

Globe Control Valve

SCV-1000 series



GLOBE CONTROL VALVE

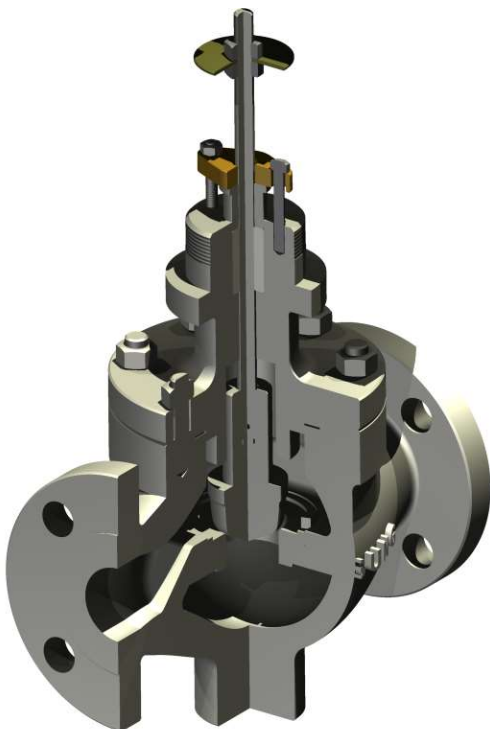
Model : SCV-1000 series

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	Straight-through, Cast Globe Valve
Size	1/2"(15A) ~ 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℃ Fin type : +200℃ and above Extension bonnet Type : -5 ~ +45℃ Long Extension bonnet : -45 ~ +196℃, applied to LNG, Liquid Nitrogen Welded type(-196℃ to -100℃) Bellows type
Flow characteristics	Equal percentage Linear Quick open
Gland type	Bolted Gland
Gasket	Flat type (S.W.G)
Plug	Unbalance / 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	Φ175~465mm	Φ50~1000mm
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	SUS316 Stellite	SUS316 Stellite	SUS316 Stellite
5	Seat	SUS316 Stellite	SUS316 Stellite	SUS316 Stellite
6	Gasket	S.W.G	S.W.G	S.W.G
7	Gland Packing	GRAPHITE	V-TEFLON	V-TEFLON
8	Bonnet Stud	A276 304	A276 304	A276 316
9	Bonnet Stud Nut	A276 304	A276 304	A276 316
10	Guide Bushing	SUS420 J2	SUS420 J2	SUS420 J2
11	Packing	Graphite or RTFE	Graphite or RTFE	Graphite or RTFE

(Please contact factory in advance for other materials)

● Cv value and travel

1. High capacity type contoured plug

VALVE SIZE (inch)	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8
PORT SIZE (inch)	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8
Rated Cv value	4	6.3	14	30	50	100	140	220	420	700
RATED TRAVEL (mm)	15			25		38			50	75

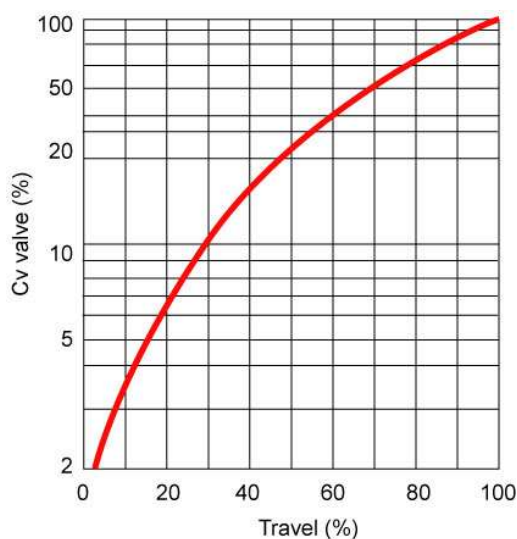


Fig. 1-1-1 Equal % characteristics
(% c: metal seat, %T: soft seat)

