

High Performance Globe Control Valve

Fluid Control For Sustainable Future



KP-28 & KT-28 Two Way Control Valve



Technical data		
Model	Nominal diameter	Nominal pressure
KP-28/KT-28	DN15 - DN300	PN10 - PN160
	½" - 12"	ANSI150 - ANSI600
	Other sizes and pressure ratings on request	
Body material		
KP-28/KT-28	Carbon steel SA216WCB, SA217WC6, SA217WC9	
	Stainless steel SA351CF8, SA351CF8M	
	Other materials on request	
Plug design		
KP-28/KT-28	Standard	Port and post guiding V plug, metal seat (modulating)
		Post guiding parabolic plug, metal seat (modulating or open/close)
	Optional	Perforated plug with multihole cage
		Selected plug with PTFE soft sealing -25°C to 250°C
Flow characteristic		
KP-28/KT-28	Linear	
	Equal percentage	
Stem sealing		
KP-28/KT-28	PTFE V-ring unit -25°C to 250°C	
	Pure graphite packing -60°C to 650°C	
	Stainless steel bellows seal -60°C to 530°C	
Shut off class (seat/plug leakage classes)		
Metal seat-Leakage class IV acc. to ANSI/FCI70-2		
Soft seat-Leakage class VI acc. to ANSI/FCI70-2		

Applications:

Textile dyeing and stenter machinery, petrochemical, oil and gas, municipal water supply, wastewater treatment, power plant, pulp and paper, food and beverage, oleochemical, palm oil refinery, shipbuilding, etc.

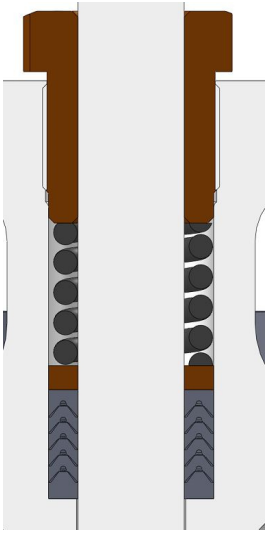
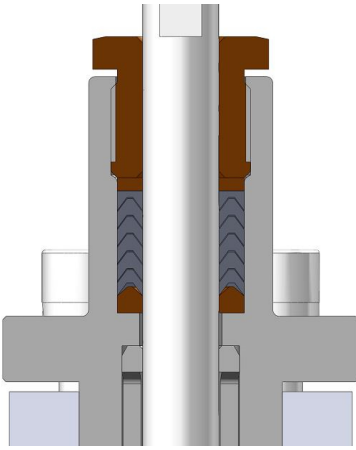
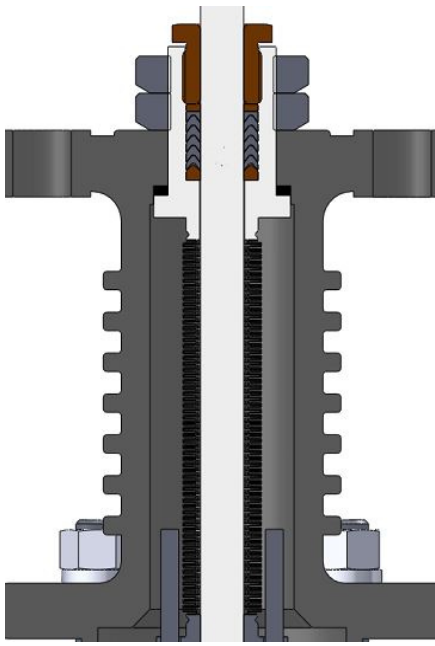
Selection of possible flow media:

KP-28/ KT-28 without bellows: cooling water, cooling brine, warm water, hot water, steam, gas, etc.

KP-28/ KT-28 with bellows: Refrigerant, thermal oil, chemical, etc.
(other flow media on request)

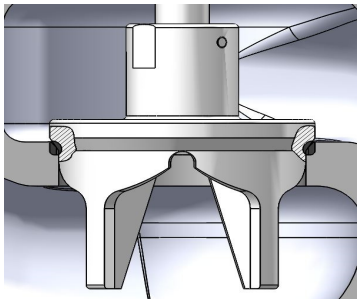
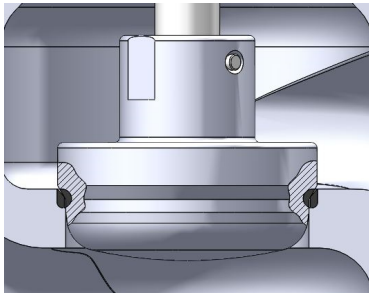
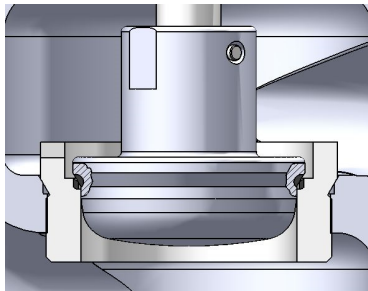
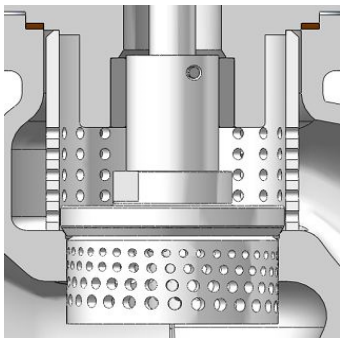
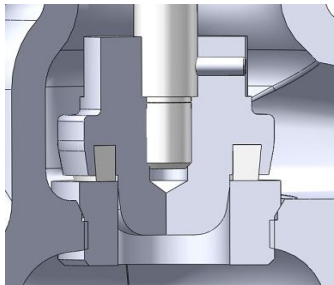
KP-28 & KT-28 Two Way Control Valve

Stem Sealing

1. 	Spring Loaded PTFE V-ring Operating Temp.: -25°C to +250°C	Media: Water Steam Gas
2. 	Pure Graphite Operating Temp.: -60°C to +650°C	Media: Superheated Steam High Temp. Gases
3. 	Stainless Steel Bellows Seal with Pure Graphite Packing Operating Temp.: -60°C to +530°C	Media: Chemical Toxic Medium Flammable and Explosive Medium Hot Oil

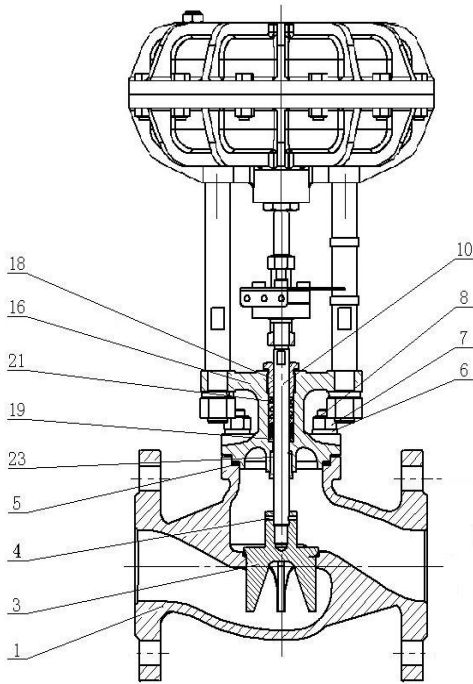
KP-28 & KT-28 Two Way Control Valve

Plug Design

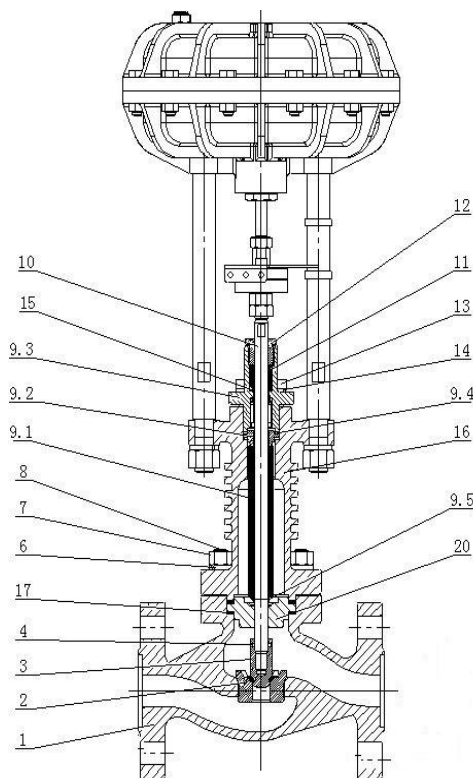
Standard		
Port and post guiding V plug Metal seat	Suitable for high pressure difference and modulating operation condition. Leakage class IV acc. to ANSI/FCI 70-2	
Parabolic plug with Metal seat	Suitable for thoroughly isolate the media operation condition. Leakage class IV acc. to ANSI/FCI 70-2	
Parabolic plug Screw seat ring	Suitable for thoroughly isolate the media operation condition. Leakage class IV acc. to ANSI/FCI 70-2	
Option		
Perforated plug with multi-hole cage	Reduce the noise up to 15%. Leakage class IV acc. to ANSI/FCI 70-2	
Parabolic plug with PTFE soft seating Screw Seat Ring	Suitable for gases and liquids operation condition. Leakage class VI acc. to ANSI/FC170-2.	

