

Compact flange ball valve, article 437-GS with peumatic actuator

Diameter DN 15 up to DN 150

Compact flange-ball valve in economical construction, for general, simple industrial use. Design as 1-part housing with screw-in part. Pressure class depends on nominal diameter up to PN 40. Full bore, floating ball, both sides 100% tight closing. Shaft seal consisting of multilayer PTFE V-rings, preloaded and self-adjusting by belleville washers and additional FKM O-ring.

Suitable for gaseous and liquid media (no steam) considering material resistance cast steel GP240GH.

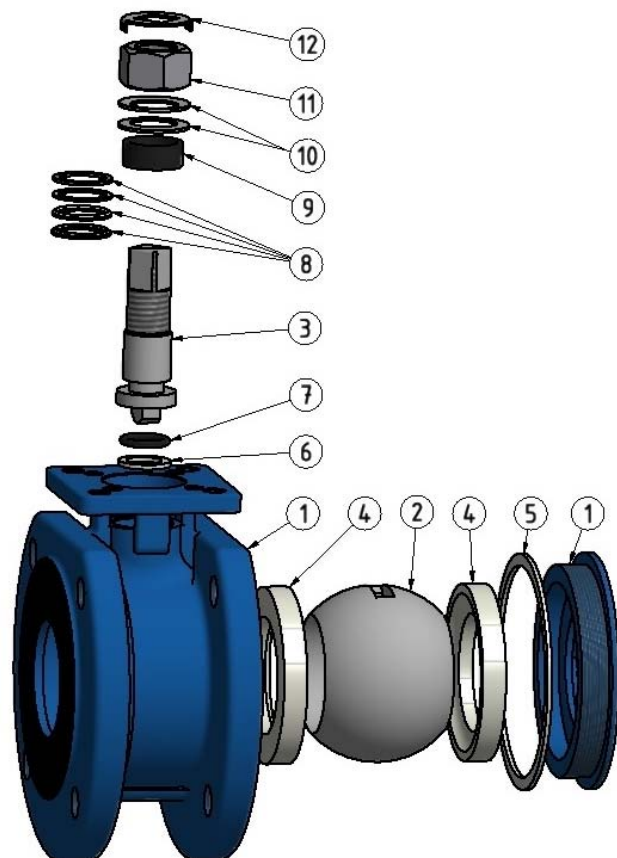
- **both sides flange connection according to DIN EN 1092-1, pressure range PN 16/PN 40, from diameter DN 65 PN 16**
- **flange with threaded hole according to DIN standard (metric)**
- **ball above with pressure compensation bore**
- **ISO 5211 mounting flange for actuators (direct mounting)**

Operation optionally with lever (lockable), pneumatic or electrical actuator. Unit (ball valve / actuator) is mounted ready for connection including functional test.



	TÜV TA-Luft certified
	Antistatic design 2014/34/EU (Ex II 2 G/D Ex-c II)
	0035
	ambient -20° C ... +60° C
	medium -10° C ... +200° C

Pos.	description	material
1	body / screw-in part	cast steel 1.6019 (GP240GH) with epoxy coating
2	ball	stainless steel 1.4308
3	stem	stainless steel 1.4301
4	ball seal	PTFE-profile shells (TFM 1600)
5	body seal	PTFE
6	stem seal	PTFE
7	O-Ring	FKM (Viton)
8	chevron packing set	PTFE
9	thrust ring	stainless steel 1.4301
10	belleville washers	stainless steel 1.4310
11	stem nut	V2A
12	safety cap	V2A



Compact flange ball valve, article 437-GS with peumatic actuator

Diameter DN 15 up to DN 150

- Design Standard DIN EN 12516-1
- Housing strength DIN EN 12516-2
- Design pressure PN 68 / PN 63 / PN 50 (depending on nominal diameter)
- Identification EN 19, MSS SP-25
- Inspection / test DIN EN 12266 P10 / P11 / P12
- Housing cast AD 2000-data sheet W0 (TÜV)

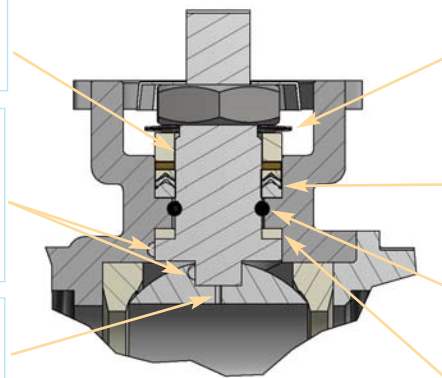


shaft sealing according to VDI 2440 (TA-Luft)

Operating stem is inserted into the body shaft from inside. This guarantees blow-out safety stem.

