

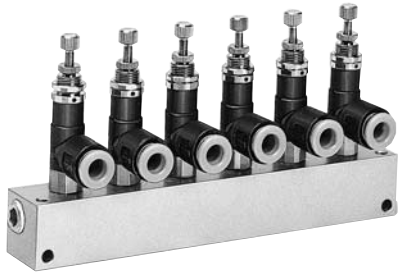
# Miniature Regulator

# ARJ1020F

**Compact and lightweight  
(16g)**  
**Low cracking pressure  
0.02MPa**  
**Standard model equipped  
with backflow function**

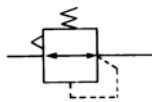


ARJ1020F-M5-04 ARJ1020F-M5-06



ARJM10-6

JIS symbol



## Standard Specifications

Model		ARJ1020F	
Port size	IN side	M5 (Male thread)	
	OUT side (Applicable tube O.D.)	ø4	ø6
Fluid		Air	
Proof pressure		1.2MPa	
Max. operating temperature		0.8MPa	
Set pressure range		0.1 to 0.7MPa	
Ambient and fluid temperature		-5 to 60° (Non-freezing)	
Construction		Relieving style	
Weight (kg)		0.015	0.016
Cracking pressure (Valve)		0.02MPa	
Applicable tube material <sup>(1)</sup>		Nylon, Soft nylon, Polyurethane	



Note 1) Be sure to recognize the maximum operating pressure for soft nylon and polyurethane. (Refer to p.2.0-0 of fittings and tubing.)

## Accessory (Option) Part No.

Description	Part No.
Manifold base	ARJM10-4, -6, -10

## How to Order

**ARJ 10 20 F - M5 - 04 - 1**

Miniature regulator

Body size  
10 M5

Port size  
M5 M5 X 0.8

With One-touch fitting

Piping  
20 Elbow style

Option

1 Set at 0.2MPa

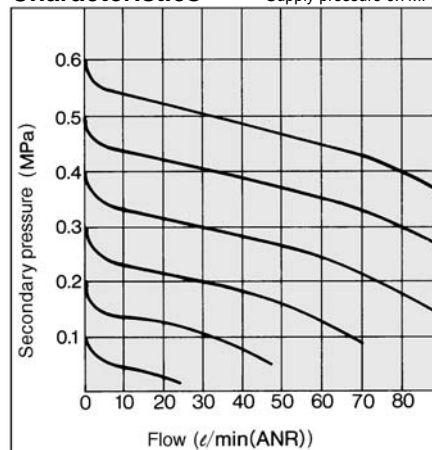
\*Only the adjusting spring is different from standard.

Applicable tube O.D.

04 4mm  
06 6mm

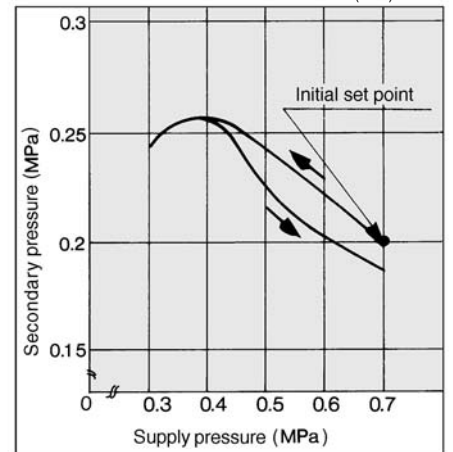
## Flow Characteristics

Supply pressure 0.7MPa

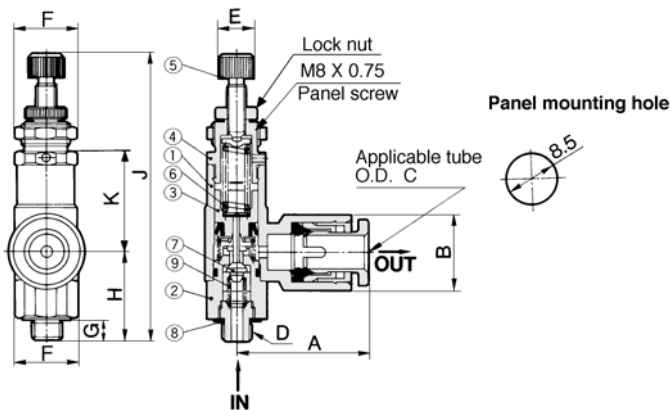


## Pressure Characteristics

Initial setting: Supply pressure: 0.7MPa  
Secondary pressure: 0.2MPa  
Flow: 10 l/min(ANR)



