

Electronic Valves

SR 100



SR100 is the electronic valve which concentrated the aggregate power of this craftsmanship of **Fujikin**® and was manufactured.

Adoption of the stepping motor excellent in position accuracy realized the high-speed response, close control, and high resolution which are not in the conventional electric motor valve. Wide Cv Value selection range 0.0000015 - 5 is available.

Fujikin® satisfy flexibly the demand of all precise flow control of various kinds of research experimental devices, a process line, etc.

■ Features

Close Controlability

A high precision sensor is built in, By feeding back valve travel, close control, excellent in reproducibility and hysteresis characteristics is realized!

Special Proportional Solenoid Actuator

By adopting special proportional solenoid as a drive source, the high - speed response was realized as the time from full open to close is 0.6 sec or less. (normal open type: 0.8 sec or less)

Spring Back Structure

Since SR100 has a spring back structure, in an emergency, the valve operates in full open or a closed position.

Wide Cv Value Selection Range

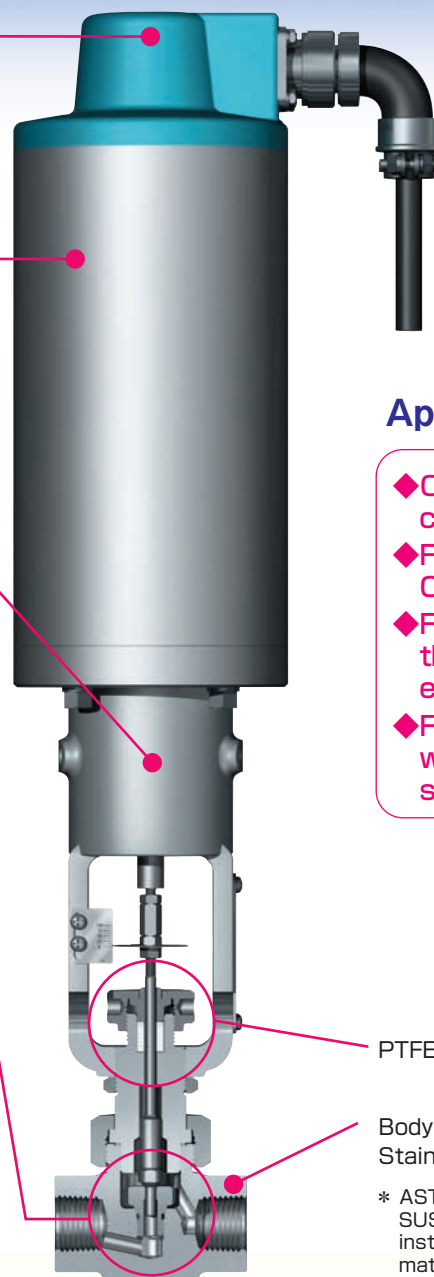
Stem & Disk are made by SUS316 + Stellite cladding, excellent for against abrasion. *

Wide range of Cv Value available, 0.0000015 to 5.



Drive Unit

If an electric signal 4 - 20mA is inputted into a drive unit for exclusive use, the valve will operate to predetermined valve travel.



Application of SR100

- ◆ Cogeneration • For fuel control of generator
- ◆ For flow control of Calorie Meter Coolant
- ◆ For pressure control in the evaluation equipment of fuel cell
- ◆ For the equipment which cannot install the source of air

PTFE Gland Packing

Body made from forged Stainless Steel (SUSF316) *

* ASTM standard (equivalent to SUS316 & SUS304) may be used instead of SUS316 & SUS304 materials.

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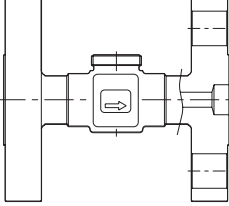
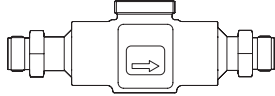
Specifications

* ASTM standard (equivalent to SUS316 & SUS304) may be used instead of SUS316 & SUS304 materials.

Body

Body Types

- ◆ Globe type is standard.
- ◆ Standard material of body is SUSF316.

Connections	Female Thread (Rc)	Socket Weld	Flange (JIS)	Flange (ANSI, JPI)	Remarks (Please inquire for details.)
Sizes	1/4, 3/8, 1/2, 3/4, 1		10 A, 15 A 20 A, 25 A	15 A, 20 A, 25 A	UJR Fittings Type (Metal Gasket Type)
Operating prs. Pres. Class ※ 1	14.7 MPa		10 K, 20 K, 30 K 40 K, 63 K	150, 300 600, 900	
Form (Globe Type)					Powerful - Lok Fittings Type (Compression Rings Type) 

※ 1: Max. operating pressure is depending on the temperature. Please confirm the Pres. - Temp. Rating(P8).

