

NEW

CAT:No.700-04E-B

FINE series PURE High Flow Valve series

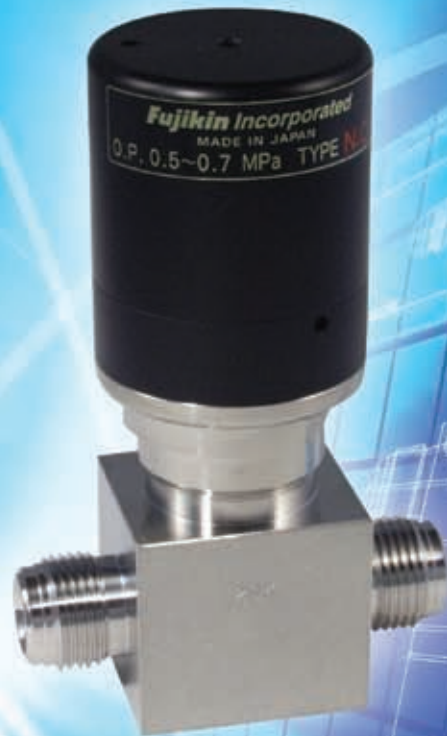
KIWAMI

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The Height of
Excellence



FUDF-72G-12.7-CRB#A



FPR-NDF-72-12.7-CRB#B

Safety & Clean Technology

Fujikin Incorporated

High Flow Valve Series Lineup

Pressure (MPa)

20.5

16.2

2

1

FPR-NDF-721-12.7-CRB#B

FPR-UDF-721-12.7



P5



P6

FUDDFB-721G-6.35

FUDF-721G-12.7-CRB#A

FUDF-721G-12.7



P4



P6



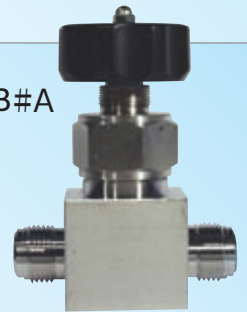
P6

FPR-NDF-72-12.7-CRB#B

FUDF-72G-12.7-CRB#A



P4



P4

FPR-ND-71-9.52

FUND-71G-9.52



0.25

0.5

0.65

0.8

■ Direct Diaphragm Valves

■ Diaphragm Valves

■ Bellows Valves



Piping Valve Series

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



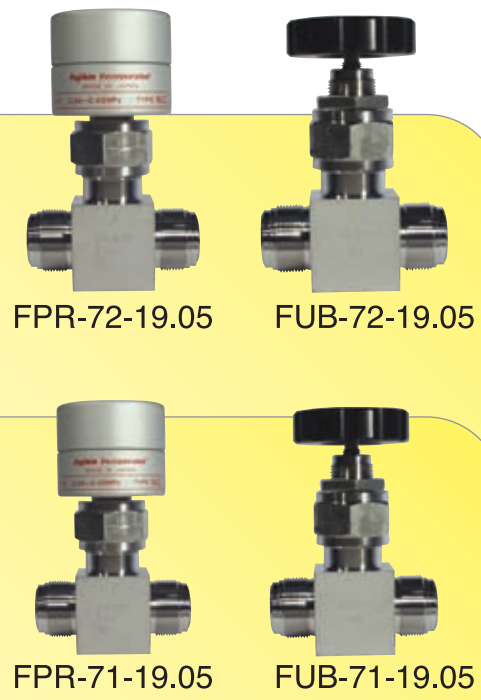
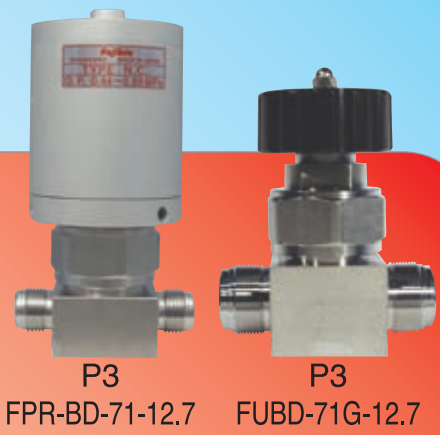
● **HF Series**
High Flow Bellows Valves for Ultra-pure Gas Lines



