



Ball valve for hygienic applications

- High performance and low maintenance
- Suitable for CIP and SIP (cleaning in process)
- Stainless steel reinforced PTFE seal according to EC Regulation 1935/2004/EC, Regulation (EU) No. 10/2011, FDA, USP Class VI
- ISO 5211 mounting flange

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 2053 Pneumatic rotary actuator for the automation of ball and butterfly valves	▶
	Type 2051 Pneumatic rotary actuator	▶
	Type 3003 Electrical rotary actuator - On/Off and control	▶
	Type 3005/3004 Electric rotary actuator - On/Off and Control	▶
	Type 1061 Accessory for pneumatic rotary actuators	▶
	Type 8692 Digital electropneumatic positioner for the integrated mounting on process control valves	▶
	Type 8792 Digital electropneumatic positioner SideControl	▶
	Type 2052 Pneumatic rotary actuator	▶

Type description

The ball valves are manufactured using high quality materials and fulfil the requirements of many international standards. They offer maximum flow performance for hygienic duties.

They are available in different variants and are characterised by high quality workmanship. Thanks to their uncomplicated design, they are also easy to maintain.

They are available with and without manual lever. Furthermore, they can be connected via the mechanical interface (according to ISO 5211) with pneumatic (e.g. Type 2051, Type 2052, Type 2053) and electrical rotary actuators (e.g. Type 3003, Type 3004, Type 3005).

Applications

- Biotechnology
- Pharmaceutical industry
- Chemical industry
- Dairy plants
- Food industry
- Cosmetics industry

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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "4. Dimensions" on page 6.
Material	
Seal	Seat: stainless steel-reinforced PTFE (FDA-compliant) Body gasket, thrust collar and V-packing: PTFE (FDA-compliant) Stem seal: silicone
Body	Stainless steel 1.4435/316L
Ball	Stainless steel 1.4435/316L
Selector shaft	Stainless steel 1.4435/316L
Lever	Electropolished stainless steel 1.4408/316 Further information on materials can be found in chapter "3. Materials" on page 4.
Surface quality	Wetted surface RA < Ra 0.8 µm, electropolished body surface
Delta ferrite content	≤ 1 %
Medium data	
Medium temperature	- 10 °C...+ 200 °C (see "5.1. Pressure temperature diagram" on page 9)
Medium pressure	63 bar (see "5.1. Pressure temperature diagram" on page 9), maximum 6 bar for steam with seal made of stainless steel-reinforced PTFE
Process/Port connection & communication	
Port connection	Orbital welded connection variants according to • DIN 11850 R2 • ISO 1127/ISO 4200 • ASME BPE
Actuator-side interface	According to EN ISO 5211
Approvals and conformities	
Foods and beverages/Hygiene	
FDA	Further information can be found in chapter "2.4. Foods and beverages/Hygiene" on page 4.
USP	Further information can be found in chapter "2.4. Foods and beverages/Hygiene" on page 4.
EC Regulation 1935/2004	Further information can be found in chapter "2.4. Foods and beverages/Hygiene" on page 4.

2. Approvals and conformities

2.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.

2.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

2.3. Standards

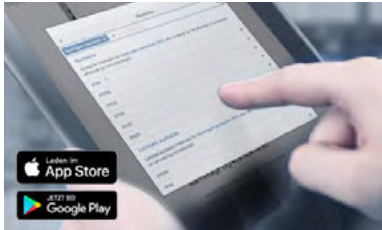
The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

2.4. Foods and beverages/Hygiene

Conformity	Description
FDA	FDA – Code of Federal Regulations The seals made of PTFE comply with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA).
USP	United States Pharmacopeial Convention (USP) The seals made of PTFE are tested according to USP Class VI.
	EC Regulation 1935/2004 of the European Parliament and of the Council The seals made of PTFE are suitable for use with food and beverages (according to EC Regulation 1935/2004/EC).

