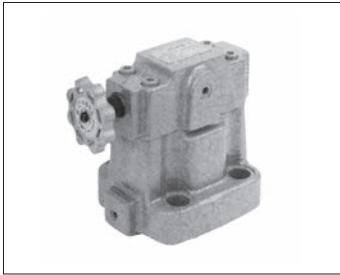
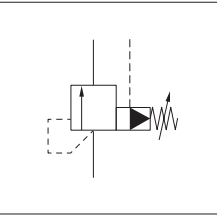


Pilot Operated Relief Valve



JIS graphic symbols for hydraulic system



Features

- Low-noise models with further improvement on noise characteristics
- Achieves stable pressure control over a wide range of flow rates and also works as a safety valve.
- The main circuit pressure can be controlled remotely by connecting a relief valve for remote control to the vent port.
- The vent port can be used to provide the function of an unload valve.
- High-vent type units are available as options.

Nomenclature

⊗ - **JRBS** - **G** ⊗ ⊗ - ⊗ ⊗ - **30** - ⊗

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.

JRBS: J series pilot operated relief valve (Low-noise type)

3 Connections

G: Gasket mount type

4 Nominal diameter

03: 3/8
 06: 3/4

5 Pressure adjustment range

1: Up to 7 MPa {Up to 70 kgf/cm²}
 2: Up to 16 MPa {Up to 160 kgf/cm²}
 3: Up to 25 MPa {Up to 250 kgf/cm²}

6 Vent type code

No designation: Low-vent type
 V: High-vent type

7 Design No.

(The design No. is subject to change)

8 Option code

No designation: Pressure adjusting handle type
 F: Screw adjusting type with a cap
 T: Pressure adjusting bolt type

Specifications

Model code	Nominal diameter	Pressure adjustment range*1 MPa {kgf/cm ² }	Maximum flow rate L/min	Mass kg
JRBS-G03-1-30	3/8	Up to 7 {Up to 70}	200	4.7
JRBS-G03-2-30		Up to 16 {Up to 160}		
JRBS-G03-3-30		Up to 25 {Up to 250}		
JRBS-G06-1-30	3/4	Up to 7 {Up to 70}	300	5.8
JRBS-G06-2-30		Up to 16 {Up to 160}		
JRBS-G06-3-30		Up to 25 {Up to 250}		

Model code	Pressure change MPa {kgf/cm ² } per handle revolution
JRBS-G⊗⊗-1	2.5 {25}/revolution
JRBS-G⊗⊗-2	4.6 {46}/revolution
JRBS-G⊗⊗-3	7.9 {79}/revolution

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

Sub-plate model code

- The sub-plate is not provided with the valve. Order it separately as required by specifying the model code given in the table below.

Model code	Nominal diameter	Connection port diameter	Mass kg
HDRI-03M	3/8	Rc3/8	1.5
JRB-06M	3/4	Rc3/4	3.5
JRB-06M08		Rc1	

Refer to Page S-6 for the dimensions of the sub-plate.

Accessories

Model No.	Hexagon socket head cap bolt	Quantity	Tightening torque N·m {kgf·cm}
JRBS-G03	M12 × 40	4	92 to 122 { 920 to 1220}
JRBS-G06	M16 × 50	4	250 to 300 {2500 to 3000}

