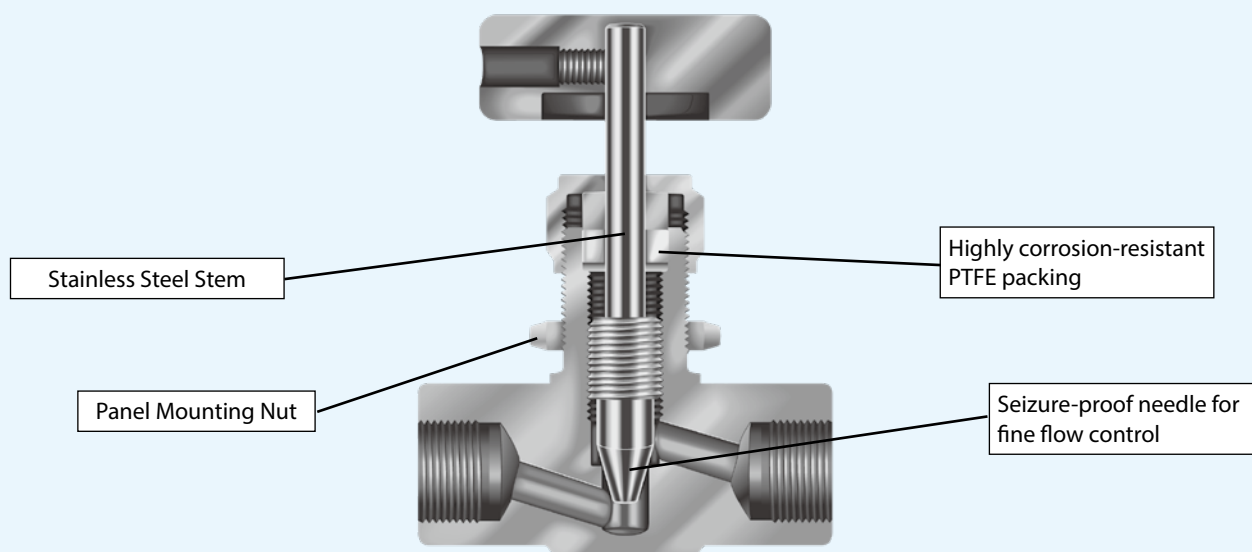


[4.9MPa] Brass

Brass Needle Valves

With Color-coded Handles & Panel Mounting Nut



Features

1. Robust forged body and compact bonnet-less construction.
2. Needle design enhances ease of flow adjustment.
3. Packing and gland design reduce handle torque and enhance seal performance.

In the standard configuration, the valve comes with a black handle. blue, red, and green handles are also available.

※ It's popular for customers to use different colours for different fluids and flow lines.

Ordering Number Designation

Threaded Connector Type

P D S-15 B-S H-R

D: Brass

Needle Valves

Threaded Connector, Globe Pattern

713 psig
(49bar)

Please see ※ 2
Thread Sizes Table

Thread Size (When a connection in one side is thread.) ※ 2
(In case of a NPT thread connection, the character "N" is attached additionally at the end.)

R: Corresponding RoHS

※ 2: Thread Sizes Table

Taper Pipe Thread	Designation		A	B	C	D
	JIS B 0203 (1982)	Male thread	R1/8	R1/4	Rc3/8	R1/2
	(ISO7/1)	Female thread	Rc1/8	Rc1/4	R3/8	Rc1/2

Thread designation complies with JIS B0203 (1982) (ISO7/1).
Sizes as per JIS B0203 (1981) are shown for reference purpose.

Construction



Materials

No.	Description	Materials
1	Body ※	C3771B
2	Panel Nut	C3604B
3	Stem ※	SUS303 or SUS316 ※ 1
4	Ring	SUS316
5	Gland Packing ※	P T F E
6	Gland	C3604B
7	Gland Nut	C3604B
8	Hexagon Socket Head Set Screw	SUS304 equivalent
9	Handwheel ※ 2	A5056B

※ : Wetted Parts

Exceptions:

1: Applicable fluid: Water, Air, Nitrogen gas, inter gas like Helium, and non-corrosive gas and liquid.

