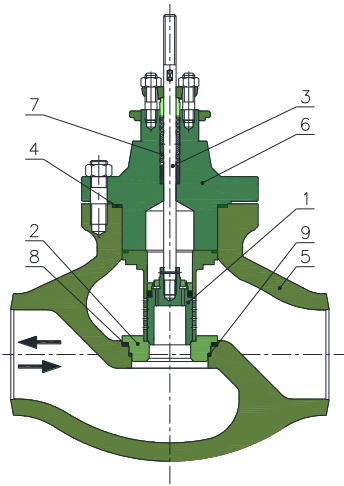


HCVB1 PN40+PN160 CAGE CONTROL VALVE TECHNICAL BRIEF

	Client:	Quotation No:	Valve desc:	KKS:	Valve specification:
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High Trim Control Valves **HCVB** are dedicated to operate under extremely tough conditions PN40+600, T(-50+600°C). The construction is based on cast body for PN40+160 and cored forged shape body for PN250+600, which is unique. The seat is put-in type, sealed with spiral gasket and additionally by metal C-ring. 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 **HCVB1** type is applicable in common solutions. High Pressure Recovery Factor dedicates the valve to operate where high noise or cavitation reduction is demanded. Both FTO and FTC directions are feasible.

Benefits:

Interchangeable trim designs of wide variety
Rangeability 1:100 available, high Pressure Recovery Factor
High leakage class available (when unbalanced)
Metal/metal planed bonnet with spiral gasket
Any soft seals inside the body
Easy maintenance – put-in seat.
Butt weld ends / flange connection matching the pipe size
All actuator systems are adaptable

Alternative solutions: Economic- MCV

Rangeability:	1:50 (Standard), 1:100 (Available)
100% open- main coefficients FTO	FL=0,95; XT=0,78; Fd=0,1; xFz=0,75

Kvs	Stroke	Seat diam.	DN min	DN max
0,1	20	-	15	50
0,16	20	-	15	50
0,25	20	-	15	50
0,4	20	-	15	50
0,63	20	-	15	50
1	20	9	15	50
1,6	20	14	15	50
2,5	20	14	15	50
4	20	19	15	50
6,3	20	19	20	50
10	20	25	25	50
16	20	34	32	65
25	20	44	40	80
40	20	50	50	100
63	40	70	65	150
94	40	90	80	200
125	40	100	100	250
160	40	110	125	250
250	50	125	150	250
320	50	160	150	250
500	63	194	200	300
630	63	194	300	300
800	100	240	250	300
1000	100	240	300	300
1300	100	270	300	300

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 Balancing	P	Perforated				2	ANSI Flanged
			U	Unbalanced				3	BW Standard
			B	Balanced				4	BW Specified
		X3 Material	1	1.4571			X9 Material	1	1.0460, DN15-50
			2	1.4571+stellite				2	1.0619
			3	1.4571+nitrogen				3	1.5415, DN15-50
			4	1.4057 hard. 35 HRC				4	1.7335, DN15-40
			5	1.4125 hard. 55 HRC				5	1.5419
			6	Other				6	1.7357
		X4 Characteristic	L	Linear				7	1.4541, DN15-50
			P	Equal-percentage				8	1.4404, DN15-50
			M	Modified				9	1.4308
			S	Other				10	1.4408
								15	1.7379
		X5 Material	1	1.4571				33	Other
			2	1.4541+Stellite			X10 Performance	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	VI Special				3	PTFE Oxygen
			FO	Flow to Open				4	Graphite Braided
-	-	X7 Flow Direction	FC	Flow to Close				5	Graphite Expanded
3	Stem			1.4571, 1.4057 Hardened 35 HRC	8	Seat Gasket			1.4404+Graphite Spiral
4	Body Gasket			1.4404+Graphite Spiral	9	C-ring			Metal

VALVE SPECIFICATION

Full specification of the valve consists of:

HCVB1 – symbol

-X1...-X11- symbols from the table on left

PN, DN, Kvs

Medium

Design medium parameters

Shut-off pressure

Example:

HCVB1-C-U-2-P-2-2-FO-1-2-1-5, DN100, PN63, Kvs94.

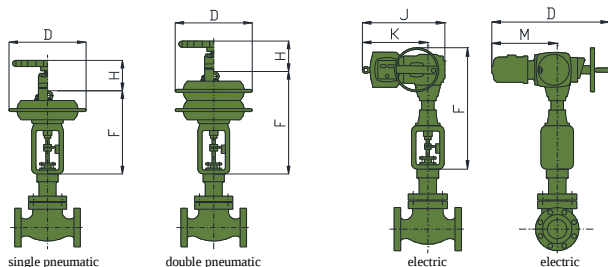
Medium Water, Td=200°C, Pd=40bar

Shut-off pressure=20bar

It is also recommended to specify working parameters as working pressure, temperature, pressure drop, flow and additional remarks if needed (ex. 1:100 rangeability).

CAUTION:

The client is not obligated to specify the valve when order. You can simply describe your expectations and INTEC sales person will specify adequate valve for you.

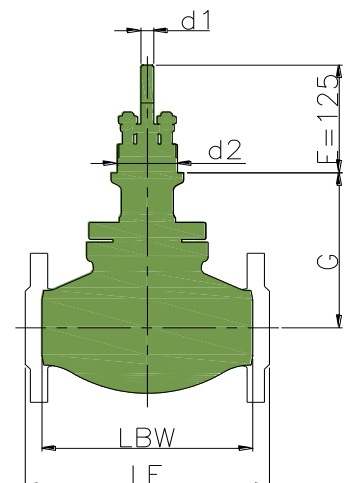


PNEUMATIC	Stroke	F	H	D	-	-	Mass
250							
400	25	385	175	305	-	-	20
2x400	25	500	175	305	-	-	40
630	40	485	315	375	-	-	40
2x630	40	715	315	375	-	-	55
1000	60	650	300	480	-	-	70
2x1000	60	920	300	480	-	-	95
ELECTRIC	Stroke	F	M	D	J	K	Mass
XIRa, XIRSa	50	612	318	586	393	322	25
XIRb, XIRsb	50	651	335	602	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	057,15						084,15				095,25			
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	d2	057,15						084,15				095,25			
	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	-	-
160	d1	M12x1,25						M16x1,5				M20x1,5			
	d2	057,15						084,15				095,25			
	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	-	-
160	GM*	320	320	320	335	348	345	370	402	442	463	483	615	-	-
	d1	M12x1,25						M16x1,5				M20x1,5			
	d2	057,15						084,15				095,25			
	Mass	9	9	9	14	19	28	37	44	75	111	156	243	-	-
	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	-	-

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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