KP-28 Two Way Control Valve With Pneumatic Actuator

Parts List



KP-28 without Bellows



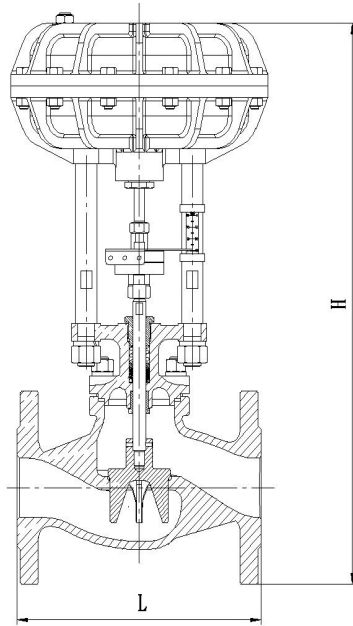
KP-28 with Bellows

No.	Name	Material
1	Valve Body	ASTM A351 CF8 / ASTM A216 WCB
2	Valve Seat	A249 TP304
3	Plug	ASTM A351 CF8 / A180 F304
4	Round Pin	A182 F304
5	Spiral Wound Gasket	A182 F304+graphite
6	Spring Washer	A182 F304 / SA1035
7	Hexagon Nut	A182 F304
8	Double End Stud	ASTM A193M-B7 / A194-B8
9.1	Bellows	AISI 316Ti
9.2	Gasket	Pure Graphite
9.3	Packing Box	A182 F304
9.4	Washer	Pure Graphite
9.5	Weld Joint	A182 F304
10	Stem	ASTM 431
11	Packing	Pure Graphite
12	Gland Nut	Brass
13	Hexagon Screw	ASTM A193M-B8
14	Spring Washer	ASTM A194-8
15	Washer	Brass
16	Bonnet	ASTM A351 CF8 / ASTM A216 WCB
17	Spiral Wound Gasket	A182 F304+graphite
18	Gland Nut	Brass
19	V-ring	PTFE
20	Guiding Plate	ASTM 5140 40Cr
21	Spring	A182 F304
23	Bushing	A182 F304

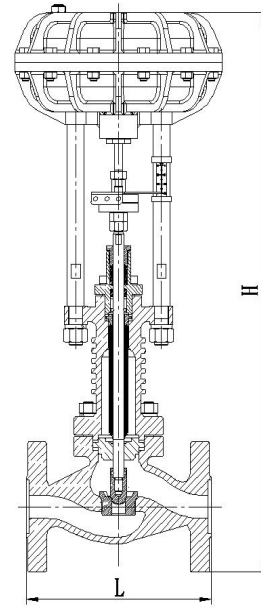
Remark: Other materials on request.

KP-28 Two Way Control Valve With Pneumatic Actuator

Size and Weight



KP-28 without Bellows



KP-28 with Bellows

KP-28 without Bellows

NPT				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"
ANSI 150	PA-190	H	mm	384	390	414	429	459	486	531	599	681	-	-
		W	kg	9	10	11	12	14	16	26	34	39	-	-
	PA-260	H	mm	460.5	467	491	506	535.5	563	591	654	689.5	-	-
		W	kg	23	24	26	27	30	33	42	49	52	-	-
	PA-260x2	H	mm	595	601	625	640	670	697	725	788	824	-	-
		W	kg	38	39	42	43	47	50	61	67	71	-	-
	PA-350x2	H	mm	643	649	673	688	718	745	773	836	892	-	-
		W	kg	68	70	72	73	76	78	87	95	98	-	-
ANSI 300	PA-190	H	mm	383.5	390	914	429	458.5	486	531	599	-	-	-
		W	kg	9	10	11	12	14	16	26	34	-	-	-
	PA-260	H	mm	460.5	467	491	506	535.5	563	591	654	-	-	-
		W	kg	23	24	26	27	30	33	42	49	-	-	-
	PA-260x2	H	mm	594.5	601	625	640	669.5	697	725	788	-	-	-
		W	kg	38	39	42	43	47	50	61	67	-	-	-
	PA-350x2	H	mm	642.5	649	673	688	717.5	745	773	836	-	-	-
		W	kg	68	70	72	73	76	78	87	95	-	-	-

KP-28 with Bellows

NPT				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"
ANSI 150	PA-190	H	mm	413	420	446	464	496	528	578	661	746		
		W	kg	9	10	12	13	15	18	28	37	43		
	PA-260	H	mm	489.9	497	523.4	541.4	573.3	605.3	637.8	715.8	754.9		
		W	kg	23	24	26	28	31	34	45	53	57		
	PA-260x2	H	mm	624	631	657	675	707	739	772	850	889	-	-
		W	kg	34	35	38	39	43	46	57	63	67		
	PA-350x2	H	mm	672	679	705	723	755	787	820	898	957	-	-
		W	kg	69	71	72	74	78	80	90	98	102		
ANSI 300	PA-190	H	mm	412.9	420	446.4	464.4	496.3	528.3	577.8	660.8	-	-	-
		W	kg	9	10	12	13	15	18	28	37			
	PA-260	H	mm	489.9	497	523.4	541.4	573.3	605.3	637.8	715.8	-	-	-
		W	kg	23	24	26	28	31	34	45	53			
	PA-260x2	H	mm	623.9	631	657.4	675.4	707.3	739.3	771.8	849.8	-	-	-
		W	kg	39	40	43	44	48	52	64	71			
	PA-350x2	H	mm	671.9	679	705.4	723.4	755.3	787.3	819.8	897.8	-	-	
		W	kg	69	71	72	74	78	80	90	98			

Dimension and Weight

KP-28 Two Way Control Valve With Pneumatic Actuator

KP-28 without Bellows

DN				15	20	25	32	40	50	65	80	100	125	150	
PN10/ PN16	L		mm	130	150	160	180	200	230	290	310	350	400	480	
	PA-190	H	mm	386.5	393.5	417.5	440	470	492.5	534.5	604	676	-	-	
		W	kg	9	11	12	13	16	18	28	37	43	-	-	
	PA-260	H	mm	463.5	470.5	494.5	517	547	569.5	594.5	659	685	723	757.5	
		W	kg	25	26	28	30	33	36	47	54	58	71	95	
	PA-260x2	H	mm	598	605	629	651	681	704	729	793	819	857	892	
		W	kg	42	43	46	47	52	56	67	75	79	93	119	
	PA-350x2	H	mm	646	653	677	699	729	752	777	841	887	930	980	
		W	kg	76	78	79	82	85	87	97	105	109	119	145	
	PN25	PA-190	H	mm	387	394	418	440	470	493	535	604	684	-	-
W			kg	9	11	12	13	16	18	28	37	43	-	-	
PA-260		H	mm	463.5	470.5	494.5	517	547	569.5	594.5	659	692.5	-	-	
		W	kg	25	26	28	30	33	36	47	54	58	-	-	
PA-260x2		H	mm	598	605	629	651	681	704	729	793	827	-	-	
		W	kg	42	43	46	47	52	56	67	75	79	-	-	
PA-350x2		H	mm	646	653	677	699	729	752	777	841	895	-	-	
		W	kg	76	78	79	82	85	87	97	105	109	-	-	
PN40		PA-190	H	mm	386.5	393.5	417.5	440	470	492.5	534.5	604	-	-	-
			W	kg	9	11	12	13	16	18	28	37	-	-	-
	PA-260	H	mm	463.5	470.5	494.5	517	547	569.5	594.5	659	-	-	-	
		W	kg	25	26	28	30	33	36	47	54	-	-	-	
	PA-260x2	H	mm	597.5	604.5	628.5	651	681	703.5	728.5	793	-	-	-	
		W	kg	42	43	46	47	52	56	67	75	-	-	-	
	PA-350x2	H	mm	645.5	652.5	676.5	699	729	751.5	776.5	841	-	-	-	
		W	kg	76	78	79	82	85	87	97	105	-	-	-	

