

# Regulator Series AR10 to 60

## How to Order

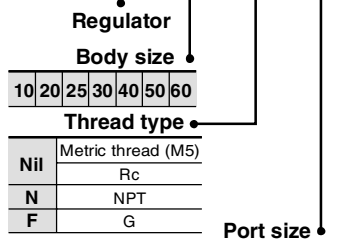


AR20



AR40

**AR 30 F 03 BE 1N**



Symbol	Port size	Body size						
		10	20	25	30	40	50	60
M5	M5	■	—	—	—	—	—	—
01	1/8	—	■	—	—	—	—	—
02	1/4	—	■	■	■	■	—	—
03	3/8	—	—	■	■	■	—	—
04	1/2	—	—	—	■	■	■	—
06	3/4	—	—	—	—	■	■	■
10	1	—	—	—	—	—	■	■

**Option**

Symbol	Description	Applicable model
1 <sup>(2)</sup>	0.02 to 0.2 MPa setting	AR10 to 60
N	Non-relieving	AR10 to 60
R	Flow direction: Right → Left	AR10 to 60
Y	Upward handle	AR10 to 60
Z <sup>(3)</sup>	Name plate and pressure gauge in imperial units (PSI, °F)	AR10 to 60

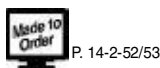
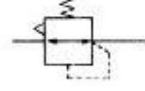
\* When more than one specification is required, indicate in ascending alphanumeric order.  
 Note 1) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)  
 Note 2) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more.

**Accessory**

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
G	With round pressure gauge (With limit indicator)	AR20 to 60
H	With set nut (For panel mount)	AR10 to 40

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

**JIS Symbol**



P. 14-2-52/53

**Accessory/Optional Specifications Combinations**

Accessories/Optional specifications	Combination Symbol	Accessory				Optional specifications					Applicable regulator		
		B	E	G	H	1	N	R	Y	Z	AR10	AR20 to 40	AR50 to 60
With bracket (With set nut)	B	○	○	○	○	○	○	○	○	△	○	○	○
Square embedded type pressure gauge	E	○	○	○	○	○	○	○	○	△	○	○	○
Round pressure gauge	G	○	○	○	○	○	○	○	○	△	○	○	○
With set nut (For panel mount)	H	○	○	○	○	○	○	○	○	△	○	○	○
0.02 to 0.2 MPa setting	-1	○	○	○	○	○	○	○	○	△	○	○	○
Non-relieving type	-N	○	○	○	○	○	○	○	○	△	○	○	○
Flow direction: Right → 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 size	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	1.5 MPa							
Maximum operating pressure	1.0 MPa							
Set pressure range	0.05 to 0.7 MPa		0.05 to 0.85 MPa					
Pressure gauge port size <sup>(1)</sup>	Rc 1/16 <sup>(2)</sup>	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 + 0.05 MPa <sup>(3)</sup> (at relief flow rate of 0.1 l/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 AR10.

**Accessory Part No.**

Accessory	Applicable model								
	AR10	AR20	AR25	AR30	AR40	AR40-06	AR50	AR60	
Bracket assembly <sup>(1)</sup>	AR10P-270AS	AR20P-270AS	AR25P-270AS	AR30P-270AS	AR40P-270AS	AR40P-270AS	AR50P-270AS <sup>(5)</sup>	AR50P-270AS <sup>(5)</sup>	
Set nut	AR10P-260S	AR20P-260S	AR25P-260S	AR30P-260S	AR40P-260S	AR40P-260S	— <sup>(6)</sup>	— <sup>(6)</sup>	
Pressure gauge <sup>(2)</sup>	1 MPa	Round type	G27-10-R1	G36-10-01	G36-10-L01	G36-10-L01	G46-10-L02	G46-10-L02	G46-10-02
		Square embedded type <sup>(4)</sup>	—	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS
	0.2 MPa	Round type	G27-10-R1 <sup>(3)</sup>	G36-2-L01	G36-2-01	G36-2-L01	G46-2-02	G46-2-02	G46-2-L02
		Square embedded type <sup>(4)</sup>	—	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS

Note 1) Assembly includes a bracket and set nuts.  
 Note 2) 1 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.  
 Note 3) For 1.0 MPa.  
 Note 4) Includes one O-ring and 2 mounting screws.  
 Note 5) Assembly includes a bracket and 2 mounting screws.  
 Note 6) Please contact SMC regarding the set nuts for AR50 and AR60.  
 Please contact SMC regarding the connection thread NPT and pressure gauge supply for PSI unit specifications.

- FR.L.
- AV
- AU
- AF
- AR
- IR
- VEX
- AMR
- ITV
- IC
- VBA
- VE 1
- VY1
- G
- PPA
- AL





# Regulator Series AR20 to 60

## Made to Order Specifications:

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) 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	FPM
	Main metal parts	Metal (Aluminum die-casted)	

#### 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

#### How to Order

**AR 30 F 03 BG 1N X430**

Regulator Body size  
25 30 40 50 60

Thread type  
Nil Rc  
N NPT  
F G

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

For high/low temperature  
X430 Low temperature  
X440 High temperature

Symbol	Description	Applicable model
Nil	—	—
B	With bracket	AR25 to 60
G <sup>(2)</sup>	With round pressure gauge (With limit indicator)	AR25 to 60
H	With set nut (For panel mount)	AR25 to 40

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

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

Note 3) 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.  
Note 4) For thread type NPT.  
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Note 5) Please consult with SMC for detailed dimensions and available attachments and options.  
Note 6) Comes with type T 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		3.0 MPa
Max. operating pressure		2.0 MPa
Set pressure range		0.1 to 1.6 MPa
Ambient and fluid temperature		-5 to 60°C (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

#### How to Order

**AR 30 F 03 BG N X425**

Regulator Body size  
20 25 30 40 50 60

Thread type  
Nil Rc  
N NPT  
F G

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

For high pressure

Symbol	Description	Applicable model
Nil	—	—
B	With bracket	AR20 to 60
G <sup>(2)</sup>	With round pressure gauge (With limit indicator)	AR20 to 60
H	With set nut (For panel mount)	AR20 to 40

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

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

Note 3) For thread type NPT.  
When more than one specification is required, indicate in ascending alphanumeric order.

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