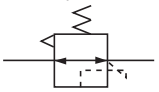
# Series IR1000/2000/3000 Precision Regulator

## Standard Specifications

| Model | Basic type | | |
|---|---|---|---|
| | IR10□0 | IR20□0 | IR30□0 |
| Max. supply pressure | 1.0 MPa | | |
| Min. supply pressure (1) | Set pressure + 0.05 MPa | | Set pressure + 0.1 MPa |
| Regulating pressure range | **IR1020**: 0.01 to 0.8 MPa | **IR2000**: 0.005 to 0.2 MPa<br>**IR2020**: 0.01 to 0.8 MPa | **IR3000**: 0.01 to 0.2 MPa<br>**IR3020**: 0.01 to 0.8 MPa |
| Input signal pressure | — | | |
| Sensitivity | Within 0.2% of full span | | |
| Repeatability | Within ±0.5% of full span | | |
| Linearity | — | | |
| Air consumption (2) | Bleed hole: 3.5 ℓ/min (ANR) or less (Supply pressure: 1.0 MPa) Exhaust port: 1.2 ℓ/min (ANR) or less (at maximum set pressure) | Bleed hole: 3.5 ℓ/min (ANR) or less (Supply pressure: 1.0 MPa) Exhaust port: 0.9 ℓ/min (ANR) or less (at maximum set pressure) | Bleed hole: 9.5 ℓ/min (ANR) or less (Supply pressure: 1.0 MPa) Exhaust port: 2 ℓ/min (ANR) or less (at maximum set pressure) |
| Port size | G 1/8 | G 1/4 | G 1/4, 3/8 |
| Pressure gauge port | G 1/8 (2 locations) | | |
| Ambient and fluid temperature | –5 to 60°C (No freezing) | | |
| Weight (kg) | 0.14 | 0.30 | 0.64 |

**JIS Symbol**
Basic type



Note 1) With the condition of no flow on the output side. Together with the set pressure, be sure to maintain a minimum differntial pressure of 0.05 MPa for models IR1000 and IR2000, and 0.1 MPa for model IR3000.
Note 2) Air is normally being discharged to the atmosphere.

## How to Order

**IR 2 0 0 0 – F 02 ☐**

**Body size**

| | |
|---|---|
| 1 | IR1000 |
| 2 | IR2000 |
| 3 | IR3000 |

**Type of Setting**

| | |
|---|---|
| 0 | Basic type (handle) |
| 1 | Air operated type |

**Regulating pressure range**

**For series IR1000/2000**

| | |
|---|---|
| 0 | 0.005 to 0.2 MPa |
| 2 | 0.01 to 0.8 MPa |

Note) Air operated type is model IR2120 only.

**For series IR3000**

| | |
|---|---|
| 0 | 0.01 to 0.2 MPa |
| 2 | 0.01 to 0.8 MPa |

**Port size**

| Symbol | size | Application | | |
|---|---|---|---|---|
| | | IR1000 | IR2000 | IR3000 |
| 01 | 1/8 | ☆ | | |
| 02 | 1/4 | | ☆ | ☆ |
| 03 | 3/8 | | | ☆ |

**Accessory**

| | |
|---|---|
| Nil | None |
| B | With bracket |
| G | With pressure gauge |

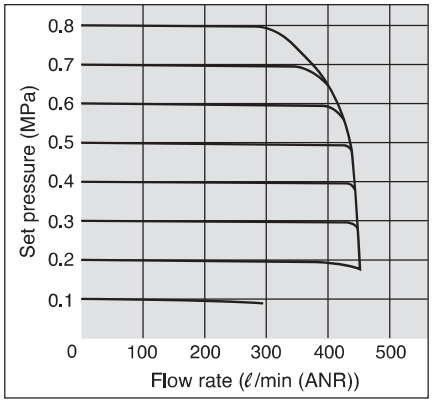
# Series IR1000/2000 Precision Regulator

## Series IR1000

### Flow Characteristics

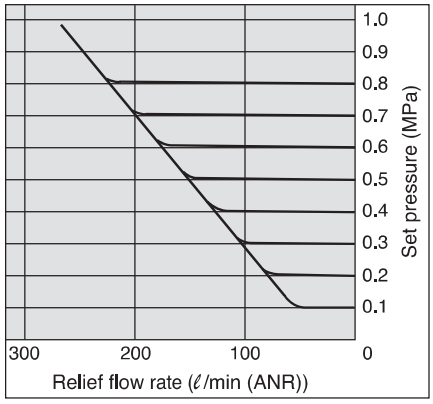
∗ Testing methods conform to JIS B 8372.