※ 1: SUS materials may use ASTM standard material(SUS equivalent material)

※ 2: Standard color of the Handwheel is black. A Nameplate (material: Tetoron) is stuck to the Handle.

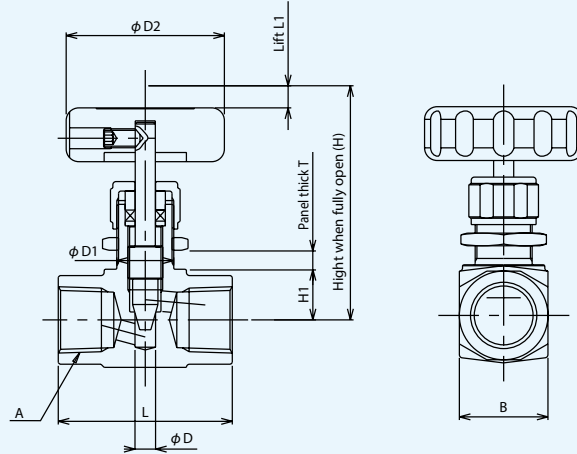
A seat will be corroded on early by the Langerear index when you use a brass valve for tap water, **Fujikin** recommends use of a stainless steel valve.

Quoting : Japan Valve Manufacturer's Association Publication.

Needle Valves

Brass 4.9 MPa Needle Valves

Threaded Connector Type

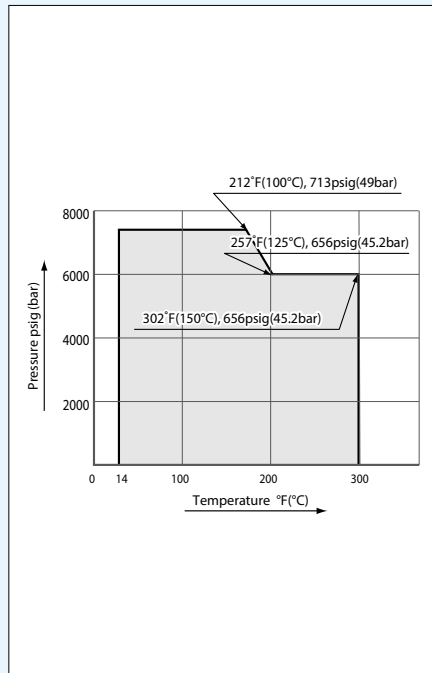


Dimension

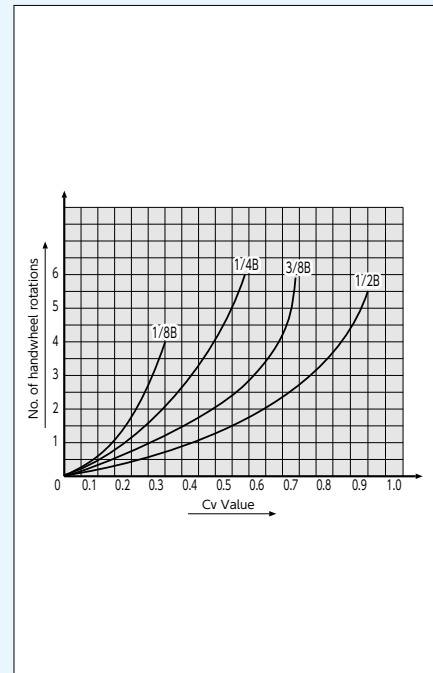
UNIT(mm)