※ 2: RF flange type or RJ flange type

Bonnet Types

- ◆ All the wetted parts of standard are made from SUS316 and with union bonnet structure.
- ◆ A gasket is a metal (made from SUS316) type.
- ◆ With 0.7 or more Cv Value, when fluid is a liquid or steam, it becomes a stem with a guide. Moreover, all the products of the value of Cv 5 serve as a stem with a guide.
- ◆ The high temperature type can respond to the fluid up to 500 °C with a fin.
- ◆ Use at -253 °C (liquid hydrogen) is possible for a low temperature type with the extension structure which prevents fault cooling of the Grant part.

Bonnet Types		Operating Temperature Range	
		Cv Value 0.7 or more	Cv Value 0.5 or less
Standard Types	PTFE Grand Packing	-25 °C - 150 °C	-50 °C - 150 °C
	C - PTFE Grand Packing	-25 °C - 230 °C	-50 °C - 230 °C
High Temperature Type (with Fin)		-50 °C - 500 °C	
Low Temperature Type (with Extension)		-253 °C - 150 °C	

Gland Construction

- ◆ Although V packing made from PTFE is a standard, it can respond also to double seal structure with O - Rings.
- ◆ It can also be made the high temperature up to 230 °C by using packing made from PTFE (C - PTFE) containing carbon.

Oil - Free Specifications

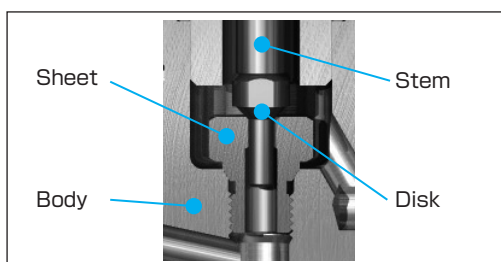
It corresponds to oil - free oxygen specification as standard.

Although we can manufacture by oil - free specification (first - class oil - free) also we have applied fluoric grease to the thread part of Disk and Sheet, and also Gasket thinly.

Moreover, by the type which uses a grand part O - Rings, it has applied also to O - Rings thinly.

Disc & Seat

Disk and Sheet have the structure threaded and connected to a body and a stem in each, and are exchangeable. (Except Cv Value 5.)



Specifications

Material	SUS316+ Stellite cladding (standard)	
Flow Characteristics	EQ%	Linear
Cv Value	0.0000015 - 5	
Range - ability	Cv Value 0.00025 or more 20: 1 (standard) Cv Value 0.00015 or less 10: 1 (standard)	
Allowable Leak Rate	$1 \times 10^{-4} \times \text{Rated Cv Value}$	

Actuator

- ◆ By adopting as the source of a drive portionally solenoid, and, as for opening - and - closing speed, full open \leftrightarrow closed time realizes 0.6 or less second.
- ◆ There are S2 type (thrust 300N) and two kinds of S3 type (thrust 450N) actuators.
- ◆ Since the potentiometer is built in and valve travel is made to always feed back to a drive unit, the outstanding high resolution, high - speed response, and hysteresis · linearity has been realized.
- ◆ Since actuator is a spring back type, when a power supply and a signal are lost a valve is full open or closed.
- ◆ The optimal actuator can be chosen from of Cv value, a working pressure range, and a use.

Specifications

Actuator Type	S2 Type	S3 Type
Drive mechanism Actuation	Proportional solenoid Direct Action(Normal open)/Reverse action(Normal close)	
Actuator outside Diameter	φ100	φ127
Supply voltage	AC100V / DC24V	
Cable connection	Connector / Terminal block	
Materials		
Yoke	AC2A	
Cover	AC2A	
Paintings	Baking paint	
Yoke	Silver	
Cover	Cobalt Blue	
Max. operation pres.	10 MPa	14.7 MPa
Ambient temperature range	-10 - 50 °C (without freezing)	
Rated Lift		
Cv Value	0.00015 or less	6 mm
	0.00025 - 0.007	8 mm
	0.01 - 3	8 mm
	5	10 mm
Hysteresis	1.5 % or less of F.S.	
Linearity	5 % F.S. or less	
Structure	Indoor Type	

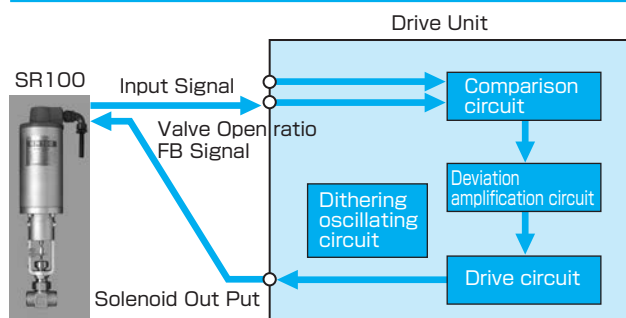
Drive Unit

- ◆ SR100 is controled by a drive unit for exclusive.
- ◆ The power supply corresponds to AC100V or DC24V. The source of air is unnecessary.
- ◆ If 4 - 20 mmA of instrumentation signals and 1 - 5V are inputted, the valve will operate to predetermined valve travel.