**IR1020-F01** Supply pressure: 1.0 MPa




### Relief Characteristics

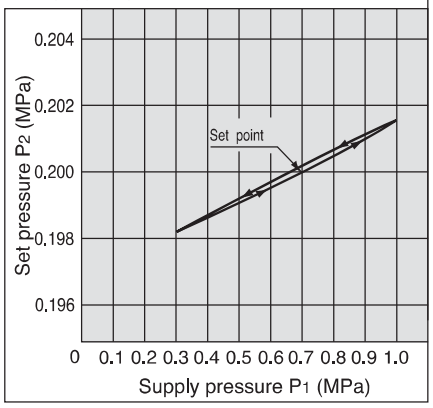
**IR1020-F01** Back pressure: 1.0 MPa




### Pressure Characteristics

Supply pressure: 0.7 MPa
Set pressure: 0.2 MPa
Flow rate: 0 ℓ/min (ANR)

**IR1020-F01**

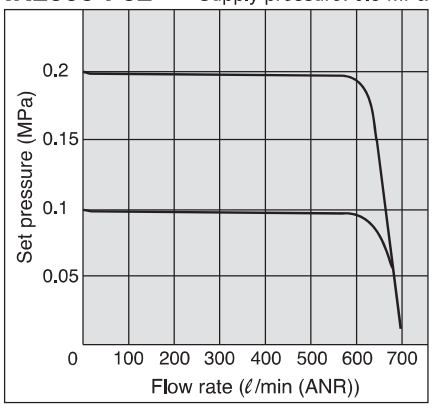



## Series IR2000

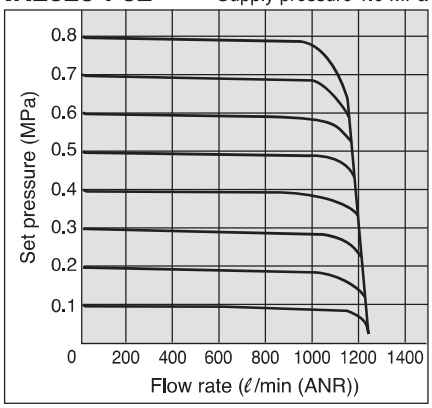
### Flow Characteristics

∗ Testing methods conform to JIS B 8372.

