NEW

FINE series PURE

High Flow Valve series

KIWAMI

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The Height of Excellence

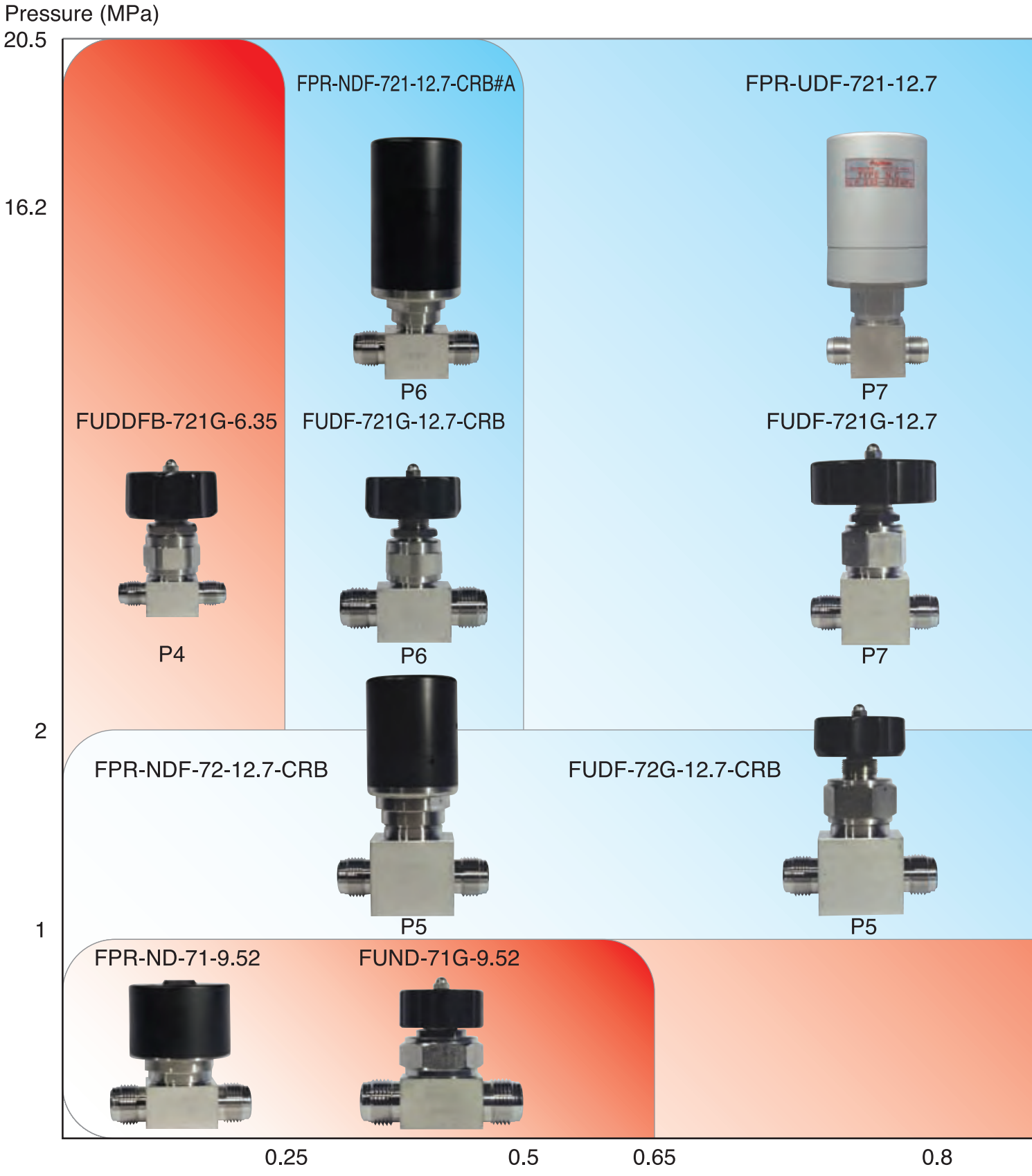
FUDF-72G-12.7-CRB

FPR-NDF-72-12.7-CRB

Safety & Clean Technology

Fujikin Incorporated

High Flow Valve Series Lineup



Direct Diaphragm Valves Diaphragm Valves Bellows Valves

Piping Valve Series

● **HB Series**
Bellows Valves for Ultra-pure Gas Lines

● **HF Series**
High Flow Bellows Valves for Ultra-pure Gas Lines

● **SPDS Series**
Diaphragm Valves for Ultra-pure Gas Lines

● **HBF Series**
Forged Bellows Valves for Ultra-pure Gas Lines

High-Flow IGS

FPR-72-19.05

FUB-72-19.05

P3
FPR-BD-71-12.7

P3
FUBD-71G-12.7

FPR-71-19.05

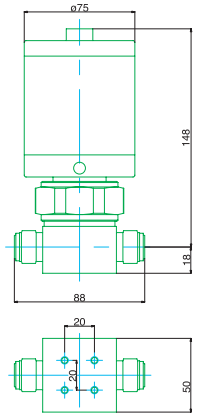
FUB-71-19.05

1 1.5 2.8 Maximum Cv (20˚C)

