Profactor Armaturen GmbH

EN

PROFACTOR®
DER DEUTSCHE QUALITÄTSSTANDARD

TECHNICAL DATA SHEET AND USER MANUAL

PRODUCT CODE

PF GBV 333
PF GBV 333A
PF GBV 334
PF GBV 335
PF GBV 336
PF GBV 336A
PF GBV 336M
PF GBV 337
PF GBV 338
PF GBV 339
PF GBV 340
PF GBV 341
PF GBV 342
PF GBV 343
PF GBV 344
PF GBV 345
PF GBV 346
PF GBV 347
PF GBV 348
PF GBV 349
PF GBV 350

GAS BALL VALVE

1. PURPOSE AND SCOPE

The valve is used as shut-off equipment on low and medium-pressure pipelines in natural gas and liquefied petroleum gas supply systems. The valve is also permitted for use in the installation of cold and hot water supply pipelines, compressed air lines, liquid hydrocarbon lines, as well as on process pipelines conveying fluids that are non-corrosive to the valve materials.

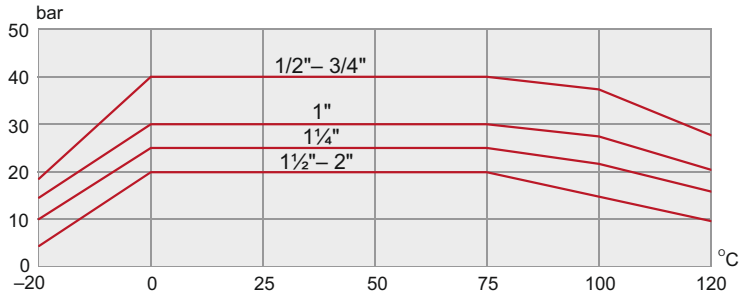
2. TECHNICAL SPECIFICATIONS

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	Gas: MOP 5 Other media: 20 – 40	EN 331 MOP 5-20
Operating Temperature, °C	Gas: –20°C to +60°C Other media: –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	12 000	—
Average Service Life, years	30	—

The valves are in an accordance with DIN EN 331.

Maximum working pressure:
For natural gas (methane) — 5 bar
For liquefied petroleum gas (propane-butane) — 10 bar
For other uses (water, etc.) — see chart



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3. DESIGN

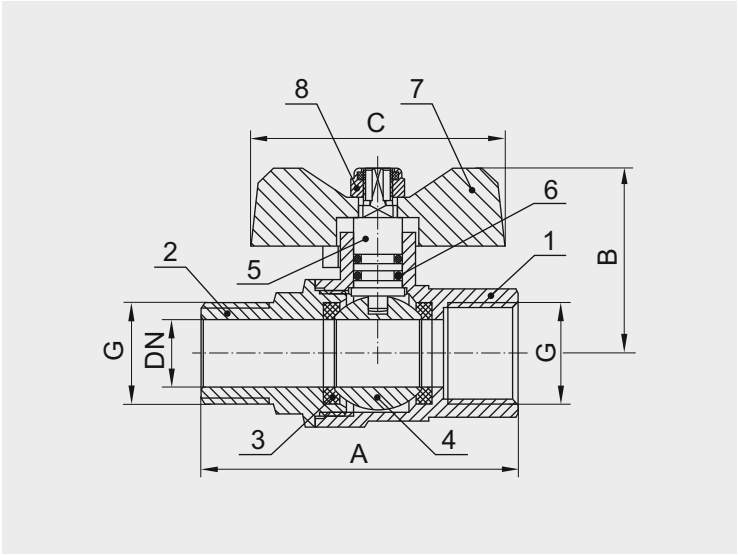
The gas ball valve may have either a straight or an angle body. The valve body is made of two nickel-plated brass parts (1) and (2), connected by a thread secured with an anaerobic polymer adhesive that has WRAS approval (approved for contact with potable water).

The valve's shut-off mechanism consists of a chromed brass ball (4), actuated by a vertical brass stem (5). The seal seats use PTFE rings (3). Stem sealing is ensured by two FPM (fluorocarbon rubber) O-rings (6).

The valve stem is non-rising, as it is inserted from inside the body (1) and features a positive stop shoulder. The handle (7) is attached to the stem using a self-locking nut (8) with a nylon insert 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, F/M, Butterfly Handle



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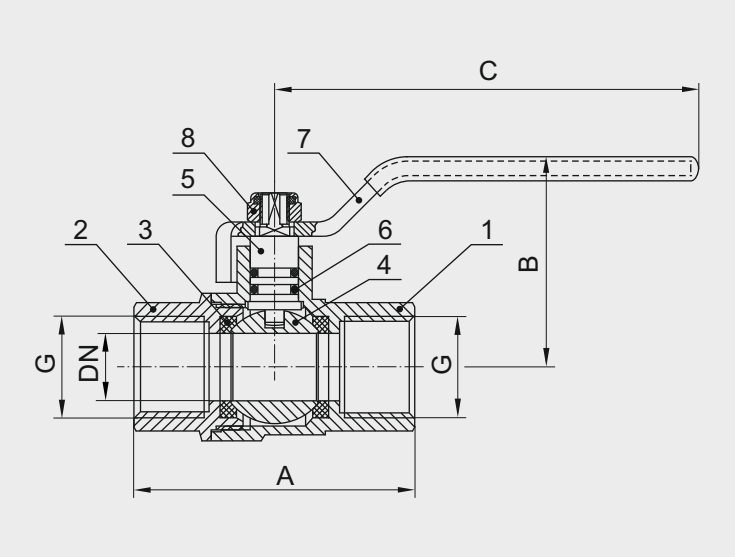
Ball Valve, F/F, Lever Handle



