



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

EV300-0* - EV600-0* - EV900-0*
30° BALL 60° BALL 90° BALL

V300/600/900 DIRECT MOUNT, 3-PC, 2-WAY STAINLESS STEEL V-BALL VALVE, FULL PORT BALL VALVE WITH VALBIA ELECTRIC ACTUATOR WITH POSITIONER OR POSITIONER W/ BATTERY BACKUP

SIZES 1/2" TO 4"

*022	24V AC/DC W POSITIONER	*023	100-240V AC W POSITIONER
*042	24V AC/DC W POSITIONER & BATTERY BACKUP	*043	100-240V AC W POSITIONER & BATTERY BACKUP

SPECIFICATIONS

The EV300/EV600/EV900 series features a V-ball control stainless steel 3-pc. ball valve, with 30, 60, and 90-degree ball options. The 30-degree ball offers a special combination of 30 to 90 degrees. The valve is a 1000 psi rated ball valve, with a thermal protection relief hole, and 25% carbon-filled PTFE seats. The VB electric actuator features a NEMA 4, 4X housing, two extra limit switches, a heater and thermostat, torque limiter, special manual override, and a 75% duty cycle motor. PG11 connections are standard, with optional 1/2" conduit.

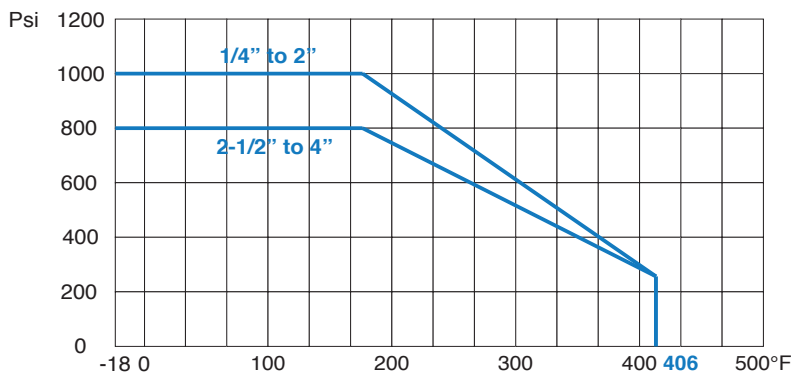
ACTUATOR FEATURES

- NEMA 4, 4X Housing
- 12V/24V AC/DC and 100-240V AC Models Available
- ISO 5211 dual patterns
- VB015 -12/24V AC - 50% Duty Cycle
- VB030-VB110 - 12/24V DC and 100-240V AC - 75% Duty Cycle
- High-Strength, Impact Resistant IP67 Technopolymer Housing
- Temperature Range -4°F to 131°F
- PG11 Electrical Connection/Optional 1/2" Conduit

VALVE FEATURES

- 3-piece CF8M body
- Full port, sizes 1/2" to 4"
- ISO 5211 mounting pad w/ square stem
- Pressure rating 1/2" to 2" 1000 psi, 2-1/2" to 4" 800 psi
- 25% carbon filled P.T.F.E. ball seats
- Temperature range -18°F to 428°F
- Blow out proof stem, multi-layer V-ring adjustable stem packing
- P.T.F.E. packing and thrust washer

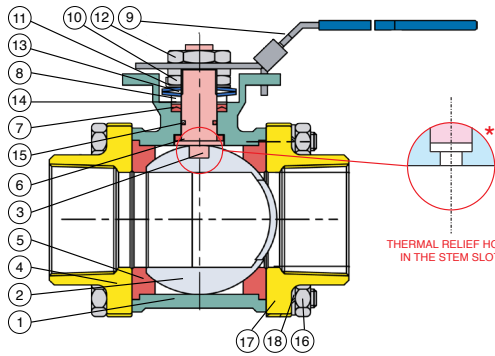
PRESSURE - TEMPERATURE CHART FOR SERIES V300/V600/V900