3. Materials

3.1. Bürkert resistApp

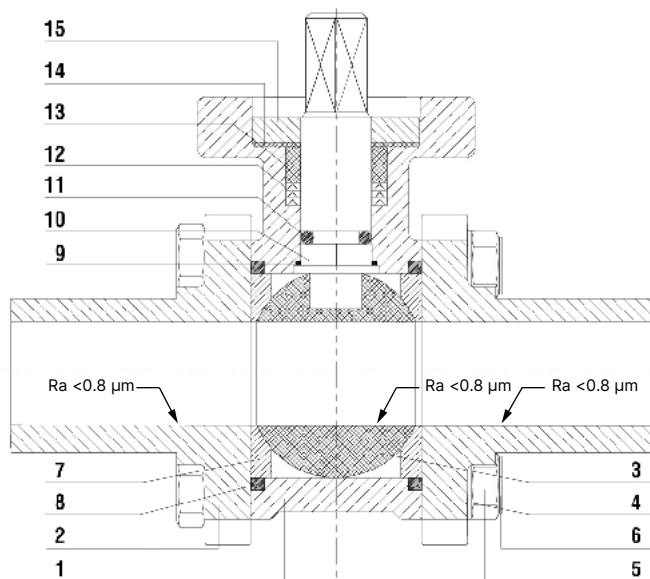


Bürkert resistApp – Chemical resistance chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

