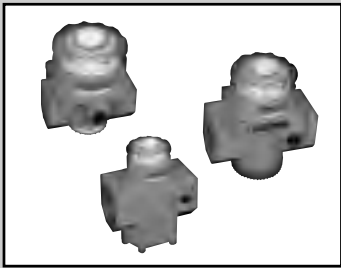


Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact conf. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending



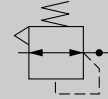
Dial air regulator

2302/2303/2304 Series

Dial provided to enable easy pressure adjustment. Control of large flow rate is also enable.

● Port size: Rc1/4 to Rc2

JIS symbol



Specifications

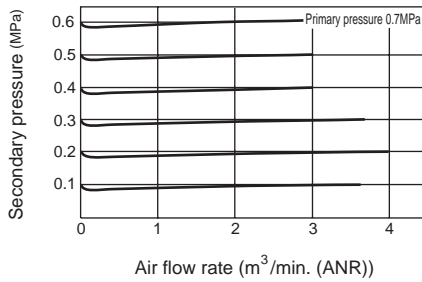
Descriptions	2302-2C·3C·4C·6C	2303-6C·8C·10C	2304-12C·16C
Working fluid	Compressed air		
Max. working pressure Mpa	2.06		
Withstanding pressure Mpa	3.09		
Fluid temperature (ambient temperature) °C	5 to 65		
Set pressure range Mpa	0.05 to 1.08		
Relief	With relief mechanism		
Port size Rc	1/4, 3/8, 1/2, 3/4	3/4, 1, 1 1/4	1 1/2, 2
Product weight kg	1	1.8	4
Constant bleeding rate ℓ /min ANR	3 or less (air consumption)		

Note 1: Check that the primary pressure is at least 0.1 MPa or more than the setting pressure.

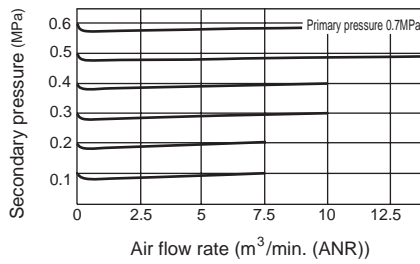
Note 2: The dial scale is a guide. Check the pressure gauge for precise secondary pressure.

Flow characteristic

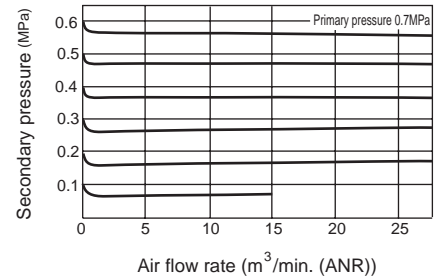
● 2302



● 2303

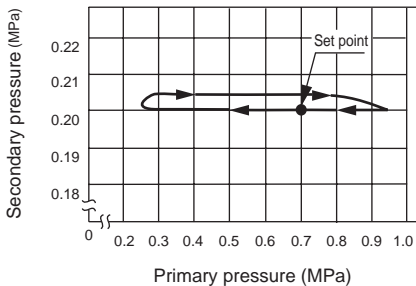


● 2304

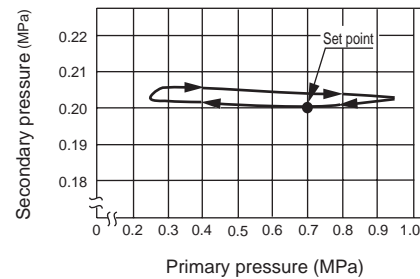


Pressure characteristic

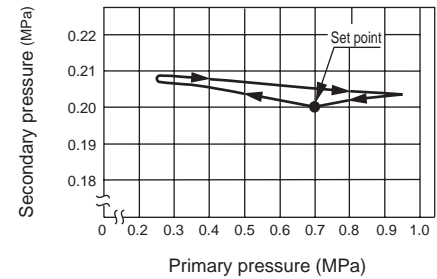
● 2302



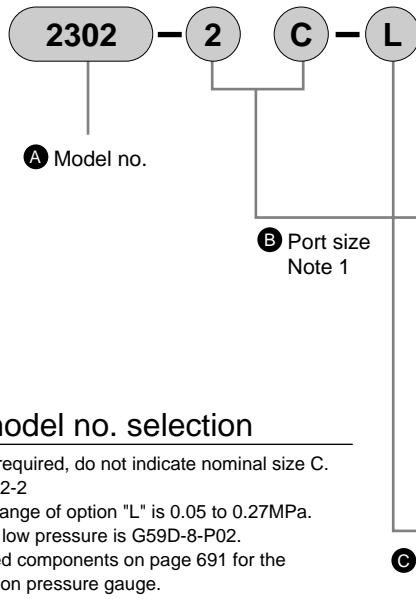
● 2303



● 2304



How to order



Note on model no. selection

Note 1: If NPT port is required, do not indicate nominal size C.
(Example) 2302-2

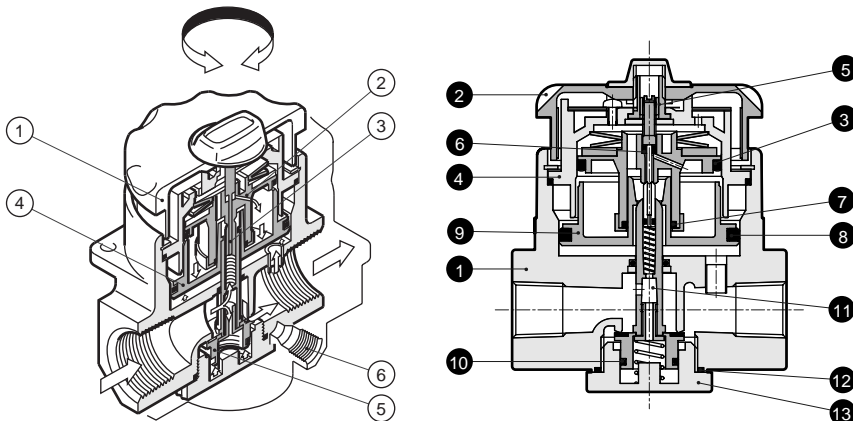
Note 2: Set pressure range of option "L" is 0.05 to 0.27MPa.