V300/V600/V900 V-BALL SERIES MODEL OPTIONS

	90° V-BALL	
	NPT	EV300*
	SW	EV310*
	60° V-BALL	
	NPT	EV600*
	SW	EV610*
	30° V-BALL	
	NPT	EV900*
	SW	EV910*

BILL OF MATERIALS FOR V300/V600/V600

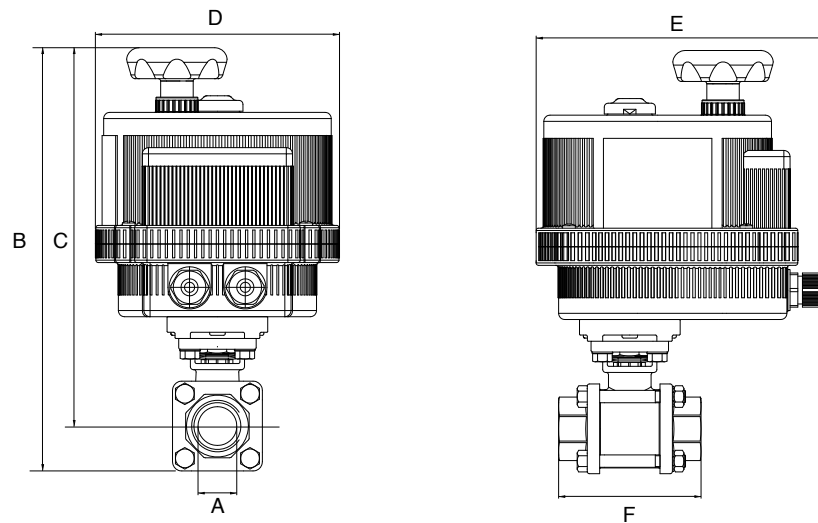


N POS	PART NAME	MATERIAL	N PCS
1	BODY	ASTM A351 Gr. CF8M	1
2	BALL	ASTM A351 Gr. CF8M	1
3	STEM	SS 316	1
4	END CAP	ASTM A351 Gr. CF8M	2
5	SEAT	25% Carbon Filled P.T.F.E.	2
6	THRUST WASHER	15% GF P.T.F.E.	1
7	STEM PACKING	SS 304	1
8	GLAND BUSHING	SS 304	1
9	HANDLE	SS 304	1

N POS	PART NAME	MATERIAL	N PCS
10	STEM NUT	SS 304	1
11	HANDLE WASHER	SS 304	1
12	HANDLE NUT	SS 304	1
13	BELLEVILLE WASHER	SS 304-CSP	2
14	PACKING FOLLOWER	P.T.F.E. + 25% GF	1
15	STEM O-RING	VITON	1
16	BODY BOLT	SS 304	*
17	BOLT WASHER	SS 304	*
18	BOLT NUT	SS 304	*

