VARIMÄX

High Performance Globe Control Valve

Fluid Control For Sustainable Future

KEYVALVE

Fig.350P(KP-38) 350E(KT-38)
Three Way Control Valve
Technical Manual

KP-38
Fig.350P

KT-38
Fig.350E

Features

1. Modulating and open/close functions with electric or pneumatic actuators and others for selection.

2. Compact design and trim structure equipped with mixing and diverting plug, allow high flow rate and precise flow control characteristic. Plug surface with alloy hardening to ensure tight sealing and long lifespan.

3. Polished stem with maintenance free PTFE V-ring provides a reliable and long lasting leakage free protection. Bellows coupled with graphite packing can be applied according to customer operating requirements.

Fig.350P(KP38) 350E(KT-38) Three Way Control Valve

Technical data		
Model	Nominal diameter	Nominal pressure
KP-38/KT-38	DN15 - DN150	PN10 - PN160
	Other sizes and pressure ratings on request	
Body material		
KP-38/KT-38	Ductile Iron GGG-40.3 / EN-GJS-400-18	
	Other materials on request	
Plug design		
KP-38/KT-38	Mixing plug, metal seat	
	Diverting plug, metal seat	

Flow characteristic	
KP-38/KT-38	Linear

Stem sealing	
KP-38/KT-38	PTFE V-ring unit -25℃ to 250℃
	Pure graphite packing -60℃ to 650℃
	Stainless steel bellows seal -60℃ to 530℃
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, oleo-chemical, palm oil refinery, shipbuilding, etc.

Selection of possible flow media:

KP-38/ KT-38 without bellows: cooling water, cooling brine, warm water, hot water, steam, gas, etc.

KP-38/ KT-38 with bellows: Refrigerant, thermal oil, gas, specified chemicals etc.

(other flow media on request)

Fig.350P(KP38) 350E(KT-38) Three Way Control Valve

Stem Sealing

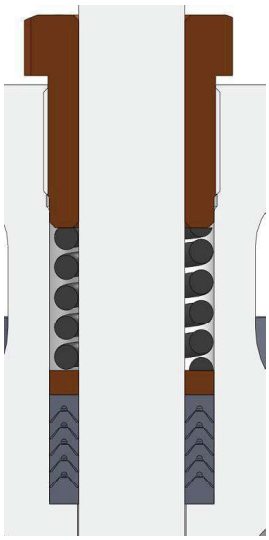
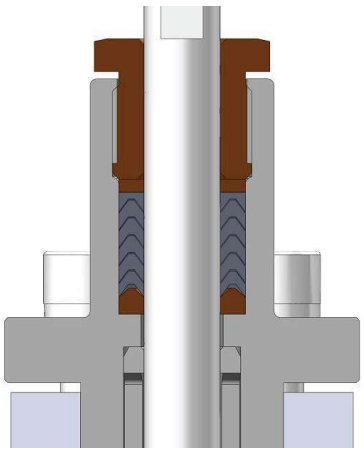
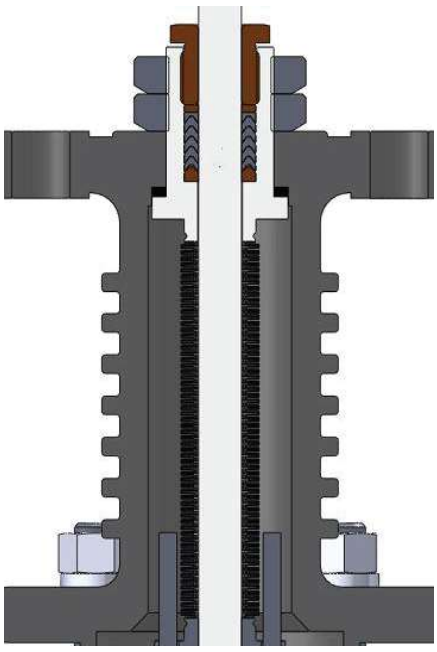
1. 	Spring Loaded PTFE V-ring Operating Temp：-25℃ to +250℃	Media: Water Steam Gas
2. 	Pure Graphite Operating Temp：-60℃ to +650℃	Media: Superheated Steam High Temp. Gases
3. 	Stainless Stell Bellows Seal with Pure Graphite Packing Operating Temp：-60℃ to +530℃	Media: Chemical Toxic Medium Explosove Medium Hot oil