Fluid

- ◆ Inert Gases, such as Nitrogen, Helium, Air, and Carbon Dioxide, and Oxygen
- ◆ Combustible Gases (Hydrogen, Methane, Ethylene, etc.)
- ◆ Poisonous Gases (Carbon Monoxide, Butadiene, etc.)
- ◆ Water, Fuel Oil, Liquefied Gases, etc.
- ◆ However, don't use it for the following fluid.
 - Fluid which corrodes wetted parts (body, bonnet, inner valve, grand part)
 - Fluid containing a solid or slurry

Principle of Operation



SR100 Control Block Diagram

WARNING



SR100 is not of explosion-proof.
Do not use these products in the atomsphere of corrosive or flammable gases such as gasoline. Doing so will cause explosive accidents.

SR100 does not correspond to Dust & Weather Proof Structure.

Ordering Numbers

Actuator

S2	T	D
①	②	③

Valve

1	15	W	D
④	⑤	⑥	⑦

Cv Value & Characteristics

E	07	R2
⑧	⑨	⑩

Actuator

	①	②	③	Written contents
Actuator Thrust	S2			Thrust 300N Type
	S3			Thrust 450N Type
Cable Connection	non			Connection
	T			Terminal Box Connection
Actuation	D			Direct Action (Normal Open)
	R			Reverse Action (Normal Close)

<Example of Ordering Numbers>
 ◆ S2D...Thrust 300N Type, Connection, Direct Action
 ◆ S3TR...Thrust 450N Type, Terminal Box Connection, Reverse Action

Disc & Seat

	⑧	⑨	⑩	Written contents
Charac - teristic	E			EQ%
	L			Linear
Cv Value	01			The number 01 - 40 corresponding to Cv Value 0.0000015 - 5 is indicated. (Please refer to the following table.)
	40			
Range - ability	R1			R1 - R10 corresponding to 10: 1 - 100: 1 are indicated. (Please refer to the following table.)
	R10			

Please refer to the following table for the combination of the valve characteristic which can be manufactured, Cv Value, and Range - ability.
 <Example of Ordering Number>
 ◆ E15R4...EQ %, Cv Value: 0.025, Range - ability: 40: 1

Valve

	④	⑤	⑥	⑦	Specifications
Connections	1				Thread Globe Type
	2				Flange Globe Type
	3				Thread Angle Type
	4				Flange Angle Type
	5				Socket Weld Globe Type
	6				Socket Weld Angle Type
	7				Globe type with union type
	8				Angle Type with union type
	9				Globe Type with 2 Compression Ring Fitting
	0				Angle Type with 2 Compression ring Fitting Type
Ratings & Flanges ※ Item No. of JPI Flange Type: [A] → [JP]	15				14.7 MPa Type
	30				29.4 MPa Type
	50				49 MPa Type
	J1				JIS 10 K
	J2				JIS 20 K
	J3				JIS 30 K
	J4				JIS 40 K
	J6				JIS 63 K
	A2				ANSI 150 (JPI 150) ※
	A3				ANSI 300 (JPI 300) ※
Constructions of Gland & Bonnet	non				V - Packing
	W				V - Packing + O-Ring
	H				High Temperature Type
	C				Low Temperature Type
Sizes	B				1/4 (8A)
	C				3/8 (10A)
	D				1/2 (15A)
	E				3/4 (20A)
	F				1 (25A)

<Example of Ordering Numbers>
 ◆ 115B: Rc1/4, 14.7 MPa Type, V - Packing
 ◆ 2JP3WHD: JPI 300 15A RF Flange connection, V - Packing + O - Ring, High Temperature Type

Cv Value, Range - ability,

the table of combination which can be manufactured

Cv No. \ Range - ability		Range - ability									
		R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Cv No.	Cv Value	10:1	20:1	30:1	40:1	50:1	60:1	70:1	80:1	90:1	100:1
01	5										
02	3										
03	2										
04	1.5										
05	1										
06	0.7										
07	0.5										
08	0.35										
09	0.25										
10	0.15										
11	0.1										
12	0.07										
13	0.05										
14	0.035										
15	0.025										
16	0.015										
17	0.01										
18	0.007										
19	0.005										
20	0.0035										
21	0.0025										
22	0.0015										
23	0.001										
24	0.0007										
25	0.0005										
26	0.00035										
27	0.00025										
28	0.00015										
29	0.0001										
30	0.00007										
31	0.00005										
32	0.000035										
33	0.000025										
34	0.000015										
35	0.00001										
36	0.000007										
37	0.000005										
38	0.0000035										
39	0.0000025										
40	0.0000015										

■ : Can be manufactured

Others

In the case of special edition, it expresses at the ordering number end as the alphabet of less than three characters.

