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■ Technology ■ Energy Saving ■ Comfortable

VALVE

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THERMOSTAT VALVE ACCESSORIES

VALVE

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ABOUT US

SASWELL is the major manufacturer in China for HVAC thermostats and valves. Founded in 1999, aimed at developing, producing better performance and better quality HVAC products in China, From the year of 2000, we start the export business. Till now we have exported HVAC products to everywhere around the world. SASWELL has won the trust from domestic and international clients for our product quality and services.

In our trade with merchants of various countries, we always adhere to the principle of equality and mutual benefit. It is our hope to promote, by joint efforts, both trade and friendship to our mutual advantage.

SASWELL® CONTROLS

SASWELL CONTROLS , the famous brand belongs to SASWELL GROUP for BA control. Design and Manufacture AHU control products like thermostat , motorized valve , actuator , damp actuator , Temp & Humidity sensor , DDC central controllers and all around series products . SASWELL always offer the most convenient control solutions and service to our client from different countries . And gain good reputation for simply operation , high accuracy , and various control options .

SASWELL® THERMO

SASWELL THERMO , the famous brand belongs to SASWELL GROUP for advanced heating controls, which are designed on principle of energy-saving , low temperature heating and easy control . Products includes thermostat ,manifold, central controller for water line floor heating system, floor heating mats , heating cable etc.

Today

Today, SASWELL brand products are being exported throughout the world. With a strong R&D and engineering team, SASWELL can customize the product designs at our clients' requirements in a very short time. It is our target to provide satisfactory HVAC solution and better products to our customers around the world. SASWELL is a brand name trusted by contractors for our product quality and reliability.

Content

SV60 Series

General

SV602XX series two way motorized valve is used to control the cool/heat water flow through the fan coil unit. When thermostat sends the controlling signal to the motorized valve, the valve is opened with water flowing from B to A (Fig. 1), and when the signal disappears, the valve, with the help of its own spring, returns back to its original place to close the valve so as to stop the water flow (Fig. 2).

SV603XX series three way motorized valve is used to control the cool/heat water flowing through the fan coil unit. When thermostat sends the controlling signal to the motorized Valve, the valve is turned on to let water flow from C to B (Fig. 3), and when the signal disappears, the valve, with the help of its own spring, returns back to its original position to change the water flow from C to A (Fig.4).

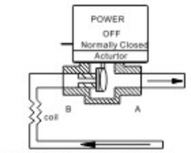


Fig.1:2-way Normally Closed to the Coil

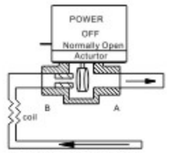


Fig.2:2-way Normally Open to the Coil

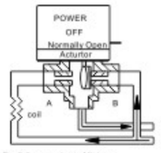


Fig.3:3-way valve in Mixing Configuration,Normally Open to coil

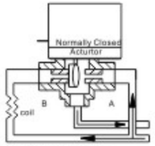


Fig.4:3-way valve in Mixing Configuration,Normally Closed to coil

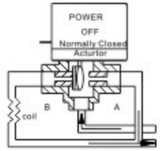


Fig.5:3-way valve in Diverting Configuration,Normally Closed to coil

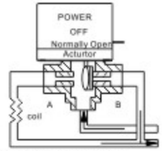


Fig.6:3-way valve in Diverting Configuration,Normally Open to coil

Features

- Stainless Base with Aluminum Shell
- Forging Brass Body Synchromotor Drive
- Efficient Power Consumption and Less Noise
- Separated Motorized Valve is easy to dismantle and install and convenient to use.

Technical Data

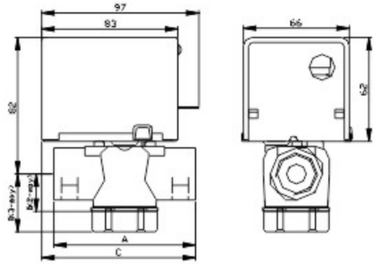
- Power Voltage:220V±10%, 50/60Hz
- Pressure: 1.6Mpa
- Power Consumption:<7W
- Media Temperature: 5~90°C
- Valve Action Time: Open<10s, Return<6s
- Working Environment: 5~60°C,10%-95%RH

Dimension(mm)

MODEL	A	B	C
SV60215	90	23	94
SV60220	94	23	103
SV60225	96	25	105
SV60315	70	23	86
SV60320	87	23	93
SV60325	94	25	95

Model Listing

No	Body Sturcture	Model	Caliber Parameter		Kv(Cv) Value
1	Two way valve	SV60215	Dn15	½"	2.2(2.5)
2		SV60220	DN20	3/4"	3.0(3.5)
3		SV60225	Dn25	1"	6.9(8.0)
4	Three way valve	SV60315	DN15	1/2"	2.2(2.5)
5		SV60320	DN20	3/4'	3.0(3.5)
6		SV60325	DN25	1"	6.9(8.0)



M22/M28 Series

General

The M22/M28series mid-position diverter valve is normally used in conjunction with a room thermostat and cylinder thermostat toprovide full temperature control of a conventional, fully pumped central heating installation. When used in this way, the control system is known as Sundial Y Plan and the components can be connected together using the Sundial Plan Wiring Centre which has dedicated terminations and there is no need for a wiring diagram.

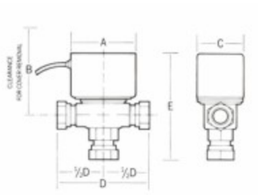
Features

Spring return action
Three position operation.
Manual lever for filling/draining down
Five wire connection
Provides electrical control of pump and boiler
Powerhead replaceable without draining down.
Motor changeable without replacing whole powerhead
Quiet operation, minimal power consumption

Technical Data

- Voltage Rating : 230 Volts AC 50Hz
- Switch Rating : 2.2A
- Power Consumption : 6 watts
- Timings (Nominal) : Valve opens to Port A (from Port B) in 18 seconds (under power)
  Valve opens to Port B in 8 seconds (under spring return)
- Ambient Temperature : 50°C max
- Flow Temperature : 5°C to 88°C max
- Static Pressure : 8.6 bar max
- DHW : Port B
- CH Circuit : Port A
- Electrical Connections : 1m flying lead, heat resistant cable
- NOTE: Continuous operation of the valve motor at the fully open position is not recommended

Dimension(mm)



A		87
B		98
C		60
D	¼"	94
	22mm	112
	1"	94
	28mm	117
E	¼"	124
	22mm	133
	1"	124
	28mm	137

Model listing

Model	PIPE CONNECTIONS	K.V. ONE PORT	DIFFERENTIAL PRESSURE FOR CLOSE OFF
M22	22mm Comp.	6.0	0.69 bar max
M28	28mm Comp.	8.1	0.55 bar max

SV50 Series


SV50

General

The SV50series valve is assembled with an electric or electro-thermal actuator used in ventilation and air-conditioning systems for terminal unit control. For the on/off control of water flow in water-based air-conditioning system, Closed-cycle systems. It can be fitted with motorized actuator (SV50) or electro-thermal actuator (SA91)

Valve Body Features

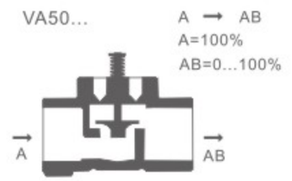
- DMValve body:Brass
- Valve Stem: stainless steel
- Stem seal: EP
- Stroke:≥2.5mm
- Leakage rate(AB): 0-- 0.05% of Kvs

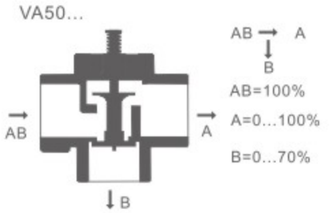
Technical Data

- Power: 220VAC±10%
- Operating pressure: PN16
- Connector:M30X1.5mm
- Medium temperature: 0--110℃

Actuator Feautures

Housing	Material Color	Abs White
Working Force Intensity (f)&direction Control Element(t) Connector Ambient Temperature Full Stroke Protecton Class Power Consumption		80n≤f<130n Direction:upward Electro-thermal Wax Sensor M30x1.5 -10°c—60°c 4mm 1p45 1.1va
Max Impact Current	24v 110v 220v/230v	2w 2w 2w
Lead Wire		0.8m Length (2-core)
Net Weight		180g





Model listing

Model	DN(MM)	Kvs(m^3/h)	△ps(Kps)	Connections
SV50215	15	2.0	300	Rp 1/2
SV50220	20	3.5	200	Rp 3/4
SV50225	25	5.0	200	Rp 1
SV50320	20	3.0	200	Rp 3/4
SV50325	25	5.0	200	Rp 1

Installation Notes

SV70/80series

General

SV70/80 series ball valves are widely used in central air –conditioning cool/heat water system.It Can accurately control the flow of cool/heat medium depending upon the requirments of the given application,and can not result in sudden change of temperature and to control the room temperature accurately.

SV70

Features

- Well waterproof and dustproof features(IP65)
- High Differential presure up to IMPA and strict closure
- High flux and no sediment due to direct flow through of the valve.
- Soft shut –off and open to eliminate water hammer in most applications.
- Motor does not bear any forces when valve is not in motion,extending service life.
- Actuator can not be affected by temperature of valve and enviroment.
- Quick and easy replacement by movable actuator
- The actuator can be installed after the application and pipe was fixed that is efficient for installation.
- Valve can be operated by general tools when actuator has been removed.
- Actuator installation alloows for 2 different wiring orientations,thus providing ease of wiring and service.

