



SERIES 1000

DESIGN FEATURES

Series 1000 On-Off Rotary Electric Actuator

Standard Features

Torque Output Range: 434in-lb to 17,700in-lb

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

Mounting: ISO 5211 Standard mounting configurations

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: Allen Handle

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

Certification and Approvals: CE, NEMA 4, NRTL, CSA File 226201

Internal Heater

Manual Override Power Switch: Disconnects power from the actuator without the need to disconnect power from the terminals or the panel. The power needs to be disconnected to manually operate the actuator.



Optional Features

- 220V AC 50/60Hz power
- 24V AC 50/60Hz power - models 1005 and 1010
- 12/24V DC 1005 through 1040
- Torque Limit Switches for Close direction of travel
- Feedback Potentiometer - 1000ohm
- DeClutchable Handwheel Override

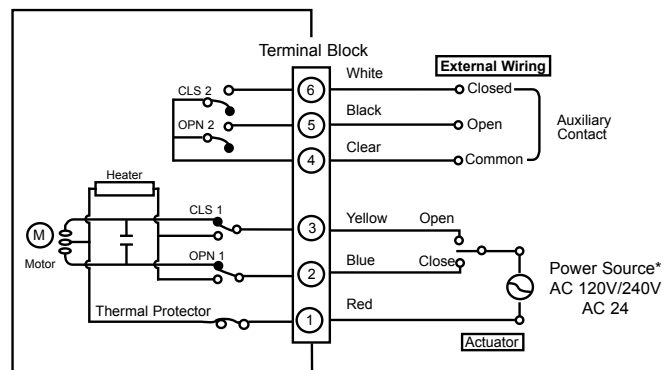
ON-OFF SPECIFICATIONS

Series 1000 On-Off Actuator Specifications

Model	1005-24VAC	1005	1010-24VAC	1010-24VDC	1010 (-F)	1040 (-F)	1200
Output Torque(in-lb)	487	434	1239	885	880	3520	17,700
Output Torque(Nm)	55	49	140	100	99	398	2000
Duty Cycle	75%	75%	75%	75%	75%	50%	50%
Travel Speed at 60Hz(Sec)	60	25	140	13	25	25	50
Maximum Current (Amp. @ 110/220VAC)		.35/.18			.41/.22	1.66/.90	2.40/1.21
Run Current (Amp. @ 24VAC)	.6		.6				
Maximum Current (Amp. @ 24VAC)	.9		.9				
Run Current (Amp. @ 24DC)				1.6			
Maximum Current (Amp. @ 24DC)				4			
Enclosure Rating	WATERTIGHT NEMA 4						
Weight(lb)	5.7	5.7	8.2	8.2	8.2	16.1	24.7



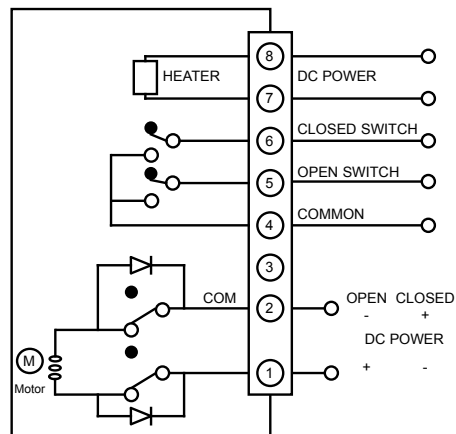
1000 (ON/OFF) With Standard Limit Switches



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

*Power source dependant on model

1010-24DC (ON/OFF) With Standard Limit Switches



DESIGN FEATURES

Series 1000/S Modulating Rotary Electric Actuator

Standard Features

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

Torque Output Range: 880in-lb to 17,700in-lb

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

Mounting: ISO 5211 Standard mounting configurations

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: 80 steps (4-20mA) or 200 steps (2-10VDC) through 90° travel

Power at Rest: 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: Allen Handle

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

Certification and Approvals: CE, NEMA4, NRTL, CSA File 226201

Manual Override Power Switch: Disconnects power from the actuator without the need to disconnect power from the terminals or the panel. The power needs to be disconnected to manually operate the actuator. When the power is energized, the switch will be illuminated red. (Modulating models only.)