## Construction/Dimensions



## ⚠ Precautions

Be sure to read before handling. Refer to p.0-26 and 0-27 for Safety Instructions and common precautions on the products mentioned in this catalogue, and refer to p.1.0-2 and 1.0-3 for precautions on every

## Piping

### ⚠ Warning

- ① To connect the IN side, hold the valve guide at its wrench flats (opposite side 10) and tighten it at the recommended torque of 1.5 to 2Nm. Excessive torque or holding it at an area other than the specified area could lead to equipment damage.
- ② When connecting piping to the product or operating the handle, make sure that no bending moment is applied to the product in order to prevent damage.

## Mounting/Adjustment

### ⚠ Warning

- ① Set up the regulator while verifying the pressure that is indicated on the primary and the secondary pressure gauges. Turning the handle excessively could damage the internal parts.

### ⚠ Caution

- ① Release the lock to adjust the pressure. After the adjustment, engage the lock. Failure to observe this procedure could damage the handle or cause the secondary pressure to fluctuate. (Lock operating method) Loosen the lock nut to unlock it, and tighten it to lock it.

## Component Parts

No.	Description	Material	Note
①	Body	PBT	
②	Valve guide	Brass	Electroless nickel plated
③	Piston	Polyacetal	
④	Bonnet	Brass	Electroless nickel plated
⑤	Handle	Brass	Electroless nickel plated
⑥	Adjusting spring	Steel wire	Zinc chromated
⑦	Valve	Brass	Rubber lining

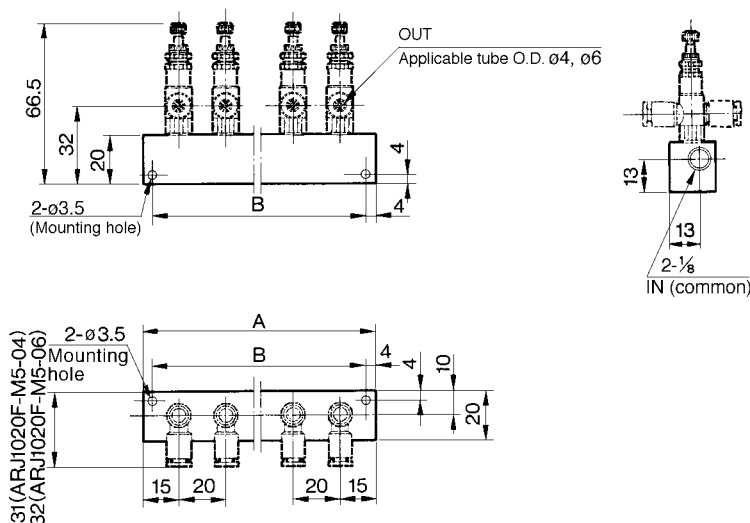
## Replacement Parts

No.	Description	Material	Part no.
⑦	Valve	Brass/NBR	13434
⑧	Gasket	Stainless steel/NBR	P233014-04
⑨	Spring	Stainless steel	134313

## Dimensions

Model	A	B	C	D	E	F	G	H	J	K
ARJ1020F-M5-04	21	10.4	4	M5	6	10.6 (Width across flats: 10)	3.5	15.5	50	17.2
ARJ1020F-M5-06	22	12.8	6							

## Manifold Base (Option)/Dimensions



Manifold base part No.	Stations	A dimension	B dimension
ARJM10-4	4	90	82
ARJM10-6	6	130	122
ARJM10-10	10	210	202

# Miniature Regulator

# Series ARJ210

Lightweight body made of aluminum (60g)

Two styles of piping connections provided for the IN side: 1/8 (male threads) and M5 (female threads)

