

Contact Details

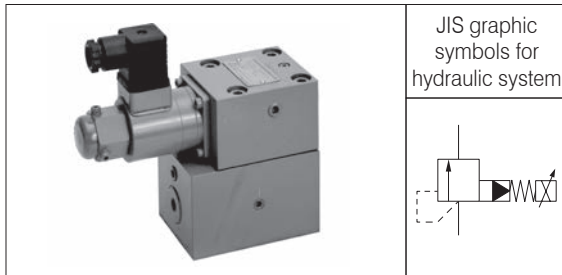
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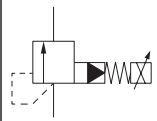
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Solenoid Operated Proportional Relief Valve



JIS graphic symbols for hydraulic system



Features

- Enables proportional pressure control of the hydraulic circuit in reference to the input current.

Nomenclature

※ - JRPL - G 02 - ※ - 20 - ※ ※

1 2 3 4 5 6 7 8

1 Applicable fluid code

No designation: Petroleum-based hydraulic fluid,
water-glycol hydraulic fluid
F: Phosphate ester hydraulic fluid

2 Model No.

JRPL: J series solenoid operated proportional relief valve

3 Connections

G: Gasket mount type

4 Nominal diameter

02: ¼

5 Pressure adjustment range

1: Up to 7 MPa {Up to 70 kgf/cm²}
2: Up to 14 MPa {Up to 140 kgf/cm²}
3: Up to 21 MPa {Up to 210 kgf/cm²}

6 Design No.

(The design No. is subject to change)

7 Option code

No designation: DIN connector mounting position: Top
L: DIN connector mounting position, left side
R: DIN connector mounting position, right side

8 Solenoid codes

No designation: DC 24 V solenoid
N: DC 12 V solenoid

8: Solenoid code and applicable driver model code

Solenoid codes	Solenoid	Rated current (20°C) mA	Coil resistance (20°C) Ω	Applicable driver	
				Model code	Power supply voltage
No designation	DC 24 V solenoid	850	26	KC-6-10	AC 100, 200, 220 V (Common for 50 and 60 Hz)
N	DC 12 V solenoid	1700	6.5	ZH-6-10	DC 24 V

Specifications

Model code	Nominal diameter	Pressure adjustment range *1 MPa {kgf/cm ² }	Maximum flow rate L/min	Hysteresis	Repeatability	Mass kg
JRPL-G02-1-20	¼	Up to 7 {Up to 70}	30	No greater than 5% of the maximum adjusting pressure	No greater than 1% of the maximum adjusting pressure	5
JRPL-G02-2-20		Up to 14 {Up to 140}				
JRPL-G02-3-20		Up to 21 {Up to 210}				

Note: *1 The minimum adjustment pressure varies depending on the flow rate. See the minimum adjustment pressure characteristics for details.

Accessories

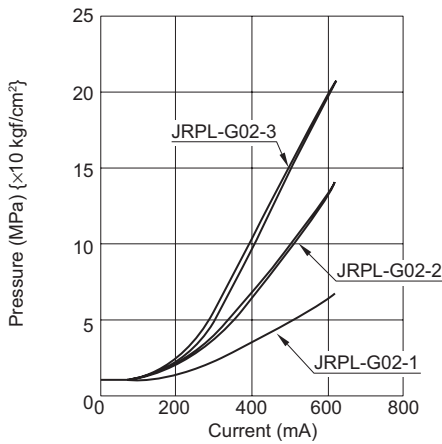
Hexagon socket head cap bolt	Quantity	Tightening torque N·m {kgf·cm}
M8 × 115	4	25 to 30 {250 to 300}