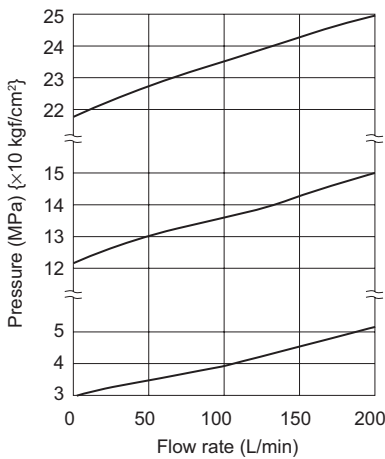
Handling

- Directly connect the tank piping of the valve to the tank without merging it with other tank piping and arrange it such that the back pressure of the tank port can be maintained at no greater than 0.5 MPa {5 kgf/cm²}.
- When using the valve in combination with a direct operated relief valve for remote control, connect the remote control valve to the vent port.
Since excessive internal volume of the vent line may lead to vibration, use steel pipes with an inner diameter of 4 mm maximum and thick walls for piping.
- When using the valve as a safety valve, set the pressure 1 to 1.5 MPa {10 to 15 kgf/cm²} higher than the pressure set for the hydraulic circuit.
- Use the valve with a flow rate of 5 L/min minimum since the pressure setting may be unstable if the flow rate is too low.
- The time required to switch from the unload to on-load state can be reduced by using the high-vent type.

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

● JRBS-G03

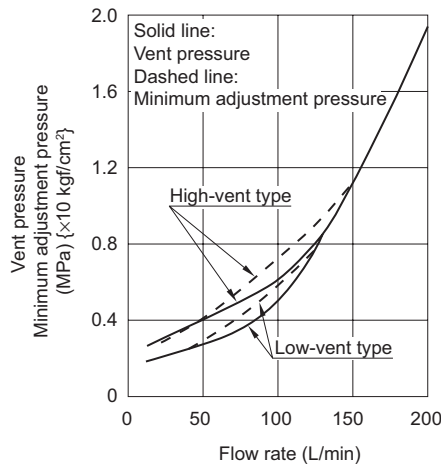
Flow rate - Pressure characteristics



Flow rate - Vent pressure characteristics

(vent port: unload state)

Minimum adjustment pressure characteristics (with the handle fully open)

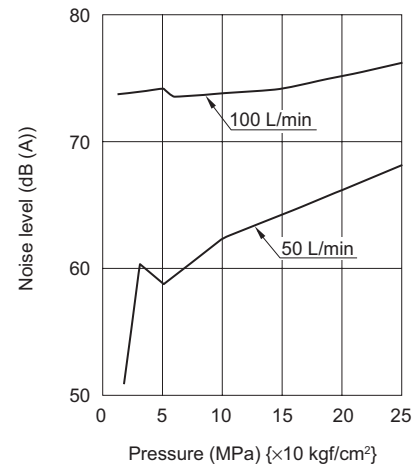


Noise characteristics

Noise measuring conditions

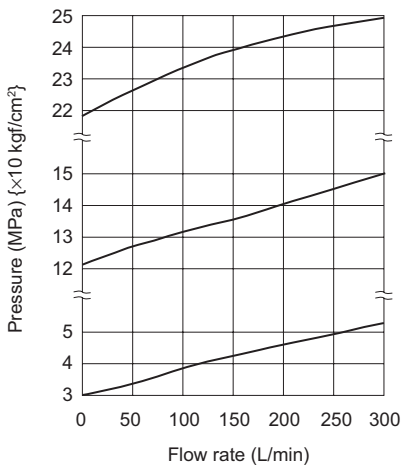
Tank line back pressure: 0.1 MPa {1 kgf/cm²}

Measuring position: 15 cm to the rear of the valve



● JRBS-G06

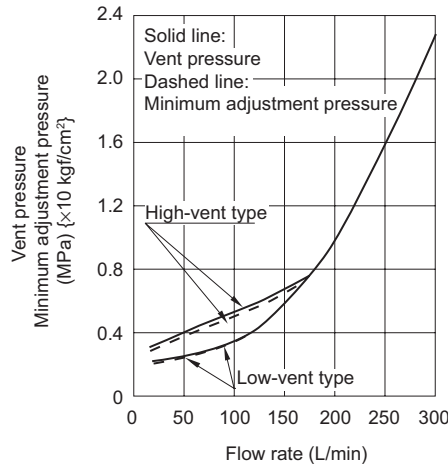
Flow rate - Pressure characteristics



Flow rate - Vent pressure characteristics

(vent port: unload state)

Minimum adjustment pressure characteristics (with the handle fully open)

