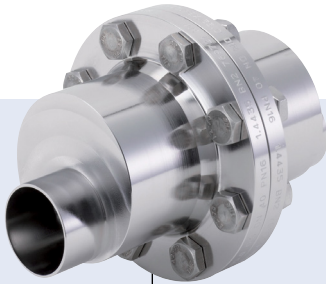
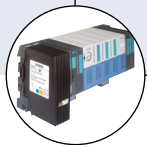


## Sterile check valve



- Fully traceable wetted materials, also traceable seal available
- Suitable for CIP and SIP
- Flow direction selectable
- Self draining in vertical installation position

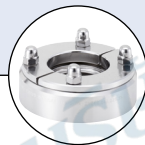
Type BBS-10 can be combined with...



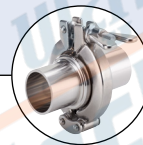
**Type 8650**  
Automation system



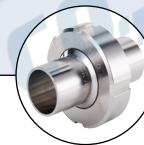
**Type 2103**  
Diaphragm valve



**Type BBS-07**  
Tank flange



**Type BBS-05**  
Clamp connection



**Type BBS-03**  
Welding union



**Type 8221**  
Conductivity sensor

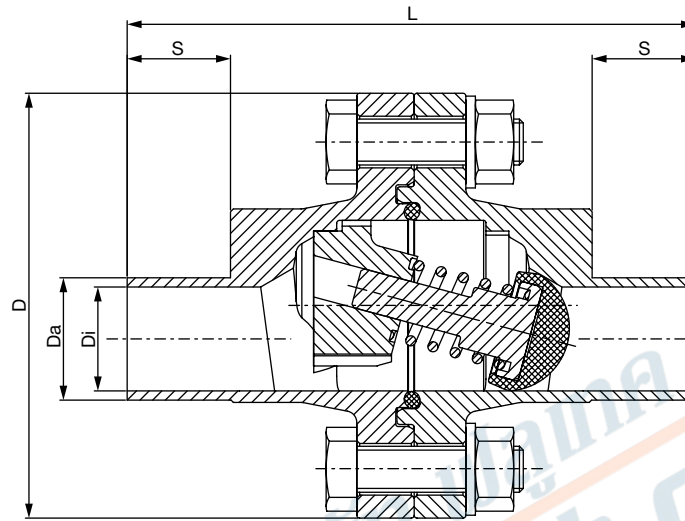
These sterile check valves are designed for fluids and steam. The design is such that the flow direction is selectable; that makes installation and simple and very cost effective. The latest standards in the biopharmaceutical markets are met. The construction provides a continuous flushing and the unique feature of the eccentric checkvalve is that it can be mounted in the vertical position and will self drain until empty providing the correct angle is achieved according to standard installation techniques. All BBS-10 check valves are suitable for a wide range of duties in many of the applications listed below.

Technical data	
<b>Available standard sizes</b>	ISO DN08 to DN100 BS-OD DN1/4" to DN4" DIN DN08 to DN100 Customized on request
<b>Material medium contact</b>	Stainless steel 1.4435 BN2 (316L) Ball cap made of PTFE Spring: 1.4401 Special materials on request
<b>Material medium separated</b>	1.4305 or equivalent
<b>Ball</b>	1.4435 BN2 stainless steel with PTFE-Ball
<b>Seals</b>	O-Ring, EPDM, FEP, special sealing materials on request
<b>Surface quality</b>	Medium contacted surface < Ra 0.8 µm, electro polished, finer surface on request
<b>Operating temperature</b>	depending on the chosen seal material
<b>Ambient temperature</b>	-20 to +80 °C
<b>Media</b>	Liquids
<b>Design, operating pressure</b>	- 1 to + 16 bar (operating pressure - 1 to + 8 bar) Standard opening pressure 0.2 bar Higher or lower pressures on request
<b>Applicable Standards</b>	Pipe connection acc. to DIN 11866 ISO-Dimension Series B (ISO 4200) BS-OD-Dimension Series C (ASME BPE) DIN-Dimension Series A (DIN 11850) Conformity assessment acc. to DGRL 97-25-EG
<b>Certifications</b>	Material 3.1 FDA for all the stated seal materials USP VI for EPDM, FEP, PTFE

