30P-050AS	AR40P-050AS	AR40P-050AS	AR50P-050AS	AR60P-050AS

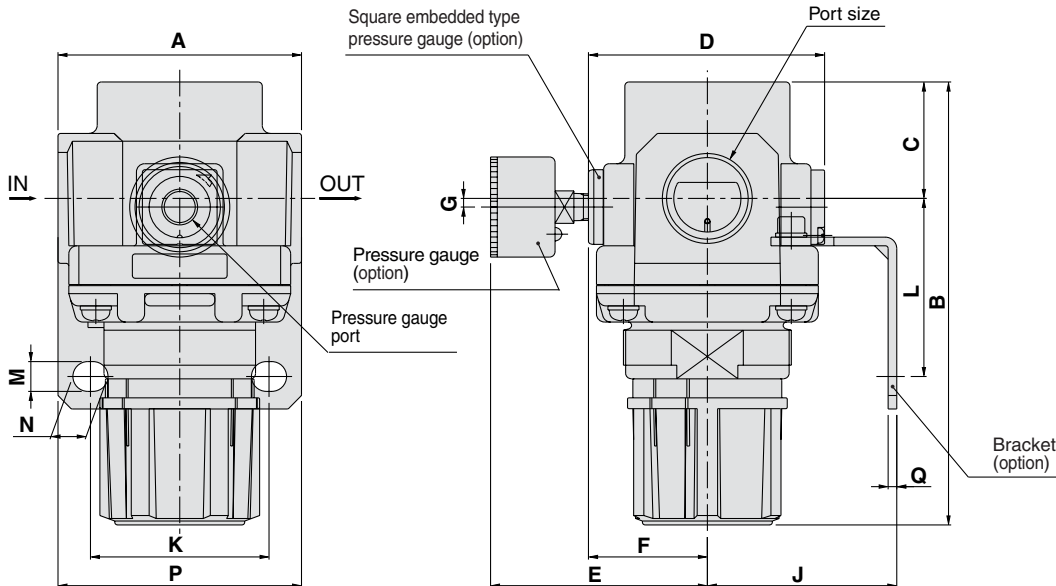
 Note) AR10 is a piston and gasket (KSYP-13) type assembly.

Dimensions

AR10 to 40



AR50, 60



Model	Port sizes	Standard specification				Accessory specification													
						With pressure gauge			Bracket mounting size							Panel mount			
		A	C	B	D	E	F	G	J	K	L	M	N	P	Q	S	T	U	V
AR10	M5 x 0.8	25	11	58	25	26	—	0	25	28	30	4.5	6.5	40	2	18	18.5	—	—
AR20	1/8, 1/4	40	26.5	94	57	65	29.5	2 (Note)	30	34	44	5.4	15.4	55	2.3	25	28.5	14	6
AR25	1/4, 3/8	53	28	101	55	64	28.5	0	30	34	44	5.4	15.4	55	2.3	26	32.5	16	6
AR30	1/4, 3/8	53	31	116	59	66	30.5	3.5	41	40	46	6.5	8	53	2.3	31	38.5	19	7
AR40	1/4, 3/8, 1/2	70	36	128	68	74	35	3.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7
AR40-06	3/4	75	36	129	68	74	35	3	50	54	56	8.5	10.5	70	2.3	37	42.5	21	7
AR50	3/4, 1	90	43	169	87	84	44.5	3.3	70	66	65.8	11	13	90	3.2	—	—	—	—
AR60	1	95	46	176	87	84	44.5	3.3	70	66	65.8	11	13	90	3.2	—	—	—	—



Note) For AR20 only, the position of the pressure gauge is above the center of the piping.

Regulator AR20 to 60 Made to Order Specifications

Contact P/A 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) regions.