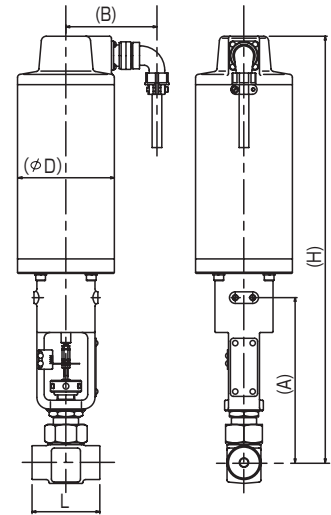
■ Dimensions

Standard Type

Fluid Temperature Range Cv Value 0.7 or more -25 °C - 150 °C
Cv Value 0.5 or less -50 °C - 150 °C

Unit: mm

	Body Connections	Cv Value	Ordering Numbers & Dimensions						
			Normal Open Type		Normal Close Type		Dimensions		
			Ordering Numbers	Dimensions H	Ordering Numbers	Dimensions H	L	A	B
S2 Type	Rc1/4 - 1/2	0.5 or less	S2D - 115	449	S2R - 115	441	70	171	94
	Rc1/4 - 1	0.7 or more		466		458	100	188	
	SW1/4 - 1/2	0.5 or less	S2D - 515	449	S2R - 515	441	80	171	
	SW1/4 - 1	0.7 or more		466		458	110	188	
S3 Type	Rc1/4 - 1/2	0.5 or less	S3D - 115	481	S3R - 115	471	70	171	107
	Rc1/4 - 1	0.7 or more		498		488	100	188	
	SW1/4 - 1/2	0.5 or less	S3D - 515	481	S3R - 515	471	80	171	
	SW1/4 - 1	0.7 or more		498		488	110	188	

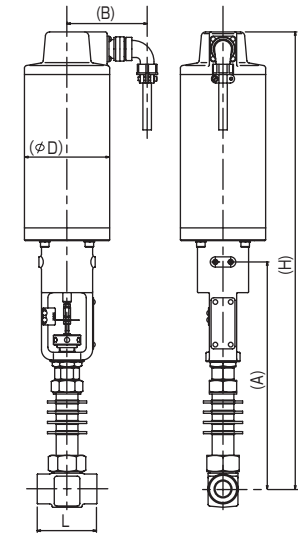


High Temperature Type (Bonnet with a radiating fin)

Fluid Temperature Range Cv Value 0.7 or more -50 °C - 500 °C
Cv Value 0.5 or less -50 °C - 500 °C

Unit: mm

	Body Connections	Cv Value	Ordering Numbers & Dimensions						
			Normal Open Type		Normal Close Type		Dimensions		
			Ordering Numbers	Dimensions H	Ordering Numbers	Dimensions H	L	A	B
S2 Type	Rc1/4 - 1/2	0.5 or less	S2D - 115H	545	S2R - 115H	537	70	267	94
	Rc1/4 - 1	0.7 or more		584		576	100	306	
	SW1/4 - 1/2	0.5 or less	S2D - 515H	545	S2R - 515H	537	80	267	
	SW1/4 - 1	0.7 or more		584		576	110	306	
S3 Type	Rc1/4 - 1/2	0.5 or less	S3D - 115H	577	S3R - 115H	567	70	267	107
	Rc1/4 - 1	0.7 or more		616		606	100	306	
	SW1/4 - 1/2	0.5 or less	S3D - 515H	577	S3R - 515H	567	80	267	
	SW1/4 - 1	0.7 or more		616		606	110	306	

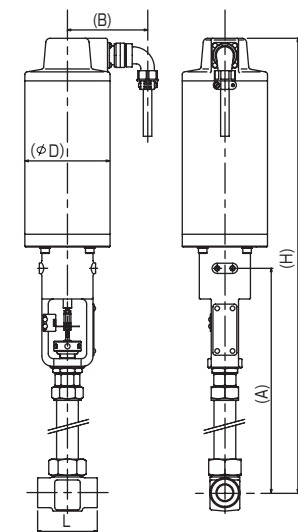


Low Temperature Type (Extension Bonnet Type)