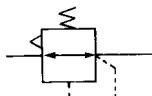


ARJ210-M5



ARJ210-M5BG

JIS symbol



## Standard Specifications

Model		ARJ210-M5
Port size	IN side	1/8 (Male thread), M5 X 0.8 (Female thread)
	OUT side	M5 (Female thread 2 pcs.)
Fluid		Air
Proof pressure		1.2MPa
Max. operating temperature		0.8MPa
Set pressure range		0.2 to 0.7MPa
Pressure gauge port size		M5 (Female thread)
Ambient and fluid temperature		-5 to 60°C (Non-freezing)
Weight (kg)		0.06

## Accessories (Options) Part No.

Bracket	134856
Pressure gauge (1)	G27-10-M5-X 201



Note 1) If ordering the pressure gauge, M-5N (nipple) is required. A pressure gauge for 0.2MPa is not available.

## How to Order

**ARJ 2 10 - M5 BG - 1**

Miniature regulator

Body size

Port size

M5	IN	1/8 (Male thread) M5 (Female thread)
	OUT	M5 (Female thread)

Style

1	Relieving style (standard)
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Option

1	Set at 0.2MPa
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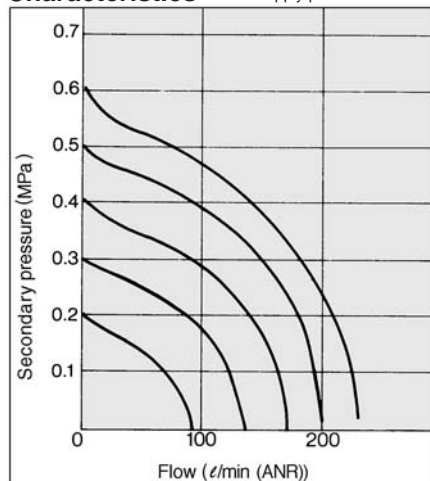
\* Only the adjusting spring is different from standard.

Accessories (Options)

