



SERIES 1000



DESIGN FEATURES

Series 1000 On-Off Rotary Electric Actuator

Basic Actuator:

Torque Output Range: 347in-lb to 17,359in-lb

Housing: NEMA 4X, watertight, corrosion-resistant, robust aluminum die cast

Electric Motor: 120VAC, single phase, 60Hz totally enclosed, non-ventilated, high starting torque, reversible induction type, Class F insulation

Thermal Overload Motor Protection: Auto reset thermal switch embedded in the motor winding - trips when the maximum winding temperature is exceeded

Position Limit Switches: 2 x SPDT for Open and Close travel limit - easily adjustable, cam operated

Position Indicator: Mechanical dome type with visible red/yellow closed/open indicator

Terminal Strip: Refer to wiring diagrams for details

Conduit Entries: 1 x 1/2" NPT for power and control wiring

Power Gears: Alloy steel spur gears to final stage aluminum bronze worm sector gear

Break: An electro-mechanical brake is NOT required. The worm gear drive prevents back driving and hunting

Bearings: High quality alloy steel sleeve and ball bearings

Manual Override: Handle

Adjustable Mechanical Stops

Ambient Temperature Range: -31°F to +150°F

Certification and Approvals: CE, NEMA4, CSA, NRTL

Internal Heater



Optional Features

- 220V AC/1/50-60Hz power
- 12/24V DC 1005 through 1020
- Torque Limit Switches for Close direction of travel
- Feedback Potentiometer - 1000ohm
- DeClutchable Handwheel Override

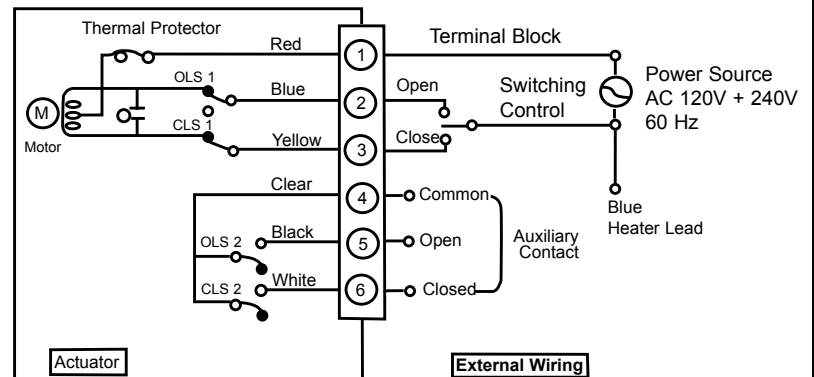
ON-OFF SPECIFICATIONS

Series 1000 On-Off Actuator Specifications

Model	1005	1010	1020	1040	1060	1100	1150	1200
Output Torque(in-lb)	347	868	1736	3472	5208	8680	13,019	17,359
Output Torque(Nm)	39.23	98.06	196.13	392.27	588.4	980.66	1471	1961.32
Duty Cycle	75%	75%	50%	50%	50%	50%	50%	50%
Travel Speed at 60Hz(Sec)	25	25	25	25	50	50	50	50
Maximum Current (Amp. @ 120/220VAC)	.35/.18	.41/.22	1.66/.90	1.66/.90	2.40/1.21	2.40/1.21	2.40/1.21	2.40/1.21
Enclosure Raiting	WATERTIGHT NEMA 4, NEMA 4X							
Weight(lb)	5.7	8.2	16.1	16.1	24.7	24.7	24.7	24.7



1000 (ON/OFF) With Additional Limit Switches



OLS 1 = Open Limit Switch
 OLS 2 = Open Direction Aux. Switch
 CLS 1 = Closed Limit Switch
 CLS 2 = Closed Direction Aux. Switch

DESIGN FEATURES

Series 1000 Modulating Rotary Electric Actuator

Basic Actuator:

Control Module: Direct Digital control input 4~20mA or 2-10VDC from controller & the module provides 4~20mA output for feedback

Torque Output Range: 347in-lb to 17,359in-lb

Housing: NEMA 4X, watertight, corrosion-resistant, robust aluminum die cast

Electric Motor: 120VAC, single phase, 60Hz totally enclosed, non-ventilated, high starting torque, reversible induction type, Class F insulation

Thermal Overload Motor Protection: Auto reset thermal switch embedded in the motor winding - trips when the maximum winding temperature is exceeded

Resolution: 100 to 400 increments through 90° travel

Power at Reset: 2VA

Position Indicator: Mechanical dome type with visible red/yellow closed/open indicator

