

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

Diameter G 1/4" up to G 4"

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 female thread according to ISO 228-1, UNI 7/1, EN 10226
- face to face dimensions according to DIN 3202 M-3
- 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).

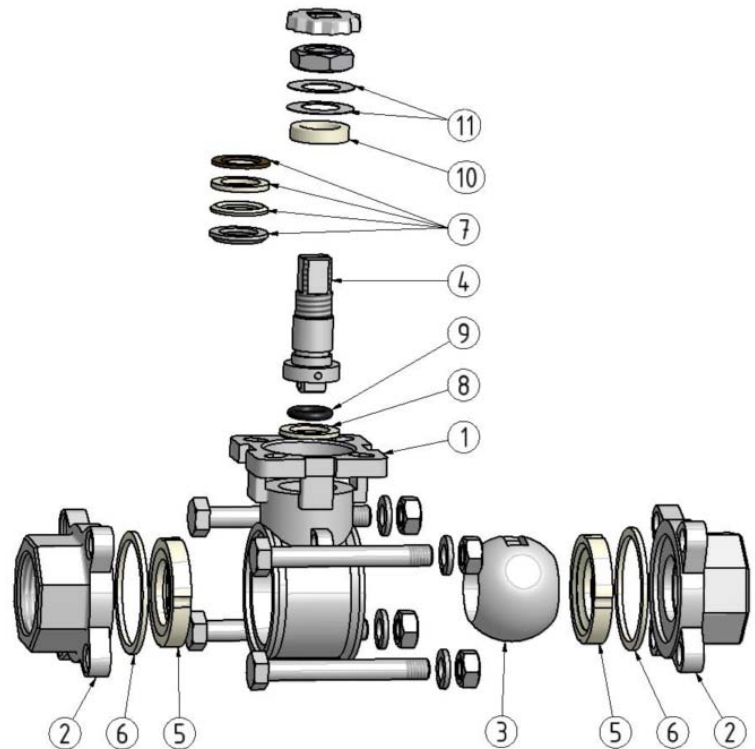


	TÜV TA-Luft certified
	Antistatic design ATEX 2014/34/EU
	0036
	Ambient -20° C ... +60° C
	Medium -34° C ... +200° C

Pos.	Description	Material
1	Body	Stainless steel 1.4408
2	Threaded end	Stainless steel 1.4404
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:

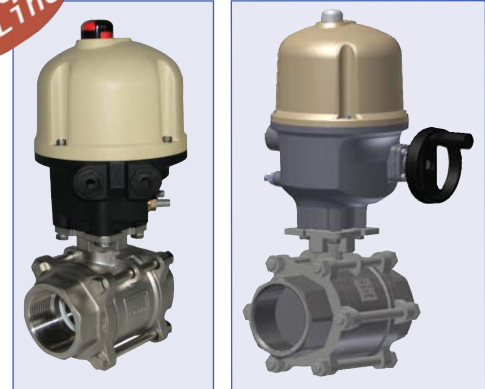
Pos.	Description	Material
5	Ball seal (2x)	PTFE-profile shells
6	Body seal (2x)	PTFE
7	Chevron packing set	PTFE
8	Thrust washer	PTFE
9	O-Ring	FKM (Viton)



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Basic Line



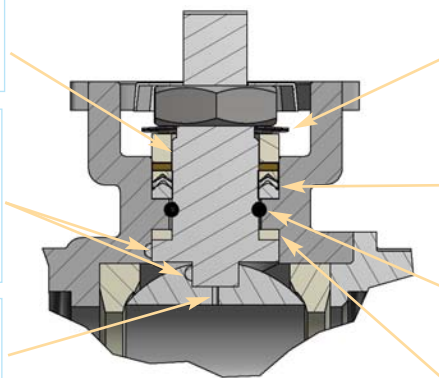
- Design Standard: DIN EN 12516-1
- Housing strength: DIN EN 12516-2
- Design pressure: PN 68 / PN 63 / PN 50 (depending on nominal diameter)
- Marking: EN 19, MSS SP-25
- Inspection / test: DIN EN 12266 P10 / P11 / P12