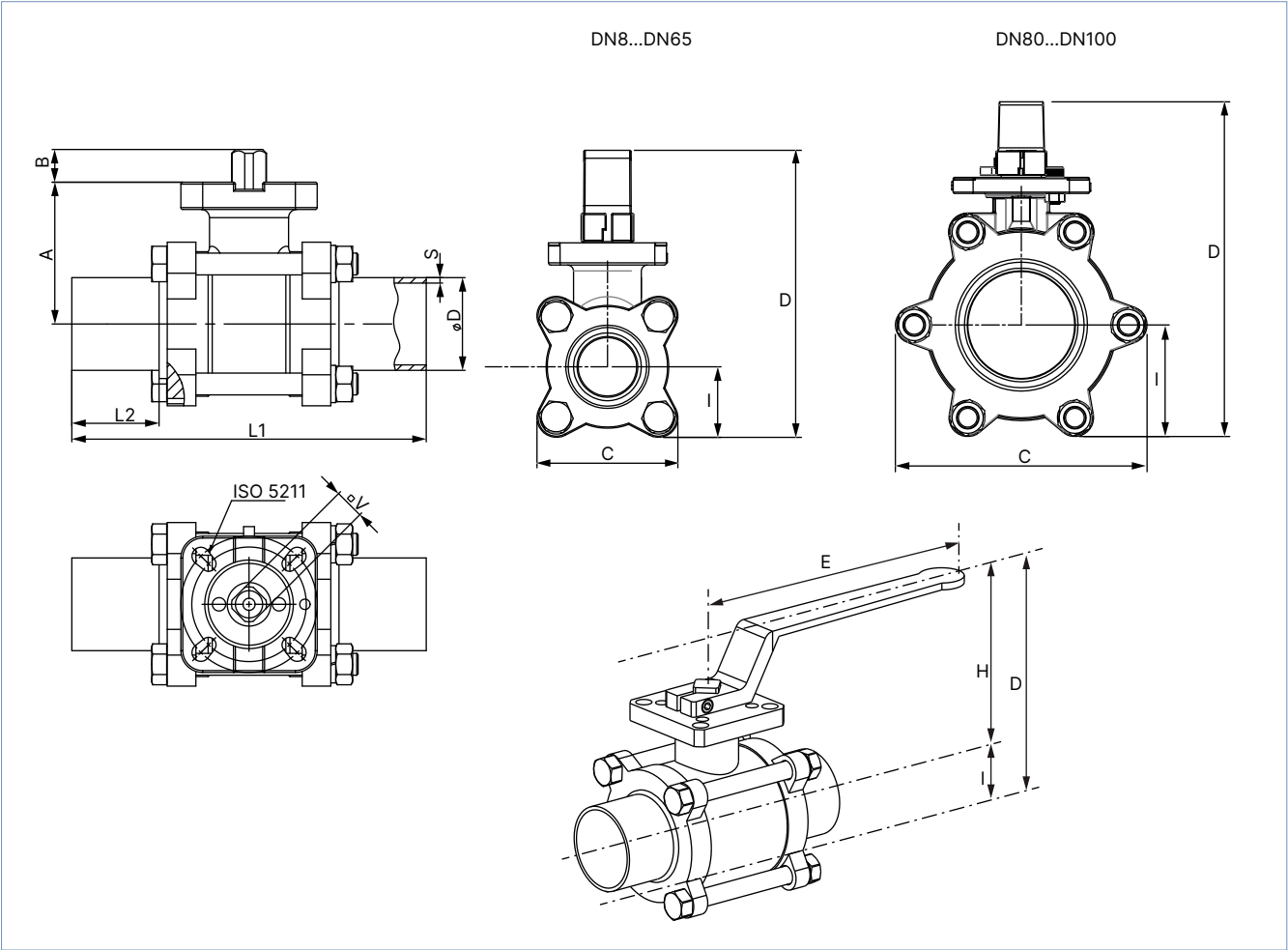
3.2. Material specifications



No.	Element	Material
1	Body	Stainless steel 1.4435/316L
2	End piece	Stainless steel 1.4435/316L
3	Ball	Stainless steel 1.4435/316L
4	Washer	Stainless steel 1.4404/316
5	Nut	Stainless steel 1.4404/316
6	Screw	Stainless steel 1.4404/316
7	Seat	PTFE SS-FDA (50 % reinforced stainless steel)
8	Body gasket	PTFE-FDA
9	Thrust collar	PTFE-FDA
10	Shaft/star	Stainless steel 1.4435/316L
11	O-ring	Silicone
12	V-packing	PTFE-FDA
13	Packing gland	Stainless steel 1.4404/316
14	Spring	Spring steel
15	Nut	Stainless steel 1.4404/316

