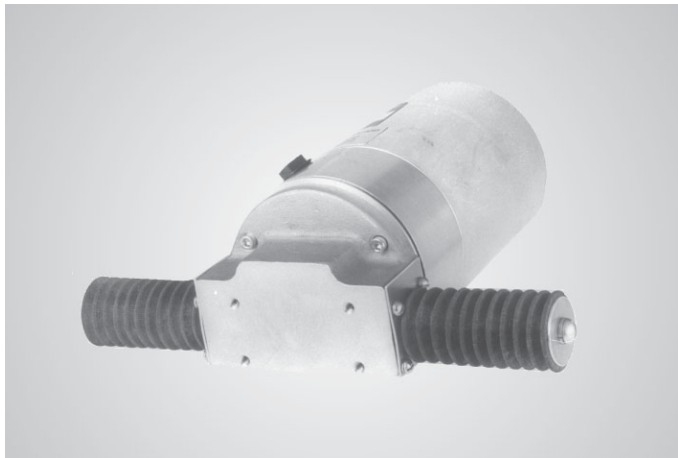


GENERAL DESCRIPTION

The LA-1100 and LA-1500 Series are linear, bi-directional actuators, designed to meet the exacting requirements for closed-loop modulating positioning control. They can be applied to a variety of sliding stem valves to provide remote valve positioning for control of gases, steam or other liquids in various process control applications.

All LA-1100 and LA-1500 Series actuators are also available with an internal amplifier (AC voltage only). These amplifiers are all full-featured ac switching devices designed to work seamlessly with the actuator for closed loop control.



FEATURES

- Permanently lubricated for any position mounting
- A wide variety of speed/thrust combinations
- AC or DC input power versions
- Wide ambient temperature range
- Full one year warranty

AMPLIFIER FEATURES

- Isolated, two-wire, 4-20mA feedback
- Customer-adjustable deadband
- Customer-adjustable zero and span
- Accepts either voltage or current command inputs
- Selectable options for Loss-of-Signal action:
 - Lock in place
 - Run to preset
- Field selectable dynamic brake
- AC triac switching of motor for increased life

BASE MODEL INCLUDES:

- Motor
- End of travel switches, not for customer use
- Aluminum NEMA 4 (IP65), explosion-proof enclosure with screw-on cover
- Rack bellows on both ends
- Internal spur and rack and pinion gear train
- 1000 ohm potentiometer feedback (amplifier models only)

POPULAR OPTIONS *(See Pages 197-206)*

- Potentiometer or 4 to 20 mA position feedback
- Anti-condensation heater and thermostat
- Custom mounting and interface hardware
- Motor brake (LA-1500 only)
- Handcrank (LA-1500 only)

SPECIFICATIONS

	LA-1100	LA-1500
Thrust Range lbf. (N)	3.5 to 200 (16 to 890)	74 to 500 (329 to 2224)
Stroke in. (mm)	0.75 to 18 (19 to 457)	0.75 to 21 (19 to 533)
Speed in./min. (mm/min.)	2 to 61 (51 to 1549)	1 to 56 (25 to 1422)
Approx. Weight lbs. (kg)	15 to 20 (7 to 9)	20 to 27 (9 to 12)

Temperature Limits: -40°F to 150°F (-40°C to 65°C)
For greater temperature ranges, consult factory.

Field Wiring: To barrier terminal blocks

Approvals: See page 207

Position Switch Rating: 120/240 Vac, 10 Amp

Additional Specifications on next page

LA-1100/LA-1500 SPECIFICATION CHART

Actuator Model	Input Power Volts/Phase/Hz	Current (Amps)		Command Input	Input Impedance in ohms	Feedback	Modulation Rate *
		Run	Stall				
LA-1110-N	120/1/50/60	0.25	0.26	N/A	N/A	N/A	2000 starts/hr
LA-1110-D	120/1/50/60	0.25	0.26	4-20 mA 0-5 Vdc or 0-10 Vdc	200 100,000	4-20 mA loop powered	2000 starts/hr
LA-1140-N	24 Vdc	1.2	4.8	N/A	N/A	N/A	4000 starts/hr
LA-1170-N	240/1/50/60	0.14	0.15	N/A	N/A	N/A	2000 starts/hr
LA-1170-D	240/1/50/60	0.14	0.15	4-20 mA 0-5 Vdc or 0-10 Vdc	200 100,000	4-20 mA loop powered	2000 starts/hr
LA-1510-N	115/1/50/60	0.44	0.65	N/A	N/A	N/A	2000 starts/hr
LA-1510-D	115/1/50/60	0.44	0.65	4-20 mA 0-5 Vdc or 0-10 Vdc	200 100,000	4-20 mA loop powered	2000 starts/hr
LA-1570-N	240/1/50/60	0.27	0.4	N/A	N/A	N/A	2000 starts/hr
LA-1570-D	240/1/50/60	0.27	0.4	4-20 mA 0-5 Vdc or 0-10 Vdc	200 100,000	4-20 mA loop powered	2000 starts/hr

