

Series **SRP** Precision clean regulator

How to Order



SRP 1 1 0 1 - 01 - R

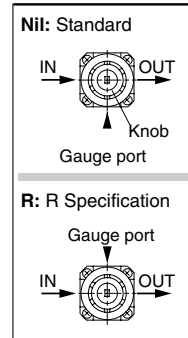
Set pressure

0	0.005 to 0.2 MPa
1	0.01 to 0.4 MPa

Port size

Symbol	Port size
M5	M5 x 0.8
01	Rc1/8

Gauge port orientation



* The gauge port position is indicated with the knob on top.

Note) The pressure gauge is optional. Please refer to "option specifications".

Options

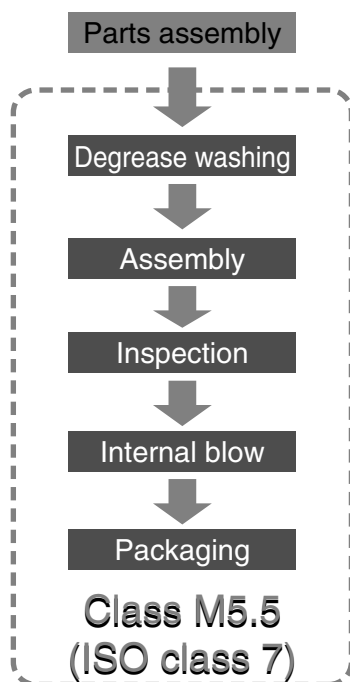
Description	Model	Material
Brackets	B21-1-T1	Rolled steel plate (Electroless nickel plated)

Specifications

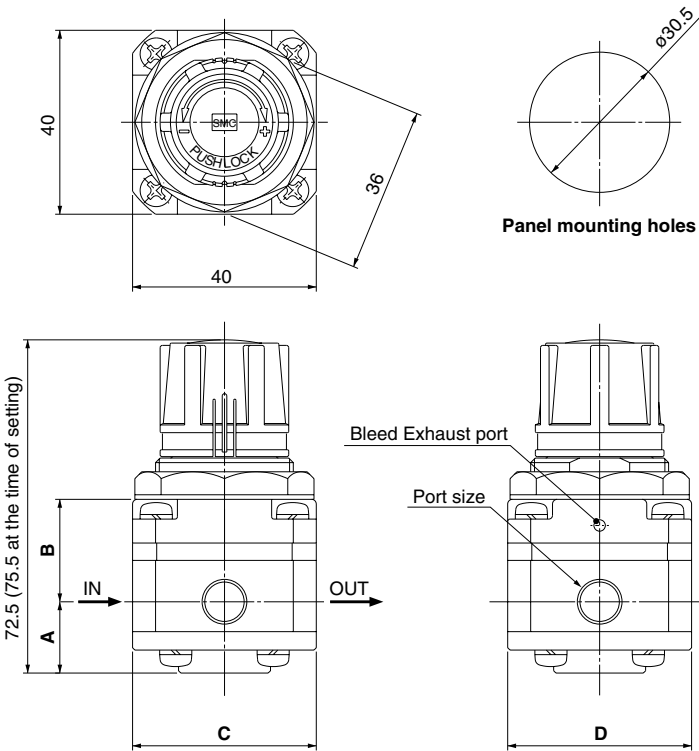
Port sizes		M5, Rc1/8
Fluid		Air, N ₂ , CO ₂ , Ar
Proof pressure (MPa)		1.5
Max. operating pressure (MPa)		1
Set pressure range (MPa)	Low pressure type	0.005 to 0.2
	High pressure type	0.01 to 0.4
Ambient & fluid temperature (°C)		0 to 60°C (with no freezing)
Fluid consumption /min (ANR) Note 1)		0.5 or less
Sensitivity		Within 0.3% of full span
Repeatability		Within ±1% of full span
Wetted part material	Metal	Stainless steel SUS316
	Resin	Fluoro resin
	Rubber	Fluororubber
	Other	Ceramics
Assembly environment		Clean room class 10000
Parts washing (wetted parts)		General degreasing
Particle generation grade (Refer to front matters 13 to 22 for details.)		Grade 3

Note 1) At set pressure of 0.2MPa

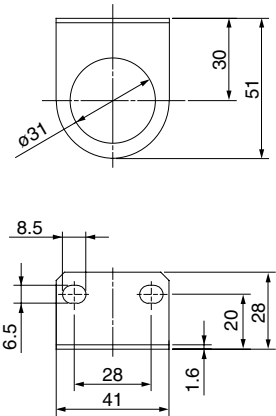
Production process



Dimensions



Brackets (B21-1-T1)



Model	Port size	A	B	C	D
SRP11□1-M5	M5 x 0.8	14	23.5	30	30
SRP11□1-01	Rc1/8	15	22.5	40	40

Air cylinder

Rotary actuator

Air gripper

Directional control valve

Flow control equipment

Filter, Pressure control equipment

Fittings & Tubing

Air preparation equipment

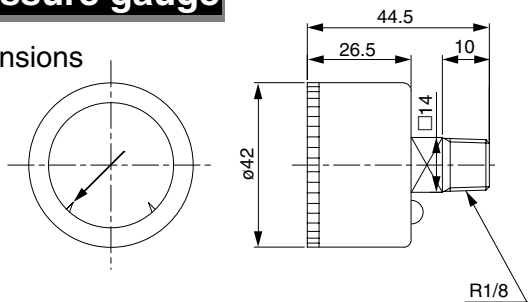
Pressure switch

Clean gas filter

Options

Pressure gauge

Dimensions



Specifications

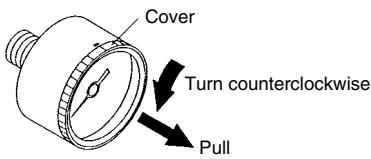
Item	Model	G46-□-01-SRA	G46-□-01-SRB
Port size		R1/8	
Operating temperature range		0 to 60°C (with no freezing)	
Accuracy		±6% F.S.	
Scale range		270°	
Parts washing (wetted parts)		Precision wash	General degrease
Assembly & adjustment environment		Clean room	General production line
Oil free / Water free		Oil free / Water free	
Materials	Wetted parts	Stainless steel SUS316	
	Case	Stainless steel SUS304 (Black melamine coating)	
	Clear cover	Polycarbonate	
	Internal parts	Brass	
Weight		80g	

