FINE series PURE

Standard series

FUCL-715-6.35

FUD-75-9.52

FUBV-915-6.35

Safety & Clean Technology

Fujikin Incorporated

Safety & Clean Technology

STOP VALVE

NEEDLE VALVE

SUPER MINI BALL VALVE

LINE CHECK VALVE

FILTER

STOP VALVE

NEEDLE VALVE

SUPER MINI BALL VALVE

LINE CHECK VALVE

FILTER

Fujikin's Class 1 cleanrooms feature cutting-edge technology throughout, and must exceed the most rigorous standards for cleanliness. Products manufactured in this environment are therefore guaranteed to meet the most stringent requirements and to be of the highest quality worldwide.

INDEX

STANDARD series

Stop - Needle Valve

Stop Valve ·····3

Needle Valve ·····4

Super Mini Ball Valve

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Super Mini 3-Way Ball Valve ·····8

Line Check Valve

Line Check Valve ·····11

Filter

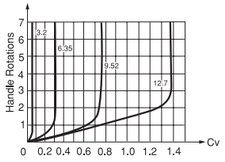
Filter ·····13

Fujikin Incorporated

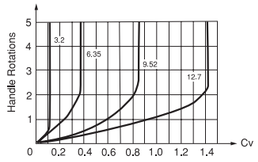
STOP VALVE

Stainless Steel 4.9 MPa (On/Off Valve)

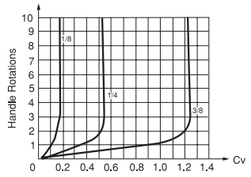
FUD-95 type



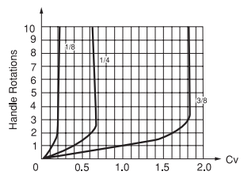
FUD-05 type



FUD-15 type



FUD-35 type



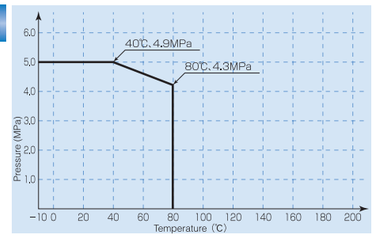
FEATURES / SPECIFICATIONS

- All wetted surfaces are completely oil-free
- Compact size and lightweight
- Outside thread type with packing mechanism
- High-pressure certification may be provided

Materials

Part	Material
Body	SUS316
Bonnet	SUS316
Stem	SUS316
Disk Packing	PCTFE
Gland Packing	PTFE•PFA
Handle	A5056

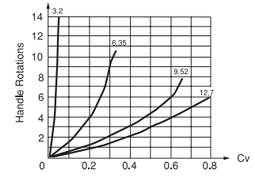
Temperature/Pressure Rating



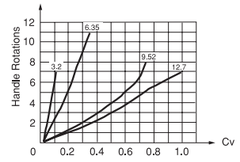
NEEDLE VALVES

Stainless Steel 4.9MPa (Flow Control Valve)

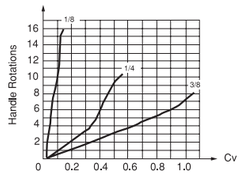
FUN-95 type
FUE-95 type
FUH-95 type



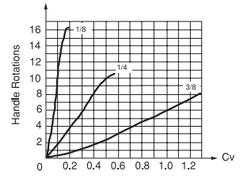
FUN-05 type
FUE-05 type
FUH-05 type



FUN-15 type
FUE-15 type
FUH-15 type



FUN-35 type
FUE-35 type
FUH-35 type



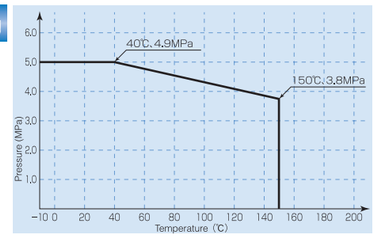
FEATURES / SPECIFICATIONS

- All wetted surfaces are completely oil-free
- Compact size and lightweight
- Highly-precise flow control
- Outside thread type with packing mechanism
- High-pressure certification may be provided