ATEX-antistatic, the ball-stem connection and the stem-body connection have a anti static feature, wich ensures electrical continuity contact between those parts. As a result the ball valve complies with the ATEX Directive 2014/34/EU (Ex II 2 G/D Ex-c II)

The highly polished solid ball has a **pressure relief hole** in the stem slot in order to avoid pressure build-up in the body cavity. This ensures a right shutoff and a long service life



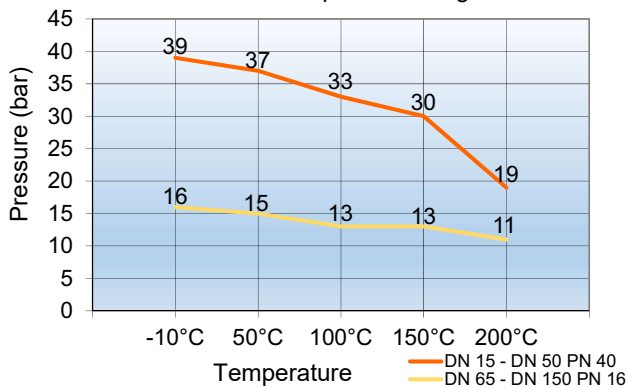
Disc springs ensure the permanent pretensioning of the chevron ring set.

primary shaft seal 3-ply V-ring chevron packing set (PTFE)

secondary shaft seal (O-ring FPM)

tertiary shaft feedthrough (PTFE sealing washer)

Pressure - Temperature Diagram



Operating-variants:



Compact flange ball valve, article 437-GS with pneumatic actuator

Diameter DN 15 up to DN 150

Ball valve and pneumatic actuator each enable direct, backlash-free assembly due to their standardized interfaces according to ISO 5211. Modern industrial design and compact construction characterize this pneumatic rotary actuator series. High-quality materials and the robust, reliable design guarantee high availability in daily use.

Depending on the process requirements, there are two versions to choose from:

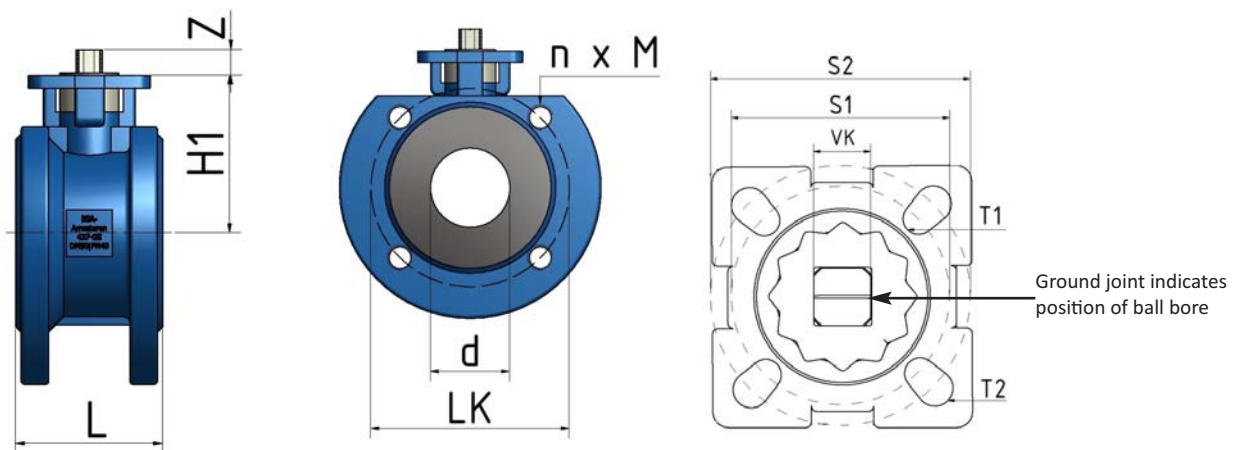
Function double-acting = Pressurization of the air chambers alternately on both sides

Function single-acting = Pressurization of only one air chamber, resetting by built-in spring assemblies (optionally spring-opening or spring-closing)

Quality of the control medium filtered compressed air according to DIN/ISO 8573-1, class 4.

The unit is always delivered adjusted and tested ready for operation.

Further information on the pneumatic actuators can be found in the individual data sheets.