**IR2000-F02** Supply pressure: 0.5 MPa

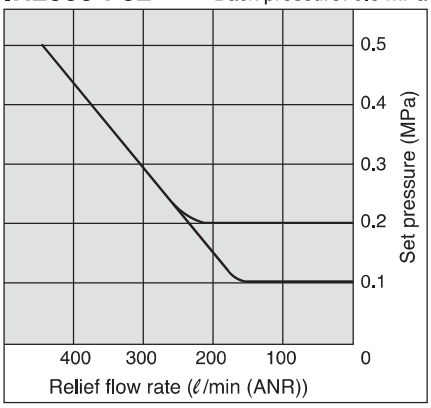



**IR2020-F02** Supply pressure 1.0 MPa

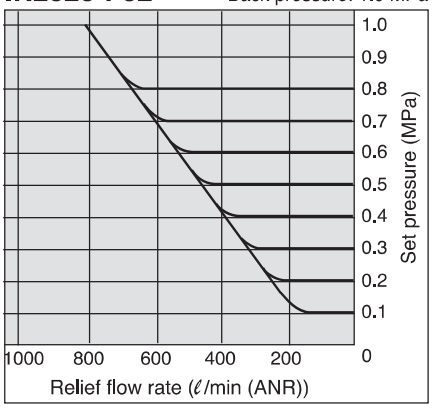



### Relief Characteristics

**IR2000-F02** Back pressure: 0.5 MPa



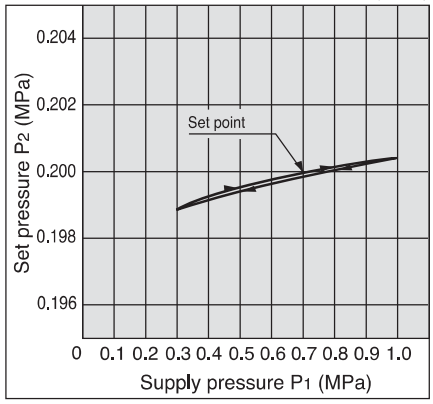

**IR2020-F02** Back pressure: 1.0 MPa



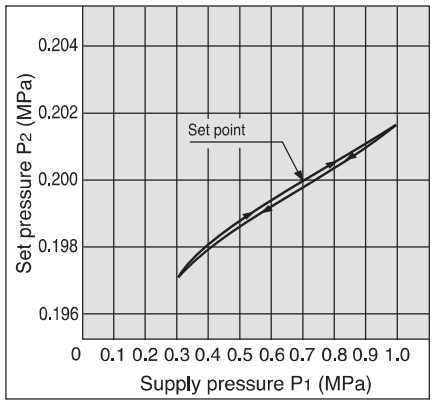

### Pressure Characteristics

Supply pressure: 0.7 MPa
Set pressure: 0.2 MPa
Flow rate: 0 ℓ/min (ANR)

**IR2000-F02**




**IR2020-F02**



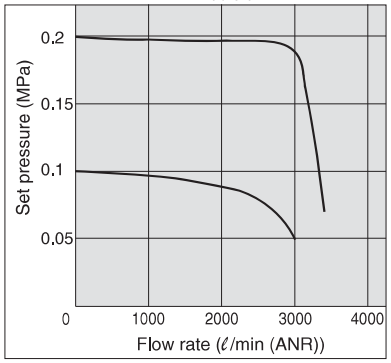
# Series IR3000 Precision Regulator

## Series IR3000

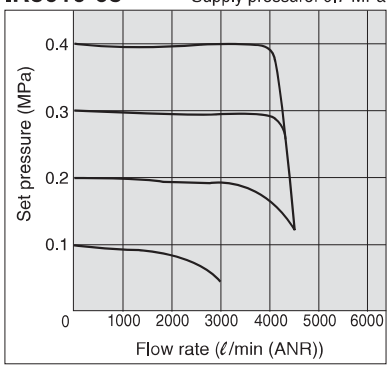
### Flow Characteristics

* Testing methods conform to JIS B 8372.