KP-28 with Bellows

DN				15	20	25	32	40	50	65	80	100	125	150
PN10/ PN16	L		mm	130	150	160	180	200	230	290	310	350	400	480
	PA-190	H	mm	416	424	450	475	508	535	581	666	741	-	-
		W	kg	10	11	13	14	17	20	32	42	48	-	-
	PA-260	H	mm	493	501	527	552	585	612	641	721	750	789	829
		W	kg	26	27	29	31	34	38	50	59	63	77	105
	PA-260x2	H	mm	627	635	661	686	719	746	775	855	884	923	963
		W	kg	43	44	47	49	54	58	71	79	84	100	129
	PA-350x2	H	mm	675	683	709	734	767	794	823	903	952	996	1051
		W	kg	77	79	80	83	86	89	100	109	114	125	155
PN25	PA-190	H	mm	416	424	450	475	508	535	581	666	749	-	-
		W	kg	10	11	13	14	17	20	32	42	48	-	-
	PA-260	H	mm	493	501	527	552	585	612	641	721	758	-	-
		W	kg	26	27	29	31	34	38	50	59	63	-	-
	PA-260x2	H	mm	627	635	661	686	719	746	775	855	892	-	-
		W	kg	43	44	47	49	54	58	71	79	84	-	-
	PA-350x2	H	mm	674.9	682.5	708.9	734.4	766.8	793.8	823.3	902.8	959.9	-	-
		W	kg	77	79	80	83	86	89	100	109	114	-	-
PN40	PA-190	H	mm	415.9	423.5	449.9	475.4	507.8	534.8	581.3	665.8	-	-	-
		W	kg	10	11	13	14	17	20	32	42	-	-	-
	PA-260	H	mm	492.9	523	526.9	552.4	584.8	611.8	641.3	720.8	-	-	-
		W	kg	26	27	29	31	34	38	50	59	-	-	-
	PA-260x2	H	mm	626.9	634.5	660.9	686.4	718.8	745.8	775.3	854.8	-	-	-
		W	kg	43	44	47	49	54	58	71	79	-	-	-
	PA-350x2	H	mm	674.9	682.5	708.9	734.4	766.8	793.8	823.3	902.8	-	-	0
		W	kg	77	79	80	83	86	89	100	109	-	-	-

Remark: Above datas are for standard materail WCB, other materials, pressure ratings on request.

PA Series Linear Pneumatic Actuator



PA-190, Inner Dia. 190mm, Area 280 cm²



PA-260, Inner Dia. 260mm, Area 530 cm²



PA-350, Inner Dia. 350mm, Area 960 cm²



PA-260 H, Inner Dia. 260mm, Area 530 cm²

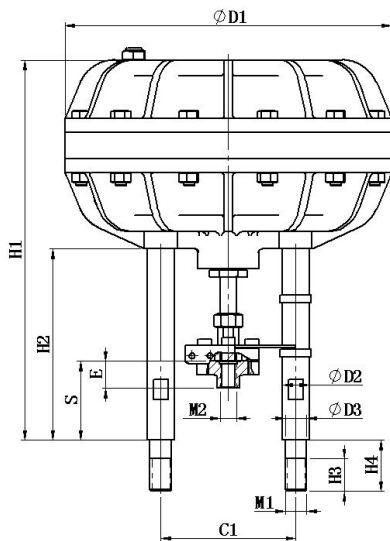


PA-260 x 2 H, Inner Dia. 260mm, Area 1060 cm²

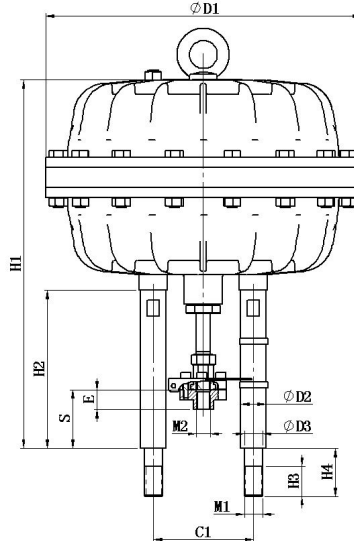


PA-350 x 2 H, Inner Dia. 350mm, Area 1980 cm²

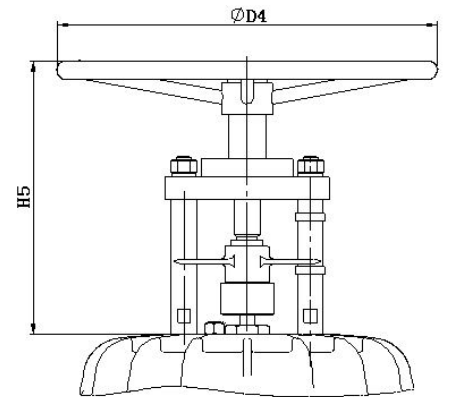
PA Series Linear Pneumatic Actuator



PA-190



PA-260

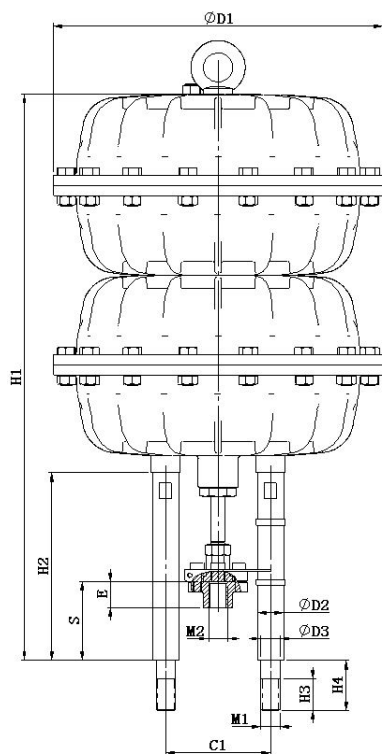


Hand Wheel

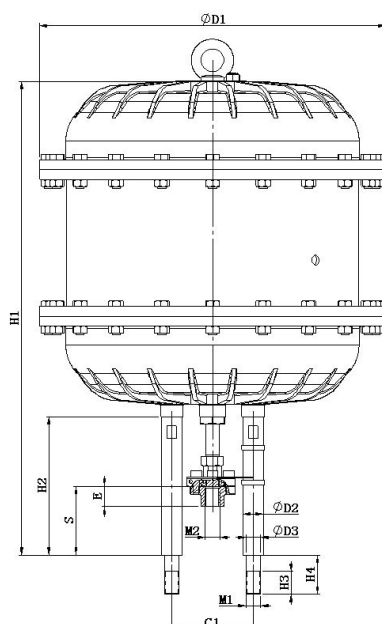
Dimension:

Model		PA-190				PA-260		
D1	(mm)	242				315		
D2	(mm)	20				25		
D3	(mm)	16				18		
C1	(mm)	100				100		
E Max.	(mm)	20				25		
H1*	(mm)	268	282	290	300	342	362	372
H2*	(mm)	128	142	150	160	150	170	180
H3	(mm)	38/40				42/44		
H4	(mm)	24/26				28/30		
M1	(mm)	16				18		
M2	(mm)	10/12/14				14/16/18		
*The construction heights H1 of the actuator units vary due to the different lengths of the columns H2. “S” changes based on the connection dimension of the stem in the globe valve.								
Hand wheel		PA-190				PA-260		
D4	(mm)	250				300		
H5	(mm)	210				240		

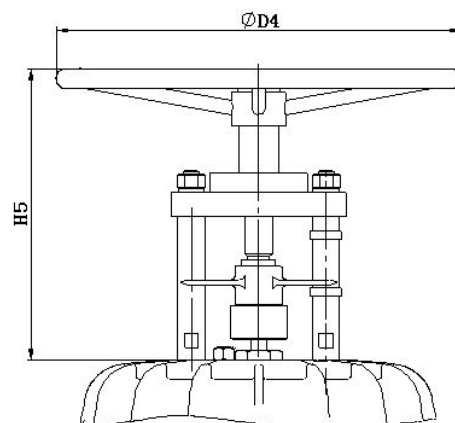
PA Series Linear Pneumatic Actuator



PA-260×2



PA-350×2



Hand wheel

Dimension:

Model		PA-260×2			PA-350×2		
D1	(mm)	315			425		
D2	(mm)	25			25		
D3	(mm)	18			18		
C1	(mm)	100			100		
E Max.	(mm)	25			25		
H1*	(mm)	515	535	545	572	587	597
H2*	(mm)	150	170	180	160	175	185
H3	(mm)	42/44			42/44		
H4	(mm)	28/30			28/30		
M1	(mm)	18			18		
M2	(mm)	14/16/18			16/18/20		
*The construction heights H1 of the actuator units vary due to the different lengths of the columns H2. “S” changes based on the connection dimension of the stem in the globe valve.							
Hand Wheel		PA-260×2			PA-350×2		
D4	(mm)	300			400		
H5	(mm)	240			275		

PA Series Linear Pneumatic Actuator

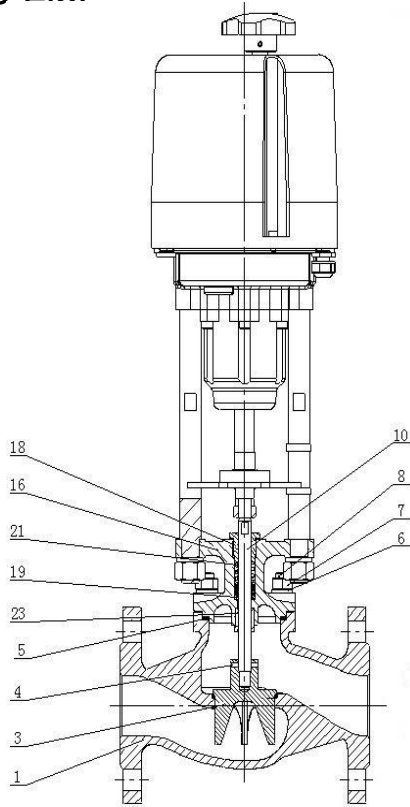
Air to Open			DN	15.0	20.0	25(PN64)	25.0	32.0	40.0	50.0	65.0	80.0	100.0	125.0	150.0	200.0	250.0
			NPT	1/2"	3/4"	1"	1 "	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
			Dia.(mm)	15.0	20.0	16.0	25.0	32.0	42.0	55.0	68.0	80.0	102.0	125.0	150.0	200.0	250.0
			Stroke(mm)	15.0	15.0	15.0	15.0	15.0	20.0	20.0	25.0	25.0	30.0	40.0	40.0	50.0	55.0
Model	Spring(mm)	Qty.	Closing Pressure(bar)														
PA-190	40*22*80	3	1.3	60.8	34.2	53.5	21.9	13.4	7.8	4.5							
		4	1.7	81.1	45.6	71.3	29.2	17.8	10.3	6.0							
		6	2.4	121.7	68.4	106.9	43.8	26.7	15.5	9.0							
	40*20*80	3	2.5	128.3	72.2	112.8	46.2	28.2	16.4	9.5	2.7						
		4	3.4	171.1	96.2	150.4	61.6	37.6	21.8	12.7	3.6						
		6	5.0		144.4	225.6	92.4	56.4	32.7	19.1	5.4						
	40*20*100	3	2.5			167.6	68.6	41.9	16.8	9.8	5.0	3.5					
		4	3.4				91.5	55.9	22.4	13.1	6.7	4.6					
		6	5.0				137.3	83.8	33.7	19.6	10.0	6.9					
	40*20*125	3	2.5				65.5	40.0	23.2	13.5	5.4	3.8					
		4	3.4				87.3	53.3	30.9	18.0	7.2	5.0					
		6	5.0				130.9	79.9	46.4	27.1	10.8	7.5					
PA-260	50*25*150	3	2.1					75.6	39.0	22.7	13.0	9.0	4.8				
		4	2.7					100.8	52.0	30.3	17.4	12.1	6.4				
		6	4.1					151.2	78.0	45.5	26.0	18.1	9.5				
	50*25*175	3	2.1						41.7	24.3	13.4	9.3	5.7				
		4	2.7						55.7	32.5	17.8	12.4	7.6				
		6	4.1						83.5	48.7	26.8	18.6	11.4				
PA-260*2	50*25*150	8	2.7						104.0	60.7	34.7	24.1	12.7	4.8	3.3		
		10	3.5						130.0	75.8	43.4	30.1	15.9	6.0	4.2		
		12	4.1						156.0	91.0	52.1	36.2	19.1	7.2	5.0		
	50*25*175	8	2.7						111.3	64.9	35.7	24.8	15.2	7.2	5.0		
		10	3.5						139.1	81.1	44.6	31.0	19.1	9.1	6.3		
		12	4.1						167.0	97.4	53.5	37.2	22.9	10.9	7.6		
PA-350*2	60*30*175	6	1.7							70.1	41.3	28.7	15.7	7.8	5.4		
		8	2.2							93.5	55.0	38.2	20.9	10.4	7.2		
		10	2.7							116.8	68.8	47.8	26.1	13.0	9.1		
		12	3.3							140.2	82.5	57.3	31.4	15.7	10.9		
	60*30*200	6	1.7							73.6	44.1	30.6	17.1	9.6	6.7	2.9	
		8	2.2							98.1	58.8	40.9	22.9	12.8	8.9	3.8	
		10	2.7							122.6	73.5	51.1	28.6	16.0	11.1	4.8	
		12	3.3							147.1	88.2	61.3	34.3	19.2	13.3	5.7	
	70*38.5*200	6	2.1								55.4	38.5	21.5	12.0	8.4	3.6	1.6
		8	2.7								73.8	51.3	28.7	16.0	11.1	4.8	2.1
		10	3.5								92.3	64.1	35.9	20.1	13.9	6.0	2.6
		12	4.1								110.8	76.9	43.0	24.1	16.7	7.2	3.2
	70*38.5*250	6	2.1									40.3	24.8	14.2	9.9	4.7	2.7
		8	2.7									53.8	33.1	19.0	13.2	6.2	3.6
		10	3.5									67.2	41.3	23.7	16.5	7.8	4.5
		12	4.1									80.6	49.6	28.4	19.8	9.3	5.4

PA Series Linear Pneumatic Actuator

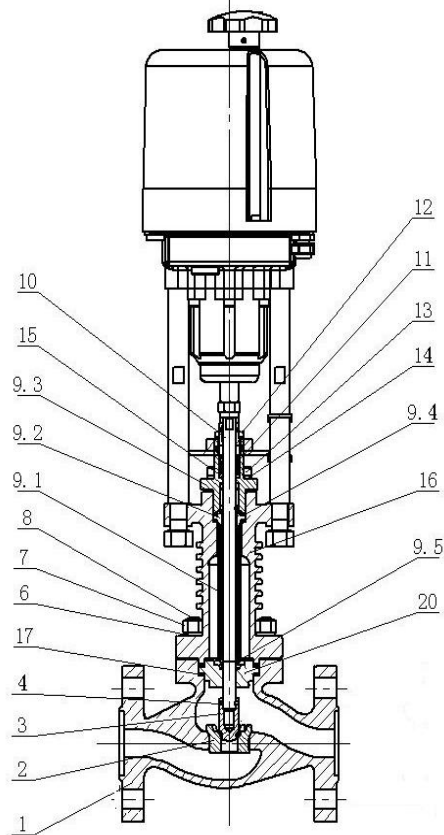
Air to Close			DN	15.0	20.0	25-64	25.0	32.0	40.0	50.0	65.0	80.0	100.0	125.0	150.0	200.0	250.0
			NPT	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
			Dia.(mm)	15.0	20.0	16.0	25.0	32.0	42.0	55.0	68.0	80.0	102.0	125.0	150.0	200.0	250.0
			Stroke(mm)	15.0	15.0	15.0	15.0	15.0	20.0	20.0	25.0	25.0	30.0	40.0	40.0	50.0	55.0
Model	Spring(mm)	Qty.	Air(bar)	Closing Pressure(bar)													
PA-190	40*22*80	3	3.0	238.4	134.1	209.5	85.8	52.4	27.5	16.0							
			4.1	370.4	208.3	325.5	133.3	81.4	44.4	25.9							
			5.2	502.4	282.6	441.6	180.9	110.4	61.2	35.7							
	40*20*100	3	3.0			130.2	53.3	32.6	14.0	8.2	3.5						
			4.1			246.2	100.9	61.6	30.9	18.0	9.9						
			5.2			362.3	148.4	90.6	47.7	27.8	16.3						
	40*20*125	3	3.0				75.9	46.3	23.0	13.4	7.3	3.5					
			4.1				123.4	75.3	39.8	23.2	13.7	8.2	4.4				
			5.2				170.9	104.3	56.7	33.0	20.1	12.8	7.2				
	50*25*150	3	3.0				183.1	111.7	59.8	34.9	20.9	15.1	8.4	4.5			
			4.1				273.0	166.7	91.7	53.5	33.0	23.9	13.8	8.1	5.6		
			5.2				363.0	221.6	123.5	72.0	45.2	32.6	19.2	11.7	8.1	4.1	
PA-260	50*25*175	3	3.0					116.3	63.2	36.8	22.4	16.2	9.2	5.2	3.6		
			4.1					171.2	95.0	55.4	34.6	25.0	14.6	8.8	6.1		
			5.2					226.1	126.9	74.0	46.8	33.8	20.0	12.4	8.6	4.4	
	50*25*150	6	3.0						119.6	69.7	41.7	30.2	16.8	8.9	6.2	2.6	
			4.1						183.3	106.9	66.1	47.7	27.6	16.1	11.2	5.4	
			5.2						247.1	144.1	90.4	65.3	38.4	23.3	16.2	8.2	
PA-260*2	50*25*175	6	3.0						126.3	73.7	44.9	32.4	18.5	10.3	7.2	3.3	
			4.1						190.1	110.8	69.2	50.0	29.3	17.5	12.2	6.1	3.6
			5.2						253.8	148.0	93.5	67.6	40.1	24.7	17.2	8.9	5.4
	60*30*175	6	3.0							149.1	92.8	67.0	39.1	23.2	16.1	8.0	4.7
			4.1							216.4	136.8	98.8	58.7	36.2	25.2	13.1	8.0
			5.2							283.8	180.9	130.7	78.3	49.3	34.2	18.1	11.3
PA-350*2	60*30*200	6	3.0							152.8	95.8	69.2	40.7	24.6	17.1	8.7	5.2
			4.1							220.1	139.8	101.0	60.3	37.7	26.2	13.7	8.5
			5.2							287.4	183.9	132.8	79.9	50.7	35.2	18.8	11.7
	70*38.5*200	6	3.0								88.7	64.1	37.1	21.6	15.0	7.2	4.2
			4.1								132.8	95.9	56.7	34.6	24.1	12.3	7.5
			5.2								176.8	127.8	76.3	47.7	33.1	17.4	10.8
	70*38.5*250	6	3.0									67.9	39.9	24.1	16.7	8.4	5.1
			4.1									99.7	59.5	37.1	25.8	13.5	8.3
			5.2									131.5	79.0	50.1	34.8	18.6	11.6