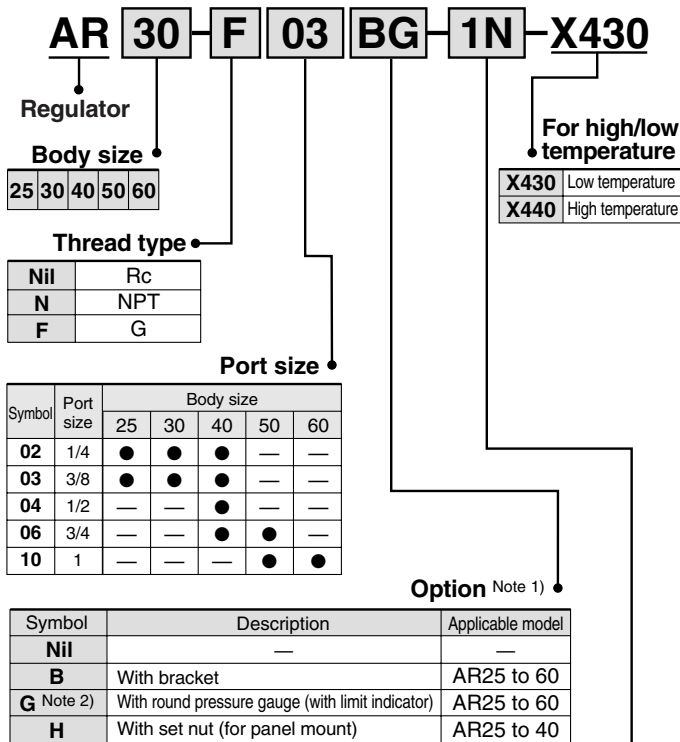
Specifications

Part no.	-X430	-X440
Environment	Low temperature	High temperature
Ambient temperature	-30 to 60°C	-5 to 80°C
Fluid temperature	-5 to 60°C (with no freezing)	
Material	Rubber parts	Special NBR
	Main metal parts	FPM

Applicable models

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

How to Order



Note 1) Optional parts are not assembled and are supplied loose at the time of shipment.

Note 2) Mounting thread for pressure gauge: 1/8 for AR25 to 30; 1/4 for AR40 to 60
Pressure gauge type: G43

Optional specifications

Symbol	Description	Applicable model
1 Note 3)	0.02 to 0.2MPa setting	AR25 to 60
N	Non-relieving type	AR25 to 60
R	Flow direction: Right to left	AR25 to 60
Y	Upward handle	AR25 to 60
Z Note 4)	Name plate and pressure gauge in imperial units (PSI, °F)	AR25 to 60

* When more than one specification is required, indicate in ascending alphanumeric order.

Note 3) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2MPa or more.

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) Consult P/A for detailed dimensions and available attachments and options.

Note 6) Comes with T type handle.

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

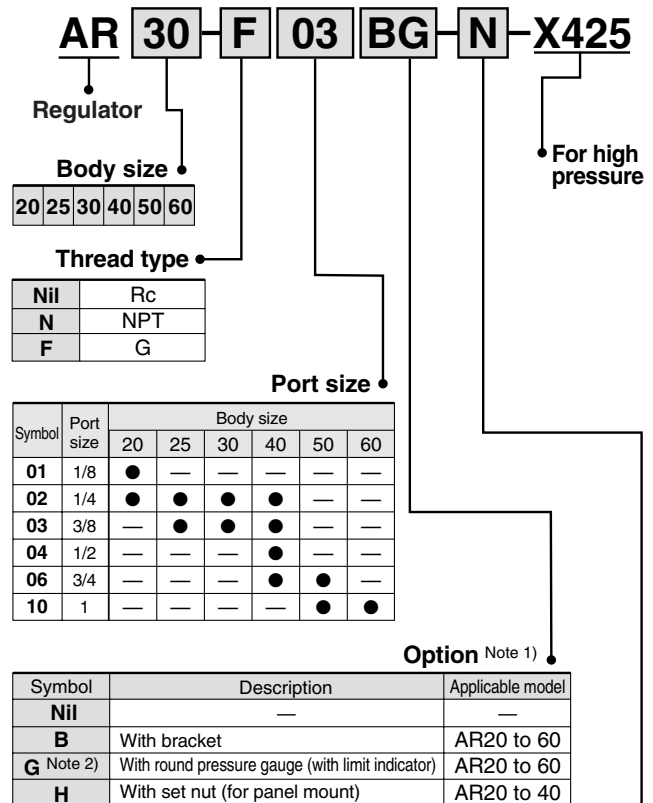
Part no.	-X425
Proof pressure	3.0MPa
Maximum operating pressure	2.0MPa
Set pressure range	0.1 to 1.6MPa
Ambient and fluid temperature	-5 to 60°C (with no freezing)



Applicable models

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

How to Order



Note 1) Optional parts are not assembled and are supplied loose at the time of shipment.

Note 2) Mounting thread for pressure gauge: 1/8 for AR20 to 30; 1/4 for AR40 to 60

Optional specifications

Symbol	Description	Applicable model
N	Non-relieving	AR20 to 60
R	Flow direction: Right to left	AR20 to 60
Y	Upward handle	AR20 to 60
Z Note 3)	Name plate and pressure gauge in imperial units (PSI, °F)	AR20 to 60

* When more than one specification is required, indicate in ascending alphanumeric order.

Note 3) 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.)

Regulator AR20(K) to AR60(K) Made to Order Specifications

Contact P/A for detailed dimensions, specifications, and lead times.



③ With Digital Pressure Switch

Digital pressure switch (ISE30-□□-□□-□L) is supplied loose for mounting on pressure gauge connection port.

