

Pneumatic Diaphragm Globe Control Valve

SCV-1100 series



GLOBE CONTROL VALVE

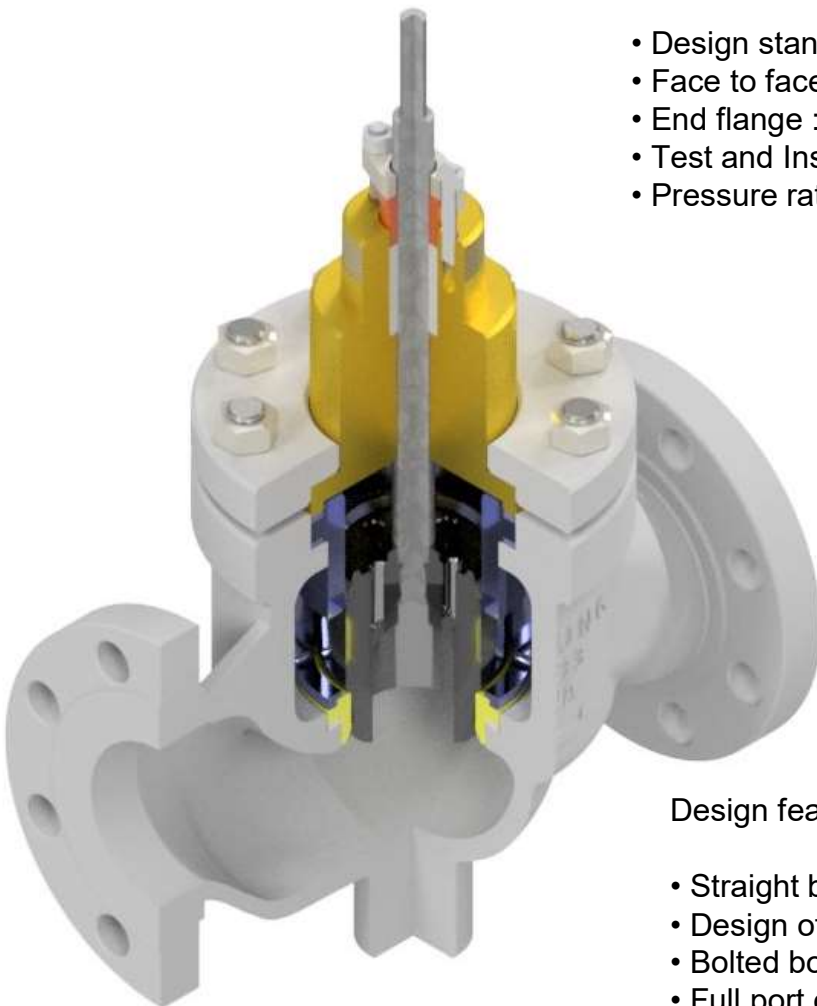
Model : SCV-1100 series

SCV Control valves is designed for heavy-duty service and provide a wide range of fluid solution. The durable and compact valve body allows a large flow capacity, rangeability and high accuracy flow characteristics.

2-Way Globe Control Valve is comprehensively used in the automatically regulating and processing control system such as flow, pressure, temperature, gas, steam and liquid level, in chemical, oil refining, metallurgy industries and power plant, etc.

Design standard

- Design standard : ASME B16.34
- Face to face : ASME B16.10
- End flange : ASME B16.5
- Test and Inspection : API 598
- Pressure rating : JIS10~30K, ANSI 150~600#, PN10~30



Design features

- Straight body design
- Design of outside screw and yoke
- Bolted bonnet with spiral-wound gasket
- Full port or reduced bore
- Lifting stem and handle-wheel
- Replaceable valve seat and back seat
- Metallic seating surface

1. Valve Specification

Type	cage balance , Cast Globe Valve
Size	1-1/2"(40A) ~ 12"(300A)
Pressure Rating	JIS 10K, JIS 20K, JIS 30K
	ANSI 125#, ANSI 150#, ANSI 300#, ANSI 600#
	PN10, PN16
End Connection	Flanges end : RF, RJ, LG
	Groove type(female)
	Insertion type(female)
	Welding end : SW (1~2") / BW(2~4")
Bonnet	Plain bonnet : -17 ~+ 230°C
	Fin type : +250°C and above
	Extension bonnet Type : -5 ~ -45°C and + 230°C~560°C
	Long Extension bonnet : -45 ~ -196°C, applied to LNG, Liquid Nitrogen
	Welded type(-196°C to -100°C)
	Bellows type
Flow characteristics	Equal percentage
	Linear
	Quick open
Gland type	Bolted Gland
Gasket	Flat type (S.W.G)
Plug	single seat pressure Balance
Leakage allowance	Metal seat : ANSI Class IV
	Soft seat : ANSI Class VI