KT-28 Two Way Control Valve With Electric Actuator

Parts List



KT-28 without Bellows



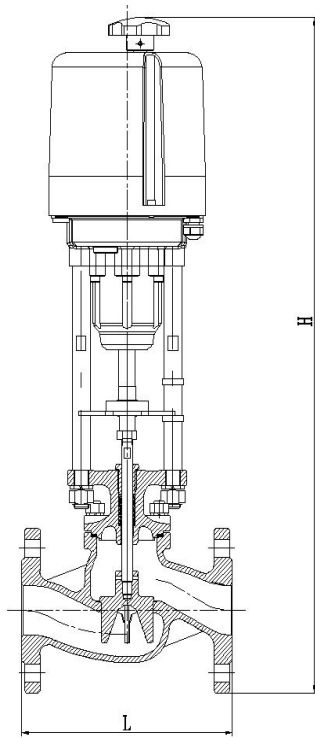
KT-28 with Bellows

No.	Name	Material
1	Valve Body	ASTM A351 CF8 / ASTM A216 WCB
2	Valve Seat	A249 TP304
3	Plug	ASTM A351 CF8 / A180 F304
4	Round Pin	A182 F304
5	Spiral Wound Gasket	A182 F304+graphite
6	Spring Washer	A182 F304 / SA1035
7	Hexagon Nut	A182 F304
8	Double End Stud	ASTM A193M-B7 / A194-B8
9.1	Bellows	AISI 316Ti
9.2	Gasket	Pure Graphite
9.3	Packing Box	A182 F304
9.4	Washer	Pure Graphite
9.5	Weld Joint	A182 F304
10	Stem	ASTM 431
11	Packing	Pure Graphite
12	Gland Nut	Brass
13	Hexagon Screw	ASTM A193M-B8
14	Spring Washer	ASTM A194-8
15	Washer	Brass
16	Bonnet	ASTM A351 CF8 / ASTM A216 WCB
17	Spiral Wound Gasket	A182 F304+pure Graphite
18	Gland Nut	Brass
19	V-ring	PTFE
20	Guiding Plate	ASTM 5140 40Cr
21	Spring	A182 F304
23	Bushing	A182 F304

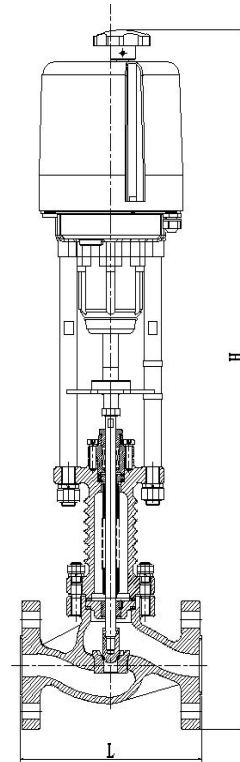
Remark: Other materials on request.

KT-28 Two Way Control Valve With Electric Actuator

Dimension and Weight



KT-28 without Bellows



KT-28 with Bellows

DN					15	20	25	32	40	50	65	80	100	125	150
PN10/ PN16	L (mm)				130	150	160	180	200	230	290	310	350	400	480
	KT-28 without Bellows	TAS/TAM	H	mm	582.5	627.5	687.5	740	738	760.5	789.5	888	914	941	-
			W	kg	12	13	14	17	19	22	34	42	47	57	-
	KT-28 with Bellows	TAS/TAM	H	mm	611.9	657.5	719.9	775	775.8	802.8	836.3	949.8	979.4	1007.3	-
			W	kg	13	14	15	18	21	24	37	46	52	63	-
PN25	KT-28 without Bellows	TAS/TAM	H	mm	582.5	627.5	687.5	740	738	760.5	789.5	888	921.5	-	-
			W	kg	12	13	14	17	19	22	34	42	47	-	-
	KT-28 with Bellows	TAS/TAM	H	mm	611.9	657.5	719.9	775	775.8	802.8	836.3	949.8	986.9	-	-
			W	kg	13	14	15	18	21	24	37	46	52	-	-
PN40	KT-28 without Bellows	TAS/TAM	H	mm	582.5	627.5	687.5	740	738	760.5	789.5	888	-	-	-
			W	kg	12	13	14	17	19	22	34	42	-	-	-
	KT-28 with Bellows	TAS/TAM	H	mm	611.9	657.5	719.9	775	775.8	802.8	836.3	949.8	-	-	-
			W	kg	13	14	15	18	21	24	37	46	-	-	-
NPT					1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"
ANSI 150	KT-28 without Bellows	TAS/TAM	H	mm	579.5	624	684	729	726.5	754	786	883	918.5	-	-
			W	kg	11	12	13	16	18	20	31	37	42	-	-
	KT-28 with Bellows	TAS/TAM	H	mm	608.9	654	716.4	764	764.3	796.3	832.8	944.8	983.9	-	-
			W	kg	11	12	14	17	19	21	34	41	47	-	-
ANSI 300	KT-28 without Bellows	TAS/TAM	H	mm	579.5	624	684	729	726.5	754	786	883	-	-	-
			W	kg	11	12	13	16	18	20	31	37	-	-	-
	KT-28 with Bellows	TAS/TAM	H	mm	608.9	654	716.4	764	764.3	796.3	832.8	944.8	-	-	-
			W	kg	11	12	14	17	19	21	34	41	-	-	-

Remark: Above datas are for Standard Material WCB, other materials and pressure ratings on request.

TAM Series Linear Electric Actuator

Features:

1. Brushless DC motor with three levels speed adjusting function according to different applications, ensures high level of applicability and reliability.
2. Intelligent configuration with two ways communication. Analogue input signal of 4-20 mA or ON/OFF (please specify when ordering) from the instruments is acceptable, in order to carry out 0-100% valve stroke correspondingly. Feedback signal of 4-20 mA can be sent out simultaneously for effective valve's position monitoring.
3. Four characters LED panel displays the actual position of the valve. Travel limits or input signal can be set up easily, which minimizes overshooting effectively and provides dependable and high accuracy control.
4. Self diagnostic alarm system offers protection against motor overheating, travel overshooting, thrust limiting and instantaneous travel reversal. Operation records can be provided for easy maintenance.
5. Fail-safe function operates the valve towards preset position in case of input signal failure, thus safety is guaranteed.
6. Resilient coupling ensures tight valve closure.
7. An easy to operate and reliable manual override hand wheel provides emergency closing or opening of the valve in case of power failure.
8. Housing meets IP65 requirements which can be used in rugged industrial environments.