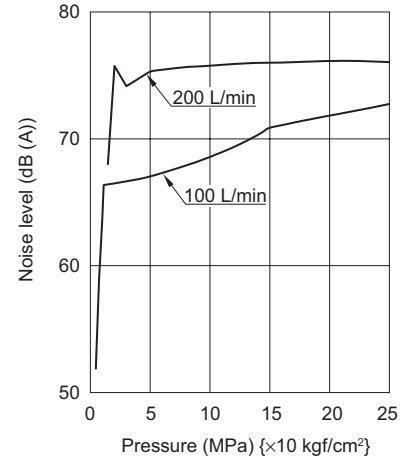


Noise characteristics

Noise measuring conditions

Tank line back pressure: 0.1 MPa {1 kgf/cm²}

Measuring position: 15 cm to the rear of the valve



Contact Details

Before using the product, please check the guide pages at the front of this catalog.

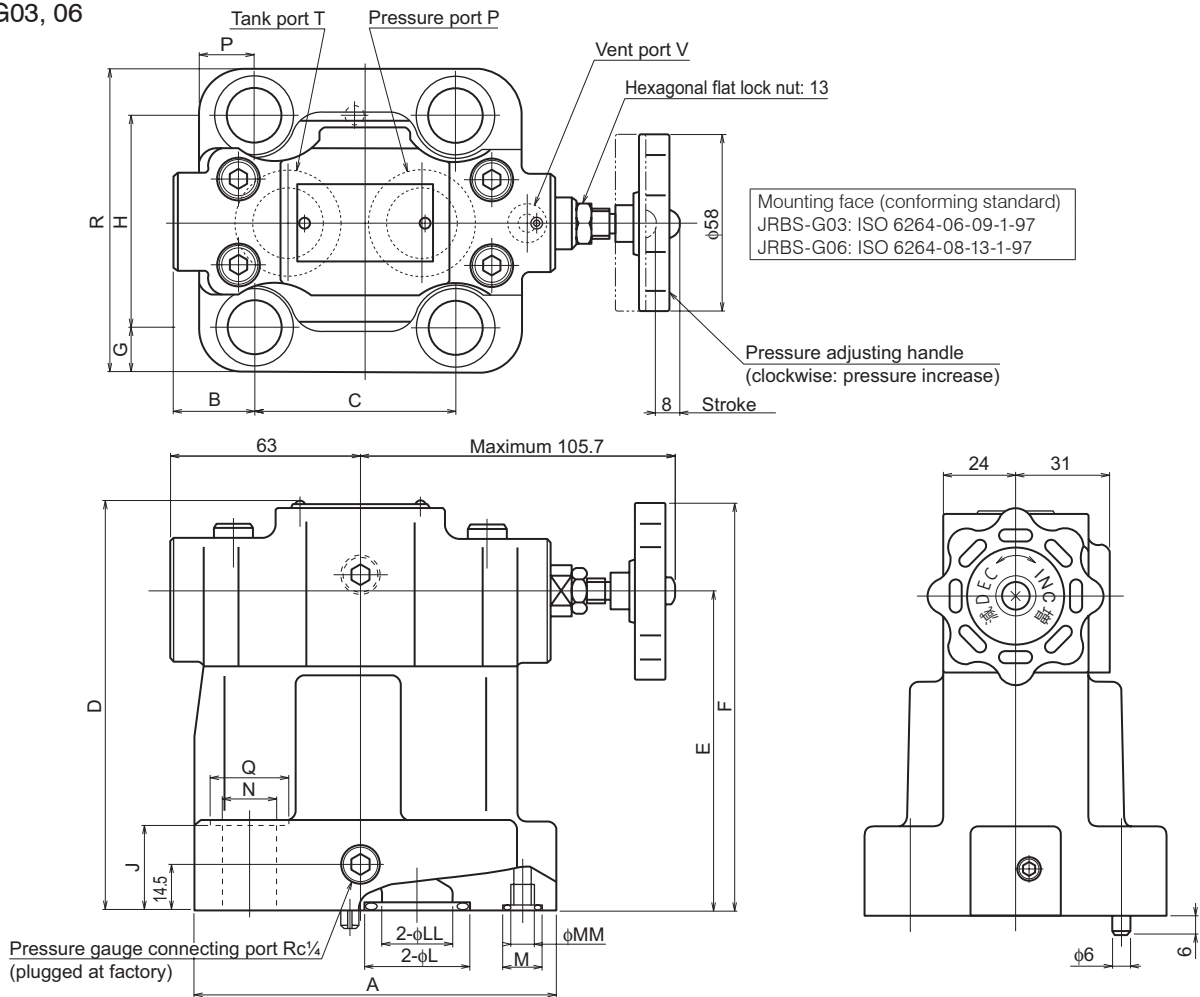
Internet

<https://www.daikinpmc.com/en/>

For latest information, PDF catalogs and operation manuals

External dimension diagram

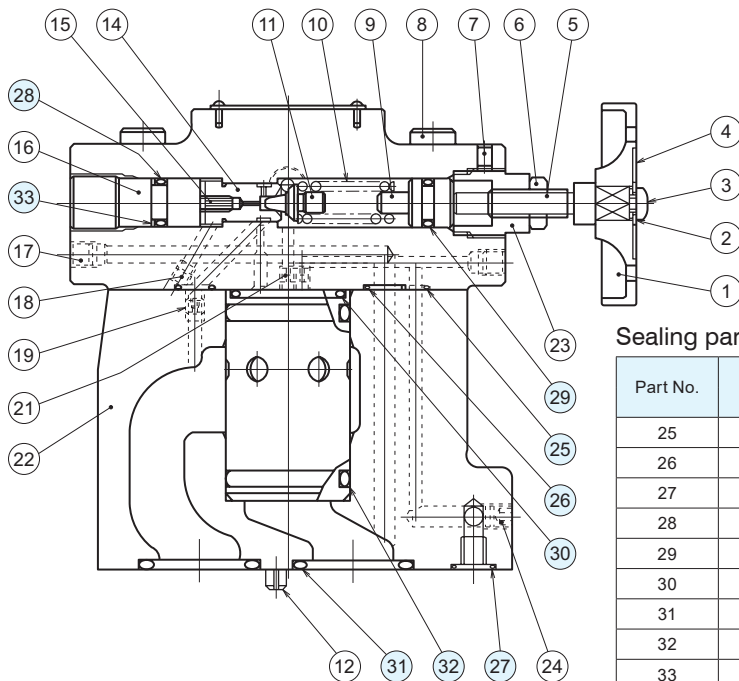
JRBS-G03, 06



Model No.	A	B	C	D	E	F	G	H	J	φL	φM	φN	P	φQ	R	φLL	φMM
JRBS-G03	104	36.2	53.8	131.5	103	132	13.1	53.8	21.5	22	13	14	14.2	20	80	14.7	3.7
JRBS-G06	120	26.3	66.7	133.5	105	134	15	70	28	35	13	18	18.3	26	100	23.4	NPTF1/16

Sectional structural diagram

JRBS-G03, 06



Sealing part table

Part No.	Name	Quantity	Part specifications	
			JRBS-G03	JRBS-G06
25	O-ring	1	JIS B 2401 1BP5	JIS B 2401 1BP5
26	O-ring	2	JIS B 2401 1BP9	JIS B 2401 1BP9
27	O-ring	1	JIS B 2401 1BP10	JIS B 2401 1BP10
28	O-ring	1	JIS B 2401 1BP10A	JIS B 2401 1BP10A
29	O-ring	1	JIS B 2401 1AP10A	JIS B 2401 1AP10A
30	O-ring	1	AS568-122 (NBR, Hs90)	AS568-122 (NBR, Hs90)
31	O-ring	2	JIS B 2401 1BP18	JIS B 2401 1BG30
32	O-ring	2	JIS B 2401 1BP30	JIS B 2401 1BP30
33	Backup ring	1	JIS B 2407 Bias cut P10A	JIS B 2407 Bias cut P10A