

## 2-way ball valve, Article 470-VA/BW with electrical actuator 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).

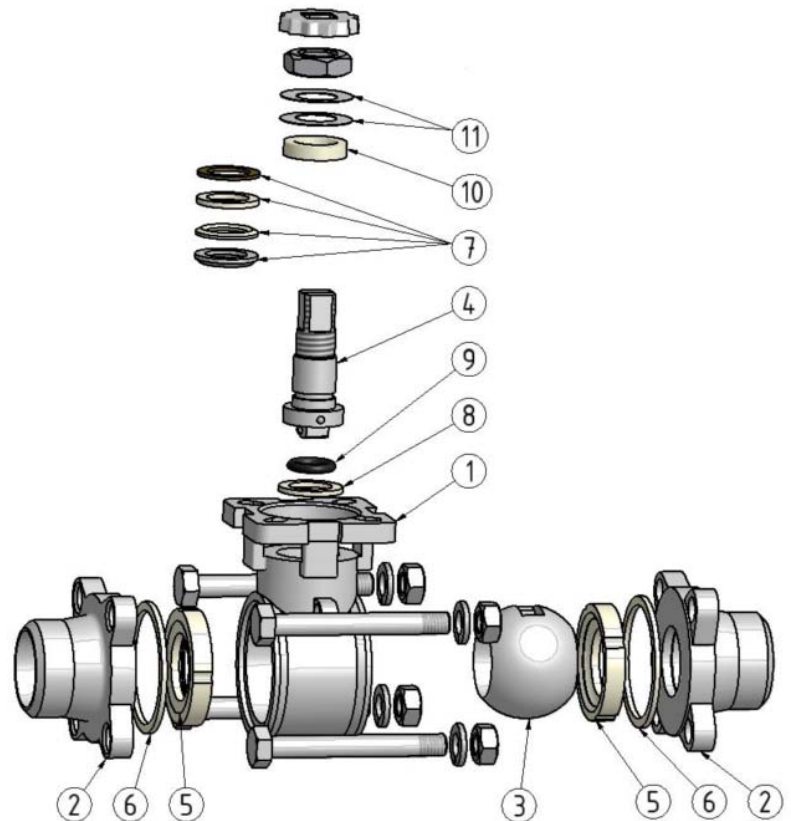


	TÜV TA-Luft certified
	Antistatic design ATEX 2014/34/EU
	0036
	Ambient -20° C ... + 60° C
	Medium -34° C ... +200° C

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
	Stem nut	Stainless steel
	Pressure ring	Stainless steel 1.4401

### 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)



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

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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)
- Marking EN 19, MSS SP-25
- Inspection / test DIN EN 12266 P10 / P11 / P12

Basic Line

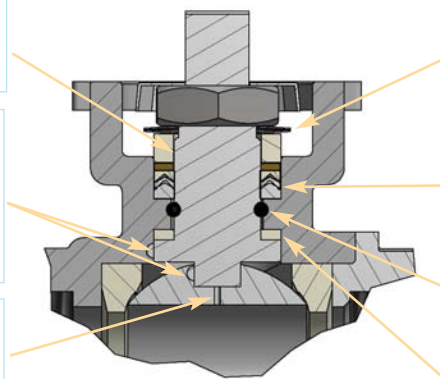


### shaft sealing according to VDI 2440 (TA-Luft)

**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)

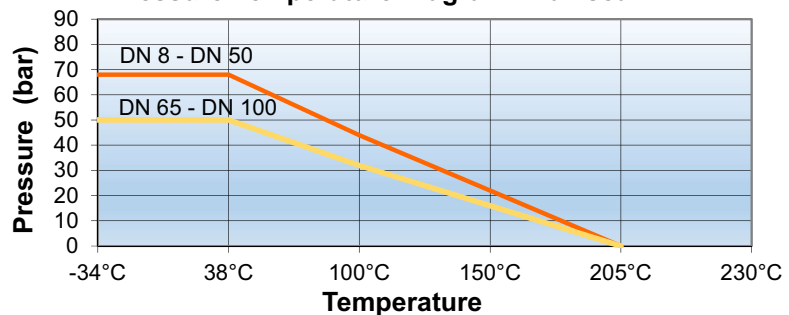
**secondary** shaft seal (O-ring FPM)