TAM Series Linear Electric Actuator



Technical Data

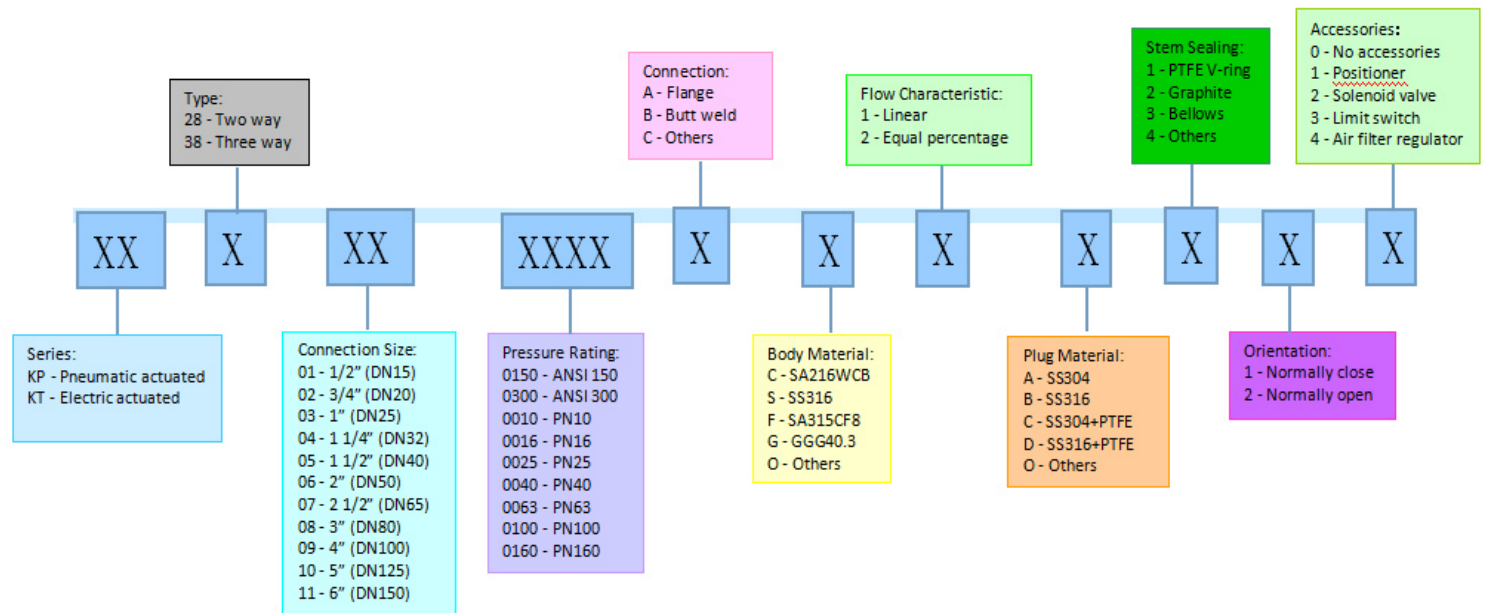
Model	TAM-02	TAM-03	TAM-04	TAM-06	TAM-08	TAM-10	TAM-12	TAM-14	TAM-16	TAM-20	TAM-25
Thrust (kN)	2	3	4	6	8	10	12	14	16	20	25
Operating Speed,3 levels switchable(mm/s)	0.12/0.25 / 0.38 / 0.5			0.17/0.35 / 0.53 / 0.7			0.22/0.45 / 0.67 / 0.9			0.27/0.55 / 0.83 / 1.1	
Stroke (mm)	50					80					
Power Supply	AC 110V 50/60 Hz / AC 220V 50/60 Hz / DC 24V (If Other Range is needed, please enquire)										
Power Consumption (W)	7.5			16			38			106	
Torque Switch	2 pcs, fixed exchange capacity 10A 250V										
Travel Switch	2 pcs, fixed exchange capacity 10A 250V										
Input Signal	4 - 20 mA, the input of the load impedance <100 Ω (If other range is needed, please enquire)										
Output Signal	4 - 20 mA, the input of the load impedance ≤350 Ω (If other range is needed, please enquire)										
Signal of Ptentiometer	0 - 1 kΩ										
Max. Transistor Output	30 VDC, 30 mA										
Sensitivity (%)	0.1 - 5										
Lagging	50 % of sensitivity										
Communication Protocol	RS485 Modbus (If other range is needed, please enquire)										
Max. Cable Diameter (mm)	8										
Enclosure EN60529	IP65										
Ambient Temp.	-20 ℃ to +60℃										

Electric Actuator Selection

Model	DN	15	20	25(PN64)	25	32	40	50	65	80	100	125	150	200	250
	NPT	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
	Dia.(mm)	15.0	20.0	16.0	25.0	32.0	42.0	55.0	68.0	80.0	102.0	125.0	150.0	200.0	250.0
	Travel(mm)	15.0	15.0	15.0	15.0	15.0	20.0	20.0	25.0	25.0	30.0	40.0	40.0	50.0	55.0
	Thrust(KN)	Closing Pressure (bar)													
TAM-02	2.0	90.6	51.0	79.6	32.6	19.9	11.6	6.7	4.4						
TAM-03	3.0	135.9	76.4	119.4	48.9	29.9	17.3	10.1	6.6	4.6					
TAM-04	4.0	181.2	101.9	159.2	65.2	39.8	23.1	13.5	8.8	6.1					
TAM-06	6.0		152.9	238.8	97.8	59.7	34.7	20.2	13.2	9.2	5.6				
TAM-08	8.0				130.4	79.6	46.2	26.9	17.6	12.2	7.5	5.0			
TAM-10	10.0					99.5	57.8	33.7	22.0	15.3	9.4	6.3			
TAM-12	12.0					119.4	69.3	40.4	26.4	18.4	11.3	7.5	5.2		
TAM-14	14.0						80.9	47.2	30.9	21.4	13.2	8.8	6.1		
TAM-16	16.0						92.4	53.9	35.3	24.5	15.1	10.0	7.0	3.9	
TAM-20	20.0							67.4	44.1	30.6	18.8	12.5	8.7	4.9	3.1
TAM-25	25.0							84.2	55.1	38.2	23.5	15.7	10.9	6.1	3.9

KP-28 & KT-28 Two Way Control Valve

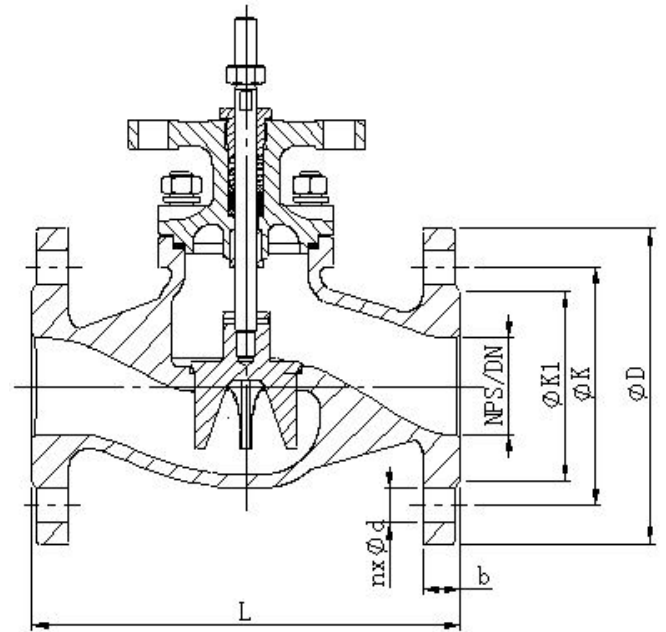
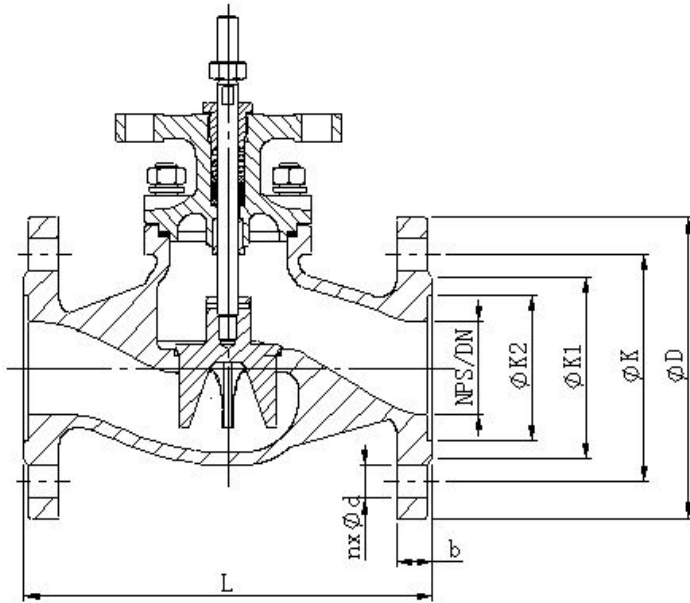
Product Configuration