Symbol	Description
—	None
B	Bracket
G	Pressure gauge

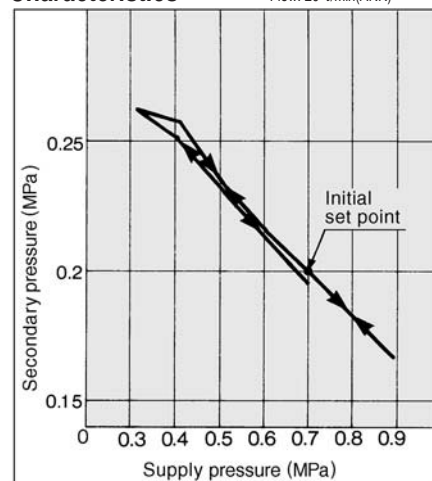
## Flow Characteristics

Supply pressure 0.7MPa

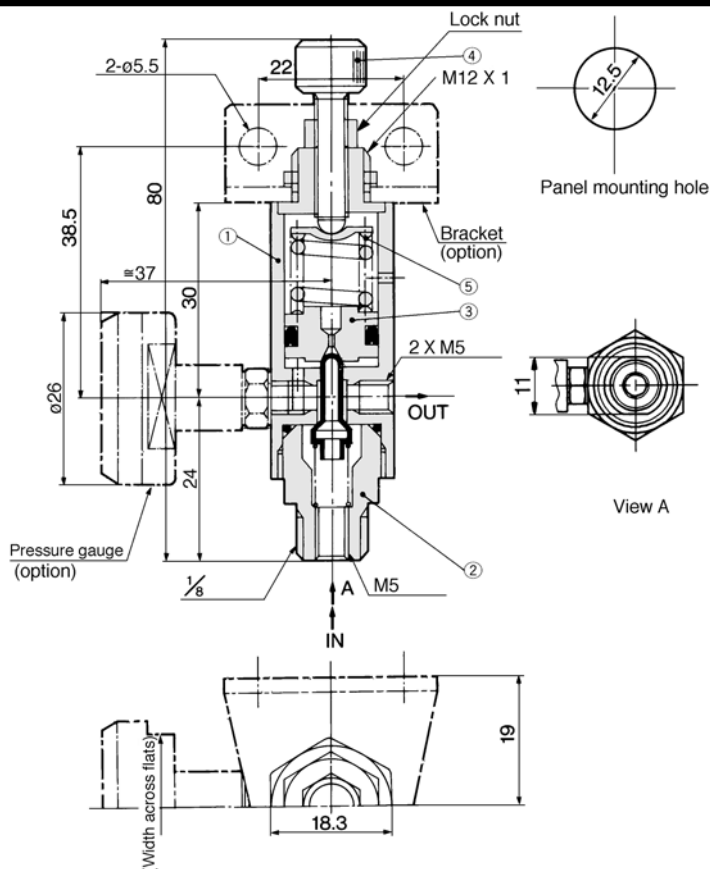


## Pressure Characteristics

Initial setting: Supply pressure: 0.7MPa  
Secondary pressure: 0.2MPa  
Flow: 20 l/min(ANR)



## Construction/Dimensions



No.	Description	Material	Note
①	Body	Aluminum alloy	Black anodized
②	Valve guide	Brass	Electroless nickel plated
③	Piston	Brass	
④	Adjusting screw	Brass	Electroless nickel plated
⑤	Adjusting spring	Steel wire	Zinc chromated

## ⚠ Precautions

Be sure to read before handling. Refer to p.0-26 and 0-27 for Safety Instructions and common precautions on the products mentioned in this catalogue, and refer to p.1.0-2 and 1.0-3 for precautions on every series.

### Selection

#### ⚠ Warning

- ① This product cannot be used as a check regulator by installing it between the solenoid valve and the actuator. Doing so could lead to equipment damage.
- ② When connecting a pipe to the IN side, hold the valve guide at its wrench flats (opposite side 11), and when connecting to the OUT side, hold the body at its hexagon portion and tighten it to the recommended torque. (M5: 1.5 to 2 Nm, R(PT)1/8: 7 to 9 Nm. Excessive torque or holding it other than at the specified area could lead to equipment damage.
- ③ When connecting piping to the product or operating the handle, make sure that no bending moment is applied to the product in order to prevent damage.

### Mounting/Adjustment

#### ⚠ Warning

- ① Set up the regulator while verifying the pressure that is indicated on the primary and the secondary pressure gauges. Turning the handle excessively could damage the internal parts.

#### ⚠ Caution

- ① Release the lock to adjust the pressure. After the adjustment, engage the lock. Failure to observe this procedure could damage the handle or cause the secondary pressure to fluctuate.  
(Lock operating method)  
Loosen the lock nut to unlock it, and tighten it to lock it.

AC

AV

AU

AF

AR

IR

VEX

SRP

AW

AMR

AWM

AWD

ITV

VBA

G

AL

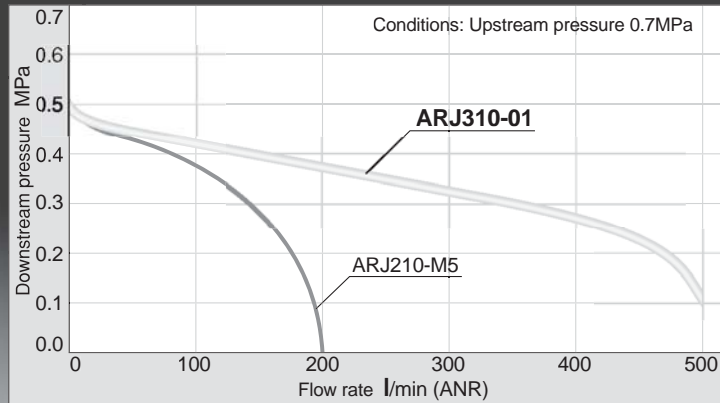


# Miniature Regulator

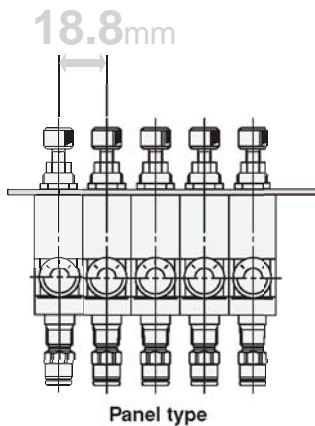
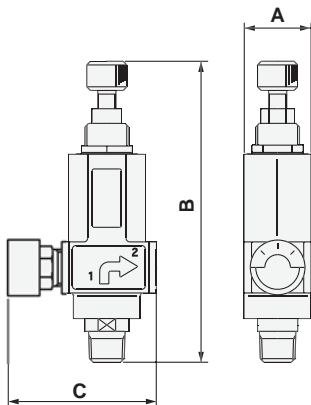
# Series ARJ310



