

GE's Andco* electric linear and rotary actuators offer a superior technology choice when reliable, precise, controlled motion is required. Whether moving industrial doors, providing accurate positioning feedback for antennas, or modulating and controlling louver dampers, customers can rely on Andco actuator solutions.

The Andco actuator portfolio includes weatherproof and dustproof options, offering customers durability and performance in severe industrial environments, including hot and cold temperature extremes. Andco actuators are a superior solution for a range of functions including positioning, lifting/lowering, pushing/pulling, and opening/closing.

Andco actuator technology offers low maintenance packages with internal adjustable limit switches for on/off control and light indication, internal torque switch for overload protection, optional internal position/process controls for positioning, motor braking and motor control. Our actuator solutions deliver ease of installation, maintain constant output force and velocity, and consume power only during movement.



Andco* Eagle* Actuators

GE's Andco Eagle Linear Actuator is a completely self-contained electro-mechanical device. Its compact design is equivalent in size to hydraulic or pneumatic cylinders. Designed and fabricated for easy installation and dependable long-life operation, these actuators are driven by a high starting torque motor with thermal overload protection, non-rotating extension rod, non-backdriving acme screw and all metal gearing.



Features

- Non-rotating drive rod
- Non-backdriving
- All metal gearing
- Compact with electro-mechanical repeatability
- Simple to mount; easy to wire
- Comparable cost to pneumatic or hydraulic systems
- Equivalent in size to hydraulic or pneumatic cylinders
- Operating range -40°F to +150°F

Standard Equipment

- Thermal switch in motor winding
- Two independently adjustable, gear driven position limit switches with all metal gearing
- Nickel-plated drive rod
- Clevis and pin on drive rod end
- Type 4 Weatherproof and Dust-Ignition proof enclosure (Class II, Division 1, Groups E, F and G)
- Anti-friction bearings on all drive components
- All metal gearing
- Cast aluminum construction
- Clevis mount on the motor end
- Permanently lubricated for maintenance-free operation
- Heavy-duty industrial motor; 115 VAC, 60 Hz, single phase, TENV, permanent split capacitor, high starting torque, low inertia

Temperature Range

Ambient -40°F to +150°F
-40°C to +65°C

Motor Data

120 VAC, 1 Phase, 50/60 Hz, 2.6/3.0A¹
230 VAC, 1 Phase, 50/60 Hz, 1.7A¹
210-240 VAC, 3 Phase, 50/60 Hz, 0.6A¹
380-480 VAC, 3 Phase, 50/60 Hz, 0.4A¹
575 VAC, 3 Phase, 60 Hz, 0.2A¹

Class B Insulation

NEMA "D" design

Approvals

CSA available on select models

¹Full load current (Amps).

Optional Equipment

- 230 VAC, 460 VAC and 575 VAC, 60 Hz, 3 phase motor
- Potentiometer (all metal gear driven)
- Integral position process control board for modulating applications
- 4-20mA position transmitter
- Adjustable trunnion mount and trunnion brackets
- Adjustable face/flange mount
- Manual override
- Modbus