### Applications

- Biotechnology
- Pharmaceutical
- Chemical industry
- Dairy
- Food
- Cosmetic

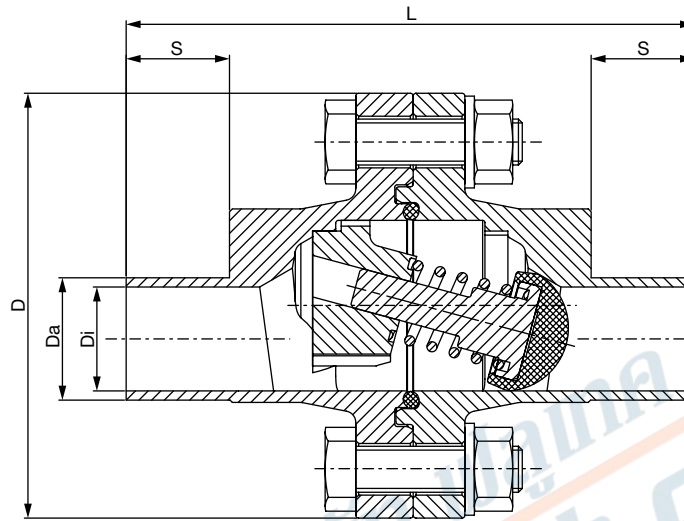
**Dimension [mm] Ball check valve eccentric with weld end**



Orifice	D [mm]	Da [mm]	Di [mm]	L [mm]	S [mm]	Article no. EPDM	Article no. FEP
<b>ISO Dimensions Ball check valve eccentric with weld end</b>							
DN08	74.00	13.50	10.30	117.00	18.00	744339	745694
DN10	74.00	17.20	14.00	105.00	18.00	744351	745695
DN15	74.00	21.30	18.10	99.00	18.00	744352	743491
DN20	88.00	26.90	23.70	146.00	25.00	744353	742970
DN25	88.00	33.70	29.70	127.00	25.00	744354	736422
DN32	125.00	42.40	38.40	187.00	25.00	744355	745701
DN40	137.00	48.30	44.30	210.00	25.00	744356	736458
DN50	137.00	60.30	56.30	180.00	25.00	on request	on request
DN65	194.00	76.10	72.10	226.00	20.00	744358	745705
DN80	194.00	88.90	84.30	216.00	25.00	744359	745707
DN100	260.00	114.30	109.70	216.00	30.00	on request	on request

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**Dimension [mm] Ball check valve eccentric with weld end**



Orifice	D [mm]	Da [mm]	Di [mm]	L [mm]	S [mm]	Article no. EPDM	Article no. FEP
<b>BS-OD Dimensions Ball check valve eccentric with weld end</b>							
DN1/4"	74.00	6.35	4.57	137.00	18.00	on request	on request
DN3/8"	74.00	9.53	7.75	127.00	18.00	on request	on request
DN1/2"	74.00	12.70	9.40	117.00	18.00	744140 ๒๒	on request
DN3/4"	74.00	19.05	15.75	117.00	18.00	744131 ๒๒	745715 ๒๒
DN1"	88.00	25.40	22.10	155.00	25.00	745717 ๒๒	745718 ๒๒
DN1 1/2"	125.00	38.10	34.80	197.00	25.00	on request	on request
DN2"	137.00	50.80	47.50	186.00	25.00	on request	on request
DN2 1/2"	168.00	63.50	60.20	209.00	25.00	on request	745724 ๒๒
DN3"	168.00	76.20	72.90	185.00	25.00	on request	on request
DN4"	260.00	101.60	97.38	256.00	30.00	on request	on request

