



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

**M8E730LLV3-0\* - M8E730LLV6-0\* - M8E730LLV9-0\***

**30°**

**60°**

**90°**

**730LLV3/V6/V9 DIRECT MOUNT, 3-PC, 2-WAY STAINLESS STEEL, V-PORT BALL VALVE IN NPT W ELECTRIC ACTUATOR**

**SIZES 1/2" TO 4"**

*0*1 12V AC/DC	*0*2 24V AC/DC	*0*3 100-240VAC
*02* POSITIONER	*04* BAT. BACKUP W POS	

**SPECIFICATIONS**

The M8E730LLV3/M8E730LLV6/M8E730LLV9 V-ball pneumatic actuated packages include an ISO 5211, complete direct mount CF8M stainless 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 VBM electric actuator has a rugged NEMA 4 die cast aluminum housing and features a raised or dome position indicator. In addition, the VBM series also incorporates dual voltage motors, two extra limit switches, a heater and thermostat, manual override, 1/2" conduit connections and a 75% duty cycle motor.

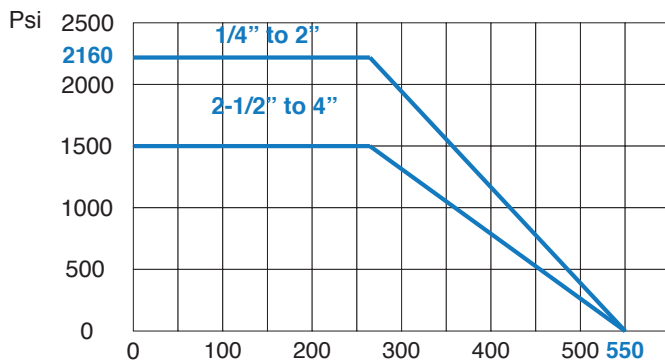
**ACTUATOR FEATURES**

- Dual Voltages
- CSA, UL approved
- 24V AC/DC and 100-240V AC
- ISO 5211 dual patterns
- 75% Duty Cycle
- High-Strength, Die Cast Aluminum Powder Coated Housing
- Temperature Range -4°F to 131°F
- NEMA 4 Housing
- Two Auxiliary Switches Standard
- Torque limiter standard
- 1/2" Conduit connections



**VALVE FEATURES**

- 3-piece CF8M body
- Class 900 sizes 1/4" to 2", Class 600 sizes 2-1/2" to 4"
- Carbon steel-2160 psi (1/4" to 2"), 1440 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

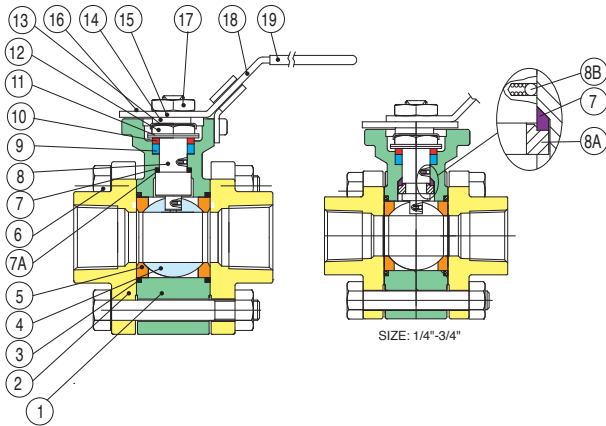
**PRESSURE TEMPERATURE CHART FOR 730LLV3/730LLV6/730LLV9**



**V-BALL SERIES MODEL OPTIONS**

	<b>90° V-BALL</b>
	<b>M8E730LLV9</b>
	<b>60° V-BALL</b>
	<b>M8E730LLV6</b>
	<b>30° V-BALL</b>
	<b>M8E730LLV3</b>