## Improved flow characteristics



## Compact and light weight    Allows smaller mounting pitch



## Accommodates two types of threads

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



## One-touch fitting feature introduced to series

ø4, ø6 (metric size)  
ø5/32", ø1/4" (inch size)

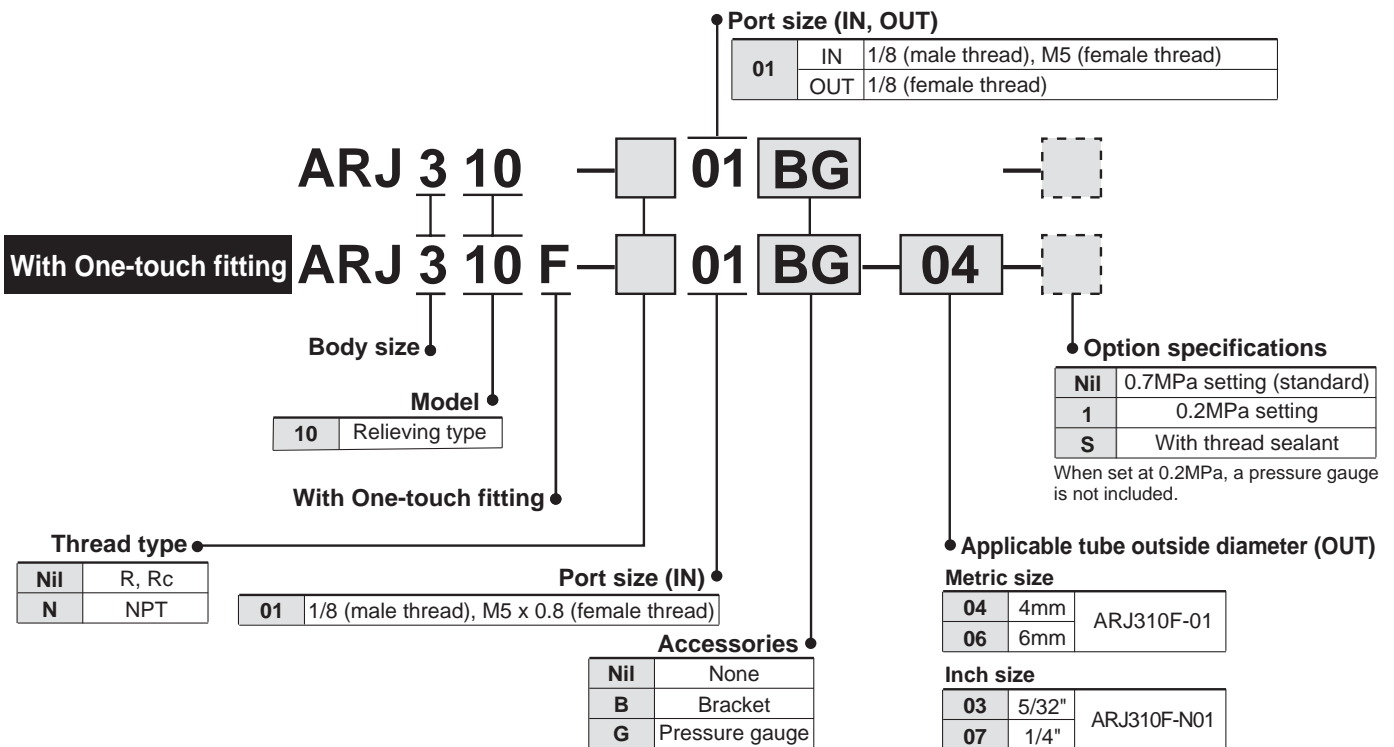
Model	A (Width)	B (Height)	C (Depth)	Weight
ARJ310-01G	18.3	82.5	Approx. 41	Approx. 70g (Body: 65g)
ARJ210-M5G	26	80	Approx. 46	Approx. 75g (Body: 60g)