Fluid Temperature Range Cv Value 0.7 or more -253 °C - 150 °C
Cv Value 0.5 or less -253 °C - 150 °C

Unit: mm

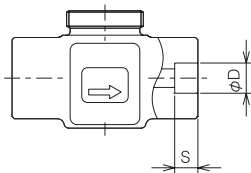
	Body Connections	Cv Value	Ordering Numbers & Dimensions						
			Normal Open Type		Normal Close Type		Dimensions		
			Ordering Numbers	Dimensions H	Ordering Numbers	Dimensions H	L	A	B
S3 Type	Rc1/4 - 1/2	0.5 or less	S3D - 115C	686	S3R - 115C	676	70	376	107
	Rc1/4 - 1	0.7 or more		725		715	100	415	
	SW1/4 - 1/2	0.5 or less	S3D - 515C	686	S3R - 515C	676	80	376	
	SW1/4 - 1	0.7 or more		725		715	110	415	



SW (Socket Weld) Type Body

Unit: mm

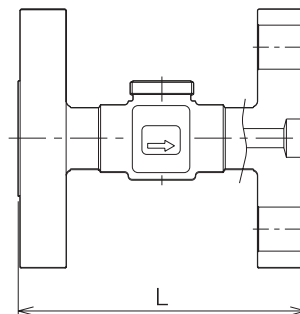
Sizes	D	S
1/4	14.3	10
3/8	17.8	13
1/2	22.2	
3/4	27.7	16
1	34.5	



Face to Face Dimensions for Flange Type Body

◆ JIS Standard Flange (L) mm

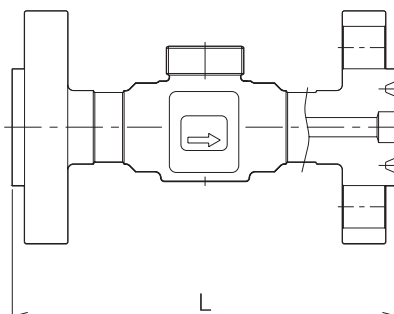
Cv Value	Nominal Pressure	RF Flange Types			
		Sizes			
		10A	15A	20A	25A
0.5 or less	10K, 20K, 30K, 40K, 63K	150			
0.7 or more	10K, 20K	150			
	30K	150			180
	40K, 63K	150	180		



◆ Flange Type Body (RF Type)

◆ ANSI, JPI Standard Flange (L) mm

Cv Value	Pressure Classes	RF Flange Types			RJ Flange Types		
		Sizes			Sizes		
		15A	20A	25A	15A	20A	25A
0.5 or less	150, 300, 600	150					
	900, 1500	200					
0.7 or more	150	150					
	300	150			180		
	600	180					
	900, 1500	200					



◆ Flange Type Body (RJ Type)

■ Connection of Actuator

Connector Type (Standard)

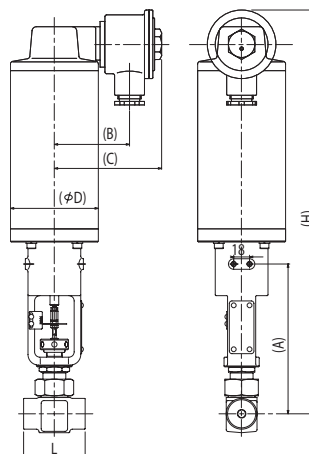
- ◆ It connects with each terminal of a connector by soldering.
- ◆ A suitable cable outside diameter is $\phi 8$.

Terminal Box Type

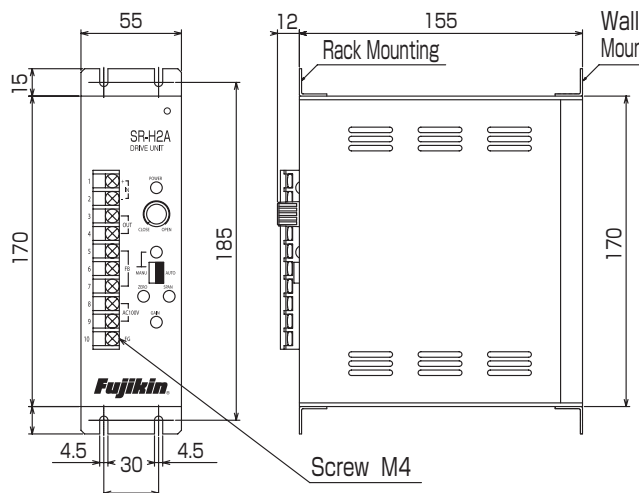
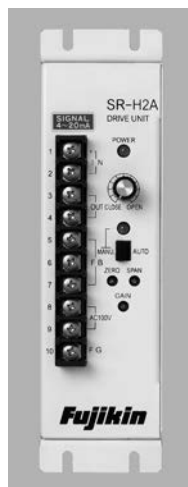
- ◆ Cable ground connection of terminal box is G3/4.
- ◆ Outside diameter of a suitable cable is 12 mm.
- ◆ The low temperature type and the high temperature type are also manufactured. Please inquire separately.