Fig.350P(KP38) 350E(KT-38) Three Way Control Valve

Plug

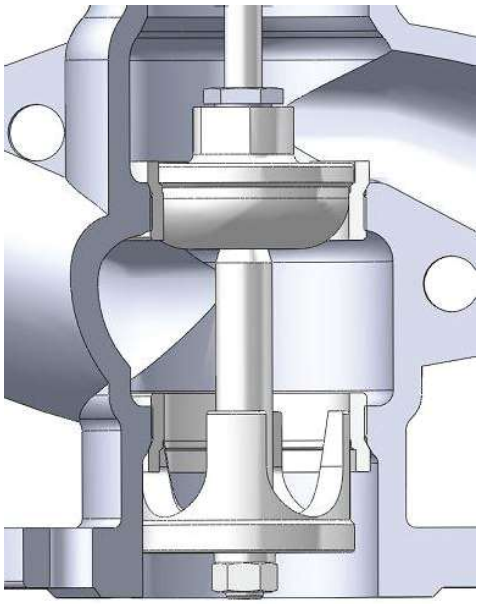
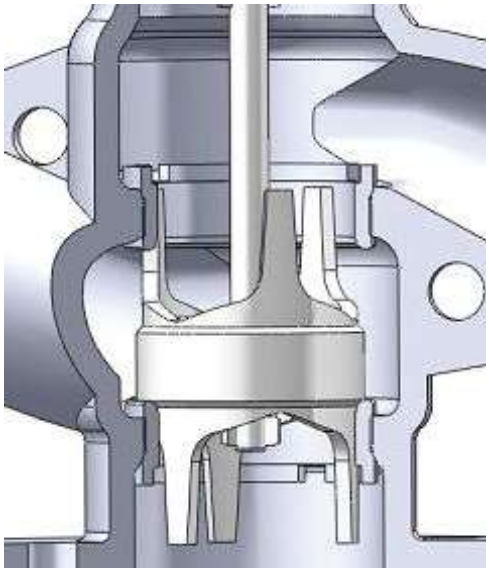
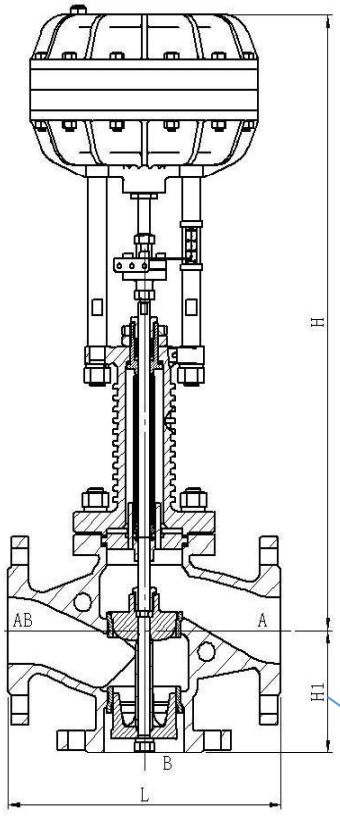
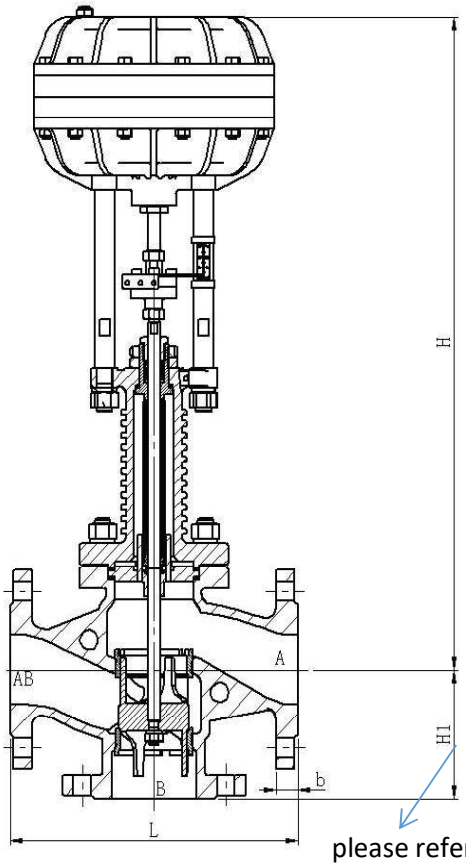
Diverting	1.Diverting the meadiun form one way into to ways; 2.Regulating the temperature of the medium through the valve to make the temperature difference less than 150℃; 3. The leakage class IV, according to ANSI/FCI 70-2.	
Mixing	1.Mixing two kinds of medium into third medium; 2.Regulating the temperature of the medium through the valve to make the temperature difference less than 150℃; 3. The leakage class IV, according to ANSI/FCI 70-2.	

Fig.350P(KP-38) Three Way Control Valve With Pneumatic Actuator

Size and Weight



please refer to p.15



please refer to p.15

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
	KP-38 without Bellows	PA-190	H	mm	339	341	360	370	395	410	442	504	566	-	-
			Weight	kg	10	11	13	15	18	22	32	41	50	-	-
		PA-260	H	mm	416	418	437	447	472	487	502	559	575	598	615
			Weight	kg	26	27	29	31	35	40	51	58	66	81	111
		PA-350	H	mm	550	552	571	581	606	621	636	693	709	732	749
			Weight	kg	43	44	47	49	54	60	71	79	86	104	135
		PA-350x2	H	mm	598	600	619	629	654	669	684	741	777	805	837
			Weight	kg	76	79	80	83	87	91	101	109	116	130	161
	KP-38 with Bellows	PA-190	H	mm	368	371	392	405	433	452	489	566	631	-	-
			Weight	kg	10	12	14	17	19	24	36	46	56	-	-
		PA-260	H	mm	445	448	469	482	510	529	549	621	640	664	686
			Weight	kg	26	28	30	33	37	42	54	63	72	89	123
		PA-350	H	mm	579	582	603	616	644	663	683	755	774	798	820
			Weight	kg	43	45	48	51	56	62	75	84	92	112	147
		PA-350x2	H	mm	627	630	651	664	692	711	731	803	842	871	908
			Weight	kg	77	79	81	85	89	93	104	114	122	138	173

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

PA Series Linear Pneumatic Actuator

PA-190, Diameter 190mm, area 280 cm^2

PA-260, Diameter 260mm, area 530 cm^2

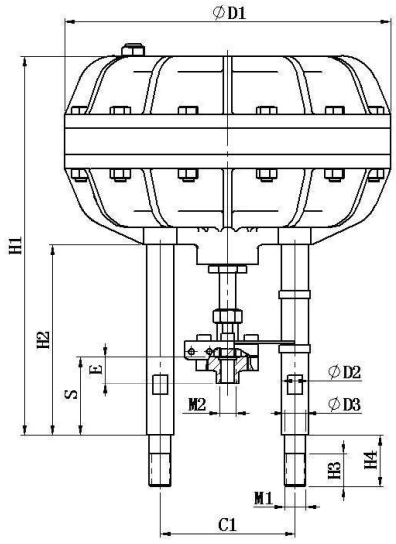
PA-350, Diameter 350mm, area 960 cm^2

PA-260 H, Diameter 260mm, area 530 cm^2

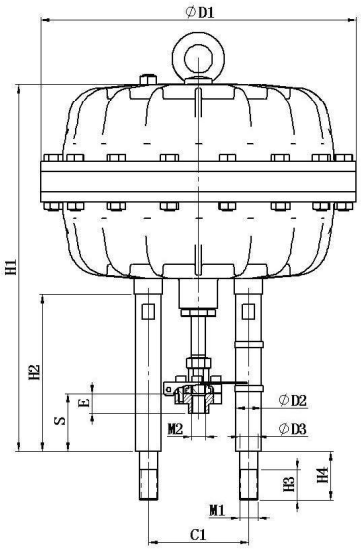
PA-260 x 2 H, Diameter 260mm, area 1060 cm^2