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)

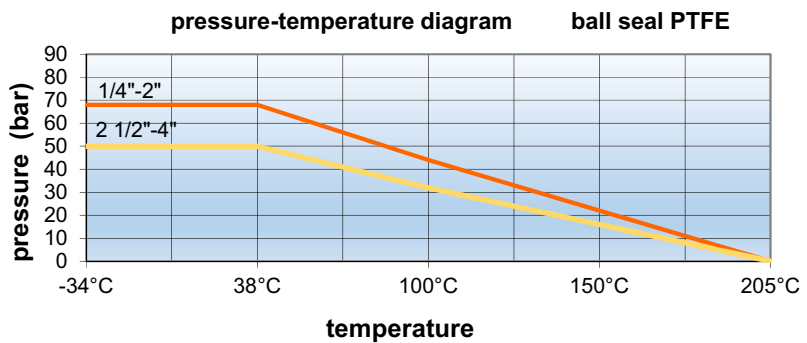
The highly polished solid ball has a **pressure relief hole** in the stem slot in order to avoid pressure build-up in the body cavity. This ensures a right shutoff and a long service life



- 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)

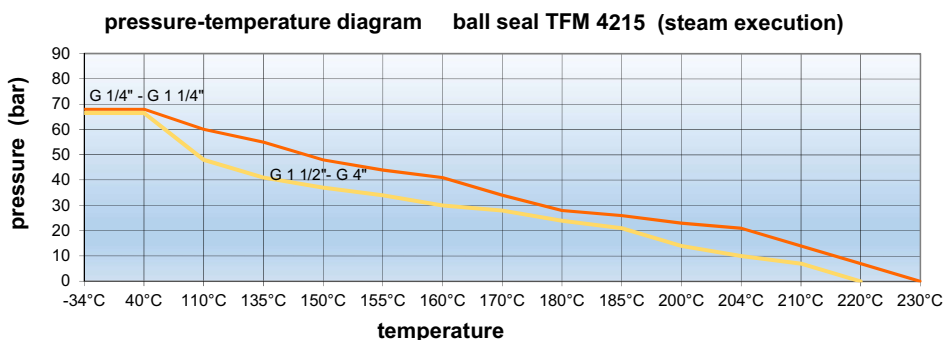
Seal kit PTFE (standard)

Diameter	Article-No.
G 1/4"	215.7821.18.61
G 1/8"	215.7821.18.62
G 3/8"	215.7821.18.63
G 1/2"	215.7821.18.65
G 3/4"	215.7821.18.67
G 1"	215.7821.18.68
G 1 1/2"	215.7821.18.69
G 2"	215.7821.18.71
G 2 1/2"	215.7821.18.72
G 3"	215.7821.18.73
G 4"	215.7821.18.75



Seal kit TFM 4215

Diameter	Article-No.
G 1/4"	215.7821.18.61-DTF
G 3/8"	215.7821.18.62-DTF
G 1/2"	215.7821.18.63-DTF
G 3/4"	215.7821.18.65-DTF
G 1"	215.7821.18.67-DTF
G 1 1/4"	215.7821.18.68-DTF
G 1 1/2"	215.7821.18.69-DTF
G 2"	215.7821.18.71-DTF
G 2 1/2"	215.7821.18.72-DTF
G 3"	215.7821.18.73-DTF
G 4"	215.7821.18.75-DTF



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Diameter G 1/4" up to G 4"



Ball valve 470-VA G 1/4" - G 2 1/2"
Actuator size AQ1L to AQ7L



Actuator size AQ10 - AQ25



Ball valve 470-VA G 3" - G 4"
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.