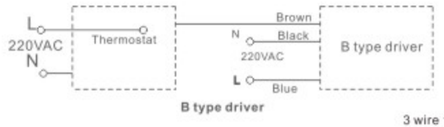
Technical Data

- Media: chilled or hot water, 60% glycol
- Size: 1/2" ,3/4" & 1"
- Flow Characterize: 2-way or 3 ways
- Operating Mode: 3-point control 924VAC0 or on/off
- Power supply: AC110V AC220V, AC230V, AC24V etc.
- Power Consumption: 5W (during valve position change)
- Running Time: 15sec.(50Hz)/12 sec.(60Hz)
- Pipe Fitting: NPT internal thread
- Optional: BSPP external thread
- BSPP internal thread
- BSPT internal thread
- Compression external thread

Materials

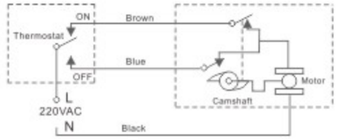
- Body: forged brass, nickel plated
- Optional: forged brass; casting bronze; stainless steel
- Ball: chrome plated brass; optional stainless steel
- Stem: brass; optional: nickel plated brass; stainless steel
- Seats: fiberglass reinforced Teflon PTFE
- Seal: 2 EPDM O-rings, lubricated
- Pressure Rating : 300psi (2MPa)
- Media Temp.Range: 34℉ to 203℉ (1℃-95℃)
- Max. Differential Pressure: 150psi (1MPa)
- Protection Grade: IP65
- Servicing: maintenance free
- Types: 2-way Valve, 3-way Valve (side), 3-way Valve (base)

Wiring Diagram



B type driver

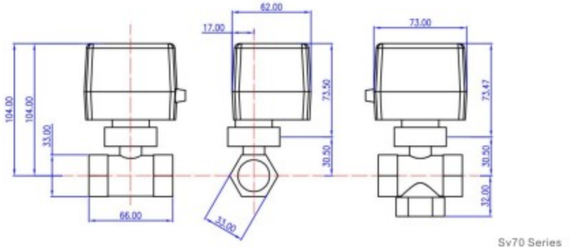
3 wire 1 control



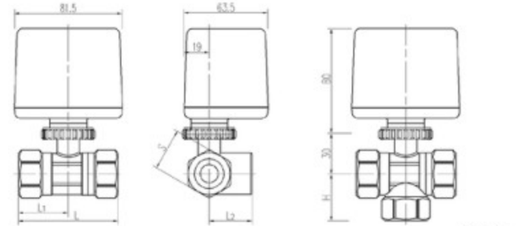
Normal driver

3 wire 2 control

Dimension(mm)



Sv70 Series



Sv80 Series

Model listing

SV70/80

No	Body Sturcture	Model NO	Caliber Parameter		Kv(Cv) Value
1	Two way valve	SV70/80215	DN15	½"	4.62
2		SV70/80220	DN20	3/4"	7.5
3		SV70/80225	DN25	1"	13.02
4	Three way valve	SV70/80315	DN15	1/2"	4.62
5		SV70/80320	DN20	3/4'	7.5
6		SV70/80325	DN25	1"	13.02

SV80

Ball Valve Actuators

General

SBAseries floating/Modulating valves are widely used in central air –conditioning cool/heat water system.It Can accurately control the flow of cool/heat medium depending upon the requirments of the given application,and can not result in sudden change of temperature and to control the room temperature accurately.

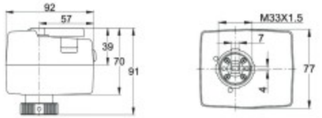
Features

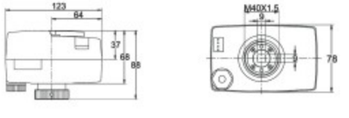
- Bi-directional AC motor
- SBA03 apply to valves of DN15-DN25,SVA04 apply to valves of DN15-50
- SBA05 apply to valves of DN65-DN100.SVA06 apply to valves of DN125-DN150.
- Fire retardant engineering plastic,measure up UL94V-0 standard
- Intergrate with on-off switch at the end of stroke for longer motor life
- With manual switch and position indicator
- Electrical on/off type or floating (PID adjusting)type.
- Detachable design,easy to install and maintain
- 0(2)-10Vdc or -0(4)-20MA dc control input signal,proportional control.
- 0-10V feedback signal.

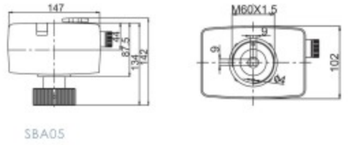
Actuator Specification

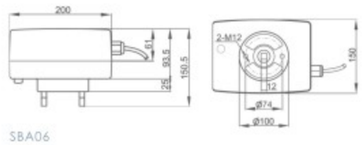
Model	SBA03-SBV06	SBA03	SBA04	SBA05	SBA06
Power supply	24E	24V,110V,120V,220V,230V,240V			
Control Signal	0(2)-10Vdc or -0(4)-20MA				
Default Setting	Input Signal:0-10VdcMode:DA				
Current Frequency	50/60HZ				
Torque		⩾4nm	⩾5nm	⩾25nm	⩾65nm
Operation Time		=45S	=50S	121S/100S	120S/100S
Rotatable Angel	90 <Limiter⩽95				
ConnetingWires	0.5-1MM				
Material	Housing Chassis Gear	Fireproof ABS engineering plastic Die-casting aluminum alloy POM(polyoxymethylene)+steel			
OperationTemp	-5-+50				
Storage Temp	-30-+70				
IP Class	IP54				

Dimension(mm)

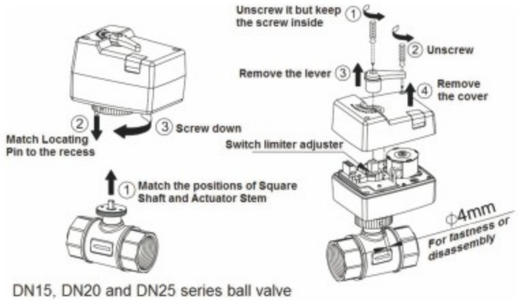






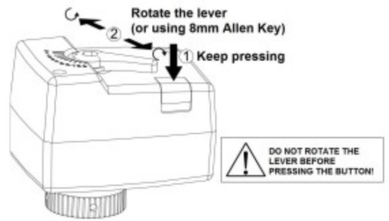


Installation Instruction



DN15, DN20 and DN25 series ball valve

Manual Switch



Femal Threaded stainless Stell Valve body

General

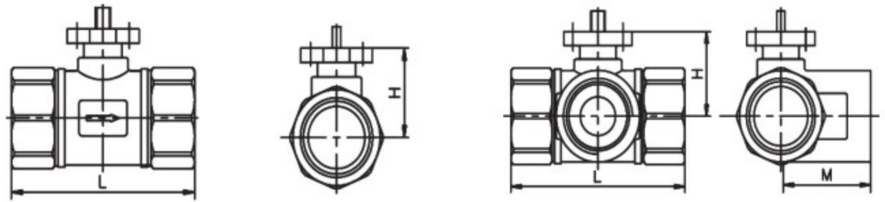
SBV series ball valve bodies are widely used to control water flow in central air-conditioning, heating system. Controlled by standard floating signal or 3-point signal from angle rotation actuators, the valve ball can be rotated to different angle. There two flow control type: SBV01 full port ball valve body and SBV02 characterized ball valve body. The valves are 3-piece structure, and have six sizes: DN15, DN20, DN25, DN32, DN40 and DN50. The ball sealing inside the valve is made of PTFE material of high lubricating ability and wearability. It makes the valve has high closing-off pressure and great hermetization. The valves can be matched withSBA03 and SBA04 series actuators.

Technical Data

MODEL	TYPE	Kv	Cv	THREAD	CLOSE OFF PRES. (MPa)	RATED BODY PRES. (MPa)
SBV01G2151208(S) SBV02G215040S	2-way	12 4	14 4.7	G1/2	0.6	2.5
SBV01G2201508(S) SBV02G220063S		15 6.3	17.5 7.4	G3/4	0.6	2.5
SBV01G2252208(S) SBV02G225100S		22 10	25 11.7	G1	0.6	2.5
SBV01G2323108(S) SBV02G232160S		31 16	36.3 18.7	G11/4	0.6	2.5
SBV01G2403308(S) SBV02G240250S		33 25	38.6 29.3	G11/2	0.6	2.5
SBV01G2505008(S) SBV02G250400S		50 40	58.5 46.8	G2	0.6	2.5
SBV01G3151208(S) SBV02G315040S	3-way	12 4	14 4.7	G1/2	0.6	2.5
SBV01G3201508(S) SBV02G320063S		15 6.3	17.5 7.4	G3/4	0.6	2.5
SBV01G3252208(S) SBV02G325100S		22 10	25 11.7	G1	0.6	2.5
SBV01G3323108(S) SBV02G332160S		31 16	36.3 18.7	G11/4	0.6	2.5
SBV01G3403308(S) SBV02G340250S		33 25	38.6 29.3	G11/2	0.6	2.5
SBV01G3505008(S) SBV02G350400S		50 40	58.5 46.8	G2	0.6	2.5

Materials

Material	Body Ball Seat Stem O-ring	Forged Brass Casting Brass (chrome-plate) Ptfe (poly Tetrae Fluoro Ethylene) Stainless Steel / Brass Nbr
Working Media		Chilled/hot Water Or 50% Glycol
Media Temperature		2℃-94℃



Dimension (mm)

Size(mm)	Dimension (mm)				Thread	Max. Pipe thread size (mm)
	L		H	M		
	2-way	3-way				
15	68	68	32	33	G1/2	13
20	68	68	32	34	G3/4	13
25	82	84	37	43	G1	17
32	98	104	48	50	G11/4	19
40	105	111	48	50	G11/2	19
50	122	143	52	61	G2	29

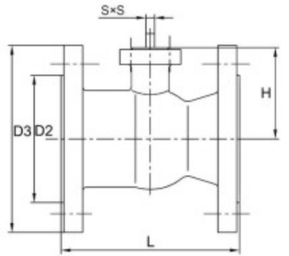
Flange Casting Iron Valve Body

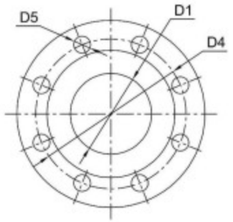
SBV series flange casting iron ball valve bodies are widely used to control water flow in central air-conditioning, heating system. It has SBV03 full port model and SBV04 characterized opening model. Matched with SBA05 and SBA06 series actuator, the valve is driven by actuators and can be rotates to different angle. There are five sizes: DN65, DN80, DN100, DN125 and DN150. And there are full port and characterized opening types.