2. Actuator Specification

Actuator	Diaphragm type	Cylinder type
Action	Direct action, Reverse action	Double, Spring return
Operating media	Compressed dry air, Natural gas	Compressed dry air, Natural gas
Control	On-Off, 4~20mA Input	On-Off, 4~20mA Input
Operating press	2.8kgf/cm ² (40psi) or 3.5kgf/cm ² (50psi)	2~9.9kgf/cm ²
Materials	Cover-SS41 / Yoke-FC	Aluminum alloy or steel
Air connection	RC female tap, NPT female tap	PT or NPT 1/8~1"
Size	Φ270~550mm	Φ100~1000mm
Ambient temp.	-20°C ~ +70°C	-20°C ~ +120°C
Manual handle-wheel	Available as option	
Coating	Polyester powder coating.	
Accessories	Manual override, Positioner, Solenoid Valve, Air filter regulator, Limit switch, Volume booster, Speed controller etc.	

3. Valve standard materials

No	Part	Materials		
1	Body	A216 WCB	A351 CF8	A351 CF8M
2	Bonnet	A216 WCB	A351 CF8	A351 CF8M
3	Stem	A276 304	A276 304	A276 316
4	Plug	SUS 420J2 HF	SUS 304	SUS 316
5	Seat	SUS 420J2 HF	SUS 304	SUS 316
6	Gasket	S.W.G	S.W.G	S.W.G
7	Gland Packing	GRAPHITE	V-TEFLON	V-TEFLON
8	Bonnet Stud	B7	A276 304	A276 304
9	Bonnet Stud Nut	2H	A276 304	A276 304
10	Guide Bushing	SUS420 J2	SUS 316	SUS 316
11	Packing	Graphite or V-TEFLON	Graphite or V-TEFLON	Graphite or V-TEFLON

(Please contact factory in advance for other materials)

● Cv value and travel

1. High capacity type contoured plug

VALVE SIZE (inch)	1 1/2	2	2 1/2	3	4	6	8
PORT SIZE (inch)	1 1/2	2	2 1/2	3	4	6	8
Rated Cv value	30	50	100	140	220	420	700
RATED TRAVEL (mm)	25		38			50	75

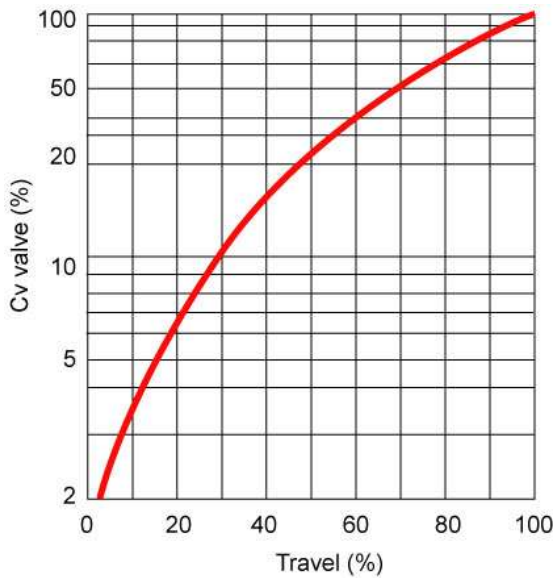


Fig. 1-1-1 Equal % characteristics
(% c: metal seat, %T: soft seat)