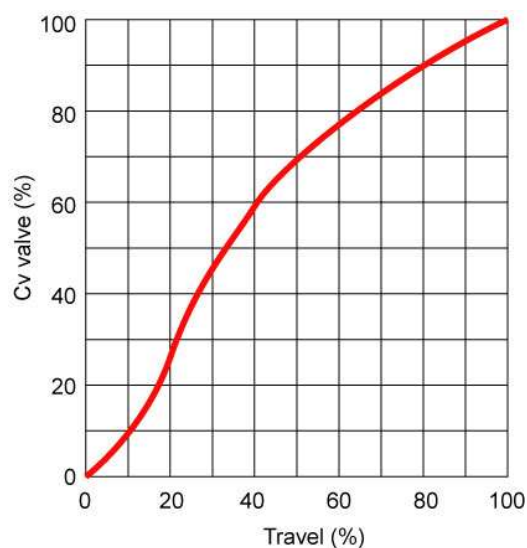


Fig. 1-1-2 linear characteristics
(Ltf : soft seat)

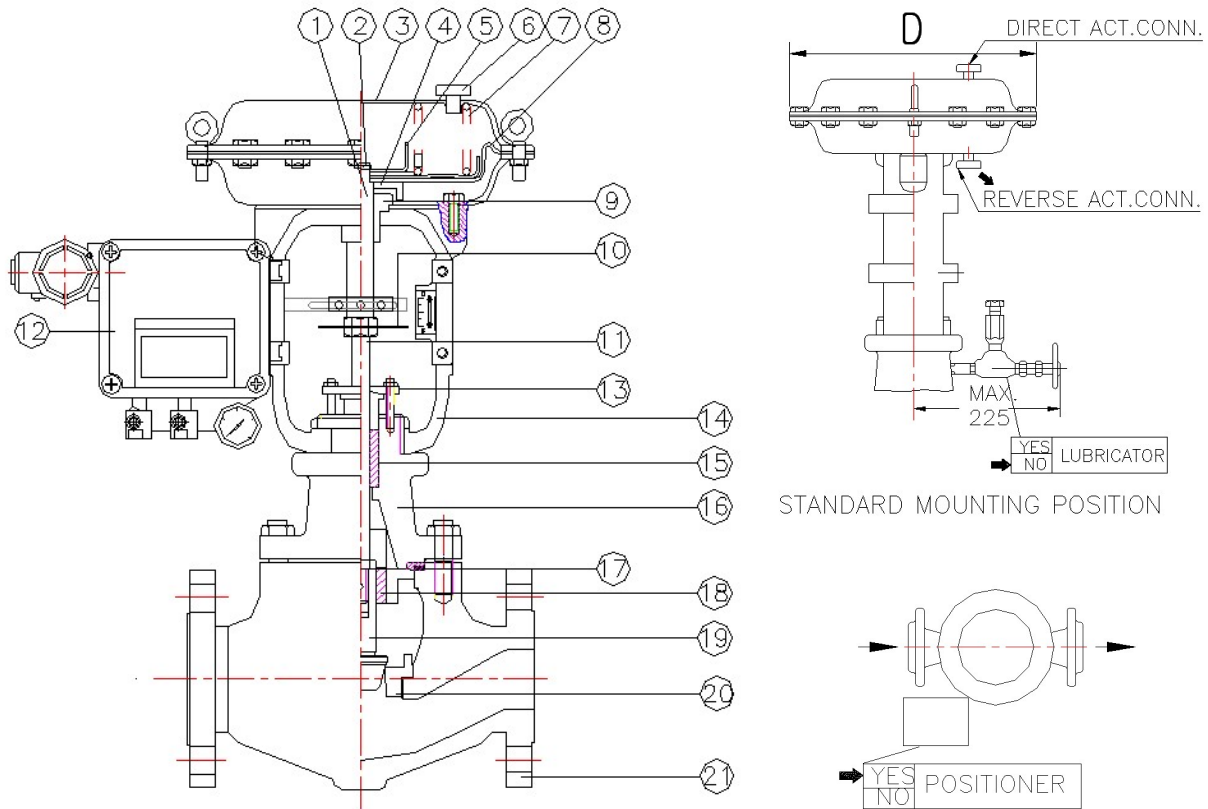
2. High-flow characteristic type contoured plug