*VARIES WITH SIZE

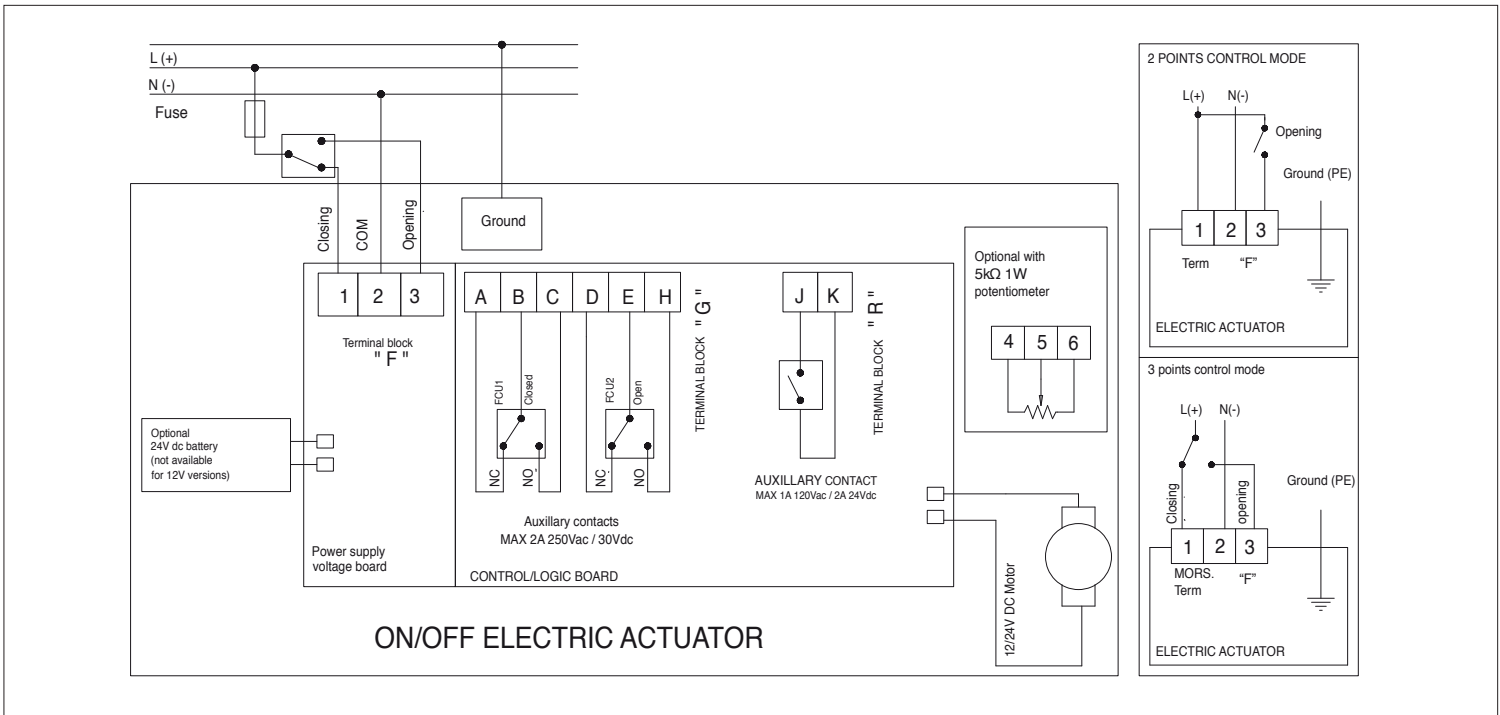
DIMENSIONS



Size	A	B	C	D	E	F	ACT.
1/2"	0.50	10.98	8.86	6.18	7.48	2.50	VB030
3/4"	0.75	11.74	9.17	6.18	7.48	2.85	VB030
1"	1.00	12.57	9.51	6.18	7.48	3.19	VB030
1-1/4"	1.25	13.08	9.72	6.18	7.48	3.72	VB030
1-1/2"	1.50	15.66	11.40	7.28	8.43	4.25	VB060
2"	2.00	16.52	11.75	7.28	8.43	4.78	VB060
2-1/2"	2.50	19.63	13.42	8.31	9.33	6.20	VB110
3"	3.00	20.56	13.80	8.31	9.33	7.48	VB110
4"	4.00	23.99	15.20	8.31	9.33	8.86	VB190