Unit: mm

	Body Connections	Cv Value	Ordering Numbers & Dimensions							
			Normal Open Type		Normal Close Type		Dimensions			
			Ordering Numbers	Dimensions	Ordering Numbers	Dimensions				
				H		H				
S2 Type	Rc1/4 - 1/2	0.5 or less	S2TD - 115	468	S2TR - 115	460	70	171	94	122
	Rc1/4 - 1	0.7 or more		485		477	100	188		
	SW1/4 - 1/2	0.5 or less	S2TD - 515	468	S2TR - 515	460	80	171		
	SW1/4 - 1	0.7or more		485		477	110	188		
S3 Type	Rc1/4 - 1/2	0.5 or less	S3TD - 115	500	S3TR - 115	490	70	171	107	135
	Rc1/4 - 1	0.7or more		517		507	100	188		
	SW1/4 - 1/2	0.5 or less	S3TD - 515	500	S3TR - 515	490	80	171		
	SW1/4 - 1	0.7or more		517		507	110	188		



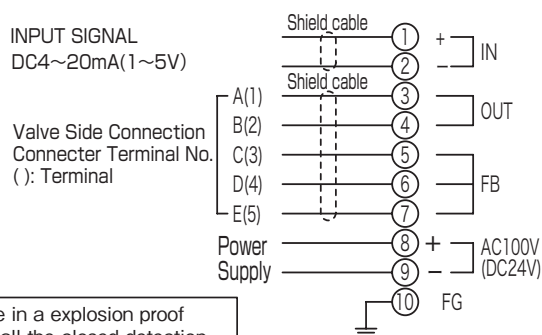
Drive Unit



Specifications

Input Signal	4 - 20 mA	1 - 5 V
Input impedance	250 Ω	100k Ω 以上
Power Supply	AC 100V (1.4A MAX.) DC 24V (2.1A MAX.)	
Ambient - temperature range	0 - 50 $^{\circ}\text{C}$	
Ambient Humidity range	85 %RH or less (no dew condensation)	
Construction	Only for indoor	
Conformity Cable	4 core shielded cable with a cross - sectional area of 0.75 mm ² or more (Please use a cable with the resistance of 0.5 Ω or less.)	

Terminal Connection Diagram



In use in a explosion proof type, all the closed detection should connect with No. 1 of a limit switch, and a No. 2 terminal.

Options

Materials of Wetted Parts

- ◆ Manufacture with the following materials can be also performed according to the fluid.
- ◆ Please consult to us also about other materials.

① Body

SUS316L, Nickel Alloy (Hastelloy B - 2, C - 22, C - 276 equivalent), Zirconium, Titanium, Titanium Alloy

② Disc & Seat

Materials	Remarks
SUS316L	In case of Cv Value 0.007 or less, available to Stellite cladding.
SUS630	For wear - proof at the time of cavitation generating.
Tungsten Carbide + SUS316	(Only when Cv Value is 0.01 or more.)
Nickel Alloy	Available only in case that Cv Value is 0.01 or more.
Zirconium	
Titanium, Titanium Alloy	

③ Gland Packing

C - PTFE, PFA, or such combination packings are available.

O - Ring Seal

Double sealing construction by adding O - Rings to Gland Packing is available.

The materials of O - Rings are Fluorolic rubber, EPDM, HNBR, Kalrez®, etc., corresponds according fluid. We select the suitable material according to various fluid.

Selection Guide

Please select due to below flow.

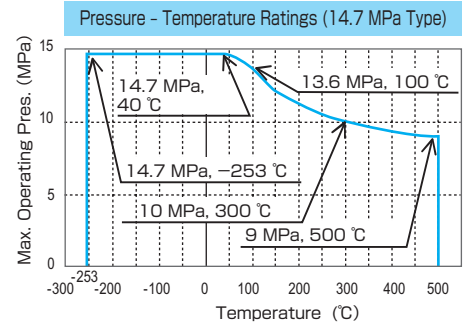
① Entry of the "SR100 Detailed Order Sheet"

At first please enter the Fluid conditions (Fluid name, Pressure, etc.), Gland seal conditions, Actuator specifications (Type of actuation, a painting color, etc.) to the "SR100 Detailed Order Sheet" (P10). Please be sure to enter within the limit of thick lines.

