

## 2-way ball valve, Article 470-VA/BW with lever

### Diameter DN 8 up to DN 100

Ball valve with threads **3-parts design with standardized interface** according to ISO 5211. **-Middle part can be swiveled out-** (Easily to exchange seal set, easy accessibility during dismantle the pipeline). Pressure class depends on nominal diameter up to PN 68. 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 stainless steel 1.4408.

- **both sides welding ends DIN/ISO 12627**
- **face to face dimensions according to DIN 3202 S-13**
- **ball above with pressure compensation bore**
- **ISO 5211 mounting flange for actuators (direct mounting)**

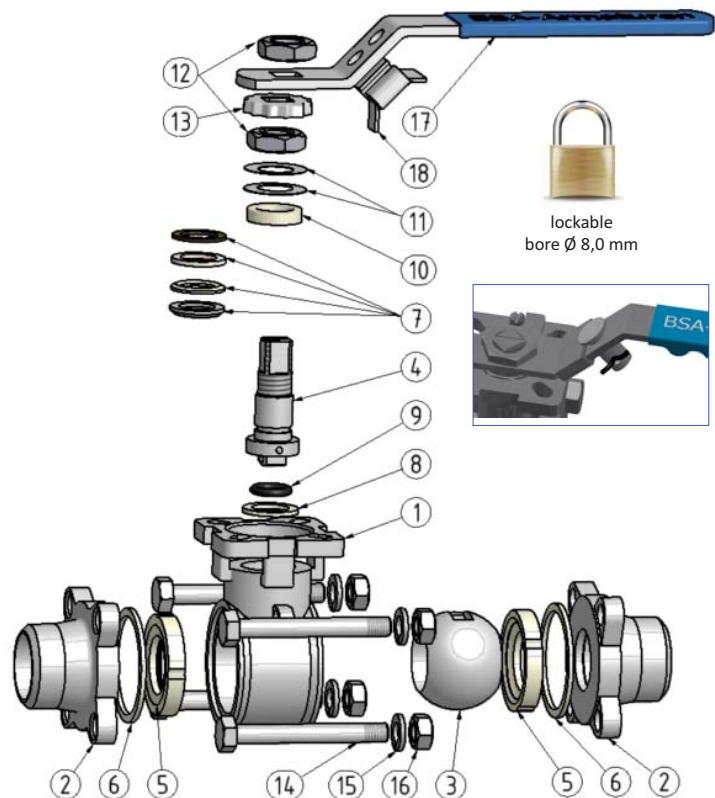
Operation optionally with lever (lockable), pneumatic or electrical actuator. Unit (ball valve / actuator) is mounted ready for connection including functional test.

**Optional:** For the steam area we recommend the use of the ball seal made of material TFM4215 (25% carbon-graphite content).



	TÜV TA-Luft certified
	Antistatic design ATEX 2014/34/EU
	0036
	Ambient -20° C ... +60° C
	Medium -34° C ... +200° C

Pos.	Description	Material
1	Body	Stainless steel 1.4408
2	Welding end	<b>Stainless steel 1.4404</b>
3	Ball	Stainless steel 1.4408
4	Stem	Stainless steel 1.4401
5	Ball seal	PTFE-profile shells
6	Body seal	PTFE
7	Chevron packing set	PTFE
8	Thrust ring	PTFE
9	Stem seal	VITON-O-Ring
10	Pressure ring	Stainless steel 1.4401
11	Belleville washers	Stainless steel 1.4301
12	Stem nut	Stainless steel
13	Pressure ring	Stainless steel 1.4401
14	Bolt	Stainless steel
15	Washer	Stainless steel
16	Nut	Stainless steel
17	Lever	Stainless steel
	Lever coating	PVC, blue
18	Lever locking device	Stainless steel



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- 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

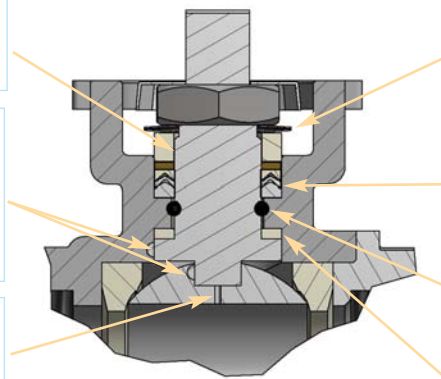


### shaft sealing according to VDI 2440 (TA-Luft)

**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 an anti static feature, which 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)

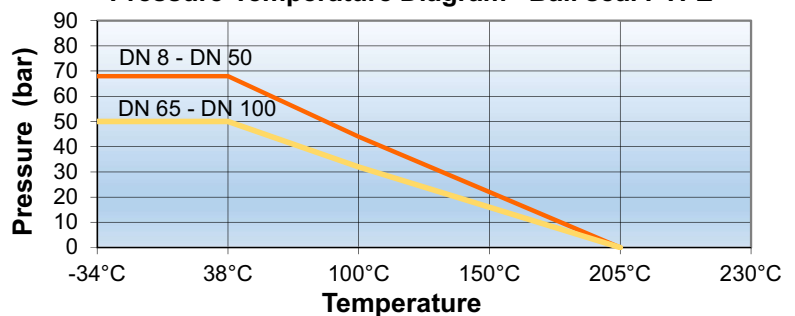
**secondary** shaft seal (O-ring FPM)