Specifications

Part number suffix		-X465
Pressure switch	Model	ISE30-□□-□□-□L
	Set pressure range (MPa)	-0.1 to 1
	Set and display resolution (MPa)	0.001
	Power supply voltage	12 to 24 VDC ± 10%, Ripple (p-p) 10% or less (with power supply polarity protection)
	Power consumption	45 mA or less (70 mA or less for current output)

* Pressure gauge port size: 1/8

Applicable models

Model	AR20(K)	AR25(K)	AR30(K)	AR40(K)	AR40(K)-06	AR50(K)	AR60(K)
Port sizes	1/8, 1/4	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1



How to Order

AR 30 K - F 03 B - 1N - X465 A

Regulator

Body size

20	25	30	40	50	60
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Back flow mechanism

Nil	Without back flow mechanism
K	With back flow mechanism

Thread type

Nil	Rc
N	NPT
F	G

Port size

Symbol	Port size	20	25	30	40	50	60
01	1/8	●	—	—	—	—	—
02	1/4	●	●	●	●	—	—
03	3/8	—	●	●	●	—	—
04	1/2	—	—	—	●	—	—
06	3/4	—	—	—	●	●	—
10	1	—	—	—	—	●	●

Switch specifications

Symbol	Output specification
A	NPN output
B	PNP output
C	1 to 5V output
D	4 to 20mA output

With digital pressure switch (Series ISE30) Note 4)

Note 4) Digital pressure switch is not assembled and are supplied loose at the time of shipment.

Note 5) Consult P/A for detailed dimensions and available attachments and options.

Note 6) Refer to P/A catalog CAT.ES100-42 for detailed specifications and instructions of digital pressure switch.

Optional specifications

Symbol	Description	Applicable model
1 <small>Note 2)</small>	0.02 to 0.2MPa setting	AR20(K) to 60(K)
N	Non-relieving type	AR20(K) to 60(K)
R	Flow direction: Right to left	AR20(K) to 60(K)
Y	Upward handle	AR20(K) to 60(K)
Z <small>Note 3)</small>	Name plate and pressure gauge in imperial units (PSI, °F)	AR20(K) to 60(K)

* When more than one specification is required, indicate in ascending alphanumeric order.

Note 2) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2MPa or more.

Note 3) 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.)

Option Note 1)

Symbol	Description	Applicable model
Nil	—	—
B	With bracket	AR20(K) to 60(K)
H	With set nut (for panel mount)	AR20(K) to 40(K)

Note 1) Optional parts are not assembled and are supplied loose at the time of shipment.

Regulator: Modular Type with Back flow Mechanism

AR20K to 60K

How to Order

Regulator with a built-in mechanism that ensures a quick release of the outlet air pressure (built-in check valve with back flow mechanism).

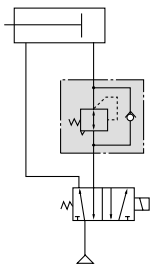


AR20K

AR40K

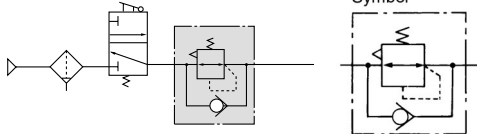
Example 1)
When the pressure in the rear and the front of the cylinder differs:

Circuit diagram



Example 2)
When the air supply is cut off and releasing the inlet pressure to the atmosphere, the residual pressure release of the outlet side can be ensured for a safety purpose.

Circuit diagram



AR30 K — F 03 BE — 1N

Regulator

Body size

20	25	30	40	50	60
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With back flow mechanism

Note) AR10 comes with a back flow mechanism as a standard feature.
If the set pressure is below 0.15MPa, back flow may not occur. When a backflow mechanism is required with a set pressure of less than 0.15MPa, contact P/A.

Thread type

Nil	Rc
N	NPT
F	G

Port size

Symbol	Port size	Body size					
		20	25	30	40	50	60
01	1/8	●	—	—	—	—	—
02	1/4	●	●	—	—	—	—
03	3/8	—	●	●	—	—	—
04	1/2	—	—	—	●	—	—
06	3/4	—	—	—	●	●	—
10	1	—	—	—	—	●	●

Optional specifications

Symbol	Description	Applicable model
1 Note 2)	0.02 to 0.2MPa setting	AR20K to 60K
N	Non-relieving	AR20K to 60K
R	Flow direction: Right to left	AR20K to 60K
Y	Upward handle	AR20K to 60K
Z Note 3)	Name plate and pressure gauge in imperial units (PSI, °F)	AR20K to 60K

* When more than one specification is required, indicate in alphanumeric order.

Note 2) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2MPa or more.

Note 3) For NPT thread type.
This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

Accessories Note 1)

Symbol	Description	Applicable model
Nil	—	—
B	With bracket	AR20K to 60K
E	With square embedded type pressure gauge (with limit indicator)	AR20K to 60K
G	With round pressure gauge (with limit indicator)	AR20K to 60K
H	With set nut (for panel mount)	AR20K to 40K

Note 1) Optional parts are not assembled and are supplied loose at the time of shipment (except for option E).