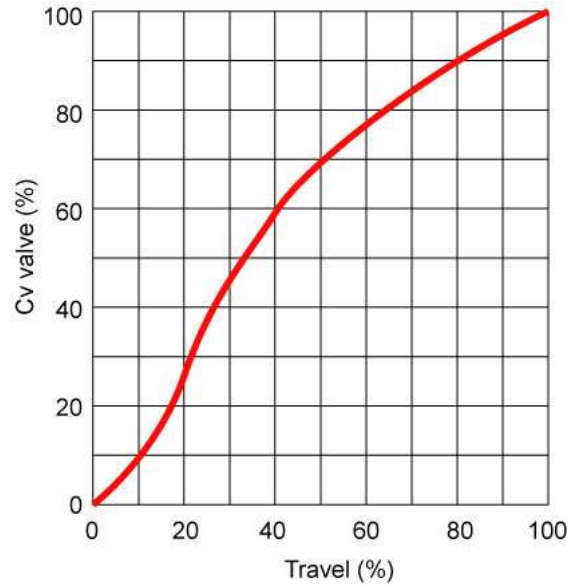


Fig. 1-1-2 linear characteristics
(Ltf : soft seat)

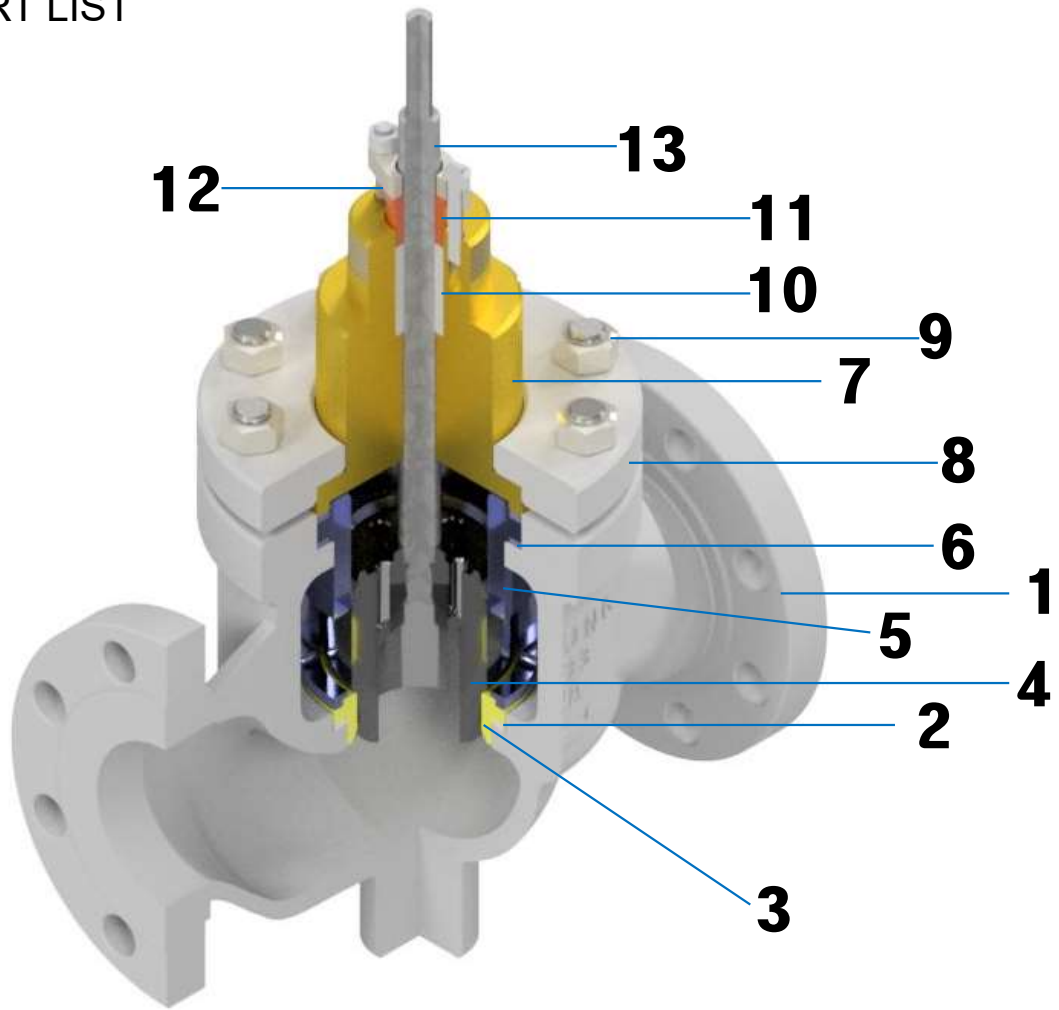
2. High-flow characteristic type contoured plug

