

W-SCBV-20T Series

W-SCBV-16Q Series

W-SCBV-16C Series

Intelligent Control Valve

Size: DN15-DN400

W-SCBV series intelligent control valves serves for fluid control applications such as central air conditioning, heating, water treatment, etc. It is a set of pressure-independent products integrated with energy meter, control ball valve and intelligent actuator.

Features

- Integrated Bluetooth, analog signal, Modbus RTU and BACnet MS/TP control
- Monitoring both on site and remotely
- Integrated multiple control modes
- High protection level

Operating Principles

W-SCBV series intelligent control valve, receives standard regulating signals (flowrate, energy, valve position) from DDC or PLC by intelligent actuator, compares the measured value with the target value, after a series of advanced PID algorithm, the valve's opening is adjusted in real-time, the pressure-independent control is realized.

Material

Component	Body	Seat	Ball	Stem	O-Ring
Material	Brass (DN15-50)	PTFE (DN15-200)	Stainless Steel (DN15-200)	Stainless Steel (DN15-400)	EPDM (DN15-200)
	DI (DN50-200)	304+STL (DN200-400)	304+Cr (DN250-400)		FKM (DN250-400)
	WCB (DN250-400)				



Specification

- Nominal Diameter: DN15~DN400
- Working Pressure: PN20 (DN15-50 Threaded connection)
PN16 (DN50-400 Flange connection)
- Temperature Range: 4~95°C
- Working Medium: Hot and cold water, ≤50% ethyl/propylene glycol solution
- Connection Standard: ISO7-1 (DN15-50)
ISO7005-2 (DN50-200)
ISO7005-1 (DN250-400)
- Closing Differential Pressure: 1600kPa (DN15-125) 1000kPa (DN150-400)
- Leakage Rate: ≤0.01%Kvs (DN15-200)
≤0.1%Kvs (DN250-400)
- Power: 24VAC/24VDC (DN15-150)
220VAC (DN200-400)
- Protection Level: Actuator IP67
Energy Meter IP65 (Thread), IP67 (Flange)

Product Type

Type	Size	Working Differential Pressure (kPa)	Closing Differential Pressure (kPa)	Flow Range (m³/h)	Cooling Energy(kW)			Heating Energy(kW)	
					ΔT 5K	ΔT 6K	ΔT 7K	ΔT 10K	ΔT 15K
W-SCBV2015S2X-20T	DN15	25-300	1600	0.38~1.25	7.3	8.7	10.2	14.5	21.8
W-SCBV2020S2X -20T	DN20	25-300	1600	0.81~2.7	15.7	18.8	22.0	31.4	47.1
W-SCBV2025S2X -20T	DN25	25-300	1600	1.29~4.3	25.0	30.0	35.0	50.0	75.0
W-SCBV2032S2X -20T	DN32	25-300	1600	2.34~7.8	45.4	54.4	63.5	90.7	136.1
W-SCBV2040S2X -20T	DN40	25-300	1600	3.9~13.0	75.6	90.7	105.8	151.2	226.8
W-SCBV2050S2X -20T	DN50	25-300	1600	4.95~16.5	95.9	115.1	134.3	191.9	287.8
W-SCBV2050S2X -16Q	DN50	25-300	1600	5.7~ 19.0	110.5	132.6	154.7	220.9	331.4
W-SCBV2065S2X -16Q	DN65	25-300	1600	9.8 ~ 32.5	189.0	226.7	264.5	377.9	566.9
W-SCBV2080S2X -16Q	DN80	25-300	1600	16.5 ~ 55.0	319.8	383.7	447.7	639.5	959.3
W-SCBV2100S2X -16Q	DN100	25-300	1600	24.0 ~ 80.0	465.1	558.1	651.2	930.2	1395.3
W-SCBV2125S2X -16Q	DN125	25-300	1600	30.0 ~ 100.0	581.4	697.7	814.0	1162.8	1744.2
W-SCBV2150S2X -16Q	DN150	25-300	1000	45.0 ~ 150.0	872.1	1046.5	1220.9	1744.2	2616.3
W-SCBV2200S2X -16Q	DN200	25-300	1000	96.0 ~ 320.0	1860.5	2232.6	2604.7	3720.9	5581.4
W-SCBV2250S2X -16C	DN250	25-300	1000	225.0 ~ 750.0	4360.5	5232.6	6104.7	8720.9	13081.4
W-SCBV2300S2X -16C	DN300	25-300	1000	360.0 ~ 1200.0	6976.7	8372.1	9767.4	13953.5	20930.2
W-SCBV2350S2X -16C	DN350	25-300	1000	405.0~ 1350.0	7848.8	9418.6	10988.4	15697.7	23546.5
W-SCBV2400S2X -16C	DN400	25-300	1000	450.0 ~ 1500.0	8720.9	10465.1	12209.3	17441.9	26162.8