Technical Data

Model	Type	Flow Rate Kv	Cv	Size	Closs Off Pres. (mpa)	Rated Body Pres. (mpa)
SBV03F265128F(M)	2-way full port	128	150	Dn65	0.6	1.6 (2.5)
SBV04F265064F(M)	2-way chara. opening	64	75		0.6	1.6 (2.5)
SBV03F280136F(M)	2-way full port	136	159	DN80	0.6	1.6 (2.5)
SBV04F280102F(M)	2-way chara. opening	102	119		0.6	1.6 (2.5)
SBV03F2100218F(M)	2-way full port	218	255	DN100	0.6	1.6 (2.5)
SBV04F2100163F(M)	2-way chara. opening	163	190		0.6	1.6 (2.5)
SBV03F2125274F(M)	2-way full port	274	320	DN125	0.6	1.6 (2.5)
SBV04F2125260F(M)	2-way chara. opening	260	304		0.6	1.6 (2.5)
SBV03F2150507F(M)	2-way full port	507	593	DN150	0.6	1.6 (2.5)
SBV04F2150416F(M)	2-way chara. opening	416	487		0.6	1.6 (2.5)

Dimension (mm)



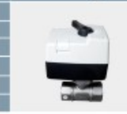


Materials

Material	Valve Body	Forged Brass
	Ball	Casting Brass (chrome-plate)
	Valveseat	Ptfe (poly Tetrae Fluoro Ethylene)
	Valvestem	Stainless Steel / Brass
	O-ring	Nbr
Working Temp.		Chilled/hot Water Or 50% Glycol
Media Temp.		2℃-94℃

SIZE \ Dimensions		L	H	D1	D2	D3	D4	D5	S × S		
DN65	PN16 PN25	190	98	82	120	185	145	18	9 × 9	4/8	M16
DN80	PN16 PN25	190	98	82	136	200	160	18	9 × 9	8	M16
DN100	PN16 PN25	230	108	102	156 162	220 235	180 190	18 23	9 × 9	8	M16 M20
DN125	PN16 PN25	254	115	125	188	250 270	210 220	18 26	12 × 12	8	M16 M24
DN150	PN16 PN25	267	133	154	210 215	285 300	240 250	22 26	12 × 12	8	M20 M24

Model listing

NO.		Control Type	2way 3way	DN	Model(Actuator+valve body)	Care Material
1		Three Position	2way	15	SBA03-F220/SBV215	Stainless –Steel
2			2way	20	SBA03-F220/SBV220	Stainless–Steel
3			2way	25	SBA03-F220/SBV225	Stainless–Steel
4			2way	32	SBA04-F220/SBV232	Stainless–Steel
5			2way	40	SBA04-F220/SBV240	Stainless–Steel
6			2way	50	SBA04-F220/SBV250	Stainless–Steel
7		Three Position	2way	65	SBA05-F220/SBV265F	Flaged casting Iron
8			2way	80	SBA05-F220/SBV280F	Flaged casting Iron
9			2way	100	SBA05-F220/SBV2100F	Flaged casting Iron
10			2way	125	SBA06-F220/SBV2125F	Flaged casting Iron
11			2way	150	SBA06-F220/SBV2150F	Flaged casting Iron
12		Three Position	3way	15	SBA03-F220/SBV315	Stainless –Steel
13			3way	20	SBA03-F220/SBV320	Stainless–Steel
14			3way	25	SBA03-F220/SBV325	Stainless–Steel
15			3way	32	SBA04-F220/SBV332	Stainless–Steel
16			3way	40	SBA04-F220/SBV340	Stainless–Steel
17			3way	50	SBA04-F220/SBV350	Stainless–Steel
18		Modulating	2way	15	SBA03-M24/SBV215	Stainless –Steel
19			2way	20	SBA03-M24/SBV220	Stainless –Steel
20			2way	25	SBA03-M24/SBV225	Stainless –Steel
21			2way	32	SBA04-M24/SBV232	Stainless –Steel
22			2way	40	SBA04-M24/SBV240	Stainless –Steel
23			2way	50	SBA04-M24/SBV250	Stainless –Steel
24		Modulating	2way	65	SBA05-M24/SBV265	Flaged cast Iron
25			2way	80	SBA05-M24/SBV280F	Flaged cast Iron
26			2way	100	SBA05-M24/SBV2100F	Flaged cast Iron
27			2way	125	SBA06-M24/SBV2125F	Flaged cast Iron
28			2way	150	SBA06-M24/SBV2150F	Flaged cast Iron
29		Modulating	3way	15	SBA03-M24/SBV315	Stainless –Steel
30			3way	20	SBA03-M24/SBV320	Stainless –Steel
31			3way	25	SBA03-M24/SBV325	Stainless –Steel
32			3way	32	SBA04-M24/SBV332	Stainless –Steel
33			3way	40	SBA04-M24/SBV340	Stainless –Steel
34			3way	50	SBA04-M24/SBV350	Stainless –Steel

Electric Actuator

General

floating/Modulating valves are widely used in cool/heat water system central, ventilation.andair –conditioning .It Can accurately control the flow of cool/heat medium depending upon the requirments of the given application.

Features

- LED screen presentation window is one of my highlights.It shows you work normally or not.
- Easy to operate.Ater press the red button 3sefonds.it will adust the stroke automatically.
- 0(2)-10Vdc and4-20Ma optinal.
- Unique separation design of the circuit board and mechanical structure can protect dust excustively.
- Portable manual service design more humanrable.when power is cut off
- Firm and light shaft made of crush casting alum of the actuator
- With solid appeaance and color design.

Floating/Modulating Valve Body

General

Sleries and SFseries valve bodies are widely used to control water flow in central air-conditioning, heating system. Controlled by standard floating signal or 3-point signal from angle rotation actuators, the valve can be rotated to different angle. There are two major vallve body stainless steel and flaged.The sizes from DN15-DN400 They can match with electric actuators.

Features

- Big caliber option:DN15-DN400
- High cut-off differential presure and low rate leakage.For high-end valve
- With High quality material Valve body:dutile iron.Valve stem and code:stainless steel.
- More than 100,000 lifte time.
- With exterior design pupular in the market.
- Matte paint technology is adopted on the surface treatment.
- V- ring stealing gland+stainless steel spring auto-compensation

500N / 1000N Electric Actuators

Force	500N / 1000N	Ambient temperature	-10 ~ 60℃ (Running)
Actual output force	500N~700N / 1000N~1200N	Ambient humidity	≤95% RH(40℃) (Running)
Type	3-position, proportional	Degree of protection	IP54
Power consumption	5.5VA(3-position), 7.5VA (proportional)	Running mode	straight travel
motor	Synchronous	Branket material	Aluminum die casting (surface anti-rust treatment)
Max.stroke	22 mm	Upside cover material	ABS
Running time	3.85s/(50HZ)3.21s/mm(60Hz)	Life	100,000 times full open and close

500N type	SC500-X24-S.12	SC500-X220-S.12	SC500-D24-S.12	SC500-D220-S.12	SC500-D24-SF1.12	SC500-D220-SF1.12	SC500-D24-SF2.12
1000N type	SC1000-X24-S.12	SC1000-X220-S.12	SC1000-D24-S.12	SC1000-D220-S.12	SC1000-D24-SF1.12	SC1000-D220-SF1.12	SC1000-D24-SF2.12
Power: 24V / 220VAC	24VAC	220VAC	24VAC	220VAC	24VAC	220VAC	24VAC
Stroke (mm)	22	22	22	22	22	22	22
Force (N)	500 / 1000	500 / 1000	500 / 1000	500 / 1000	500 / 1000	500 / 1000	500 / 1000
Running time	77 s / 20 mm	77 s / 20 mm	77 s / 20 mm	77 s / 20 mm	77 s / 20 mm	77 s / 20 mm	77 s / 20 mm
Self-stroking	√	√	–	–	–	–	–
Input signal: 0(2)~10VDC, 0(4)~20mA	√	√	–	–	–	–	–
Output signal: 0(2)~10VDC, 0(4)~20mA	√	√	–	–	–	–	–
10K resrstance feedback	–	–	–	–	√	√	–
2 SPDT feedback	–	–	√	–	–	–	√
Manual	√	√	√	√	√	√	√

■ Type introduction:

1. Force
500:500N 1000:1000N
2. X: Proportional
D: 3-position

3.Power
24: 24VAC
220:220VAC

4. S: Manual
5 .F1: 10K resrstance Feedback
F2: 2 SPDT Feedback

1800N/3000N Electri Actuators

Force	1800N / 3000N	Ambient temperature	-10 ~ 60℃ (Running)
Actual output force	1800N~2000N / 3000N~3500N	Ambient humidity	≤95% RH(40℃) (Running)
Type	3-position, proportional	Degree of protection	IP54
Power consumption	10VA(3-position), 12VA (proportional)	Running mode	straight travel
motor	Synchronous	Branket material	Aluminum die casting (surface anti-rust treatment)
Max.stroke	42mm	Upside cover material	Aluminum die casting (surface anti-rust treatment)
Running time	3.13s/ mm (50Hz) 2.61s/ mm (60Hz)	Life	100,000 times full open and close

1800N type	SR1800-X24-S.12	SR1800-X220-S.12	SR1800-D24-S.12	SR1800-D220-S.12	SR1800-D24-SF1.12	SR1800-D220-SF1.12	SR1800-D24-SF2.12
3000N type	SR3000-X24-S.12	SR3000-X220-S.12	SR3000-D24-S.12	SR3000-D220-S.12	SR3000-D24-SF1.12	SR3000-D220-SF1.12	SR3000-D24-SF2.12
Power: 24V / 220VAC	24VAC	220VAC	24VAC	220VAC	24VAC	220VAC	24VAC
Stroke (mm)	42	42	42	42	42	42	42
Force (N)	1800 / 1000	1800 / 1000	1800 / 1000	1800 / 1000	1800 / 1000	1800 / 1000	18 00 / 1000
Running time	125s / 40 mm	125 s / 40 mm	125 s / 40 mm	12s / 40 mm	125s / 40 mm	125 s / 40 mm	125s / 40 mm
Self-stroking	√	√	–	–	–	–	–
Input signal: 0(2)~10VDC, 0(4)~20mA	√	√	–	–	–	–	–
Output signal: 0(2)~10VDC, 0(4)~20mA	√	√	–	–	–	–	–
10K resrstance feedback	–	–	–	–	√	√	–
2 SPDT feedback	–	–	–	–	–	–	√
Manual	√	√	√	√	√	√	√

■ Type introduction:

1. Force
1800:1800N 3000:3000N
2. X: Proportional
D: 3-position

3.Power
24: 24VAC
220:220VAC

4. S: Manual
5.F1: 10K resrstance Feedback
F2: 2 SPDT Feedback
6.12: new product

16000N Electri Actuators

Force	16000N	Ambient temperature	-10 ~ 60℃ (Running)
Actual output force	16000N~16500N	Ambient humidity	≤95% RH(40℃) (Running)
Type	3-position, proportional	Degree of protection	IP54
Power consumption	100VA(3-position), 100VA (proportional)	Running mode	straight travel
motor	brushless DC motor	Branket material	Aluminum die casting (surface anti-rust treatment)
Max.stroke	110mm	Upside cover material	Aluminum die casting (surface anti-rust treatment)
Running time	3.13s/ mm (50Hz) 2.61s/ mm (60Hz)	Life	100,000 times full open and close

16000N type	SR16000-XD220-S.12
Power: 24V / 220VAC	220VAC
Stroke (mm)	110
Force (N)	16000
Running time	100 s /100 mm
Self-stroking	√
Input signal: 0(2)~10VDC, 0(4)~20mA	√
Output signal: 0(2)~10VDC, 0(4)~20mA	√
2 SPDT feedback	√
Manual	√

■ Type introduction:

1. Force
16000:16000N
2. X: Proportional
D: 3-position

3.Power
220:220VAC
4. S: Manual

5.2 SPDT feedback comes as standard
6.12: new product

Female Threaded Stainless Steel Valve Body (Environmental Protection)

Caliber range	2-port,water DN15...DN80 3-port,water DN15...DN80	Flow characteristic	Equal-percentage
Leakage	DN15~DN80 <0.02% of Kvs/Cv	Pressure	1.6MPa/232psi, 2.5MPa/363psi
Medium	Chilled/hot water,Refrigeration materials,glycol,hydrazine, etc	Body	Stainless steel
Temperature	SL...2VBC-S.12 Water -25...+130℃ SL...3VBC-S.12 Water -25...+130℃	Seat	Stainless steel
Threaded standard	ISO 7/1 or ANSI B1 20.1	Stem	Stainless steel
V model sealing ring	Tefion	Sealing structre of valve stem	V model sealing gland + stainless steel spring auto-compensation

2-port type	Caliber[in.]	DN [mm]	Cv [gal/min]	Kvs [m3/h]	Stroke [mm]	Actuator [N]	△Ps[Mpa]	△Pmax[Mpa]
SL15-2VBC-S.12	½"	15	2.2	1.9	10	500	0.50	0.50
SL20-2VBC-S.12	3/4"	20	5.1	4.4	10	500	0.50	0.50
SL25-2VBC-S.12	1"	25	9	8	15	500	0.40	0.40
SL32-2VBC-S.12	1 1/4"	32	12	10	20	500	0.35	0.35
SL40-2VBC-S.12	1 ½"	40	23	20	20	500	0.30	0.30
SL50-2VBC-S.12	2"	50	37	32	20	1000	0.30	0.30
SL65-2VBC-S.12	2 ½"	65	58	50	20	1000	0.25	0.25
SL80-2VBC-S.12	3"	80	77	66	20	1000	0.25	0.25

3-port type	Caliber[in.]	DN [mm]	Cv [gal/min]	Kvs [m3/h]	Stroke [mm]	Actuator [N]	△Pmax[Mpa]
SL15-3VBC-S.12	½"	15	2.2	1.9	10	500	0.50
SL20-3VBC-S.12	3/4"	20	5.1	4.4	10	500	0.50
SL25-3VBC-S.12	1"	25	9	8	15	500	0.40
SL32-3VBC-S.12	1 1/4"	32	12	10	20	500	0.35
SL40-3VBC-S.12	1 ½"	40	23	20	20	500	0.30
SL50-3VBC-S.12	2"	50	37	32	20	1000	0.30
SL65-3VBC-S.12	2 ½"	65	58	50	20	1000	0.25
SL80-3VBC-S.12	3"	80	77	66	20	1000	0.25

△Ps: Maximum permissible differential pressure (closing pressure) at which the motorized valve will close securely against pressure.
△Pmax: Max. permissible differential pressure across the valve's control path across the entire actuating range of the motorized valve

■ Type introduction:

1. L: Female threaded
F: flanged
SF: high-end flanged(appr. 0 leakage)
2. ***: Caliber

3. Medium:
V: water -25℃-130℃ ;
S: steam 2℃-180℃ ;
4. body:
B: stainless steel

5. pressure
C: 1.6MPa / 232psi,
D: 2.5MPa / 363psi
6. .12: new product

Flanged Ductile Iron Valve Body

Caliber range	2-portDN15…DN400 3-port DN15…DN400	Flow characteristic	Equal-percentage
Leakage	DN15~DN400 <0.02% of Kvs/Cv	Pressure	1.6MPa/232psi, 2.5MPa/363psi 4.0MPa/580psi
Medium	Chilled/hot water,Refrigeration materials,glycol,hydrazine, etc	Body	Ductile iron
Temperature	SF…2VGC-S.12 Water -25…+130℃ SF…3VGC-S.12 Water -25…+130℃	Seat	Stainless steel
Flanged standard	ISO 7005 and ANSI B 16.5	Stem	Stainless steel
V model sealing ring	Teflon	Sealing structre of valve stem	V model sealing gland + stainless steel spring auto-compensation

2-port type	3-port type	Calier[in.]	DN [mm]	Kvs [m³/h]	Stroke [mm]	Actuator [N]	2-port △Ps [Mpa]	2-port △Ps [Mpa]	3-port△Pmax [Mpa]
SF15-2VGC-S.12	SF15-3VGC-S.12	½"	15	2	20	500	1.60	0.80	0.80
SF20-2VGC-S.12	SF20-3VGC-S.12	3/4"	20	3	20	500	1.60	0.80	0.80
SF25-2VGC-S.12	SF25-3VGC-S.12	1"	25	5	20	500	1.50	0.80	0.80
SF32-2VGC-S.12	SF32-3VGC-S.12	1 1/4"	32	8	20	500	0.80	0.80	0.80
SF40-2VGC-S.12	SF40-3VGC-S.12	1 ½"	40	20	20	500	0.50	0.50	0.50
SF50-2VGC-S.12	SF50-3VGC-S.12	2"	50	31	20	1000	0.30	0.30	0.30
SF65-2VGC-S.12	SF65-3VGC-S.12	2 ½"	65	50	20	1800	0.45	0.45	0.45
SF80-2VGC-S.12	SF80-3VGC-S.12	3"	80	80	20	1800	0.27	0.27	0.27
SF100-2VGC-S.12	SF100-3VGC-S.12	4"	100	125	40	3000	0.30	0.20	0.20
SF125-2VGC-S.12	SF125-3VGC-S.12	5"	125	200	40	3000	1.00	0.80	0.15
SF150-2VGC-S.12	SF150-3VGC-S.12	6"	150	300	40	3000	1.00	0.80	0.10
SF200-2VGC-S.12	SF200-3VGC-S.12	8"	200	520	40	5000	1.00	0.80	0.13
SF250-2VGC-S.12	SF250-3VGC-S.12	10"	250	750	40	5000	1.00	0.80	0.08
SF300-2VGC-S.12	SF300-3VGC-S.12	12"	300	1200	100	16000	0.80	0.50	0.25
SF350-2VGC-S.12	SF350-3VGC-S.12	14"	350	1800	100	16000	0.60	0.40	0.15
SF400-2VGC-S.12	SF400-3VGC-S.12	16"	400	2200	100	16000	0.40	0.20	0.10

△Ps: Maximum permissible differential pressure (closing pressure) at which the motorized valve will close securely against pressure.
△Pmax: Max. permissible differential pressure across the valve's control path across the entire actuating range of the motorized valve

■ Type introduction:

1. L: female threaded,
F: flanged SF: high-end flanged(appr. 0 leakage)
2. ***: Caliber
3. Medium:
V: water -25℃-130℃ ; S: steam 2℃-180℃ ;
A: hot steam 2℃-220℃ P:super-heated steam 2℃-450℃
4. body:
G: ductile iron
5. pressure
C: 1.6MPa / 232psi,
D: 2.5MPa / 363psi
6. .12: new product

Flanged Ductile Iron Valve Body

Caliber range	2-port,Water DN15…DN250	Flow characteristic	Equal-percentage/Equal-liner
Leakage	DN15~DN250 appr .0	Pressure	1.6MPa/232psi, 2.5MPa/363psi 4.0MPa/580psi
Medium	Chilled/hot water,Refrigeration materials,glycol,hydrazine, etc	Body	Ductile iron
Temperature	SF…2VGC-S.12 Water -25…+130℃ SF…2SGC-S.12 Water 2…+180℃	Seat	Stainless steel
Flanged standard	ISO 7005 and ANSI B 16.5	Stem	Stainless steel
V model sealing ring	Teflon	Sealing structre of valve stem	V model sealing gland + stainless steel spring auto-compensation

2-port	2-port	Calier[in.]	DN [mm]	Kvs [m³/h]	Stroke [mm]	Actuator [N]	2-port △Ps [Mpa]	2-port△Pmax [Mpa]
SSF15-2VGC-S.12	SSF15-2SGC-S.12	1/2"	15	2	20	500	1.60	0.80
SSF20-2VGC-S.12	SSF20-2SGC-S.12	3/4"	20	3	20	500	1.60	0.80
SSF25-2VGC-S.12	SSF25-2SGC-S.12	1"	25	5	20	500	1.50	0.80
SSF32-2VGC-S.12	SSF32-2SGC-S.12	1 1/4"	32	8	20	500	0.80	0.80
SSF40-2VGC-S.12	SSF40-2SGC-S.12	1 1/2"	40	20	20	500	0.50	0.50
SSF50-2VGC-S.12	SSF50-2SGC-S.12	2"	50	31	20	1000	0.30	0.30
SSF65-2VGC-S.12	SSF65-2SGC-S.12	2 1/2"	65	50	20	1800	1.00	0.80
SSF80-2VGC-S.12	SSF80-2SGC-S.12	3"	80	80	20	1800	1.00	0.80
SSF100-2VGC-S.12	SSF100-2SGC-S.12	4"	100	125	40	3000	1.00	0.80
SSF125-2VGC-S.12	SSF125-2SGC-S.12	5"	125	200	40	3000	1.00	0.80
SSF150-2VGC-S.12	SSF150-2SGC-S.12	6"	150	300	40	3000	1.00	0.80
SSF200-2VGC-S.12	SSF200-2SGC-S.12	8"	200	520	40	5000	1.00	0.80
SSF250-2VGC-S.12	SSF250-2SGC-S.12	10"	250	750	40	5000	1.00	0.80