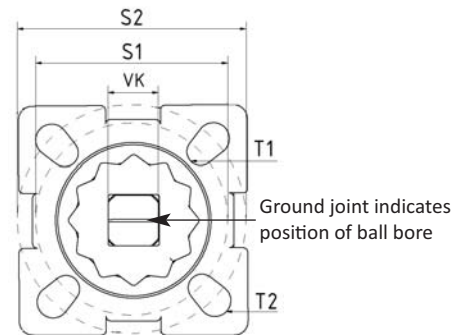
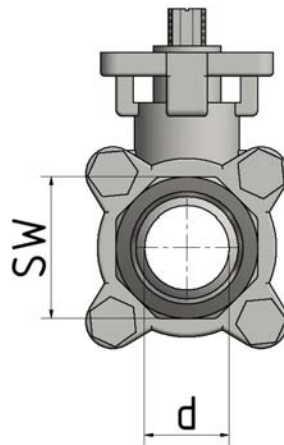
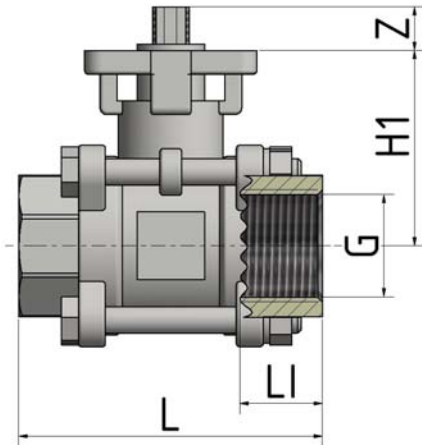
Operating-variants:



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Basic Line



actuator design up to max. 20 bar

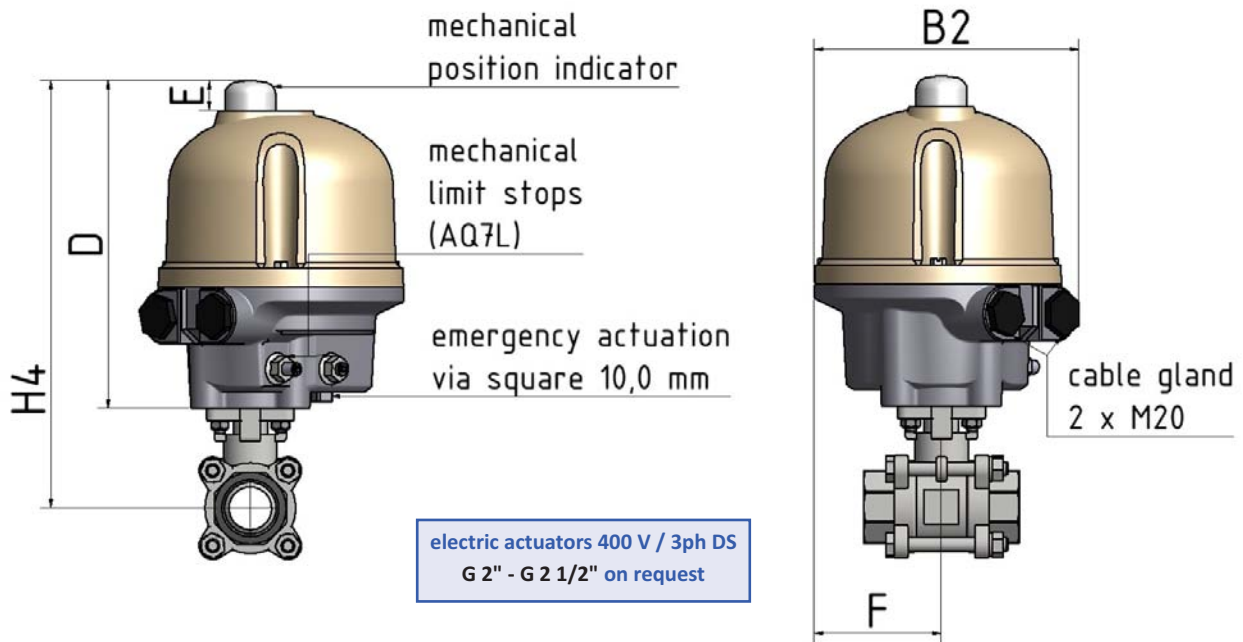
Diameter	L (mm)	LI (mm)	H1 (mm)	SW (mm)	d (mm)	Z (mm)	VK (mm)	T1 (mm)	T2 (mm)	LK ISO 5211 S1 / S2	Pressure rating max. (bar)	Starting torque (Nm)	
												10,0 bar	50,0 bar
G 1/4"	75,0	13,8	42,0	28	10,6	9	9	6,0	6,0	F03 / F04	68	4,5	4,5
G 3/8"	75,0	14,2	42,0	28	12,7	9	9	6,0	6,0	F03 / F04	68	4,5	4,5
G 1/2"	75,0	14,5	42,0	28	15,0	9	9	6,0	6,0	F03 / F04	63	5,0	5,5
G 3/4"	80,0	16,7	48,5	32	20,0	9	9	6,0	6,0	F03 / F04	63	6,0	8,5
G 1"	90,0	20,5	58,0	41	25,0	11	11	6,0	6,0	F04 / F05	63	10,0	11,0
G 1 1/4"	110,0	21,8	63,0	50	32,0	11	11	6,0	7,0	F04 / F05	63	13,0	17,0
G 1 1/2"	120,0	23,5	71,0	57	38,0	14	14	7,0	9,0	F05 / F07	63	19,0	24,0
G 2"	140,0	24,2	78,0	70	50,0	14	14	7,0	9,0	F05 / F07	63	29,0	35,0
G 2 1/2"	185,5	26,6	100,0	86	63,5	17	17	9,0	11,0	F07 / F10	50	45,0	54,0
G 3"	205,0	28,7	109,0	101	76,0	17	17	9,0	11,0	F07 / F10	50	72,0	90,0
G 4"	240,0	32,4	140,0	132	100,0	22	22	-	11,0	F10	50	110,0	138,0