**tertiary** shaft feedthrough (PTFE sealing washer)

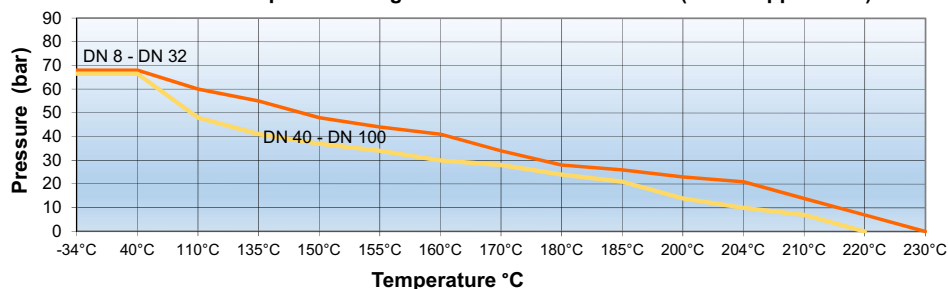
#### Seal kit, consisting of:

Pos.	Description	Material
5	ball seal (2x)	PTFE-profile shells
6	body seal (2x)	PTFE
7	chevron packing set	PTFE
8	thrust washer	PTFE
9	O-Ring	FKM (Viton)

#### Pressure-Temperature Diagram Ball seal PTFE



#### Pressure-Temperature Diagram Ball Seal TFM 4215 (Steam application)



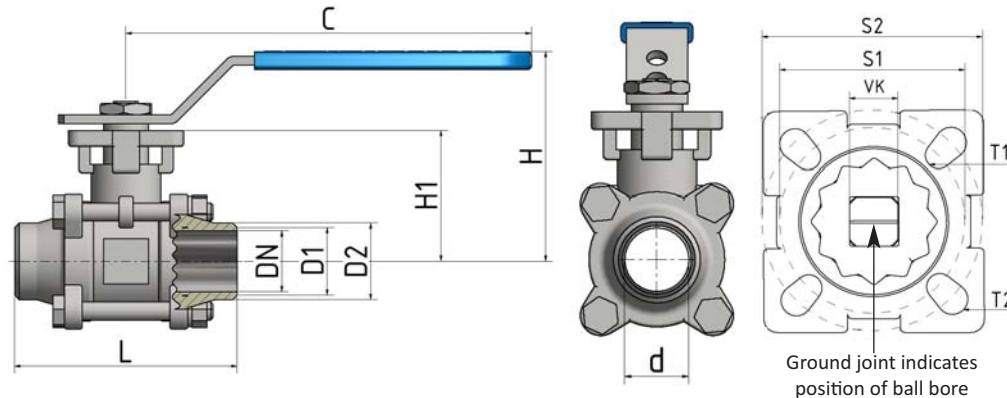
#### Seal kit TFM 4215

Diameter	Article-No.
DN 8	215.7821.18.61-DTF
DN 10	215.7821.18.62-DTF
DN 15	215.7821.18.63-DTF
DN 20	215.7821.18.65-DTF
DN 25	215.7821.18.67-DTF
DN 32	215.7821.18.68-DTF
DN 40	215.7821.18.69-DTF
DN 50	215.7821.18.71-DTF
DN 65	215.7821.18.72-DTF
DN 80	215.7821.18.73-DTF
DN 100	215.7821.18.75-DTF

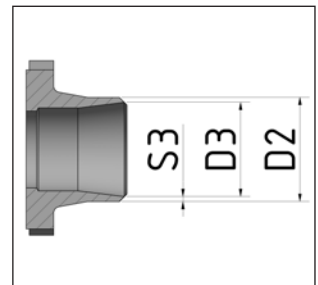
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Optional: welding end processed similar to ISO 4200 (Tube 2.0 mm)



