

## 2-way ball valve, Article 440-VA with electrical actuator

**Diameter G 1/4" up to G 3"**

**2-way ball valve with threads and standardized interface** according to ISO 5211 for the mounting of pneumatic or electrical actuators. Pressure class depends on nominal diameter up to PN 68. Ball full bore, floating ball, both sides 100% tight closing. Shaft seal consisting of multi-layer 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**

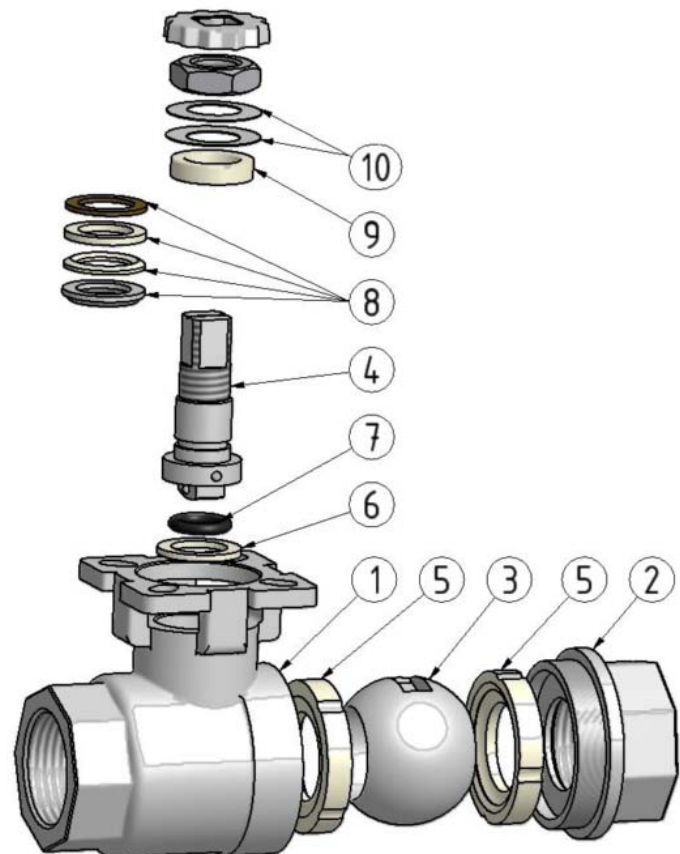
☞ **ISO 5211 mounting flange for actuators (direct mounting)**

Operation 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 2014/34/EU
	0035
	Ambient -20° C ... +60° C
	Medium -34° C ... +200° C

Pos.	Description	Material
1	Body	Stainless steel 1.4408
2	Threaded end	Stainless steel 1.4408
3	Ball	Stainless steel 1.4408
4	Stem	Stainless steel 1.4401
5	Ball seal	PTFE-profile shells
6	Washer	PTFE
7	Stem seal	FKM-O-Ring (Viton)
8	Chevron packing set	PTFE
9	Pressure ring	Stainless steel 1.4401
10	Belleville washers	Stainless steel 1.4301
	Stem nut	Stainless steel
	Pressure ring	Stainless steel