Diameter	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
∅	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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Diameter G 1/4" up to G 2 1/2"

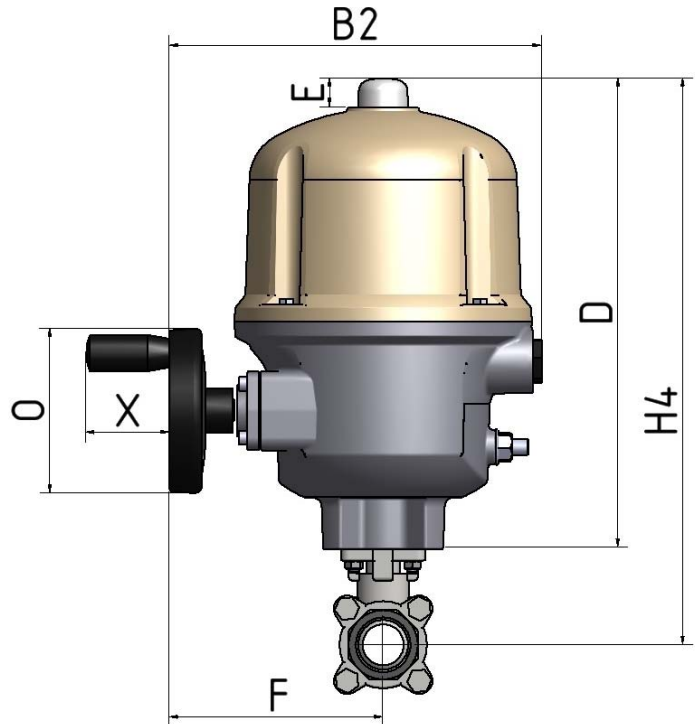
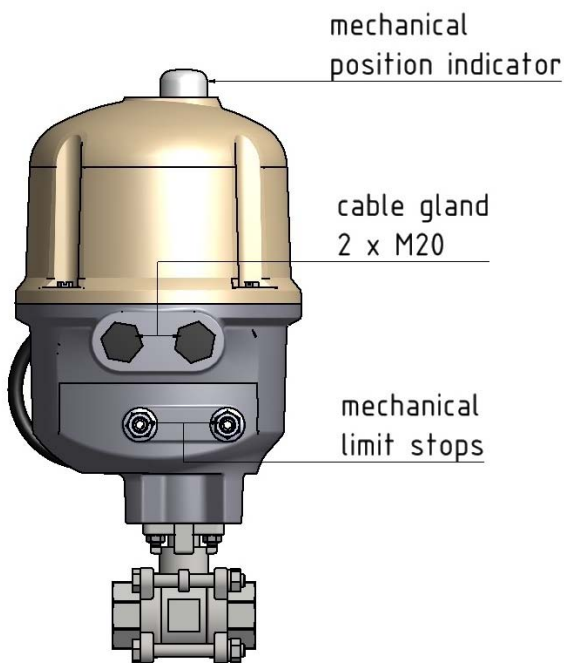