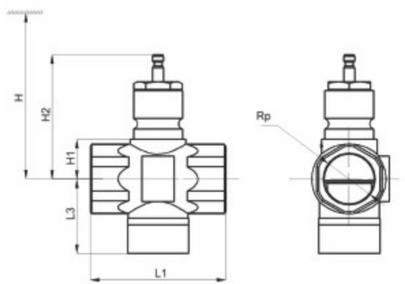
△Ps: Maximum permissible differential pressure (closing pressure) at which the motorized valve will close securely against pressure.
△Pmax: Max. permissible differential pressure across the valve's control path across the entire actuating range of the motorized valve

■ Type introduction:

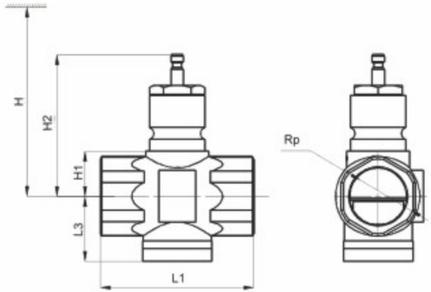
1. L: female threaded,
F: flanged SF: high-end flanged(appr. 0 leakage)
2. ***: Caliber
3. Medium:
V: water -25℃-130℃ ; S: steam 2℃-180℃ ;
A: hot steam 2℃-220℃ P:super-heated steam 2℃-450℃
4. body:
G: ductile iron
5. pressure
C: 1.6MPa / 232psi,
D: 2.5MPa / 363psi
6. .12: new product

■ Two way/Three way valve body dimension list

Type 2-port	Type 3-port	DN	L1 mm	2-port L 3 mm	3-port L3 mm	H1 mm	H2 mm	H mm (500N/1000N)	Type 2-port	Type 3-port
SL15-2VBC-S.12	SL15-3VBC-S.12	15	75	40	47	18	95	258	1	0.8
SL20-2VBC-S.12	SL20-3VBC-S.12	20	83	40	52	21	98	261	1.1	1.1
SL25-2VBC-S.12	SL25-3VBC-S.12	25	87	40	62	24	101	267	1.5	1.6
SL32-2VBC-S.12	SL32-3VBC-S.12	32	103	41	64	30	107	270	1.8	1.8
SL40-2VBC-S.12	SL40-3VBC-S.12	40	122	46	71	36	113	276	2.3	2.3
SL50-2VBC-S.12	SL50-3VBC-S.12	50	137	56	85	41	118	281	3.4	3.3
SL65-2VBC-S.12	SL65-3VBC-S.12	65	157	66	95	51	128	291	5.2	6.0
SL80-2VBC-S.12	SL80-3VBC-S.12	80	180	87	115	58	135	298	6.8	7.1

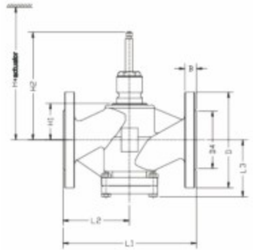


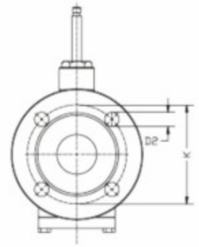
Three way Stainless steel valve body



Two way Stainless steel valve body

■ Two way/Three way flaged valve body dimension list





Flaged Valve Body

DN	B mm	D mm	D2 mm	D4 mm	K mm	L1 mm	L2 mm	2-port L3 mm	3-port L3 mm	H1 mm	H2 mm	2-port Weight KG	3-port Weight KG	H+1000N mm	H+3000N mm	H+5000N mm	H+16000N mm
15	14	95	4-14	46	65	130	65	70	106	31	107.5	3.7	5.3	411	461	/	/
20	16	105	4-14	56	75	150	75	70	106	31	107.5	4.3	5.5	411	461	/	/
25	16	115	4-14	65	85	160	80	75	111	36	132.5	5.4	6.5	416	466	/	/
32	18	140	4-18	76	100	180	90	80	121	45	141.5	7.7	9.4	425	475	/	/
40	18	150	4-18	84	110	200	100	82	121	50	146.5	9.2	11	430	480	/	/
50	20	165	4-18	99	125	230	115	98	135	60	156.5	12.5	14.8	440	490	/	/
65	22	185	4-18	118	145	290	145	115	155	90	186.5	18.5	22.5	470	520	/	/
80	24	200	8-18	132	160	310	155	130	182	101	197.5	25	28.8	481	531	/	/
100	24	220	8-18	156	180	350	175	150	200	113	229.5	35.6	40.6	/	543	543	/
125	22	250	8-18	184	210	400	200	175	240	146	262.5	50.6	55.4	/	576	576	/
150	25	285	8-22	211	240	480	240	197	268	161	277.5	71.5	76.3	/	591	591	/
200	26	340	12-22	266	295	500	250	236	320	263	379.5	112.7	125.6	/	693	693	/
250	31	405	12-26	319	355	600	300	295	400	315	431.5	202	230	/	745	745	/
300	28	460	12-26	370	410	700	350	330	477	421	647	/	/	/	/	/	1080
350	46	520	16-26	429	470	788	394	320	520	413	639	/	/	/	/	/	1467
400	48	580	16-30	480	525	912	456	330	580	470	696	/	/	/	/	/	1497

Notes :

H+1000N: connected with the 500N or 1000N actuator with manual device
H+3000N: connected with the 1800N or 3000N actuator with manual device
H+5000N: connected with the 5000N actuator with manual device
H+16000N: connected with the 16000N actuator with manual de

Remark:

1. The weight of the steam valve is the same as the water valve.
2. The marked way of 2-port valve is the same as 3-port valve.

Model listing

Electric Modulating Steam Control Valve -25 ℃~130℃ 2 ℃~180℃	Series		SC500...	SC1000...	SR1800...
	Nominal stroke		22mm	22mm	42mm
	Nominal output force		500N	1000N	1800N
■ Basic application ■ HVAC ■ Heating systems ■ Heating exchange	Type	Data			
	SC500.../SC1000...	SC500-02			
	SR1800.../SR1800...	SR1800/3000-02			
	3-position, 24VAC	3-position	SC500-D24-S.12	SC1000-D24-S.12	SR1800-D24-S.12
	roportional,24VAC	0(2)...10VDC , 0(4)...20mA	SC500-X24-S.12	SC1000-X24-S.12	SR1800-X24-S.12
	3-position, 220VAC	3-position	SC500-D220-S.12	SC1000-D220-S.12	SR1800-D220-S.12
	roportional, 220VAC	0(2)...10VDC, 0(4)...20mA	SC500-X220-S.12	SC1000-X220-S.12	SR1800-X220-S.12
	-position, 10K resrstance feedback (24VAC / 220VAC)	3-position	SC500-D24-SF1.12 /SC500-D220-SF1.12	SC1000-D24-SF1.12 /SC1000-D220-SF1.12	SR1800-D24-SF1.12 /SR1800-D220-SF1.12
	3-position, 2 SPDT feedback (24VAC /220VAC)	3-position	SC500-D24-SF2.12/ SC500-D220-SF2.12	SC1000-D24-SF2.12/ SC1000-D220-SF2.12	SR1800-D24-SF2.12/ SR1800-D220-SF2.12

Valve body		Data	Type	DN mm	Flow parameters Kvs [m³/h]	CV [gal/min]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]
PN16, Medium temperature		SL1-02	SL15-2VBC-S.12	15	1.9	2.2	0.50	0.50	–	–	–	–
			SL20-2VBC-S.12	20	4.4	5.1	0.50	0.50	–	–	–	–
			SL25-2VBC-S.12	25	8	9	0.40	0.40	–	–	–	–
			SL32-2VBC-S.12	32	10	12	0.35	0.35	–	–	–	–
			SL40-2VBC-S.12	40	20	23	0.30	0.30	–	–	–	–
			SL50-2VBC-S.12	50	32	37	–	–	0.30	0.30	0.60	0.60
			SL65-2VBC-S.12	65	50	58	–	–	0.25	0.25	0.50	0.50
			SL80-2VBC-S.12	80	66	77	–	–	0.25	0.25	0.50	0.50
-25℃~130℃		SL1-02	SL15-3VBC-S.12	15	1.9	2.2	–	0.50	–	–	–	–
			SL20-3VBC-S.12	20	4.4	5.1	–	0.50	–	–	–	–
			SL25-3VBC-S.12	25	8	9	–	0.40	–	–	–	–
			SL32-3VBC-S.12	32	10	12	–	0.35	–	–	–	–
			SL40-3VBC-S.12	40	20	23	–	0.30	–	–	–	–
			SL50-3VBC-S.12	50	32	37	–	–	–	0.30	–	0.60
			SL65-3VBC-S.12	65	50	58	–	–	–	0.25	–	0.50
			SL80-3VBC-S.12	80	66	77	–	–	–	0.25	–	0.50
2℃~180℃		SL1-02	SL15-2SBC-S.12	15	1.9	2.2	0.40	0.40	–	–	–	–
			SL20-2SBC-S.12	20	4.4	5.1	0.40	0.40	–	–	–	–
			SL25-2SBC-S.12	25	8	9	–	–	0.45	0.45	–	–
			SL32-2SBC-S.12	32	10	12	–	–	0.40	0.40	–	–
			SL40-2SBC-S.12	40	20	23	–	–	–	–	0.60	0.60
			SL50-2SBC-S.12	50	32	37	–	–	–	–	0.60	0.60

Note: Please choose accessories: heating cover to protect the stem from freezing if the medium is glycol or the other low-temperature medium.

