

2-way flange ball valve, article 460-GS with lever

Diameter DN 65 up to DN 200 pressure range PN 10 / PN 16

2-way flange ball valve designed for industrial use. High-quality processing and diverse qualifications enable a wide range of applications. Version as 2-part, flanged housing, pressure range up to 16,0 bar. Full bore, floating ball, both sides 100% tight closing. Shaft seal consisting of multilayer graphite rings, preloaded and self-adjusting by bellville washers and additional FKM O-ring.

Suitable for gaseous and liquid media, for the steam area ball seals made of R-PTFE (TFM 4215) are available. In any case, the material resistance cast steel GP240GH must be observed.

- both sides flange connection according to DIN EN 1092-1, form B pressure class PN 10 / PN 16
- 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 ATEX 94/9/EC
	0035
	Safety Integrity Level (IEC 61508)
	API 607/5
	ambient -10° C...+80° C
	medium -10° C...+200° C

- Design Standard DIN EN 12516-1
- Housing strength DIN EN 12516-2
- Design pressure PN 10 / PN 16
- Marking EN 19, MSS SP-25
- Examination / test DIN EN 12266 P10 / P11 / P12
- Housing cast AD 2000-Merkblatt W0 (TÜV)

Operating-variants:

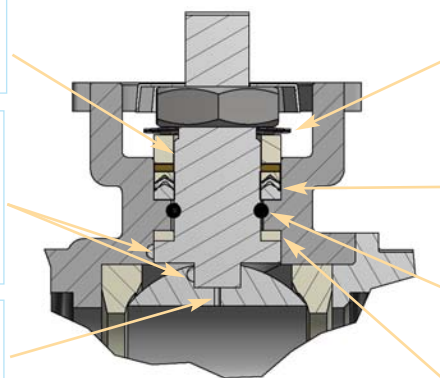


shaft sealing according to VDI 2440 (TA-Luft)

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)

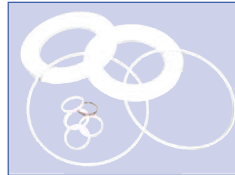
2-way flange ball valve, article 460-GS with lever

Diameter DN 65 up to DN 200 pressure range PN 10 / PN 16

Seal kit (standard),

consisting of:

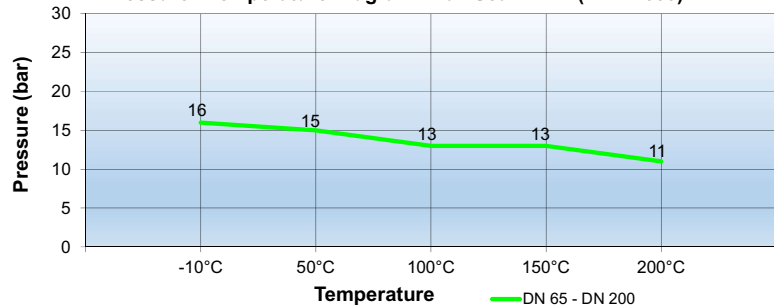
Pos.	Description	Material
4	ball seal (2x)	PTFE (TFM-1600)
8	thrust ring	PTFE
9	O-ring	FKM (Viton)
10	chevron packing set	graphite (3-parts)
12	thrust ring	stainless steel 1.4401
21	body seal	stainless steel-graphite-PTFE



Seal kit PTFE TFM 1600 (standard)

Diameter	Article-No.
DN 65	215.7882.18.24
DN 80	215.7882.18.25
DN 100	215.7882.18.27
DN 125	215.7882.18.28
DN 150	215.7882.18.29
DN 200	215.7882.18.31

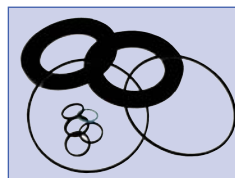
Pressure - Temperature Diagram Ball Seal PTFE (TFM-1600)



Seal kit for the steam sector,

Tmax. 240° C, consisting of:

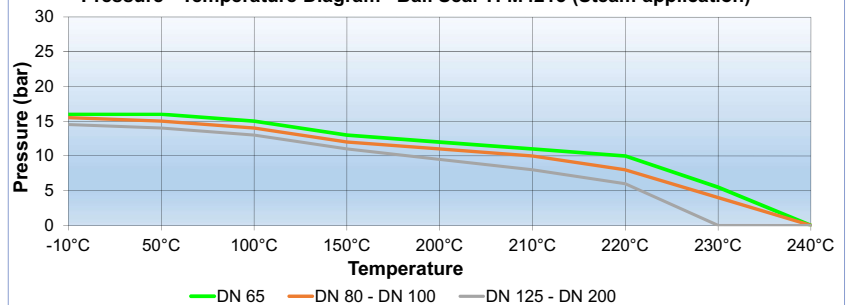
Pos.	Description	Material
4	ball seal (2x)	R-PTFE (TFM-4215)
8	thrust ring	PTFE
9	O-ring	FKM (Viton)
10	chevron packing set	graphite (3-parts)
12	pressure ring	stainless steel 1.4401
21	body seal	stainless steel-graphite-PTFE



