Profactor Armaturen GmbH

EN

PROFACTOR®
DER DEUTSCHE QUALITÄTSSTANDARD

TECHNICAL DATA SHEET AND USER MANUAL

PRODUCT CODE

PF FBV 300
PF FBV 301
PF FBV 302
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PF FBV 321
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PF FBV 323

BALL VALVE "STANDARD"

1. PURPOSE AND SCOPE

The PROFACTOR® STANDARD ball valve is used as shut-off equipment on pipelines for drinking water, domestic, and industrial applications, hot water supply, heating, compressed air, liquid hydrocarbons, as well as on process pipelines conveying fluids that are non-corrosive to the valve materials.

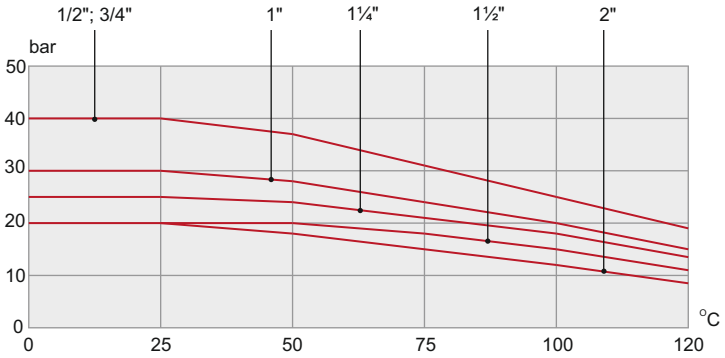
2. TECHNICAL SPECIFICATIONS

Table 1

Parameter	Value	Standard
Nominal Size (DN), mm	DN15 – DN50	ISO 6708
Connection Thread (G)	1/2" – 2"	ISO 228/1, DIN 259
Nominal Pressure (PN), bar	20 – 40 (see Table 3)	—
Operating Temperature, °C	–20°C to +120°C (see chart)	—
Seat Tightness Class	"A"	—
Effective Diameter Ratio (Valve Bore to Pipe Bore), %	>95 Full bore valve	—
Average Service Life, cycles	30 000	—
Repairability	Repairable	IEC 60050 (191):1990-12, NEQ
Average Service Life, years	30	—

The valves are in an accordance with DIN EN 13828.

Chart of Maximum Working Pressure vs. Temperature:



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3. DESIGN

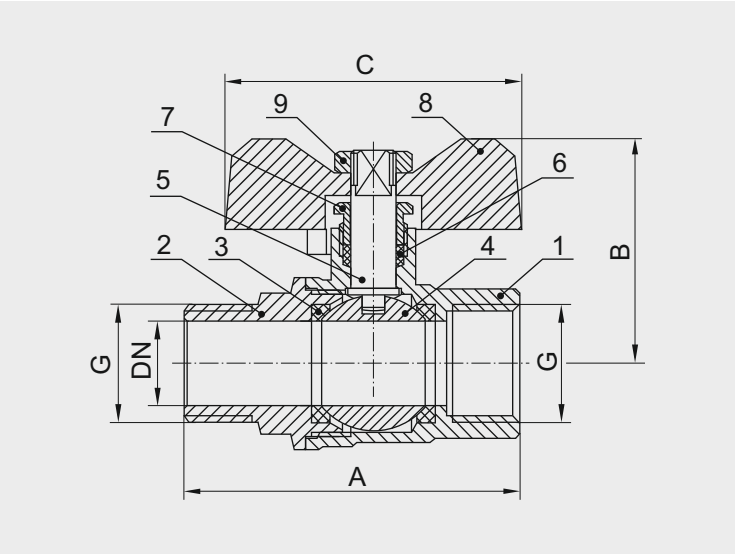
The valve body is made of two nickel-plated brass parts (1) and (2), connected by a thread secured with an anaerobic polymer adhesive that has WRAS approval (approved for contact with potable water).

The valve's shut-off mechanism consists of a chrome-plated brass ball (4), actuated by a vertical brass stem (5). The seal seats use PTFE rings (3). A PTFE stem packing (6), tightened by a brass threaded gland (7), ensures stem sealing.

