



# SERIES 2120 - SERIES 1000/S-X

MODULATING INDUSTRIAL ELECTRIC ACTUATORS  
2" - 20" RESILIENT SEATED BUTTERFLY VALVES

## SERIES 2120 BUTTERFLY VALVE

- SERVICE:** Chilled/Hot Water - 50% Glycol
- FLOW CHARACTERISTIC:** Modified EQ%
- SIZES:** 2" - 20"
- 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:** 200 PSI (2"-12") or 150 PSI (14"-20")
- 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

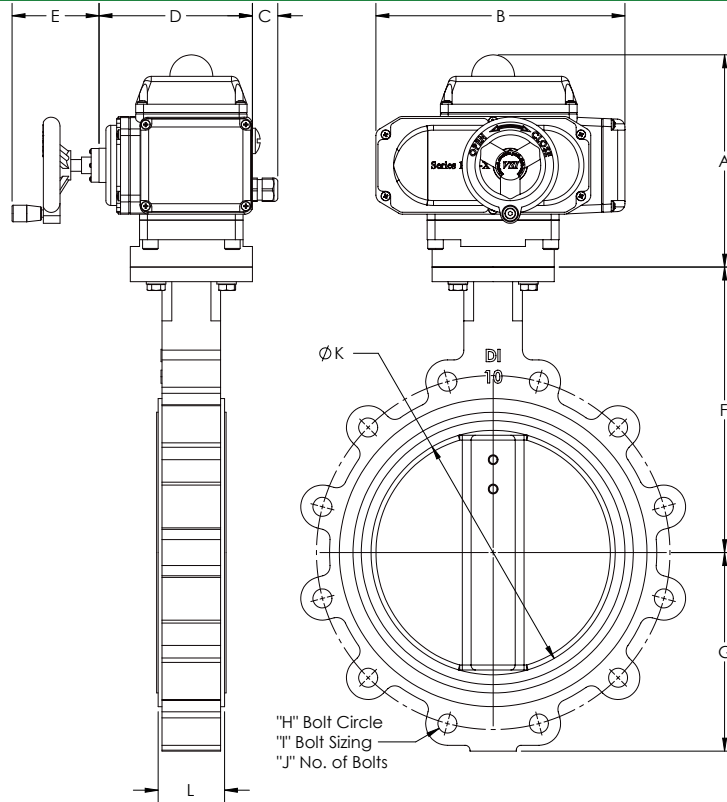
MODEL	1005/S-XL	1010/S-X	1020/S-X	1040/S-X	1060/S-X	1100/S-X	1160/S-X	1250/S-X
Output Torque (in-lb)	443	885	1770	3540	5310	8851	14616	22127
Output Torque (Nm)	50	100	200	400	600	1000	1600	2500
Duty Cycle	80%	80%	80%	80%	80%	70%	70%	70%
Travel Speed @ 60Hz (Sec)	20	30	30	30	45	30	48	75
Max Current (Amp @ 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												
200 PSI	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	1010/S-X	181 (7.13)	196 (7.72)	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	1010/S-X	181 (7.13)	196 (7.72)	24 (0.94)	112 (4.41)	87 (3.43)	226 (8.9)	127 (5)	8.5	8 x 3/4 - 10	127 (5)	56 (2.2)
	6	150	1010/S-X	218 (8.58)	255 (10.04)	24 (0.94)	158 (6.22)	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	1040/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)
150 PSI	14	350	1060/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	1160/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)