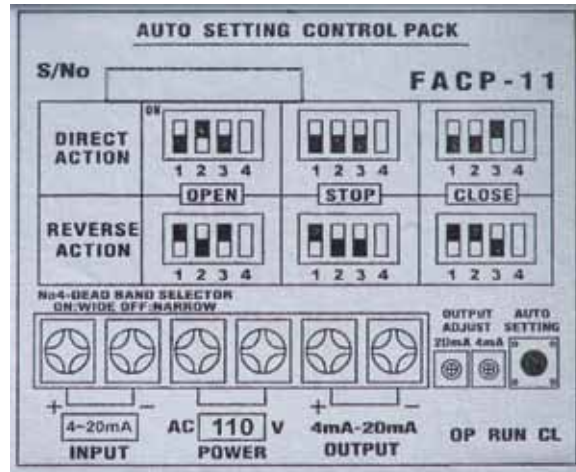
Optional Features

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

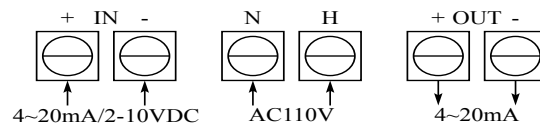
MODULATING SPECIFICATIONS

Series 1000S Modulating Actuator Specifications

Model	1010S(-F)	1040S(-F)	1200S
Output Torque(in lb)	880	3520	17,700
Output Torque(Nm)	99	398	2000
Resolution	80 (4-20mA) or 200 (2-10VDC) Steps		
Power Consumption	70VA	200VA	350VA
Power At Rest	2VA		
Duty Cycle	75%	50%	50%
Enclosure Rating	WATERTIGHT NEMA 4		
Travel Speed at 60Hz(sec)	25	25	50
Insulation Resistance	100M ohm (500VDC)		
Maximum Current (Amp @ 110/220VAC)	.65/.35	1.8/.9	3.2/1.6
Weight(lb)	8.6	16.5	26.1

