CKD

New Products

Medium Pressure Gas Combination Valve GRV Series

Features

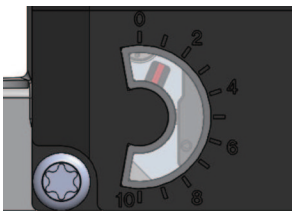
Large flow rate/space saving
Flow rate: Approx.3x*
Face-to-face: 20% less*
*: compared to CKD conventional products

Supports medium pressure B (up to 0.3 MPa)
Port size: 40A

Slow open/quick shut with hydraulic drive

Wide pressure adjusting range (10 kPa to 150 kPa)
Stable pressure adjustment is possible even at large flow rates

With indicator
Check the valve opening degree



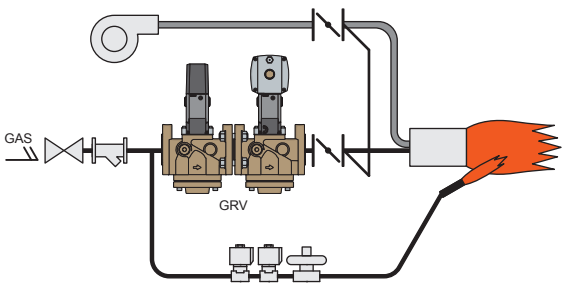
Options
- Pressure gauge
- POC switch

Delivered connected, eliminating complicated piping work

Applications

- **Gas boilers**
- **Gas absorption water coolers/heaters**
- **Industrial furnaces**

System example



Always read the Safety Precautions on the back cover before use.

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CC-1435A

Specifications

Descriptions	Control method	Pressure reduction control			ON/OFF control		
	Secondary side orifice	ø15	ø25	ø40	ø15	ø25	ø40
Working fluid		City gas/natural gas/LPG					
Working pressure	MPa	0 to 0.3					
Secondary pressure	kPa	10 to 70 (for low pressure)			–		
		60 to 150 (for high pressure)			–		
Flow rate: Specific gravity of natural gas 0.65 ΔP = 0.25 kPa	m^3/h(ANR)	13.8	29.5	38.8	13.8	29.5	38.8
Rated voltage	VAC	100 $^{+10\%}_{-15\%}$, 200 $^{+10\%}_{-15\%}$					
Frequency	Hz	50,60					
Power consumption (apparent power)	VA	26					
Ambient temperature	°C	−10 to 60					
Opening operating time	sec	Fully open 17 seconds or less					
Closing operating time	sec	1 second or less					
Frequency	cycles/min	4 or less					
Connection		Flange (JIS B 2239 10K RF)					
Port size		40A					
Mounting orientation		Vertical direction with the actuator up or vertical piping direction					
Weight	kg	26			25		
Proof pressure	MPa	Body	0.45		Body	0.45	
		Governor	0.2		–		

How to order

GRV - 2 2 R 40S 2 - N 1 N

- A Control method
- B Secondary side orifice
- C ACT mounting direction
- D Port size
- E Power supply voltage
- F Primary side option
- G Secondary side option
- H Pressure gauge

A Control method	
1	ON/OFF control
2	Pressure reduction control

B Secondary side orifice	
1	ø15
2	ø25
3	ø40

C ACT mounting direction	
L	OUT side L ← → R IN side
R	

*Direction of the ACT terminal box viewed from the IN side flange

D Port size	
40S	40A (flange)

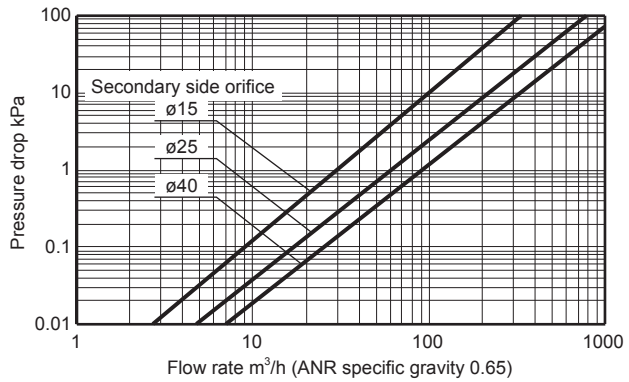
E Power supply voltage	
1	100 VAC 50 Hz/60 Hz
2	200 VAC 50 Hz/60 Hz