## BILL OF MATERIALS FOR 730LLV3/730LLV6/730LLV9

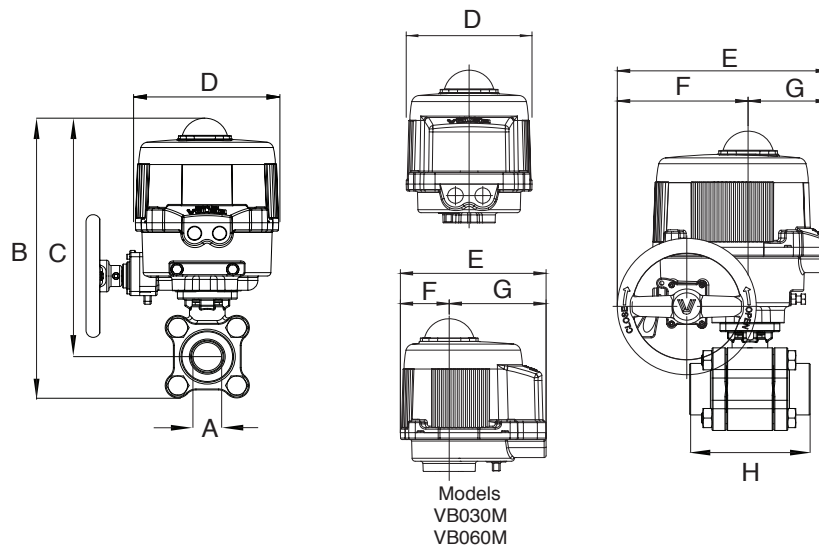


N POS	PART NAME	MATERIAL	N POS
1	BODY	CF8M	1
2	END CAP	CF8M	2
3	GASKET BODY	TFM	2
4	BALL	SS316	1
5	BALL SEATS	TFM-4215	2
6	BOLTS	SS304	*
7	THRUST WASHER	TFM	1
7A	THRUST WASHER	PEEK	1
8	STEM	SS316	1
8A	HALF SPLIT RING	SS316	1
8B	ANTI-STATIC	SS316	2

