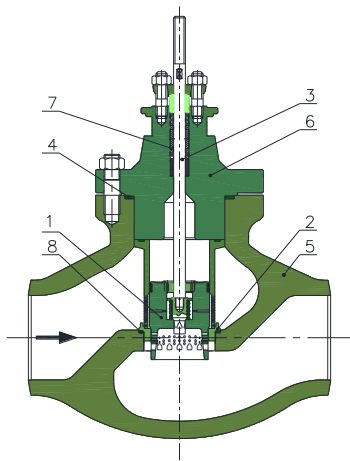


HCVB4 PN40+PN160 CAGE CONTROL VALVE TECHNICAL BRIEF

INEC	Client:	Quotation No:	Valve desc:	KKS:	Valve specification:
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High Trim Control Valves **HCVB** are dedicated to operate under tough conditions PN40+600, T(-50+600°C). The construction is based on cast shape body. A wide variety of different trim designs makes the valves able to cope with heavy cavitation, flashing, choked flow and noise excessive conditions. This particular construction **HCVB4** is applicable as boiler start-up water valve, feeding water valve also as steam start-up or dump valve or high and medium pressure reduction valve where high rangeability is demanded.

The valve works with FTC direction. When the stem starts opening, pilot-piston moves first so that low flow is precisely controlled and simultaneously main plug balancing starts acting.

Benefits:

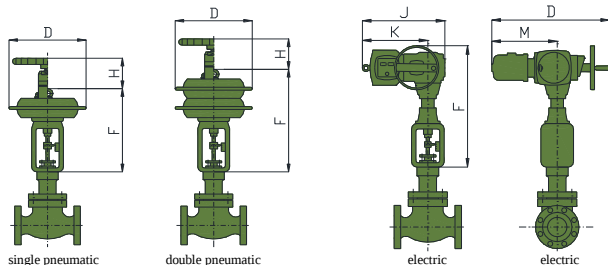
- Interchangeable trim designs of wide variety
- Rangeability 1:200 (important when start-up function)
- High leakage class despite balancing
- Self-seal bonnet construction
- Any soft seals inside the body
- Easy maintenance
- Butt weld ends / flange connection matching the pipe size

All actuator systems are adaptable

Alternative solutions: Economic- MCV-P

Rangeability:	1:200
Plug 100% open- main aver. coefficients	FL=0,9; XT=0,78; Fd=0,05-0,1; xFz=0,75

Part No	Part Name	Specification. position	Symbol	Material/performance	Part No	Part Name	Specification. position	Symbol	Material/performance
1	Plug	X1 Performance	C	Profiled/Piston (HCVB)	5	Body	X8 Performance	1	DIN/PN Flanged
		X2 Ballancing	P	Perforated				2	ANSI Flanged
			B	Balanced				3	BW Standard
		X3 Material	1	1.4571				4	BW Specified
			2	1.4571+stellite			1	1.0460, DN15-50	
			3	1.4571+nitrogen			2	1.0619	
			4	1.4057 hard. 35 HRC			3	1.5415, DN15-50	
			5	1.4125 hard. 55 HRC			4	1.7335, DN15-40	
			6	Other			5	1.5419	
			X4 Characteristic	L			Linear	6	1.7357
		P		Equal-percentage			7	1.4541, DN15-50	
		M		Modified			8	1.4404, DN15-50	
		S		Other			9	1.4308	
		1		1.4571			10	1.4408	
		2		1.4541+Stellite			15	1.7379	
2	Seat	X5 Material	1	1.4571	6	Bonnet	X10 Performance	33	Other
			2	1.4541+Stellite				1	Standard
			3	1.4571+PTFE				2	Spring strained
			4	1.4571+NBR				3	TA-LUFT
			5	Other				4	Bellows
-	-	X6 Leakage class EN-60534-4	1	IV Standard	7	Packing	X11 Material/Performance	1	PTFE
			2	V Enhanced				2	PTFE V
			3	V1 Special				3	PTFE Oxygen
-	-	X7 Flow Direction	FC	Flow to Close				4	Graphite Brained
3	Stem		1.4571, 1.4057 Hardened 35 HRC	8	Seat Gasket		5	Graphite Expanded	
4	Body Gasket		1.4404+Graphite Spiral	9	C-ring				1.4404+Graphite Spiral Metal

