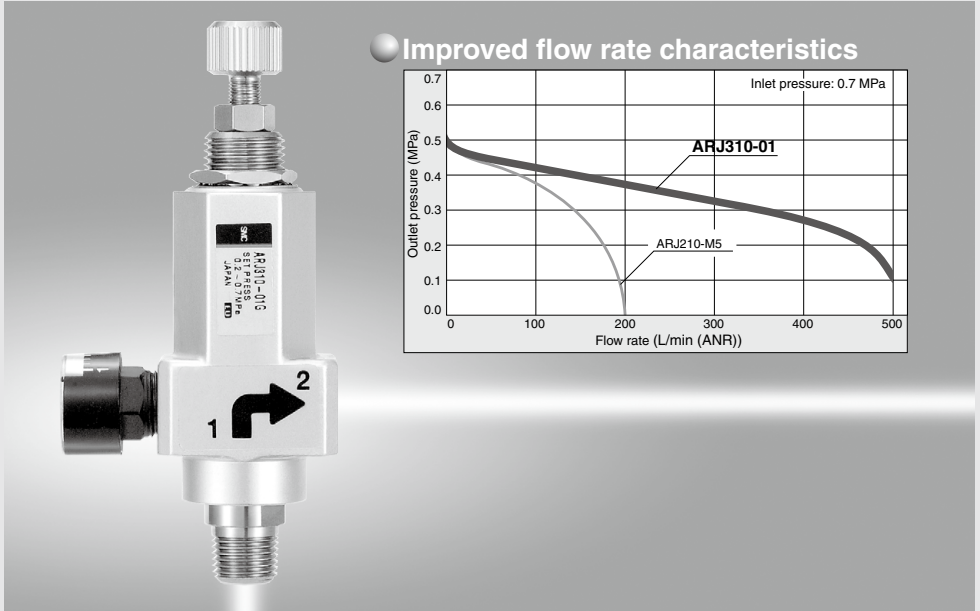


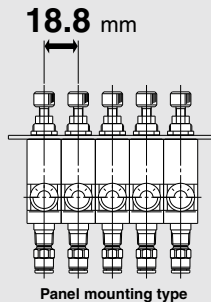
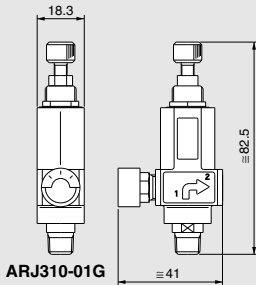
# Miniature Regulator

## ARJ310 Series



● **Compact and lightweight**  
(Main body 65 g)

● **Allows smaller mounting pitch**



● **Accommodates two types of threads**

Inside: Female thread (M5 x 0.8)  
Outside: Male thread (1/8)



● **Built-in One-touch fitting**

ø4, ø6 (Metric size)  
ø5/32", ø1/4" (Inch size)

**ARJ**

AR425  
to 935

**ARX**

**AMR**

**ARM**

**ARP**

IR□-A

**IR**

**IRV**

**VEV**

**SRH**

**SRP**

**SRF**

**ITV**

**IC**

**ITVH**

**ITVX**

**PVQ**

**VY1**

**VBA**

**VBAT**

**AP100**

# Miniature Regulator

# ARJ310 Series



Symbol



## Standard Specifications

Pressure gauge port size	Rc 1/8, NPT 1/8 (Female thread)
Fluid	Air
Proof pressure	1.2 MPa
Maximum operating pressure	0.8 MPa
Regulating pressure range	Standard: 0.2 to 0.7 MPa, Low pressure use (0.2 MPa setting): 0.05 to 0.2 MPa
Ambient and operating temperature range	-5 to 60°C (No freezing)
Construction	Relieving type
Weight (kg)	0.065

## Model

Model	Port size	
	IN *	OUT
ARJ310-01	R1/8, M5 x 0.8	Rc 1/8
ARJ310-N01	NPT1/8, M5 x 0.8	NPT 1/8
ARJ310F-01-04	R1/8, M5 x 0.8	ø4 One-touch fitting
ARJ310F-01-06		ø6 One-touch fitting
ARJ310F-N01-03	NPT1/8, M5 x 0.8	ø5/32" One-touch fitting
ARJ310F-N01-07		ø1/4" One-touch fitting

\* M5 x 0.8 female thread is cut inside the pipe.

## Accessory (Option) Part No.

Bracket	134856
Pressure gauge <sup>Note</sup>	G15-10-01(Rc1/8)/G15-P10-N01(NPT1/8)

Note) Pressure gauges (G15) for 0.2 MPa are not available.