* Rated for continuous modulating service at 1% minimum position change.

N/A = Not Applicable

REMOTE AMPLIFIER CHART

Actuator	Remote Mounted Amplifier	Catalog Page
LA-1110-N	AD-8240	173
LA-1140-N	AD-7530	170
LA-1170-N	AD-8240	173
LA-1510-N	AD-8240	173
LA-1570-N	AD-8240	173

LA-1100 SERIES SELECTION CHART

Selection

1	Basic Model	LA-1110-N	1 phase, 120 Vac, 50/60 Hz, without built-in digital amplifier	
		LA-1110-D	1 phase, 120 Vac, 50/60 Hz, with built-in digital amplifier	
		LA-1140-N	24 Vdc (If amplifier desired, see remote model AD-7530)	
		LA-1170-N	1 phase, 240 Vac, 50/60 Hz, without built-in digital amplifier	
		LA-1170-D	1 phase, 240 Vac, 50/60 Hz, with built-in digital amplifier	
2	Input Voltage	1: 120 Vac, 1 Phase, 50/60 Hz (LA-1110-N, LA-1110-D)		
		2: 240 Vac, 1 Phase, 50/60 Hz (LA-1170-N, LA-1170-D)		
		6: 24 Vdc (LA-1140-N, LA-1180-N)		
3	Speed in./min. (mm/min.)	LA-1110		LA-1140
		LA-1170		
		2/200 (51/890)		2.25/200 (57/890)
		4/200 (102/890)		4.5/200 (114/890)
		8/112 (203/489)		9/200 (229/890)
		15/56 (381/249)		18/200 (457/890)
4	Thrust lbf. (Nm)	31/28 (787/125)		36/140 (914/623)
		61/14 (1549/62)		75/70 (1905/311)
5	Linear Travel	Specify Travel - 0.75 inch (19 mm) to 18 inches (457 mm) stroke available. (3 inch increments)		

LA-1100 STANDARD OPTIONS

Code	Description	Selection
Toggles, Lights		
A008	Local Auto/Manual INC/OFF/DEC (Close Coupled Enclosure)	
Drive Arm/Adapter Clevis/Driven Arm		
D042	Clevis, one end	
D043	Clevis, both ends	
Feedback		
F001	Potentiometer, 1000 ohms	
F002	Tandem Potentiometer, 1000 ohms each (not for use with units with internal amps)	
F003	Potentiometer, 5000 ohms (Not for use with models with internal amplifiers)	
F004	Potentiometer, 10,000 ohms (Not for use with models with internal amplifiers)	
F005	Transmitter, 4-20 mA	
F006	One Potentiometer, 1000 ohms plus Transmitter, 4-20 mA (not for use with units with internal amps)	
F010	Anti Backlash Feedback Gearing	
F999	Special Potentiometer (consult factory)	
Heater		
H001	Anti-Condensation Heater (24 VDC)	
H002	Anti-Condensation Heater (120 VAC)	
H003	Anti-Condensation Heater (240 VAC)	

Code	Description	Selection
Identification/Certifications		
J001	CE Marking, AC input only (available for units with amplifiers)	
J002	Stainless Steel Tags	
J004	One year extended warranty	
J005	Two year extended warranty	
Auxiliary Switches		
S005	Aluminum Cam (<i>Up to 5.85 turns</i>)	
S006	Aluminum Feedback Frame	
S008	Two nonadjustable end of travel position switches, SPST, 10 Amp, 120/240 Vac	
S009	Two Adjustable Position Switches, SPDT, 10 Amp, 120/240 Vac	
S010	Two Adjustable Position Switches, DPDT, 10 Amp, 120/240 Vac	
S013	Two nonadjustable end of travel position switches, SPDT, 10 Amp, 120/240 Vac	
Painting/Coating		
W001	JCI Standard Polyurethane Blue	
W002	Two Part Epoxy	
W003	Food Grade Epoxy	
W004	Baked On Epoxy	
W005	Teflon	
Special Mechanical Options		
Y015	Metric mounting holes, 6mm	

For a full description of options, go to the Complete Listing of Options starting on page 197.