Standard specifications

Model	AR20K	AR25K	AR30K	AR40K	AR40K-06	AR50K	AR60K
Port sizes	1/8, 1/4	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Fluid	Air						
Proof pressure	1.5MPa						
Maximum operating pressure	1.0MPa						
Set pressure range Note 1)	0.05 to 0.85MPa						
Pressure gauge port size Note 2)	Rc, NPT, G 1/8	Rc, NPT, G 1/8	Rc, NPT, G 1/8	Rc, NPT, G 1/4	Rc, NPT, G 1/4	Rc, NPT, G 1/4	Rc, NPT, G 1/4
Relief pressure	Set pressure + 0.05MPa [at relief flow rate of 0.1L/min (ANR)]						
Ambient and fluid temperature	-5° to 60°C (with no freezing)						
Construction	Relieving type						
Weight (kg)	0.26	0.21	0.30	0.45	0.48	1.17	1.22

* AR10 comes with a back flow mechanism as a standard feature.

Note 1) Set the inlet pressure 0.05MPa or higher than the set pressure.

Note 2) Pressure gauge connection threads are not required for regulators with a square embedded type pressure gauge (AR20K to AR60K).

Accessory part no.

Accessory	Applicable model	AR20K	AR25K	AR30K	AR40K	AR40K-06	AR50K	AR60K
Bracket assembly Note 1)		AR20P-270AS	AR25P-270AS	AR30P-270AS	AR40P-270AS	AR40P-270AS	AR50P-270AS Note 3)	AR50P-270AS Note 3)
Set nut		AR20P-260S	AR25P-260S	AR30P-260S	AR40P-260S	AR40P-260S	— Note 5)	— Note 5)
Note 2) Pressure gauge	1.0MPa	Round	G36-10-□01	G36-10-□01	G36-10-□01	G46-10-□02	G46-10-□02	G46-10-□02
		Square embedded type Note 4)	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS
	0.2MPa	Round	G36-2-□01	G36-2-□01	G36-2-□01	G46-2-□02	G46-2-□02	G46-2-□02
		Square embedded type Note 4)	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS

Note 1) Assembly includes a bracket and set nuts.

Note 2) □ 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.

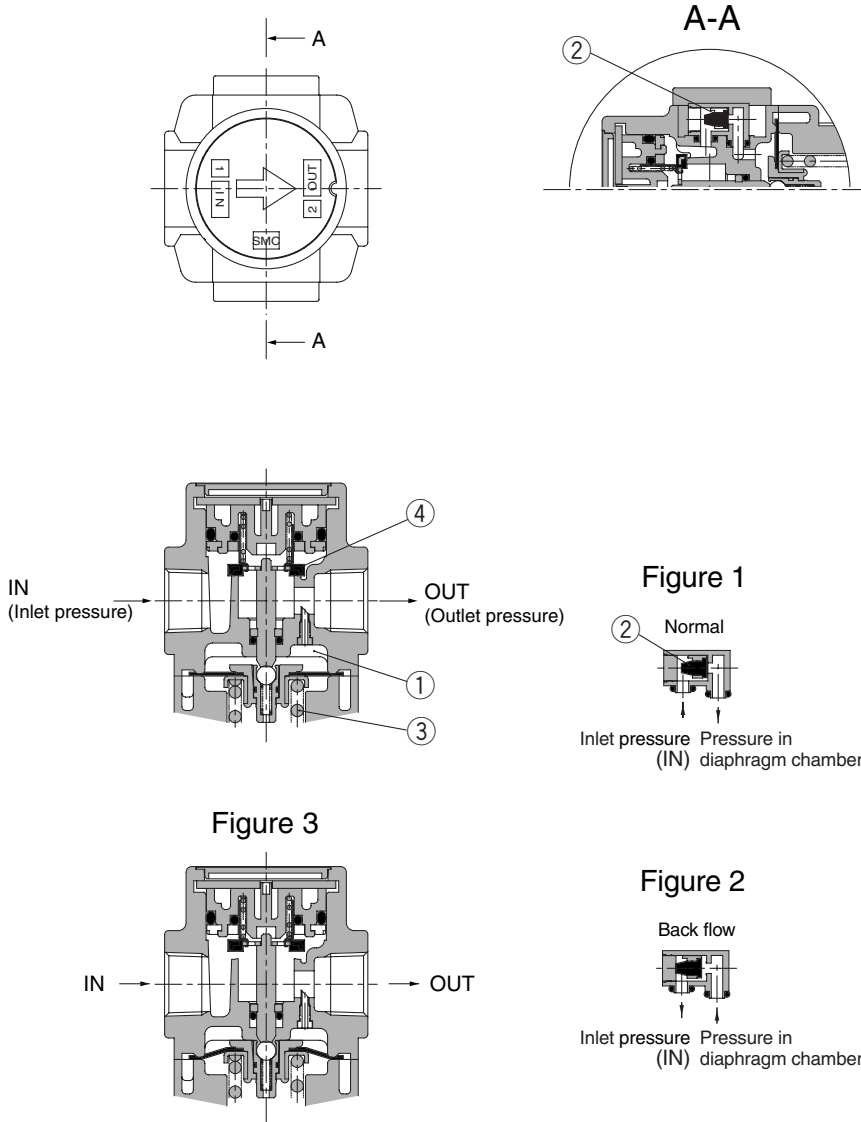
Contact P/A regarding the connection thread NPT and pressure gauge supply for PSI unit specifications.