Materials

Part	Material
Body	SUS316
Bonnet	SUS316
Stem	SUS316
Gland Packing	PTFE•PFA
Handle	A5056

Temperature/Pressure Rating



SPECIFICATIONS

Stop Valve

Specification	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Orifice Diameter (mm)	Maximum Cv	Valve Type	End-connection
	3.2	4.90 MPa 710 psi	−10～80 °C 14～175 °F	2.5	0.05	Globe Angle	F900 Fitting Threaded Fitting
	1/8"			2.5	0.16		
	6.35			5	0.3		
	1/4"			5	0.5		
	9.52			8	0.625		
	3/8"			8	1.2		
	12.7			8	0.78		

Needle Valve

Specification	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Orifice Diameter (mm)	Maximum Cv	Valve Type	End-connection
	3.2	4.90 MPa 710 psi	−10～150 °C 14～300 °F	2.5	0.045	Globe Angle	F900 Fitting Threaded Fitting
	1/8"			2.5	0.125		
	6.35			5	0.3		
	1/4"			5	0.45		
	9.52			8	0.62		
	3/8"			8	1		
	12.7			8	0.78		

OPTIONS

NPT Thread Rc thread is standard for threaded type end-connection; NPT may be optionally specified

PART NUMBER DESIGNATION

Please use the part number designations below when placing an order.

FU H - 9 5 - 6.35

A F U : Fine series stainless steel valve

B N : Ultra micro flow control valve
E : Micro flow control valve
H : Flow control valve
D : Stop valve

C 1 : Threaded globe type
3 : Threaded angle type
9 : F900 fitting type
0 : 0: F900 fitting angle type

D 5 : 4.9 MPa maximum operating pressure

E End-connection
3.2 : 1/8" OD
6.35 : 1/4" OD
9.52 : 3/8" OD
12.7 : 1/2" OD (9.52 port diameter only for UJR end-connections)
A : Rc1/8
B : Rc1/4
C : Rc3/8 (A dash before the letter is not necessary for Rc threaded valves)

* Optional or made to order.

Actual shipped products may have additional designations (such as #A, #B) in the part number. These indicate production history and do not indicate a change in function or dimensions.

DIMENSIONS

Figure 1

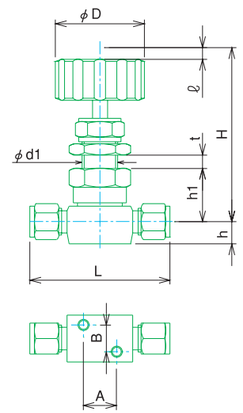


Figure 2

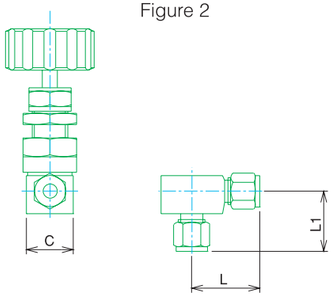


Figure 3

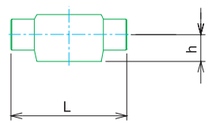
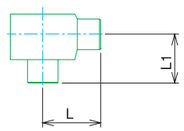


Figure 4



(Unit : mm)

Nom. Diameter	Part Number	Figure	End-to-End L	End-to-End L1	Height H	Panel mt ht h1	φd1	t	h	Stroke ℓ	Handle φD	A	B	C
3.2	FUN-95-3.2 FUD-95-3.2	1	57	–	69	24	32	6	10	7	32	15	12	21
6.35	FUE-95-6.35 FUD-95-6.35	1	63	–	73	24	40	6	10	7	40	15	12	21
9.52	FUH-95-9.52 FUD-95-9.52	1	71	–	81	26	50	6	12	7	50	20	15	26
12.7	FUH-95-12.7 FUD-95-12.7	1	81	–	82	27	50	6	14	7	50	20	15	26
3.2	FUN-05-3.2 FUD-05-3.2	2	28.5	23	69	24	32	6	–	7	32	–	–	21
6.35	FUE-05-6.35 FUD-05-6.35	2	30.5	27	73	24	40	6	–	7	40	–	–	21
9.52	FUH-05-9.52 FUD-05-9.52	2	33.5	30	81	26	50	6	–	7	50	–	–	26
12.7	FUH-05-12.7 FUD-05-12.7	2	40.5	35	82	27	50	6	–	7	50	–	–	26
1/8"	FUN-15A FUD-15A	3	46	–	71	24	32	6	10	7	32	15	12	21
1/4"	FUE-15B FUD-15B	3	52	–	75	26	40	6	12	7	40	15	12	21
3/8"	FUH-15C FUD-15C	3	58	–	83	28	50	6	13	7	50	20	15	26
1/8"	FUN-35A FUD-35A	4	23	19	71	24	32	6	–	7	32	–	–	21
1/4"	FUE-35B FUD-35B	4	26	22	75	26	40	6	–	7	40	–	–	21
3/8"	FUH-35C FUD-35C	4	29	25	83	28	50	6	–	7	50	–	–	26