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

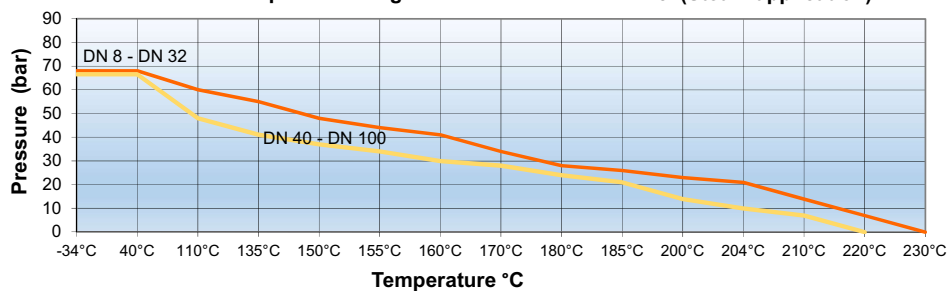
#### Seal kit PTFE (standard)

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
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

#### 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

## 2-way ball valve, Article 470-VA/BW with electrical actuator Diameter DN 8 up to DN 100



Ball valve 470-VA/BW DN 8 - DN 65  
Actuator size AQ1L to AQ7L



Actuator size AQ10 - AQ25



Ball valve 470-VA/BW DN 80 - DN 100  
Actuator size AQ10 to AQ25

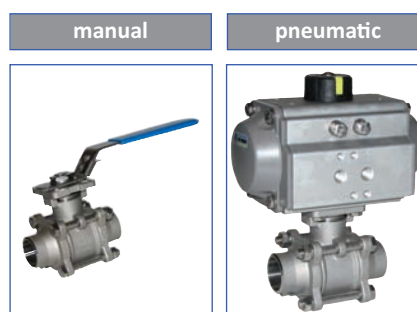
Ball valve and electric actuator, each with standardized interface according to ISO 5211, enable direct, backlash-free assembly. Modern design and compact construction characterize this series of electric part-turn actuators. The simple but robust and reliable design guarantees high availability in daily industrial use. The actuators are maintenance-free and completely prewired internally. The self-locking gear with high-performance grease filling guarantees a long service life. The unit is delivered ready for connection, adjusted and tested.

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

- a) OPEN / CLOSED operation class A according to EN 15714-2
- b) Jog mode or positioning operation, class B (S4 - 30%, motor power up to 120 starts per hour at peak load) according to EN 15714-2.

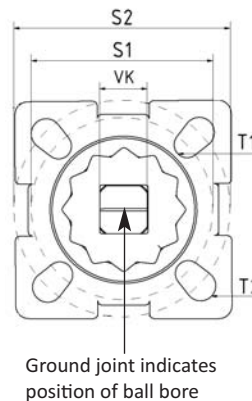
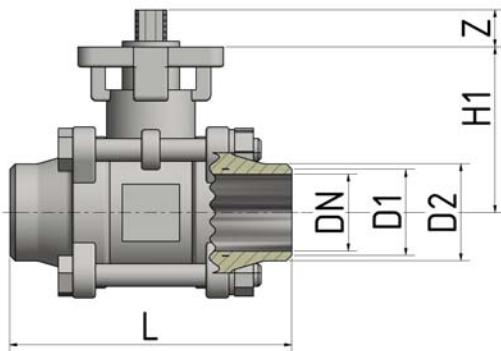
**Further information on the electric drives can be found in the individual data sheets.**