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

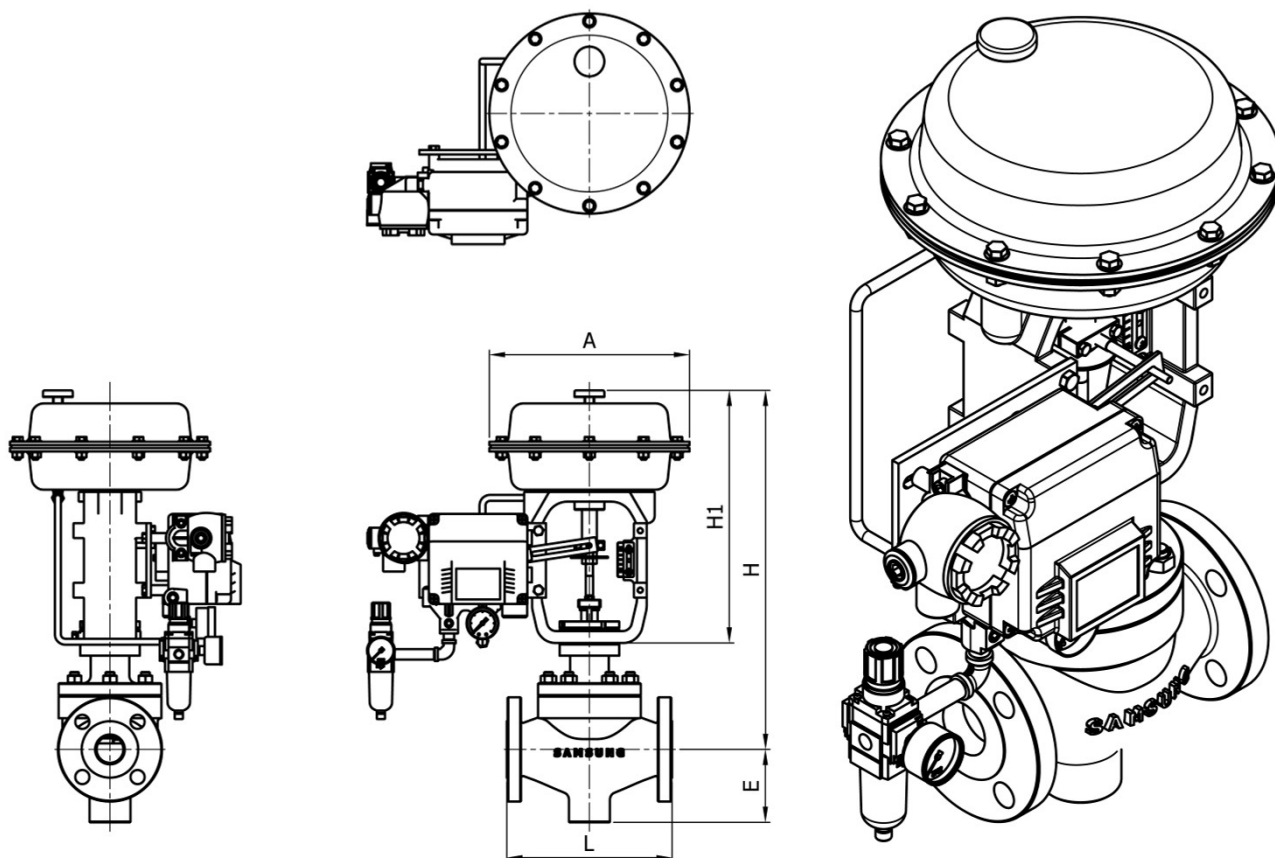
Valve size (inch)	1 1/2	2	2 1/2	3	4	6	8
Port size (inch)	1 1/2	2	2 1/2	3	4	6	8
Rated Cv value	35	55	95	135	220	460	720
Rated travel (mm)	10	13	19	19	25	30	50