Note 3) Assembly includes a bracket and 2 mounting screws.

Note 4) Includes one O-ring and 2 mounting screws.

Note 5) Contact P/A regarding the set nut for AR50K and 60K.

Operating Principle



When the inlet pressure (P1) is higher than the regulating pressure, the check valve ② closes and operates as a normal regulator (Figure 1).
 When the inlet pressure (P1) 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 pressure regulator spring ③ lifts the diaphragm. Valve ④ opens through the stem, and the outlet pressure is released to the inlet side (Figure 3).

⚠ Specific Product Precautions

Be sure to read before handling.
 Refer to pages 75 through 78 for safety instructions and F.R.L. unit precautions.

Mounting & Adjustment

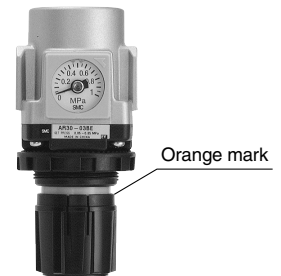
⚠ Warning

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 Features 1 for details.

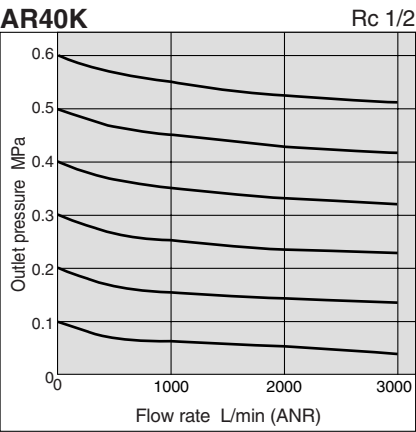
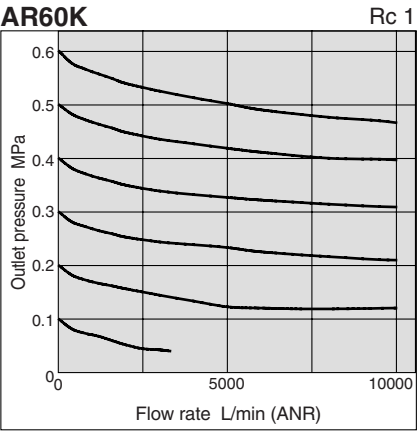
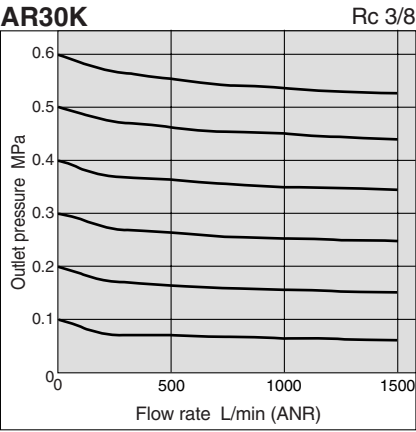
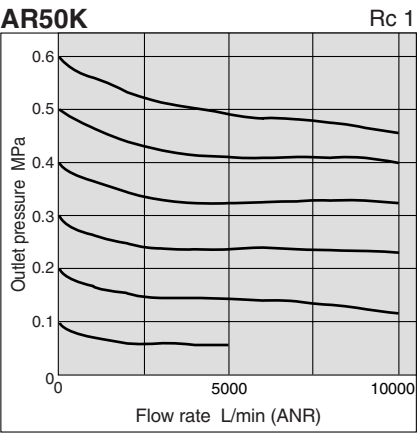
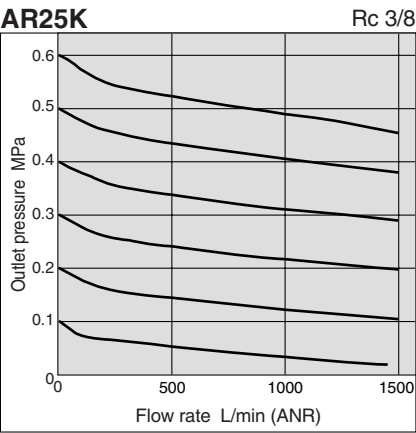
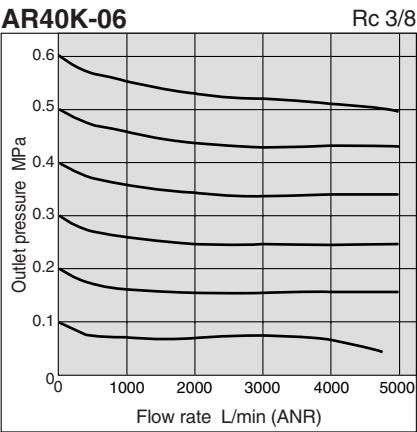
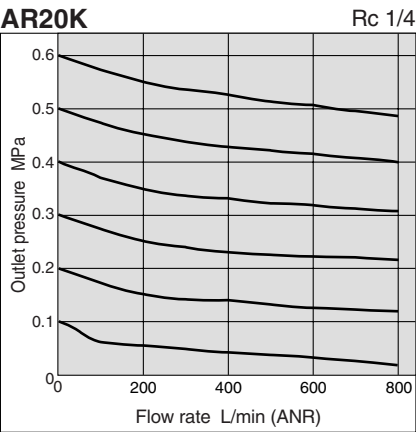
Maintenance