Nominal Dia. (B)	Orifice Dia. D	Face to face Dimension L	Connection Port A	Panel Mounting		H	L1	D2	B	T		Cv Value MAX.	Weight approx. (kg)	Ordering Numbers
				D1	H1					MIN.	MAX.			
1/8	5	40	Rc 1/8	13.2	10.5	55	4	40	18.5	2	6	0.3	0.2	PDS-15A-SH-R
1/4	6.5	45	Rc 1/4	18.5	14	71	6	50	21	2	8	0.55	0.3	PDS-15B-SH-R
3/8	6.5	50	Rc 3/8	18.5	16	73	6	50	28	2	8	0.7	0.4	PDS-15C-SH-R
1/2	6.5	55	Rc 1/2	18.5	16	73	6	50	28	2	8	0.9	0.4	PDS-15D-SH-R

Temperature-Pressure Curve



Cv Curves



Specifications

Working Pressure psig (bar)	Temperature °F (°C)
713 (49) ※ 1, 2	14 ~ +302 (-10 ~ +150)

※ 1: Please refer to Temperature-Pressure Curve.

※ 2: Consult with **Fujikin** before using hydrogen, helium, or toxic gases, and in vacume state.

Exceptions:

Applicable fluid: Water, Air, Nitrogen gas, inter gas like Helium, and non-corrosive gas and liquid.

Panel Mounting Procedures

If you are panel-mounting the valve, follow these instructions:

1. Ensure that the bracket hole on the panel is ≤ 0.5 mm wider than the valve's Panel-Mounting Diameter (refer to the CAD drawing).
2. Use an adjustable wrench to loosen the Hex Nut securing the Handle. Remove the Handle.
3. Remove the Gland Nut and the Panel Nut.
4. Mount the valve on the panel and secure it with the Panel Nut. Reattach the Gland Nut and the Handle.
5. Tighten the Gland Nut with an adjustable wrench to the torque shown in the table below.

Gland Nut Tightening Torque (Reference Value)

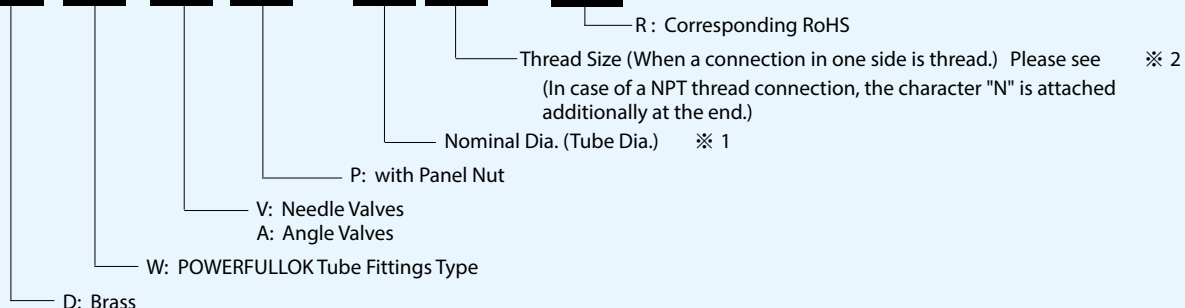
Nominal Dia. (B)	Tightening Torque (N·m)
1/8	8
1/4	18
3/8	18
1/2	18

[2MPa] Brass

Brass 2 MPa Needle Valves with POWERFULLOK Fittings

Ordering Number Designation

P D W V P - 6 B - R



※ 1: Nominal Diameter (Tube Dia.)

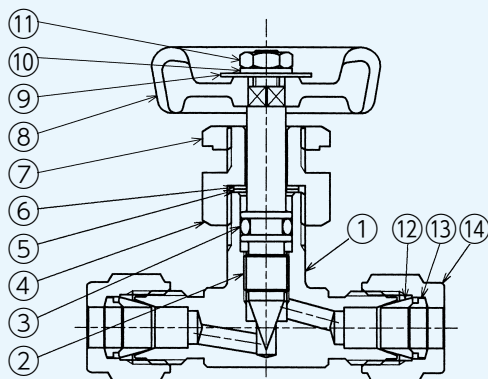
	inch Sizes	mm Sizes
Nominal Diameter (Tube Dia.)	6.35 : connection part 1/4 9.52 : connection part 3/8 12.7 : connection part 1/2	6 : connection part 6 8 : connection part 8 10 : connection part 10 12 : connection part 12