F Primary side option	
N	None
1	With POC switch

G Secondary side option	
N	None
1	With POC switch

H Pressure gauge (Included)	
N	None
A	0 to 0.4 MPa

Flow characteristics

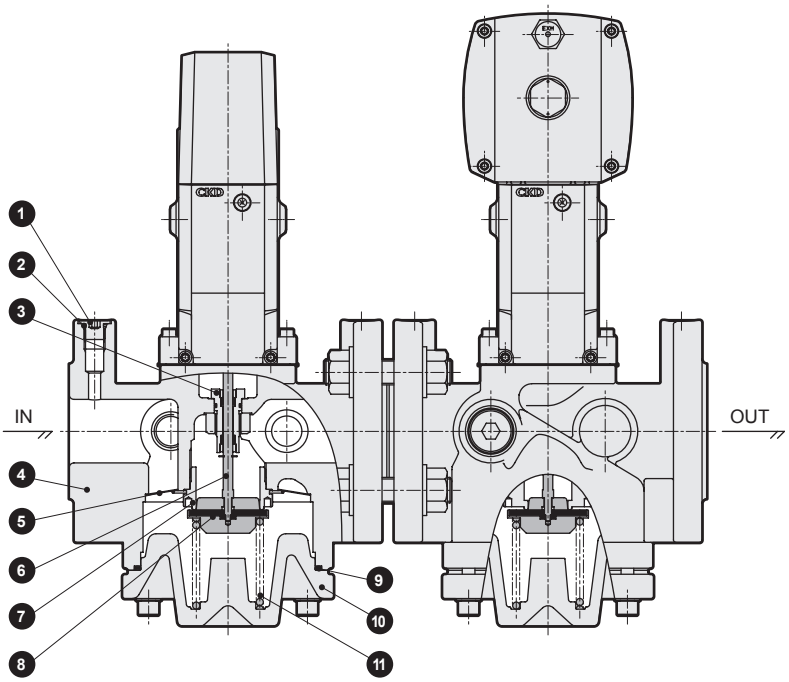


Reference: conversion coefficient

Converted flow rate = (flow rate in table) x (coefficient)

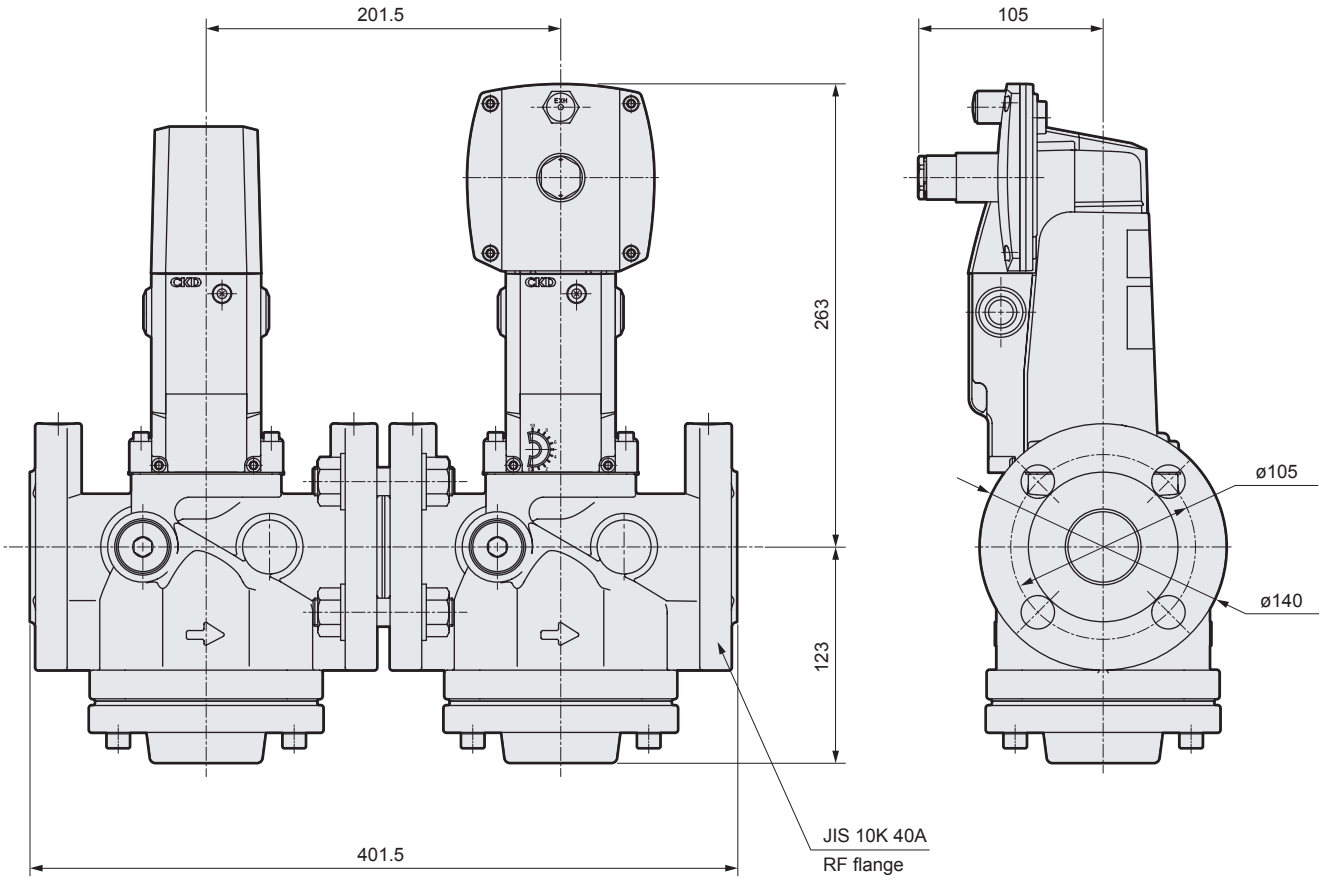
Gas	Natural gas (13A)	City gas (6B.6C)	Air (Reference)	Propane
Specific gravity	0.65	0.54	1	1.6
Coefficient	1.0	1.09	0.8	0.63

