



JOB NAME:	CONTRACTOR:
JOB LOCATION:	APPROVAL:
ENGINEER:	CONTRACTOR P.O.:
APPROVAL:	REPRESENTATIVE:

**PP630LLV3DA**  
**PP630LLV6DA**  
**PP630LLV9DA**

**630LLV3/V6/V9, 3-PC DIRECT MOUNT, 2-WAY CARBON STEEL V-BALL VALVE, FULL PORT BALL VALVE WITH DOUBLE ACTING PNEUMATIC ACTUATOR AND PNEUMATIC PNP-B 3-15 PSI POSITIONER SIZES 1/2" TO 4"**

**30° PP630LLV3SR**  
**60° PP630LLV6SR**  
**90° PP630LLV9SR**

**630LLV3/V6/V9, 3-PC DIRECT MOUNT, 2-WAY CARBON STEEL V-BALL VALVE, FULL PORT BALL VALVE WITH SPRING RETURN PNEUMATIC ACTUATOR AND PNEUMATIC PNP-B 3-15 PSI POSITIONER SIZES 1/2" TO 4"**

## SPECIFICATIONS

The PP630LLV3/PP7630LLV6/PP630LLV9 V-ball pneumatic actuated packages include an ISO 5211, complete direct mount WCB carbon steel, Class 900, encapsulated bolt design, Fire-Safe, grounded ball & stem, with TFM-4215 seats. The valves also incorporate a relief hole in the stem slot for thermal cycling protection.

The Valbia pneumatic actuator comes with a hard-anodized aluminum body, and powder coated end caps. In addition, all Valbia pneumatic actuators are standardly furnished with elevated temperature seals to 302F. The patented side loaded limit stops never enter the piston chamber eliminating extra possible leak paths. The assembled package also features a compact PNP-B positioner with an input signal of 3-15psig.

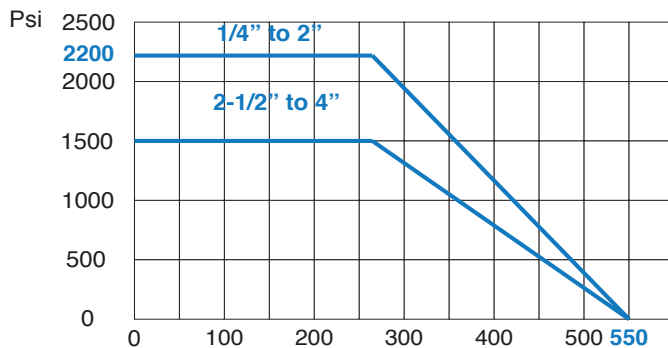
## ACTUATOR FEATURES

- Hard anodized extruded aluminum body
- Concentric spring sets
- Die cast aluminum end caps
- Solid steel barstock pinion (not casting)
- 0°-90° rotation adjustment cam
- 0°-90° rotation adjustment bolts
- POM piston guides
- Minimum air pressure rating: 80 psi
- Maximum air pressure rating: 116 psi
- Working temperature: -4°F - 302°F
- No lubrication maintenance required for the entire actuator lifetime
- 100% factory tested




## VALVE FEATURES

- 3-piece WCB body
- Class 900 sizes 1/4" to 2", Class 600 sizes 2-1/2" to 4"
- Carbon steel-2200 psi (1/4" to 2"), 1500 psi (2-1/2" to 4")
- ISO 5211 mounting pad w/ square stem
- Standard latch locking handle
- Conforms to ANSI 16.34, ANSI B1.20.1 thread depths, NACE MR0175
- Fire Safe to API 607-6th edition
- Grounded ball and stem
- Standard 316 stainless steel ball and stem
- Temperature range: +150° F to 500° F
- Working steam pressure to 250 psi