LA-1500 SERIES SELECTION CHART

Selection

1	Basic Model	LA-1510-N	1 phase, 115 Vac, 50/60 Hz, without built-in digital amplifier	
		LA-1510-D	1 phase, 115 Vac, 50/60 Hz, with built-in digital amplifier	
		LA-1570-N	1 phase, 240 Vac, 50/60 Hz, without built-in digital amplifier	
		LA-1570-D	1 phase, 240 Vac, 50/60 Hz, with built-in digital amplifier	
2	Input Voltage	1: 120 Vac, 1 Phase, 50/60 Hz (LA-1510-N, LA-1510-D)		
		2: 240 Vac, 1 Phase, 50/60 Hz (LA-1570-N, LA-1570-D)		
3	Speed in./min. (mm/min.)	1.8/500 (46/2224)		
		6.5/500 (165/2224)		
		14/420 (356/1868)		
4	Thrust lbf. (Nm)	22/300 (559/1334)		
		47/150 (1184/667)		
		82/74 (2083/329)		
5	Linear Travel	Specify Travel - 0.75 inch (19 mm) to 21 inches (533 mm) stroke available. (3 inch increments)		

LA-1500 STANDARD OPTIONS

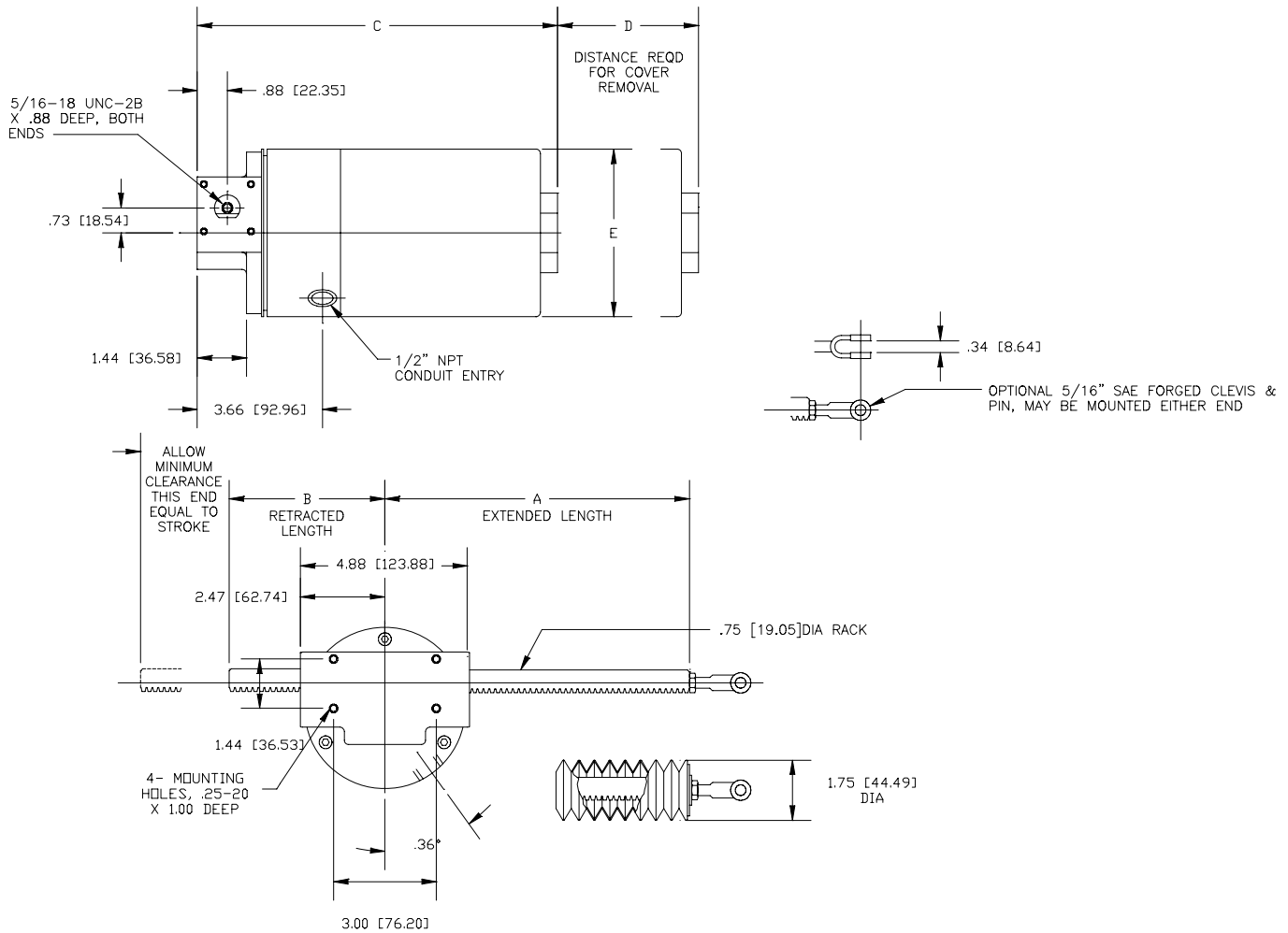
Code	Description	Selection
Toggles, Lights		
A008	Local Auto/Manual INC/OFF/DEC (Close Coupled Enclosure)	
Brake		
B001	Electrically Operated Brake 120 Vac	
B002	Electrically Operated Brake 240 Vac	
Drive Arm/Adapter Clevis/Driven Arm		
D039	Clevis, one end	
Feedback		
F001	Potentiometer, 1000 ohms	
F002	Tandem Potentiometer, 1000 ohms each (not for use with units with internal amps)	
F003	Potentiometer, 5000 ohms (Not for use with models with internal amplifiers)	
F004	Potentiometer, 10,000 ohms (Not for use with models with internal amplifiers)	
F005	Transmitter, 4-20 mA	
F006	One Potentiometer, 1000 ohms plus Transmitter, 4-20 mA (not for use with units with internal amps)	
F010	Anti Backlash Feedback Gearing	
F999	Special Potentiometer (consult factory)	
Heater		
H002	Anti-Condensation Heater (120 VAC)	
H003	Anti-Condensation Heater (240 VAC)	