Electric Modulating Water Control Valve 2℃ ~ 220℃ Basic application HVAC Heating systems Heating exchange	Series		TC500..	SC1000...	SR1800...	SR3000...	SR5000...	SR16000...
	Nominal stroke		22mm	22mm	42mm	42mm	42mm	110mm
	Nominal output force		500N	1000N	1800N	3000N	5000N	16000N
	Type	Data						
	SC500.../SC1000... SR1800.../SR1800...	SC500-02 SR1800/3000-02						
	SR5000...	SR5000-01						
	SR16000...	SR16000-01						
	3-position		SC500-D24-S.12	SC1000-D24-S.12	SR1800-D24-S.12	SR3000-D24-S.12	SR5000-D24-S.12	–
	proportional, 24VAC	0(2)...10VDC , 0(4)...20mA	SC500-X24-S.12	SC1000-X24-S.12	SR1800-X24-S.12	SR3000-X24-S.12	SR5000-X24-S.12	–
	3-position, 220VAC	3-position	SC500-D220-S.12	SC1000-D220-S.12	SR1800-D220-S.12	SR3000-D220-S.12	SR5000-D220-S.12	SR16000-XD220-S.12
	proportional, 220VAC	0(2)...10VDC, 0(4)...20mA	SC500-X220-S.12	SC1000-X220-S.12	SR1800-X220-S.12	SR3000-X220-S.12	SR5000-X220-S.12	SR16000-XD220-S.12
	3-position, 10K resrstance feedback(24VAC/ 220VAC)	3-position	SC500-D24-SF1.12 SC500-D220-SF1.12	SC1000-D24-SF1.12 SC1000-D220-SF1.12	SR1800-D24-SF1.12 SR1800-D220-SF1.12	SR3000-D24-SF1.12 SR3000-D220-SF1.12	SR5000-D24-SF1.12 SR5000-D220-SF1.12	–
	3-position, 2 SPDT feedback (24VAC)	3-position	SC500-D24-SF1.12 SC500-D220-SF1.12	SC1000-D24-SF1.12 SC1000-D220-SF1.12	SR1800-D24-SF1.12 SR1800-D220-SF1.12	SR3000-D24-SF1.12 SR3000-D220-SF1.12	SR5000-D24-SF1.12 SR5000-D220-SF1.12	–

Valve body		Data	Type	DN mm	Flow parameters Kvs [m³/h]	CV [gal/min]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]
Norminal 2-port		SF-02	SF15-2SGC-S.12	15	2	2.3	1.60	0.80	–	–	–	–	–	–	–	–	–	–
			SF20-2SGC-S.12	20	3	3.5	1.60	0.80	–	–	–	–	–	–	–	–	–	–
			SF25-2SGC-S.12	25	5	6	1.50	0.80	–	–	–	–	–	–	–	–	–	–
			SF32-2SGC-S.12	32	8	9	0.80	0.80	–	–	–	–	–	–	–	–	–	–
			SF40-2SGC-S.12	40	20	23	0.50	0.50	–	–	–	–	–	–	–	–	–	–
			SF50-2SGC-S.12	50	31	36	–	–	0.30	0.30	–	–	–	–	–	–	–	–
			SF65-2SGC-S.12	65	50	58	–	–	0.25	0.25	0.45	0.45	–	–	–	–	–	–
			SF80-2SGC-S.12	80	80	93	–	–	0.15	0.15	0.27	0.27	–	–	–	–	–	–
			SF100-SVGC-S.12	100	125	146	–	–	–	–	–	–	0.30	0.20	–	–	–	–
			SF125-SVGC-S.12	125	200	233	–	–	–	–	–	–	1.00	0.80	–	–	–	–
			SF150-SVGC-S.12	150	300	350	–	–	–	–	–	–	1.00	0.80	–	–	–	–
			SF200-SVGC-S.12	200	520	607	–	–	–	–	–	–	0.60	0.50	1.00	0.80	–	–
			SF250-SVGC-S.12	250	750	875	–	–	–	–	–	–	0.60	0.50	1.00	0.80	–	–
			SF00-2SGC-Y.12	300	1200	1400	–	–	–	–	–	–	–	–	–	–	0.80	0.50
			SF350-2SGC-Y.12	350	1800	2100	–	–	–	–	–	–	–	–	–	–	0.60	0.40
			SF400-2SGC-Y.12	400	2200	2567	–	–	–	–	–	–	–	–	–	–	0.40	0.20
Norminal 3-port		SF-02	SF15-2SGC-S.12	15	2	2.3	–	–	–	–	1.60	0.80	–	–	–	–	–	–
			SF20-2SGC-S.12	20	3	3.5	–	–	–	–	1.60	0.80	–	–	–	–	–	–
			SF25-2SGC-S.12	25	5	6	–	–	–	–	1.60	0.80	–	–	–	–	–	–
			SF32-2SGC-S.12	32	8	9	–	–	–	–	1.20	0.80	–	–	–	–	–	–
			SF40-2SGC-S.12	40	20	23	–	–	–	–	1.20	0.80	–	–	–	–	–	–
			SF50-2SGC-S.12	50	31	36	–	–	–	–	1.00	0.80	–	–	–	–	–	–
			SF65-2SGC-S.12	65	50	58	–	–	–	–	–	–	1.60	0.80	–	–	–	–
			SF80-2SGC-S.12	80	80	93	–	–	–	–	–	–	1.60	0.80	–	–	–	–
			SF100-SVGC-S.12	100	125	146	–	–	–	–	–	–	1.00	0.80	–	–	–	–
			SF125-SVGC-S.12	125	200	233	–	–	–	–	–	–	1.00	0.80	–	–	–	–
			SF150-SVGC-S.12	150	300	350	–	–	–	–	–	–	1.00	0.80	–	–	–	–
			SF200-SVGC-S.12	200	520	607	–	–	–	–	–	–	–	–	1.00	0.80	–	–
			SF250-SVGC-S.12	250	750	875	–	–	–	–	–	–	–	–	1.00	0.80	–	–
			SF00-2SGC-Y.12	300	1200	1400	–	–	–	–	–	–	–	–	–	–	0.80	0.50
			SF350-2SGC-Y.12	350	1800	2100	–	–	–	–	–	–	–	–	–	–	0.60	0.40
			SF400-2SGC-Y.12	400	2200	2567	–	–	–	–	–	–	–	–	–	–	0.40	0.20

Electric Modulating -25℃ ~ 130℃	Series Nominal stroke Nominal output force		TC500..	SC1000...	SR1800...	SR3000...	SR5000...	SR16000...
			22mm 500N	22mm 1000N	42mm 1800N	42mm 3000N	42mm 5000N	110mm 16000N
Basic application HVAC Heating systems Heating exchange	Type SC500.../ SC1000... SR1800.../ SR1800... SR5000... SR16000...	Data SC500-02 SR1800/3000-02 SR5000-01 SR16000-01						
	3-position	3-position, 24VAC	SC500-D24-S.12	SC1000-D24-S.12	SR1800-D24-S.12	SR3000-D24-S.12	SR5000-D24-S.12	–
	proportional, 24VAC	0(2)...10VDC , 0(4)...20mA	SC500-X24-S.12	SC1000-X24-S.12	SR1800-X24-S.12	SR3000-X24-S.12	SR5000-X24-S.12	–
	3-position, 220VAC	3-position	SC500-D220-S.12	SC1000-D220-S.12	SR1800-D220-S.12	SR3000-D220-S.12	SR5000-D220-S.12	SR16000-XD220-S.12
	proportional, 220VAC	0(2)...10VDC, 0(4)...20mA	SC500-X220-S.12	SC1000-X220-S.12	SR1800-X220-S.12	SR3000-X220-S.12	SR5000-X220-S.12	SR16000-XD220-S.12
	3-position, 10K resrstance feedback(24VAC/ 220VAC)	3-position	SC500-D24-SF1.12 SC500-D220-SF1.12	SC1000-D24-SF1.12 SC1000-D220-SF1.12	SR1800-D24-SF1.12 SR1800-D220-SF1.12	SR3000-D24-SF1.12 SR3000-D220-SF1.12	SR5000-D24-SF1.12 SR5000-D220-SF1.12	–
	3-position, 2 SPDT feedback (24VAC)	3-position	SC500-D24-SF1.12 SC500-D220-SF1.12	SC1000-D24-SF1.12 SC1000-D220-SF1.12	SR1800-D24-SF1.12 SR1800-D220-SF1.12	SR3000-D24-SF1.12 SR3000-D220-SF1.12	SR5000-D24-SF1.12 SR5000-D220-SF1.12	–

Valve body	Data	Type	DN mm	Flow parameters Kvs [m³/h]	CV [gal/min]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]
 Norminal 2-port	SF-02	SF15-2VGC-S.12	15	2	2.3	1.60	0.80	–	–	–	–	–	–	–	–	–	–
		SF20-2VGC-S.12	20	3	3.5	1.60	0.80	–	–	–	–	–	–	–	–	–	–
		SF25-2VGC-S.12	25	5	6	1.50	0.80	–	–	–	–	–	–	–	–	–	–
		SF32-2VGC-S.12	32	8	9	0.80	0.80	–	–	–	–	–	–	–	–	–	–
		STF40-2VGC-S.12	40	20	23	0.50	0.50	–	–	–	–	–	–	–	–	–	–
		SF50-2VGC-S.12	50	31	36	–	–	0.30	0.30	–	–	–	–	–	–	–	–
		SF65-2VGC-S.12	65	50	58	–	–	0.25	0.25	0.45	0.45	–	–	–	–	–	–
		SF80-2VGC-S.12	80	80	93	–	–	0.15	0.15	0.27	0.27	–	–	–	–	–	–
		SF100-2VGC-S.12	100	125	146	–	–	–	–	–	–	0.30	0.20	–	–	–	–
		SF125-2VGC-S.12	125	200	233	–	–	–	–	–	–	1.00	0.80	–	–	–	–
		SF150-2VGC-S.12	150	300	350	–	–	–	–	–	–	1.00	0.80	–	–	–	–
		SF200-2VGC-S.12	200	520	607	–	–	–	–	–	–	0.60	0.50	1.00	0.80	–	–
		SF250-2VGC-S.12	250	750	875	–	–	–	–	–	–	0.60	0.50	1.00	0.80	–	–
		SF00-2VGC-Y.12	300	1200	1400	–	–	–	–	–	–	–	–	–	–	0.80	0.50
		SF350-2VGC-Y.12	350	1800	2100	–	–	–	–	–	–	–	–	–	–	0.60	0.40
		SF400-2VGC-Y.12	400	2200	2567	–	–	–	–	–	–	–	–	–	–	0.40	0.20