PA-350 x 2 H, Diameter 350mm, area 1980 cm^2

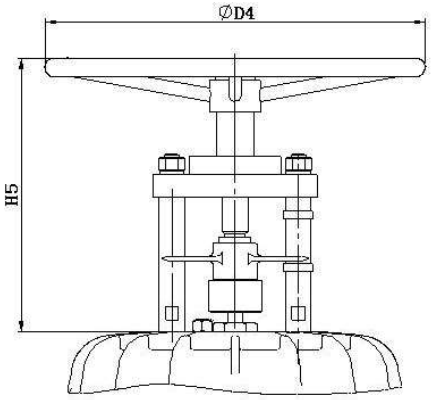
PA Series Linear Pneumatic Actuator



PA-190



PA-260

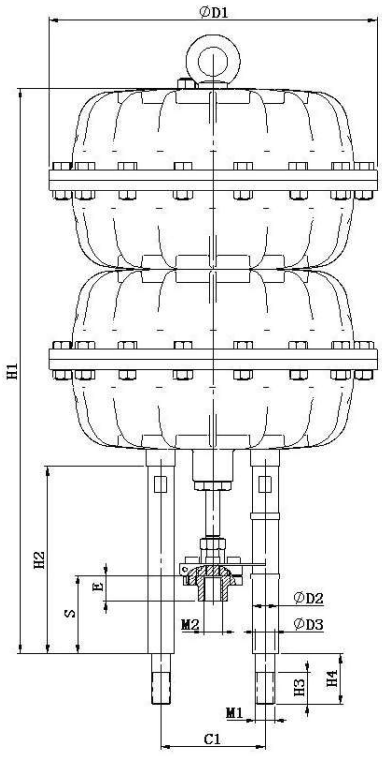


Hand Wheel

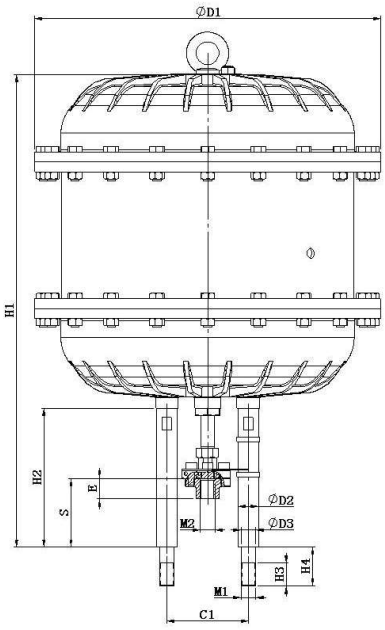
Dimension:

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		

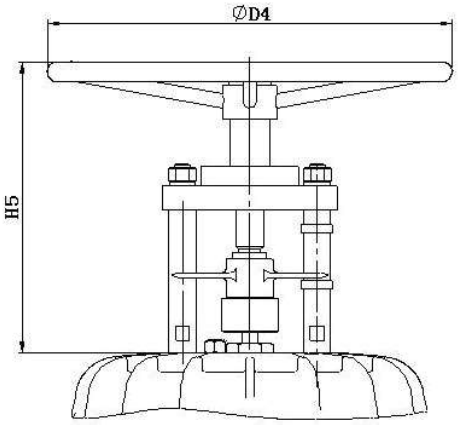
PA Series Linear Pneumatic Actuator



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		

Fig.350P(KP-38) Three Way Control Valve With Pnematic Actuator

Air-Closing Pressure (P)