( ) Brackets indicate dimensions for normally closed valves. See Figure 1 for dimension keys not shown in other Figures.

Super Mini Ball Valve

Stainless Steel 16.2 MPa

FEATURES

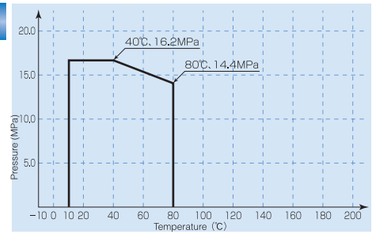
- All wetted surfaces are completely oil-free
- Compact size and lightweight
- Available with ultra-pure treatment
- Panel mount hardware is standard
- High-pressure certification may be provided

SPECIFICATIONS

Materials

Part	Material
Body	SUS316
Ball	SUS316
Seat Packing	Proprietary Packing
Gland Packing	PTFE
Handle	ZDC1

Temperature/Pressure Rating



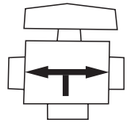
Super Mini 3-Port Ball Valve

Stainless steel 16.2 MPa

FEATURES

- All wetted surfaces are completely oil-free
- Compact size and lightweight
- Available with ultra-pure treatment
- Panel mount hardware is standard
- High-pressure certification may be provided

3-Port valves must be installed in the configuration as shown below. Flow in any other direction as shown may not allow the seats to seal sufficiently.



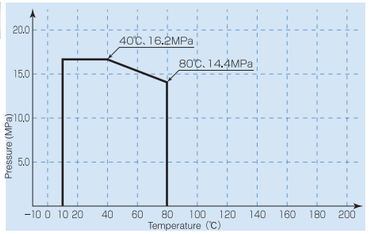
Proper flow direction should be in from the bottom port and out through the left and right ports.

SPECIFICATIONS

Materials

Part	Material
Body	SUS316
Ball	SUS316
Seat Packing	Proprietary Packing
Gland Packing	PTFE
Handle	ZDC1

Temperature/Pressure Rating



SPECIFICATIONS

Specification	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv	End-connection
	3.2	16.2MPa 2,350 psi	10～80 °C 50～176 °F	0.23	F900 Fitting UJR Fitting Threaded Fitting
	6.35 (1/4")			2-port valve: 0.6	
				3-port valve: 0.5	
	9.52 (3/8")			2-port valve: 5.6	
				3-port valve: 2.0	
	12.7 (1/2")			2-port valve: 9.2	
				3-port valve: 4.0	

OPTIONS

NPT Thread Rc thread is standard for threaded type end-connection; NPT may be optionally specified

PART NUMBER DESIGNATION

Please use the part number designations below when placing an order.

FUBV T - 9 15 - 6.35

A : FUBV : Fine series stainless steel ball valve

B : T : Added only for 3-port valve

C : 1 : Threaded type fitting
7 : UJR fitting
9 : F900 fitting

D : 15 : 16.2 MPa maximum operating pressure

E : End-connection
3.2 : 1/8" OD
6.35 : 1/4" OD
9.52 : 3/8" OD
12.7 : 1/2" OD (9.52 port diameter only for UJR end-connections)
A : Rc1/8
B : Rc1/4
C : Rc3/8
D : Rc1/2 (A dash before the letter is not necessary for Rc threaded valves)

* Optional or made to order.