② Check of Pressure - Temperature Ratings

Check please whether it is rating within the limits of the applied standard which the conditions of pressure and temperature.

- ◆ Threaded Type, Socket Weld Type, Union Type, Double Compression Fittings Type → Confirm please below Temp.- Pres. Rating diagram.
- ◆ Flange Connection → Confirm please Rating Table in each standards (JIS, JPI, ANSI).



③ Cv Value Calculation

For the operating conditions, calculate each Cv Value, max. Cv Value and min. Cv Value.

- ◆ What is the Cv Value?

Cv Value is one of the coefficients of flow capacity of valve, and by a JIS standard, It is determined as "the numerical value which expresses with USgal/min the flow of the spring water with a temperature of 60 degrees F (15 °C) which flows through a valve when pressure difference is 1LB (pound) / inch² (= 1 psi) in specific travel (travel range)."

Cv Value Calculation Formula

Differential Pressure		$P_2 > \frac{P_1}{2}$	$P_2 \leq \frac{P_1}{2}$	Explanation of Sign
Fluid	General	$C_v = 0.366 Q_L \sqrt{\frac{G_L}{P_1 - P_2}}$	Same as left	QL[m ³ /h] Liquid Flow Rate QG[m ³ /h(normal)]: Gas Flow Rate in Normal condition (15 °C, 0.1013MPa abs.) QS[kg/h] Steam Flow Rate P1 [MPa abs]: Inlet Pre.(abs) *2 P2 [MPa abs]: Outlet Pres.(abs) *2 Kv: Viscosity correction coefficient *1 t[°C]: Fluid Temperature GL: Liquid Gravity (H2O = 1) GG: Gas Gravity (Air = 1) S [°C]: Superheat Degree of Steam
	High Viscosity ※1	$C_v = 0.366 Q_L K_v \sqrt{\frac{G_L}{P_1 - P_2}}$	Same as left	
Gas		$C_v = \frac{Q_G}{4140} \sqrt{\frac{G_G (273+t)}{(P_1 - P_2) P_2}}$	$C_v = \frac{Q_G}{2070 P_1} \sqrt{G_G (273+t)}$	
Steam	Saturated Vapor Steam	$C_v = \frac{Q_S}{197.8 \sqrt{(P_1 - P_2) P_2}}$	$C_v = \frac{Q_S}{98.91 P_1}$	
	Overheated Steam Steam	$C_v = \frac{Q_S}{197.8 \sqrt{(P_1 - P_2) P_2}} (1 + 0.0013S)$	$C_v = \frac{Q_S}{98.91 P_1} (1 + 0.0013S)$	

*1 In the case of 20 or more mPa-s of kinetic viscosity, and 0.01 or less calculation Cv Value, in a liquid, viscosity compensation calculation is required. Please ask us, when viscosity compensation is required fluid specification.

*2 Please give as pressure in the valve latest.

When calculated using the pressure in the point which is separated from a valve, a big error may be produced in a calculation result under the influence of the pressure loss of piping, etc.



Cv Value calculation is a standard for valve selection, and please deal with it as a reference value.

In fact, a calculation result and a difference may arise according to peculiar piping conditions, an operating condition, etc.

④ Selection of Value Characteristics

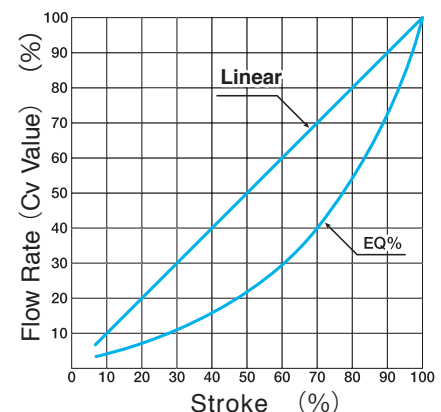
Select please EQ % or Linear.

- ◆ Linear (Straight line form flow characteristic)

The characteristic that a flow rate (Cv Value) is proportional to a valve lift. A linear flow characteristic is known even if it sees the graph, but if the valve stroke increases 10%, Cv Value will also increase 10%. It is suitable for temperature control, open loop control, etc.,

- ◆ EQ % (Equal ratio form flow characteristic)

The rate of change of the flow to change of a unit stroke leads all the strokes, and it is the fixed characteristic. For example, if range ability is 20: 1, whenever the stroke of a valve increases 10%, a Cv Value will increase about 48% respectively, when every about 35% Range - ability is 50: 1. It is suitable for pressure control, closed loop control, etc.