Unit: bar

Closing Pressure		DN	15.0		20.0		25 (PN64)		25.0		32.0		40.0		50.0		65.0		80.0	
		Dia.(mm)	15.0		20.0		16.0		25.0		32.0		42.0		55.0		68.0		80.0	
		Stroke(mm)	15.0		15.0		15.0		15.0		15.0		20.0		20.0		25.0		25.0	
Model	Spring	Qty.	Air	P	Air	P	Air	P	Air	P	Air	P	Air	P	Air	P	Air	P	Air	P
PA-190	40*22*80	3	1.7	60.8	1.7	34.2	1.7	53.5	1.7	21.9	1.7	13.4	1.8	7.8	1.8	4.5				
		4	2.2	81.1	2.2	45.6	2.2	71.3	2.2	29.2	2.2	17.8	2.4	10.3	2.4	6.0				
		6	3.1	121.7	3.1	68.4	3.1	106.9	3.1	43.8	3.1	26.7	3.6	15.5	3.6	9.0				
	40*20*80	3	3.4	128.3	3.4	72.2	3.4	112.8	3.4	46.2	3.4	28.2	3.8	16.4	3.8	9.5				
		4	4.5	171.1	4.5	96.2	4.5	150.4	4.5	61.6	4.5	37.6	5.0	21.8	5.0	12.7				
		6							4.2	39.6	4.2	24.2	5.0	14.0	5.0	8.2				
	40*20*100	3							4.2	68.6	4.2	41.9	3.5	16.8	3.5	9.8	3.4	5.0	3.4	3.5
		4							4.2	63.4	4.2	38.7	4.7	22.4	4.7	13.1	4.5	6.7	4.5	4.6
		6							4.5	52.8	4.5	32.2	5.0	18.7	5.0	10.9	4.7	4.3	4.7	3.0
	40*20*125	3							4.2	73.9	4.2	45.1	3.7	20.2	3.7	11.8	3.6	6.6	3.6	4.6
		4							5.2	87.3	5.2	53.3	5.0	26.9	5.0	15.7	4.8	8.8	4.8	6.1
		6							4.6	63.4	4.6	38.7	5.0	22.4	5.0	13.1	4.8	6.3	4.8	4.4
PA-260	50*25*150	3									3.6	75.6	3.5	39.0	3.5	22.7	3.3	13.0	3.3	9.0
		4									4.9	100.8	4.6	52.0	4.6	30.3	4.4	17.4	4.4	12.1
		6											4.9	48.8	4.9	28.4	5.2	18.6	5.2	12.9
	50*25*175	3											3.6	41.7	3.6	24.3	3.3	13.4	3.3	9.3
		4											5.0	55.7	5.0	32.5	4.4	17.8	4.4	12.4
		6											5.2	56.8	5.2	33.1	5.0	19.1	5.0	13.3
PA-260*2	50*25*150	8											4.6	104.0	4.6	60.7	4.4	34.7	4.4	24.1
		10											5.2	113.8	5.2	66.3	4.9	37.2	4.9	25.8
		12											4.9	97.5	4.9	56.9	5.2	37.2	5.2	25.8
	50*25*175	8													4.8	64.9	4.4	35.7	4.4	24.8
		10													5.1	68.2	4.6	36.1	4.6	25.1
		12													5.2	66.2	5.0	38.2	5.0	26.5
PA-350*2	60*30*175	6													2.8	70.1	2.7	41.3	2.7	28.7
		8													3.8	93.5	3.6	55.0	3.6	38.2
		10													4.7	116.8	4.6	68.8	4.6	47.8
		12													5.2	126.2	5.1	77.0	5.1	53.5
	60*30*200	6															2.8	44.1	2.8	30.6
		8															3.7	58.8	3.7	40.9
		10															4.7	73.5	4.7	51.1
		12															5.1	80.2	5.1	55.7
	70*38.5*200	6																	3.5	38.5
		8																	4.7	51.3
		10																	5.2	56.0
		12																	4.6	44.8
	70*38.5*250	6																	3.5	40.3
		8																	4.7	53.8
		10																	5.1	57.9
		12																	4.9	52.6

Fig.350P(KP-38) Three Way Control Valve

With Pnematic Actuator

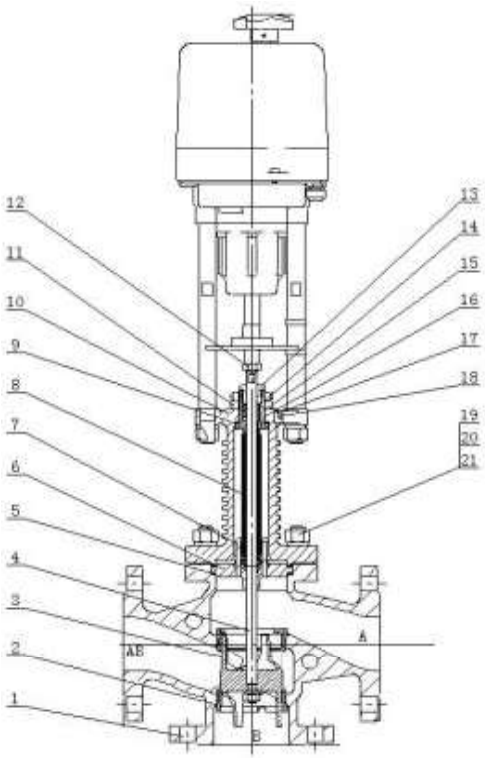
Air-Closing Pressure (P)