4. Dimensions

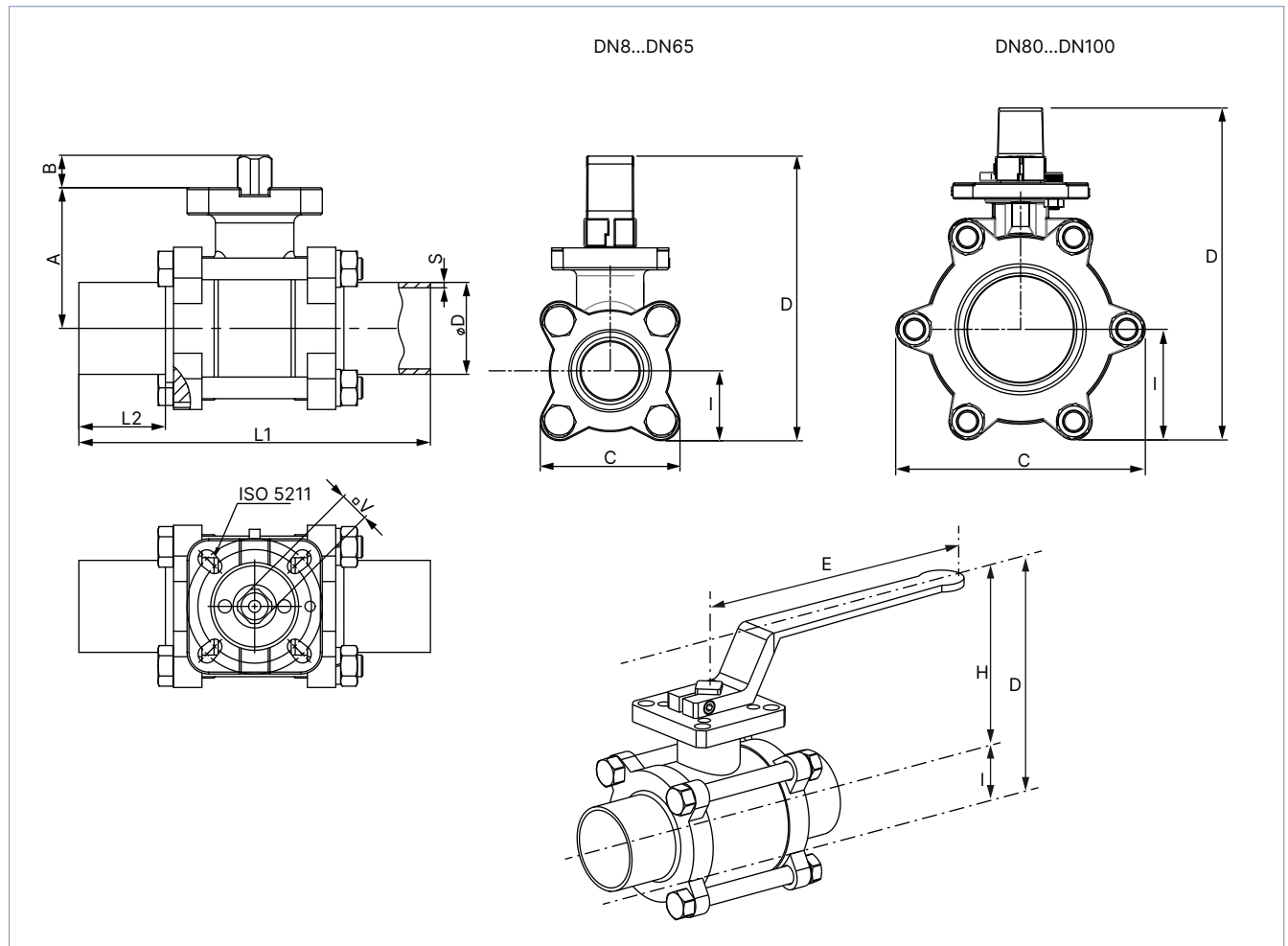
4.1. ISO 1127/ISO 4200 variant



Nominal diameter [mm]	A	B	C	D	E	H	I	L1	L2	Ø D	S	V	Interface acc. to ISO 5211	Article no.	
														Manually operated	Bare shaft ^{1.)}
8	40	9	47	88	125	64.5	23.5	100	23	13.5	1.6	9	F03/F04	773810	773799
10	40	9	47	88	125	64.5	23.5	100	23	17.2	1.6	9	F03/F04	773811	773800
15	40	9	47	88	125	64.5	23.5	100	25	21.3	1.6	9	F03/F04	773812	773801
20	44	9	53.5	95	125	68	27	105	25	26.9	1.6	9	F03/F04	773813	773802
25	52	12	60.5	123	189	93	30	115	25	33.7	2	11	F04/F05	773814	773803
32	58	12	71	133	189	97.5	35.5	140	33	42.4	2	11	F04/F05	773815	773804
40	68	12	81.5	147	221	106.5	40.5	150	33	48.3	2	14	F05/F07	773816	773805
50	77	16	100	167	221	117	50	170	33	60.3	2	14	F05/F07	773817	773806
65	98	19	127	218	302	154.5	63.5	220	40	76.1	2	17	F07/F10	773818	773807
80	110	19	188	250	302	166.5	83.5	300	65	88.9	2.3	17	F07/F10	773819	773808
100	138	24	221	317	350	219.5	97.5	325	65	114.3	2.3	22	F10	773820	773809

1.) The ball valves with bare shaft are suitable for automated operation with pneumatic or electric rotary actuators.