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

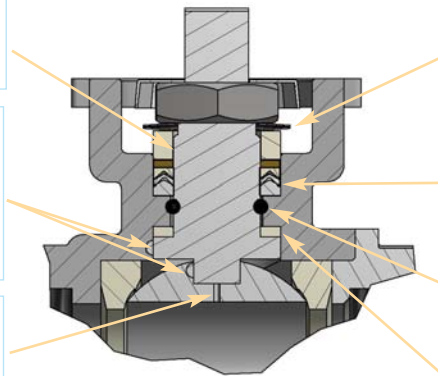


### shaft sealing according to VDI 2440 (TA-Luft)

**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

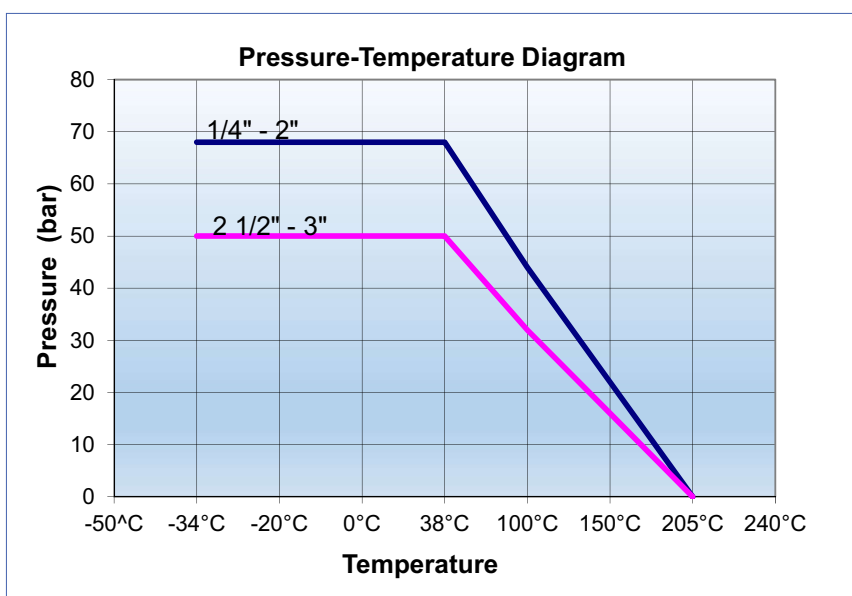


Disc springs ensure the permanent pretensioning of the chevron ring set.

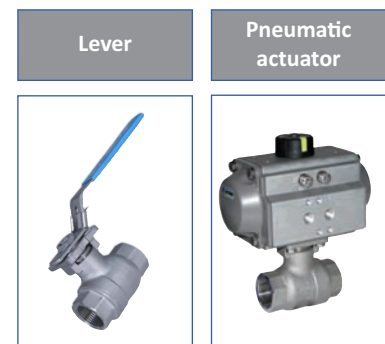
**primary** shaft seal 3-ply V-ring chevron packing set (PTFE)

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

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



### Operating-variants:



## 2-way ball valve, Article 440-VA with electrical actuator

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Basic Line

Ball valve and electric actuator, each with standardized interface according to ISO 5211, enabledirect, 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.

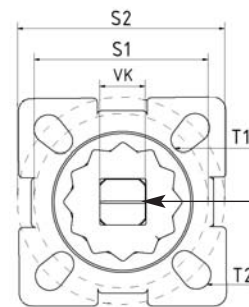
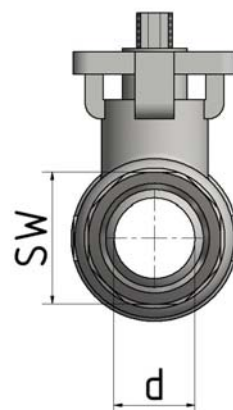
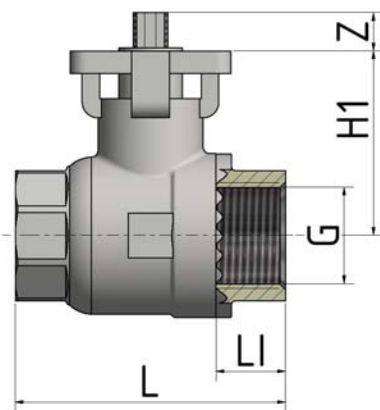
Further information on the electric drives can be found in the individual data sheets.