Orifice	D [mm]	Da [mm]	Di [mm]	L [mm]	S [mm]	Article no. EPDM	Article no. FEP
<b>DIN Dimensions Ball check valve eccentric with weld end</b>							
DN08	74.00	10.00	8.00	124.00	18.00	on request	on request
DN10	74.00	12.00	10.00	117.00	18.00	on request	on request
DN10	74.00	13.00	10.00	117.00	18.00	on request	on request
DN15	74.00	19.00	16.00	99.00	18.00	on request	on request
DN20	88.00	23.00	20.00	155.00	25.00	on request	on request
DN25	88.00	29.00	26.00	142.00	25.00	745679 ๒๒	744088 ๒๒
DN32	135.00	35.00	32.00	203.00	25.00	on request	on request
DN40	125.00	41.00	38.00	187.00	25.00	on request	on request
DN50	137.00	53.00	50.00	180.00	25.00	745687 ๒๒	on request
DN65	168.00	70.00	66.00	199.00	25.00	on request	on request
DN80	194.00	85.00	81.00	216.00	25.00	on request	on request
DN100	260.00	104.00	100.00	246.00	30.00	on request	on request

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Specification key (other versions on request)

Example BBS-10 - ZX - WA - 25.0 - FE - VI - SD44 - T09 - ZUB - AE - NK52 + NO10

Specification key

Delivery (LIUM)	
ZX	Centric check valve complete
ZA	Spare part set for centric check valve
EX	Eccentric check valve complete
EA	Spare part set for eccentric check valve

Connection Type (VRBT)	
WA	Weld fitting acc. to DIN 11850 series 2 / DIN 11866 series A
WB	Weld fitting acc. to DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B
WC	Weld fitting acc. to ASME BPE / DIN 11866 series C
00	Without connection (spare part set)

Seal Material (DWST)	
AB	EPDM
FE	FEP

Material (WKST)	
HA	Hastelloy C2
VI	1.4435 acc. BN2 and 316L acc. to ASME BPE chart DT3
VU	1.4539
VN	1.4410
VV	1.4547

Internal polishing	
NO10	int. electro polished (Standard) Ra = 0.8 µm
Certificate	
NK52	3.1 Certificate (Standard)

Characteristic of functional part (KGFT)	
AE	opening pressure 0.2 bar

Orifice (DN)
08.0
10.0
20.0
25.0
32.0
40.0
50.0
65.0
80.0
0100

Weld connection (LTA1)							
Port connection [mm]	EN ISO 1127/ISO 4200	DIN 11850				BS 4825	ASME BPE
		Row 0	Row 1	Row 2	Row 3		
4		SC40=6×1.0					
6		SC41=8×1.0					
8	SA40=13.5×1.6	SC42=10×1.0				SODB=6.35×1.2	SA90=6.35×0.89
10	SA41=17.2×1.6		SF40=12×1.0	SD40=13×1.5	SE40=14×2.0	SODC=9.53×1.2	SA91=9.53×0.89
15	SA42=21.3×1.6	SC43=18×1.5	SF41=18×1.0	SD42=19×1.5	SE42=20×2.0	SODD=12.7×1.2	SA92=12.7×1.65
20	SA43=26.9×1.6	SC44=22×1.5	SF42=22×1.0	SD43=23×1.5	SE43=24×2.0	SODE=19.05×1.2	SA93=19.05×1.65
25	SA44=33.7×2.0	SC45=28×1.5	SF43=28×1.0	SD44=29×1.5	SE44=30×2.0		SODF=25.4×1.65
32	SA45=42.4×2.0	SC46=34×1.5	SF44=34×1.0	SD45=35×1.5	SE45=36×2.0		
40	SA46=48.3×2.0	SC47=40×1.5	SF45=40×1.0	SD46=41×1.5	SE46=42×2.0		SODH=38.1×1.65
50	SA47=60.3×2.0	SC48=52×1.5	SF46=52×1.0	SD47=53×1.5	SE47=54×2.0		SODI=50.8×1.65
65	SA48=76.1×2.0			SD48=70×2.0			SODJ=63.5×1.65
80	SA49=88.9×2.3			SD49=85×2.0			SODK=76.2×1.65
100	SA39=114.3×2.3			SD50=104×2.0			SODL=101.6×2.11

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