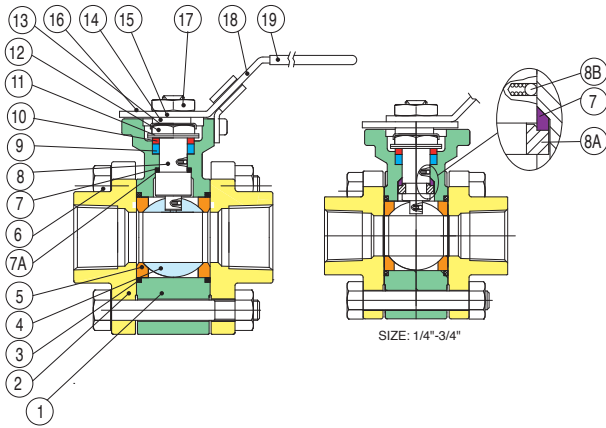
## PRESSURE TEMPERATURE CHART FOR 630LLV3/630LLV6/630LLV9



## V-BALL SERIES MODEL OPTIONS

	<b>90° V-BALL</b>
	<b>PP630LLV9</b>
	<b>60° V-BALL</b>
	<b>PP630LLV6</b>
	<b>30° V-BALL</b>
	<b>PP630LLV3</b>

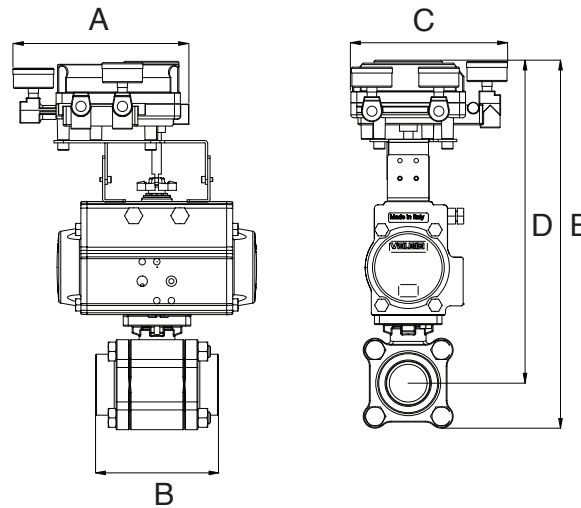
**BILL OF MATERIALS FOR 630LLV3/630LLV6/630LLV9**



N POS	PART NAME	MATERIAL	N POS
1	BODY	WCB	1
2	END CAP	WCB	2
3	GASKET BODY	TFM	2
4	BALL	SS316	1
5	BALL SEATS	TFM-4215	2
6	BOLTS	SS304	*
7	THRUST WASHER	TFM	1
7A	THRUST WASHER	PEEK	1
8	STEM	SS316	1
8A	HALF SPLIT RING	SS316	1
8B	ANTI-STATIC	SS316	2

N POS	PART NAME	MATERIAL	N POS
9	STEM PACKING	TFM	1
10	GLAND WASHER	SS304	1
11	DISK WASHER	SS301	1
12	STEM NUT	SS304	1
13	NUT STOP	SS304	1
14	SPACE WASHER	SS304	1
15	PLATER	SS304	1
16	STOP IN	SS304	1
17	HANDLE NUT	SS304	1
18	HANDLE	SS304	1
19	HANDLE COVER	PLASTISOL	1

**DIMENSIONS**



**PP630LLV3DA**

WITH DOUBLE ACTING ACTUATOR

**PP630LLV6DA**

WITH DOUBLE ACTING ACTUATOR

**PP630LLV9DA**

WITH DOUBLE ACTING ACTUATOR

SIZE	A	B	C	D	E	ACT.
1/2"	6.55	2.76	6.99	10.07	10.92	DA52V
3/4"	6.55	3.62	6.99	10.26	11.20	DA52V
1"	6.55	4.13	6.99	10.95	11.99	DA63V
1-1/4"	6.55	4.37	6.99	11.07	12.17	DA63V
1-1/2"	6.55	4.88	6.99	12.09	13.33	DA75V
2"	6.55	5.91	6.99	13.43	15.02	DA85V
2-1/2"	6.55	6.50	6.99	15.88	17.74	DA115V
3"	6.55	7.68	6.99	16.91	19.02	DA125V
4"	6.55	9.65	6.99	18.79	21.34	DA140V