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

\*VARIES WITH SIZE

## DIMENSIONS

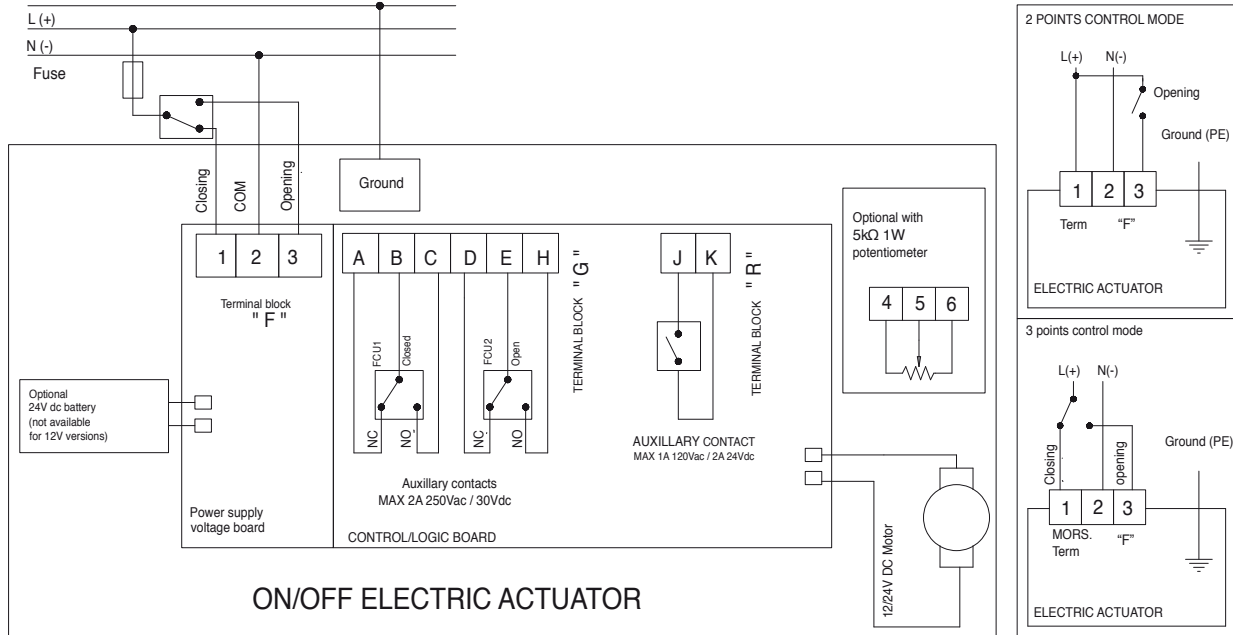


Size	A	B	C	D	E	F	G	H	ACT.
1/4"	0.25	10.45	9.64	6.34	7.36	2.48	4.88	2.64	VB030M
3/8"	0.38	10.45	9.64	6.34	7.36	2.48	4.88	2.64	VB030M
1/2"	0.50	10.57	9.72	6.34	7.36	2.48	4.88	2.64	VB030M
3/4"	0.75	10.85	9.91	6.34	7.36	2.48	4.88	2.99	VB030M
1"	1.00	11.19	10.15	6.34	7.36	2.48	4.88	3.35	VB030M
1-1/4"	1.25	12.20	11.10	6.93	7.76	2.48	5.28	3.66	VB060M
1-1/2"	1.50	12.65	11.41	6.93	7.76	2.48	5.28	4.13	VB060M
2"	2.00	14.81	13.22	10.63	10.48	6.50	3.98	4.80	VB110M
2-1/2"	2.50	15.67	13.81	10.63	10.48	6.50	3.98	6.10	VB190M
3"	3.00	16.51	14.40	10.83	10.98	7.24	3.74	6.89	VB270M
4" *	4.00	20.72	18.17	15.50	-	-	-	8.03	EA360

\* available only on -02\* model

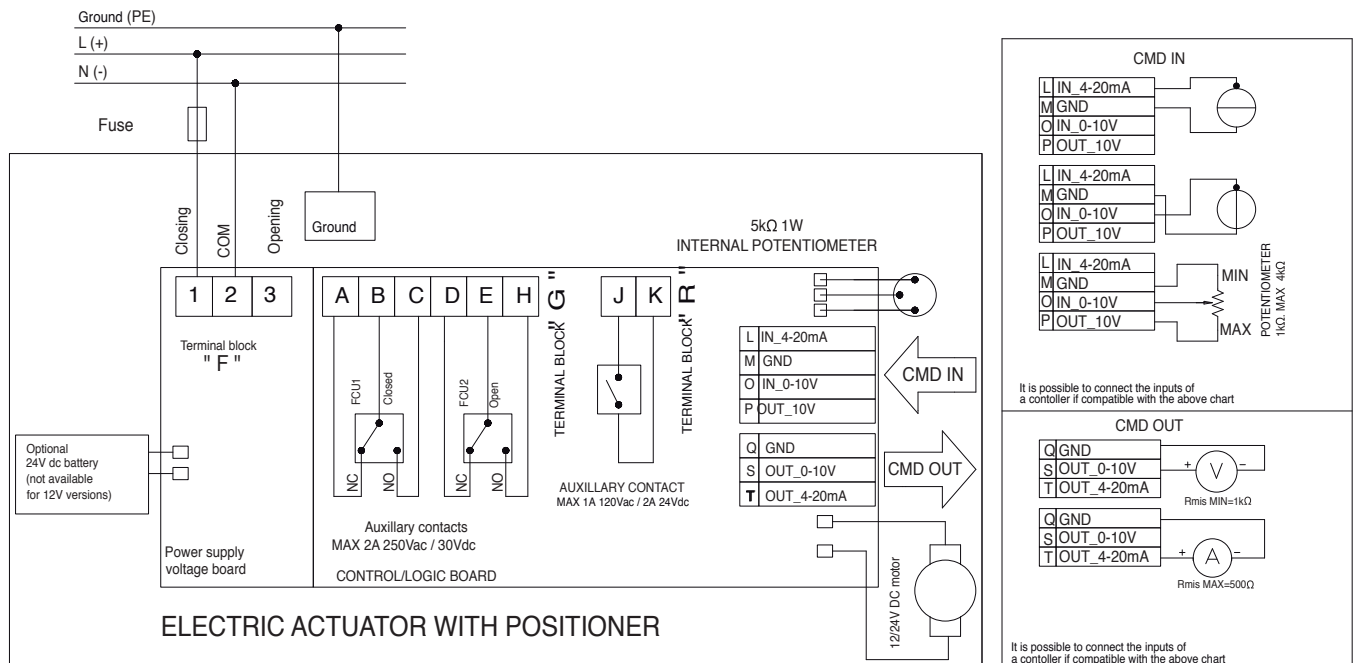
## ON/OFF WIRING DIAGRAM

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



## POSITIONER WIRING DIAGRAM

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



The power supply COM signal ( pin "2" terminal block "F" ) cannot share the same electrical command ground signal ( pin "GND" terminal block "CDM IN" ) or feedback ground signal ( pin "GND" terminal block "CDM OUT" ).

## 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