

Booster Relay

Series IL100

- Used when the piping distance between instrumentation and operational area is long, or when operational area has large capacity.
- Can help accelerate actuation speed considerably.

How to Order

IL 100 - [] 02 [] - []

Booster relay

Thread type

Nil	Rc
N	NPT*
F	G*

* Semi-standard

Port size

02	1/4
03	3/8

Suffix

Nil	Standard
T	High temperature (-5 to 100°C)
L	Low temperature (-30 to 60°C)
S	Copper-free
ST	Copper-free/ High temperature (-5 to 100°C)
SL	Copper-free/ Low temperature (-30 to 60°C)

Accessories

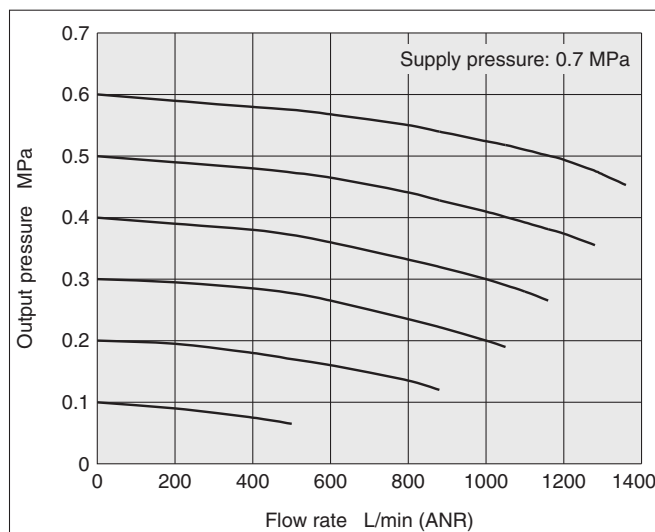
Nil	None
B	With bracket



Standard Specifications

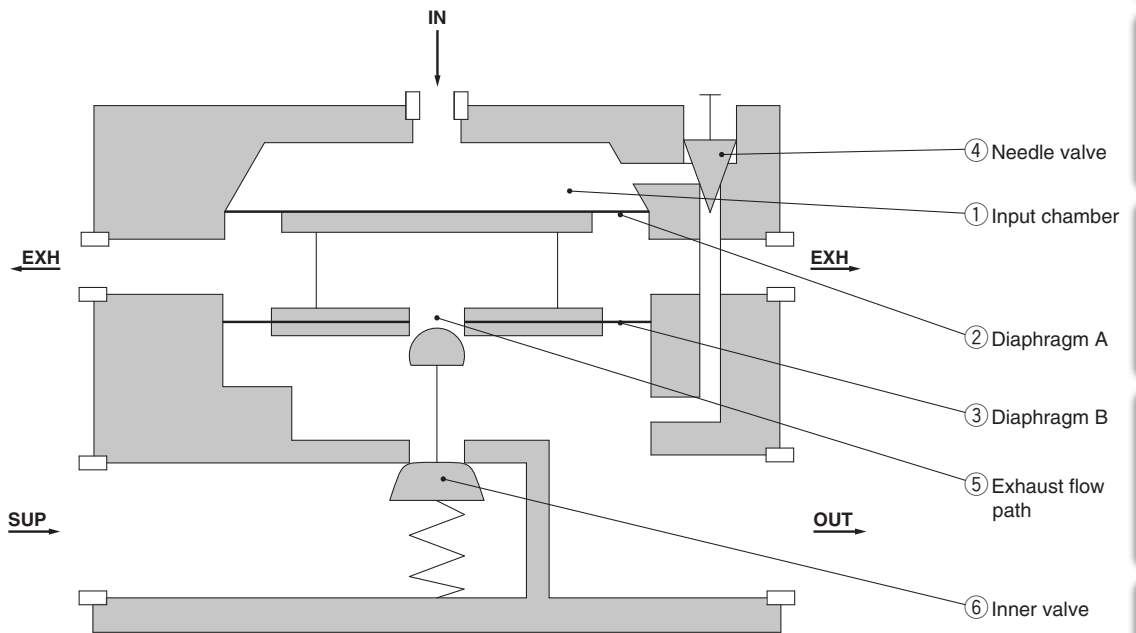
Supply pressure	Max. 1.0 MPa
Input pressure	Max. 0.7 MPa
Output pressure	Max. 0.7 MPa
Pressure ratio	1 : 1
Air consumption	3 L/min (ANR) or less (OUT = 0.5 MPa)
Linearity	Within $\pm 1\%$
Hysteresis	Within 1%
Ambient and fluid temperature	-5 to 60°C
Port size	1/4, 3/8
Weight	0.56 kg

Flow-rate Characteristics



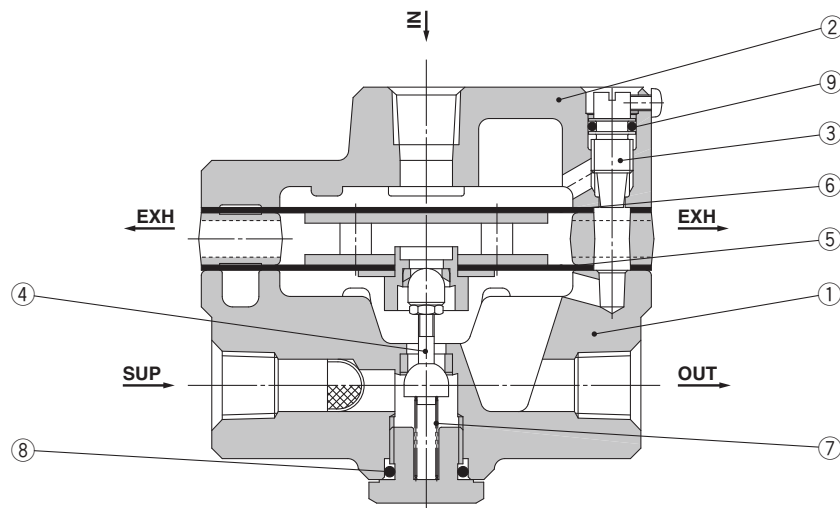
Principle of Operation

IL100



Signal pressure enters the input chamber ① and diaphragm A ② and exerts a downward force on diaphragm B ③. When the force of the input chamber ① exceeds the force of diaphragm B ③, inner valve ⑥ is inserted allowing air flow out the secondary supply port. On signal pressure exhaust the supply valve closes and exhaust flow path ⑤ is opened to allow vent of the secondary air supply to atmosphere. Input and output ports are connected by a needle valve ④. Adjustment ensures that exact equalization occurs between the signal and output supply. The above function allows a low volume signal to provide high volume output with pressure ratio remaining (1:1) for signal to output.

Construction



Component Parts

No.	Description	Material	Note
1	Valve	Aluminum alloy	Silver baking finish
2	Cover	Aluminum alloy	Silver baking finish
3	Throttle valve	Stainless steel	
4	Inner valve	Stainless steel	
5	Diaphragm assembly	Aluminum alloy/NBR/Resin	Chromated
6	Diaphragm	NBR	
7	Valve spring	Stainless steel	
8	O-ring	NBR	
9	O-ring	NBR	

Replacement Parts

Model	Order no.	Contents
IL100	KT-IL100	Set of left nos. ⑤, ⑥, ⑦, ⑧, ⑨

Series IL100

Dimensions

IL100