⚠ Warning

1. When using the regulator 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.

AR20K to 60K

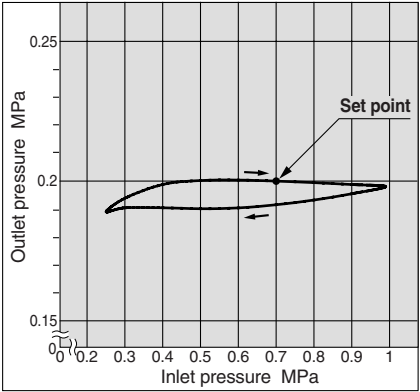
Flow Characteristics (Representative values) **Condition:** Inlet pressure 0.7MPa



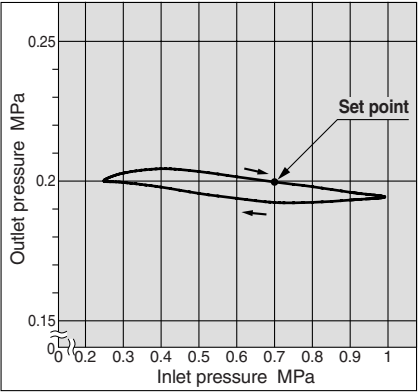
Pressure Characteristics (Representative values)

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

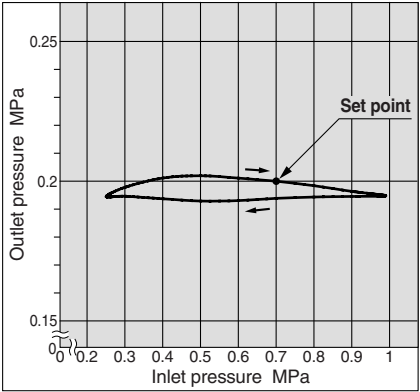
AR20K



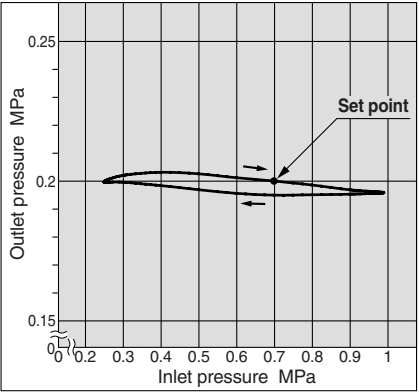