The valve stem is non-rising, as it is inserted from inside the body (1) and features a positive stop shoulder. The handle (8) is attached to the stem using a nut (9) and has a special provision for sealing/tamper-proofing.

Flow shut-off is achieved by turning the handle 90° clockwise. For better grip of the thread sealing material during installation, the external connecting thread of the valve has knurling.

Ball Valve "STANDARD", F/F, Butterfly Handle



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Ball Valve "STANDARD", M/M, Lever Handle

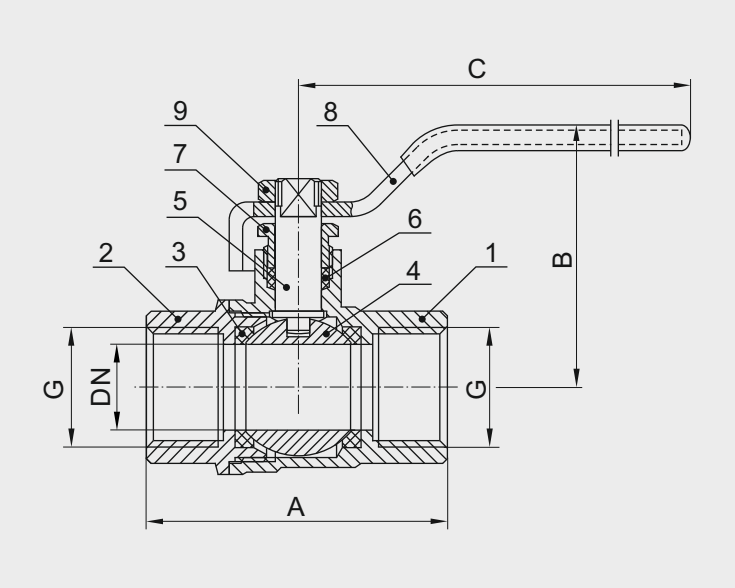

Table 2

Pos.	Name	Material	Standard
1	Body	Brass CW617N	DIN EN 12165
2	Body Insert	BrassCW617N	DIN EN 12165
3	Ball Seat Rings (O-rings)	PTFE	FDA21 CFR177.1550
4	Ball	Brass CW614N	DIN EN 12165
5	Stem	Brass CW614N	DIN EN 12165
6	Stem Packing	PTFE	FDA21 CFR177.1550
7	Gland Nut	Brass CW614N	DIN EN 12165
8	Lever Handle / Wing Handle	Steel S235JR / Aluminum Al	DIN EN 10025/ DIN EN 1676
9	Handle Nut	Steel S235JR	DIN EN 10025

4. NOMENCLATURE AND DIMENSIONS

Ball Valve "STANDARD", F/F, Butterfly Handle

Table 3.1

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 300	15	1/2"	40	52,5	40	52,5	170
PF FBV 301	20	3/4"	40	60,5	43,5	52,5	255
PF FBV 302	25	1"	30	69,5	54,5	63	405

Ball Valve "STANDARD", F/M, Butterfly Handle

Table 3.2

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 303	15	1/2"	40	59,5	40	52,5	180
PF FBV 304	20	3/4"	40	66,3	43,5	52,5	262
PF FBV 305	25	1"	30	76,5	54,5	63	425

Ball Valve "STANDARD", M/M, Butterfly Handle

Table 3.3

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 306	15	1/2"	40	60,5	40	52,5	171
PF FBV 307	20	3/4"	40	67,5	43,5	52,5	250
PF FBV 308	25	1"	30	77,5	54,5	63	420

Ball Valve "STANDARD", F/F, Lever Handle

Table 3.4

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 309	15	1/2"	40	52,5	46	87,5	190
PF FBV 310	20	3/4"	40	60,5	49	87,5	273
PF FBV 311	25	1"	30	69,5	58	104	442
PF FBV 312	32	1¼"	25	78,2	69,5	136	655
PF FBV 313	40	1½"	20	91	76,5	150	955
PF FBV 314	50	2"	20	105	84,5	150	1510