Pressure-temperature rating according to DIN EN1092-1/2, ASME16.34 and manufacturers standard

Material	DIN	ASME				EN	GB	JIS	Applicable Temp. °C	Applicable Pressure kgf	Applicable Media
	Casting	Casting		Forging		Casting	Casting	Forging			
		Spec.	Grade	Spec.	Grade						
Carbon Steel	1.0619	ASTM A 261	WCB	A105			WCB	SCPH2	-29 to +425°C	≤ 320	Non-Corrosive
	1.7357	ASTM A 217	WC6	A182	F11		WC6	G5151-SCPH21	-29 to +540°C		
	1.7380	ASTM A 217	WC9	A182	F12		WC9	G5151-SCPH32	-29 to +570°C		
Ductile Iron	GGG-40	ASTM A 536	60-40-18			EN-GJS400-18	QT400-18	FCD400	-30 to +350°C	≤ 40	Non-Corrosive
	GGG-50	ASTM A 536	65-45-12			EN-GJS450-10	QT450-18	FCD450	-30 to +350°C		
Stainless Steel	1.4308	ASTM A 351	CF8		F304		ZG0Cr18Ni9	SUS304	-254 to +800°C	≤ 160	Corrosive
	1.4408	ASTM A 351	CF8M		F316		ZG0Cr17Ni12Mo2	SUS316	-254 to +540°C		
	1.4571	ASTM A 959	316 Ti				ZG0Cr18Ni12Mo2Ti	SUS316 Ti	-254 to +540°C		
Duplex Steel	1.4462	ASTM A 240	S31803				ZG03Cr26Ni5Mo3N	DP8	-29 to +815°C	≤ 320	Corrosive
	1.4507	ASTM A 240	32750				ZG00Cr25Ni6Mo3CuN	UR52N+	-29 to +650°C		

KP-28 & KT-28 Two Way Control Valve



ANSI Standard Installation Dimensions

Unit: mm

NPT		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
ANSI150	D	89	98	108	118	127	152	178	190	229	254	279	343	406
	K	60.5	70	79.5	89	98.5	120.5	139.5	152.5	190.5	216	241.5	298.5	362
	K1	35	43	51	63.5	73	92	105	127	157	186	216	270	324
	n-d	4-16	4-16	4-16	4-16	4-16	4-19	4-19	4-19	8-19	8-23	8-23	8-23	12-25
	b	11	13	14	16	18	19	24	24	24	24	25	29	30
	L	108	117	127	140	165	203	216	241	292	356	406	495	622
ANSI300	D	95	117	124	133	156	165	191	210	254	279	318	381	445
	K	66.5	82.5	89	98.4	114.5	127	149	168	200	235	270	330	387.5
	K1	35	43	51	64	73	92	105	127	157	186	216	270	324
	n-d	4-16	4-19	4-19	4-19	4-22	8-19	8-23	8-23	8-23	8-23	12-23	12-25	16-30
	b	14	16	17	19	21	22	25	29	32	35	37	41	48
	L	152	178	203	216	229	267	292	318	356	400	444	559	622
ANSI600	D	95	117	124	133	156	165	191	210	273	330	356	420	508
	K	66.5	82.5	89	98.4	114.5	127	149	168	216	267	292	349	432
	K1	35	43	51	64	73	92	105	127	157	186	216	270	324
	n-d	4-16	4-19	4-19	4-19	4-22	8-19	8-22	8-22	8-26	8-29	12-29	12-32	16-35
	b	14	16	17.5	21	22	25.5	28.5	32	38	44.5	47.5	55.5	63.5
	L	165	190	216	229	241	292	330	356	432	508	559	660	787

KP-28 & KT-28 Two Way Control Valve

GB / DIN Standard Installation Dimensions

Unit: mm

DN		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250
PN10	D	95	105	115	140	150	165	185	200	220	250	285	340	395
	K	65	75	85	100	110	125	145	160	180	210	240	295	350
	K1	45	58	68	78	88	102	122	138	158	188	212	266	319
	n-d	4-14	4-14	4-14	4-18	4-18	4-18	4-18	8-18	8-18	8-18	8-22	8-22	12-22
	b	14	16	16	18	18	20	20	20	22	22	24	24	26
	L	130	150	160	180	200	230	292	312	352	400	480	600	730
PN16	D	95	105	115	140	150	165	185	200	220	250	285	340	395
	K	65	75	85	100	110	125	145	160	190	220	250	295	350
	K1	45	58	68	78	88	102	122	138	158	188	212	266	319
	n-d	4-14	4-14	4-14	4-18	4-18	4-18	4-18	8-18	8-22	8-26	8-26	12-22	12-26
	b	14	16	16	18	18	20	20	20	22	22	24	24	26
	L	130	150	160	180	200	230	292	312	352	400	480	600	730
PN25	D	95	105	115	140	150	165	185	200	235	270	300	360	425
	K	65	75	85	100	110	125	145	160	190	220	250	310	370
	K1	45	58	68	78	88	102	122	138	162	188	218	274	330
	n-d	4-14	4-14	4-14	4-18	4-18	4-18	8-18	8-18	8-22	8-26	8-26	12-26	12-30
	b	14	16	16	18	18	20	22	24	24	26	28	30	32
	L	130	150	160	180	200	230	292	312	352	400	480	600	730
PN40	D	95	105	115	140	150	165	185	200	235	270	300	375	450
	K	65	75	85	100	110	125	145	160	190	220	250	320	385
	K1	45	58	68	78	88	102	122	138	162	188	218	285	345
	n-d	4-14	4-14	4-14	4-18	4-18	4-18	8-18	8-18	8-22	8-26	8-26	12-30	12-33
	b	16	18	18	18	18	20	22	24	24	26	28	34	38
	L	130	150	160	180	200	230	292	312	352	400	480	600	730
PN63	D	105	130	140	155	170	180	205	215	250	295	345	415	470
	K	75	90	100	110	125	135	160	170	200	240	280	345	400
	K1	46	56	65	76	84	99	118	132	156	184	211	284	345
	K2	40	51	58	66	76	88	110	121	150	176	204	260	313
	n-d	4-14	4-18	4-18	4-22	4-22	4-22	8-22	8-22	8-26	8-30	8-33	12-36	12-36
	b	20	20	24	24	26	26	26	28	30	34	36	42	46
	L	165	190	216	229	241	292	330	356	432	508	559	660	787
PN100	D	105	130	140	155	170	195	220	230	265	315	355	430	505
	K	75	90	100	110	125	145	170	180	210	250	290	360	430
	K1	46	56	65	76	84	99	118	132	156	184	211	284	345
	K2	40	51	58	66	76	88	110	121	150	176	204	260	313
	n-d	4-14	4-18	4-18	4-22	4-22	4-26	8-26	8-26	42246	8-33	12-33	12-36	12-39
	b	20	20	24	24	26	28	30	32	36	40	44	52	60
	L	165	190	216	229	241	292	330	356	432	508	559	660	787
PN160	D	105	130	140	155	170	195	220	230	265	315	355	430	515
	K	75	90	100	110	125	145	170	180	210	250	290	360	430
	K1	46	56	65	76	84	99	118	132	156	184	211	284	345
	K2	40	51	58	66	76	88	110	121	150	176	204	260	313
	n-d	4-14	4-18	4-18	4-22	4-22	4-26	8-26	8-26	8-30	8-33	12-33	12-36	12-42
	b	26	30	32	34	36	38	42	46	52	56	62	66	76
	L	216	229	254	279	305	368	419	381	457	559	610	737	838

