

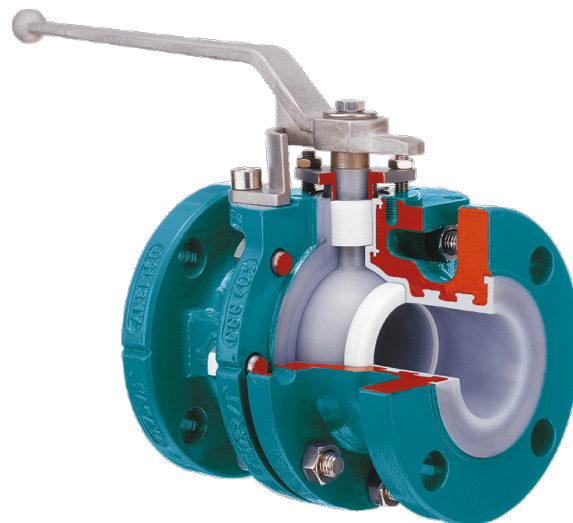
**NVN**

## Two way ball valve with full bore, chemical-resistant lining, ISO top flange

DIN-EN: DN 15 - 100 / PN 10 - 25

ASME: NPS ½" - 8" / class 150

PT range:  $-30 < T < 230^{\circ}\text{C}$



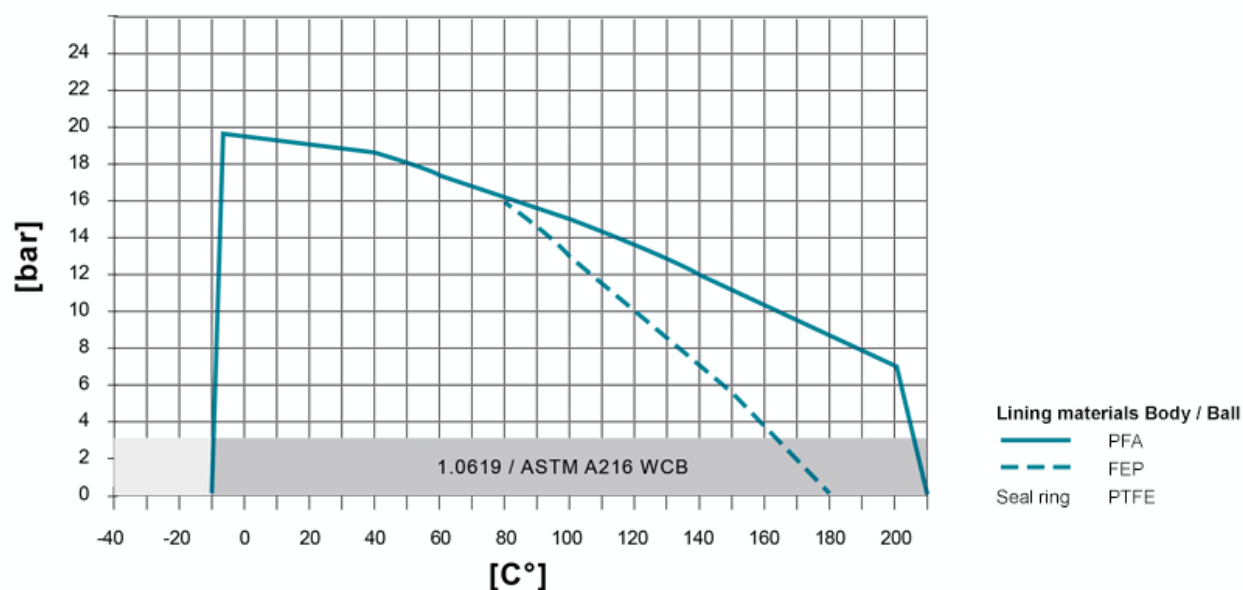
## Design Features

### Design Characteristics

- full bore
- split body
- integral ball and stem
- anti-blow-out
- with readjustable stuffingbox packing
- cavity minimized
- maintenance free - self lubricating
- mounting-flange for actuators acc. to DIN ISO 5211
- with chemical resistant lining - thickness min. 3 mm
- fugitive emission resp. clean air act certified (TA - Luft 2002 approval)
- Directive 2014/68/EU
- FDA conformity

## PT-Diagram

General Pressure-Temperature-Diagram



The specified values depend on the respective application (medium). Operating temperatures under -20°C only with body material 1.4408 or low-temperature steel. High pressure resistance / temperature resistance on request, e.g. PN 40. Sleeve: There are different sleeve materials / compounds available.