Valve size (inch)	1 1/2			2			2 1/2			3			4			6			8		
Port size (inch)	1	1 1/4	1 1/2	1 1/4	1 1/2	2	1 1/2	2	2 1/2	2	2 1/2	3	2 1/2	3	4	4	5	6	5	6	8
Rated Cv value	10	17	24	17	24	44	24	44	68	44	68	99	68	99	175	175	275	360	275	360	640
Rated travel (mm)	25						38						50			75					

3. Quick-opening type plug

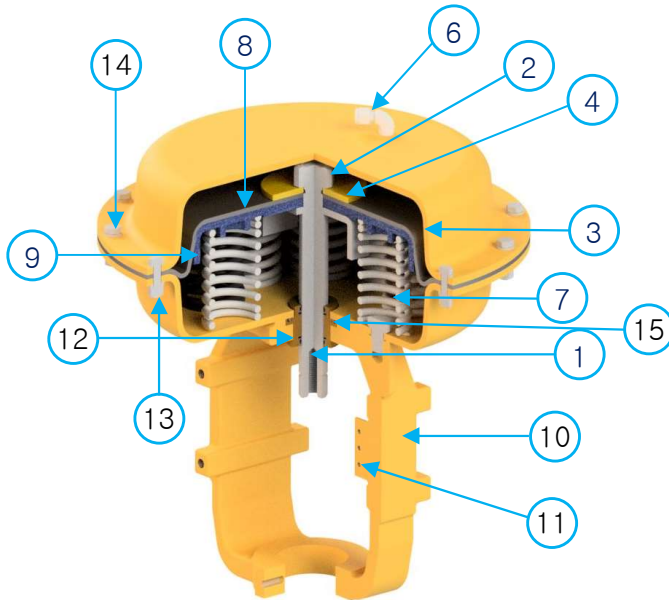
Valve size (inch)	1 1/2	2	2 1/2	3	4	6	8
Port size (inch)	1 1/2	2	2 1/2	3	4	6	8
Rated Cv value	35	55	95	135	220	460	720
Rated travel (mm)	10	13	19	19	25	30	50

● BODY PART LIST

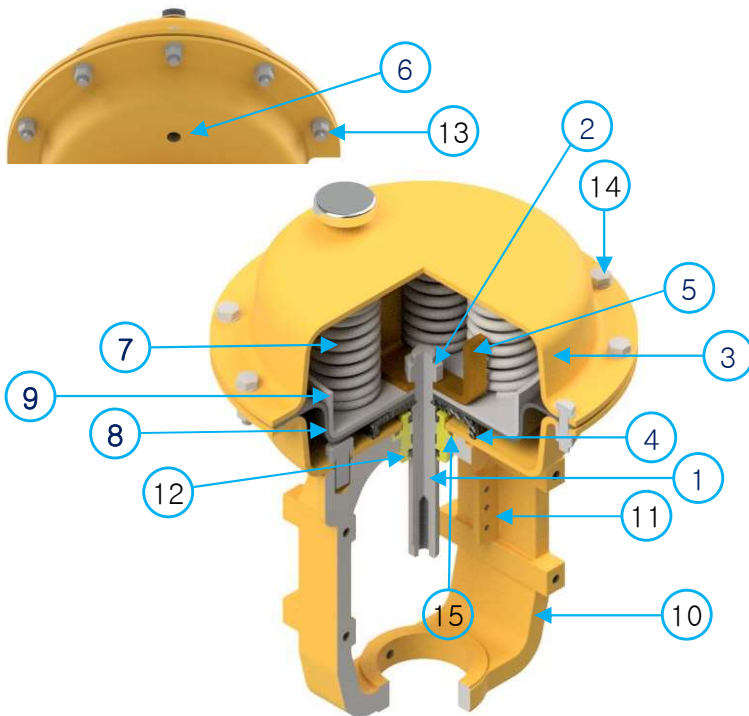


NO.	PART NAME	MATERIAL
1	BODY	SCPH2 , SCS13 , SCS14 , SCS16
2	SEAT GASKET	SWG
3	SEAT	SUS 420J2HF, SUS 304 , SUS 316 ,SUS 316 ST
4	PLUG	SUS 420J2HF, SUS 304 , SUS 316 ,SUS 316 ST
5	CAGE	SUS 410 , SCS 13 , SCS14 , SCS16
6	GASKET	SWG
7	BONNET	S45C , SUS304 , SUS316 , SUS 316L
8	BONNET FLANGE	S45C , SUS 304 , SUS 316
9	STUD & NUT	B7-2H , SUS 304
10	GLAND PACKING	V-TEFLON , GRAPHITE
11	GLAND	SUS304
12	GLAND FLANGE	SS400+ Zn COAT
13	STEM	SUS304 , SUS 316