Handling

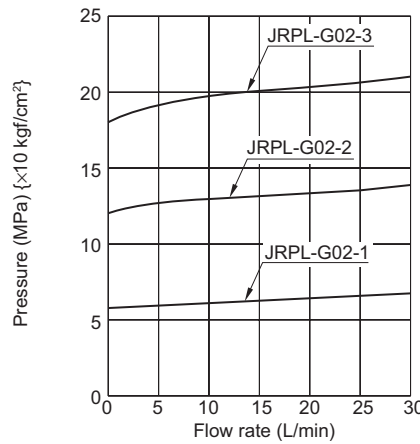
- Directly connect the tank piping of the valve to the tank without merging it with other tank piping.
- To achieve stable pressure control, completely remove air by loosening the air bleeding screw and fill the inside of the valve with fluid.
- The minimum pressure adjusting screw (manual adjusting screw) is factory adjusted before shipment but it can be used to adjust the pressure when electric current cannot be applied to the solenoid during initial adjustment or due to electrical failure. Before adjusting the pressure with the pressure adjusting screw, check and note the initial position of the screw. The pressure is increased by turning the screw clockwise. After recovering the normal operation status, return the screw to the initial position and tighten the lock nut.
- No sub-plate is provided for JRPL-G02.

Performance curves (viscosity: 32 mm²/s {cSt})

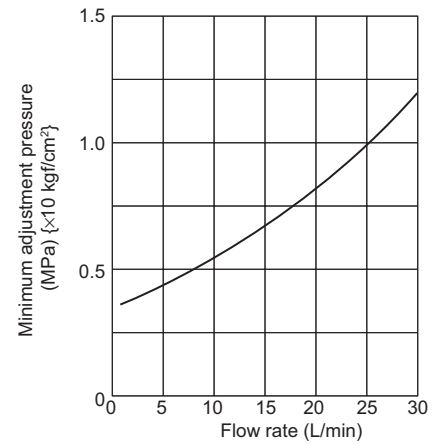
Input current - pressure characteristics