Diameter	Article-No.	L (mm)	D1 (mm)	D2 (mm)	H1 (mm)	C (mm)	d (mm)	H (mm)	VK (mm)	T1 (mm)	T2 (mm)	LK ISO 5211 S1 / S2	Pressure rating max. (bar)	Weight (kg)	Starting torque (Nm)		D3 (mm)	S3 (mm)
															10,0 bar	50,0 bar		
DN 8	215.3715.6.61	70	9,3	18	42,0	147	10,6	72	9	6	6	F03 / F04	68	0,7	4,5	4,5	13,0	4,50
DN 10	215.3715.6.62	70	12,5	18	42,0	147	12,7	72	9	6	6	F03 / F04	68	0,7	4,5	4,5	15,0	3,50
DN 15	215.3715.6.63	75	15,8	22	42,0	147	15,0	72	9	6	6	F03 / F04	63	0,7	5,0	5,5	17,3	2,35
DN 20	215.3715.6.65	90	20,9	28	48,5	147	20,0	79	9	6	7	F03 / F05	63	0,9	6,0	8,5	22,9	2,65
DN 25	215.3715.6.67	100	26,7	34	58,5	177	25,0	89	11	6	7	F04 / F05	63	1,4	10,0	11,0	29,7	2,15
DN 32	215.3715.6.68	110	35,1	43	63,0	177	32,0	93	11	6	9	F04 / F07	63	2,1	13,0	17,0	38,4	2,55
DN 40	215.3715.6.69	125	40,9	50	71,3	197	38,0	103	14	7	9	F05 / F07	63	3,0	19,0	24,0	44,3	3,05
DN 50	215.3715.6.71	150	52,5	61	78,2	197	50,0	110	14	7	9	F05 / F07	63	4,3	29,0	35,0	56,3	2,60
DN 65	215.3715.6.72	190	62,7	76	100,0	267	63,5	150	17	9	11	F07 / F10	50	8,3	45,0	54,0	72,1	2,60
DN 80	215.3715.6.73	220	78,0	92	108,5	267	76,0	159	17	9	11	F07 / F10	50	11,9	72,0	90,0	84,9	4,05
DN 100	215.3715.6.75	270	102,4	115	140,0	400	100,0	212	22	-	11	F10	50	22,7	110,0	138,0	110,3	2,85

Diameter	DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
∅	10,6	12,7	15,0	20,0	25,0	32,0	38,0	50,0	63,5	76,0	100,0
KV	8,6	11,2	15,5	31,0	41,3	80,0	142,0	178,0	387,0	671,0	1.169,5

### Seal kit PTFE (standard)

Diameter	Article-No.
DN 8	215.7821.18.61
DN 10	215.7821.18.62
DN 15	215.7821.18.63
DN 20	215.7821.18.65
DN 25	215.7821.18.67
DN 32	215.7821.18.68

Diameter	Article-No.
DN 40	215.7821.18.69
DN 50	215.7821.18.71
DN 65	215.7821.18.72
DN 80	215.7821.18.73
DN 100	215.7821.18.75

### Operating-variants:

pneumatic



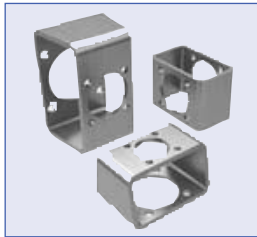
electrical



## 2-way ball valve, Article 470-VA/BW, with optional accessories

Diameter DN 8 up to DN 100

### 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

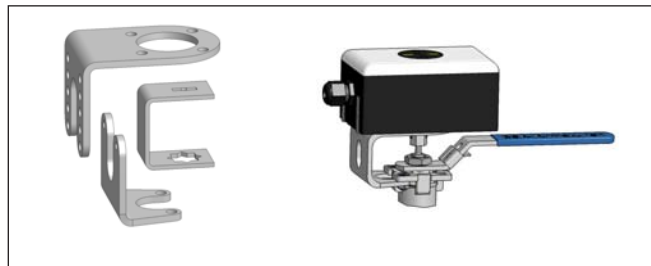
### optional accessories limit switch assembly with box or open mounted

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 <sup>2</sup>
body material	aluminium
console	stainless steel
order code:	179.8705HEZ

mounting kit for switch boxes  
incl. assembly and adjustment



diameter (ball valve)	order code:
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



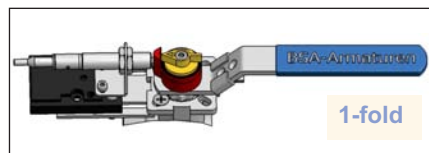
1-fold



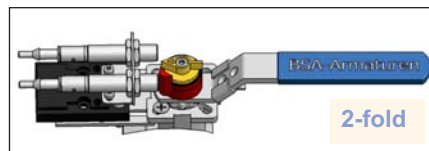
2-fold

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 <sup>2</sup>
body material	PA 6 self-extinguishing
order code:	1-fold: 208.8716HKE 2-fold: 208.8716HKZ

IFM proximity switches type IF5297



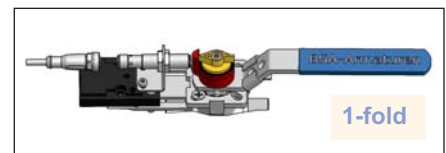
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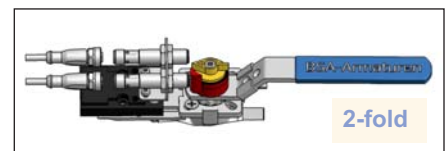
2-fold

operating voltage	10 ... 55 V DC
current consumpt.	< 15 mA (24 V)
temperature range	-25° C up to +80° C
body material	<b>brass with LED</b>
mounting bracketed	stainless steel / plastic
order code:	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	<b>brass with LED</b>
mounting bracketed	stainless steel / plastic
order code:	1-fold: 302.8771HEE 2-fold: 302.8771HEZ