## Materials

### Standard body materials

- Ductile cast iron ENJS 1049, ASTM Gr 60-40-18 / A395 **Standard plug materials**

- Stainless Steel 1.4308, ASTM A351 CF8 **Special materials**

- Carbon Steel 1.0619, ASTM A216 WCB

- Stainless Steel 1.4408, ASTM A351 CF8M

- Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352 **Lining materials**

- Body: PFA, PFA-conductive, FEP

- Ball: PTFE, PFA, PFA-conductive, FEP

- Seal Ring: PTFE

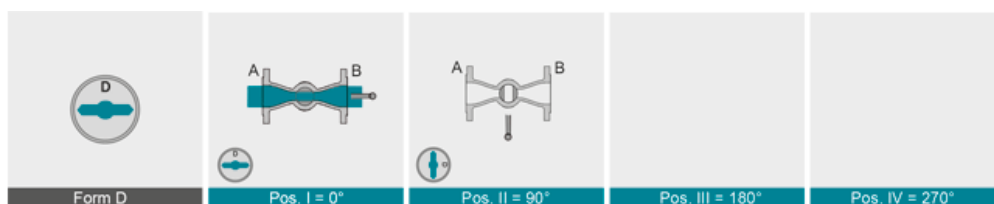
## Sealing Systems

Chemical sealing to prevent fugitive emissions of aggressive and toxic media with PTFE packing for additional stem sealing;  $T_{max}$  230°C