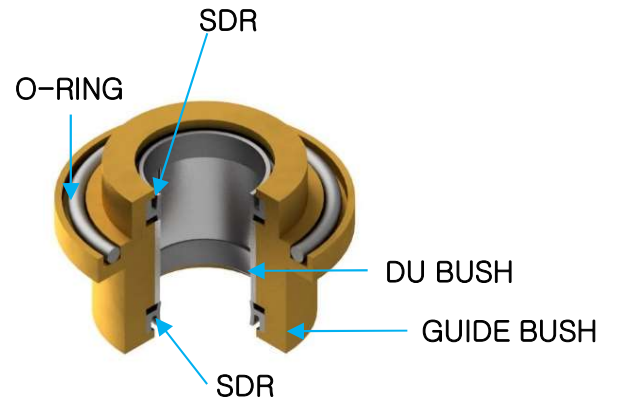
● DIAPHRAGM ACTUATOR PART LIST



◆ 그림5-3) DIRECT ACTION TYPE



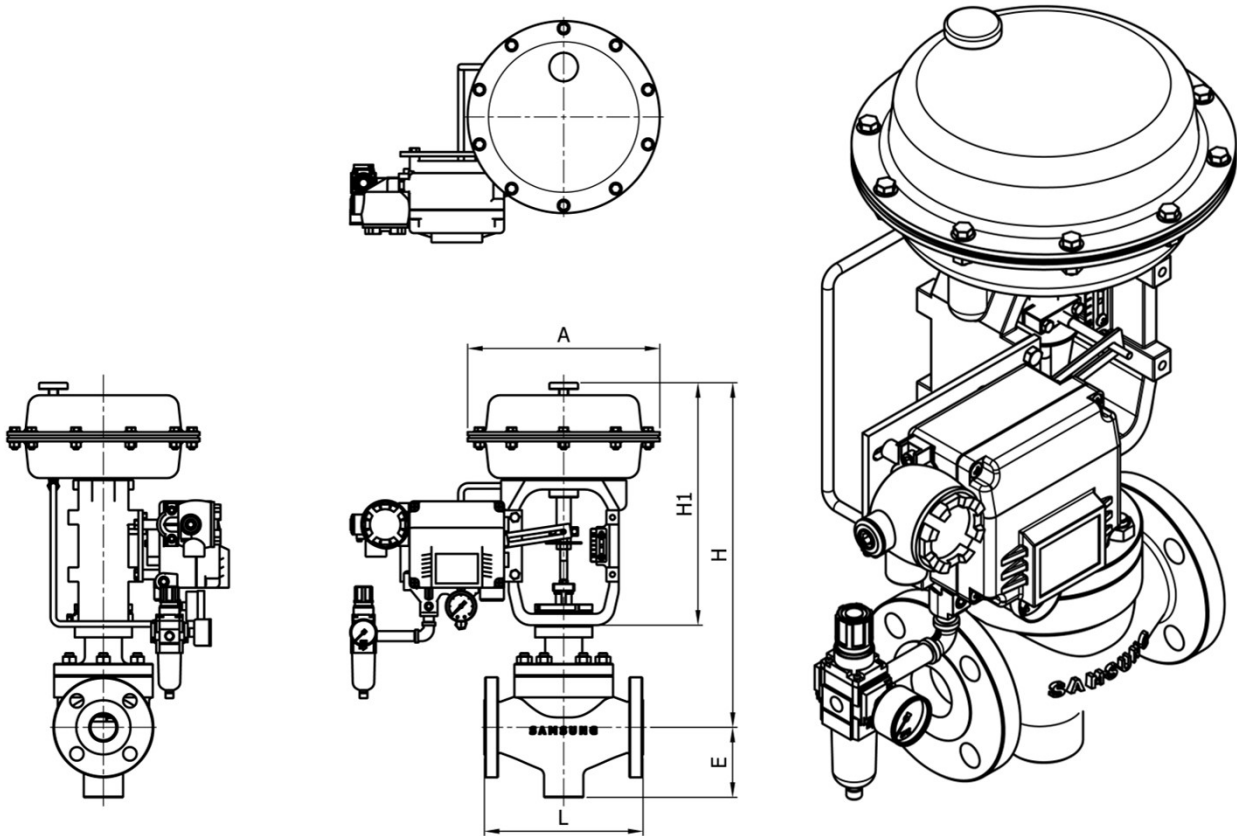
◆ 그림5-4) REVERSE ACTION TYPE



◆ GUIDE BUSH PACKAGE

15	O-RING
14	BOLT
13	NUT
12	GUIDE BUSH PACKAGE
11	INDICATOR
10	YOKE
9	SPRING GUIDE
8	DIAPHRAGM
7	SPRING
6	AIR CONNECTION
5	UP STOPPER
4	DOWN STOPPER
3	DIAPHRAGM COVER
2	STEM NUT
1	STEM
NO.	PART NAME

● DIMENSION



JIS 10K

SIZE	ACTUATOR	A	L	H1	E	H	STROKE
40 A	SA2	265	222	320	80	480	25
50 A	SA2	265	254	320	90	480	25
65 A	SA3	365	276	390	100	610	38
80 A	SA3	365	298	390	160	620	38
100 A	SA3	365	352	390	180	630	38
125 A	SA4	470	414	622	125	850	50
150 A	SA4	470	451	622	170	965	50
200 A	SA4	470	495	622	220	1100	50
250 A	SA5	550	622	656	250	1300	75
300A	SA5	550	817	656	300	1800	100
350A	SA5	550	950	656	320	1900	150

(Please contact factory in advance for the bigger size)

HOW TO ORDER?

SCV-1100 -

METERIAL

BONNET

ACTUATOR

ACTION

OPTION

RAITING

SIZE

METERIAL	BONNET	ACTUATOR	ACTION
1.SCPH2 (WCB) 2. SCS 13 (CF8) 3. SCS14 (CF8M) 4. SCS16 (CF3)	1.PLAIN 2. EXTENSION FIN 3. EXTENTION 4. BELLOWES	SA R : DIAPHRAGM ACT REVERSE SA D : DIAPHRAGM ACT DIRECT CA R : CYLINDER ACT REVERSE CA D : CYLINDER ACT DIRECT CD : CYLINDER DOUBLE ACT	O : NOMAL OPEN C : NOMAL CLOSE