Actual shipped products may have additional designations (such as #A, #B) in the part number. These indicate production history and do not indicate a change in function or dimensions.

DIMENSIONS

Figure 1

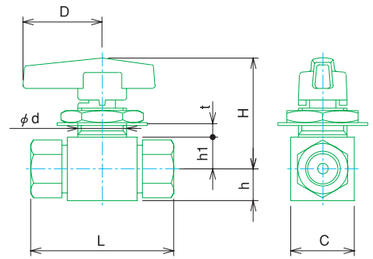


Figure 2

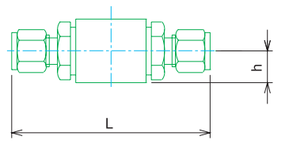


Figure 3

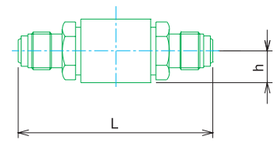


Figure 4

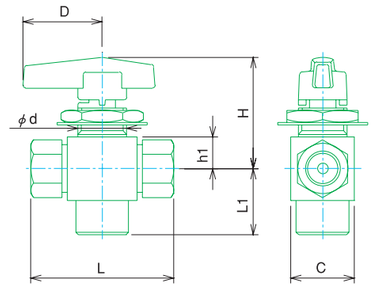


Figure 5

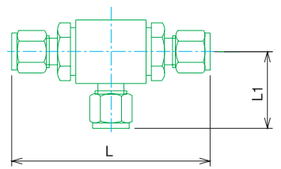
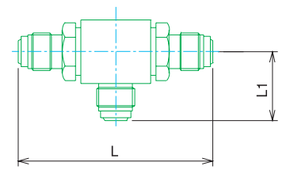


Figure 6



Super Mini Ball Valve

(Unit : mm)

Nom. Diameter	Part Number	Figure	End to End L	Height H	Panel mt ht h1	d2	h	Handle D	C
1/4B	FUBV-115B	1	54	42	12	18.5	12	30	24
3/8B	FUBV-115C	1	55	52	16	27.5	16	35	28
1/2B	FUBV-115D	1	75	56	20	36.5	20	55	40
3.2	FUBV-915-3.2	2	70	39	10	14.5	10	25	21
6.35	FUBV-915-6.35	2	75	42	12	18.5	12	30	24
9.52	FUBV-915-9.52	2	88	52	16	27.5	16	35	28
12.7	FUBV-915-12.7	2	121	56	20	36.5	20	55	40
6.35	FUBV-715-6.35	3	73.6	42	12	18.5	12	30	24
9.52	FUBV-715-9.52	3	86.6	52	16	27.5	16	35	28

Super Mini 3-Port Ball Valve

Nom. Diameter	Part Number	Figure	End to End L	Height H	Height L1	Panel mt ht h1	d2	Handle D	C
1/4B	FUBVT-115B	4	54	42	25	12	18.5	30	24
3/8B	FUBVT-115C	4	55	52	30	16	27.5	35	28
1/2B	FUBVT-115D	4	75	56	37.5	20	36.5	55	40
3.2	FUBVT-915-3.2	5	70	39	25	10	14.5	25	21
6.35	FUBVT-915-6.35	5	75	42	29	12	18.5	30	24
9.52	FUBVT-915-9.52	5	88	52	35	16	27.5	35	28
12.7	FUBVT-915-12.7	5	121	56	43	20	36.5	55	40
6.35	FUBVT-715-6.35	6	73.6	42	26	12	18.5	30	24
9.52	FUBVT-715-9.52	6	86.6	52	31.5	16	27.5	35	28

( ) Brackets indicate dimensions for normally closed valves. See Figure 1 for dimension keys not shown in other Figures.

Line Check Valve

Stainless Steel 16.2MPa

FEATURES

- All wetted surfaces are completely oil-free
- Compact size and lightweight
- Superior cracking performance
- High-pressure certification may be provided

INSTALLATION CONSIDERATIONS

1)In an installation where there is minimal differential pressure - such as in a vacuum line - sealing performance seldom varies.
2)For best Check Valve sealing efficiency and performance, back-pressure is required, (which may increase cracking pressure).
3)During initial operation, or after Check Valve has been closed for an extended maount of time, cracking pressure may be higher than value indicated on body.
4)Cracking pressure indicated on valve body is for constant flow; valve will actually open at a lower pressure than indicated.