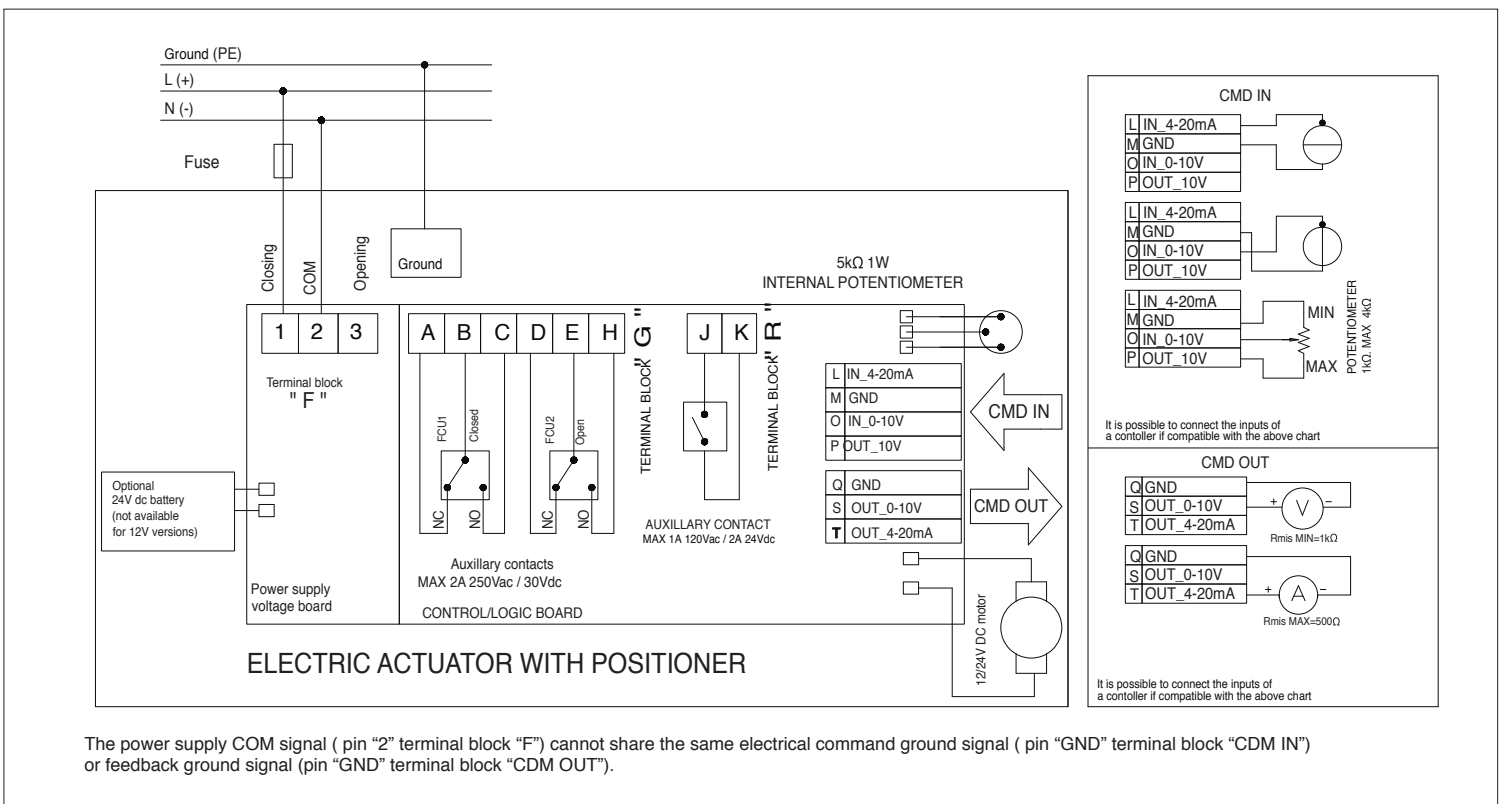
ON/OFF WIRING DIAGRAM

12V AC/DC, 24V AC/DC & 100-240VAC



POSITIONER WIRING DIAGRAM

12V AC/DC, 24V AC/DC & 100-240VAC



CV VERSUS VALVE OPENING PERCENTAGE

Size	V-Ball Angle	Class VI S/O	Low %	Control Zone									Full Open
		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
1/2"	30°	0.00	0.04	0.24	0.47	0.77	1.19	1.84	2.46	3.42	4.63	5.57	
	60°	0.00	0.04	0.29	0.74	1.11	1.83	2.91	4.31	7.01	9.45	12.79	
	90°	0.00	0.06	0.47	0.85	1.27	2.11	3.22	4.77	8.31	11.59	14.72	
3/4"	30°	0.00	0.07	0.29	0.63	1.02	1.56	2.44	3.26	4.52	6.12	7.31	
	60°	0.00	0.07	0.36	0.94	1.48	2.42	3.86	5.26	9.24	12.43	16.27	
	90°	0.00	0.08	0.61	1.10	1.71	2.69	4.27	6.25	10.85	15.30	19.39	
1"	30°	0.00	0.09	0.45	1.25	2.07	3.56	5.32	7.69	10.51	12.85	15.49	
	60°	0.00	0.10	0.70	1.75	2.77	5.14	8.01	11.89	18.71	23.23	32.81	
	90°	0.00	0.11	1.00	2.77	5.10	7.74	12.20	17.32	24.47	26.81	43.88	
1-1/4"	30°	0.00	0.05	0.47	1.35	2.49	4.13	6.11	8.81	11.75	14.86	17.36	
	60°	0.00	0.07	0.66	2.04	3.42	6.45	10.79	15.41	22.34	33.39	43.43	
	90°	0.00	0.08	0.80	2.91	5.52	10.23	17.27	19.51	34.93	51.75	65.82	
1-1/2"	30°	0.00	0.07	0.66	1.87	3.40	5.66	8.36	12.14	16.17	20.45	23.88	
	60°	0.00	0.09	0.93	2.82	4.70	8.89	14.84	21.16	30.73	45.87	59.75	
	90°	0.00	0.10	1.07	4.00	7.45	14.08	23.78	26.77	48.05	71.17	90.50	
2"	30°	0.00	0.09	1.19	3.80	7.53	12.27	17.85	26.45	36.46	48.10	55.84	
	60°	0.00	0.11	1.53	5.79	10.41	20.58	34.10	48.74	69.05	104.23	135.77	
	90°	0.00	0.17	1.90	7.28	13.59	25.37	42.30	55.55	87.04	129.77	167.36	
2-1/2"	30°	0.00	0.09	1.16	4.44	7.91	13.40	20.05	30.44	41.92	69.78	76.95	
	60°	0.00	0.13	1.46	5.91	11.88	23.24	37.94	59.30	83.30	113.64	162.55	
	90°	0.00	0.18	1.86	7.28	16.45	31.15	53.54	77.87	118.29	177.33	239.42	
3"	30°	0.00	0.13	1.21	4.16	9.49	15.97	26.78	38.92	53.30	69.78	85.92	
	60°	0.00	0.15	2.91	6.73	15.81	29.38	46.34	73.58	106.72	149.89	193.22	
	90°	0.00	0.20	4.13	8.66	21.10	41.09	69.31	105.90	161.04	237.24	359.22	
4"	30°	0.00	0.16	1.75	7.84	18.61	35.21	58.61	87.88	127.45	158.53	196.34	
	60°	0.00	0.26	2.22	12.46	33.68	63.00	106.27	160.48	233.98	329.51	437.40	
	90°	0.00	0.35	4.36	19.70	50.31	91.82	157.45	240.50	365.15	546.65	830.90	