

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

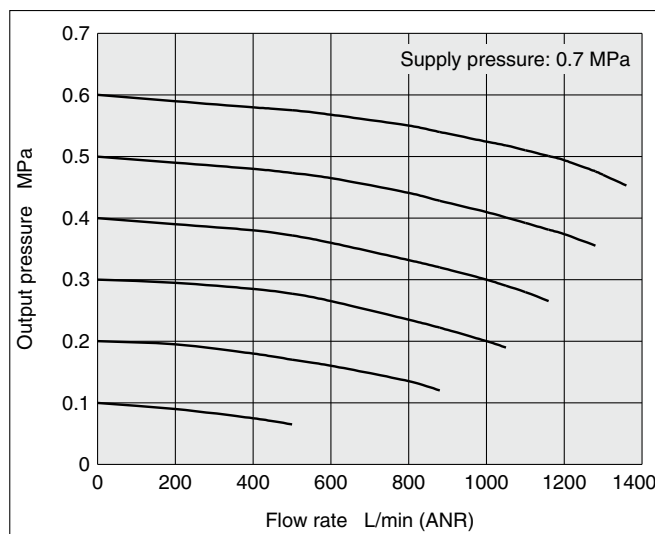
Nil	None
B	With bracket



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



Lock-Up Valve

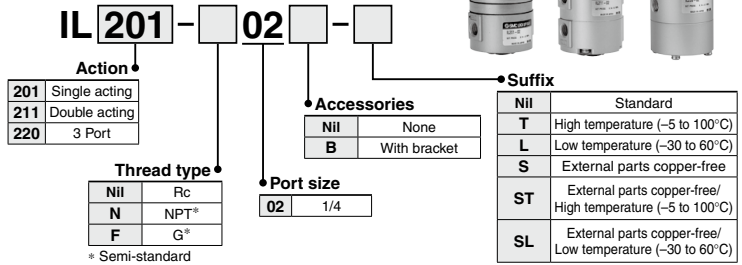
IL201/211/220 Series

• The lock-up valve is used if any air source or air supply piping line failure occurs in the air operated process control line.

Single acting, Double acting: Retains pressure at the operating area as emergency operation until the air source is recovered to its normal state.

3 Port: Changes the supply port if a trouble occurs.

How to Order



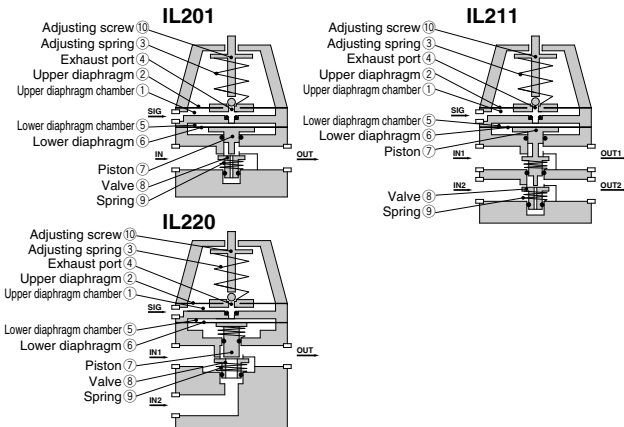
Standard Specifications

Model	IL201	IL211	IL220
Action	Single acting	Double acting	3 Port
Signal pressure	Max. 1.0 MPa <small>Note 1)</small>		
Set pressure range	0.14 to 0.7 MPa <small>Note 1)</small>		
Shut-off pressure	Max. 0.7 MPa		
Ambient and fluid temperature	-5 to 60°C		
Port size	Rc1/4		
Differential <small>Note 2)</small>	0.01 MPa		
Weight	0.45 kg	0.64 kg	0.7 kg

Note 1) Provide a differential pressure of 0.1 MPa or more between the signal pressure and set pressure. If the differential pressure is small, the internal part is worn out due to the structure of this product and the bleed amount from the exhaust port increases, which may affect the characteristics.

Note 2) Pressure difference between lock activated and lock released

Principle of Operation



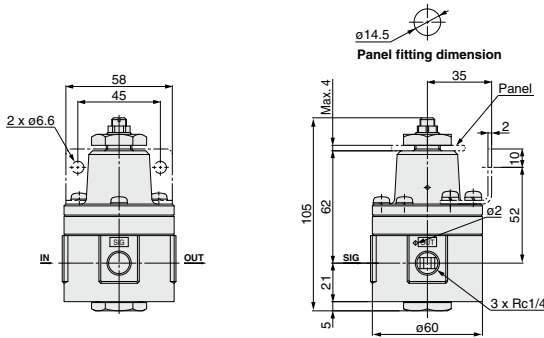
The signal air pressure enters the upper diaphragm chamber ① to generate a force. When this force is larger than the force generated by compressing the adjusting spring ③, the upper diaphragm ② is pushed up, the exhaust port ④ is closed, and the signal air pressure enters the lower diaphragm chamber ⑤ and acts the lower diaphragm ⑥. This pushes down the piston ⑦ to open the valve.

IL201 and IL211 enter the status, in which the flow path between IN and OUT is opened. IL220 enters the status, in which the flow path between IN1 and OUT is opened. If the signal air pressure drops to a level below the set pressure for some reason, the upper diaphragm ② is pushed down, the pressure inside the lower diaphragm ⑤ is exhausted from the exhaust port ④, and the valve ⑧ is closed by the force of the spring ⑨. At this time, IN and OUT are shut down in IL201 and IL211. In IL220, IN1 and OUT are shut down, and the flow path between IN2 and OUT is opened. The set pressure is adjusted with the adjusting screw ⑩.

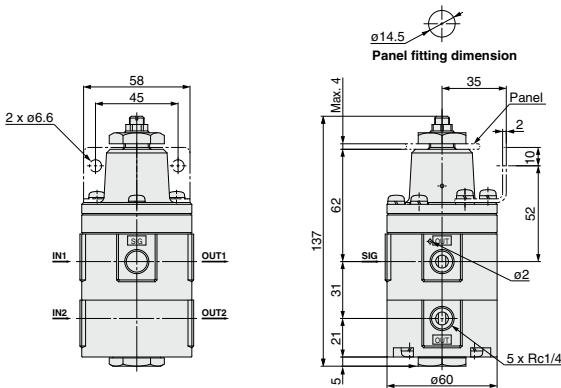
IP
IW
1301
AW
IL1
IL2
IT
CP
IS
VFN
IN-T

Dimensions

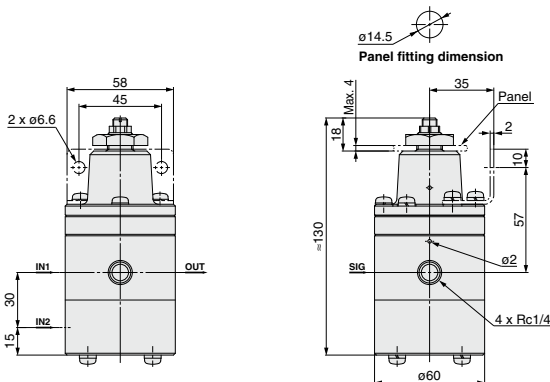
IL201



IL211



IL220



IP
IW
1301
AW
IL1 <input type="checkbox"/>
IL2 <input checked="" type="checkbox"/>
IT
CP <input type="checkbox"/>
IS
VFN
IN- T <input type="checkbox"/>