AR40K-06



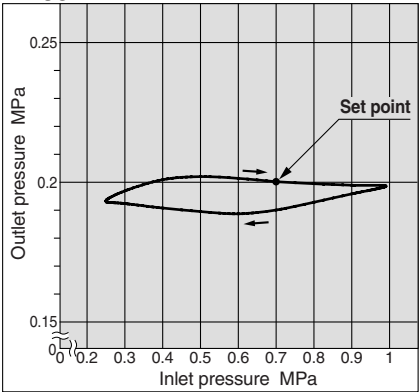
AR25K



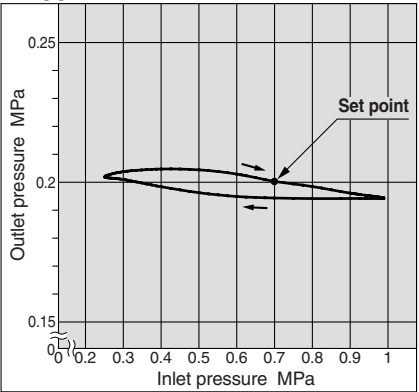
AR50K



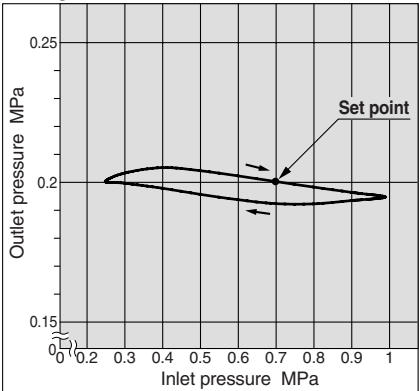
AR30K



AR60K



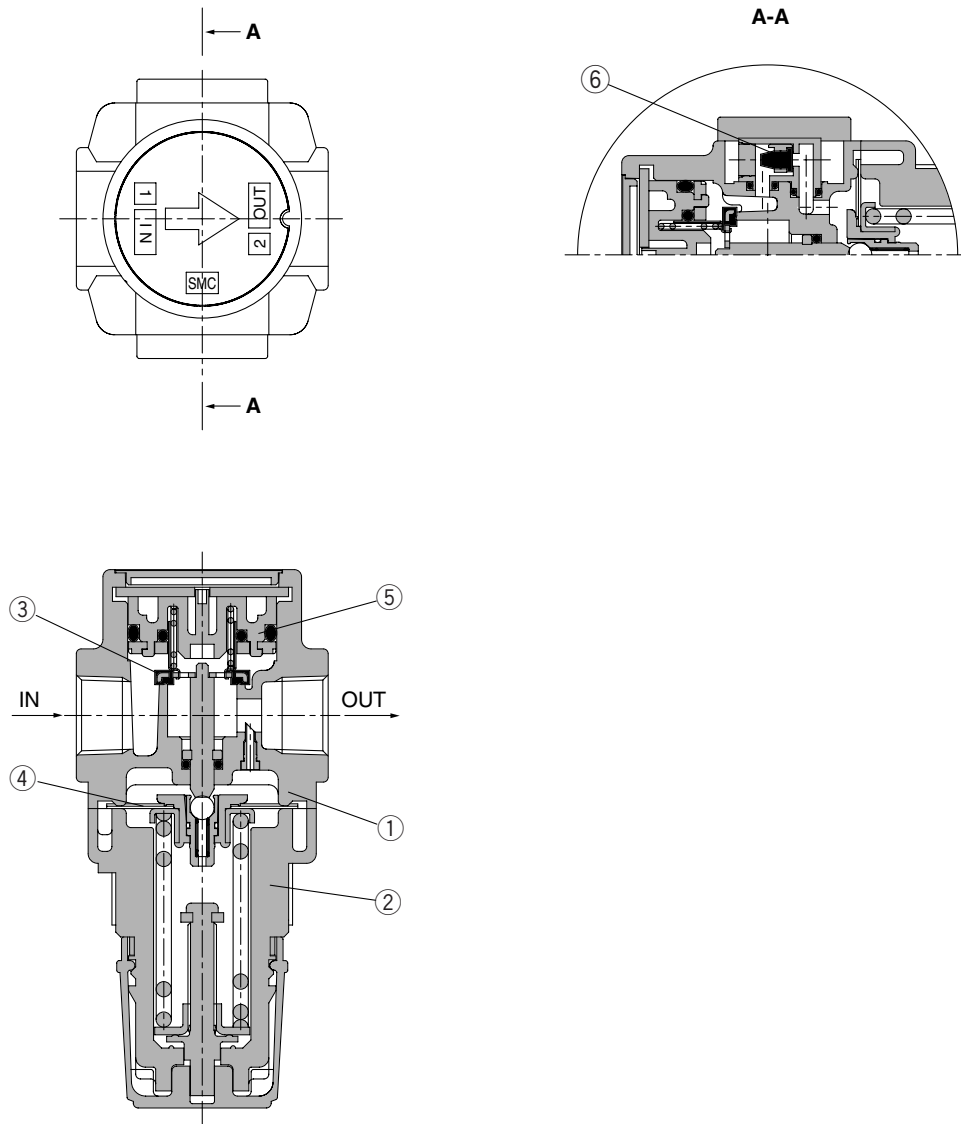
AR40K



AR20K to 60K

Construction

AR20K to 60K



Parts list

No.	Description	Material			Note
		AR20K	AR25K to 40K (-06)	AR50K, 60K	
1	Body	Zinc die-cast	Aluminum die-cast		Platinum silver
2	Bonnet	Polyacetal		Aluminum die-cast	Black