electrical actuator design up to max. 20 bar								
Diameter	Article-No. 470-VA	Voltage	H4 (mm)	D (mm)	B2 (mm)	E (mm)	F (mm)	Weight (kg)
G 1/4"	215.3710.6.61		217,0	175,0	150,0	17,5	89,5	3,2
	AQ1L	171.8093.1L.13						
	171.8092.1L.13	24 V						
G 3/8"	215.3710.6.62		217,0	175,0	150,0	17,5	89,5	3,2
	AQ1L	171.8093.1L.13						
	171.8092.1L.13	24 V						
G 1/2"	215.3710.6.63		217,0	175,0	150,0	17,5	89,5	3,2
	AQ1L	171.8093.1L.13						
	171.8092.1L.13	24 V						
G 3/4"	215.3710.6.65		223,5	175,0	150,0	17,5	89,5	3,4
	AQ1L	171.8093.1L.13						
	171.8092.1L.13	24 V						
G 1"	215.3710.6.67		233,0	175,0	150,0	17,5	89,5	3,9
	AQ1L	171.8093.1L.13						
	171.8092.1L.13	24 V						
G 1 1/4"	215.3710.6.68		238,0	175,0	150,0	17,5	89,5	4,6
	AQ3L	171.8093.3L.15						
	171.8092.3L.15	24 V						
G 1 1/2"	215.3710.6.69		246,0	175,0	150,0	17,5	89,5	5,5
	AQ3L	171.8093.3L.15						
	171.8092.3L.15	24 V						
G 2"	215.3710.6.71		273,0	195,0	150,0	17,5	89,5	7,8
	AQ7L	171.8093.7L.15						
	171.8092.7L.15	24 V						
G 2 1/2"	215.3710.6.72		295,0	195,0	150,0	17,5	89,5	11,8
	AQ7L	171.8093.7L.15						
	171.8092.7L.15	24 V						

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Diameter G 3" up to G 4"



electrical actuator design up to max. 20 bar										
Diameter	Article-No.	Voltage	H4 (mm)	D (mm)	B2 (mm)	E (mm)	F (mm)	X (mm)	O (mm)	Weight (kg)
G 3"	215.3710.6.73		399,0	290,0	225,0	24,0	107,5	50,5	100	21,9
	171.8089.10.25	230 V								
	171.8088.10.25	24 V								
	171.8090-10.25	400 V								
G 4"	215.3710.6.75		460,0	320,0	315,0	24,0	177,5	63,5	120	35,7
	171.8089.25.30	230 V								
	171.8088.25.30	24 V								
	171.8090.25.30	400 V								

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