Low-pressure Pneumatic Direct Diaphragm Valves

FPR-BD-71-12.7

1.0MPa
Maximum Cv: 1.5



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	Actuation Pressure	Supply Air Connection	End Connection
	12.7	1.0 MPa (145 psi)	-10 to 40˚C	1.5	0.44 to 0.68 MPa (64 to 98 psi)	Rc1/8	UJR, UPG

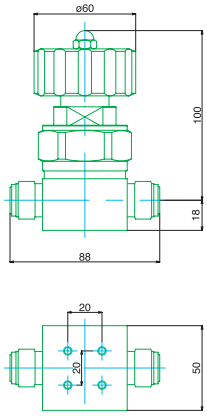
- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 200,000 cycles under test conditions.

* Depends on the configuration of the body.

Low-pressure Manual Direct Diaphragm Valve

FUBD-71G-12.7

1.0MPa
Maximum Cv: 1.5



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	End Connection
	12.7	1.0 MPa (145 psi)	-10 to 40˚C	1.5	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 20,000 cycles under test conditions.

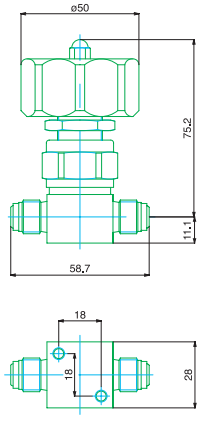
* Depends on the configuration of the body.

■High-pressure Manual Direct Diaphragm Valve

FUDDFB-721G-6.35

20.5MPa
Maximum Cv: 0.25

Valves with high-pressure gas certification available.



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	End Connection
	6.35	20.5 MPa (2973 psi)	-10 to 40°C	0.25	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m^3/sec. Seat leak: < 5 x 10^{-12} Pa·m^3/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m^3/sec. Seat leak: < 5 x 10^{-10} Pa·m^3/sec
- All valves are helium leak tested.
- Durability of over 20,000 cycles under test conditions.

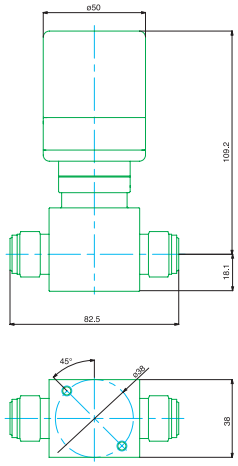
* Depends on the configuration of the body.

■Low-/Medium-pressure Pneumatic Diaphragm Valves

FPR-NDF-72-12.7-CRB

20MPa
Maximum Cv: 1.5

Valves with high-pressure gas certification available.



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	Actuation Pressure	Supply Air Connection	End Connection
	12.7	2.0 MPa (290 psi)	-10 to 40˚C	1.5	0.5 to 0.7 MPa (73 to 101 psi)	M5×0.8	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 100,000 cycles under test conditions.

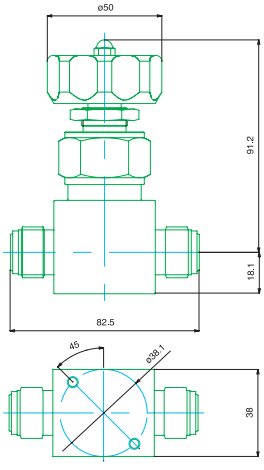
* Depends on the configuration of the body.

■Low-/Medium-pressure Manual Diaphragm Valves

FUDF-72G-12.7-CRB

20MPa
Maximum Cv: 1.5

Valves with high-pressure gas certification available.



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	End Connection
	12.7	2.0 MPa (290 psi)	-10 to 40˚C	1.5	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 20,000 cycles under test conditions.

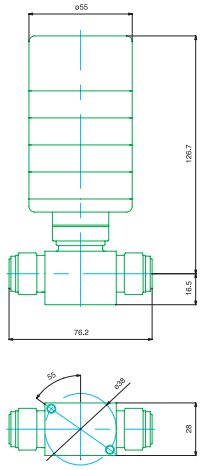
* Depends on the configuration of the body.

■High-pressure Pneumatic Diaphragm Valves

FPR-NDF-721-12.7-CRB#A

20.5MPa
Maximum Cv: 0.5

Valves with high-pressure gas certification available.



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	Actuation Pressure	Supply Air Connection	End Connection
	12.7	20.5 MPa (2973 psi)	-10 to 40°C	0.5	0.5 to 0.7 MPa (73 to 101 psi)	M5×0.8	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 15,000 cycles under test conditions.

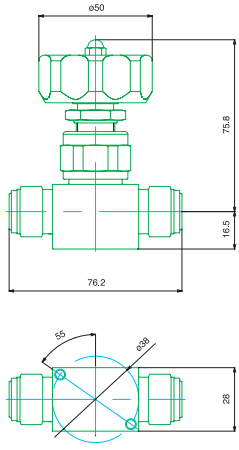
* Depends on the configuration of the body.

■High-pressure Manual Diaphragm Valves

FUDF-721G-12.7-CRB

20.5MPa
Maximum Cv: 0.5

Valves with high-pressure gas certification available.