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



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



P3
FPR-BD-71-12.7

P3
FUBD-71G-12.7

FPR-72-19.05

FUB-72-19.05

FPR-71-19.05

FUB-71-19.05

1

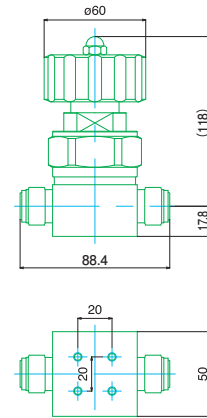
1.5

2.8 Maximum Cv Value (20°C)

Low-pressure Manual Direct Diaphragm Valve

FUBD-71G-12.7

1 MPa
Maximum Cv: 1.5



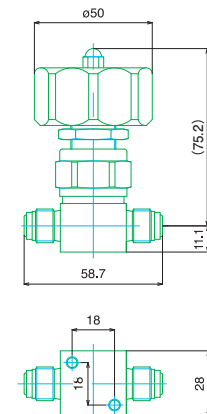
Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N ₂ gas at 20°C)	End Connection
	12.7	1 MPa (145 psi)	-10 to +40°C	1.5	UJR, UPG®

- Theoretical leak rate: External leak: $< 5 \times 10^{-12}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-12}$ Pa·m³/sec
 - Tested leak rate: External leak: $< 5 \times 10^{-10}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-10}$ 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

20.5 MPa
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: $< 5 \times 10^{-12}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-12}$ Pa·m³/sec
 - Tested leak rate: External leak: $< 5 \times 10^{-10}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-10}$ 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.

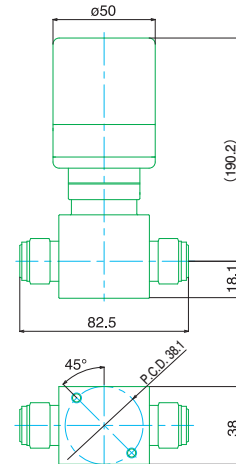


Low-/Medium-pressure Pneumatic Diaphragm Valves

FPR-NDF-72-12.7-CRB#B

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 MPa (290 psi)	-10 to +40°C	1.5	0.5 to 0.7 MPa (73 to 101 psi)	M5×0.8	UJR, UPG®

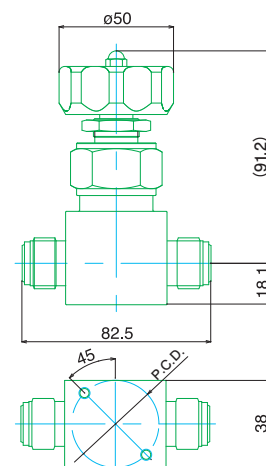
- Theoretical leak rate: External leak: 5×10^{-12} Pa·m³/sec. Seat leak: 5×10^{-12} Pa·m³/sec
- Tested leak rate: External leak: 5×10^{-10} Pa·m³/sec. Seat leak: 5×10^{-10} Pa·m³/sec
- * Depends on the configuration of the body.
- All valves are helium leak tested.
- Durability of over 100,000 cycles under test conditions.

Low-/Medium-pressure Manual Diaphragm Valves

FUDF-72G-12.7-CRB#A

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 MPa (290 psi)	-10 to +40°C	1.5	UJR, UPG®

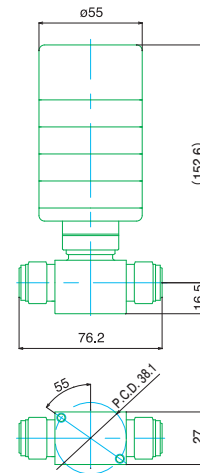
- Theoretical leak rate: External leak: 5×10^{-12} Pa·m³/sec. Seat leak: 5×10^{-12} Pa·m³/sec
- Tested leak rate: External leak: 5×10^{-10} Pa·m³/sec. Seat leak: 5×10^{-10} Pa·m³/sec
- * Depends on the configuration of the body.
- All valves are helium leak tested.
- Durability of over 20,000 cycles under test conditions.