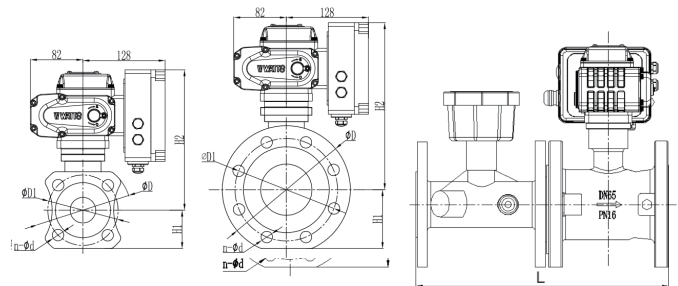
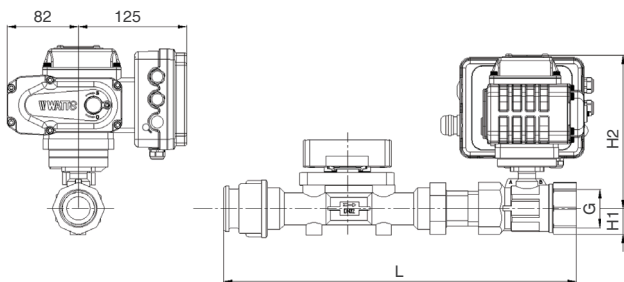
Flow Chart

Type	Size	KVS	Flow Rate(m ³ /h)						
			55kpa	45kpa	35kpa	25kpa	20kpa	15kpa	10kpa
W-SCBV2015S2X-20T	DN15	2.5	1.9	1.7	1.5	1.3	1.1	1.0	0.8
W-SCBV2020S2X-20T	DN20	5.4	4.0	3.6	3.2	2.7	2.4	2.1	1.7
W-SCBV2025S2X-20T	DN25	8.6	6.4	5.8	5.1	4.3	3.8	3.3	2.7
W-SCBV2032S2X-20T	DN32	15.6	11.6	10.5	9.2	7.8	7.0	6.0	4.9
W-SCBV2040S2X-20T	DN40	26	19.3	17.4	15.4	13.0	11.6	10.1	8.2
W-SCBV2050S2X-20T	DN50	33	24.5	22.1	19.5	16.5	14.8	12.8	10.4
W-SCBV2050S2X-16Q	DN50	38	28.2	25.5	22.5	19.0	17.0	14.7	12.0
W-SCBV2065S2X-16Q	DN65	65	48.2	43.6	38.5	32.5	29.1	25.2	20.6
W-SCBV2080S2X-16Q	DN80	110	81.6	73.8	65.1	55.0	49.2	42.6	34.8
W-SCBV2100S2X-16Q	DN100	160	118.7	107.3	94.7	80.0	71.6	62.0	50.6
W-SCBV2125S2X-16Q	DN125	200	148.3	134.2	118.3	100.0	89.4	77.5	63.2
W-SCBV2150S2X-16Q	DN150	300	222.5	201.2	177.5	150.0	134.2	116.2	94.9
W-SCBV2200S2X-16Q	DN200	640	474.6	429.3	378.6	320.0	286.2	247.9	202.4
W-SCBV2250S2X-16C	DN250	1500	1112.4	1006.2	887.4	750.0	670.8	580.9	474.3
W-SCBV2300S2X-16C	DN300	2400	1779.9	1610.0	1419.9	1200.0	1073.3	929.5	758.9
W-SCBV2350S2X-16C	DN350	2700	2002.4	1811.2	1597.3	1350.0	1207.5	1045.7	853.8
W-SCBV2400S2X-16C	DN400	3000	2224.9	2012.5	1774.8	1500.0	1341.6	1161.9	948.7

*Max flow based on minimum differential pressure, select valve based on 25kpa.