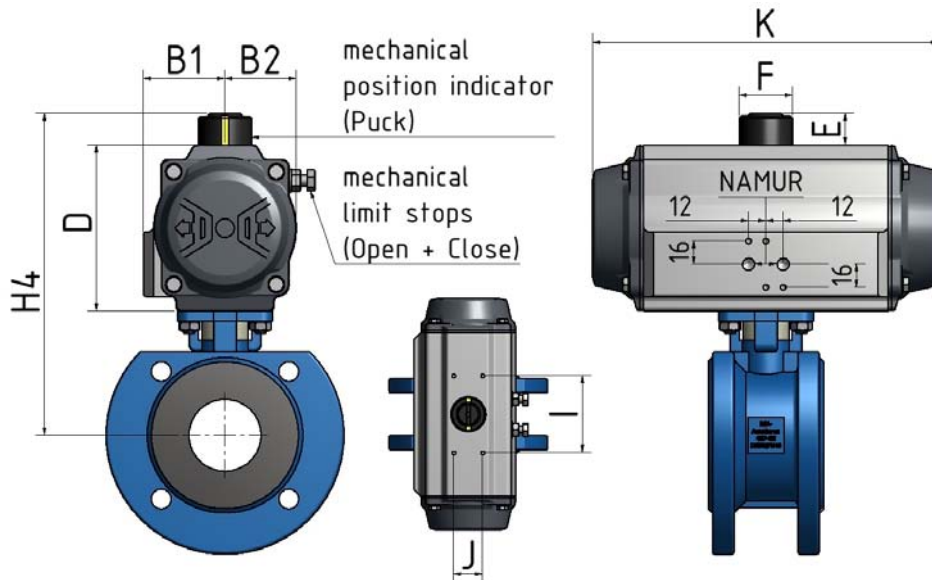
Diameter	L (mm)	H1 (mm)	LK (mm)	d (mm)	Z (mm)	n x M	S1/S2	VK (mm)	T1 (mm)	T2 (mm)	Pressure rating max. (bar)
DN 15	42	49	65	15,0	9	4 x M12	F03/F04	9	4x6	4x6	40
DN 20	44	55	75	20,0	9	4 x M12	F03/F04	9	4x6	4x6	40
DN 25	50	62	85	25,0	11	4 x M12	F04/F05	11	4x6	4x7	40
DN 32	60	72	100	32,0	11	4 x M16	F04/F05	11	4x6	4x7	40
DN 40	65	78	110	38,0	14	4 x M16	F05/F07	14	4x7	4x9	40
DN 50	80	86	125	50,0	14	4 x M16	F05/F07	14	4x7	4x9	40
DN 65	110	108	145	63,5	17	4 x M16	F07/F10	17	4x9	4x11	16
DN 80	120	116	160	76,0	17	8 x M16	F07/F10	17	4x9	4x11	16
DN 100	150	139	180	95,0	22	8 x M16	F10	22	-	4x11	16
DN 125	180	176	210	118,0	27	8 x M16	F12	27	-	4x14	16
DN 150	225	192	240	142,0	27	8 x M20	F12	27	-	4x14	16

Diameter	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
Ø	15,0	20,0	25,0	32,0	38,0	50,0	63,5	76,0	95,0	118,0	142,0
KV	15,5	31,0	41,3	80,0	141,9	178,2	387,0	670,8	1.169,6	1.456,9	2.228,20

437-GS_DR_SC_2021_ENG_Rev. 0

Compact flange ball valve, article 437-GS with pneumatic actuator

Diameter DN 15 up to DN 150

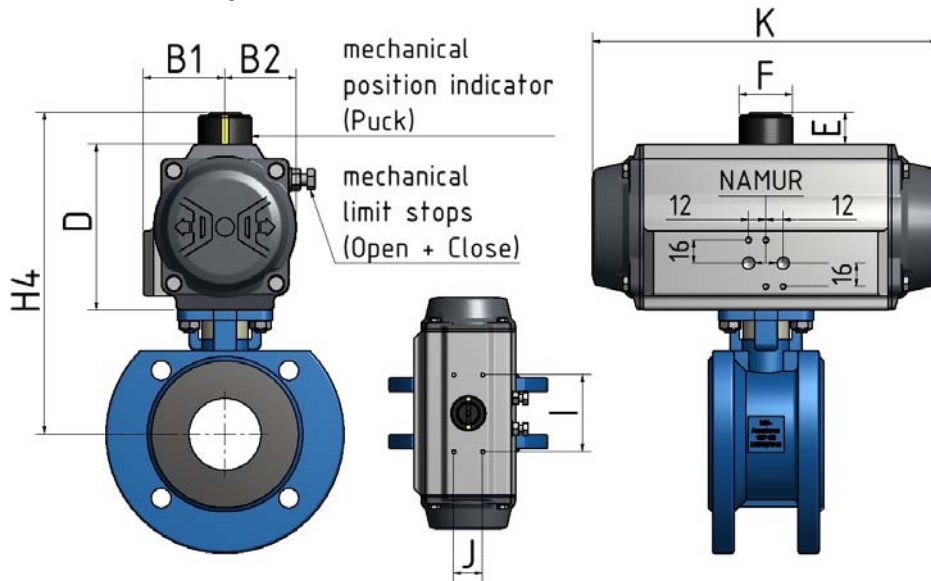


Longitudinal construction standard, if transverse construction desired, please indicate when ordering.

