



SERIES 2110 - SERIES 1000/S-X

MODULATING INDUSTRIAL ELECTRIC ACTUATORS
2" - 24" RESILIENT SEATED BUTTERFLY VALVES

SERIES 2110 BUTTERFLY VALVE

- SERVICE:** Chilled/Hot Water - 50% Glycol
- FLOW CHARACTERISTIC:** Modified EQ%
- SIZES:** 2" - 24"
- BODY:** Ductile Iron ASTM A536
- BODY COATING:** Fusion Bonded Epoxy
- BODY PRESSURE RATING:** ASME/ANSI Class 125
- WORKING PRESSURE:** 250 PSI for -22°F to 100°F
- END FITTING:** Lugged ANSI Class 125/150 Flanged
- DISC:** 304SS
- STEM:** 416SS
- SEAT:** EPDM
- O-RING:** EPDM
- BUSHING:** PTFE
- CLOSE OFF:** 100 PSI
- LEAKAGE:** Bubble Tight Shutoff
- TEMPERATURE RANGE:** -22°F to 250°F
- MAX FLUID VELOCITY:** 30 FPS

SERIES 1000-X MODULATING ACTUATOR

- MOTOR:** 110/220VAC or 24VAC
- TORQUE RANGE:** 443 - 22,127 in/lbs
- HOUSING:** Die Cast Aluminum - NEMA 4
- CONTROL SIGNAL:** 4-20mA or 2-10VDC
- FEEDBACK:** 4-20mA
- RESOLUTION:** 80 Steps (4-20mA) 200 Steps (2-10VDC)
- PROTECTION:** Thermal Overload Protection
- POSITION INDICATOR:** Mechanical Dome
- CONDUIT ENTRIES:** 2 x 1/2" NPT
- POWER GEARS:** Alloy Steel and Aluminum Bronze
- BEARINGS:** Alloy Steel Sleeve and Ball Bearings
- CERTIFICATIONS:** CE, NRTL, NEMA 4, CSA File 226201
- INTERNAL HEATER:** Standard
- MANUAL OVERRIDE POWER SWITCH:**

*Not available on 1005/S-XL and all 24V models

MANUAL OVERRIDE: Allen Handle Standard

*Optional Handwheel not available on 1005/S-XL



Shown with optional handwheel

SERIES 1000-X MODULATING ACTUATOR SPECIFICATIONS

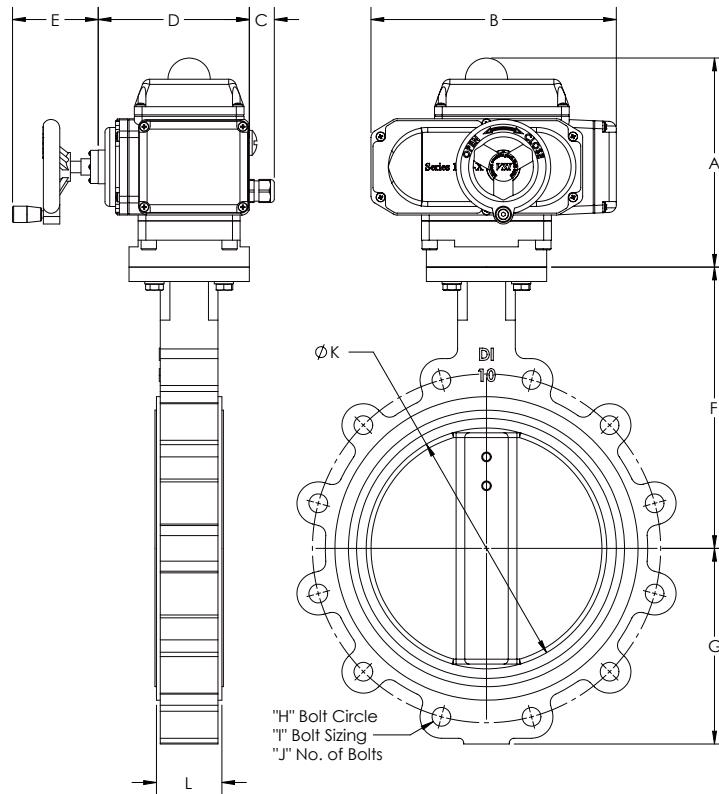
MODEL	1005/S-XL	1010/S-X	1020/S-X	1040/S-X	1060/S-X	1100/S-X	1160/S-X	1250/S-X
Output Torque (in-lb)	443	885	1770	3540	5310	8851	14616	22127
Output Torque (Nm)	50	100	200	400	600	1000	1600	2500
Duty Cycle	80%	80%	80%	80%	80%	70%	70%	70%
Travel Speed @ 60Hz (Sec)	20	30	30	30	45	30	48	75
Max Current (Amp @ 110/220VAC)	0.34/0.17	0.81/0.47	1.68/0.78	3.41/1.78	3.60/1.87	3.80/2.12	3.93/2.16	3.95/2.20
Run Current (AMP @ 110/220VAC)	0.24/0.16	0.57/0.35	0.65/0.37	1.12/0.57	1.18/0.60	1.93/0.94	1.75/0.96	1.75/0.98
Max Current (Amp @ 24VAC)	2.0	2.5	5.4	8.4	N/A	N/A	N/A	N/A
Run Current (Amp @ 24VAC)	1.5	2.0	4.9	7.9	N/A	N/A	N/A	N/A
Input Signal	Switchable 2-10VDC or 4-20mA on all models							
Output Signal	4-20mA							
Enclosure Rating	WATERTIGHT NEMA 4							