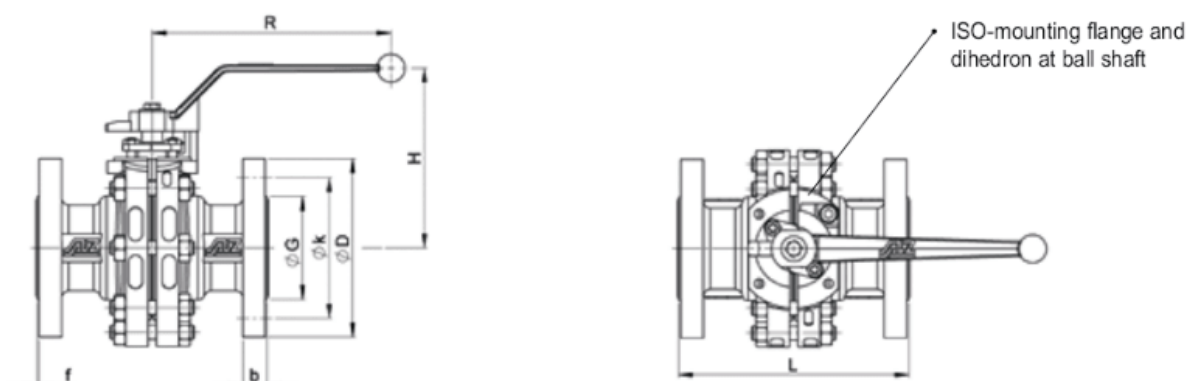
### Type CAS

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## Port Forms



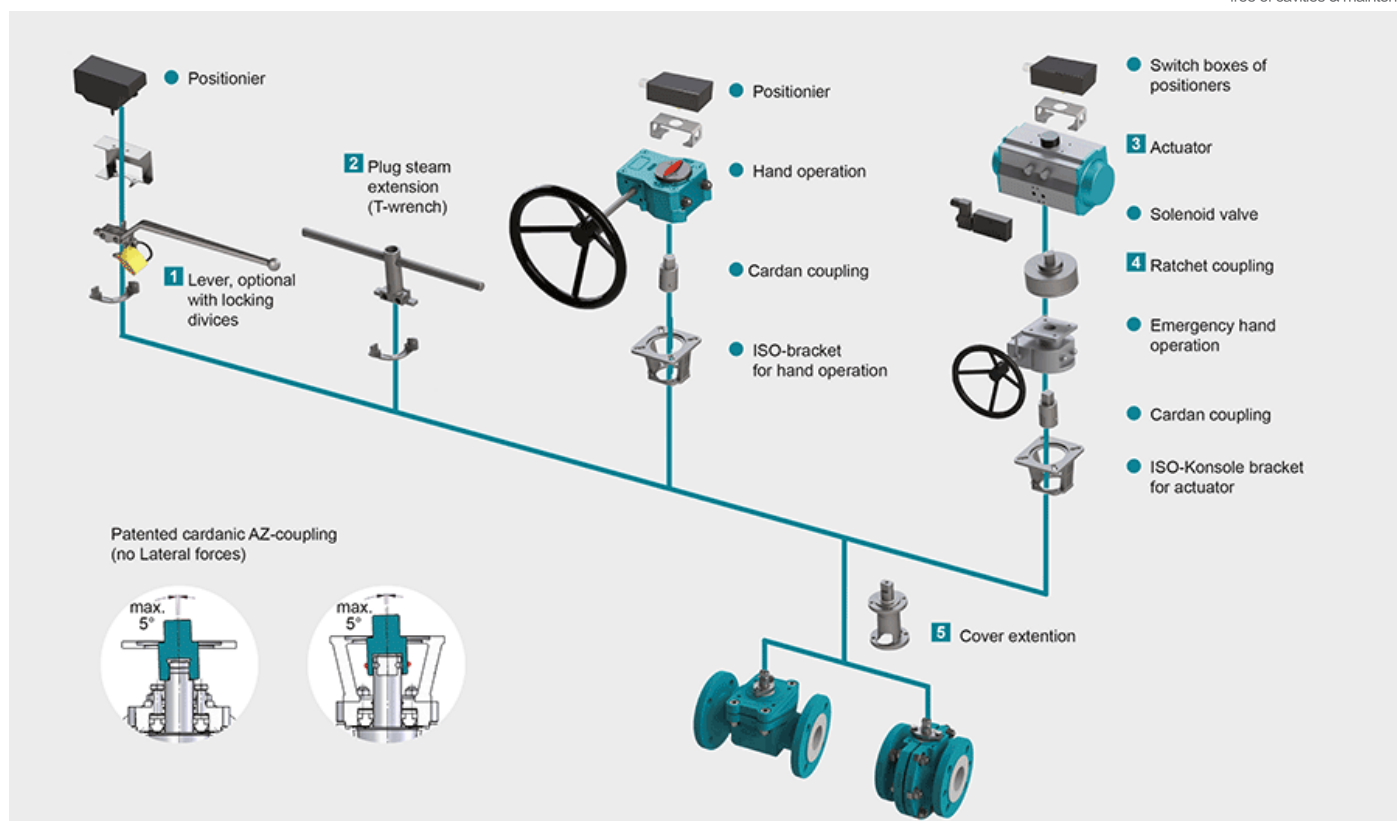
## Dimensions



	DN	PN	L	øD	øG	flange bore			b	f	R	H	ISO 5211 mounting flange	dihedron [mm]	Torque [Nm] Δp=10bar*	weight [Kg]	K <sub>vs</sub> value [m <sup>3</sup> /h]	C <sub>v</sub> -Wert [US.gal/min]
						øk	No.	ø										
DIN EN 1092/1 / 558-1	15	10-40	130	95	45	65	4	14	16	2	170	110	F07	11	9	3,4	19	22
	20	10-40	150	105	58	75	4	14	18	2	170	115	F07	11	13	4,4	36	42
	25	10-40	160	115	68	85	4	14	18	2	170	117	F07	11	18	6,5	70	81
	40	10-40	200	150	88	110	4	18	18	2	170	128	F07	11	21	9,4	193	200
	50	10-40	230	165	102	125	4	18	20	3	230	143	F10	14	40	16,3	323	374
	80	10-40	310	200	138	160	8	18	24	3	320	174	F12	19	110	30	947	1095
	100	10-16	220	158	180	18	20	18	20	3	420	200	F14	22	150	38,4	1446	1672
		25-40	350	235	162	190	8	22	24	3	420	200	F14	22	150	38,4	1446	1672
	150	10-16	285	212	240	22	22	22	22	3	600	250	F16	27	200	75,3	3338	3859
		25-40	300	218	250	26	26	26	26	3	600	250	F16	27	200	75,3	3338	3859
200R	10	292	340	268	295	8	22	24	3	600	250	F16	27	200	107,9	***	***	
	16	292	340	268	295	12	22	24	3	600	250	F16	27	200	107,9	***	***	
200	10	457	340	268	295	8	22	24	3	**	**	F16	36	270	198	6362	7356	
ASME B 16.5 / 16.10	NPS	Class	L	øD	øG	flange bore			b	f	R	H	ISO 5211 mounting flange	dihedron [mm]	Torque [Nm] Δp=10bar**	weight [Kg]	K <sub>vs</sub> value [m <sup>3</sup> /h]	C <sub>v</sub> -Wert [US.gal/min]
	1/2"	150	108	88,9	35,1	60,5	4	15,7	11,2	1,6	170	110	F07	11	9	2,5	20	23
	3/4"	150	117,5	98,6	42,9	69,9	4	15,7	13,7	1,6	170	115	F07	11	13	3,2	41	48
	1"	150	127	108	50,8	79,2	4	15,7	14,2	1,6	170	117	F07	11	18	5,5	***	***
	1 1/2"	150	165	127	73	98,6	4	15,7	17,5	1,6	170	128	F07	11	21	7,6	***	***
	2"	150	178	152,4	91,9	120,7	4	19,1	19,1	1,6	230	143	F10	14	40	12,6	***	***
	3"	150	203	190,5	127	152,4	4	19,1	23,9	1,6	320	174	F12	19	110	26	***	***
	4"	150	229	228,6	157,2	190,5	8	19,1	23,9	1,6	420	200	F14	22	150	39,4	***	***
	6"	150	267	279,4	215,9	241,3	8	22,4	25,4	1,6	600	250	F16	27	200	76,6	***	***
	8"R	150	292	342,9	269,7	298,5	8	22,4	29,4	2,5	600	250	F16	27	200	107,9	***	***
8"	150	457	342,9	269,7	298,5	8	22,4	29,4	2,5	**	**	F16	36	270	198	***	***	

For geometric reasons, threads are used in the flange bores in a few cases

## Actuation



## 1 Locking Devices

Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor.

## [read more \[...\]](#) 2 Plug stem extension

Solid construction in stainless steel with T-wrench, Standard extension 100 mm or 150 mm, non standard lengths are available on request

## [read more \[...\]](#) 3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211

[read more \[...\]](#) NEW: Pneumatic actuator AIR GEAR for plug valves with high torque =150.000 Nm

## [read more \[...\]](#) 4 Ratched coupling

To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90°

## [read more \[...\]](#) 5 Cover extension

Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL

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