

# 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

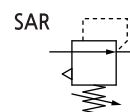
### How to order

**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°C (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

SAU

SAU  
LARGE FLOW

SAU  
HIGH PRESS.

SAW

SAWM  
SAWD

SAF

SAF  
LARGE FLOW

SAFM  
SAFD

SAR

SAR  
LARGE FLOW

SAR  
T-HANDLE

SAR  
HIGH PRESS.

SRP

SAL

SAR  
LARGE FLOW

AUTO-DRAIN  
KITS

SHVS

SPS100

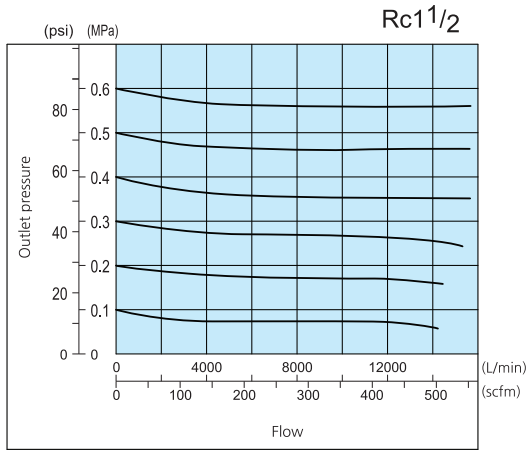
ACCESSORY

CAUTION

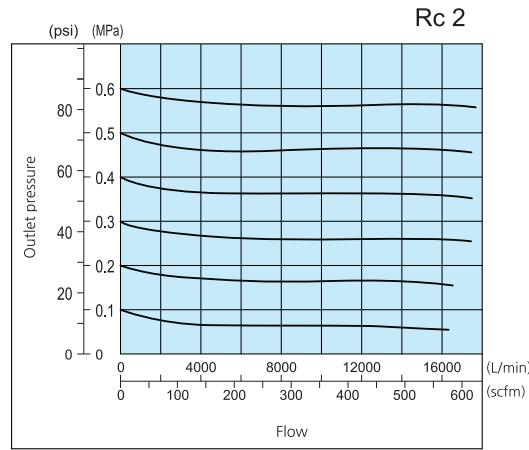
# Series SAR825~925

## FLOW CHARACTERISTICS Inlet pressure 7kg/cm<sup>2</sup>

**SAR 825**

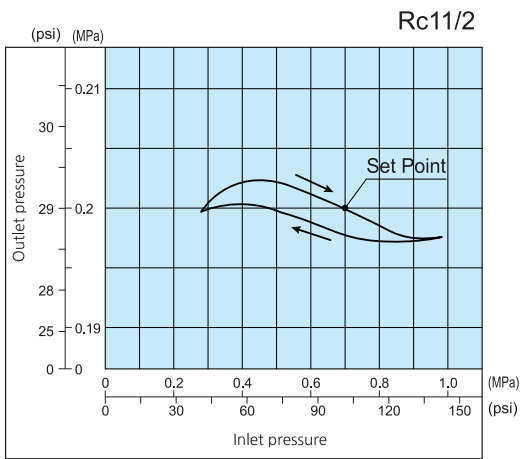


**SAR 925**

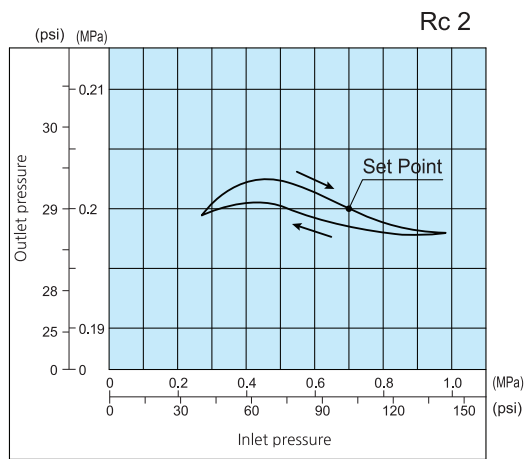


## PRESSURE CHARACTERISTICS Inlet pressure 7kg/cm<sup>2</sup>, Outlet pressure 2kg/cm<sup>2</sup>, Flow 20L/min(ANR)

**SAR 825**

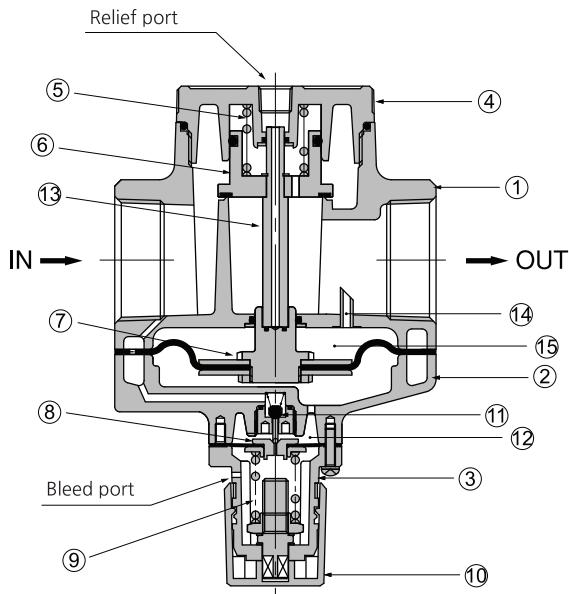