Valve body	Data	Type	DN mm	Flow parameters Kvs [m³/h]	CV [gal/min]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]	△Ps [MPa]	△Pmax [MPa]
 Norminal 2-port	SF-02	SSF15-2VGC-S.12	15	2	2.3	1.60	0.80	–	–	–	–	–	–	–	–	–	–
		SSF20-2VGC-S.12	20	3	3.5	1.60	0.80	–	–	–	–	–	–	–	–	–	–
		SSF25-2VGC-S.12	25	5	6	1.50	0.80	–	–	–	–	–	–	–	–	–	–
		SSF32-2VGC-S.12	32	8	9	0.80	0.80	–	–	–	–	–	–	–	–	–	–
		SSF40-2VGC-S.12	40	20	23	0.50	0.50	–	–	–	–	–	–	–	–	–	–
		SSF50-2VGC-S.12	50	31	36	–	–	0.30	0.30	–	–	–	–	–	–	–	–
		SSF65-2VGC-S.12	65	50	58	–	–	–	–	0.50	0.50	–	–	–	–	–	–
		SSF80-2VGC-S.12	80	80	93	–	–	–	–	1.00	0.80	–	–	–	–	–	–
		SSF100-2VGC-S.12	100	125	146	–	–	–	–	–	–	1.00	1.00	–	–	–	–
		SSF125-2VGC-S.12	125	200	233	–	–	–	–	–	–	1.00	0.80	–	–	–	–
		SSF150-2VGC-S.12	150	300	350	–	–	–	–	–	–	1.00	0.80	–	–	–	–
		SSF200-2VGC-S.12	200	520	607	–	–	–	–	–	–	–	–	1.00	0.80	–	–
		SSF250-2VGC-S.12	250	750	875	–	–	–	–	–	–	–	–	1.00	0.80	–	–
 Norminal 3-port	SF-02	SF15-3VGC-S.12	15	2	2.3	0.80	0.80	–	–	–	–	–	–	–	–	–	–
		SF20-3VGC-S.12	20	3	3.5	0.80	0.80	–	–	–	–	–	–	–	–	–	–
		SF25-3VGC-S.12	25	5	6	0.80	0.80	–	–	–	–	–	–	–	–	–	–
		SF32-3VGC-S.12	32	8	9	0.80	0.80	–	–	–	–	–	–	–	–	–	–
		SF40-3VGC-S.12	40	20	23	0.50	0.50	–	–	–	–	–	–	–	–	–	–
		SF50-2VGC-S.12	50	31	36	–	–	0.30	0.30	–	–	–	–	–	–	–	–
		SF65-3VGC-S.12	65	50	58	–	–	0.25	0.25	0.45	0.45	–	–	–	–	–	–
		SF80-3VGC-HS(FS).12	80	80	93	–	–	0.15	0.15	0.27	0.27	–	–	–	–	–	–
		SF100-3VGC-HS(FS).12	100	125	146	–	–	–	–	–	–	0.30	0.20	–	–	–	–
		SF125-3VGC-HS(FS).12	125	200	233	–	–	–	–	–	–	1.5	0.15	–	–	–	–
		SF150-3VGC-HS(FS).12	150	300	350	–	–	–	–	–	–	1.00	1.00	–	–	–	–
		SF200-3VGC-HS(FS).12	200	520	607	–	–	–	–	–	–	0.08	0.08	1.30	1.30	–	–
		SF250-3VGC-HS(FS).12	250	750	875	–	–	–	–	–	–	0.005	0.05	0.08	0.08	–	–
		SF300-3VGC-HY(FY).12	300	1200	1400	–	–	–	–	–	–	–	–	–	–	0.25	0.25
		SF350-3VGC-HY(FY).12	350	1800	2100	–	–	–	–	–	–	–	–	–	–	0.15	0.15
		SF400-3VGC-HY(FY).12	400	2200	2567	–	–	–	–	–	–	–	–	–	–	0.10	0.10

Note: 1.HS, HY represent mixing valve,FS, FY represent diverting valve
2.Please choose accessories: heating cover to protect the stem from freezing if the meduim is glycol or the other low-temperature meduim.

Electric Actuator

General

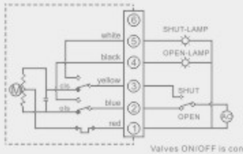
SDA series motors of butterfly valves are designed uniquely,and the working life is tenth times higher than the national standard,The motor is CE certificated,and has outstanding performance.

Features

- Integration:The intelligental controls are setted in the motors. Strong function:Interlligent mode, proportion mode,ON/OFF model etc.all tyoes of control signal.
- Small bulk:the bulk is just about 35% of the similar product
- Light weight:the weight is about 30% of the similar product
- Credible performance:the bearing and other key items are imported from the famous brand products.
- Attractive modern styling:the die-casting aluminium alloy cover to cut down electromagnetic interference.
- Precise and anti-friction:The integrative turbo output stem with heavy intension and able to friction.
- Very small difference:the turbo output stem integration.
- Safe guaranteed:Pass the 1500Vcompression resistance.
- Conveniency to use:unnecesary to oil and exam,waterproof and antirust,install with any angle.
- Ptotector : Dual limitation,over heat protection over loading protection(optional protection)
- Multi-speed:The stroke time 5sec,10sec,15sec,30sec,60sec,Etc(need orner)
- Intelligental numerical control:digital set,digital adjustion.

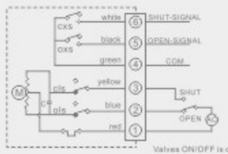
Wiring Diagram

B:ON/OFF type(standard)line drawing:



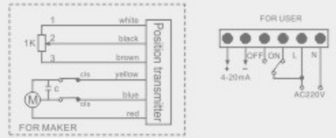
Valves ON/OFF is conducted by switch circuit with outputting active contact signal which can show a full open or full close state of the valves.

S:Passive contact type line drawing:



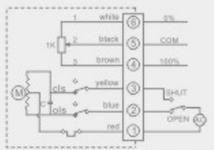
Valves ON/OFF is conducted by switch circuit with outputting passive contact signal which can show a full open or full close of the valves.

K:Position signal type drawing:



The opening or closing operation is realized by switching "open" "or" "close" the circuit,outputting a relative group of open or close degree current signals.

R:Opens degree signal type line drawing:

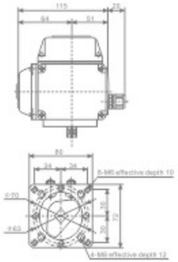


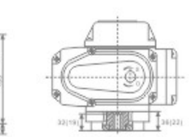
The opening angle of valves is controlled by switch circuit,with potentiometer outputting resistance signal corresponding valves opening angle.

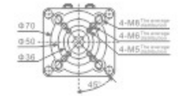
Technical Data

SDA-50 series Electric Actuator and performance data

Model / Power / Performance	SDA-50						
	DC12V	DC24V	DC220V	AC24V	AC110V	AC220V	AC380V
Motor power	20W			10W			
Rated current	3.8A	2A	0.21A	2.2A	0.48A	0.24A	0.15A
Output torque	30Nm/50Nm			15Nm/30Nm/50Nm			
Action time	6S/10S			10S/20S/30S			
Circuit control	B、S、R、H、A、K、D、T						
Rotary angle	0~360°						
Weight	2.2kg						
Voltage-withstandingvalue	500VAC/1minute			1500VAC/1minute			
Insulated resistance	100MΩ/300VDC			100MΩ/500VDC			
Protection class	IP-67						
Surrounding temperature	-25℃~60℃(The other temperatures can be customized)						
Installation angle	Any angle						
Case material	Aluminium die-casting components						
Optional function	Overload protection function、Heater						







Direct Installation Data

Square size	□9×9	□11×11	□14×14
Flanged	F03 F05	F05 F07	
Stem	Height≤19mm	Height≤32mm	

Modulating type performance data

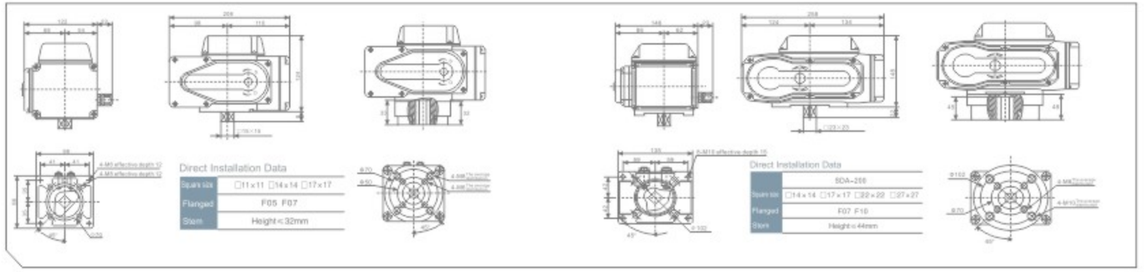
Model / Power / Performance	SDA-50A	SDA-100A	SDA-200A	SDA-500A	SDA-1000A	SDA-2000A	SDA-4000A	SDA-6000A
	DC24V、AC24V、AC110V、AC220V、AC380V							
Motor power	10W	23W	40W	90W	100W	100W	200W	200W
Rated current	0.24A	0.32A	0.48A	0.92A	1.0A	1.2A	2.1A	2.1A
Output torque	50Nm	100Nmm	200Nm	500Nm	1000Nm	2000Nm	4000Nm	6000Nm
Action time	30S	30S	30S	30S	50S	100S	100S	150S
Rotary angle	0~360°	0~90°						
Input signal	4-20mA.DC、1-5V.DC、0-10V.DC(Others would be set before sale)							
Output Signal	4-20mA.DC(Others would be set before sale)							
Accuracy class	1%							
Weight	2.2kg	4.0kg	7.0kg	7.8kg	11.2kg	11.8kg	32kg	32.5kg
Voltage-withstandingvalue	1500VAC/1minute							
Installation angle	DC24V：100MΩ/300VDC		100MΩ/500VDC					
Protection class	IP-67							
Surrounding temperature	-25℃~60℃(The other temperatures can be customized)							
Installation angle	Any angle							
Case material	Aluminium die-casting components							
Optional function	Overload protection function、Heater							