### Operating-variants:

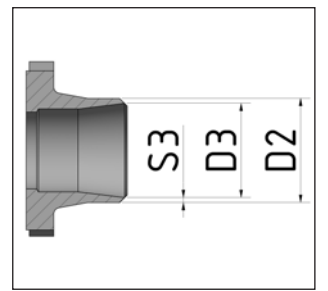


## 2-way ball valve, Article 470-VA/BW with electrical actuator

Diameter DN 8 up to DN 100



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



Actuator design up to max. 20 bar

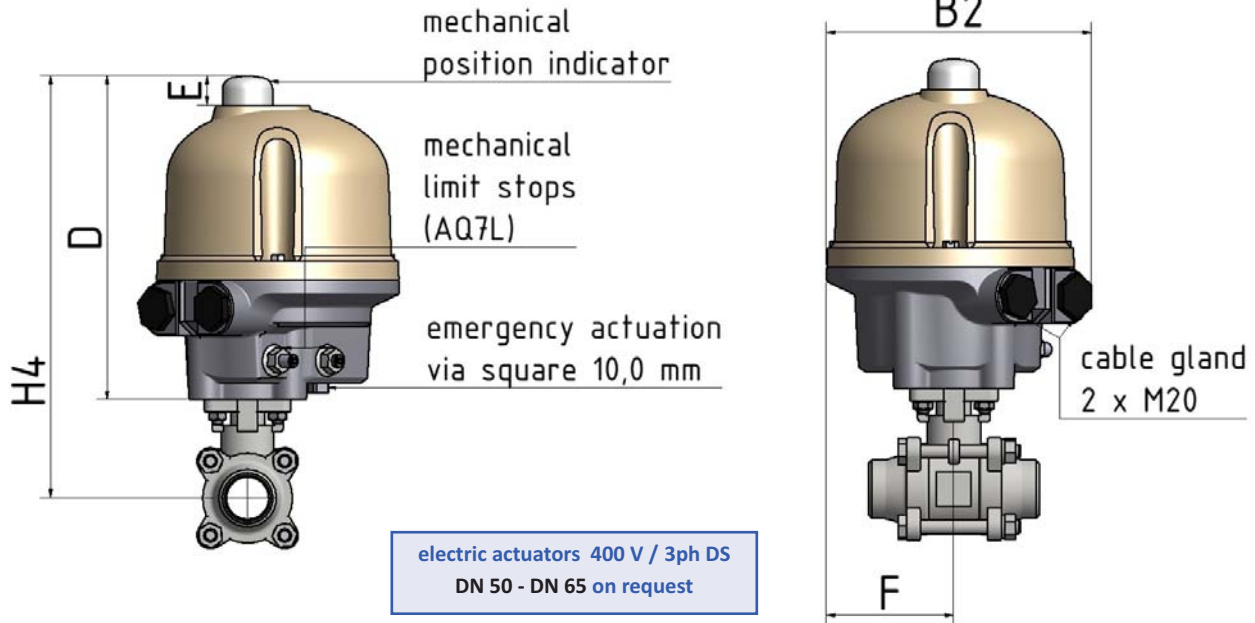
Diameter	L (mm)	D1 (mm)	D2 (mm)	H1 (mm)	d (mm)	Z (mm)	VK (mm)	T1 (mm)	T2 (mm)	LK ISO 5211 S1 / S2	Pressure rating max. (bar)	Starting torque (Nm)		D3 (mm)	S3 (mm)
												10,0 bar	50,0 bar		
DN 8	70	9,3	18	42,0	10,6	9	9	6,0	6,0	F03 / F04	68	4,5	4,5	13,0	4,5
DN 10	70	12,5	18	42,0	12,7	9	9	6,0	6,0	F03 / F04	68	4,5	4,5	15,0	3,5
DN 15	75	15,8	22	42,0	15,0	9	9	6,0	6,0	F03 / F04	63	5,0	5,5	17,3	2,35
DN 20	90	20,9	28	48,5	20,0	9	9	6,0	6,0	F03 / F04	63	6,0	8,5	22,9	2,65
DN 25	100	26,7	34	58,5	25,0	11	11	6,0	6,0	F04 / F05	63	10,0	11,0	29,7	2,15
DN 32	110	35,1	43	63,0	32,0	11	11	6,0	7,0	F04 / F05	63	13,0	17,0	38,4	2,55
DN 40	125	40,9	50	71,3	38,0	14	14	7,0	9,0	F05 / F07	63	19,0	24,0	44,3	3,05
DN 50	150	52,5	61	78,2	50,0	14	14	7,0	9,0	F05 / F07	63	29,0	35,0	56,3	2,60
DN 65	190	62,7	76	100,0	63,5	17	17	9,0	11,0	F07 / F10	50	45,0	54,0	72,1	2,60
DN 80	220	78,0	92	108,5	76,0	17	17	9,0	11,0	F07 / F10	50	72,0	90,0	84,9	4,05
DN 100	270	102,4	115	140,0	100,0	22	22	-	11,0	F10	50	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