Code	Description	Selection
Identification/Certifications		
J001	CE Marking, AC input only (only available for units with amplifiers)	
J002	Stainless Steel Tags	
J004	One year extended warranty	
J005	Two year extended warranty	
Handcrank		
K002	Manual Handcrank	
Auxiliary Switches		
S005	Aluminum Cam (Single turn)	
S006	Aluminum Feedback Frame (Single Turn)	
S008	Two nonadjustable end of travel position switches, SPST, 10 Amp, 120/240 Vac	
S009	Two Adjustable Position Switches, SPDT, 10 Amp, 120/240 Vac	
S010	Two Adjustable Position Switches, DPDT, 10 Amp, 120/240 Vac	
S013	Two nonadjustable end of travel position switches, SPDT, 10 Amp, 120/240 Vac	
Painting/Coating		
W001	JCI Standard Polyurethane Blue	
W002	Two Part Epoxy	
W003	Food Grade Epoxy	
W004	Baked On Epoxy	
W005	Teflon	
Special Mechanical Options		
Y016	Metric mounting holes, 8mm	

For a full description of options, go to the Complete Listing of Options starting on page 197.

LA-1100 MAJOR DIMENSIONS

INCHES
(MILLIMETERS)



Stroke in. (mm)	With Rack Bellows		Without Rack Bellows	
	A	B	A	B
0.75 -3 (19-76)	7.69 (195)	4.69 (119)	5.62 (143)	2.62 (67)
3-6 (76-152)	11.69 (297)	5.69 (145)	8.62 (219)	2.62 (67)
6-9 (142-229)	15.69 (399)	6.69 (170)	11.62 (295)	2.62 (67)
9-12 (229-305)	19.69 (500)	7.69 (195)	14.62 (371)	2.62 (67)
12-15 (305-381)	23.69 (602)	8.69 (221)	17.62 (448)	2.62 (67)
15-18 (381-457)	27.69 (703)	9.69 (246)	20.62 (524)	2.62 (67)