SDA-100 series Electric Actuator and performance data

Model	SDA-100						
Performance / Power	DC12V	DC24V	DC220V	AC24V	AC110V	AC220V	AC380V
Motor power	40W			23W			
Rated current	4.8A	2.4A	0.32A	3A	0.64A	0.32A	0.19A
Output torque	100Nm			50Nm/60Nm/100Nm			
Action time	10S			13S/15S/20S/30S			
Circuit control	B、S、R、H、A、K、D、T						
Rotary angle	0~90°						
Weight	4kg						
Voltage-withstandingvalue	500VAC/1minute			1500VAC/1minute			
Insulated resistance	100MΩ/300VDC			100MΩ/500VDC			
Protection class	IP-67						
Surrounding temperature	-25℃~60℃(The other temperatures can be customized)						
Installation angle	Any angle						
Case material	Aluminium die-casting components						
Optional function	Overload protection function、Heater						

Standard

Direct Installation



SDA-200 series Electric Actuator and performanc

Model	SDA-200					
Performance / Power	DC24V	DC220V	AC24V	AC110V	AC220V	AC380V
Motor power	40W					
Rated current	8.0A	0.35A	5A	0.9A	0.48A	0.25A
Output torque	200Nm		80Nm/100Nm/150Nm/200Nm			
Action time	10S		9S/15S/20S/30S/60S			
Circuit control	B、S、R、H、A、K、D、T					
Rotary angle	0~90°					
Weight	7kg					
Voltage-withstandingvalue	500VAC/1minute		1500VAC/1minute			
Insulated resistance	100MΩ/300VDC		100MΩ/500VDC			
Protection class	IP-67					
Surrounding temperature	-25℃~60℃(The other temperatures can be customized)					
Installation angle	Any angle					
Case material	Aluminium die-casting components					
Optional function	Overload protection function、Heater					

Standard

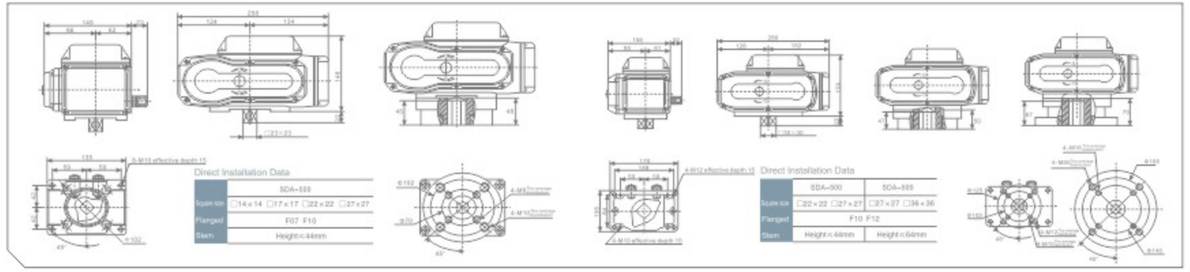
Direct Installation

SDA-500 series Electric Actuator and performance data

Model	SDA-500					
Performance / Power	DC24V	DC220V	AC24V	AC110V	AC220V	AC380V
Motor power	90W					
Rated current	7A	0.9A	8.0A	2A	0.92A	0.45A
Output torque	150Nm/250Nm/300Nm/500Nm					
Action time	9S/15S/20S/30S/60S					
Circuit control	B、S、R、H、A、K、D、T					
Rotary angle	0~90°					
Weight	7kg		7.8kg			
Voltage-withstandingvalue	500VAC/1minute		1500VAC/1minute			
Insulated resistance	100MΩ/300VDC		100MΩ/500VDC			
Protection class	IP-67					
Surrounding temperature	-25℃~60℃(The other temperatures can be customized)					
Installation angle	Any angle					
Case material	Aluminium die-casting components					
Optional function	Overload protection function、Heater					

Standard

Direct Installation



SDA-1000/2000 series Electric Actuator and performance data

Model	SDA-1000				SDA-2000			
Performance / Power	AC24V	AC110V	AC220V	AC380V	AC24V	AC110V	AC220V	AC380V
Motor power	100W				100W			
Rated current	9A	2.2A	1A	0.48A	9A	2.2A	1.2A	0.48A
Output torque	300Nm/800Nm/1000Nm			1000Nm	2000Nm			2000Nm
Action time	15S/30S/50S			30S	100S			50S
Circuit control	B、S、R、H、A、K、D、T							
Rotary angle	0~90°							
Weight	11.2kg				11.8kg			
Voltage-withstandingvalue	1500VAC/1minute							
Insulated resistance	100MΩ/500VDC							
Protection class	IP-67							
Surrounding temperature	-25℃~60℃(The other temperatures can be customized)							
Installation angle	Any angle							
Case material	Aluminium die-casting components							
Optional function	Overload protection function、Heater							

Standard

Direct Installation

SDV series Butterfly Valve Body

General

SDV series butterfly valves with intergrated structure matching with SDV actuator .With the function of small volume,flow capacity ,high regulation precision good sealing and light weight.etc.The valve is widely used in food,.enviromental protection,light inductry, petroleum .automatic control system.etc

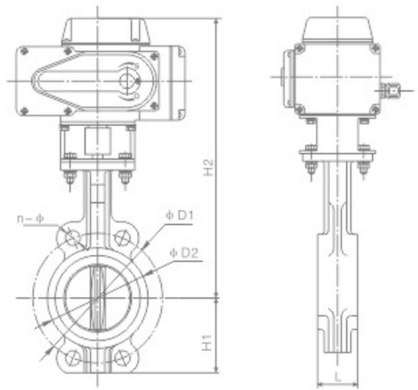
Features

Nominal diameter: DN40-DN450(1-1/2"-18")
Nominal Pressure:PN1.0,1.6MPa
Suitable Temperature:-20℃-150℃
Suitable medium:water,Sea water,tood,natural gos, alcohols,salts,acids,alkalis,oil,steam,air,etc.

Dimension(mm)

Electric Butterfly with Soft seal Connecting Dimension

Size mm	Size in	Model	D1 1.0MPa	D1 1.6MPa	L	H1	H2 standard	H2 Directinstallation
50	2"	SDV-05	125		43	76	313	301
65	2.5"	SDV-05	145		46	89	326	314
80	3"	SDV-05	160		46	94	332	326
100	4"	SDV-10	180		52	114	374	356
125	5"	SDV-10	210		56	127	387	369
150	6"	SDV-20	240		56	140	433	421
200	8"	SDV-20	295		60	176	468	456
250	10"	SDV-50	350	355	68	207	518	488
300	12"	SDV-100	400	410	78	240	594	566
350	14"	SDV-100	460	470	78	273	625	597
400	16"	SDV-200	515	525	102	322	657	629
450	18"	SDV-200	565	585	114	340	679	651

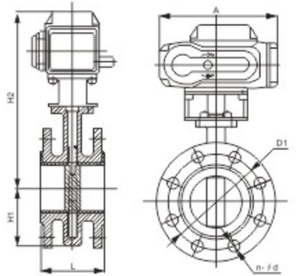


Electric flange butterfly valve

■ SDV Connection Dimension Unit： mm

NPS mm	NPS In	Model	L	D1 1.0MPa	D1 1.6MPa	n-φd 1.0MPa	n-φd 1.6MPa	H1	H2 Standard	H2 Direct Installation	A
50	2"	05	43	125		4-φ18		70	313	301	162
65	2.5"	05	46	145		4-φ18		78	326	314	162
80	3"	05	46	160		8-φ18		87	332	320	162
100	4"	10	52	180		8-φ18		105	374	356	208
125	5"	10	56	210		8-φ18		120	387	369	208
150	6"	20	56	240		8-φ22		134	433	421	258
200	8"	20	60	295	295	8-φ22	12-φ22	163	468	456	258
250	10"	50	68	350	355	12-φ22	12-φ26	202	518	488	258
300	12"	100	78	400	410	12-φ22	12-φ26	230	594	566	280
350	14"	100	78	460	470	16-φ22	16-φ26	245	625	597	280
400	16"	200	102	515	525	16-φ28	16-φ31	305	657	629	280
450	18"	200	114	565	585	20-φ28	20-φ31	345	679	651	280
500	20"	400	127	620	650	20-φ28	20-φ34	375	737	709	439
600	24"	400	154	725	770	20-φ31	20-φ37	425	881	-	439

■ Outline dimensional drawing



Model listing

No.	Control signal	Model	Caliber(MM)	Torque(N. M)	Connect way
1	ON/OFF	SDA50D-SDV50	DN50	50	Wafer/flaged
2	ON/OFF	SDA50D-SDV65	DN65	50	Wafer/flaged
3	ON/OFF	SDA50D-SDV80	DN80	50	Wafer/flaged
4	ON/OFF	SDA100D-SDV100	DN100	100	Wafer/flaged
5	ON/OFF	SDA100D-SDV125	DN125	100	Wafer/flaged
6	ON/OFF	SDA200D-SDV150	DN150	200	Wafer/flaged
7	ON/OFF	SDA200D-SDV200	DN200	200	Wafer/flaged
8	ON/OFF	SDA500D-SDV250	DN250	500	Wafer/flaged
9	ON/OFF	SDA1000D-SDV300	DN300	1000	Wafer/flaged
10	ON/OFF	SDA1000D-SDV400	DN400	1000	Wafer/flaged
11	0-10vdc or 4-20mA	SBV-050-X	DN50	50	Wafer/flaged
12	0-10vdc or 4-20mA	SBV-065-X	DN65	50	Wafer/flaged
13	0-10vdc or 4-20mA	SBV-080-X	DN80	50	Wafer/flaged
14	0-10vdc or 4-20mA	SBV-100-X	DN100	100	Wafer/flaged
15	0-10vdc or 4-20mA	SBV-125-X	DN125	100	Wafer/flaged
16	0-10vdc or 4-20mA	SBV-150-X	DN150	200	Wafer/flaged
17	0-10vdc or 4-20mA	SBV-200-X	DN200	200	Wafer/flaged
18	0-10vdc or 4-20mA	SBV-250-X	DN250	500	Wafer/flaged
19	0-10vdc or 4-20mA	SBV-300-X	DN300	1000	Wafer/flaged
20	0-10vdc or 4-20mA	SBV-400-X	DN400	1000	Wafer/flaged

Material

Body material:
Cast iron
Valve plate:
electroplate
Valve seat: EPDM