Replacement parts

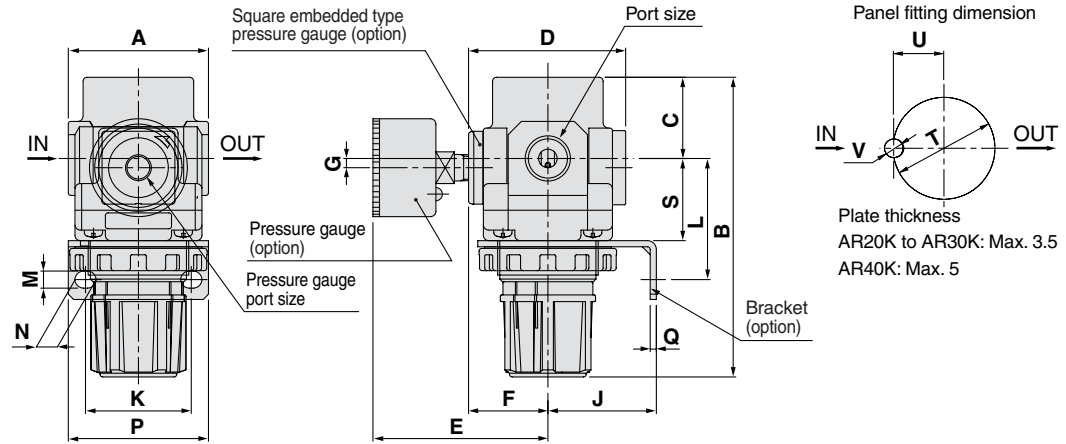
No.	Description	Material	Part no.						
			AR20K	AR25K	AR30K	AR40K	AR40K-06	AR50K	AR60K
3	Valve assembly	Stainless steel Brass, HNBR	AR20P-090AS	AR25P-090AS	AR30P-090AS	AR40P-090AS	AR40P-090AS	AR50P-090AS	AR60P-090AS
4	Diaphragm assembly	Weatherability NBR	AR20P-150AS	AR25P-150AS	AR30P-150AS	AR40P-150AS	AR40P-150AS	AR50P-150AS	AR60P-150AS
5	Valve guide assembly	POM	AR20P-050AS	AR25P-050AS	AR30P-050AS	AR40P-050AS	AR40P-050AS	AR50P-050AS	AR60P-050AS
6	Check valve assembly ^{Note)}	—	AR20KP-020AS	AR20KP-020AS	AR20KP-020AS	AR20KP-020AS	AR20KP-020AS	AR20KP-020AS	AR20KP-020AS



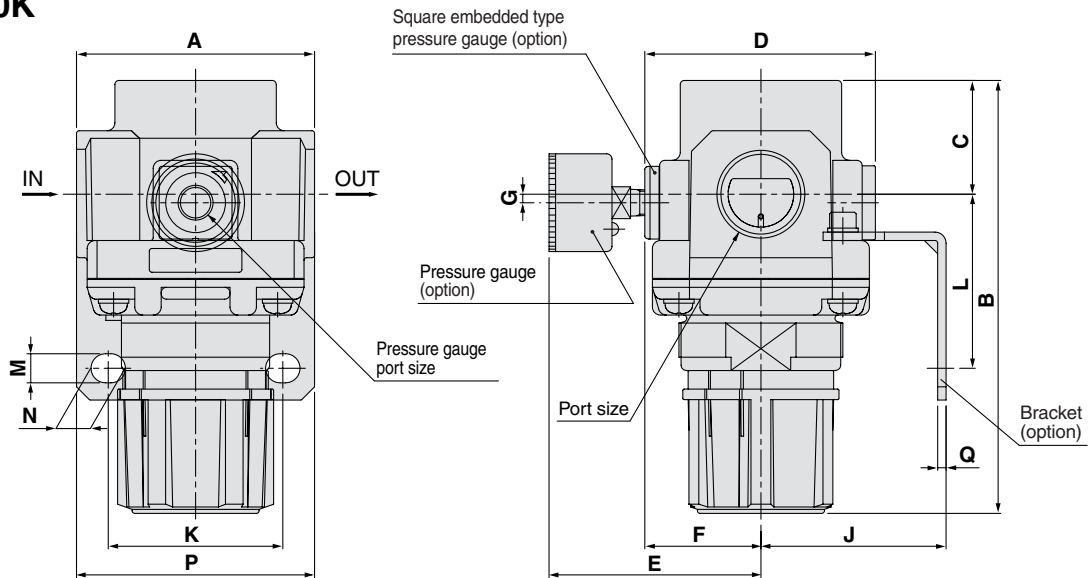
Note) Check valve construction includes a check valve cover and 2 screws.

Dimensions

AR20K to 40K



AR50K, 60K



Model	Port size	Standard specification				Accessory specification													
						With pressure gauge			Bracket mounting size							Panel mount			
		A	B	C	D	E	F	G	J	K	L	M	N	P	Q	S	T	U	V
AR20K	1/8, 1/4	40	94	26.5	57	65	29.5	2 ^{Note)}	30	34	44	5.4	15.4	55	2.3	25	28.5	14	6
AR25K	1/4, 3/8	53	101	28	55	64	28.5	0	30	34	44	5.4	15.4	55	2.3	26	32.5	16	6
AR30K	1/4, 3/8	53	116	31	59	66	30.5	3.5	41	40	46	6.5	8	53	2.3	31	38.5	19	7
AR40K	1/4, 3/8, 1/2	70	128	36	68	74	35	3.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7
AR40K-06	3/4	75	129	36	68	74	35	3	50	54	56	8.5	10.5	70	2.3	37	42.5	21	7
AR50K	3/4, 1	90	169	43	87	84	44.5	3.3	70	66	65.8	11	13	90	3.2	—	—	—	—
AR60K	1	95	176	46	87	84	44.5	3.3	70	66	65.8	11	13	90	3.2	—	—	—	—



Note) For AR20K only, the position of the pressure gauge is above the center of the piping.