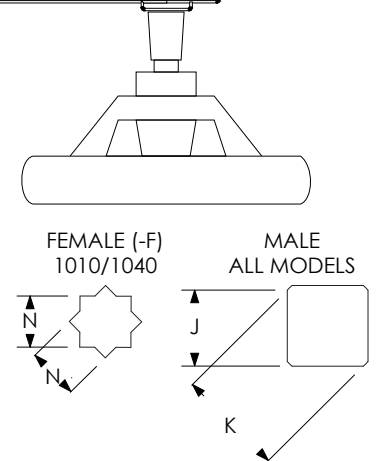
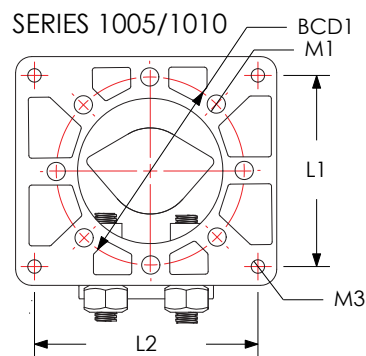
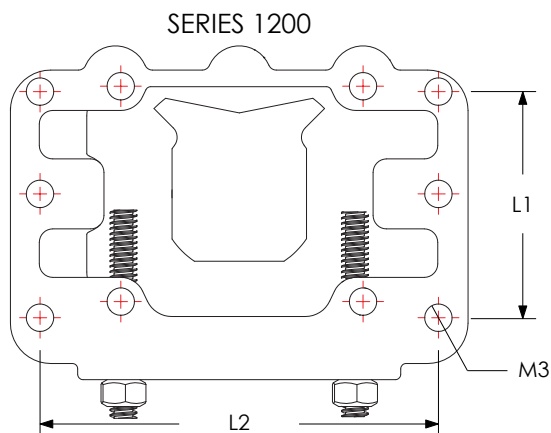
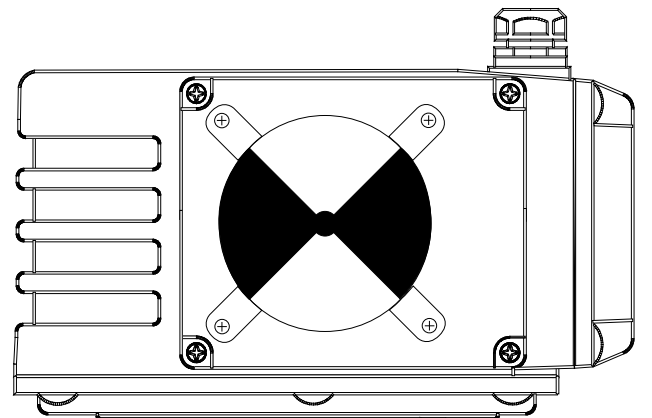
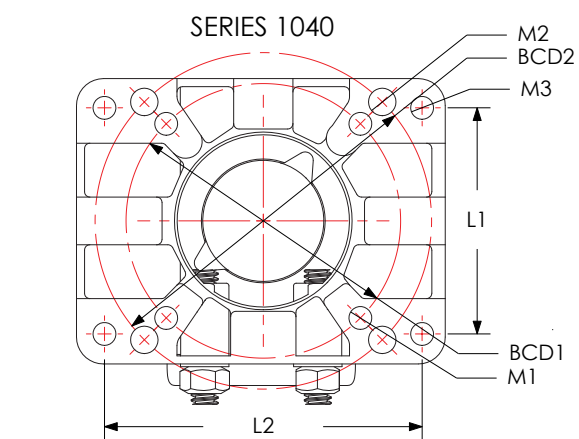
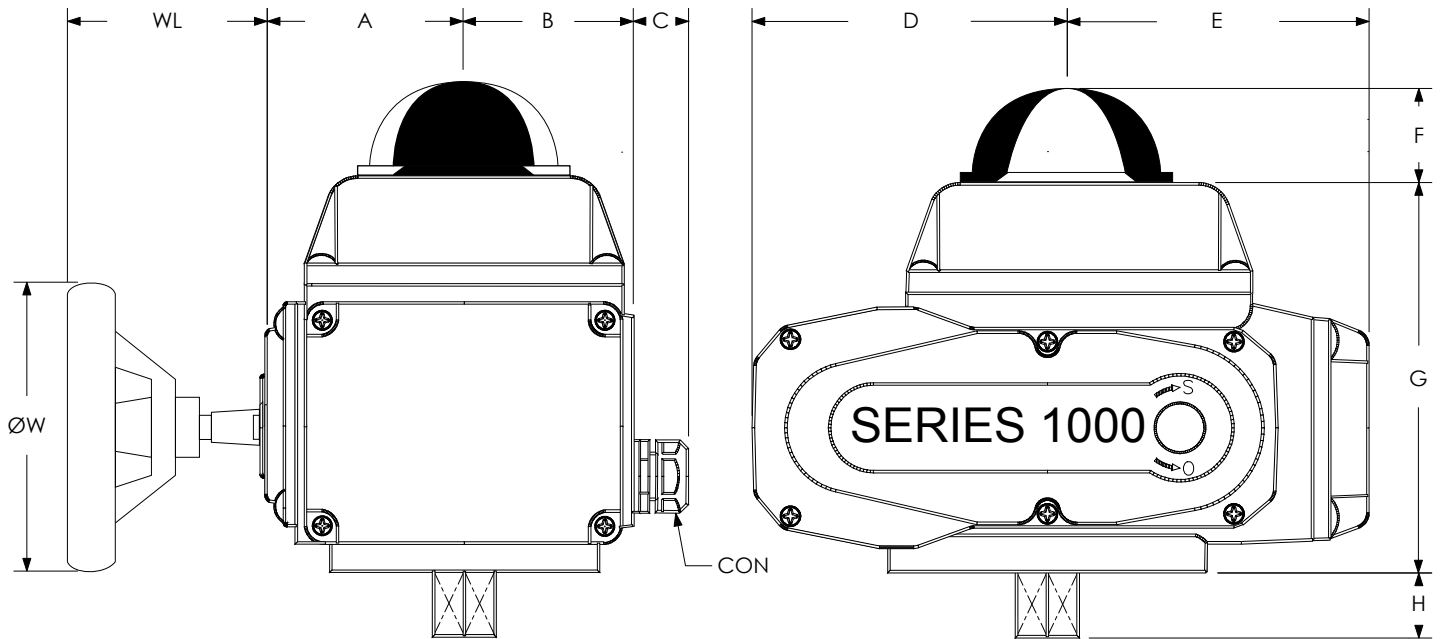