※ 2: Thread Sizes Table

Taper Pipe Thread	Designation		A	B	C
	JIS B 0203 (1982) (ISO7/1)	Male thread	R1/8	R1/4	Rc3/8
		Female thread	Rc1/8	Rc1/4	R3/8

Thread designation complies with JIS B0203 (1982) (ISO7/1).
Sizes as per JIS B0203 (1981) are shown for reference purpose.

Construction



Materials

No.	Description	Materials
1	Body ※	C3771B
2	Stem ※	SUS304 or 303 ※3※4
3	O-Ring ※	NBR
4	Gland Nut	C3604B
5	Ring	A5052P
6	Sheet Packing	Nylon
7	Panel Nut	C3604B
8	Handle	ADC12
9	Name Plate	A5052P
10	Washer	SK85 (MF Ni)
11	Hex Nut	C3604B
12	Front Ring	C3602B
13	Back Ring	C3602B
14	Nut	C3604B

※: Wetted Part

Exceptions:

Applicable fluid: Water, Air, Nitrogen gas, inter gas like Helium, and non-corrosive gas and liquid.

※ 3: Stainless Steel: Nominal Dia. 9.52 or more,
C3604B: Rc Thread 3/8 or more

※ 4: SUS materials may use ASTM standard material (SUS equivalent material)

A seat will be corroded on early by the Langleys index when you use a brass valve for tap water, **Fujikin** recommends use of a stainless steel valve.

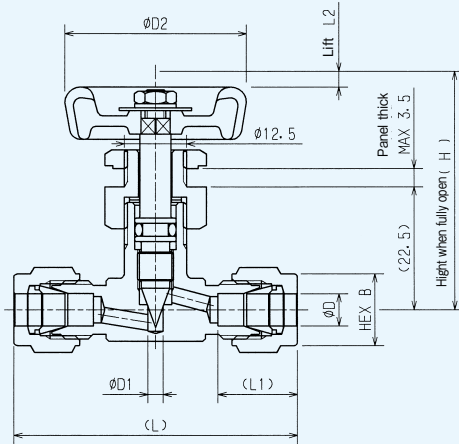
Quoting: Japan Valve Manufacturer's Association Publication.

Needle Valves

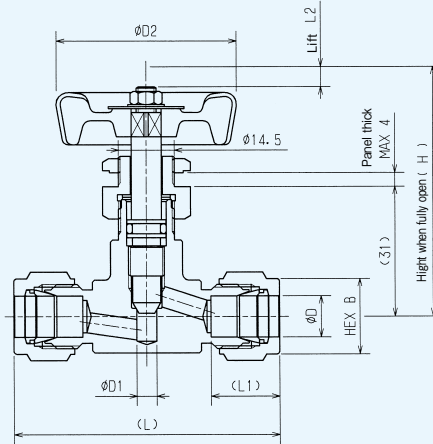
Brass 2 MPa Needle Valves

POWERFULLOK Fittings Connection Type

Nom. Dia. 6, 6.35, 8 Type



Nom. Dia. 9.52, 10, 12, 12.7 Type



● Dimensions (inch size)

UNIT (mm)

Nominal Dia. D	D1	D2	L	L1	L2	B	H	Ordering Numbers
6.35	3	35	54.8	15.4	3	14	45	PDWVP-6.35-R
9.52	5	45	66.4	17.2	5	17	62	PDWVP-9.52-R
12.7	5	45	78.6	23	5	22	62	PDWVP-12.7-R

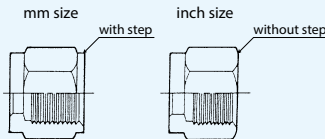
● Dimensions (mm size)