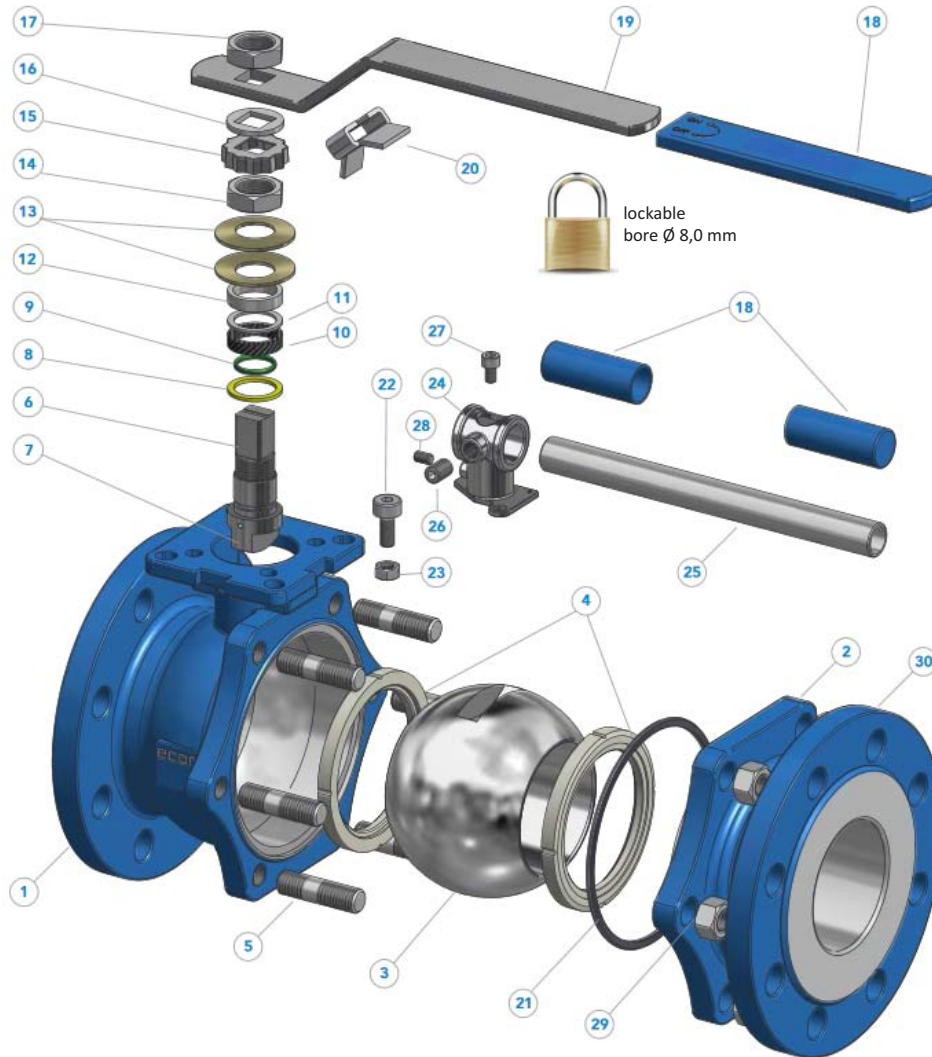
Seal kit TFM4215

Diameter	Article-No.
DN 65	215.7882.46.24
DN 80	215.7882.46.25
DN 100	215.7882.46.27
DN 125	215.7882.46.28
DN 150	215.7882.46.29
DN 200	215.7882.46.31

Pressure - Temperature Diagram Ball Seal TFM4215 (Steam application)