- double acting -

Diameter	Article-No. 437-GS Cast steel 1.0619	Actuator design up to 16.0 bar operating pressure										
		H4 (mm)	D (mm)	B1 (mm)	B2 (mm)	J (mm)	I (mm)	F (mm)	K (mm)	E (mm)	Air connection	Weight (kg)
DN 15	215.3868.4.11	135	66	35,5	26,5	30	80	37	118,0	20	G 1/8"	2,15
DR 10	86.8200.5.10											
DN 20	215.3868.4.13	141	66	35,5	26,5	30	80	37	118,0	20	G 1/8"	2,55
DR 10	86.8200.5.10											
DN 25	215.3868.4.15	151	69	43,0	29,0	30	80	37	136,0	20	G 1/8"	3,50
DR 15	86.8200.5.15											
DN 32	215.3868.4.18	177	85	48,5	36,0	30	80	37	153,5	20	G 1/8"	5,51
DR 30	86.8200.5.30											
DN 40	215.3868.4.19	183	85	48,5	36,0	30	80	37	153,5	20	G 1/8"	6,51
DR 30	86.8200.5.30											
DN 50	215.3868.4.21	208	102	50,5	42,5	30	80	37	203,5	20	G 1/8"	11,28
DR 60	86.8200.5.60											
DN 65	215.3868.4.24	230	102	50,5	42,5	30	80	37	203,5	20	G 1/8"	12,78
DR 60	86.8200.5.60											
DN 80	215.3868.4.25	251	115	56,5	49,5	30	80	37	241,0	20	G 1/8"	18,32
DR 100	86.8200.5.100											
DN 100	215.3868.4.27	314	145	72,0	64,0	30	80	51	304,0	30	G 1/4"	30,77
DR 220	86.8200.5.220											
DN 125	215.3868.4.28	384	177	86,0	80,0	30	80	60	394,5	30	G 1/4"	64,2
DR 450	86.8200.5.450											
DN 150	215.3868.4.29	399	177	86,0	80,0	30	80	60	394,5	30	G 1/4"	84,2
DR 450	86.8200.5.450											

**Compact flange ball valve, article 437-GS
with pneumatic actuator**
Diameter DN 15 up to DN 150



Longitudinal construction standard, if transverse construction desired, please indicate when ordering.