1000S WIRING DIAGRAM



DIMENSIONS

Dimensional Diagram



DIMENSIONS
**Dimensions
Inches (Millimeters)**

Dimension Inches (mm)	1005	1010 1010/S	1010-F 1010/S-F	1040 1040/S	1040-F 1040/S-F	1200 1200/S
A	2.205 (56)	2.48 (63)	2.48 (63)	3.543 (90)	3.543 (90)	3.74 (95)
B	1.772 (45)	2.047 (52)	2.047 (52)	2.48 (63)	2.48 (63)	2.402 (61)
C	.787 (20)	1.024 (26)	1.024 (26)	1.024 (26)	1.024 (26)	1.024 (26)
D	3.386 (86)	3.858 (98)	3.858 (98)	4.843 (123)	4.843 (123)	5.039 (128)
E	2.898 (74)	4.331 (110)	4.331 (110)	5.236 (133)	5.236 (133)	6.654 (169)
F	1.102 (28)	1.102 (28)	1.102 (28)	1.102 (28)	1.102 (28)	1.102 (28)
G	4.528 (115)	4.528 (115)	4.528 (115)	5.551 (141)	5.551 (141)	6.654 (169)
CON	1/2 NPT CONNECTIONS 1 X ON ON OFF - 2 X ON MODULATING					
H	.55 (14)	.63 (16)		.866 (22)		1.024 (26)
J	.472 (12)	.591 (15)		.906 (23)		1.181 (30)
K	.63 (16)	.787 (20)		1.102 (28)		1.575 (40)
N			19		27	
DP			35		35	
WL	2.913 (74)	2.913 (74)	2.913 (74)	2.913 (74)	2.913 (74)	2.913 (74)
ØW	4.724 (120)	4.724 (120)	4.724 (120)	4.724 (120)	4.724 (120)	4.724 (120)
BCD1	2.756 (70)	2.756 (70)	2.756 (70)	4.016 (102)	4.016 (102)	
M1	4 X M8X1.25	8 X M8X1.25	8 X M8X1.25	4 X M10X1.25	4 X M10X1.25	
BCD2				4.921 (125)	4.921 (125)	
M2				4 X M12X1.25	4 X M12X1.25	
L1	2.362 (60)	2.756 (70)	2.756 (70)	3.307 (84)	3.307 (84)	3.307 (84)
L2	2.677 (68)	3.228 (82)	3.228 (82)	4.646 (118)	4.646 (118)	5.827 (148)
M3	4 X M6X1.0	4 X M6X1.0	4 X M6X1.0	4 X M10X1.25	4 X M10X1.25	4 X M12X1.25



Commercial, Industrial & Municipal Valve Automation

Partners



WARRANTY INFORMATION

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During the warranty period, Valve Solutions, Inc. will repair or replace defective parts of the product, or, at Valve Solutions, Inc. sole option, issue a credit for the original purchase price of the product. Repaired or replaced product will be warranted hereunder only for the remaining portion of the original warranty period. All exchanged products under this Limited Warranty will become the property of Valve Solutions, Inc. A proper Return Material Authorization (RMA) number will have to be obtained for all products to be returned under this Limited Warranty. Any claim under this Limited Warranty must include a description of the problem encountered and any relevant information that may assist Valve Solutions, Inc. in the replication or resolution of the problem.

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