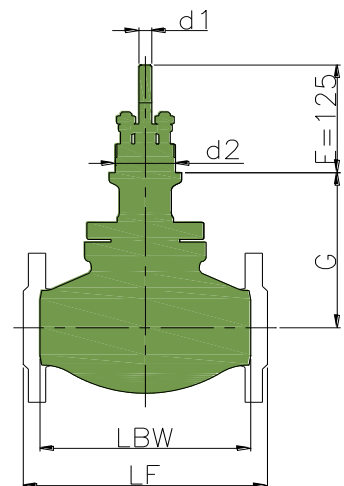


PNEUMATIC	Stroke	F	H	D	-	-	Mass
250					-	-	
400	25	385	175	305	-	-	20
2x400	25	500	175	305	-	-	40
630	40	485	315	375	-	-	40
2x630	40	715	315	375	-	-	55
1000	60	650	300	480	-	-	70
2x1000	60	920	300	480	-	-	95
ELECTRIC	Stroke	F	M	D	J	K	Mass
XIRa, XIRSa	50	612	318	586	393	322	25
XIRb, XIRsb	50	651	335	602	422	335	34
XIRc, XIRSc	80	841	449	765	490	374	78
XIRa, XIRSa	100	732	318	586	393	322	25
XIRb, XIRsb	100	771	335	602	422	335	34
XIRc, XIRSc	160	991	449	765	490	374	85

Other actuators adaptable. For example: AUMA actuators have closely similar dimensions and the same mechanical connections.

PN/DN	Dim.	15	20	25	32	40	50	65	80	100	125	150	200	250	300
40	LF	130	150	160	180	200	230	290	310	350	400	480	600	730	850
	LBW	130	150	160	180	200	230	290	310	350	400	480	600	730	850
	G	107	107	107	114	118	122	166	166	173	248	305	458	475	590
	GM*	241	241	241	243	253	257	410	410	417	485	510	623	623	735
	d1	M12x1,25				M16x1,5				M20x1,5				M24x1,5	
	d2	Ø57,15				Ø84,15				Ø95,25				Ø125	
63	Mass	8	8	8	12	16	22	31	40	65	105	132	195	320	510
	LF	210	230	230	260	260	300	340	380	430	500	550	650	-	-
	LBW	160	160	160	230	230	300	340	380	430	500	550	650	-	-
	G	135	135	135	140	145	155	180	206	217	252	287	439	-	-
	GM*	306	306	306	306	306	326	350	375	407	413	426	539	-	-
	d1	M12x1,25				M16x1,5				M20x1,5				-	
100	Mass	9	9	9	13	18	25	33	43	72	101	147	220	-	-
	LF	210	230	230	260	260	300	340	380	430	500	550	650	-	-
	LBW	160	160	160	230	230	300	340	380	430	500	550	650	-	-
	G	135	135	135	140	145	155	180	206	217	252	287	439	-	-
	GM*	306	306	306	306	306	326	350	375	407	413	426	539	-	-
	d1	M12x1,25				M16x1,5				M20x1,5				-	
160	Mass	9	9	9	13	18	25	33	43	72	101	147	220	-	-
	LF	210	230	230	260	260	300	340	380	430	500	550	650	-	-
	LBW	160	160	160	230	230	300	340	380	430	500	550	650	-	-
	G	149	149	149	160	172	175	200	233	252	304	365	528	-	-
	GM*	320	320	320	335	348	345	370	402	442	463	483	615	-	-
	d1	M12x1,25				M16x1,5				M20x1,5				-	

GM* - The height measured with bellows or TA-LUFT bonnet. Masses are given for the valves with standard bonnet and BW endings.



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