⑤ Determination of Rated Cv Value

The Rated Cv Value in consideration of a safety factor is selected from calculated maximum Cv Value. The maximum calculated Cv Value is multiplied by the safety ratio according to a valve characteristic.

- ① EQ%..... 1.5
- ② Linear..... 1.2

(The maximum calculation Cv Value) x (safety factor) < (Rated Cv Value)

- becoming Cv Value is selected. (Please refer to the right table for the Cv Value currently manufactured)

WARNING

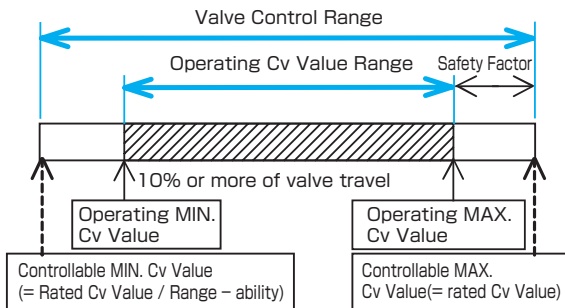


To the customer that selected Cv Value 0.007 or less

When Cv Value is 0.007 or less, since the diameter of a disk is 1mm or less, also in the case of a minutes metal piece, is bit between a disk and a sheet, and a disk may break as a result. Please be sure to attach to piping by the side of the upper stream the filter which uses an element of 10 micrometers or less.

⑥ Selection of Range - ability

(Rated Cv Value) / (minimum calculated Cv Value) becomes necessary Range - ability in control. In the domain of not less than 10% of valve travel, it selects so that the minimum calculation Cv Value can be controlled. (Refer to the right table for the value of the Range - ability currently manufactured)



WARNING



SR100 has the tolerance according to the plan Cv Value in each valve travel. When you determine Rated Cv Value, please select suitable margin.

⑦ Selection of Actuator Type

The required size of an actuator is determined by the working pressure range and a selection Cv Value. It selects from a table "Cv Value and pressure which can be used."

Cv Value and Max. Operation Pres.

Unit: MPa

Cv Value		0.035 or less (※)	0.05 - 0.25	0.35 - 0.5	0.7	1	1.5	2	3	5
Actuator Types										
S2 Type	Max. Inlet Pres.	10	5	3	2.5	2	1.5	0.7	0.5	0.2
	Max. Outlet Pres.	5	5	3	2.5	2	1.5	0.7	0.5	0.2
S3 Type	Max. Inlet Pres.	14.7	10	6	5	3.5	2.5	1.5	1	0.5
	Max. Outlet Pres.	9	9	6	5	3.5	2.5	1.5	1	0.5

※ S3 type is selected when Cv Value is 0.007 or less.

In a low temperature type case, S3 type is selected regard less of Cv Value and working pressure.

⑧ Check of a Valve Connection Size

Please select a suitable valve connection from the selected Cv Value.

Please come out and check by the table "Scope of a Cv Value and a caliber"

Scope of a Cv Value and a caliber

The Cv Value of which can be manufactured is as follows.

Size	1/4 (8 A)	3/8 (10 A)	1/2 (15 A)	3/4 (20 A)	1 (25 A)
Cv Value	0.7 or less	1 or less	3 or less	3 or less	5 or less

Cv Value, Range - ability, the table of combination which can be manufactured

Range - ability		R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Cv No.	Cv Value	10:1	20:1	30:1	40:1	50:1	60:1	70:1	80:1	90:1	100:1
01	5										
02	3										
03	2										
04	1.5										
05	1										
06	0.7										
07	0.5										
08	0.35										
09	0.25										
10	0.15										
11	0.1										
12	0.07										
13	0.05										
14	0.035										
15	0.025										
16	0.015										
17	0.01										
18	0.007										
19	0.005										
20	0.0035										
21	0.0025										
22	0.0015										
23	0.001										
24	0.0007										
25	0.0005										
26	0.00035										
27	0.00025										
28	0.00015										
29	0.0001										
30	0.00007										
31	0.00005										
32	0.000035										
33	0.000025										
34	0.000015										
35	0.00001										
36	0.000007										
37	0.000005										
38	0.0000035										
39	0.0000025										
40	0.0000015										

■: Manufacture of Disc & Seat combination which applied blue is possible.



Fujikin Carp Group

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- the 1st MONODZUKURI NIPPON GRAND AWARDS.
(9 developers awarded)
- the 5th MONODZUKURI NIPPON GRAND AWARDS.
(Fujikin Vietnam 4 employees awarded)
- the 7th MONODZUKURI NIPPON GRAND AWARDS.
(7 developers awarded)

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