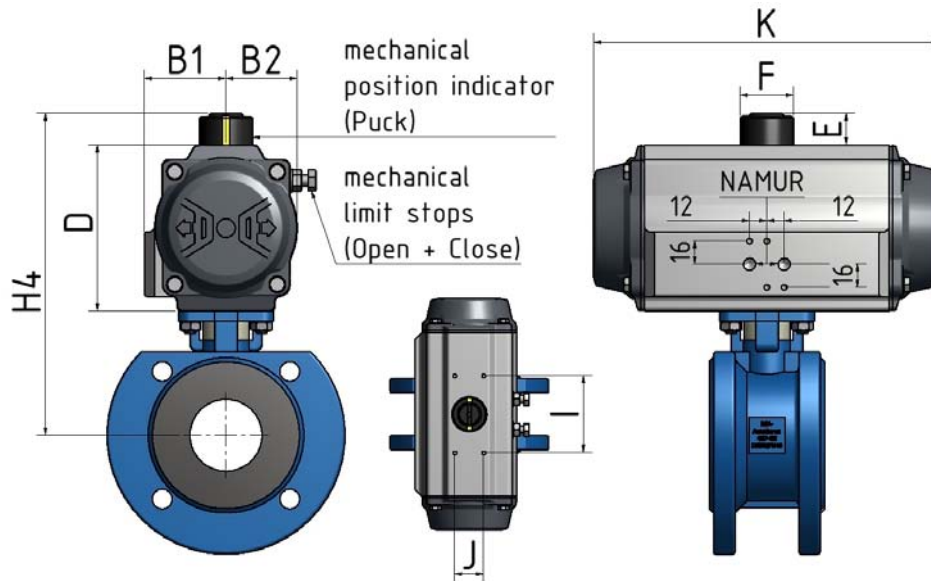
- single acting / spring closing -

Diameter	Article-No. 437-GS Cast steel 1.0619	Actuator design up to 16.0 bar operating pressure										
		H4 (mm)	D (mm)	B1 (mm)	B2 (mm)	J (mm)	I (mm)	F (mm)	K (mm)	E (mm)	Air connection	Weight (kg)
DN 15	215.3868.4.11	154	85	48,5	36	30	80	37	153,5	20	G 1/8"	3,21
SC 30	86.8201.5.30-10											
DN 20	215.3868.4.13	160	85	48,5	36	30	80	37	153,5	20	G 1/8"	3,61
SC 30	86.8201.5.30-10											
DN 25	215.3868.4.15	184	102	50,5	42,5	30	80	37	203,5	20	G 1/8"	5,32
SC 60	86.8201.5.60-08											
DN 32	215.3868.4.18	194	102	50,5	42,5	30	80	37	203,5	20	G 1/8"	6,88
SC 60	86.8201.5.60-10											
DN 40	215.3868.4.19	213	115	56,5	49,5	30	80	37	241,0	20	G 1/8"	9,22
SC 100	86.8201.5.100-10											
DN 50	215.3868.4.21	221	115	56,5	49,5	30	80	37	241,0	20	G 1/8"	12,97
SC 100	86.8201.5.100-11											
DN 65	215.3868.4.24	283	145	72,0	64,0	30	80	51	304,0	30	G 1/4"	19,27
SC 220	86.8201.5.220-10											
DN 80	215.3868.4.25	303	157	77,0	69,5	30	80	51	333,0	30	G 1/4"	26,47
SC 300	86.8201.5.300-10											
DN 100	215.3868.4.27	346	177	86,0	80,0	30	80	60	394,5	30	G 1/4"	39,30
SC 450	86.8201.5.450-10											
DN 125	215.3868.4.28	402	196	93,0	88,0	30	80	60	422,5	30	G 1/4"	71,10
SC 600	86.8201.5.600-12											
DN 150	215.3868.4.29	487	245	111,5	110,0	30	130	68	528,0	50	G 1/4"	112,80
SC 1200	86.8201.5.1200-10											

437-GS_DR_SC_2021_ENG_Rev. 0

Compact flange ball valve, article 437-GS with pneumatic actuator

Diameter DN 15 up to DN 150



Longitudinal construction standard, if transverse construction desired, please indicate when ordering.

- single acting / spring opening -

Diameter	Article-No. 437-GS Cast steel 1.0619	Actuator design up to 16.0 bar operating pressure										
		H4 (mm)	D (mm)	B1 (mm)	B2 (mm)	J (mm)	I (mm)	F (mm)	K (mm)	E (mm)	Air connection	Weight (kg)
DN 15	215.3868.4.11	154	85	48,5	36,0	30	80	37	153,5	20	G 1/8"	3,21
SC 30	86.8202.5.30-10											
DN 20	215.3868.4.13	160	85	48,5	36,0	30	80	37	153,5	20	G 1/8"	3,61
SC 30	86.8202.5.30-10											
DN 25	215.3868.4.15	167	85	48,5	36,0	30	80	37	153,5	20	G 1/8"	4,19
SC 30	86.8202.5.30-09											
DN 32	215.3868.4.18	194	102	50,5	42,5	30	80	37	203,5	20	G 1/8"	6,82
SC 60	86.8202.5.60-08											
DN 40	215.3868.4.19	200	102	50,5	42,5	30	80	37	203,5	20	G 1/8"	7,82
SC 60	86.8202.5.60-08											
DN 50	215.3868.4.21	221	115	56,5	49,5	30	80	37	241,0	20	G 1/8"	12,82
SC 100	86.8202.5.100-8											
DN 65	215.3868.4.24	255	127	63,0	55,5	30	80	37	259,0	20	G 1/4"	15,81
SC 150	86.8202.5.150-8											
DN 80	215.3868.4.25	291	145	72,0	64,0	30	80	51	304,0	30	G 1/4"	23,45
SC 220	86.8202.5.220-8											
DN 100	215.3868.4.27	346	177	86,0	80,0	30	80	60	394,5	30	G 1/4"	39,30
SC 450	86.8202.5.450-10											
DN 125	215.3868.4.28	402	195	93,0	88,0	30	80	60	422,5	30	G 1/4"	70,50
SC 600	86.8202.5.600-09											
DN 150	215.3868.4.29	487	245	111,5	110,0	30	130	68	528,0	50	G 1/4"	112,80
SC 1200	86.8202.5.1200-10											

437-GS_DR_SC_2021_ENG_Rev. 0