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Ball Valve "STANDARD", F/M, Lever Handle

Table 3.5

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 315	15	1/2"	40	59,5	46	87,5	200
PF FBV 316	20	3/4"	40	66,3	49	87,5	283
PF FBV 317	25	1"	30	76,5	58	104	455
PF FBV 318	32	1¼"	25	85,2	69,5	136	680
PF FBV 319	40	1½"	20	100	76,5	150	1000
PF FBV 320	50	2"	20	114,5	84,5	150	1570

Ball Valve "STANDARD", M/M, Lever Handle

Table 3.6

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 321	15	1/2"	40	60,5	46	87,5	195
PF FBV 322	20	3/4"	40	67,5	49	87,5	268
PF FBV 323	25	1"	30	77,5	58	104	430

5. INSTALLATION INSTRUCTIONS

The valve may be installed in any orientation. The valve must not be subjected to loads from the pipeline (bending, compression, tension, torsion, misalignment, vibration, pipe misalignment, uneven tightening of fasteners). If necessary, supports or compensators must be provided to reduce the load on the valve from the pipeline.

The misalignment of the connected pipelines must not exceed 3 mm for lengths up to 1 m, plus 1 mm for each subsequent meter.

Sealing of threaded connections must be performed using PTFE-tape (fluoropolymer sealing material – polytetrafluoroethylene), polyamide thread with silicone, flax with special pastes, or other sealing materials that ensure joint tightness at the design temperature and pressure of the working medium, and which are approved for use according to established procedures.

After installation, sanitary system assemblies must be tested for leaks. They must be subjected to hydrostatic (hydraulic) or bubble (pneumatic) testing.

6. OPERATION AND MAINTENANCE

The valve must be operated without exceeding the pressure and temperature specified in p. 2. Operating the valve with a loose handle attachment nut is not permitted, as this may damage the stem end.

Using the valve in media containing abrasive components is not recommended, as this may shorten its service life. Therefore, if the valve is used in systems conveying media with a high content of mechanical impurities, the installation of additional filtering equipment upstream is required.

For proper long-term operation, it is recommended to operate (open/close) the valve once a month as a preventive measure.

If a minor leak occurs from the stem seal under the handle during operation, the handle must be removed, and the gland packing nut must be tightened until the leak stops.

7. WARRANTY OBLIGATIONS

The warranty period is 84 months from the date of sale to the end consumer. Throughout the entire warranty period, the manufacturer guarantees the proper functioning of the product and its compliance with safety requirements, provided that the consumer follows the rules for storage, transportation, installation, operation, and maintenance of the product. The warranty covers all defects arising through the manufacturer's fault.

The warranty does not cover defects resulting from:

— Violation of storage, transportation, installation, operation, or maintenance conditions;
— Exposure to substances aggressive to the materials of the product;
— Signs of mechanical damage;
— Damage caused by fire, natural disasters, or other force majeure circumstances;
— Damage caused by improper actions of the user;
— Evidence of unauthorized interference with the product design.

The product described in this technical manual is a technically complex device that must be installed by a qualified specialist with appropriate experience working with this type of equipment.

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Installation and commissioning must be carried out by an authorized and certified company.

Profactor Armaturen GmbH reserves the right to make changes to the product design that do not affect its technical characteristics or functional features.

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INTERNATIONAL WARRANTY CARD

NAME OF THE PRODUCT _____

PRODUCT CODE, SIZE _____ **QUANTITY** _____

SELLER NAME AND ADDRESS _____

DATE OF PURCHASE _____

SELLER STAMP

SELLER SIGNATURE _____

For the warranty term refer to the Warranty obligation clause in the technical manual

FOLD LINE FOLD LINE

In case of any claims to the product quality the following documents should be submitted:

1. Application with customer and product detailes:
- Name of the customer, actual address and phone number
- Article of the product
- Reason for the claim and photo
- Plumbing system where installed (name, address, phone number)

2. Invoice copy and receipt

3. Warranty card

RETURN/EXCHANGE COMMENTS _____

DATE _____ **SIGNATURE** _____

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