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DIMENSIONAL INFORMATION



DIMENSIONS: ^{MM}
_{INCHES}

PSI	VALVE SIZE		ACTUATOR	A	B	C	D	E	F	G	H	J x I	K	L
	INCH	DN												
100	2	50	1005/S-XL	160.5 6.32	160 6.3	24 0.94	112 4.41	87 3.43	161 6.34	80 3.15	4.75	4 x 5/8 - 11	50.8 2	43 1.69
	2.5	65	1005/S-XL	160.5 6.32	160 6.3	24 0.94	112 4.41	87 3.43	175 6.89	89 3.5	5.5	4 x 5/8 - 11	63.5 2.5	46 1.81
	3	75	1005/S-XL	160.5 6.32	160 6.3	24 0.94	112 4.41	87 3.43	181 7.13	95 3.74	6	4 x 5/8 - 11	76.2 3	46 1.81
	4	100	1005/S-XL	160.5 6.32	160 6.3	24 0.94	112 4.41	87 3.43	200 7.87	114 4.49	7.5	8 x 5/8 - 11	101.6 4	52 2.05
	5	125	1005/S-XL	160.5 6.32	160 6.3	24 0.94	112 4.41	87 3.43	213 8.39	127 5	8.5	8 x 3/4 - 10	127 5	56 2.2
	6	150	1010/S-X	181 7.13	196 7.72	24 0.94	121 4.76	87 3.43	226 8.9	139 5.47	9.5	8 x 3/4 - 10	152.4 6	56 2.2
	8	200	1020/S-X	218 8.58	255 10.04	24 0.94	158 6.22	87 3.43	260 10.24	175 6.89	11.75	8 x 3/4 - 10	203.2 8	60 2.36
	10	250	1020/S-X	218 8.58	255 10.04	24 0.94	158 6.22	87 3.43	292 11.5	203 7.99	14.25	12 x 7/8 - 9	254 10	68 2.68
	12	300	1040/S-X	218 8.58	255 10.04	24 0.94	158 6.22	87 3.43	337 13.27	242 9.53	17	12 x 7/8 - 9	304.8 12	78 3.07
	14	350	1040/S-X	218 8.58	255 10.04	24 0.94	158 6.22	87 3.43	368 14.49	267 10.51	18.75	12 x 1 - 8	355.6 14	78 3.07
	16	400	1100/S-X	244 9.61	310 12.2	24 0.94	217 8.54	87 3.43	400 15.75	297 11.69	21.25	16 x 1 - 8	406.4 16	102 4.02
	18	450	1100/S-X	244 9.61	310 12.2	24 0.94	217 8.54	87 3.43	422 16.61	318 12.52	22.75	16 x 1 1/8 - 7	457.2 18	114 4.49
	20	500	1160/S-X	244 9.61	310 12.2	24 0.94	217 8.54	87 3.43	480 18.9	348 13.7	25	20 x 1 1/8 - 7	508 20	127 5
	24	600	1250/S-X	244 9.61	310 12.2	24 0.94	217 8.54	87 3.43	562 22.13	444 17.48	29.5	20 x 1 1/4 - 7	609.6 24	154 6.06