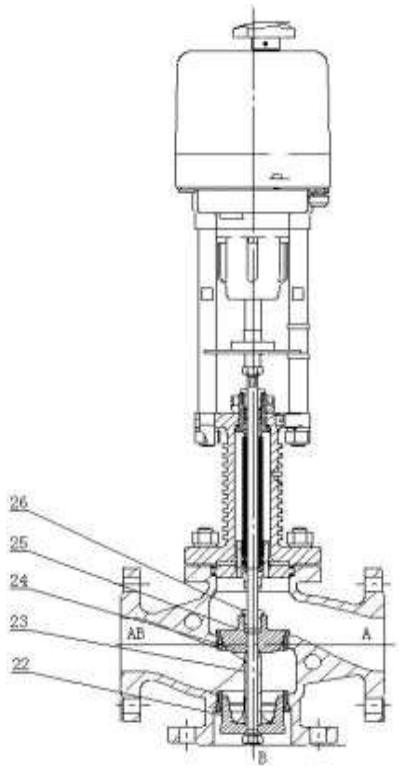
Unit: bar

Closing Pressure		DN	100.0		125.0		150.0		200.0		250.0	
		Dia.(mm)	102.0		125.0		150.0		200.0		250.0	
		Stroke(mm)	30.0		40.0		40.0		50.0		55.0	
Model	Spring	Qty.	Air	P	Air	P	Air	P	Air	P	Air	P
PA-190	40*22*80	3										
		4										
		6										
	40*20*80	3										
		4										
		6										
	40*20*100	3										
		4										
		6										
	40*20*125	3	3.4	2.4								
		4	4.6	3.2								
		6	5.2	2.8								
PA-260	50*25*150	3	3.1	5.0								
		4	4.1	6.6								
		6	4.5	5.6								
	50*25*175	3	3.4	5.9	2.9	2.7						
		4	4.5	7.9	3.9	3.6						
		6	4.9	7.4	5.0	4.0						
PA-260*2	50*25*150	8	4.2	13.2	3.4	4.8	3.4	3.3				
		10	5.2	16.5	4.2	6.0	4.2	4.2				
		12	4.5	11.2	5.1	7.2	5.1	5.0				
	50*25*175	8	4.5	15.9	3.9	7.2	3.9	5.0				
		10	4.9	16.0	4.9	9.1	4.9	6.3				
		12	4.9	14.7	5.0	8.0	5.0	5.5				
PA-350*2	60*30*175	6	3.6	16.3	2.4	7.8	2.4	5.4	2.2	2.0		
		8	3.5	21.7	3.1	10.4	3.1	7.2	2.8	2.7		
		10	4.4	27.2	3.9	13.0	3.9	9.1	3.6	3.4		
		12	5.2	32.6	4.7	15.7	4.7	10.9	4.2	4.1		
	60*30*200	6	2.7	17.8	2.6	9.6	2.6	6.7	2.4	2.9		
		8	3.6	23.8	3.4	12.8	3.4	8.9	3.1	3.8		
		10	4.5	29.7	4.2	16.0	4.2	11.1	3.9	4.8		
		12	5.2	34.2	5.1	19.2	5.1	13.3	4.7	5.7		
	70*38.5*200	6	3.4	22.4	3.3	12.0	3.3	8.4	3.9	3.6	2.6	1.6
		8	4.5	29.8	4.2	16.0	4.2	11.1	3.9	4.8	3.4	2.1
		10	5.2	33.6	4.5	15.3	4.5	10.6	4.9	6.0	4.2	2.6
		12	4.9	28.7	4.4	12.6	4.4	8.8	4.9	4.9	5.1	3.2
	70*38.5*250	6	3.6	25.8	3.1	13.1	3.1	9.1	2.9	4.2	2.8	2.4
		8	4.8	34.4	4.2	17.4	4.2	12.1	4.0	5.6	3.8	3.2
		10	5.0	34.0	5.0	19.9	5.0	13.8	5.0	7.0	4.8	4.0
		12	5.1	33.7	5.1	19.3	5.1	13.4	5.1	6.6	4.9	3.7

Fig.350E(KT-38) Three Way Control Valve With Electric Actuator

Parts List



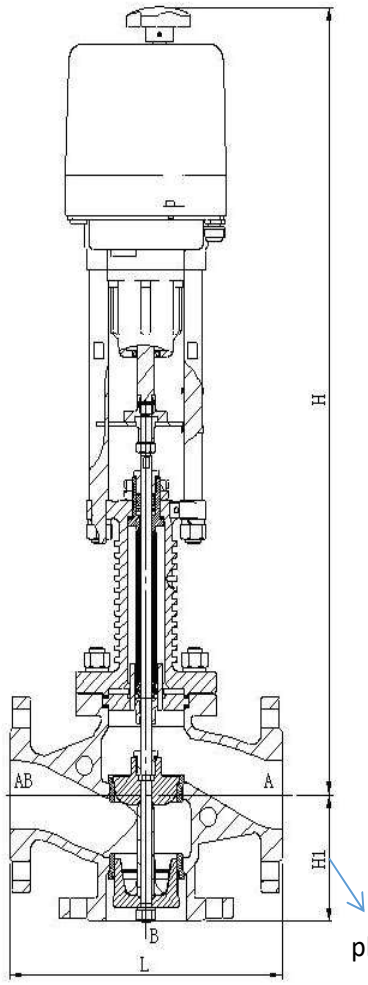


No.	Name	Material
1	Valve body	GJS400-18
2	Valve Seat	A182 F304
3	Plug	ASTM A351 CF8 / A180 F304
4	Stem	ASTM 431
5	Spiral Wound Gasket	A182 F304+graphite
6	Guiding Plate	ASTM 5140
7	Round Pin	A182 F304
8	Bellows	A152 316Ti
9	Gasket	Pure Graphite
10	Bonnet	GJS400-18
11	Round Nut	ASTM 1035
12	Hexagon Nut	A182 F304
13	Gland Nut	Brass
14	Washer	Brass
15	V-ring	Pure Graphite
16	Washer	Brass
17	Nameplate	A182 F304
18	Rivet	Aluminum
19	Spring Washer	ASTM 1035
20	Double End Stud	ASTM 1035
21	Hexagon Nut	ASTM 1035
22	Lower Plug	A182 F304
23	Bushing	A182 F304
24	Upper Plug	A182 F304
25	Locking Ring	A182 F304
26	Covering Ring	A182 F304

Remark: Other materials on request.

Fig.350E(KT-38) Three Way Control Valve With Electic Actuator

Dimensions and Weights



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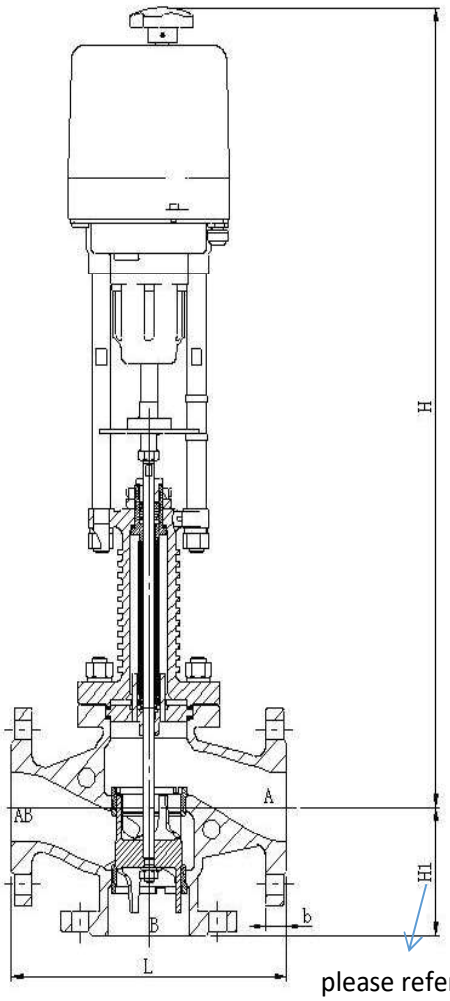


please refer to p.15

Nominal Diameter (mm)					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-38 without bellows	PSL/AMS	H	mm	535	575	630	670	663	678	697	788	804	816	-
			Weight	kg	12	14	15	19	22	25	38	46	54	68	-
	KT-38 with bellows	PSL/AMS	H	mm	564.4	605	662.4	705.4	700.8	720.3	743.8	849.8	869.4	882	-
			Weight	kg	13	14	16	20	23	28	41	51	60	75	-

Remark: Above datas are for standard Mterial WCB, Other materials and pressure ratings on request.