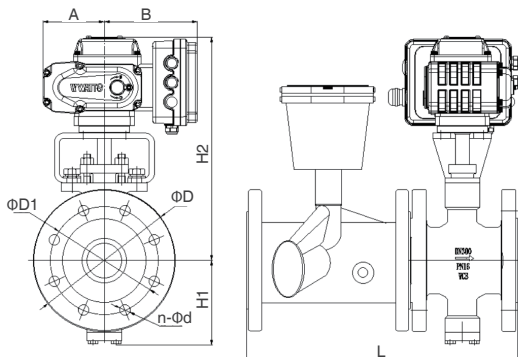
If need more higher flow rate at the same size, can increase the differential pressure to achieve.

Installation Dimensions



Dimension Size	Thread(G)	L (mm)	H1 (mm)	H2 (mm)
DN15	1/2"	202	16	164
DN 20	3/4"	230	18	169
DN 25	1"	283	21	169
DN 32	1 1/4"	320	25	175
DN 40	1 1/2"	370	30	180
DN 50	2"	398	36	190

Dimension Size	L (mm)	H1 (mm)	H2 (mm)	D (mm)	D1 (mm)	n (mm)	d (mm)
DN50	341	65	226	165	125	4	18
DN65	341	75	236	185	145	4	18
DN80	398	92	244	200	160	8	18
DN100	438	101	260	220	180	8	18
DN125	470	120	270	250	210	8	18
DN150	550	141	285	285	240	8	22



Dimension Size	L (mm)	A (mm)	B (mm)	H1 (mm)	H2 (mm)	D (mm)	D1 (mm)	n (mm)	d (mm)
DN200	650	98	152	159	361	340	295	12	22
DN250	747	128	187	248	596	405	355	12	26
DN300	838	128	187	290	641	460	410	12	26
DN350	905	128	187	318	674	520	470	16	26
DN400	905	150	212	351	735	580	525	16	30

Coding Rules

W	WATTS	W-	SCBV	2	015	S2X-	20	T
SCBV	Intelligent control valve							
2	Two-way							
Size								
015-DN15:	020-DN20	025-DN25:	032-DN32					
040-DN40:	050-DN50	065-DN65:	080-DN80					
100-DN100:	125-DN125	150-DN150:	200-DN200					
250-DN250	300-DN300	350-DN350	400-DN400					
S2X	Intelligent Actuator							
Valve Working Pressure	20-PN20	16-PN16						
Valve Body Material		T:Brass	Q:Ductile Iron	C:Carbon Steel				