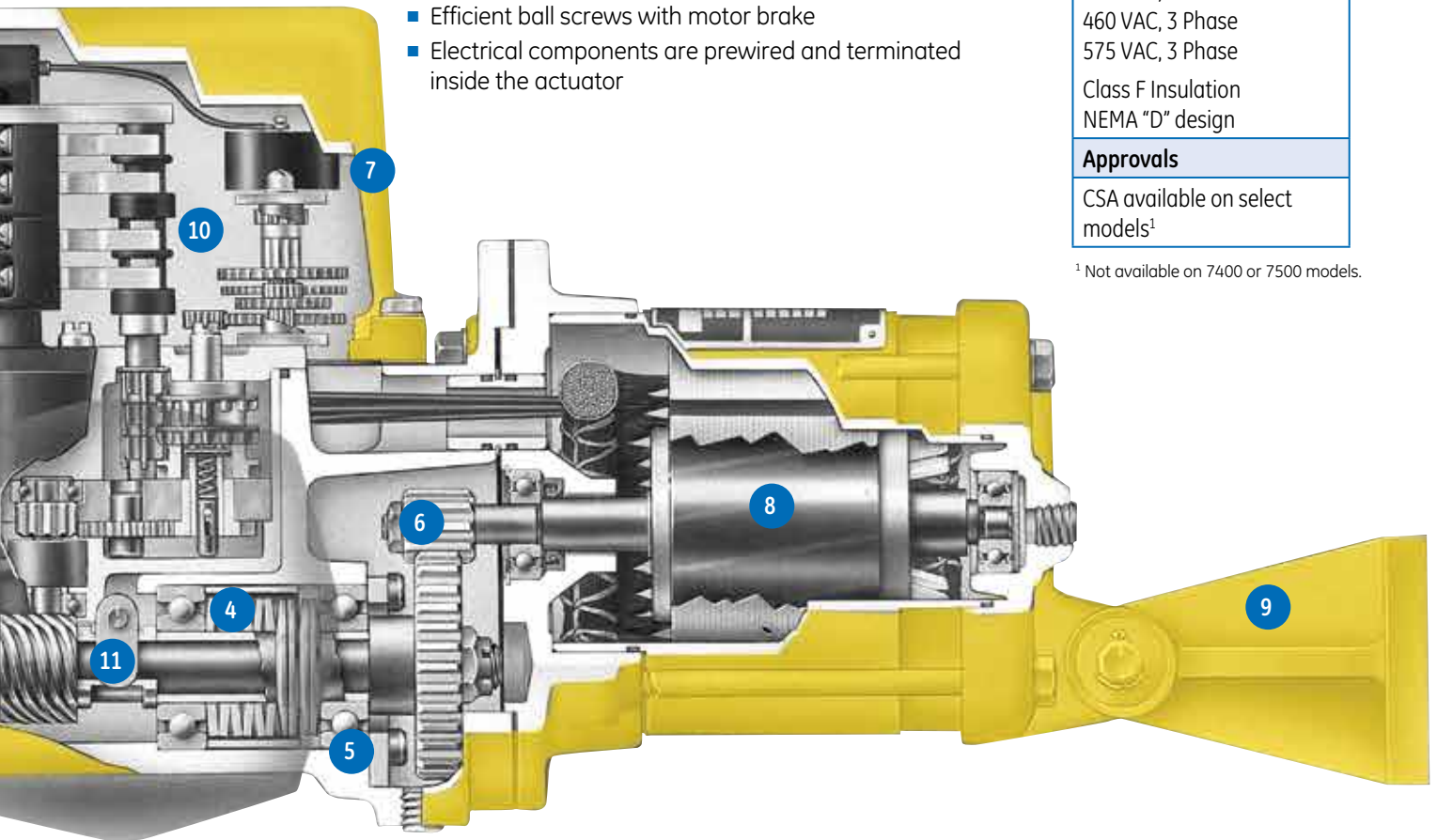
10. A two position gear driven position limit switch for end-of-travel actuator shutoff and a set of contacts for light indication are included as standard. Each position is independently adjustable and can be set anywhere within the full actuator travel. The heavy duty rotary drum, double break switch with wiping contacts feature a patented mechanism that ensures internal gear engagement after adjustment.
11. An adjustable thrust switch for each direction of travel is provided as standard. The switch assembly will automatically shut off the actuator if the set force is exceeded. The switch protects driven equipment from damage due to excessive forces and can also be used as a mechanism for positive seating.

Other Features

- Weatherproof or Dust-Ignition Proof Enclosure (Class II, Divisions 1, Groups E, F, and G)
- Plated external hardware
- Permanently lubricated
- Non-backdriving acme screw
- Efficient ball screws with motor brake
- Electrical components are prewired and terminated inside the actuator

Temperature Range	
Ambient	-30°F to +120°F -34°C to +48°C
Motor Data	
	115 VAC, 1 Phase
	230 VAC, 3 Phase
	460 VAC, 3 Phase
	575 VAC, 3 Phase
	Class F Insulation NEMA "D" design
Approvals	
	CSA available on select models ¹

¹ Not available on 7400 or 7500 models.