PSL
Model 4

PS Automation
Gesellschaft für Antriebstechnik

We care for actuation.

Increased reliability, durability and improved installation convenience

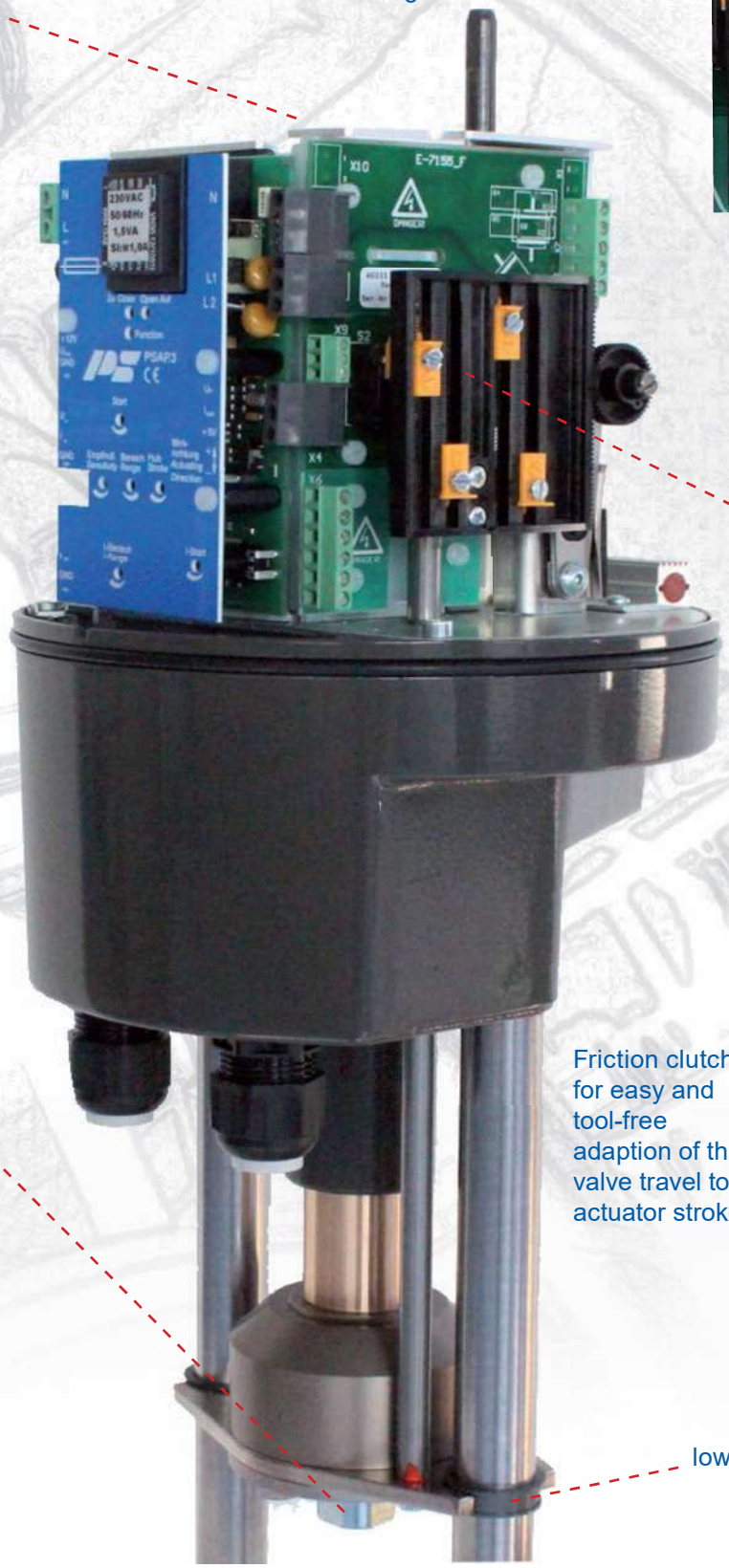
Easier and safer mounting due to optimized design and exact position monitoring

Sturdy metal main frame for mainboard and accessories

Positioners and position transmitter still retrofitable

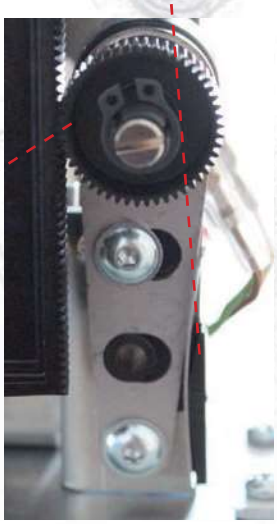
broadend potentiometer contact

Sustainable and energy-efficient due to material savings. Optimized design at remaining high durability (PSL208-214)



Precise valve setting

Vibration-proof potentiometer suspension



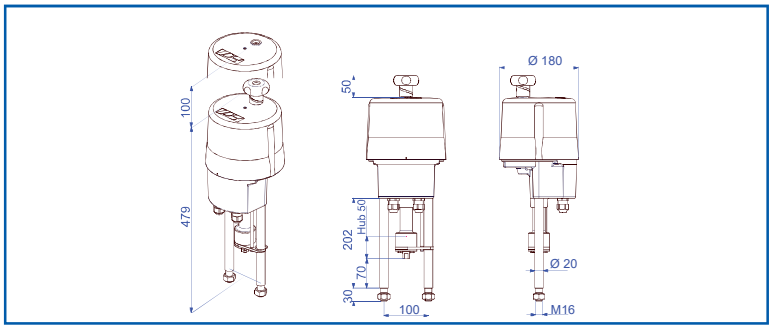
Friction clutch for easy and tool-free adaption of the valve travel to the actuator stroke