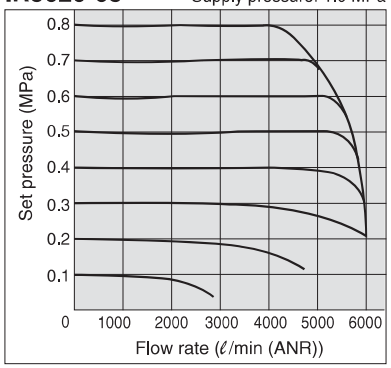
**IR3000-03** Supply pressure: 0.5 MPa



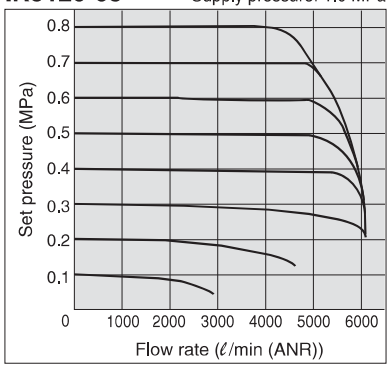

**IR3010-03** Supply pressure: 0.7 MPa




**IR3020-03** Supply pressure: 1.0 MPa

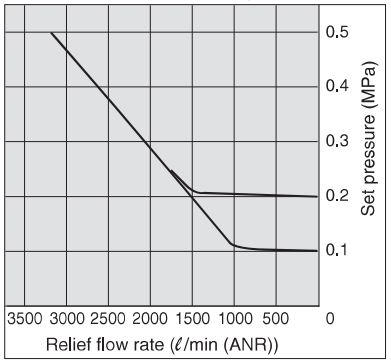



**IR3120-03** Supply pressure: 1.0 MPa

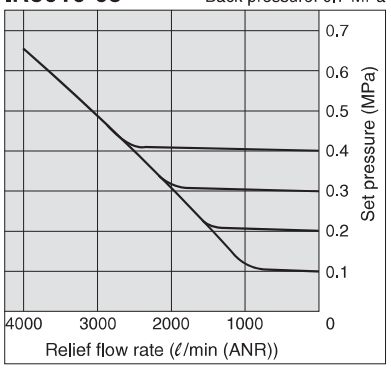



### Relief Characteristics

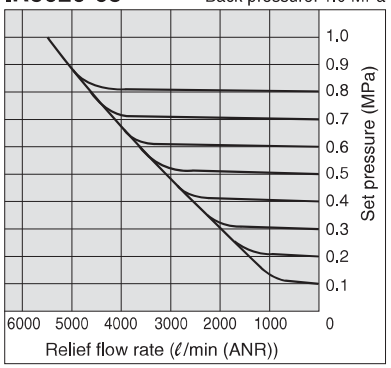
**IR3000-03** Back pressure: 0.5 MPa



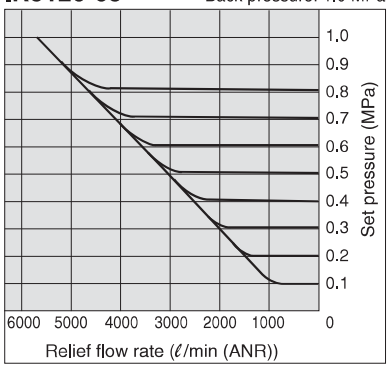

**IR3010-03** Back pressure: 0.7 MPa




**IR3020-03** Back pressure: 1.0 MPa



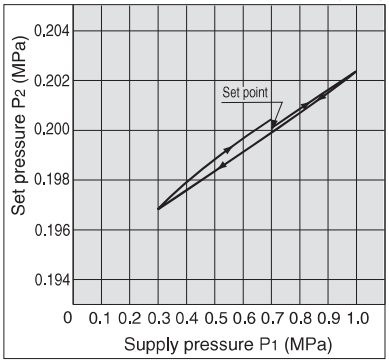

**IR3120-03** Back pressure: 1.0 MPa



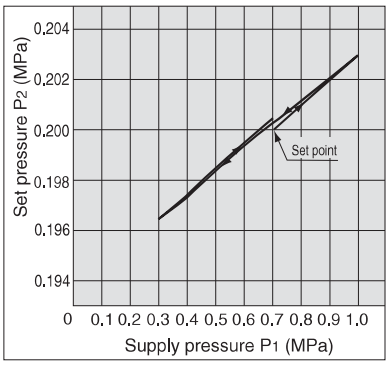

### Pressure Characteristics

Supply pressure: 0.7 MPa
Set pressure: 0.2 MPa
Flow rate: 0 ℓ/min (ANR)

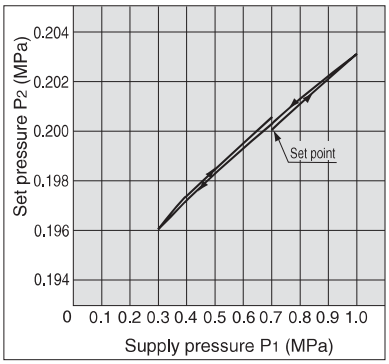
**IR3000-03**




**IR3010-03**




**IR3020-03**




**IR3120-03**