UNIT (mm)

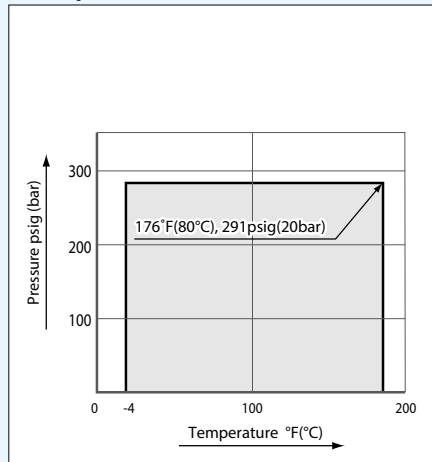
Nominal Dia. D	D1	D2	L	L1	L2	B	H	Ordering Numbers
6	3	35	54.5	15.2	3	14	45	PDWVP-6-R
8	3	35	58.9	16.2	3	16	45	PDWVP-8-R
10	5	45	65.9	17	5	19	62	PDWVP-10-R
12	5	45	77.6	22.5	5	22	62	PDWVP-12-R

About size distinction of the mm size and inch size

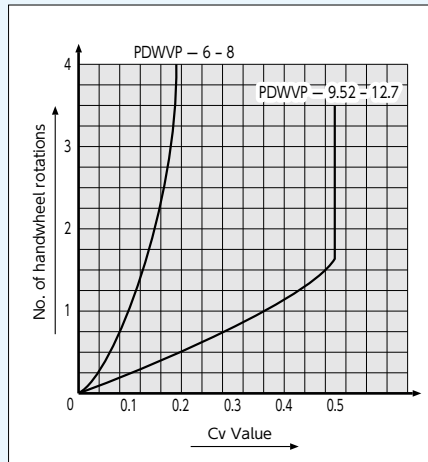
In order to distinguish easily from outside, edge of metric Nut is dented. Nut has size-marking.



● Temperature-Pressure Curve



● Cv Curves



● Specifications

Working Pressure psig (bar)	Temperature °F (°C)
291 (20)	-4 - +176 (-20 - +80) ※

※ : Valves up to 392°F(200°C) are available.
Please contact **Fujikin** for more information.

Exceptions:
Applicable fluid: Water, Air, Nitrogen gas, inert gas like Helium, and non-corrosive gas and liquid.

Panel Mounting Procedures

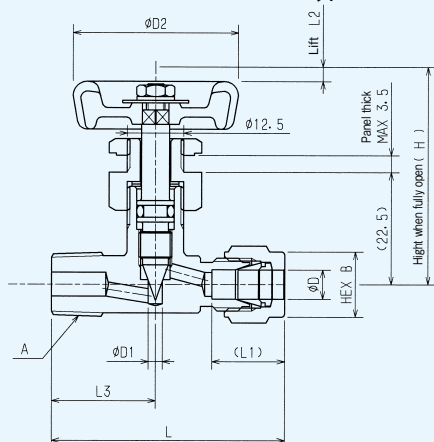
If you are panel-mounting the valve, follow these instructions:

1. Ensure that the bracket hole on the panel is ≤ 0.5mm wider than the valve's Panel-Mounting Diameter (refer to the CAD drawing).
2. Use an adjustable wrench to loosen the Hex Nut securing the Handle. Remove the Handle.
3. Remove the Gland Nut and the Panel Nut.
4. Mount the valve on the panel and secure it with the Panel Nut. Reattach the Gland Nut and the Handle.
5. Please assemble the Handle at the end.