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

### Diameter DN 8 up to DN 65

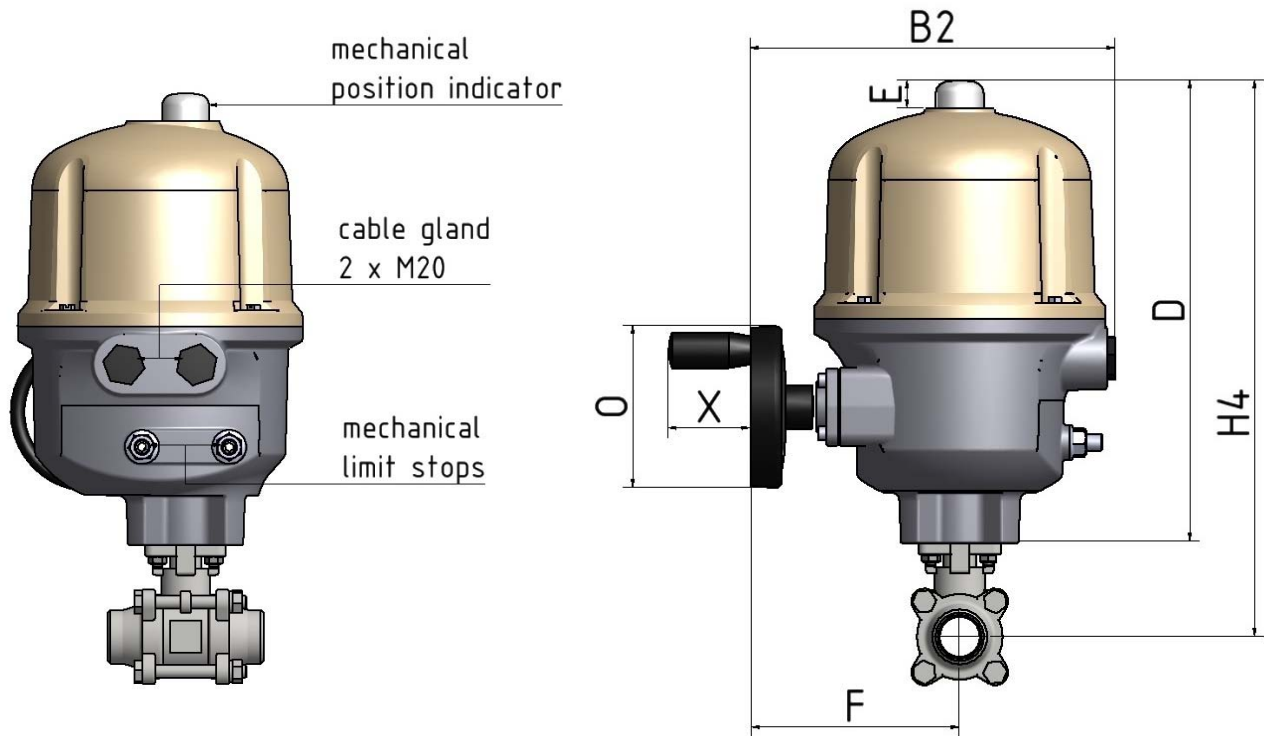


electrical actuator design up to max. 20 bar								
Diameter	Article-No. 470-VA/BW	Voltage	H4 (mm)	D (mm)	B2 (mm)	E (mm)	F (mm)	Weight (kg)
DN 8	215.3715.6.61							
AQ1L	171.8093.1L.13	230 V	217,0	175,0	150,0	17,5	89,5	3,2
	171.8092.1L.13	24 V						
DN 10	215.3715.6.62							
AQ1L	171.8093.1L.13	230 V	217,0	175,0	150,0	17,5	89,5	3,2
	171.8092.1L.13	24 V						
DN 15	215.3715.6.63							
AQ1L	171.8093.1L.13	230 V	217,0	175,0	150,0	17,5	89,5	3,2
	171.8092.1L.13	24 V						
DN 20	215.3715.6.65							
AQ1L	171.8093.1L.13	230 V	223,5	175,0	150,0	17,5	89,5	3,4
	171.8092.1L.13	24 V						
DN 25	215.3715.6.67							
AQ1L	171.8093.1L.13	230 V	233,5	175,0	150,0	17,5	89,5	3,9
	171.8092.1L.13	24 V						
DN 32	215.3715.6.68							
AQ3L	171.8093.3L.15	230 V	238,0	175,0	150,0	17,5	89,5	4,6
	171.8092.3L.15	24 V						
DN 40	215.3715.6.69							
AQ3L	171.8093.3L.15	230 V	246,3	175,0	150,0	17,5	89,5	5,5
	171.8092.3L.15	24 V						
DN 50	215.3715.6.71							
AQ7L	171.8093.7L.15	230 V	273,2	195,0	150,0	17,5	89,5	7,8
	171.8092.7L.15	24 V						
DN 65	215.3715.6.72							
AQ7L	171.8093.7L.15	230 V	295,0	195,0	150,0	17,5	89,5	11,8
	171.8092.7L.15	24 V						

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

### Diameter DN 80 up to DN 100



electrical actuator design up to max. 20 bar										
Diameter	Article-No. 470-VA/BW	Voltage	H4 (mm)	D (mm)	B2 (mm)	E (mm)	F (mm)	X (mm)	O (mm)	Weight (kg)
DN 80	215.3715.6.73	230 V	398,5	290,0	225,0	24,0	107,5	50,5	100	21,9
	171.8089.10.25									
	171.8090-10.25									
DN 100	215.3715.6.75	230 V	460,0	320,0	315,0	24,0	177,5	63,5	120	35,7
	171.8089.25.30									
	171.8090.25.30									

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