- AC
- AV
- AU
- AF
- AR**
- IR
- VEX
- SRP
- AW
- AMR
- AWM
- AWD
- ITV
- VBA
- G
- AL

# Miniature regulator

## Series ARJ310

### How to Order



### Model



Model	Port size	
	IN (Note)	OUT
ARJ310-01	R 1/8, M5	Rc 1/8
ARJ310-N01	NPT 1/8, M5	NPT 1/8
ARJ310F-01-04	R 1/8, M5	ø4 One-touch fitting
ARJ310F-01-06		ø6 One-touch fitting
ARJ310F-N01-03	NPT 1/8, M5	ø5/32 One-touch fitting
ARJ310F-N01-07		ø1/4 One-touch fitting

Note) M5 x 0.8 female thread is cut inside the pipe.

### Standard Specifications

Pressure gauge port size	Rc 1/8, NPT 1/8 (female thread)
Fluid	Air
Proof pressure	1.2MPa
Maximum operating pressure	0.8MPa
Regulating pressure range	Standard: 0.2 to 0.7MPa, Low pressure use (0.2MPa setting): 0.05 to 0.2MPa
Ambient and operating temperature range	-5 to 60°C (with no freezing)
Weight	Approx. 65g

### Optional Accessory Part Numbers

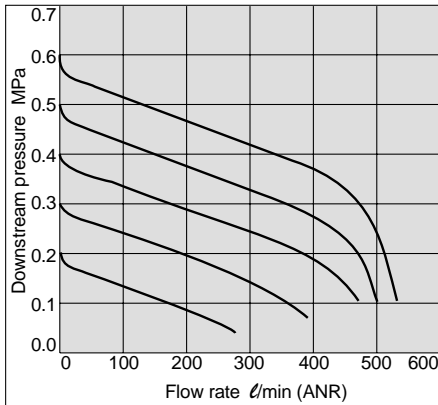
Bracket	134856
Pressure gauge (Note)	G15-10-01 (Rc 1/8)/G15-P10-N01(NPT 1/8)

Note) Pressure gauges for 0.2MPa are not available.

