



Ball valve for hygienic applications

- High performance and low maintenance
- Suitable for CIP and SIP (cleaning in process)
- Stainless steel reinforced PTFE Seal: conform to EC Regulation 1935/2004/EC, Regulation (EU) No. 10/2011, FDA, USP Class VI
- ISO 5211 head 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 2051/2052 ▶ 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 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 boast a high quality finish and are available in different variations. Thanks to their simple construction, the ball valves are very low-maintenance.

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

Table of contents

1. General technical data	3
<hr/>	
2. Approvals and conformities	3
2.1. General notes.....	3
2.2. Conformity	3
2.3. Standards.....	3
2.4. Foods and beverages/Hygiene	4
<hr/>	
3. Materials	4
3.1. Bürkert resistApp	4
3.2. Material specifications	5
<hr/>	
4. Dimensions	6
4.1. ISO 1127/ISO 4200 variant	6
4.2. DIN 11850 R2 variant.....	7
4.3. ASME BPE variant	8
<hr/>	
5. Performance specifications	9
5.1. Pressure temperature diagram.....	9
5.2. Torques	9
<hr/>	
6. Product accessories	9
6.1. Wearing part set for Type 2654 Hygienic.....	9
6.2. Lever for ball valve Type 2654 Hygienic.....	9
<hr/>	
7. Ordering information	10
7.1. Bürkert eShop.....	10
7.2. Bürkert product filter.....	10
7.3. Ordering chart ISO 1127/ISO 4200 variant	10
7.4. Ordering chart DIN 11850 R2 variant.....	10
7.5. Ordering chart ASME BPE variant	10
7.6. Ordering chart accessories.....	10
Wearing part set for Type 2654 Hygienic.....	10
Lever for Type 2654 Hygienic.....	11

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 conform) Body gasket, thrust collar and V-packing: PTFE (FDA conform) Stem seal: silicone
Body	Stainless steel 1.4435/316L
Ball	Stainless steel 1.4435/316L
Selector shaft	Stainless steel 1.4435/316L
Lever	Electropolished, CFM8/1.4408/316
Surface quality	Wetted surface RA < Ra 0.8 µm, electropolished body surface
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 weld end variants according to <ul style="list-style-type: none"> • DIN 11850 R2 • ISO 1127/ISO 4200 • ASME BPE
Approvals and conformities	
ISO head flange	EN ISO 5211
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

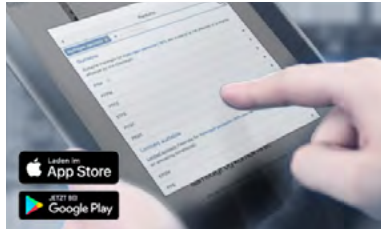
The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