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	End Connection
	12.7	20.5 MPa (2973 psi)	-10 to 40°C	0.5	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 10,000 cycles under test conditions.

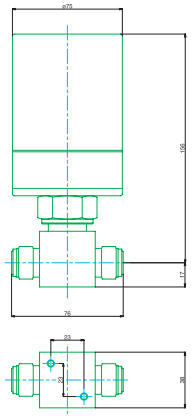
* Depends on the configuration of the body.

■High-pressure Pneumatic Diaphragm Valves

FPR-UDF-721-12.7

20.5MPa
Maximum Cv: 1.0

Valves with high-pressure gas certification available.



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	Actuation Pressure	Supply Air Connection	End Connection
	12.7	20.5 MPa (2973 psi)	-10 to 40˚C	1.0	0.55 to 0.75 MPa (80 to 108 psi)	Rc1/8	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 20,000 cycles under test conditions.

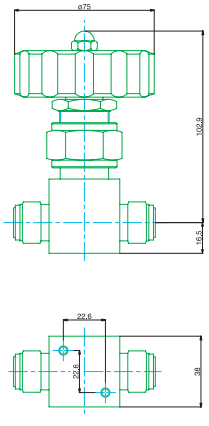
* Depends on the configuration of the body.

■High-pressure Manual Diaphragm Valves

FUDF-721G-12.7

20.5MPa
Maximum Cv: 1.0

Valves with high-pressure gas certification available.



Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N_2 gas at 20°C)	End Connection
	12.7	20.5 MPa (2973 psi)	-10 to 40˚C	1.0	UJR, UPG

- Theoretical leak rate: External leak: < 5 x 10^{-12} Pa·m³/sec. Seat leak: < 5 x 10^{-12} Pa·m³/sec
- Tested leak rate: External leak: < 5 x 10^{-10} Pa·m³/sec. Seat leak: < 5 x 10^{-10} Pa·m³/sec
- All valves are helium leak tested.
- Durability of over 3,000 cycles under test conditions.

* Depends on the configuration of the body.

Valves with High-pressure Gas Certification Specifications

Allocation No.			Attached Documents		
Serial No.					
Customer			Code No.		
End User *1			Code No.		
Target System Name *2			Type of Test Performed *3	High-pressure Certification Test High-pressure Recertification Test	
Equipment Category *3 *4	N: Valves, N-II: Fittings, O: Other F: Reciprocating compressor, Z: Combined equipment, M: Tubing, E: Other pressure vessel		Delivery Date		
Product Number			Quantity		
Additions to Product Number		Drawing No.	End Connection Size		

Specifications					
Normal Pressure (Maximum Operating Pressure)	MPa	Design Pressure	MPa	Will this be used in vacuum conditions *3	No Yes (Pa)
Design Temperature	MIN. ˚C to MAX. ˚C	Normal	˚C	State of High-pressure Gas *3	Gaseous, Liquefied, Dissolved
Type of Gas *3	Toxic, Flammable, Toxic and Flammable, Special High-pressure, Other				
Name of Gas *3 Non-toxic	Air, Nitrogen, Helium, Oxygen, Hydrogen, Carbon dioxide, Argon Other ( )				
Special	Monosilane, Phosphine, Arsine, Diborane, Hydrogen selenide, Monogermane, Disilane				
Toxic/flammable	Ammonia, Carbon monoxide, Other ( )				
Toxic	Hydrogen chloride, Chlorine, Hydrogen bromide, Other ( )				
Material *3	SUS316 or SUSF316	SUS304 or SUSF304	SUS316L or SUSF316L	SCS14	C3604B C3771B Other ( )

Other Special Specifications:	Target system has leak detector? *3 Yes / No	Valve used for toxic gas (special high-pressure gas) has a leak port? *3 Yes / No

Notes:
(Fill in all items within bold lines.)
*1: Enter the name of the product's end user. If the product will be delivered via a set/apparatus maker, please include their names also.
*2: Enter the name of high-pressure gas system or processing equipment, etc.
*3: Circle the one that applies.
*4: Valves with threaded fittings to be used in high-pressure gas equipment for toxic gases (as per the General Provision,Article 2-2) are subject to identification as one of the following categories: N (valves) or N-II (fittings). If applicable, circle both N and N-II. (Circle only Z (combined equipment) if within the specification range of Z (combined equipment)).

Order No.	
Project No.	
Spec. No.	

Comments from Factory Personnel:

Documents Submitted		*3 Destination (Products & Documents)
(1)Test Report (Authorized Tester)	1 copy	Sales Office Send directly to:
(2)Test Certificate (N-II excluded)	Copies	
(3)Instruction Manual (N-II only)	Copies	
(4)Other		
·Delivery Specifications	Copies	
·Mill Certificate	Copies	
·Calculations of Wall Thickness Strength		
·Fujikin Design Specification (standard)	Copies	
·Design Specifications	Copies	
·Inspection Procedures	Copies	

Seal of Approval		Sales Representative		C T D		T D C		M F D	

Fujikin Incorporated