

SBV/SBV-R SERIES

BALL VALVE

The ball valve of series SBV/SBV-R is applicable for commercial air conditioner, freezing or deep-freezing equipment or other refrigeration circuits in order to open and to shut off inner flow path by operating the valve stem. It can also be used as service valve for vacuum pumping and refrigerant injection etc. All the Ball Valves listed in this datasheet can be installed in system using flammable refrigerants HFO (categories A2* and A2L*), and Hydrocarbons HC (category A3*).



FEATURES

- STRAIGHTWAY TYPE, FULL PORT, LOW PRESSURE DROPS, COST-EFFECTIVE
- VALVE BODY AND VALVE SEAT WITH WELDED STRUCTURE, WITH HIGH PRODUCT RELIABILITY
- ROTATE 1/4 CIRCLES FROM FULL-OPEN TO FULL-CLOSE, EASY TO OPERATE
- BIDIRECTIONAL FLOW
- ROTATION STOP ON REQUEST FOR FULL-OPEN AND FULL-CLOSE OF THE VALVE
- SPECIAL SEALING MATERIALS TO PREVENT INTERNAL LEAKAGE
- CERTIFIED ACCORDING PED CAT.II BY TUV RHEINLAND

GENERAL SPECIFICATIONS

- Applicable for all common HCFC, HFC and HFO refrigerants such as: R22, R134a, R404A, R407A/C/F, R410A, R507A, R448A, R449A, R450A, R452A, R513A, R32, R1234yf, R1234ze, R454A/B/C, R455A, R290, R1270, R600a
- Medium temperature TS min./max.:
-40°C / +120°C
- Max. operating pressure PS: 4,5 (45bar) or 4,9 MPa (49 bar) depending by the model
- Installation position: liquid, suction and discharge line in all directions
- PED declaration
- Certifications: UL/CSA available only for models with size until SBV07. For bigger sizes on request

Note: *according ANSI-ASHRAE 34-2016 and EN-378-1 ANNE EN 378-1:2016 Annex E

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GENERAL CHARACTERISTICS

Without Access Fitting		Connections Ø d ODF		Kv	Wrench Size Cap	PS	PED Category [Fluid Group 1]	PED Category [Fluid Group 2]	With Access Fitting	
Model	Part Number*	[inch]	[mm]	[m³/h]	[mm]	[bar]			Model	Part Number*
SBV02-020	10150092002	-	6	1,9	19	45	Art. 4.3	Art. 4.3	SBV02-320	10150094702
SBV02-019	10150091902	1/4	-	1,9	19	45	Art. 4.3	Art. 4.3	SBV02-319	10150094602
SBV03-019	10150091802	3/8	-	5,5	19	45	Art. 4.3	Art. 4.3	SBV03-319	10150094802
SBV03-020	10150092102	-	10	5,5	19	45	Art. 4.3	Art. 4.3	SBV03-320	10150094902
SBV04-020	10150092202	-	12	10,2	19	45	Art. 4.3	Art. 4.3	SBV04-320	10150095102
SBV04-019	10150090502	1/2	-	10,2	19	45	Art. 4.3	Art. 4.3	SBV04-319	10150095002
SBV(M) -A5YHSY-2-S	10150057602	-	15	13,2	14	45	Art. 4.3	Art. 4.3	SBV(M) -JA5YHSY-2-S	10150057702
SBV(M) -A5YHSY-1-S	10150053302	5/8	16	13,8	14	45	Art. 4.3	Art. 4.3	SBV(M) -JA5YHSY-1-S	10150053402
SBV(M) -A6YHSY-2-S	10150054602	-	18	19,5	17	45	Art. 4.3	Art. 4.3	SBV(M) -JA6YHSY-2-S	10150054502
SBV(M) -A6YHSY-1-S	10150054302	3/4	-	19,5	17	45	Art. 4.3	Art. 4.3	SBV(M) -JA6YHSY-1-S	10150054202
SBV(M) -A7YHSY-1-S	10150053502	7/8	22	28,0	17	45	Art. 4.3	Art. 4.3	SBV(M) -JA7YHSY-1-S	10150053602
SBV09-120R	10150103602	-	28	51,5	17	49	Cat. 2	Art. 4.3	SBV09-420R	10150103702
SBV09-119R	10150097102	1 1/8	-	51,5	17	49	Cat. 2	Art. 4.3	SBV09-419R	10150106502
SBV11-119R	10150103802	1 3/8	35	80,0	17	49	Cat. 2	Cat. 1	SBV11-419R	10150103902
SBV13-119R	10150104402	1 5/8	-	120	17	49	Cat. 2	Cat. 1	SBV13-419R	10150106702
SBV13-120R	10150106602	-	42	120	17	49	Cat. 2	Cat. 1	SBV13-420R	10150106802
SBV17-119R	10150104502	2 1/8	54	225	19	49	Cat. 2	Cat. 1	SBV17-419R	10150106902
SBV19-120R	10150107002	-	64	225	19	49	Cat. 2	Cat. 1	SBV19-420R	10150107102
SBV21-119R	10150107202	2 5/8	-	305	19	49	Cat. 2	Cat. 1	SBV21-419R	10150107302

Note:

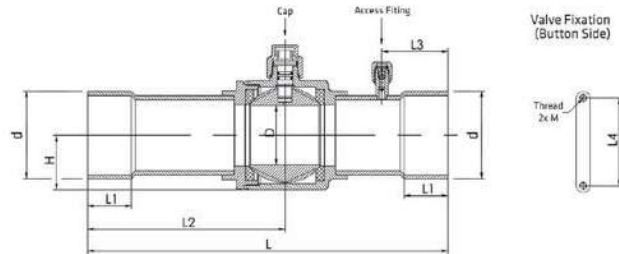
- SBV-R model with connection size 3-1/8" (80mm) available on request*
- SBV-R model with connection size 3-5/8" (92mm) available on request*

* Size actually not covered by PED cat.II certification

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DIMENSIONS & WEIGHT



Part Number		L	L1	L2	L3 ¹⁾	L4	D	H	M	Weight
Without access fitting	With Access Fitting	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
SBV02-020	SBV02-320	132	10	68	31	16	10	14	M4 x 0,7	0,2
SBV02-019	SBV02-319	132	10	68	31	16	10	14	M4 x 0,7	0,2
SBV03-019	SBV03-319	132	10	68	31	16	10	14	M4 x 0,7	0,2
SBV03-020	SBV03-320	132	10	68	31	16	10	14	M4 x 0,7	0,2
SBV04-020	SBV04-320	160	10	85	42,5	16	10	14	M4 x 0,7	0,21
SBV04-019	SBV04-319	160	10	85	42,5	16	10	14	M4 x 0,7	0,21
SBV(M)-A5YHSY-2-SA	SBV(M)-JA5YHSY-2-SA	160	13	85	31	22	14	16	M4 x 0,7	0,3
SBV(M)-A5YHSY-1-SA	SBV(M)-JA5YHSY-1-SA	160	13	85	31	22	14	16	M4 x 0,7	0,3
SBV(M)-A6YHSY-2-SA	SBV(M)-JA6YHSY-2-SA	185	16	99	37	30	19	20	M4 x 0,7	0,51
SBV(M)-A6YHSY-1-SA	SBV(M)-JA6YHSY-1-SA	185	16	99	37	30	19	20	M4 x 0,7	0,51
SBV(M)-A7YHSY-1-SA	SBV(M)-JA7YHSY-1-SA	185	17	99	37	30	19	20	M4 x 0,7	0,52
SBV09-120R	SBV09-420R	208	21	112	44	38	25	25	M4 x 0,7	0,73
SBV09-119R	SBV09-419R	208	21	112	44	38	25	25	M4 x 0,7	0,73
SBV11-119R	SBV11-419R	251	25	136	44	48	32	31	M6 x 1,0	1,42
SBV13-119R	SBV13-419R	281	28	151	56	55	38	35	M6 x 1,0	1,9
SBV13-120R	SBV13-420R	281	28	151	56	55	38	35	M6 x 1,0	1,9
SBV17-119R	SBV17-419R	305	34	167	56	74	50	46	M6 x 1,0	3,74
SBV19-120R	SBV19-420R	305	34	167	70	74	50	46	M6 x 1,0	3,79
SBV21-119R	SBV21-419R	305	37	167	56	74	60	56	M6 x 1,0	6,08

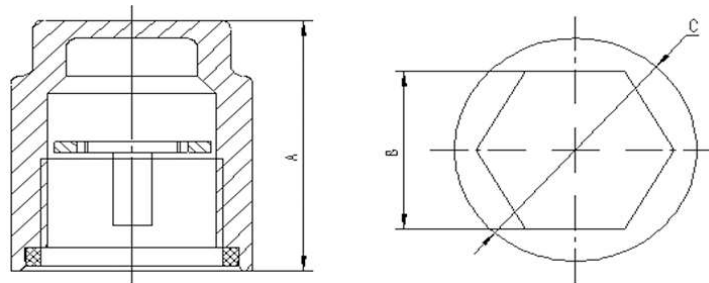
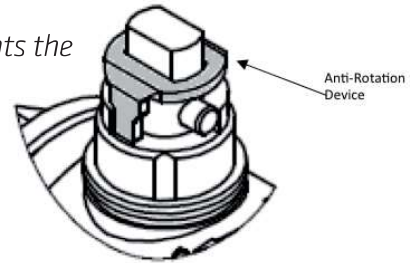
Note: 1) Applicable to versions with access fitting

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ACCESSORIES

The steel ring placed on the stem under the cover cap prevents the accidental rotation of the ball during the system operation



Anti-Rotation Device

Model	Part Number*	Applicable for SBV models with:		Cap Nut	Dimensions mm		
		Inch connections:	Metric connections:		A	B	C
SK01	10150061902	1" 1/8 - 1" 3/8	28mm - 35mm	M18X1-6H	27,0	H17	Ø 24
SK02	10150062002	1" 5/8	42mm	M22X1-6H	27,5	H17	Ø 26
SK03	10150062102	2" 1/8 - 2" 5/8	54mm - 64mm	M22X1-6H	27,5	H19	Ø 28
SK04	10150062202	3" 1/8 - 3" 5/8	80mm - 92mm	M26X1-6H	29,5	H24	Ø 32
SK05	10150062302	4" 1/8 - 4" 1/4	105mm - 108mm	M32X1-6H	32,0	H29	Ø 38

Note: 1) Steel Anti-Rotation ring and Brass Cover Cap are in the extent of delivery

* Available also as industrial package. Contact Sanhua for more details.