SPECIFICATIONS - MATERIALS

Specification	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Orifice Diameter (mm)	Max.Cv	Cracking Pressure	Back Pressure	End-connection
	3.2	16.2MPa 2,350 psi	−10～80 °C 14～175 °F	2.7	0.16	2.26KPa 0.33 psi	0.0294MPa or above 4.25 psi or above	F900 Fitting UJR Fitting Threaded Fitting
	6.35 (1/4")			4	0.35	6.86KPa 1 psi	0.0049MPa or above 0.71 psi or above	
	9.52 (3/8")			7.5	1.1	68.6KPa 10 psi	0.0049MPa or above 0.71 psi or above	
	12.7 (1/2")			7.5	1.1	172KPa 25 psi	0.0049MPa or above 0.71 psi or above	

Materials	Part	Material
	Body	SUS316
	Disk	SUS316
	Seat Packing	FPM
	Spring	SUS316WPA
	Gasket	SUS316

OPTIONS

- Seat packing material may be specified according to gas used.

Optional Seat Packing Materials Available
Chloroprene ruber, silicon rubber, ethylene-propylene rubber,Kalrez®, Teflon®

- Surface Treatment: UP Treatment can be applied
- NPT Thread: Rc thread is standard; NPT thread may be made to order.

DIMENSIONS

Figure 1

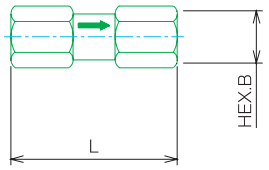


Figure 2

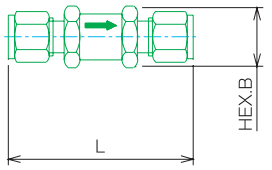
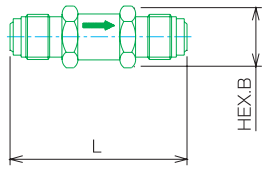


Figure 3



Nominal Diameter	Part Number	Figure	L	HEX.B
1/8"	FUCL-115A	1	43	17
1/4"	FUCL-115B	1	53	17
3/8"	FUCL-115C	1	60	23
1/2"	FUCL-115D	1	59	23
3.2	FUCL-915-3.2	2	55	17
6.35	FUCL-915-6.35	2	59	17
9.52	FUCL-915-9.52	2	70.5	23
12.7	FUCL-915-12.7	2	78.5	23
6.35	FUCL-715-6.35	3	56.4	17
9.52	FUCL-715-9.52	3	69.1	23

PART NUMBER DESIGNATION

Please use the part number designations below when placing an order.

FUCL - 9 15 - 6.35 - 0.07 - □ - □

A
FUCL : Stainless steel line check valve.

B
1 : Threaded type fitting
7 : UJR fitting
9 : F900 fitting type

C
15 : 16.2 MPa maximum operating pressure

D
End-connections
3.2 : 1/8" OD
6.35 : 1/4" OD
9.52 : 3/8" OD
12.7 : 1/2" OD (9.52 port diameter only for UJR end-connections)
A : Rc1/8
B : Rc1/4
C : Rc3/8
D : Rc1/2 (A dash before the letter is not necessary for Rc threaded valves)

E
Cracking Pressure
023 : 2.26KPa
07 : 6.86KPa
7 : 68.6KPa
175 : 172KPa

F
CR : Chloroprene Rubber*
SI : Silicon Rubber*
ER : Ethylene-propylene Rubber*
KA : Kalrez®*
TF : Teflon®*

G
UP : UP Treatment*

* Optional or made to order.

Actual shipped products may have additional designations (such as #A, #B) in the part number. These indicate production history and do not indicate a change in function or dimensions.