## How to Order

**With One-touch fitting**

**ARJ 3 10** - **01** **BG**

**ARJ 3 10 F** - **01** **BG** - **04**

**Body size** → 10 (Relieving type)

**Model** → 01

**Thread type**

Nil	R, Rc
N	NPT

**Port size (IN)**

01	1/8 (Male thread), M5 x 0.8 (Female thread)
----	---

**Accessory**

Nil	None
B	Bracket
G	Pressure gauge

Note 2) For products with pressure gauge, pressure gauge is shipped together with product.

**Port size (IN, OUT)**

01	IN 1/8 (Male thread), M5 x 0.8 (Female thread)	OUT 1/8 (Female thread)
----	--	-------------------------

**Metric size**

04	4 mm	ARJ310-01
06	6 mm	

**Inch size**

03	5/32"	ARJ310F-N01
07	1/4"	

**• Made to Order**  
Refer to page 676 for details.

**• Semi-standard**

Nil	0.7 MPa setting (Standard)
1	0.2 MPa setting <sup>Note 1)</sup>
S	With seal

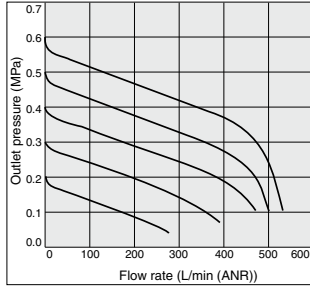
Note 1) Compared with standard specifications, its adjusting spring has been only changed for 0.2 MPa. It is not the product which does not allow the pressure more than 0.2 MPa. Adjusting spring is not replaceable. Besides, in the case with the pressure gauge, the pressure gauge will be the one for 1 MPa.

**• Applicable tubing O.D. (OUT)**

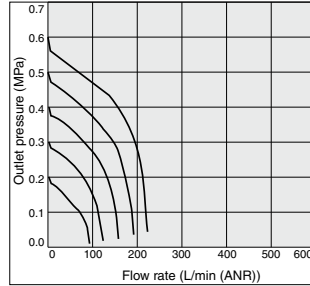
## Flow Rate Characteristics (Representative Values)

Inlet pressure: 0.7 MPa

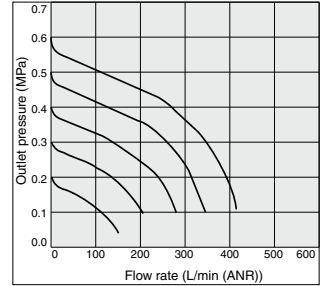
**ARJ310-01**



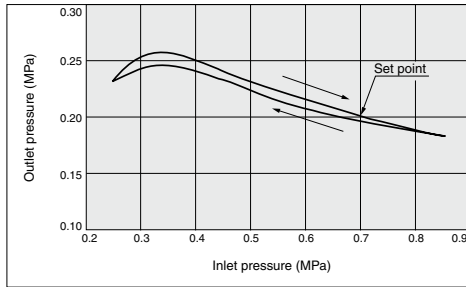
**ARJ310F-01-04**



**ARJ310F-01-06**



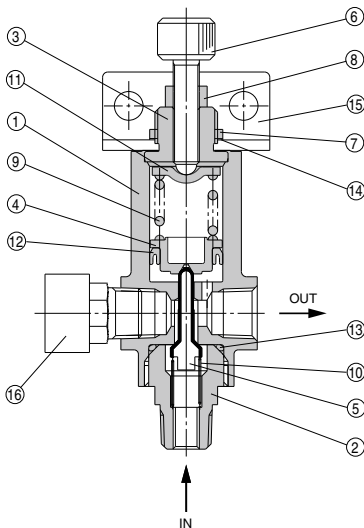
## Pressure Characteristics (Representative Values)



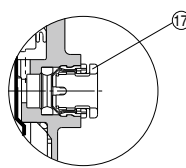
Conditions:  
Inlet pressure 0.7 MPa  
Outlet pressure 0.2 MPa  
Flow rate Q = 20 L/min (ANR)

## Construction

**ARJ310-01**



**ARJ310F-01**



### Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	
2	Valve guide	Brass	Electroless nickel plated
3	Bonnet	Brass	Electroless nickel plated
4	Piston	POM	
5	Valve	Brass	Rubber lining material: HNBR
6	Adjusting screw	Iron	Nickel plated
7	Panel nut	Iron	Zinc chromated
8	Hexagon nut	Iron	Zinc chromated
9	Adjusting spring	Steel wire	Zinc chromated
10	Valve spring	Stainless steel	
11	Spring holder	Steel band	Zinc chromated
12	Mini Y-seal	NBR	
13	O-ring	NBR	
14	Lock washer	SS	Zinc chromated
15	Bracket	Steel band	Electrophoretic painting
16	Pressure gauge	—	Accessory
17	Cassette	POM, Stainless steel	