KP-28 & KT-28 Two Way Control Valve

Pressure-Temperature Rating Table

Material	$\begin{matrix} P(\text{bar}) & T(^{\circ}\text{C}) \\ \text{Press. Rat.} & \end{matrix}$	(-20~38	50	100	150	200	250	300	350	375	400	425	450	475	500	510	520	530	540	550	575
WCB	PN10	10.0	10.0	10.0	9.7	9.4	9.0	8.3	7.9	7.7	6.7	5.5									
	PN16	16.0	16.0	16.0	15.6	15.1	14.4	13.4	12.8	12.4	10.8	8.9									
	PN25	25	25	25	24.4	23.7	22.5	20.9	20	19.4	16.9	14									
	PN40	40	40	40	39.1	37.9	36	33.5	31.1	31.1	27	22.4									
	PN63	63	63	63	61.5	59.6	56.8	52.7	50.3	49	42.5	35.2									
	PN100	100	100	100	97.7	94.7	90.1	83.6	79.8	77.8	67.5	55.9									
	PN160	160	160	154	150	140	135	131	120	116	113	109									
	ANSI 150	19.6	19.2	17.7	15.8	14	12.1	10.2	8.4	7.4	6.5	5.5									
	ANSI 300	51.1	50.1	46.6	45.1	43.8	41.9	38.7	37	36.4	34.7	28.8									
	ANSI 600	102.1	100	93.2	90.2	87.6	83.9	79.6	75.1	72.7	69.4	57.5									
WC6	PN10	10.0	10.0	10.0	10.0	10.0	10.0	9.72	9.4	9.2	9.0	8.8	8.6	6.8	4.9	4.2	3.7	3.2	2.8		
	PN16	16.0	16.0	16.0	16.0	16.0	16.0	15.5	15.0	14.8	14.5	14.1	13.8	11.0	7.9	6.8	6.0	5.2	4.5		
	PN25	25	25	25	25	25	25	24.3	23.5	23.1	22.7	22.1	21.5	17.1	12.5	10.7	9.4	8.2	7.0		
	PN40	40	40	40	40	40	40	38.9	37.6	36.9	36.2	35.4	34.5	27.4	19.9	17.1	15.1	13.1	11.3		
	PN63	63	63	63	63	63	61.2	59.2	58.1	57.1	55.7	54.3	43.2	31.4	26.9	23.8	20.7	17.8	15.6		
	PN100	100	100	100	100	100	100	97.2	94	92.3	90.6	88.4	86.2	68.6	49.9	42.7	37.8	32.8	28.2		
	PN160	160	160	160	160	160	160	155	154	152	151	149	141	128	96.5	77.2	68.9	60.5	56.8		
	ANSI 150	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.3	19.3	19	18.1	16.4	12.3	7.1					
	ANSI 300	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.5	50.6	50.3	49.6	47.3	42.8	32.2	18.6					
	ANSI 600	103.4	103	103	103	103	103	103	103	101	101	99.3	94.4	85.5	64.3	37.2					
WC9	PN10	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.9	9.7	9.5	7.3	5.5	5.0	4.4	3.9	3.4	2.9	2
	PN16	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	15.9	15.6	15.3	11.7	8.9	8.0	7.1	6.2	5.4	4.7	3.2
	PN25	25	25	25	25	25	25	25	25	25	24.8	24.4	23.9	18.3	14	12.6	11.2	9.8	8.5	7.4	5.1
	PN40	40	40	40	40	40	40	40	40	40	39.7	39	38.3	29.2	22.3	20.2	18.0	15.7	13.6	12	8.1
	PN63	63	63	63	63	63	63	63	63	63	62.5	61.5	60.3	46	35.2	31.9	28.3	24.8	21.4	18.8	13
	PN100	100	100	100	100	100	100	100	100	100	99.2	97.6	95.6	73.1	55.9	50.6	44.9	39.3	34.0	29.9	21
	PN160	160	160	160	160	160	160	160	157	156	153	151	150	139	110	95.1	84.7	75.0	63.5	46.9	32
	ANSI 150	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.3	19.3	19	18.1	16.4	13.7	8.8	7.5	5.0			
	ANSI 300	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.5	50.6	50.3	49.6	47.3	42.8	35.6	23.0	19.5	13.2			
	ANSI 600	103.4	103	103	103	103	103	103	103	101	101	99.3	94.4	85.5	71.5	46.1	39.1	26.3			

KP-28 & KT-28 Two Way Control Valve

Pressure-Temperature Rating Table

Material	P (bar) Press. Rat.	$T(^{\circ}C)$ (-20~38)	50	100	150	200	250	300	350	375	400	425	450	475	500	510	520	530	540	550	575
CF8	PN10	9.1	8.8	7.5	6.8	6.3	6.0	5.6	5.4	5.4	5.2	5.1	5.0	4.9	4.9						
	PN16	14.7	14.2	12.1	11.0	10.2	9.6	9.0	8.7	8.6	8.4	8.2	8.1	7.9	7.8						
	PN25	23	22.1	18.9	17.2	16	15	14.2	13.7	13.5	13.2	12.9	12.7	12.5	12.3						
	PN40	36.8	35.4	30.3	27.5	25.5	24.1	22.7	21.9	21.6	21.2	20.6	20.3	19.9	19.6						
	PN63	57.9	55.8	47.7	43.4	40.2	37.9	35.8	34.5	34	33.3	32.5	31.9	31.4	30.3						
	PN100	91.9	88.6	75.7	68.8	63.9	60.2	56.8	54.7	54	52.9	51.6	50.7	49.9	49.1						
	PN160	154.6	151.1	148.9	143.5	122.6	111	103.4	92.7	90.7	88.9	87.1	85.3	84	82.2						
	ANSI 150	19	18.3	15.7	14.2	13.2	12.1	10.2	8.4	7.4	6.5	5.5	4.6	3.7	2.8						
	ANSI 300	49.6	47.8	40.9	37	34.5	32.5	30.9	29.6	29	28.4	28	27.4	26.9	26.5						
	ANSI 600	99.3	95.6	81.7	74	69	65	61.8	59.3	58.1	56.9	56	54.8	53.9	48.9						
CF8M	PN10	9.1	8.9	7.8	7.1	6.6	6.1	5.8	5.6	5.5	5.4	5.4	5.3	5.3	5.2						
	PN16	14.7	14.3	12.5	11.4	10.6	9.8	9.3	9.0	8.8	8.7	8.6	8.5	8.5	8.4						
	PN25	23	22.3	19.5	17.8	16.5	15.5	14.6	14.1	13.8	13.2	13.6	13.5	13.4	13.3						
	PN40	36.8	35.6	31.3	28.5	26.4	24.7	23.4	22.6	22.1	21.8	21.6	21.4	21.2	21						
	PN63	57.9	56.1	49.2	44.9	41.6	38.9	36.9	35.5	34.9	34.4	34	33.7	33.5	33.2						
	PN100	91.9	89.1	78.1	71.3	66	61.8	58.5	56.4	55.3	54.5	54	53.4	53.1	52.6						
	PN160	157.8	153.0	134.2	122.2	113.4	106.0	100.6	98.3	96.5	93.6	92.6	91.7	91.2	89.8						
	ANSI 150	19	18.4	16.2	14.8	13.7	12.1	10.2	8.4	7.4	6.5	5.5	4.6	3.7	2.8						
	ANSI 300	49.6	48.1	42.2	38.5	35.7	33.4	31.6	30.3	29.9	29.4	29.1	28.8	28.7	28.2						
	ANSI 600	99.3	96.2	84.4	77	71.3	66.8	63.2	60.7	59.8	58.9	58.3	57.7	57.3	56.5						
QT400-18	10	10	10	10	9.7	9	8.7	8	7												
	16	16	16	16	15.5	14.4	13.9	12.8	11.2												

Cv-Kv Value

Diameter		ON-OFF type		Equal Percentage	
NPT	DIN	CV	KV	CV	KV
1/2"	DN15	2.57	2.20	2.57	1.25
3/4"	DN20	5.92	5.07	5.92	2.89
1"	DN25	15.49	13.27	15.49	7.57
1 1/4"	DN32	22.77	19.51	22.77	11.12
1 1/2"	DN40	57.05	48.89	57.05	27.86
2"	DN50	83.68	71.71	83.68	40.87
2 1/2"	DN65	91.48	78.39	91.48	44.68
3"	DN80	143.50	122.97	143.50	70.09
4"	DN100	193.86	166.12	193.86	94.69
5"	DN125	354.71	303.95	354.71	173.25
6"	DN150	449.13	384.86	449.13	219.37
8"	DN200	689.53	590.86	689.53	336.79

Note:

1. Valves' class rating ,face-face dimension ,height and actuator type doesn't affect the CV value.
2. All the statistics are based on water as fluid media.



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