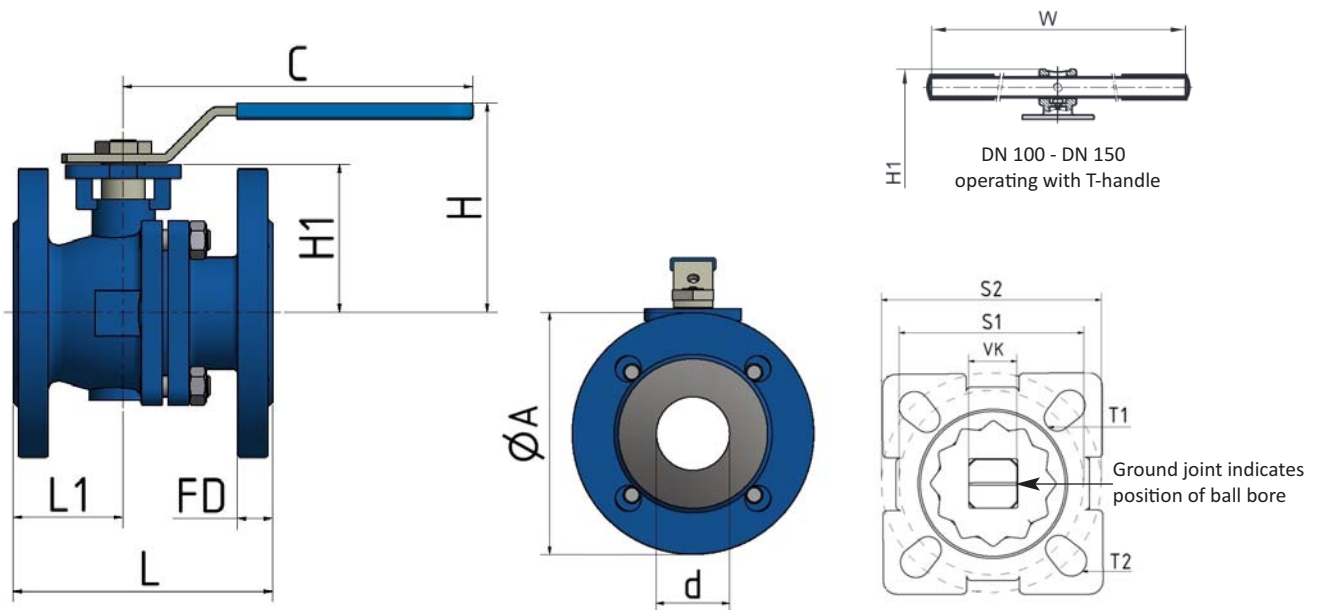
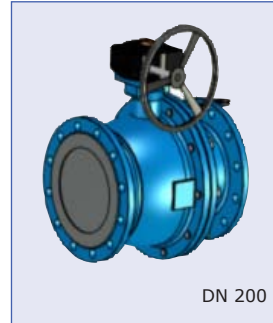
2-way flange ball valve, article 460-GS



Pos.	Description	Material	Pos.	Description	Material
1	body with ISO top flange	cast steel 1.6019 (GP240GH) with epoxy coating	2	body end	cast steel 1.6019 (GP240GH) with epoxy coating
3	ball	stainless steel 1.4308	4	seat ring	PTFE profile shells (TFM 1600)
5	stud	steel 1.7225	6	stem	stainless steel 1.4301
7	Anti-static device	stainless steel 1.4301	8	thrust washer seal	PTFE
9	O-ring	FKM (Viton)	10	glandpacking	graphite (3-parts)
11	bushing	stainless steel 1.4301	12	gland	stainless steel 1.4401
13	belleville washer	stainless steel 1.4310	14	nut	stainless steel 1.4301
15	locking cap	stainless steel 1.4301	16	ring	stainless steel 1.4301
17	nut	stainless steel 1.4301	18	sleeve	plastic
19	hand lever	stainless steel 1.4301	20	locking device	stainless steel 1.4301
21	body gasket	stainless steel-graphite-PTFE (spiral wound)	22	socket head screw	stainless steel 1.4301
23	nut	stainless steel 1.4301	24	T-bar support	stainless steel 1.4308
25	T-bar	steel zinc plated	26	allen set screw	stainless steel 1.4301
27	socket head screw	stainless steel 1.4301	28	allen set screw	stainless steel 1.4301
29	nut	steel 1.0503	30	name plate	stainless steel 1.4301