Flow rate - pressure characteristics



Minimum adjustment pressure characteristics



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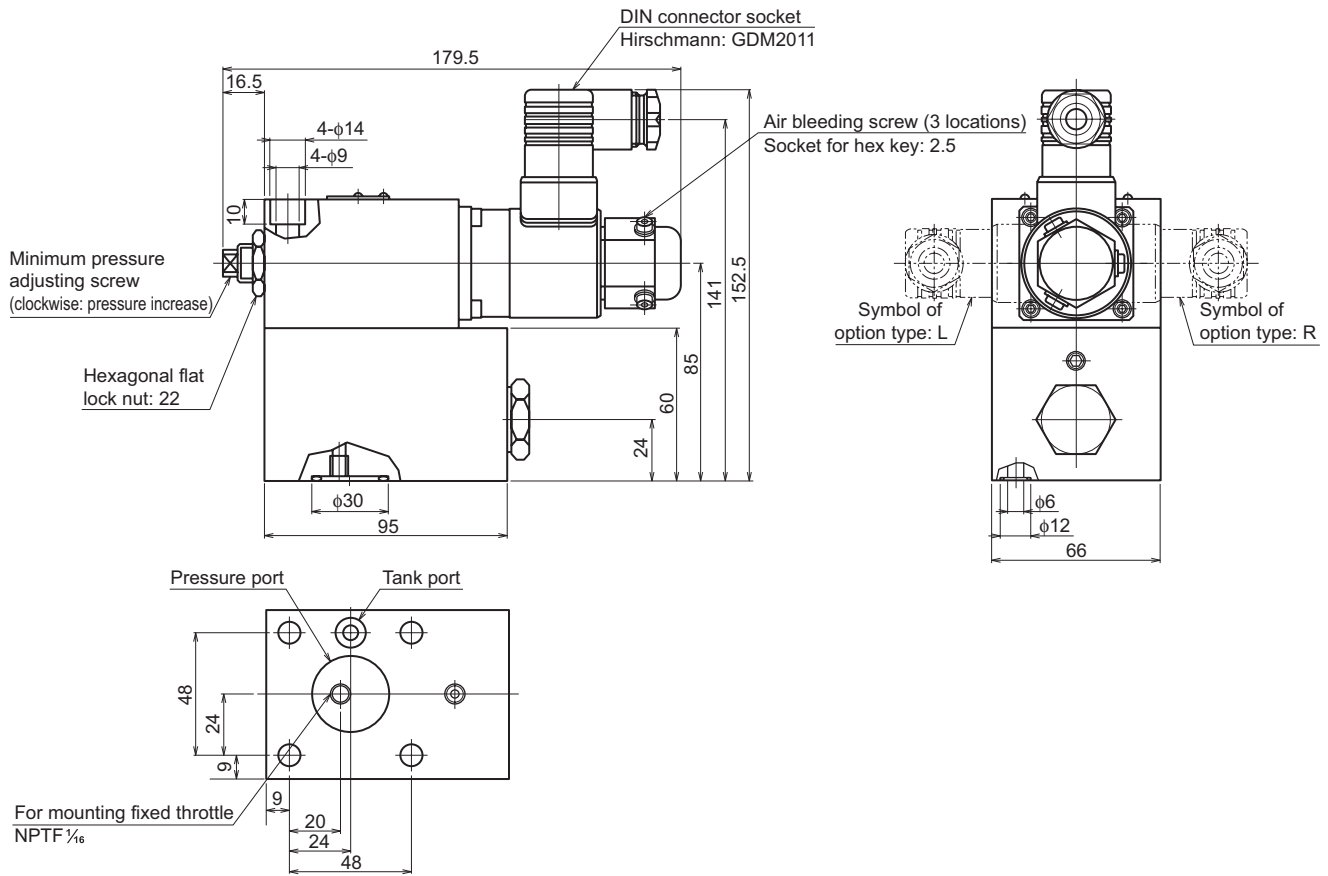
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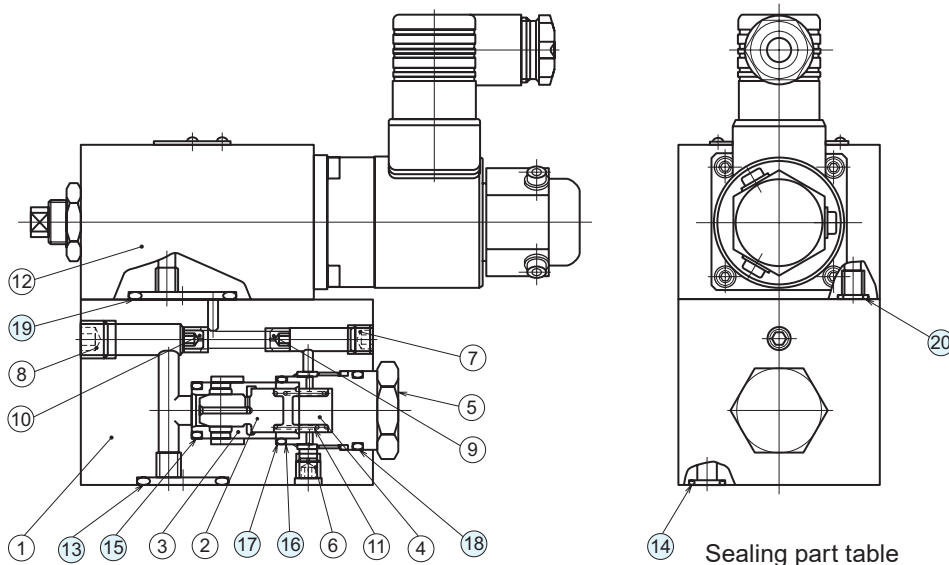
External dimension diagram

JRPL-G02



Sectional structural diagram

JRPL-G02



Sealing part table

Part No.	Name	Quantity	Part specifications
13	O-ring	1	JIS B 2401 1B P24
14	O-ring	1	JIS B 2401 1B P9
15	O-ring	1	JIS B 2401 1B P14
16	O-ring	1	JIS B 2401 1B P18
17	Backup ring	1	JIS B 2407 Bias cut P18
18	O-ring	1	JIS B 2401 1B P21
19	O-ring	1	JIS B 2401 1B G30
20	O-ring	2	JIS B 2401 1B P7