Simple and safe connection to the valve stem

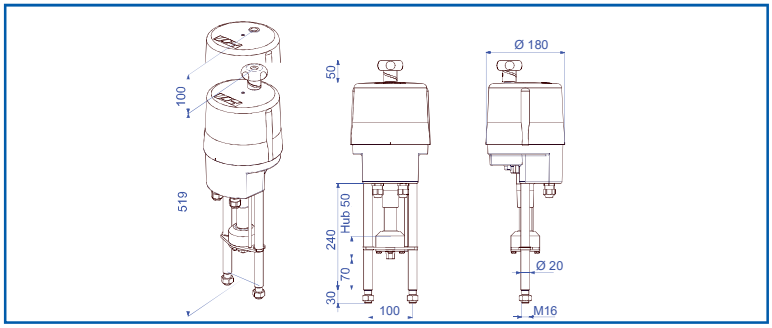
Standard thread:
PSL 201–204 M12
PSL 208–214 M16

Other threads on request

low-wearing bearing bushes

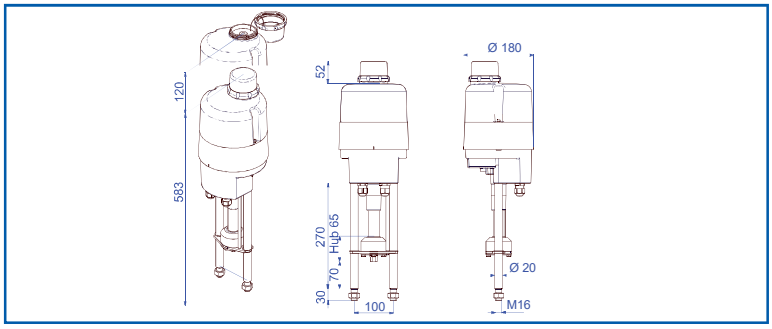


PSL 201-204	
Max. force	1 kN to 4,5 kN
Actuator speed	0,25 to 1,4 mm/s
Stroke	max. 50 mm

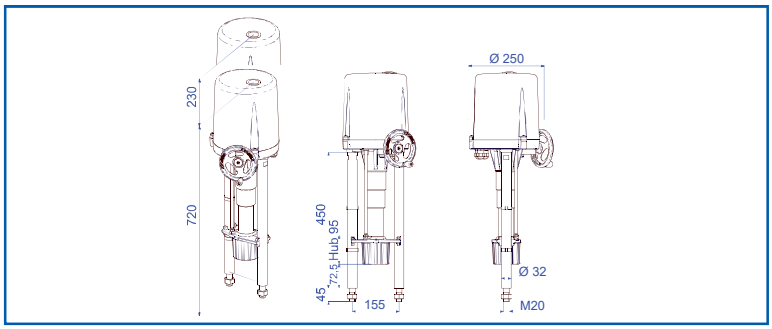


PSL 208-210	
Max. force	8 kN to 10 kN
Actuator speed	0,35 to 1,0 mm/s
Stroke	max. 50 mm*

**optionally 65 mm available*



PSL 214	
Max. force	14 kN
Actuator speed	0,45 mm/s
Stroke	max. 65 mm



PSL 320-325/330*	
Max. force	20 kN to 25 kN
Actuator speed	1,0 mm/s
Stroke	max. 95 mm