2-way flange ball valve, article 460-GS

Diameter DN 65 up to DN 200 pressure range PN 10 / PN 16



Diameter	Article-No.	L (mm)	L1 (mm)	C / W (mm)	d (mm)	H (mm)	H1 (mm)	ØA (mm)	FD (mm)	S1/S2	VK (mm)	T1 (mm)	T2 (mm)	Pressure rating	Weight (kg)
	460-GS Cast steel 1.0619														
DN 65 (2 1/2")	215.3840.4.24	170	69	265	63	150	102	185	18	F07 / F10	17	4x9	4x11	PN 10 / PN 16	13,8
DN 80 (3")	215.3840.4.25	180	75	300	76	176	112	200	20	F07 / F10	17	4x9	4x11	PN 10 / PN 16	17,7
DN 100 (4")	215.3840.4.27	190	83	400	100	210	140	235	20	F10	22	-	4x11	PN 10 / PN 16	25,2
DN 125 (5")	215.3840.4.28	325	153	600	125	263	183	270	22	F12	27	-	4x14	PN 10 / PN 16	60,0
DN 150 (6")	215.3840.4.29	350	162	800	150	284	204	300	22	F12	27	-	4x14	PN 10 / PN 16	71,8
DN 200 (8")	215.3840.4.31	400	191	-	200	280	253	375	24	F14	36	-	4x14	PN 10 / PN 16	127,0
Worm gear	305.8505.200														

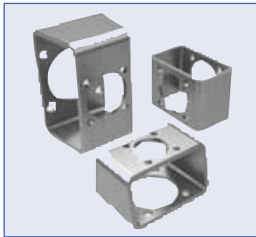
Diameter	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200
Ø	63,5 mm	76,0 mm	100,0 mm	125,0 mm	150,0 mm	200,0 mm
KV	387,0	670,8	1.169,6	1.462,0	2.236,0	3.612,0

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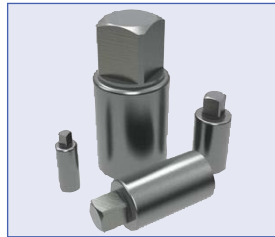
2-way flange ball valve, article 460-GS, with optional accessories

Diameter DN 65 up to DN 200

optional accessories consoles / couplings / shaft extensions



ISO 5211 consoles
Steel zinc plated / stainless steel



couplings stainless steel
Square / two-flat



shaft extension ISO 5211
100 mm stainless steel



shaft extension T-handle
100 mm stainless steel

optional accessories limit switch assembly with box or open mounted

**limit switch box
2-fold Honeywell, ZM1**



switching capacity	max. 5 A, 250 V AC
temperature range	-25° C up to +85° C
cable entry	M20 x 1,5
connection	clamp 2,5 mm ²
body material	aluminium
console	stainless steel
article no.:	179.8705HEZ

**mounting kit for switch boxes
incl. assembly and adjustment**



diameter (ball valve)	article no.:
1/4" ... 1/2"	327.8775.F04VMM
3/4" ... 1"	327.8775.F05VMM
1 1/4" ... 2"	327.8775.F07VMM
2 1/2" ... 4"	327.8775.F10VMM

Bernstein-limit switches type I88-SU1Z RiW K



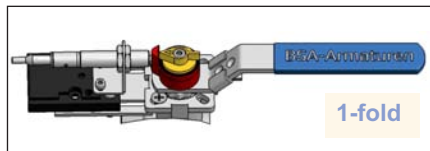
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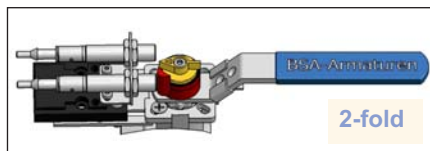
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switching capacity	max. 10 A, 250V AC
temperature range	-30° C up to +80° C
cable entry	M20 x 1,5
connection	clamp 2,5 mm ²
body material	PA 6 self-extinguishing
article no.:	1-fold: 208.8716HKE 2-fold: 208.8716HKZ

IFM proximity switches type IF5297



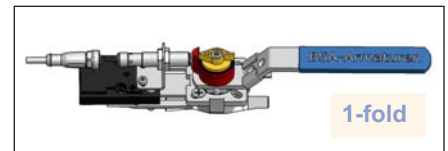
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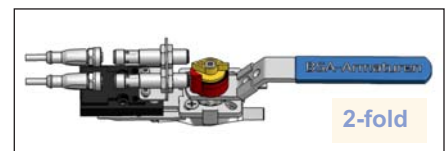
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operating voltage	10 ... 55 V DC
current consumpt.	< 15 mA (24 V)
temperature range	-25° C up to +80° C
body material	brass with LED
mounting bracketed	stainless steel / plastic
article no.:	1-fold: 302.8770HEE 2-fold: 302.8770HEZ

IFM proximity switches type IFS209



1-fold



2-fold

operating voltage	10 ... 30 V DC
current consumpt.	< 12 mA (24 V)
temperature range	-25° C up to +70° C
body material	brass with LED
mounting bracketed	stainless steel / plastic
article no.:	1-fold: 302.8771HEE 2-fold: 302.8771HEZ

460-GS-HH_2021_ENG_Rev.01