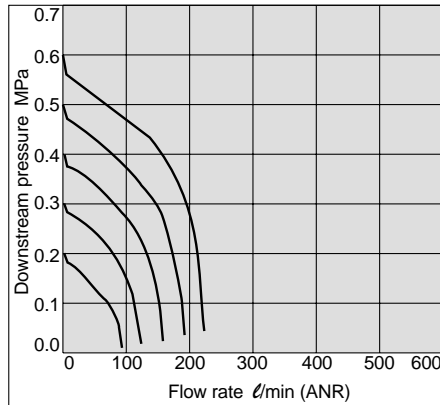
## Flow Characteristics

Conditions: Upstream pressure 0.7MPa

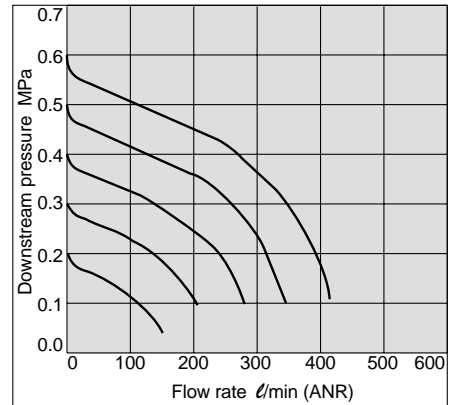
### ARJ310-01



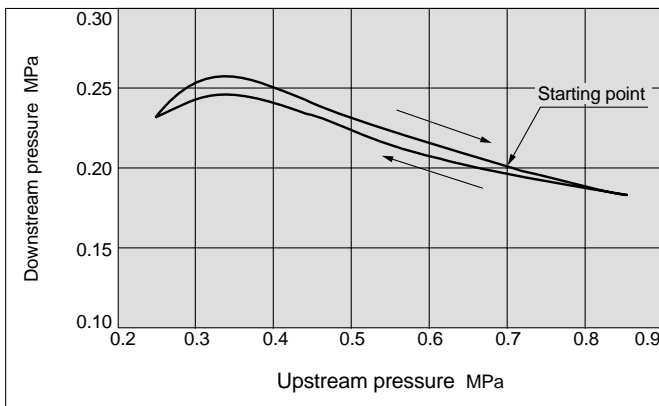
### ARJ310F-01-04



### ARJ310F-01-06



## Pressure Characteristics

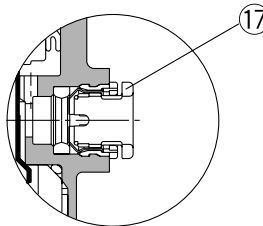
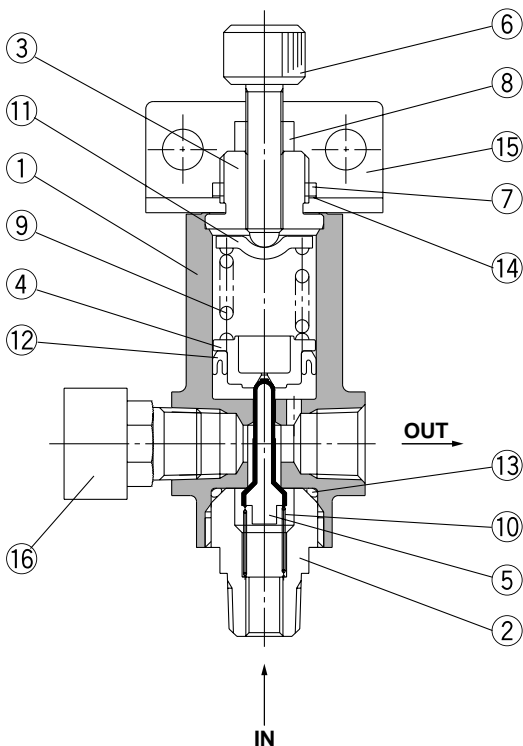


Conditions:  
Upstream pressure 0.7MPa  
Downstream pressure 0.2MPa  
Flow rate Q = 20l/min (ANR)

## Construction

### ARJ310-01

### ARJ310F-01



### Parts list

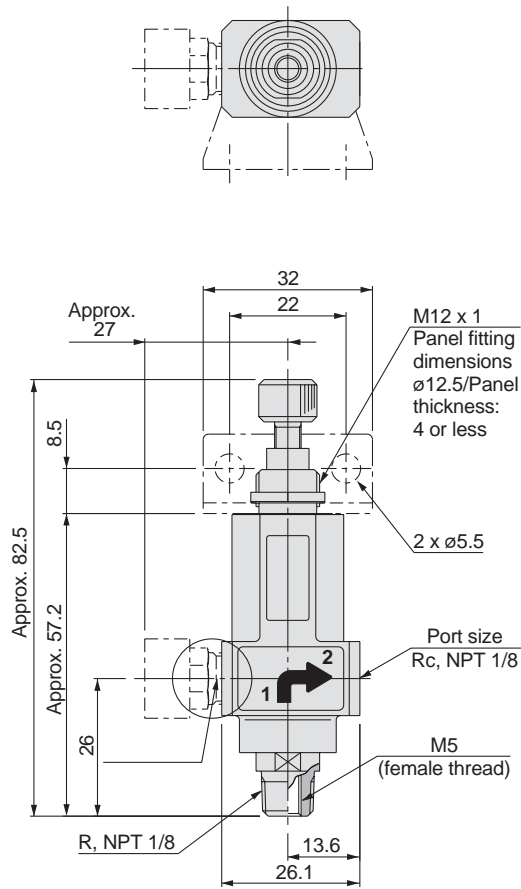
No.	Description	Material	Note
1	Body	Aluminum alloy	
2	Valve guide	Brass	Electroless nickel plated
3	Bonnet	Brass	Electroless nickel plated
4	Piston	POM	
5	Valve	Brass	Rubber lining material: HNBR
6	Adjusting screw	Brass	Electroless nickel plated
7	Panel nut	Brass	Electroless nickel plated
8	Hexagon nut	Brass	Electroless nickel plated
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	Electroless nickel plated
15	Bracket	Steel band	Black zinc chromated   Accessory
16	Pressure gauge	-	Accessory
17	Cassette	POM, Stainless steel	



# ARJ310

## Dimensions

### ARJ310-01



### ARJ310F-01