Angle Ball Valve, F/M, Butterfly Handle

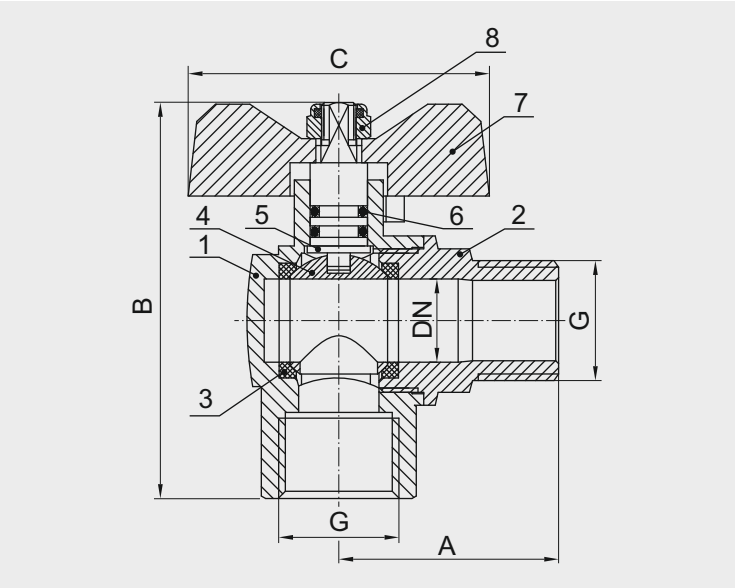


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Table 2

Pos.	Name	Material	Standard
1	Body	Brass CW617N	DIN EN 12165
2	Body Insert	Brass CW617N	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 Seal Rings (O-rings)	Fluorocarbon rubber / FPM	DIN ISO 3601
7	Lever Handle / Wing Handle	Steel S235JR / Aluminum Al	DIN EN 10025/ DIN EN 1676
8	Handle Nut	Stainless steel AISI 304	DIN 985, ISO 10511

4. NOMENCLATURE AND DIMENSIONS

Ball Valve, F/F, Butterfly Handle

Table 3.1

Product Code	DN	G	A, mm	B, mm	C, mm	Weight, g
PF GBV 333	15	1/2"	58	38	52,5	184
PF GBV 334	20	3/4"	72	48	63	320
PF GBV 335	25	1"	87	52	63	500

Ball Valve, F/M, Butterfly Handle

Table 3.2

Product Code	DN	G	A, mm	B, mm	C, mm	Weight, g
PF GBV 336	15	1/2"	65,5	38	52,5	200
PF GBV 337	20	3/4"	79	48	63	340
PF GBV 338	25	1"	94	52	63	546

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Ball Valve, F/F, Lever Handle

Table 3.3

Product Code	DN	G	A, mm	B, mm	C, mm	Weight, g
PF GBV 339	15	1/2"	58	43,5	87,5	202
PF GBV 340	20	3/4"	72	51,5	104	350
PF GBV 341	25	1"	87	55,5	104	530
PF GBV 342	32	1¼"	93,4	64	130	765
PF GBV 343	40	1½"	103,2	71	130	1090
PF GBV 344	50	2"	117	91	150	1760

Ball Valve, F/M, Lever Handle

Table 3.4

Product Code	DN	G	A, mm	B, mm	C, mm	Weight, g
PF GBV 345	15	1/2"	65,5	43,5	87,5	215
PF GBV 346	20	3/4"	79	51,5	104	375
PF GBV 347	25	1"	94	55,5	104	575
PF GBV 348	32	1¼"	103,2	64	130	823
PF GBV 349	40	1½"	114,4	71	130	1146
PF GBV 350	50	2"	131	91	150	1902

Angle Ball Valve, F/F, Butterfly Handle

Table 3.5

Product Code	DN	G	A, mm	B, mm	C, mm	Weight, g
PF GBV 333A	15	1/2"	31	69	52,5	190

Angle Ball Valve, F/M, Buttrefly Handle

Table 3.6

Product Code	DN	G	A, mm	B, mm	C, mm	Weight, g
PF GBV 336A	15	1/2"	37,5	69	52,5	200

Angle Ball Valve, M/M, Butterfly Handle

Table 3.7

Product Code	DN	G	A, mm	B, mm	C, mm	Weight, g
PF GBV 336M	15	1/2"	37,5	75,5	52,5	195

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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.

During operation, the ball shut-off element of the valve must be in either the fully "open" or fully "closed" position, as the valve is not designed for flow regulation.

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

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.

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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.

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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