Large Flow Pilot Operated Regulator (SAR)

SAR825~925 Series

- Internal pilot operated relieving style regulator.
- Metal seal relief valve is used to obtain outstanding pressure characteristic.

SAR925

SAR825

How to order

SAR 8 25 - 14 G

① Air Regulator

② **Body Size**
8 - 1 1/4, 1 1/2
9 - 2

③ Pilot type

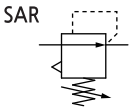
④ **Thread type**
Nil - Rc(PT)
N - NPT
G - G(PF)

⑤ **Port Size**

Symbol	Size	Body size	
		8	9
12	1 1/4	●	
14	1 1/2	●	
20	2		●

⑥ **Accessory(Optional)**
Nil - None Gauge
G - Gauge

Symbol



Specification

Port size	SAR825	1 1/4, 1 1/2
	SAR925	2
Fluid		Compressed Air
Max. operating pressure		10bar (1.0MPa)
Max. supply pressure		15bar (1.5MPa)
Ambient and Media temp.		-5~60℃ (No freezing)
Regulating range		0.5~8.5bar (0.05~0.85MPa)
Construction		Internal pilot relieving style (Pilot air is always bleeding.)
Gauge port		1/4

Precautions

① Set the outlet pressure range for the regulator in a range that is 85% or less of the inlet pressure. If set above 85%, the inlet pressure will be easily effected by fluctuations in the flow rate and inlet pressure, and will become unstable.

② To set the pressure using the knob, turn the knob in the direction that increases pressure and lock the knob after the pressure is set. If this is done in the direction that decreases pressure, the pressure may drop from the original set pressure.
Turning the knob clockwise increases the outlet pressure, and turning it counterclockwise reduces the pressure.

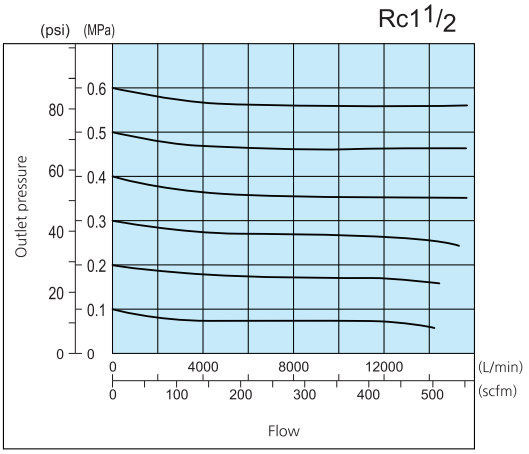
③ Do not use the regulator with flow exceeding the Max. flow indicated in "Flow Characteristics" as this can cause failure in pressure adjustment

Series SAR825~925

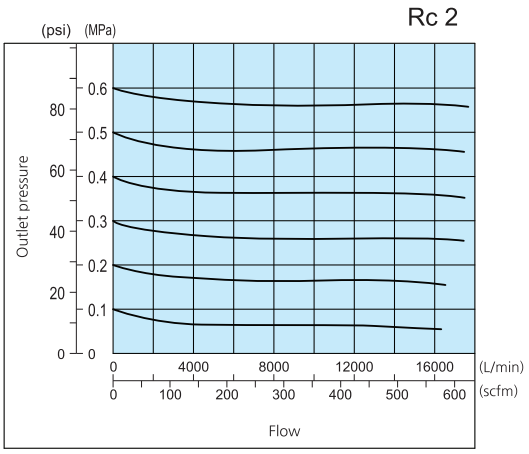
FLOW CHARACTERISTICS

Inlet pressure 7kg/cm²

SAR 825



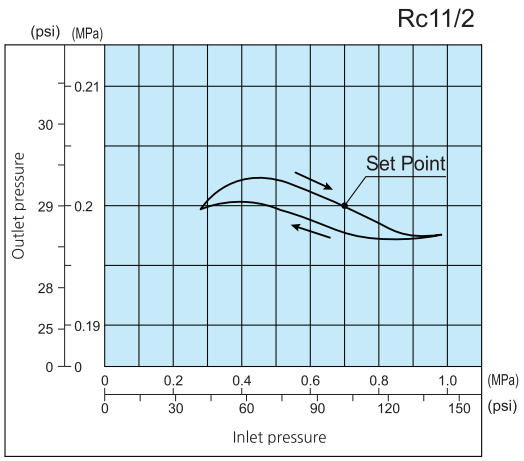
SAR 925



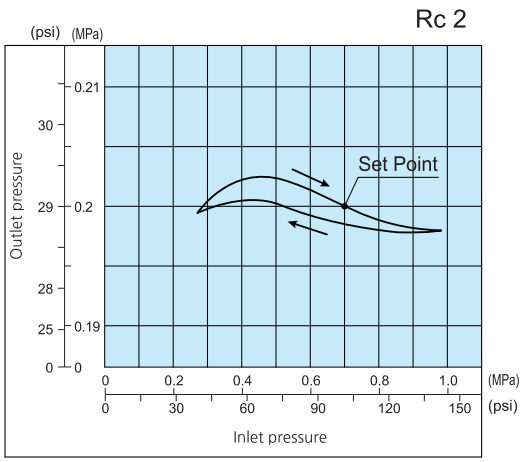
PRESSURE CHARACTERISTICS

Inlet pressure 7kg/cm², Outlet pressure 2kg/cm², Flow 20L/min(ANR)