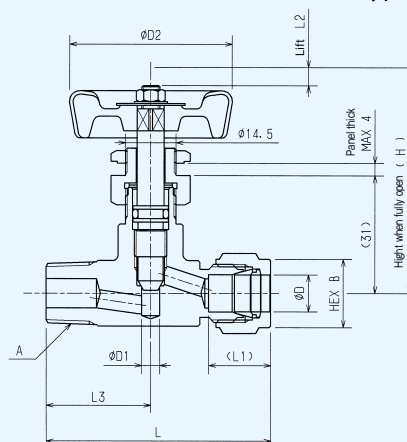
Brass 2 MPa Needle Valves

POWERFULLOK Fittings Connection Type

Nom. Dia. 6, 6.35, 8 Type



Nom. Dia. 9.52, 10, 12, 12.7 Type



● Dimensions (inch size)

UNIT (mm)

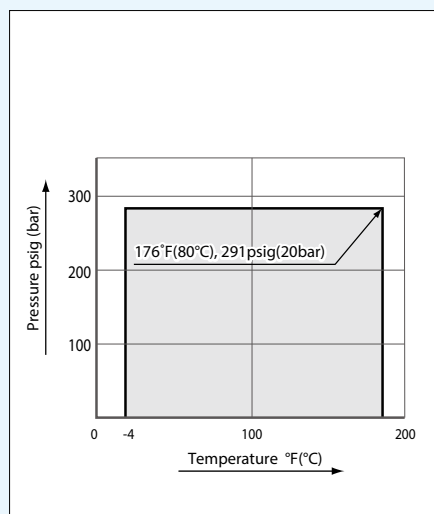
Nominal Dia. D	A	D1	D2	L	L1	L2	L3	B	H	Ordering Numbers
6.35	R1/8	3	35	47.4	15.4	3	20	14	45	PDWVP-6.35A-R
6.35	R1/4	3	35	49.4	15.4	3	22	14	45	PDWVP-6.35B-R
9.52	R1/4	5	45	62.1	17.2	5	29	17	62	PDWVP-9.52B-R
9.52	R3/8	5	45	62.1	17.2	5	29	17	62	PDWVP-9.52C-R
12.7	R1/4	5	45	68.3	23	5	29	22	62	PDWVP-12.7B-R
12.7	R3/8	5	45	68.3	23	5	29	22	62	PDWVP-12.7C-R

● Dimensions (mm size)

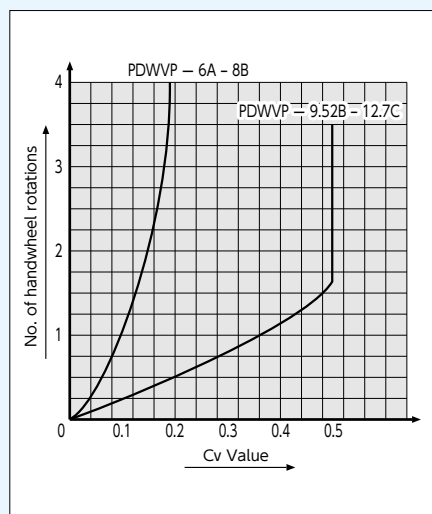
UNIT (mm)

Nominal Dia. D	A	D1	D2	L	L1	L2	L3	B	H	Ordering Numbers
6	R1/8	3	35	47.2	15.2	3	20	14	45	PDWVP-6A-R
6	R1/4	3	35	49.2	15.2	3	22	14	45	PDWVP-6B-R
8	R1/8	3	35	49.5	16.2	3	20	16	45	PDWVP-8A-R
8	R1/4	3	35	51.5	16.2	3	22	16	45	PDWVP-8B-R
10	R1/4	5	45	61.9	17	5	29	19	62	PDWVP-10B-R
10	R3/8	5	45	61.9	17	5	29	19	62	PDWVP-10C-R
12	R1/4	5	45	67.8	22.5	5	29	22	62	PDWVP-12B-R
12	R3/8	5	45	67.8	22.5	5	29	22	62	PDWVP-12C-R

● Temperature-Pressure Curve



● Cv Curves



● Specifications

Working Pressure psig (bar)	Temperature °F (°C)
291 (20)	-4 - +176 (-20 - +80) ※

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