High-pressure Pneumatic Diaphragm Valves

FPR-NDF-721-12.7-CRB#B

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®

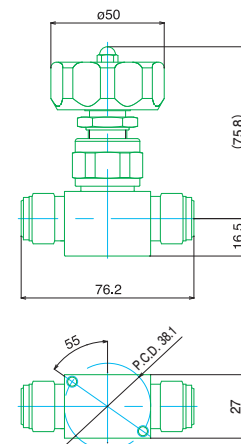
● Theoretical leak rate: External leak: $< 5 \times 10^{-12}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-12}$ Pa·m³/sec. ● All valves are helium leak tested.
 ● Tested leak rate: External leak: $< 5 \times 10^{-10}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-10}$ Pa·m³/sec. ● Durability of over 15,000 cycles under test conditions.
 * Depends on the configuration of the body.

High-pressure Manual Diaphragm Valves

FUDF-721G-12.7-CRB#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)	End Connection
	12.7	20.5 MPa (2973 psi)	-10 to +40°C	0.5	UJR, UPG®

● Theoretical leak rate: External leak: $< 5 \times 10^{-12}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-12}$ Pa·m³/sec. ● All valves are helium leak tested.
 ● Tested leak rate: External leak: $< 5 \times 10^{-10}$ Pa·m³/sec. Seat leak: $< 5 \times 10^{-10}$ Pa·m³/sec. ● Durability of over 10,000 cycles under test conditions.
 * Depends on the configuration of the body.

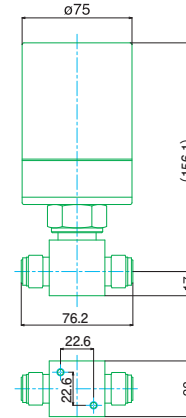


High-pressure Pneumatic Diaphragm Valves

FPR-UDF-721-12.7

20.5MPa
Maximum Cv: 1

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	0.55 to 0.75 MPa (80 to 108 psi)	Rc1/8	UJR, UPG®

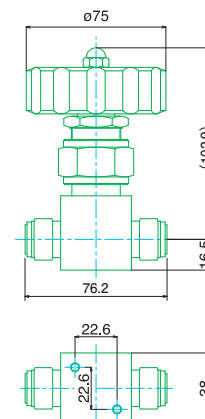
- Theoretical leak rate: External leak: 5×10^{-12} Pa·m³/sec. Seat leak: 5×10^{-12} Pa·m³/sec
- Tested leak rate: External leak: 5×10^{-10} Pa·m³/sec. Seat leak: 5×10^{-10} Pa·m³/sec
- * Depends on the configuration of the body.
- All valves are helium leak tested.
- Durability of over 20,000 cycles under test conditions.

High-pressure Manual Diaphragm Valves

FUDF-721G-12.7

20.5MPa
Maximum Cv: 1

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	UJR, UPG®

- Theoretical leak rate: External leak: 5×10^{-12} Pa·m³/sec. Seat leak: 5×10^{-12} Pa·m³/sec
- Tested leak rate: External leak: 5×10^{-10} Pa·m³/sec. Seat leak: 5×10^{-10} Pa·m³/sec
- * Depends on the configuration of the body.
- All valves are helium leak tested.
- Durability of over 3,000 cycles under test conditions.

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)		Design Pressure		Will this be used in vacuum conditions *3	No Pa	
	Design Temperature	MIN. °C to MAX. °C		MPa	Yes ()	State of High-pressure Gas *3	
	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/flammmable	Ammonia, Carbon monoxide, Other ()				
Material *3	SUS316 or SUSF316	SUS304 or SUSF304	SUS316L or SUSF316L	SCS14 Other ()	C3604B	C3771B	
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		
<p>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)).</p>							
Order No.				Comments from Factory Personnel:			
Project No.							
Spec. No.							
Documents Submitted		*3 Destination (Products & Documents)					
(1) Test Report (Authorized Tester)	1 copy	Sales Office					
(2) Test Certificate (N-II excluded)	Copies	Send directly to:					
(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	