Terminal Strip: Refer to wiring diagrams for details

Conduit Entries: 2 x 1/2" NPT for power and control wiring

Power Gears: Alloy steel spur gears to final stage aluminum bronze worm sector gear

Break: An electro-mechanical brake is NOT required. The worm gear drive prevents back driving and hunting

Bearings: High quality alloy steel sleeve and ball bearings

Manual Override: Handle

Adjustable Mechanical Stops

Ambient Temperature Range: -31°F to +150°F

Certification and Approvals: CE, NEMA4, CSA, NRTL



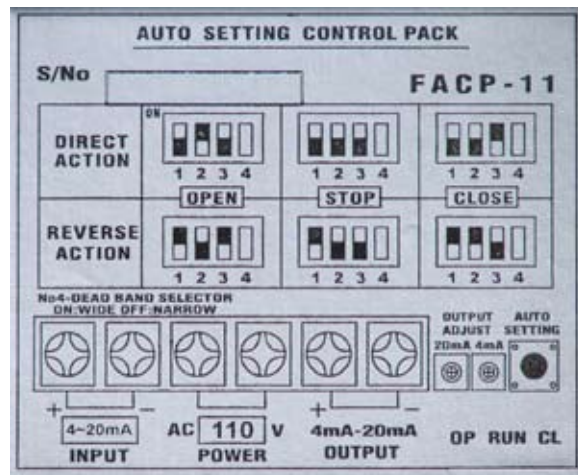
Optional Features

- 220V AC/1/50-60Hz power
- 2 x SPDT Auxiliary Switches
- Torque Limit Switches for Close direction of travel
- DeClutchable Handwheel Override
- Space Heater

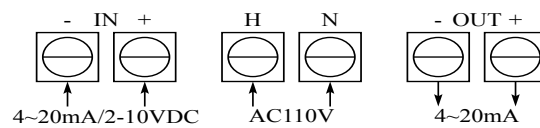
MODULATING SPECIFICATIONS

Series 1000S Modulating Actuator Specifications

Model	1010S	1020S	1040S	1060S	1100S	1150S	1200S
Output Torque(in lb)	868	1736	3472	5208	8680	13,019	17,359
Output Torque(Nm)	98.06	196.13	392.27	588.4	680.66	1471	1961.32
Resolution	1/80 - 1/200 Steps Through						
Power Consumption	70VA	200VA	200VA	350VA	350VA	350VA	350VA
Power At Rest	2VA						
Duty Cycle	75%	50%	50%	50%	50%	50%	50%
Enclosure Rating	WATERTIGHT, NEMA 4, NEMA 4X						
Travel Speed at 60Hz(sec)	25	25	25	50	50	50	50
Insulation Resistance	100M ohm (500VDC)						
Maximum Current (Amp @ 120/220VAC)	.65/.35	1.8/.9	1.8/.9	1.62/.88	2.8/1.4	3.4/1.7	-
Weight(lb)	8.6	16.5	16.5	26.1	26.1	26.1	26.1