Note 3: Option "G" for low pressure is G59D-8-P02.

Refer to related components on page 691 for the specifications on pressure gauge.

Symbol	Descriptions	A Model no.		
		2302 standard type	2303 large type	2304 large bore size type
B Port size				
2C	Rc1/4	●		
3C	Rc3/8	●		
4C	Rc1/2	●		
6C	Rc3/4	●	●	
8C	Rc1		●	
10C	Rc1 1/4		●	
12C	Rc1 1/2			●
16C	Rc2			●
C Option				
Blank	Standard	●	●	●
L	Low pressure	●	●	●
G	Pressure gauge (G59D-8-P10)	●	●	●

Internal structure and parts list



No.	Part name	Material		
		2302	2303	2304
1	Body	Zinc alloy die-casting		
2	Adjusting knob	Polycarbonate resin		
3	O ring	Fluoro rubber		
4	O ring	Fluoro rubber		
5	Bonnet assembly	Zinc alloy die-casting, brass, etc.		
6	O ring	Nitrile rubber		
7	O ring	Nitrile rubber		
8	O ring	Fluoro rubber		
9	Bottom piston	Polyacetal resin		
10	O ring	Fluoro rubber		
11	Main valve assembly	Brass, polyacetal resin, hydrogen nitrile rubber		Brass, hydrogen nitrile rubber
12	O ring	Nitrile rubber		
13	Bottom plug	Polyacetal resin	Zinc alloy die-casting	

Repair parts list

Part name	Model no.		
	2302	2303	2304
Repair kits <small>Note 1</small>	2302-KIT	2303-KIT	2304-KIT
Valve assembly kit <small>Note 2</small>	2302-VALVE-ASSY	2303-VALVE-ASSY	2304-VALVE-ASSY

Note 1: Set of main valve assembly, bottom piston, O ring, etc.

Note 2: Set of main valve assembly, O ring, etc.

Functional explanation

(1) Adjusting knob

Adjusting knob can be turned clockwise to set the pressure within range of 0.05 to 1.08 MPa. A stopper is provided to prevent the secondary pressure from setting more than set pressure.

(2) Upper piston

Pilot pressure is adjusted by the upper piston and the pressure adjustment spring according to pilot singles from the pilot valve.

(3) Pilot valve

Turning the adjusting pilot knob shifts the pilot valve position to set the pilot pressure.

(4) Bottom piston

A valve stem is open and closed by the balance between pilot pressure and secondary pressure. If the secondary pressure increases more than the set pressure, a relief valve opens to release the pressure to the atmosphere.

(5) Valve stem

If the pilot pressure and secondary pressure turn to off-balance, the compressed air on the primary side is supplied as requires as to the secondary side.

A valve with large port size is used to achieved excellent flow characteristics.

(6) Gauge port

Pressure scale is provided to enable rough pressure setting without another pressure gauge. If the accurate set pressure is required, install a pressure gauge to the gauge port.

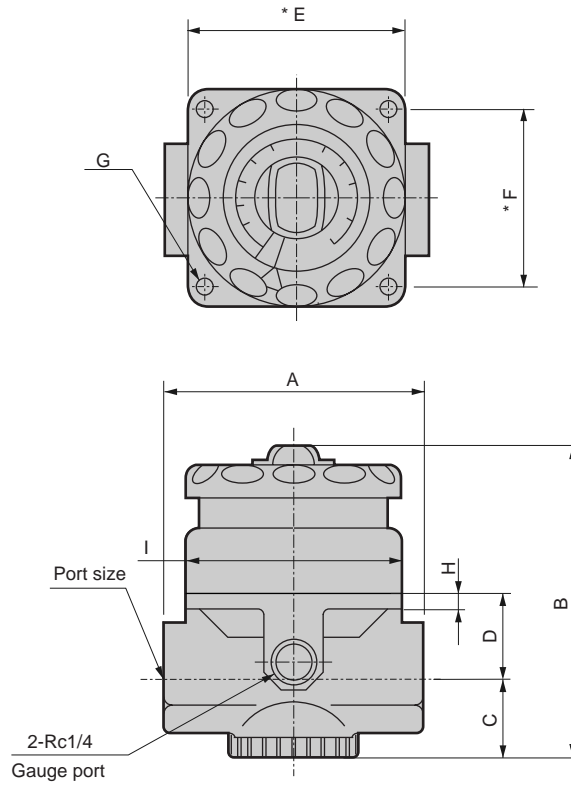
Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending
Dial air regulator
F.R.L. unit

Regulator Series

Dimensions



Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact conf. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending



Descriptions	Port size	A	B	C	D	E	F	G	H	I
2302-2C-3C-4C-6C	Rc1/4, 3/8, 1/2, 3/4	81	99	24	28	67.5	56	4-φ5.6 penetrating	φ6	φ67
2303-6C-8C-10C	Rc3/4, 1, 1 1/4	110	129	44	37	67.5	56	4-φ5.1 depth 11	-	φ67
2304-12C-16C	Rc1 1/2, 2	135	170	71	36	-	-	-	-	φ67