OPTION	RAITING	SIZE
E : EP POSITONER+AIRSET S : SMART POSITONER+AIRSET (NONE EXPROOF) SE : SMART POSTIONER+AIRSET (EXD IIC T6) L : LIMITS SWITCH LE : LIMITS SWITCH (EXD IIC T6) B : BOOSTER RELAY T : TOP HAND WHEEL PTM : POSITION TRANCE MITTER H : HART	J1 : JIS 10K J2 : JIS 20K J3 : JIS 30K J4 : JIS 40K J6 : JIS 63K A1 : ANSI 150LB A2 : ANSI 300LB A3 : ANSI 600LB A4 : ANSI 900LB D1 : PN 10BAR D2 : PN 16BAR D3 : PN 25BAR D4 : PN 40BAR	40A TO 300A



ORDER EXAMPLE

BODY MATERIAL : SCPH2
BONNET : EXTENSION FIN
ACTUAOR : DIAPHRAGM REVERSE ACTION
ACTION : NORMAL CLOSE

OPTION : SMART POSTIONER (EXD IICT6)+POSITION TRANCE MITTER + HART + TOPHANDLE

RATING : JIS 10K SIZE : 50A

ODER NO .: SCV-1100- 1 2 SA R C SE PTM H T JI 40A

Fluid Solution with Samsung Control Valve

- Globe Control Valve
- Micro-Flow Capacity Globe Control Valve
- Pinch Valve
- Dome Valve
- Ball Valve
- Butterfly Valve
- E/P Positioner
- Pneumatic Diaphragm Actuator
- Cylinder Actuator



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