Internal structure diagram and parts list



No.	Part name	Material
1	Plug	Carbon steel
2	O-ring	Nitrile rubber
3	Guide	Stainless steel
4	Body	Ductile cast iron
5	Filter	Stainless steel wire
6	Rod	Stainless steel
7	Valve seat	Stainless steel
8	Valve body	Stainless steel and nitrile rubber
9	O-ring	Nitrile rubber
10	Bottom cover	Ductile cast iron
11	Spring	Stainless steel wire

Dimensions



Safety precautions

Be sure to read this section before use.
Also refer to the precautions for "Gas combustion systems (G-2A)."

⚠ WARNING

■ Design/selection

- Combination valves are not designed to function as safety valves, such as emergency cutoff valves.
  When using in such a system, always take separate measures that will ensure safety.
- Install this product in a place not subject to vibration.
- Fluids other than the gases noted in the specifications cannot be used.
- Iron rust and debris, etc. in the fluid can cause operation faults or leaks and deteriorate product performance.
  Provide measures to remove foreign matter.
- Install in a place where the product is not exposed to rain, water, or direct sunlight. This valve cannot be used outdoors. As well, do not use near a heat generating source or in a location where it may be exposed to radiant heat.

■ Use/maintenance

- There is a risk of electric shock due to touching the electric wiring connections (bare live parts). Always turn the power OFF before installation or inspection.
  Never touch the live parts with wet hands.
- Do not disassemble the product.
- Conduct periodic inspections to check for any gas leakage from the combination valve.

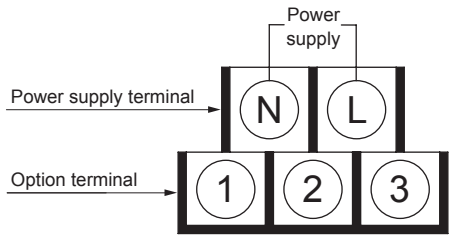
⚠ CAUTION

■ Design/selection

- Make sure that the secondary pressure does not exceed the primary pressure of the combination valve.

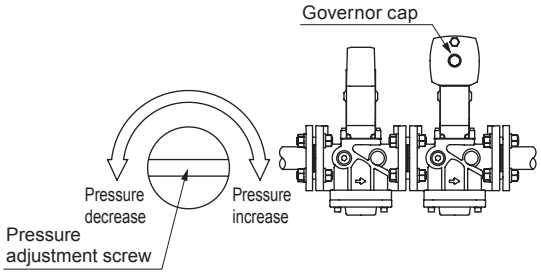
■ Mounting, installation and adjustment

- When carrying this product, hold the body of the product.
- After connecting the pipes, always check for any leakage in all connected parts.
- Wire the power supply as follows by removing the terminal box lid. There is no polarity.



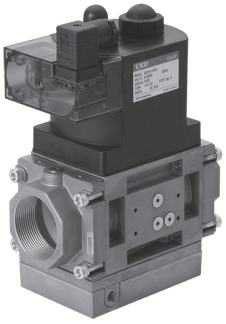
■ Use/maintenance

- To adjust the pressure, loosen the governor cap to remove it, and turn the pressure adjustment screw using a flathead screwdriver.
  Install a pressure gauge and adjust the pressure while checking the actual pressure.
  A stopper is triggered when the upper limit of the adjustable pressure range is reached, preventing further turning.
  If forcibly rotated further, parts will be damaged, leading to malfunctions.
  Pressure rises when the screw is turned clockwise and drops when the screw is turned counterclockwise.



Related products

● Intermediate pressure gas combination valve GHV Series



- **Space saving/integrated structure**
- Compact integration of two solenoid valves, including a governor function
- **Supports intermediate pressure (up to 50 kPa)**
- Wiring and piping work-hour reduction
  By integrating double shutoff, wiring and piping hours can be reduced by one machine worth.

● Compact double shutoff gas valve AB4X-850 Series

Made-to-Order

- **Two solenoid valves connected in series and integrated**
  Reduces the risk of exterior leaks in the piping connections.
- **With detection port**

If the goods and/or their replicas, the technology and/or software found in this catalog are to be exported from Japan, Japanese laws require that the exporter makes sure that they will never be used for the development or manufacture of weapons for mass destruction.

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●Specifications are subject to change without notice.
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