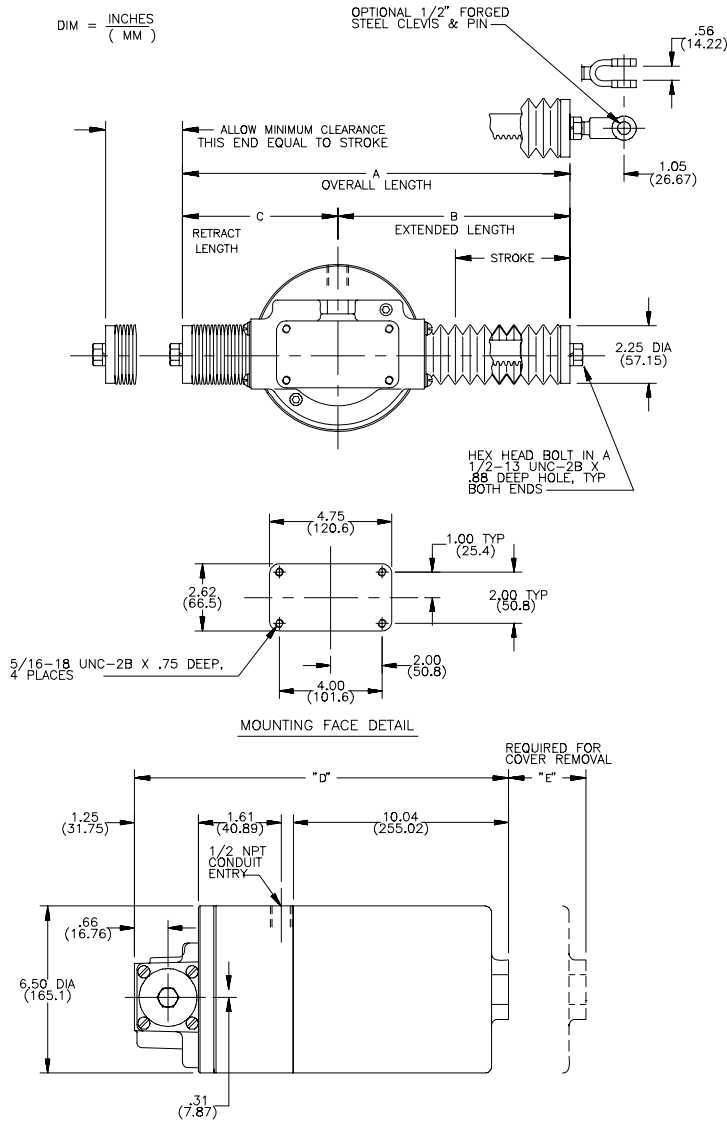
C		D		E
W/out Amp	With Amp	W/out Amp	With Amp	
10.53 (267)	12.06 (306)	6.28 (162)	7.81 (198)	4.88 (124)

These dimensions are subject to change without notice and should not be used for preparation of drawings or fabrication of installation mounting. For current installation manuals and other product information, see www.jordancontrols.com.

LA-1500 MAJOR DIMENSIONS

**INCHES
(MILLIMETERS)**

DIM = $\frac{\text{INCHES}}{(\text{MM})}$



Stroke in. (mm)	A	B	C
0.75 to 3 (19 to 76)	15.08 (383)	9.04 (230)	6.04 (153)
3 to 6 (76 to 152)	20.08 (510)	13.04 (331)	7.04 (179)
6 to 9 (152 to 229)	25.08 (637)	17.04 (433)	8.04 (204)
9 to 12 (229 to 305)	30.08 (764)	21.04 (534)	9.04 (230)
12 to 15 (305 to 381)	35.08 (891)	25.04 (636)	10.04 (255)
15 to 21 (381 to 533)	45.08 (1145)	33.04 (839)	12.04 (306)

D		E	
W/out Amp	With Amp	W/out Amp	With Amp
11.95 (304)	13.53 (344)	8.45 (215)	10.03 (255)

These dimensions are subject to change without notice and should not be used for preparation of drawings or fabrication of installation mounting. For current installation manuals and other product information, see www.jordancontrols.com.