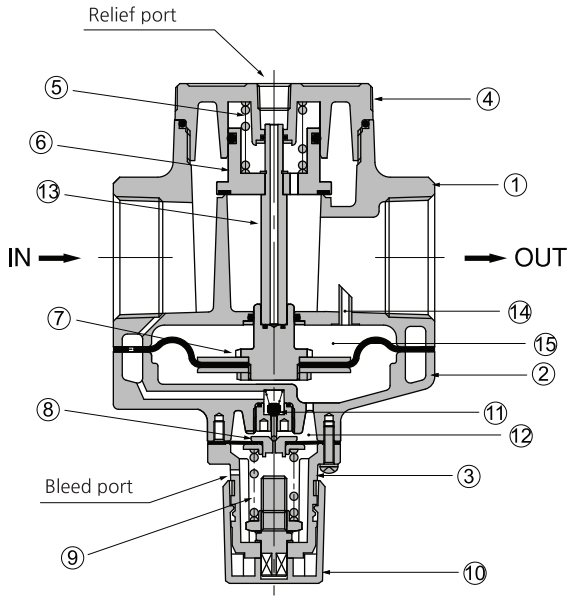
SAR 825



SAR 925



STRUCTURE / PARTS



▪ Component Parts

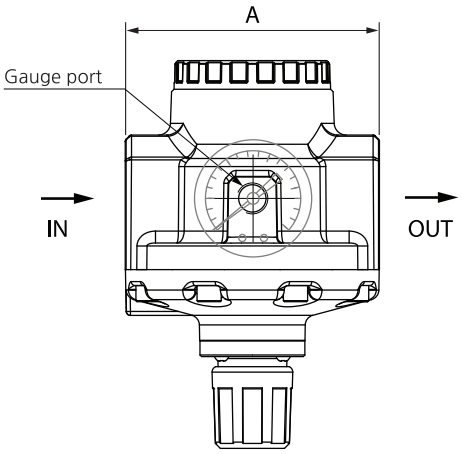
No.	PARTS	MATERIAL
①	Body	ALDC
②	Cover	ALDC
③	ADJ Cover	ALDC
④	Valve guide	ALDC

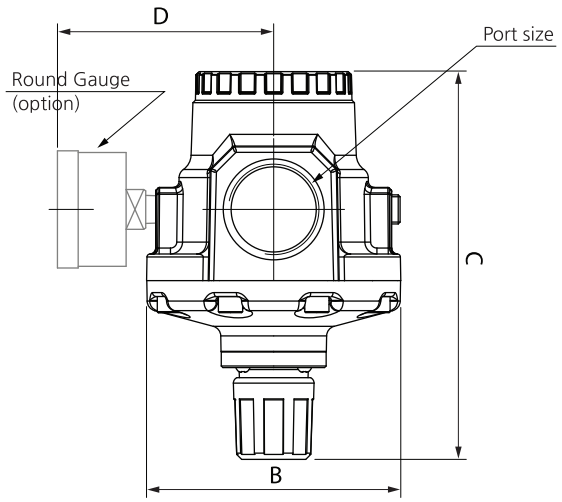
▪ Replacement Parts

No.	PARTS	MATERIAL
⑤	Valve spring	SWP
⑥	Check valve Ass'y	-
⑦	Main diaphragm Ass'y	-
⑧	Pilot diaphragm Ass'y	-
⑨	ADJ spring	SWP
⑩	Handle	PC

When handle⑩ is turned clockwise to compress pressure adjustment spring⑨, the pressure from the IN side passes through diaphragm ⑧, opens pilot valve⑪, and enters upper pilot chamber⑫. This pressure and the force generated by pressure adjustment spring⑨ act as resistance, resulting in equilibrium.
Then, this pressure passes through diaphragm⑦ of the main valve and check valve rod⑬, and pushes check valve⑬ open, thus guiding the pressure to the OUT side.
At the same time, the pressure passes through feedback hole⑭, and enters diaphragm chamber⑮, thus establishing the OUT side pressure (secondary pressure).

DIMENSIONS (mm)





Model	Port size	Gauge port	A	B	C	D
SAR825	1 1/4, 1 1/2	1/4	126	126	198	103
SAR925	2	1/4	160	160	226	119