Filter

Stainless Steel16.2 MPa

FEATURES

- All wetted surfaces are completely oil-free
- Compact size and lightweight
- High-pressure certification may be provided

SPECIFICATIONS - MATERIALS

Materials	Part	Material
	Body	SUS316
	Filter Element	SUS316
	Gasket	SUS316 + Ag coating PTFE

Specification	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Filter Shape	End-Connection
	1/8"	16.2 MPa 2,350 psi	−10～80 °C 14～175 °F	Line Type Tee Type	F900 Fitting UJR fitting (line-type only) Threaded Fitting
	6.35 (1/4")				
	9.52 (3/8")				
	12.7 (1/2")				

OPTIONS

- NPT Thread: Rc thread is standard; NPT thread may be made to order.
- Many line filter element sizes are available; please select the proper one for your use from the charts below.

Line Filter Element Size

Nominal Diameter	Element Size (μm)						
	0.1	0.5	2	5	10	40	70
1/8"	△	△	△	△	△	△	△
6.35, 1/4"	○※1	○※1	○	○	○	△	△
9.52, 3/8"	○※2	○※2	○	○	○	△	△
12.7, 1/2"	△	△	○	○	○	△	△

Tee Filter Element Size

Nominal Diameter	Element Size (μm)						
	0.1	0.5	2	5	10	40	70
1/8"	△	△	△	△	△	△	△
6.35, 1/4"	○※2	○※2	○	○	○	△	△
9.52, 3/8"	△	△	○	○	○	△	△
12.7, 1/2"	△	△	○※2	○※2	○※2	△	△

△ Made to order product ※1：Only Finelok (F900) and UJR types are standard. ※2：Only Finelok is standard.

DIMENSIONS

Figure 1

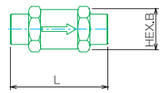


Figure 2

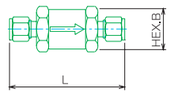


Figure 3

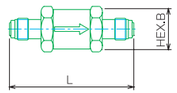


Figure 4

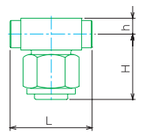
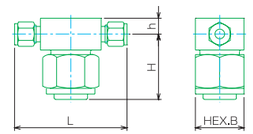


Figure 5



Line Filter Dimensions

(Unit : mm)

Nominal Diameter	Part Number	Figure	L	B
1/8"	FUFL-115A	1	64	26
1/4"	FUFL-115B	1	64	26
3/8"	FUFL-115C	1	78	32
1/2"	FUFL-115D	1	84	32
6.35	FUFL-915-6.35	2	76	26
9.52	FUFL-915-9.52	2	86	32
12.7	FUFL-915-12.7	2	94	32
6.35	FUFL-715-6.35	3	81.8	26
9.52	FUFL-715-9.52	3	84.6	32

Tee Filter Dimensions

Nominal Diameter	Part Number	Figure	L	H	h	B
1/8"	FUFT-115A	4	54	43	11	32
1/4"	FUFT-115B	4	54	43	11	32
3/8"	FUFT-115C	4	70	52	16	36
1/2"	FUFT-115D	4	70	52	16	36
6.35	FUFT-915-6.35	5	74	43	11	32
9.52	FUFT-915-9.52	5	90	50	14	36
12.7	FUFT-915-12.7	5	106	50	14	36

PART NUMBER DESIGNATION

Please use the part number designations below when placing an order.

FUF L - 9 15 - 6.35 - 2

A FUF : Stainless steel filter

B L : Line type
T : Tee type

C 1 : Threaded type fitting
7 : UJR fitting
9 : F900 fitting type

D 15 : 16.2MPa maximum operating pressure

E End-connections
6.35 : 1/4" OD
9.52 : 3/8" OD
12.7 : 1/2" OD (9.52 port diameter only for UJR end-connections)
A : Rc1/8
B : Rc1/4
C : Rc3/8
D : Rc1/2 (A dash before the letter is not necessary for Rc threaded valves)

F Element Size
2 : 2 μm element size
5 : 5 μm element size
10 : 10 μm element size
40 : 40 μm element size*
70 : 70 μm element size*

* Optional or made to order.

Actual shipped products may have additional designations (such as #A, #B) in the part number. These indicate production history and do not indicate a change in function or dimensions.