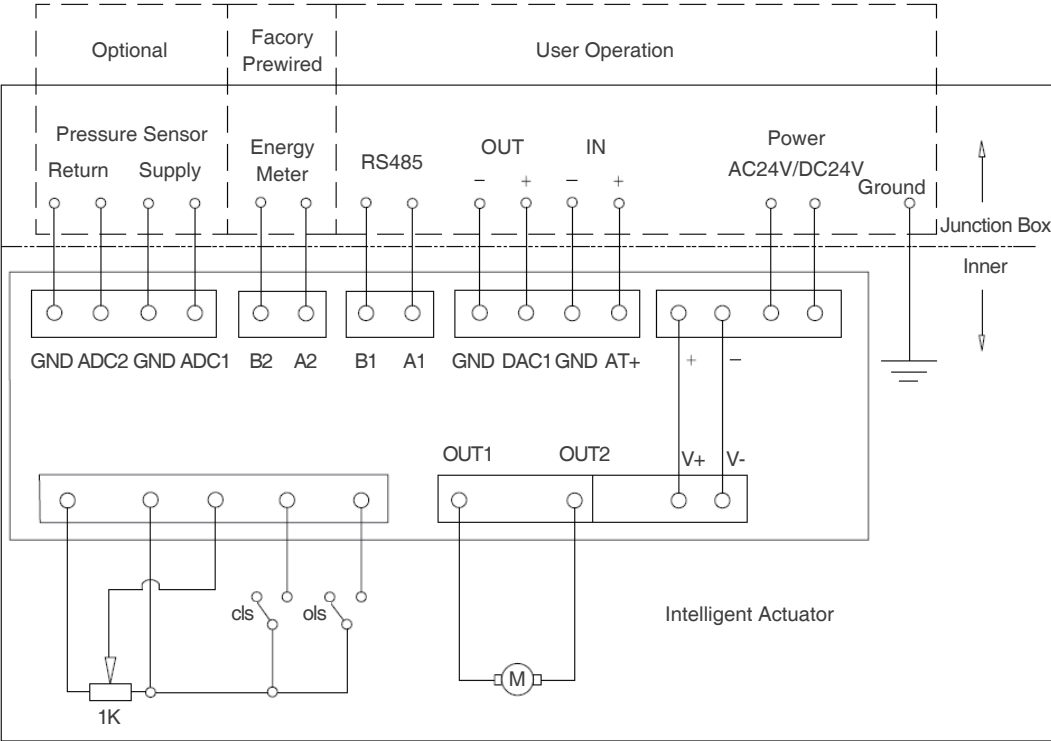
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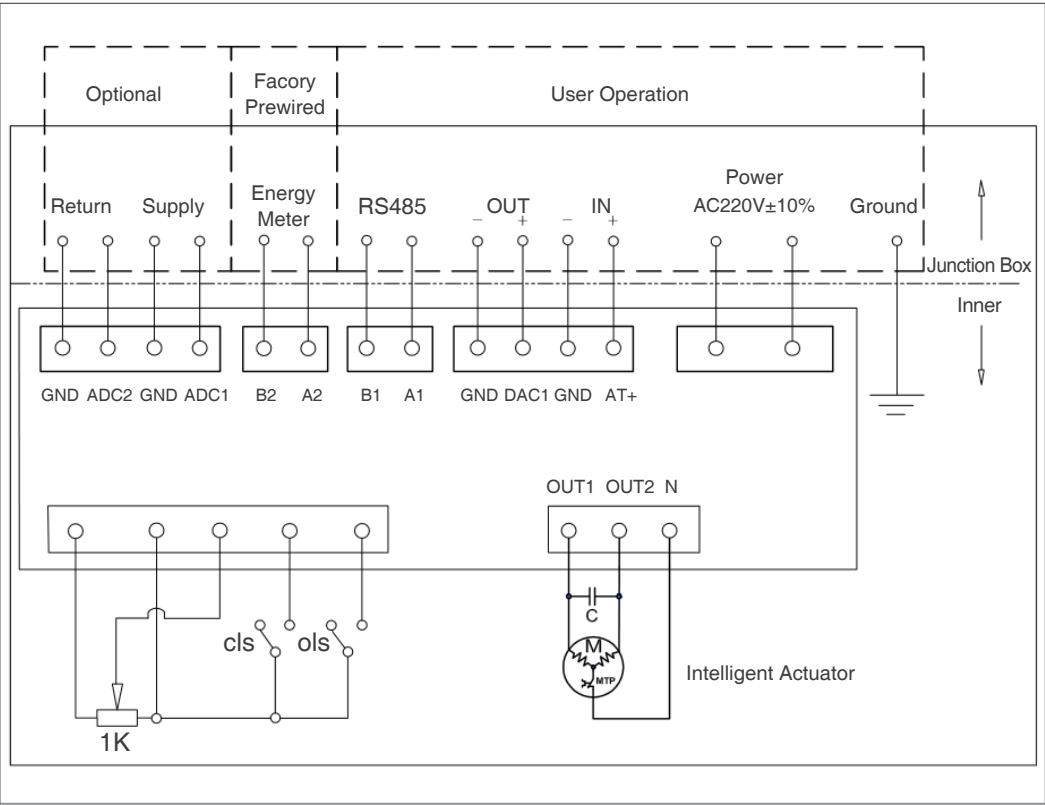
Wiring Diagram:

Forbidden to connect the neutral line of 24VAC power supply with the negative pole of DC signal.

DN15-150



DN200-400



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