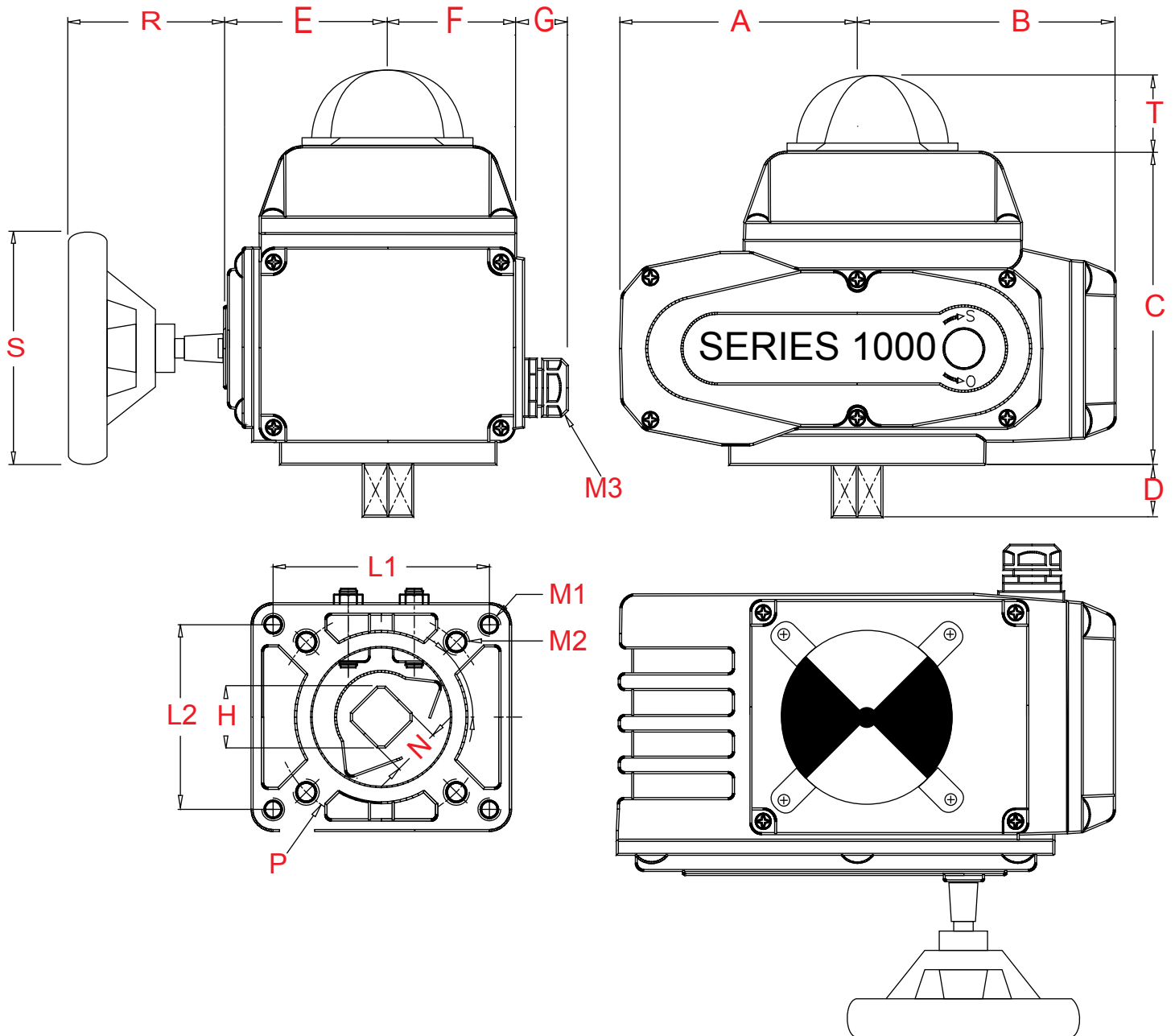


1000S WIRING DIAGRAM



DIMENSIONS

Dimensional Diagram



DIMENSIONS
**Dimensions
Inches (Millimeters)**

Dimension Inches(mm)	1005	1010 1010S	1020 1020S 1040 1040S	1060 1060S 1100 1100S	1150 1150S 1200 1200S
A	3.386 (86)	3.858 (98)	4.843 (123)	5.039 (128)	5.039 (128)
B	2.717 (69)	4.331 (110)	5.236 (133)	5.984 (152)	5.984 (152)
C	4.528 (115)	4.528 (115)	5.551 (141)	6.654 (169)	6.654 (169)
D	0.472 (12)	0.63 (16)	0.866 (22)	1.024 (26)	1.024 (26)
E	2.205 (56)	2.48 (63)	3.543 (90)	3.74 (95)	3.74 (95)
F	1.772 (45)	2.047 (52)	2.48 (63)	2.402 (61)	2.402 (61)
G	0.787 (20)	1.024 (26)	1.024 (26)	1.024 (26)	1.024 (26)
L1	2.677 (68)	3.228 (82)	4.646 (118)	5.827 (148)	5.827 (148)
L2	2.362 (60)	2.756 (70)	3.307 (84)	3.307 (84)	3.307 (84)
P	2.756 (70)	2.756 (70)	4.016 (102)	N/A	N/A
N	0.472 (12)	0.591 (15)	0.906 (23)	1.181 (30)	1.181 (30)
H	0.63 (16)	0.787 (20)	1.102 (28)	1.575 (40)	1.575 (40)
M1	M6 x 1	M6 x 1	M10 x 1.25	M12 x 1.25	M12 x 1.25
M2	M8 x 1.25	M8 x 1.25	M10 x 1.25		
M3	1/2 NPT	1/2 NPT	1/2 NPT	1/2 NPT	1/2 NPT
R	2.913 (74)	2.913 (74)	2.913 (74)	2.913 (74)	2.913 (74)
S	4.724 (120)	4.724 (120)	4.724 (120)	4.724 (120)	4.724 (120)
T	1.102 (28)	1.102 (28)	1.102 (28)	1.102 (28)	1.102 (28)

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