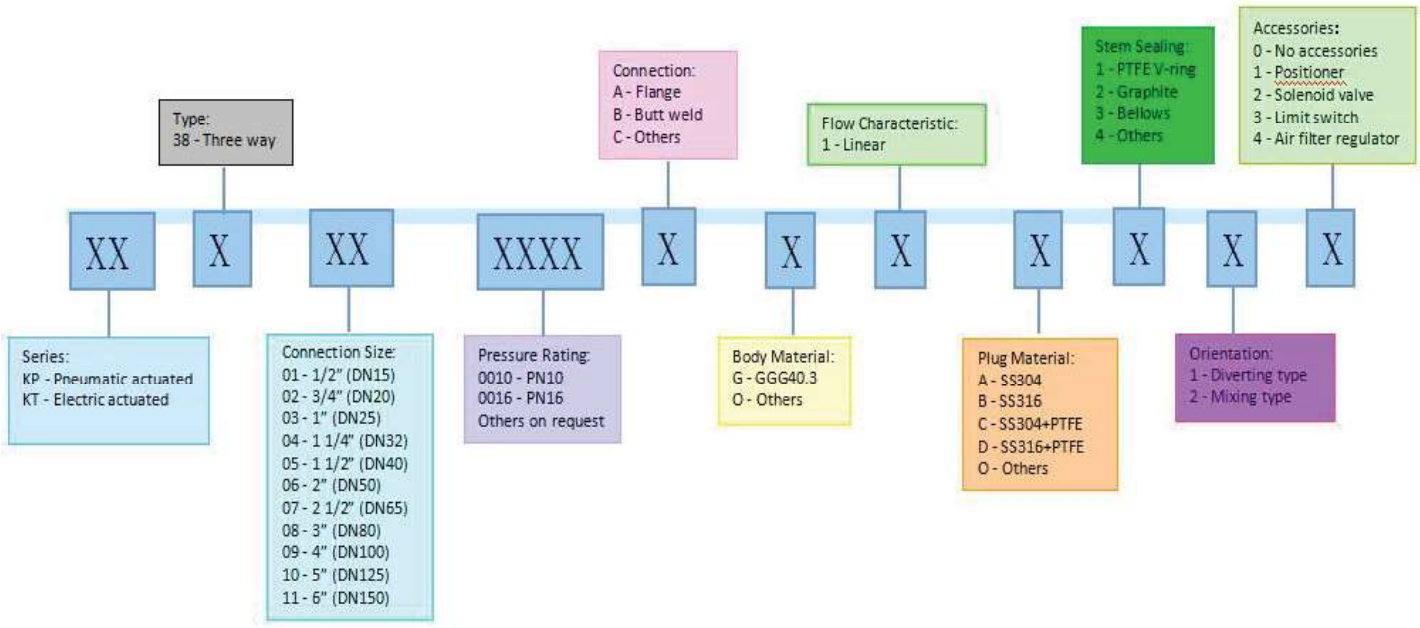
**soon available*

Electric Actuator Selection

Electric	DN	15	20	25(PN64)	25	32	40	50	65	80	100	125	150
	NPT	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"
	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
	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
Model	Thrust(KN)						Closing Pressure (bar)						
PSL-202	2.0	90.6	51.0	79.6	32.6	19.9	11.6	6.7	4.4				
PSL-204	4.0	181.2	101.9	159.2	65.2	39.8	23.1	13.5	8.8	6.1			
PSL-208	8.0				130.4	79.6	46.2	26.9	17.6	12.2	7.5	5.0	
PSL-210	10.0					99.5	57.8	33.7	22.0	15.3	9.4	6.3	
PSL-214	14.0						80.9	47.2	30.9	21.4	13.2	8.8	6.1
PSL-320	20.0							67.4	44.1	30.6	18.8	12.5	8.7
PSL-325	25.0							84.2	55.1	38.2	23.5	15.7	10.9

Fig.350P(KP38) 350E(KT-38) Three Way Control Valve
KP-38 & KT-38 Three Way Control Valve

Product Configuration

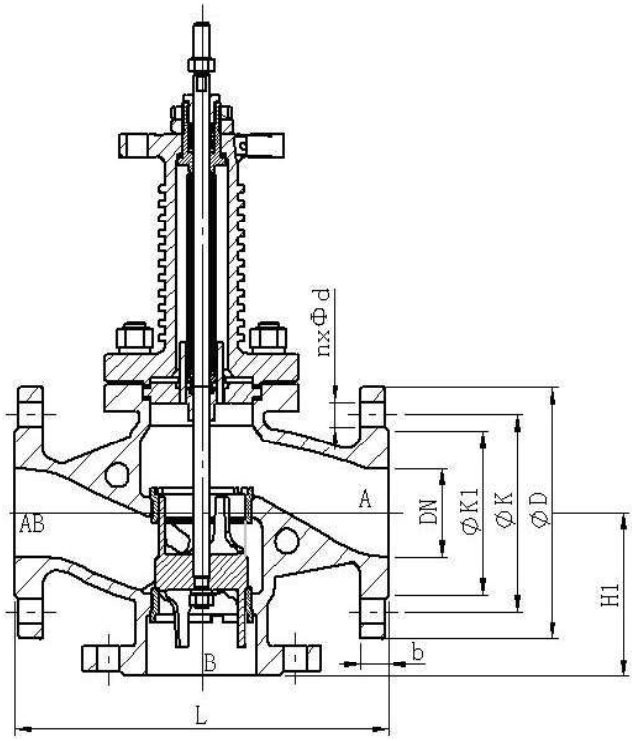


Pressure-temperature rating according to DIN EN1092-1/2, ASME16.34 and manufactures standard

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

Fig.350P(KP38) 350E(KT-38) Three Way Control Valve

Flange and Installation Dimension



Measuring unit （mm）		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	4-18	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
	H1	85	85	85	100	100	100	120	130	150	160	180	200	210
	L	130	150	160	180	200	230	290	310	350	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	4-18	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
	H1	85	85	85	100	100	100	120	130	150	160	180	200	210
	L	130	150	160	180	200	230	290	310	350	400	480	600	730

Fig.350P(KP38) 350E(KT-38) Three Way Control Valve

Pressure-Temperature Rating Table

Material	P(bar) T(℃) Press.Rat.	(-20~38)	50	100	150	200	250	300	350	375	400	425	450	475	500	510	520	530	540	550	575
WCB	PN10	10	10	10	9.7	9.4	9	8.3	7.9	7.7	6.7	5.5									
	PN16	16	16	16	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	10	10	10	10	10	9.72	9.4	9.2	9	8.8	8.6	6.8	4.9	4.2	3.7	3.2	2.8		
	PN16	16	16	16	16	16	16	15.5	15	14.8	14.5	14.1	13.8	11	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	10	10	10	10	10	10	10	10	9.9	9.7	9.5	7.3	5.5	5.0	4.4	3.9	3.4	2.9	2
	PN16	16	16	16	16	16	16	16	16	16	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			

Fig.350P(KP38) 350E(KT-38) Three Way Control Valve

Pressure-Temperature Rating Table

Material	P(bar) / T(℃) / Press. Rat.	(-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	5.6	5.4	5.4	5.2	5.1	5	4.9	4.9						
	PN16	14.7	14.2	12.1	11	10.2	9.6	9	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	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	157.83	153	134.2	122.2	113.4	106	100.6	98.26	96.46	93.6	92.64	91.69	91.16	89.78						
	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	PN10	10	10	10	9.7	9	8.7	8	7												
	PN16	16	16	16	15.5	14.4	13.9	12.8	11.2												

Cv-Kv Value

Size	Equal Percentage	
DIN	CV	KV
DN15	2.57	1.25
DN20	5.92	2.89
DN25	15.49	7.57
DN32	22.77	11.12
DN40	57.05	27.86
DN50	83.68	40.87
DN65	91.48	44.68
DN80	143.50	70.09
DN100	193.86	94.69
DN125	354.71	173.25
DN150	449.13	219.37
DN200	689.53	336.79

Note：

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

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Email: Varimex-Valves@pro.onet.pl

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