Model

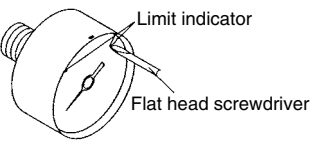
Mode	Pressure range	Display unit
	MPa	
G46-2-01-SRA	0 to 0.2	MPa
G46-2-01-SRB		
G46-4-01-SRA	0 to 0.4	
G46-4-01-SRB		

Procedure for setting the limit gauge indicator

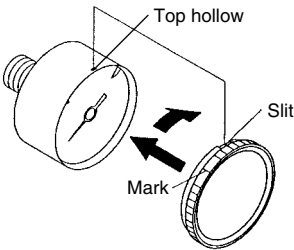
- 1) Before setting the limit indicator, turn the cover counterclockwise (approximately 6 to 7 mm) until it stops. Then, pull the cover and remove it.



- 2) Use a flat head screwdriver (with a 2.9 mm blade width) to set the limit indicator. Be careful not to bend other needle or damage the dial plate.



- 3) After completing the setting, mount the cover as before. Fit the cover by aligning the cutout in the cover to the groove on the top of the black case. Turn the cover clockwise (approximately 6 to 7 mm) and make sure that the matching mark on the cover is aligned with the groove on the top of the case.





Specific Product Precautions

Be sure to read before handling.

Design and Selection

Warning

1. Types of fluid

Use with air, N₂, CO₂ or Ar as fluids. Consult SMC if the product is to be used with other fluids.

Do not use toxic or corrosive gases because the bleed mechanism is adopted to discharge fluids from the bleed port.

2. Do not use fluid containing solid matter.

To prevent malfunction caused by such substances, install a mist separator on the upstream side of the regulator.

3. When using air containing a large amount of drainage, install an air dryer or after cooler upstream of the regulator.

It will cause malfunction or failure.

4. Do not use in a place subject to heavy vibrations and/or shocks.

5. Install a protection cover if the product is exposed to direct sunlight.

6. Block off heat radiation with a cover if there is a heat source in close proximity.

Caution

1. SMC recommends the outlet side pressure be set within a 25 to 85% range of the inlet side pressure.

2. Vibrations (noise) may be generated due to the operating conditions, etc., even if the regulator is used within the catalog specification range. If noise is generated, please consult SMC.

Pressure gauge

1. Avoid use in an environment where the regulator is exposed to strong pulsation or vibration.
2. Consult SMC regarding the operation at high frequency.

Mounting

Caution

1. Open the sealed package in a clean room.

These products are packaged in airtight double packaging in a clean room. It is recommended that the inside packaging be opened in a clean room or other clean environment.

2. Flush the piping.

Connect these products to piping only after it has been flushed and cleaned properly. If debris or scale etc. remains in the piping, this can cause malfunction or failure.

3. Be certain that sealing material does not get inside the piping.

When screwing in pipes and joints etc., take care that cutting dust from the pipe threads, sealing material, and the like do not get inside the piping. If debris or scale etc. remains in the piping, this can cause malfunction or failure. Also, when thread tape is used, leave 1.5 or 2 threads exposed at the end of the pipe.

4. Confirm the mounting orientation of the product.

The side marked with an "IN" is the fluid supply port, and the side marked with an "OUT" is the fluid exhaust port. If mounted backwards, the device will not operate properly.

Mounting

Caution

5. Do not plug the bleed port.

If it is plugged, the product will not operate properly.

Pressure gauge

1. Do not apply impacts to the regulator by dropping or hitting it during transfer or installation.
It can cause inaccuracy in indication.
2. Do not install the regulator in an environment where it is exposed to high pressure or humidity.
It will cause malfunction or failure.
3. When screwing in the pressure gauge, be sure to apply the wrench to the square wrench flats. If it is applied to other parts, it may cause air leakage or damage.

Pressure adjustment

Warning

1. Do not use tools when handling the pressure adjustment knob.

The pressure adjustment knob may be damaged if handled with tools. Handle this knob only by hand.

2. Set up the regulator while checking the pressure that is indicated on both of inlet and outlet sides pressure gauges.

If the knob is turned excessively, it may damage the internal parts.

Caution

1. Release the lock to adjust the pressure.

When the pressure adjustment knob will not turn, it is locked. Pull the pressure adjustment knob to release the lock. The knob may be damaged when it is turned by force.

Push the knob to lock again after adjusting the pressure.

2. Adjust the pressure in an upward direction.

A correct pressure setting cannot be achieved by adjusting the pressure downward. The outlet side pressure increases when turning the knob clockwise, and decreases when turning it counterclockwise.

3. Confirm the inlet side pressure.

Set the outlet side pressure to no more than 85% of the inlet side pressure. If the inlet side pressure is too low, a correct setting pressure cannot be obtained.

4. A small amount of fluid is consumed from the bleed port.

The bleed mechanism is adopted to achieve high precision pressure adjustment. Therefore, a small amount of fluid is constantly consumed from the bleed port but this is not abnormality.