ARJ

AR425  
to 935

ARX

AMR

ARM

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IR

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VEV

SRH

SRP

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ITV

IC

ITVH

ITVX

PVQ

VY1

VBA  
VBAT

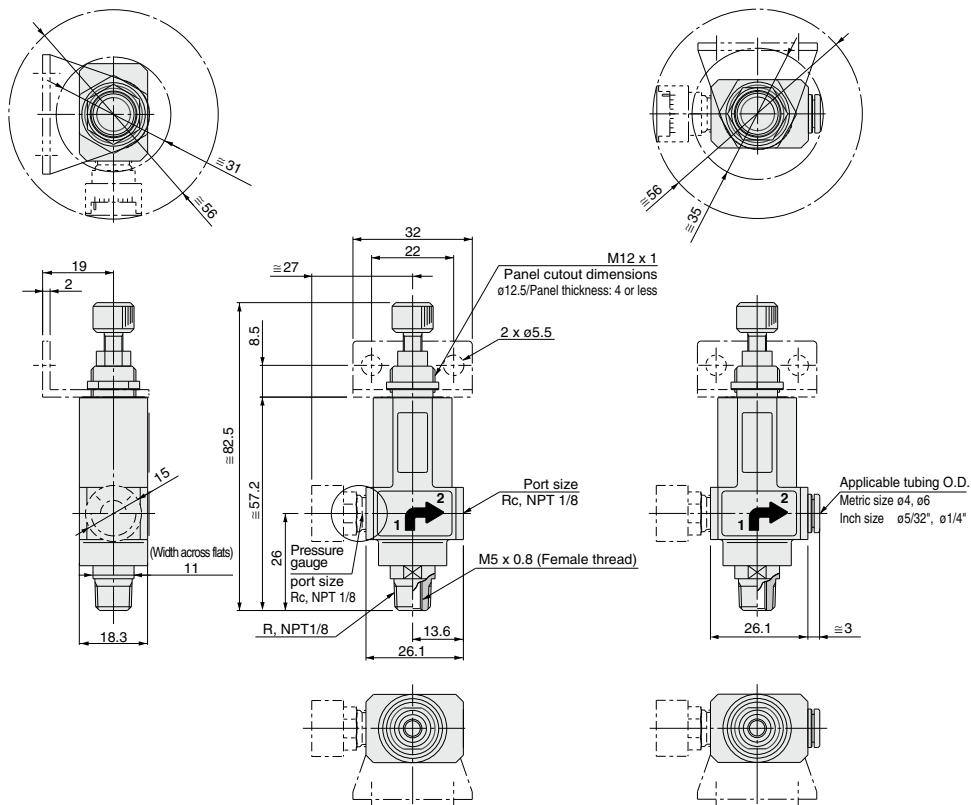
AP100

# ARJ310 Series

## Dimensions

### ARJ310-01

### ARJ310F-01



## Made to Order Specifications



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

**For moderate pressure (0.4 MPa Setting):** Compared with standard specifications, its adjusting spring has been only changed for 0.4 MPa. It is not the product which does not allow the pressure more than 0.4 MPa. Adjusting spring is not replaceable.

## How to Order

**ARJ 3 10- [ ] 01 B- [ ] -X204**

Body size

Model  
10 Relieving type

Thread type

Nil	R, Rc
N	NPT

Port size (IN-OUT)

01	IN	1/8 (Male thread), M5 x 0.8 (Female thread)
	OUT	1/8 (Female thread)

Accessory

Nil	None
B	Bracket

Made to Order

X204 0.4 MPa Setting (For moderate pressure)

Semi-standard

Nil	0.7 MPa setting (Standard)
1	0.2 MPa setting (Note)
S	With seal

Note 1) Compared with standard specifications, its adjusting spring has been only changed for 0.4 MPa. It is not the product which does not allow the pressure more than 0.4 MPa. Adjusting spring is not replaceable.



# ARJ310 Series Specific Product Precautions

Be sure to read this before handling the products.

Refer to back page 50 for Safety Instructions and pages 387 to 391 for Precautions on every series.

## Design and Selection


### Warning

1. This product cannot be used as a check regulator by installing it between solenoid valve and actuator. It can result in causing breakdown and malfunction.
2. When piping, tighten the regulator with the recommended proper tightening torque (M5: 1.5 to 2 N·m, R 1/8: 7 to 9 N·m) while holding the wrench flats (width 11) of the valve guide for IN port and holding the hexagonal section of the body for the OUT port. Excessive tightening or holding a part other than those specified can cause damage.
3. While piping to products or operating the knob, ensure that an excess bending moment should not be applied to a product, because it may result in damage.

## Mounting

### Caution

#### To set the correct pressure

1. Make connections after confirming the  mark which indicates the air inlet. Reversed connections can cause malfunction.

ARJ
AR425 to 935
ARX
AMR
ARM
ARP
IR□-A
IR
IRV
VEX
SRH
SRP
SRF
ITV
IC
ITVH
ITVX
PVQ
VY1
VBA VBAT
AP100