**PP630LLV3SR**

WITH SPRING RETURN ACTUATOR

**PP630LLV6SR**

WITH SPRING RETURN ACTUATOR

**PP630LLV9SR**

WITH SPRING RETURN ACTUATOR

SIZE	A	B	C	D	E	ACT.
1/2"	6.55	2.76	6.99	10.52	11.37	SR63V
3/4"	6.55	3.62	6.99	11.42	12.36	SR75V
1"	6.55	4.13	6.99	11.66	12.70	SR75V
1-1/4"	6.55	4.37	6.99	12.33	13.43	SR85V
1-1/2"	6.55	4.88	6.99	14.50	15.74	SR115V
2"	6.55	5.91	6.99	15.77	17.36	SR125V
2-1/2"	6.55	6.50	6.99	18.19	20.05	SR160V
3"	6.55	7.68	6.99	20.00	22.11	SR180V
4"	6.55	9.65	6.99	20.99	23.54	SR180V

## CV VERSUS VALVE PERCENTAGE OPEN

Size	V-Ball Angle	Class VI S/O	Low %	Control Zone								Full Open
				0%	10%	20%	30%	40%	50%	60%	70%	
1/2"	30°	0.00	0.00	0.03	0.11	0.31	0.50	0.92	1.34	1.85	2.67	3.26
	60°	0.00	0.00	0.06	0.14	0.40	0.69	1.21	1.92	2.86	4.84	7.79
	90°	0.00	0.00	0.06	0.16	0.48	0.85	1.53	2.51	4.06	6.77	10.70
3/4"	30°	0.00	0.00	0.06	0.24	0.69	1.13	2.07	3.02	4.17	6.00	7.32
	60°	0.00	0.00	0.13	0.31	0.89	1.56	2.73	4.31	6.43	10.89	17.53
	90°	0.00	0.00	0.14	0.37	1.13	1.98	3.53	5.86	8.93	15.62	26.31
1"	30°	0.00	0.00	0.11	0.42	1.23	2.01	3.68	5.38	7.41	10.66	13.02
	60°	0.00	0.00	0.24	0.55	1.59	2.77	4.86	7.66	11.43	19.36	31.16
	90°	0.00	0.00	0.30	0.72	2.07	3.63	6.52	10.69	16.57	28.92	48.95
1-1/4"	30°	0.00	0.00	0.28	0.75	1.76	4.81	6.38	9.75	13.82	21.01	29.15
	60°	0.00	0.00	0.58	1.50	2.54	5.48	7.56	12.05	21.89	34.63	56.98
	90°	0.00	0.00	0.73	1.95	3.31	7.17	10.14	16.82	31.73	51.72	92.91
1-1/2"	30°	0.00	0.00	0.74	2.09	3.47	6.13	8.35	12.93	18.87	28.77	40.84
	60°	0.00	0.00	0.61	1.74	3.27	7.45	10.31	16.52	31.06	48.26	79.82
	90°	0.00	0.00	0.97	2.03	3.96	9.13	13.27	22.31	43.31	70.82	130.16
2"	30°	0.00	0.00	1.31	3.71	6.16	10.89	14.85	22.99	33.55	51.15	72.60
	60°	0.00	0.00	1.09	3.10	5.81	13.24	18.34	29.37	55.22	85.80	141.90
	90°	0.00	0.00	1.04	3.64	7.11	16.46	24.50	41.37	83.67	133.78	243.02
2-1/2"	30°	0.00	0.00	2.14	6.06	10.06	17.79	24.26	37.55	54.80	83.55	118.59
	60°	0.00	0.00	1.78	5.07	9.49	21.63	29.95	47.98	90.20	140.16	231.80
	90°	0.00	0.00	2.36	7.02	12.99	29.97	42.85	71.86	141.57	230.24	423.69
3"	30°	0.00	0.00	2.84	7.52	15.60	25.49	37.16	54.90	76.23	108.40	141.89
	60°	0.00	0.00	3.60	11.73	21.36	33.25	53.10	96.62	144.55	233.32	360.96
	90°	0.00	0.00	4.64	15.49	29.40	46.12	75.73	144.02	222.73	385.54	658.35
4"	30°	0.00	0.00	5.27	13.95	28.94	47.28	68.93	101.84	141.41	201.08	263.21
	60°	0.00	0.00	6.68	21.75	36.92	61.68	98.51	179.24	268.15	432.83	669.60
	90°	0.00	0.00	8.40	28.29	52.36	83.74	137.57	261.50	405.31	703.95	1241.30