Actuator size AQ1L - AQ7L



Actuator size AQ10



Ground joint indicates position of ball bore

actuator design up to max. 20 bar

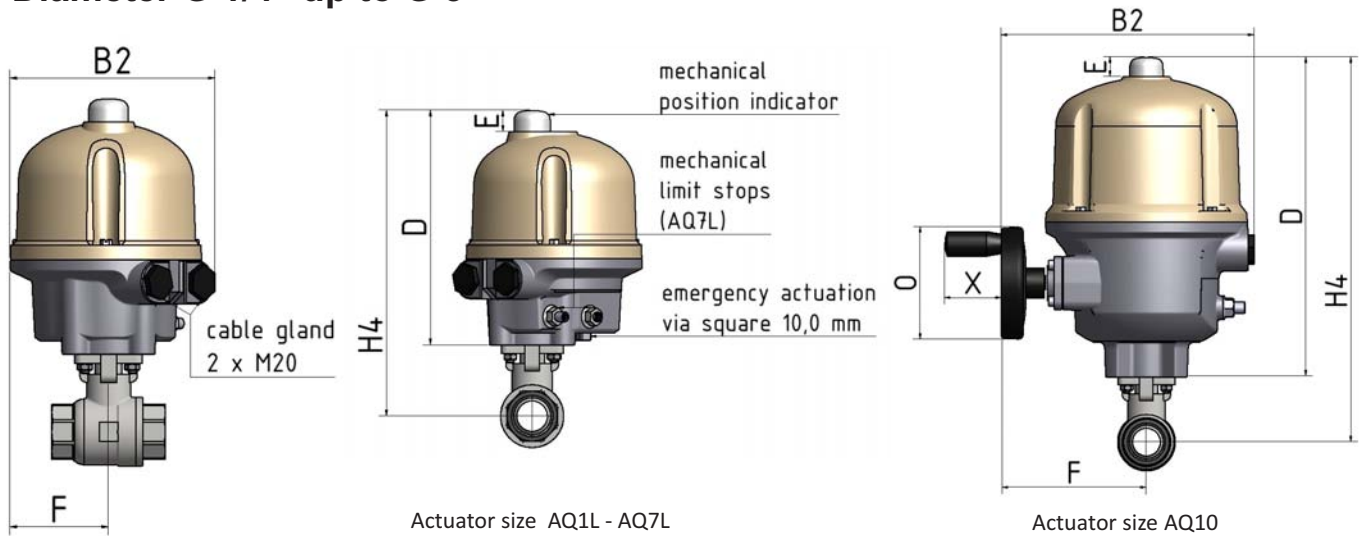
Diameter	L (mm)	LI (mm)	H1 (mm)	d (mm)	SW (mm)	Z (mm)	VK (mm)	T1 (mm)	T2 (mm)	LK ISO 5211 S1 / S2	Pressure rating max. (bar)	Starting torque (Nm)	
												10,0 bar	50,0 bar
G 1/4"	64,0	9,2	42,0	10,6	27	9	9	6	6	F03 / F04	68	4,5	4,5
G 3/8"	64,0	12,4	42,0	12,7	27	9	9	6	6	F03 / F04	68	4,5	4,5
G 1/2"	64,0	13,0	42,0	15,0	27	9	9	6	6	F03 / F04	68	5,0	5,0
G 3/4"	70,4	15,0	49,0	20,0	32	9	9	6	7	F03 / F05	68	6,0	6,0
G 1"	85,0	18,0	58,0	25,0	41	11	11	6	7	F04 / F05	68	10,0	11,0
G 1 1/4"	94,0	21,0	63,0	32,0	50	11	11	6	9	F04 / F07	68	13,0	17,0
G 1 1/2"	105,0	25,0	71,5	38,0	56	14	14	7	9	F05 / F07	68	19,0	24,0
G 2"	125,0	28,0	78,0	50,0	70	14	14	7	9	F05 / F07	68	29,0	35,0
G 2 1/2"	155,0	26,8	100,0	63,5	83	17	17	9	11	F07 / F10	50	45,0	54,0
G 3"	173,0	29,1	109,0	76,0	102	17	17	9	11	F07 / F10	50	72,0	90,0

Diameter	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
∅	10,6	12,7	15,0	20,0	25,0	32,0	38,0	50,0	65,0	80,0
KV	8,6	11,2	15,5	31,0	41,3	80,0	142,0	178,0	387,0	671,0

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## 2-way ball valve, Article 440-VA with electrical actuator

Diameter G 1/4" up to G 3"



electrical actuator design up to max. 20 bar										
Diameter	Article-No.	Voltage	H4 (mm)	D (mm)	B2 (mm)	E (mm)	F (mm)	Weight (kg)		
G 1/4"	215.3976.6.61		217,0	175,0	150,0	17,5	89,5	2,93		
	AQ1L	171.8093.1L.13							230 V	
	171.8092.1L.13	24 V								
G 3/8"	215.3976.6.62		217,0	175,0	150,0	17,5	89,5	2,93		
	AQ1L	171.8093.1L.13							230 V	
	171.8092.1L.13	24 V								
G 1/2"	215.3976.6.63		217,0	175,0	150,0	17,5	89,5	2,95		
	AQ1L	171.8093.1L.13							230 V	
	171.8092.1L.13	24 V								
G 3/4"	215.3976.6.65		224,0	175,0	150,0	17,5	89,5	3,09		
	AQ1L	171.8093.1L.13							230 V	
	171.8092.1L.13	24 V								
G 1"	215.3976.6.67		233,0	175,0	150,0	17,5	89,5	3,54		
	AQ1L	171.8093.1L.13							230 V	
	171.8092.1L.13	24 V								
G 1 1/4"	215.3976.6.68		238,0	175,0	150,0	17,5	89,5	3,92		
	AQ3L	171.8093.3L.15							230 V	
	171.8092.3L.15	24 V								
G 1 1/2"	22.3976.6.69		246,5	175,0	150,0	17,5	89,5	4,68		
	AQ3L	171.8093.3L.15							230 V	
	171.8092.3L.15	24 V								
G 2"	215.3976.6.71		273,0	195,0	150,0	17,5	89,5	6,90		
	AQ7L	171.8093.7L.15							230 V	
	171.8092.7L.15	24 V								
G 2 1/2"	215.3976.6.72		295,0	195,0	150,0	17,5	89,5	10,04		
	AQ7L	171.8093.7L.15							230 V	
	171.8092.7L.15	24 V								
G 3"	215.3976.6.73		399,0	290,0	225,0	24,0	129,3	19,17		
	AQ10	171.8089.10.25							230 V	
	171.8088.10.21	24 V								
	171.8090.10.25	400 V								
									X (mm)	O (mm)
									50,5	100

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