**SAR 925**



# Large Flow Pilot Operated Regulator

## STRUCTURE / PARTS



### Component Parts

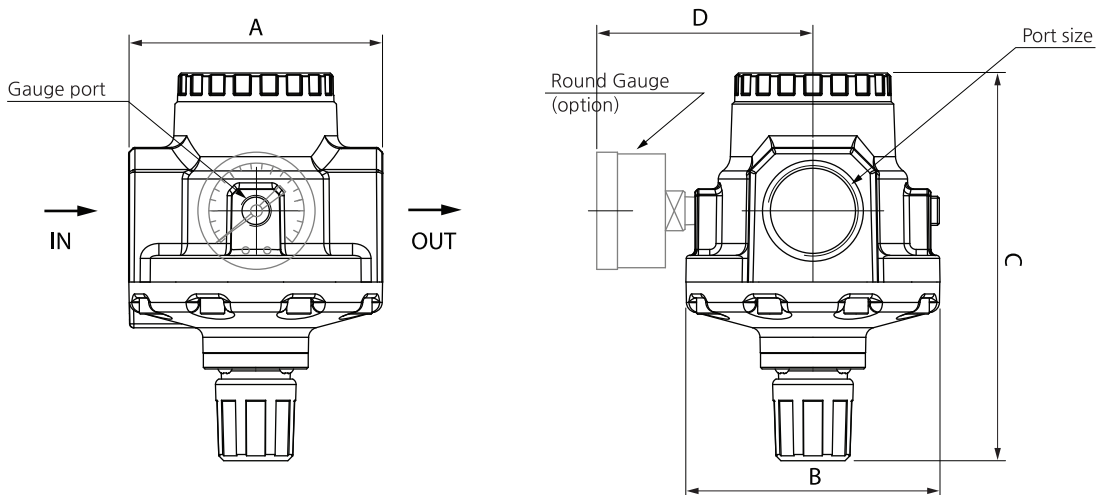
No.	PARTS	MATERIAL
①	Body	ALDC
②	Cover	ALDC
③	ADJ Cover	ALDC
④	Valve guide	ALDC

### 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 diaphragm⑧, 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 rod③, and pushes check valve③ open, thus guiding the pressure to the OUT side. At the same time, the pressure passes through feedback hole⑭, and enters diaphragm chamber⑤, 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	98
SAR925	2	1/4	160	160	226	118

SAU

SAU  
LARGE FLOWSAU  
HIGH PRESS.

SAW

SAWM  
SAWD

SAF

SAF  
LARGE FLOWSAFM  
SAFD

SAR

SAR  
LARGE FLOWSAR  
T-HANDLESAR  
HIGH PRESS.

SRP

SAL

SAL  
LARGE FLOWAUTO-DRAIN  
KITS

SHVS

SPS100

ACCESSORY

CAUTION