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

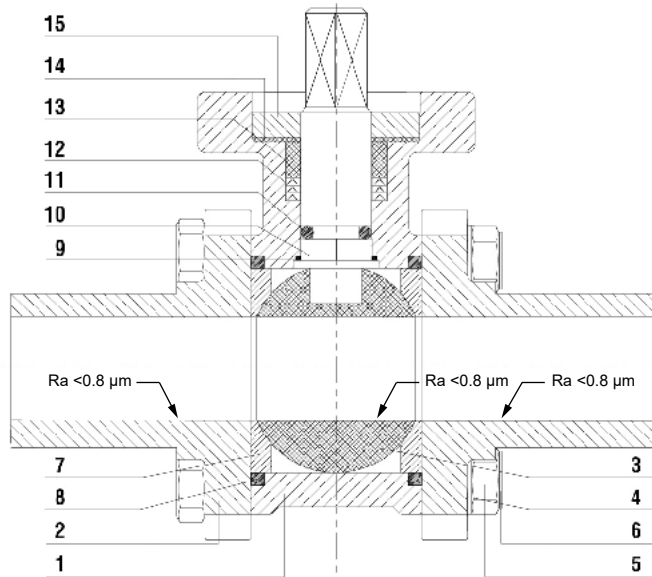


Bürkert resistApp – Chemical resistance chart

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



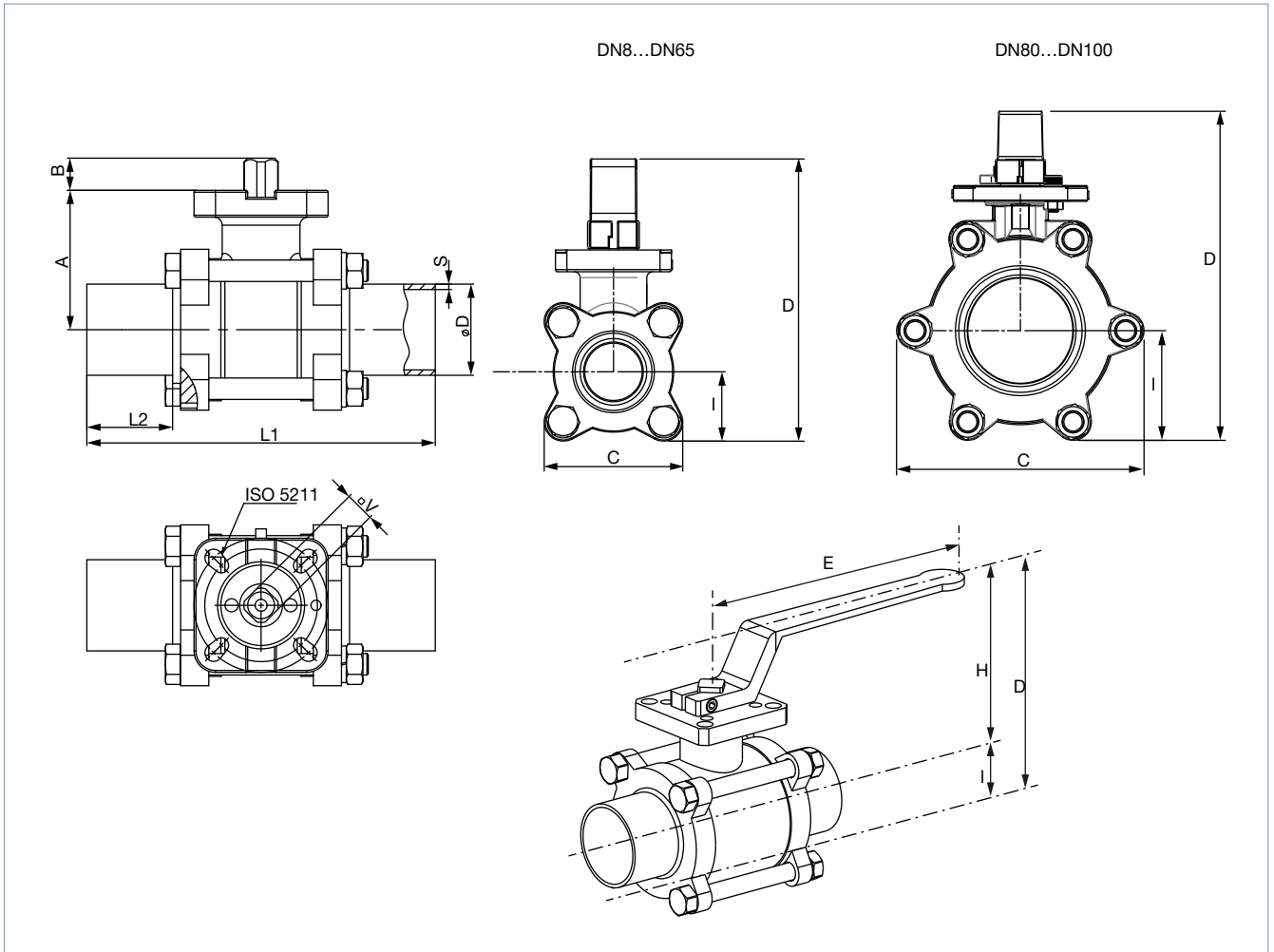
Nr.	Element	Material
1	Body	1.4435/316L
2	End cap	1.4435/316L
3	Ball	1.4435/316L
4	Washer	1.4404/SS316
5	Nut	1.4404/SS316
6	Screw	1.4404/SS316
7	Seat	PTFE SS-FDA (50 % stainless steel reinforced)
8	Body gasket	PTFE-FDA
9	Thrust collar	PTFE-FDA
10	Shaft / star	1.4435/316L
11	O-ring	Silicone
12	V-packing	PTFE-FDA
13	Packing gland	1.4404/SS316
14	Spring	Spring steel
15	Nut	1.4404/SS316

4. Dimensions

4.1. ISO 1127/ISO 4200 variant

Note:

Dimensions in mm

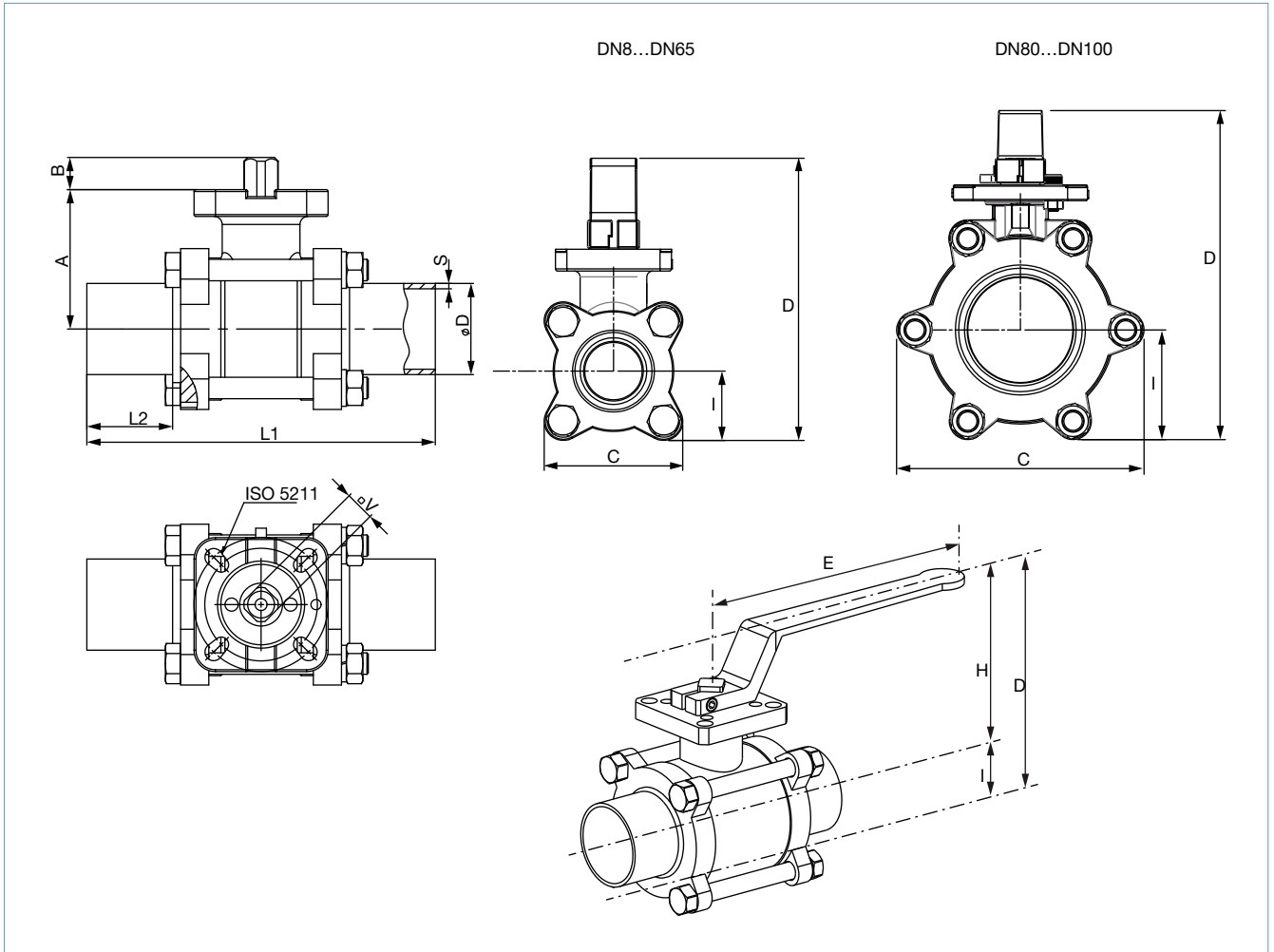


Nominal diameter [mm]	A	B	C	D	E	H	I	L1	L2	Ø D	S	V	ISO 5211	Article no.	
														Manually operated	Bare shaft ^{1.)}
8	40	9	47	88	125	64.5	23.5	100	23	13.5	1.6	9	F03/F04	773810	773799
10	40	9	47	88	125	64.5	23.5	100	23	17.2	1.6	9	F03/F04	773811	773800
15	40	9	47	88	125	64.5	23.5	100	25	21.3	1.6	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