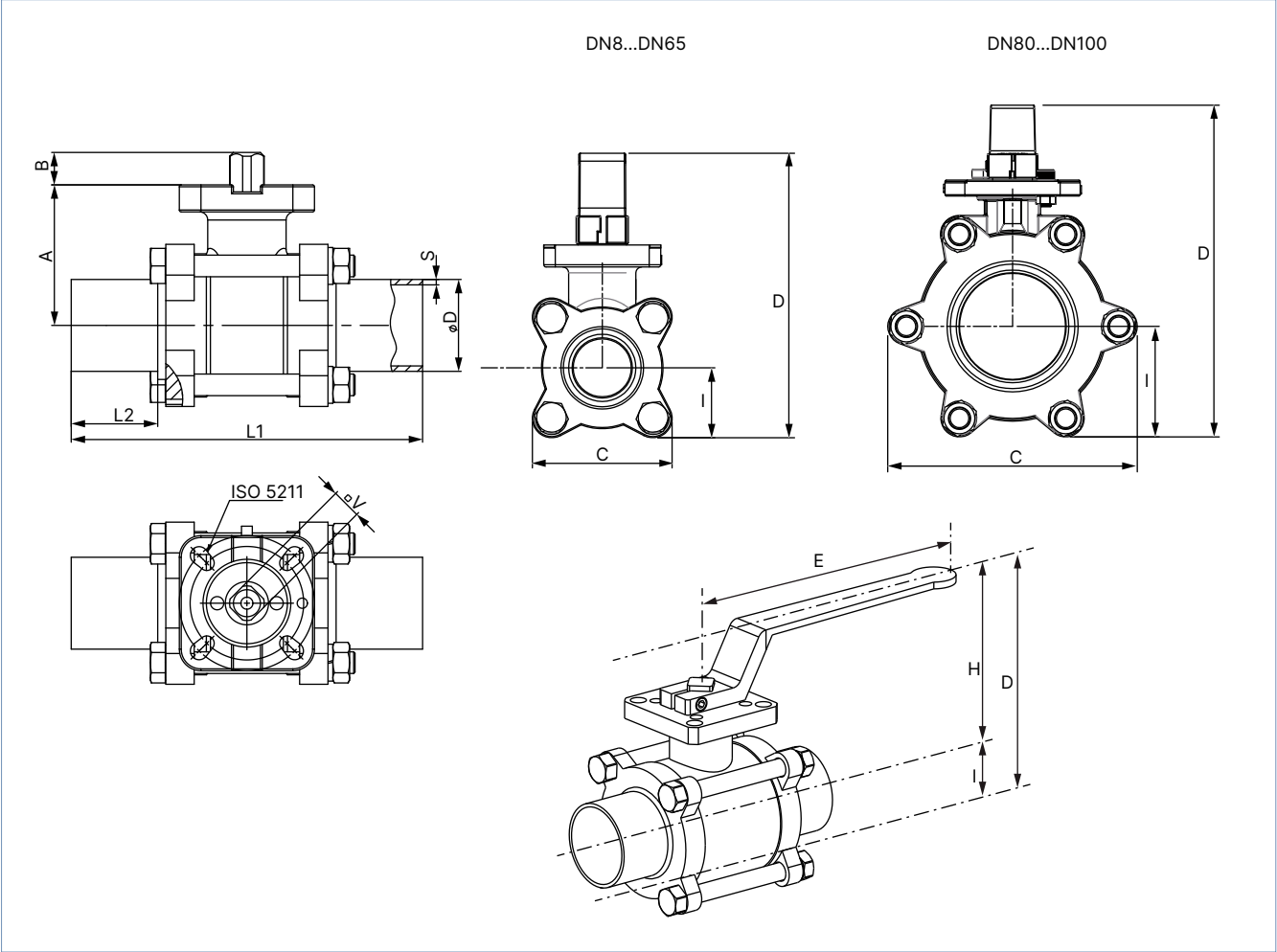
4.2. DIN 11850 R2 variant



Nominal diameter [mm]	A	B	C	D	E	H	I	L1	L2	ØD	S	V	Interface acc. to ISO 5211	Article no.	
														Manually operated	Bare shaft ^{1.)}
10	40	9	47	88	125	64.5	23.5	100	23	13	1.5	9	F03/F04	351683	351667
15	40	9	47	88	125	64.5	23.5	100	25	19	1.5	9	F03/F04	351684	351668
20	44	9	53.5	95	125	68	27	105	25	23	1.5	9	F03/F04	351685	351669
25	52	12	60.5	123	189	93	30	115	25	29	1.5	11	F04/F05	314427	351670
32	58	12	71	133	189	97.5	35.5	140	33	35	1.5	11	F04/F05	351686	351671
40	68	12	81.5	147	221	106.5	40.5	150	33	41	1.5	14	F05/F07	351687	351672
50	77	16	100	167	221	117	50	170	33	53	1.5	14	F05/F07	351688	351673
65	98	19	127	218	302	154.5	63.5	220	40	70	2	17	F07/F10	351689	351674
80	110	19	188	250	302	166.5	83.5	300	65	85	2	17	F07/F10	351690	351675
100	138	24	221	317	350	219.5	97.5	325	65	104	2	22	F10	351691	351676

1.) ball valves with bare shaft are suitable for automated operation with pneumatic or electric rotary actuators.