● PART LIST



NO.	PART NAME	MATERIAL	NO.	PART NAME	MATERIAL
1	STEM	SUS304	12	POSITIONER	OPTION
2	STEM NUT	SUS304	13	PACKING FLANGE	SS41
3	DIAPHRAGM COVER	SS41	14	YOKE	FC20
4	BOTTOM STOPPER	SS41	15	PACKING	V-Teflon
5	TOP STOPPER	SS41	16	BONNET	SCS13
6	AIR CONNECTION	PT 1/4	17	GASKET	S.W.G
7	SPRING	SWP	18	GUIDE BUSHING	SUS420J2
8	DIAPHRAGM	EPDM	19	PLUG	SUS316-ST
9	STEM GUIDE	SS41	20	SEAT	SUS316-ST
10	INDICATOR	SUS304	21	BODY	SCS13
11	TRIM	SUS304			

● DIMENSION



SIZE	ACTUATOR	A	L	H1	E	H	STROKE
15 A	SA1	220	184	282	80	420	15
20 A	SA1	220	184	282	80	420	15
25 A	SA1	220	184	282	80	420	15
32 A	SA2	265	222	320	80	480	25
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	356	622	125	802	50
150 A	SA4	470	451	622	170	965	50
200 A	SA4	470	495	622	220	1100	50

(Please contact factory in advance for the bigger size)

HOW TO ORDER ?

SCV1000 -

MATERIAL

PLUG

BONNET

ACTUATOR

ACTION

OPTION

RAITING

SIZE

MATERIAL	
1	SCPH2(WCB)
2	SCS13(CF8)
3	SCS14(CF8M)
4	SCS16(CF3)

PLUG	
1	SINGLE EQ%
2	SINGLE LINEAR
3	CAGE (BALANCE)
4	SINGLE EQ%+PTFE

BONNET	
1	PLAIN
2	EXTENSION FIN (+300℃)
3	EXTENSION (-100℃)
4	BELLOWS SEAL

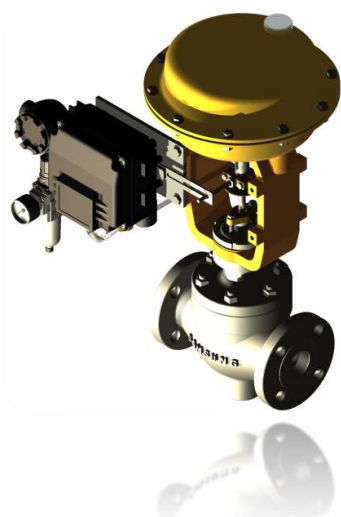
ACTUATOR	
SA R	DIAPHRAGM ACT. REVERSE
SA D	DIAPHRAGM ACT. DIRECT
CA R	CYLINDER ACT. REVERSE
CA D	CYLINDER ACT. DIRECT

ACTION
O : NORMAL OPEN
C : NORMAL CLOSE

OPTION
E : EP POSITIONER + AIR SET
P : PP POSITONER + AIR SET
S : SMART POSITIONER + AIR SET
SE : SMART POSITIONER (EXPROOF)+AIR SET
L : LIMITS SWITCH
LE : LIMITS SWITCH (EX PROOF)
B : BOOSTER RELAY
U : LOCK-UP VALVE
T : TOP HANDWHEEL
PTM : POSITION TRANCE MITTER

RATING
J 1 : JIS 10 K
J2 : JIS 20 K
J3 : JIS 30 K
J4 : JIS 40 K
J6 : JIS 63 K
A1 : ANSI 150#
A2 : ANSI 300#
A3 : ANSI 600#
A4 : ANSI 900#
A5 : ANSI 1500#
A6 : ANSI 2500#
D1 : PN 10BAR
D2 : PN 16BAR
D3 : PN 25BAR
D4 : PN 40BAR
D5 : PN 64BAR
D6 : PN 100BAR
D7 : PN 160BAR

SIZE
15A
T0
300A



ORDER EXAMPLE

BODY MATERIAL : SCPH2

PLUG : SINGLE EQ% BONNET TYPE : PLAIN

END CONNECTION : FLANGE RF

ACTUATOR : DIAPHRAGM ACTUATOR – REVERS ACTION

ACTION : NORMAL CLOSE

OPTION : EP POSITIONER +POSITION TRANCE MITTER + AIR SET

RAITING : JIS 20 K

SIZE : 50A

ODER NO. : SCV-1000-111 SA R CEJ2 50A

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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