Note:
Dimensions in mm



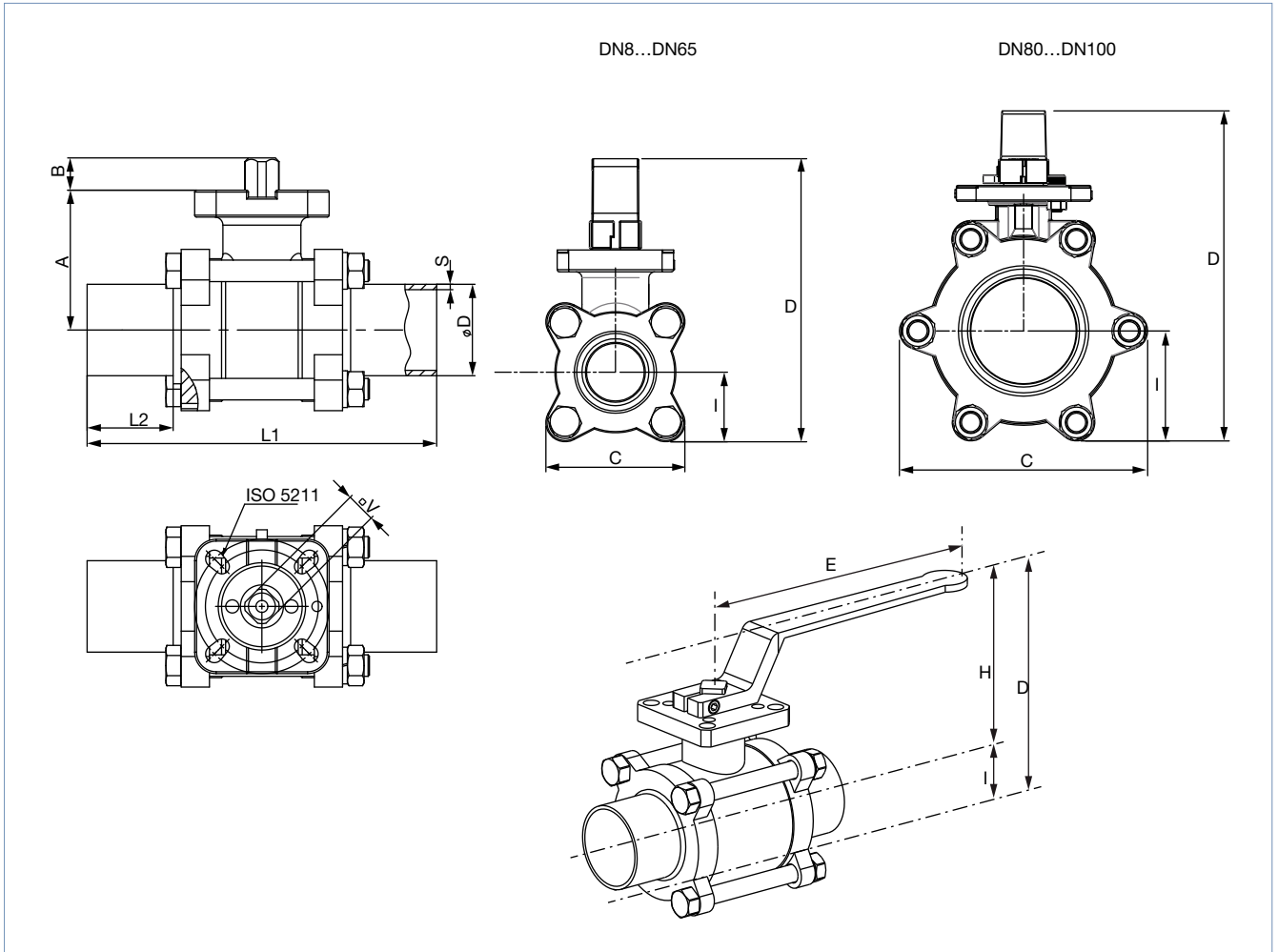
Nominal diameter [mm]	A	B	C	D	E	H	I	L1	L2	Ø D	S	V	ISO 5211	Article no.	
														Manually operated	Bare shaft ^{1.)}
10	40	9	47	88	125	64.5	23.5	100	23	13	1.5	9	F03/F04	351683	351667
15	40	9	47	88	125	64.5	23.5	100	25	19	1.5	9	F03/F04	351684	351668
20	44	9	53.5	95	125	68	27	105	25	23	1.5	9	F03/F04	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.) The ball valves with bare shaft are suitable for automated operation with pneumatic or electric rotary actuators.

4.3. ASME BPE variant

Note:

Dimensions in mm, unless otherwise stated

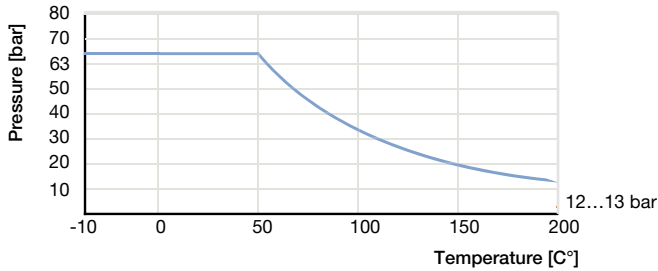


Nominal diameter [inch]	A	B	C	D	E	H	I	L1	L2	Ø D	S	V	ISO 5211	Article no.	
														Manually operated	Bare shaft ^{1.)}
3/8"	40	9	47	88	125	64.5	23.5	95	23	9.53	0.89	9	F03/F04	351677	351661
1/2"	40	9	47	88	125	64.5	23.5	100	20	12.7	1.65	9	F03/F04	351678	351662
3/4"	44	9	53.5	95	125	68	27	105	25	19.05	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



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 % stainless steel reinforced)
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 pad lock 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




Bürkert eShop – Easy ordering and quick delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

7.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

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 