4.3. ASME BPE variant



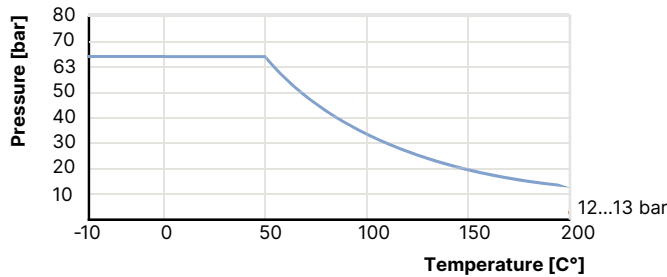
DN	A	B	C	D	E	H	I	L1	L2	Ø D	S	V	Interface acc. to ISO 5211	Article no.	
														Manually operated	Bare shaft ^{1.)}
3/8	40	9	47	88	125	64.5	23.5	95	23	9.53	0.89	9	F03/F04	351677	351661
1/2	40	9	47	88	125	64.5	23.5	100	20	12.7	1.65	9	F03/F04	351678	351662
3/4	44	9	53.5	95	125	68	27	105	25	19.05	1.65	9	F03/F04	344217	344216
1	52	12	60.5	123	189	93	30	115	25	25.4	1.65	11	F04/F05	343002	343003
1 1/2	68	12	81.5	147	221	106.5	40.5	150	33	38.1	1.65	14	F05/F07	351679	343004
2	77	16	100	167	221	117	50	170	33	50.8	1.65	14	F05/F07	351680	351663
2 1/2	98	19	127	218	302	154.5	63.5	220	40	63.5	1.65	17	F07/F10	351681	351664
3	110	19	188	250	302	166.5	83.5	300	65	76.2	1.65	17	F07/F10	351682	351665
4	138	24	221	317	350	219.5	97.5	325	65	101.6	2.11	22	F10	345207	351666

1.) The ball valves with bare shaft are suitable for automated operation with pneumatic or electric rotary actuators.

5. Performance specifications

5.1. Pressure temperature diagram

For general industrial use



5.2. Torques

Torques for ball valves with PN 16 pressure rating											
DN [mm]	8	10	15	20	25	32	40	50	65	80	100
Breakaway torque [Nm]	6	6	10	14	17	24	29	44	78	112	140
Running torque [Nm]	4	4	7	9	11	16	19	30	52	89	112

6. Product accessories

6.1. Wearing part set for Type 2654 Hygienic

Note:

Further ordering information can be found in chapter [“Wearing part set for Type 2654 Hygienic” on page 10.](#)

Description	Quantity	Material
V-packing/V-seal	4	PTFE-FDA
O-ring	1	Silicone
Thrust collar	1	PTFE-FDA
Seat	2	PTFE-SS-FDA (50 % reinforced stainless steel)
Body gasket	2	PTFE-FDA

6.2. Lever for ball valve Type 2654 Hygienic

Note:

- The casted lever is made of stainless steel 1.4408/316, including screw and travel stop.
- Electropolished
- With eyelet to lock the ball valve via padlock or screw
- Further ordering information can be found in chapter [“Lever for Type 2654 Hygienic” on page 11.](#)

7. Ordering information

7.1. Bürkert eShop



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7.3. Ordering chart ISO 1127/ISO 4200 variant

Note:

Further ordering information can be found in chapter [“4.1. ISO 1127/ISO 4200 variant”](#) on page 6.

7.4. Ordering chart DIN 11850 R2 variant

Note:

Further ordering information can be found in chapter [“4.2. DIN 11850 R2 variant”](#) on page 7.

7.5. Ordering chart ASME BPE variant

Note:

Further ordering information can be found in chapter [“4.3. ASME BPE variant”](#) on page 8.

7.6. Ordering chart accessories

Wearing part set for Type 2654 Hygienic

Note:

Further information can be found in chapter [“6.1. Wearing part set for Type 2654 Hygienic”](#) on page 9.

Nominal diameter [mm]	Article no.
8	773821
10	773822
15	773823
20	773824
25	773825
32	773826
40	773827

Type 2654
Hygienic

Nominal diameter [mm]	Article no.
50	773828 
65	773829 
80	773830 
100	773831 

Lever for Type 2654 Hygienic

Nominal diameter [mm]	Article no.
8...20	773768 
25...32	773769 
40...50	773770 
65...80	773771 
100	773772 