Andco* 7000 Series* Actuators

7000 Series Acme Screw Linear Actuators

Model	Velocity (in/sec)	Breakaway Thrust Rating (lbs)	Running Thrust Rating (lbs)			Stroke Range (ins)	Approximate Weight Range (lbs)
			5% Duty	10% Duty	25% Duty		
7102S (1-Phase)	0.8	975	450	330	130	6-24	50-80
	1.1	750	325	240	95		
	2.0	410	175	135	50		
	2.8	290	125	90	35		
7105T	1.1	2,100	650	240	95	6-24	45-80
	2.0	1,225	350	135	50		
	2.8	875	250	90	35		
7202S (1-Phase)	1.1	750	330	330	260	6-36	55-100
	1.5	460	240	240	180		
	2.8	300	130	130	100		
	4.0	215	90	90	70		
7205T	1.5	1,700	480	460	-	6-36	50-100
	2.8	900	260	255	-		
	4.0	650	185	180	-		
7210T	1.5	2,100	1,000	-	-	6-36	50-100
	2.8	1,815	510	-	-		
	4.0	1,300	370	-	-		
7310T	1.4	2,530	1,100	1,050	525	6-60	85-185
	2.1	1,750	700	700	350		
	3.2	1,130	455	455	225		
7317T	2.1	4,220	1,300	1,300	-	6-60	100-200
	3.2	2,750	850	520	-		
7324T	2.0	5,900	1,750	-	-	6-60	100-200
	3.2	3,800	1,250	-	-		
74-7330T	2.8	5,200	2,850	-	-	6-60	120-240
	3.6	4,000	2,200	-	-		

7000 Series Acme Screw Linear Actuators with Gearbox Assembly

Model	Velocity (in/sec)	Breakaway Thrust Rating (lbs)	Running Thrust Rating (lbs)			Stroke Range (ins)	Approximate Weight Range (lbs)
			5% Duty	10% Duty	25% Duty		
7202S (1-Phase)	0.2	2,100	1,100	1,100	1,100	6-36	65-110
7205T	0.5	2,100	1,100	1,100	1,100	6-36	65-110
7302S (1-Phase)	0.2	4,560	1,845	1,845	1,845	6-60	95-190
	0.4	2,130	920	920	920		
	0.7	1,130	490	490	490		
7305T	0.4	6,200	1,795	1,795	1,795	6-48	90-160
7324T	1.1	7,000	3,075	-	-	6-48	115-205
74-7330T	1.5	7,000	5,100	-	-	6-60	130-250

Andco* 7000 Series* Actuators

7000 Series Acme Screw Linear Actuators

Model	6" Stroke		12" Stroke		18" Stroke		24" Stroke		30" Stroke		36" Stroke		48" Stroke		60" Stroke	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
7102S	26.32	18.14	32.32	24.14	38.32	30.14	44.32	36.14	-	-	-	-	-	-	-	-
7105T	25.32	18.14	31.32	24.14	37.32	30.14	43.32	36.14	-	-	-	-	-	-	-	-
7202S	26.17	18.58	32.17	24.58	38.17	30.58	44.17	36.58	50.17	42.58	56.17	48.58	-	-	-	-
7205T	25.17	18.58	31.17	24.58	37.17	30.58	43.17	36.58	49.17	42.58	55.17	48.58	-	-	-	-
7210T	26.17	18.58	32.17	24.58	38.17	30.58	44.17	36.58	50.17	42.58	56.17	48.58	-	-	-	-
7310T	32.45	24.88	38.45	30.88	44.45	36.88	50.45	42.88	56.45	48.88	62.45	54.88	74.45	66.88	86.45	78.88
7317T	32.88	24.88	38.88	30.88	44.88	36.88	50.88	42.88	56.88	48.88	62.88	54.88	74.88	66.88	86.88	78.88
7324T	33.82	24.88	39.82	30.88	45.82	36.88	51.82	42.88	57.82	48.88	63.82	54.88	75.82	66.88	87.82	78.88
74-7330T	39.30	29.36	45.30	35.36	51.30	41.36	57.30	47.36	63.30	53.36	69.30	59.36	81.30	71.36	93.30	83.36

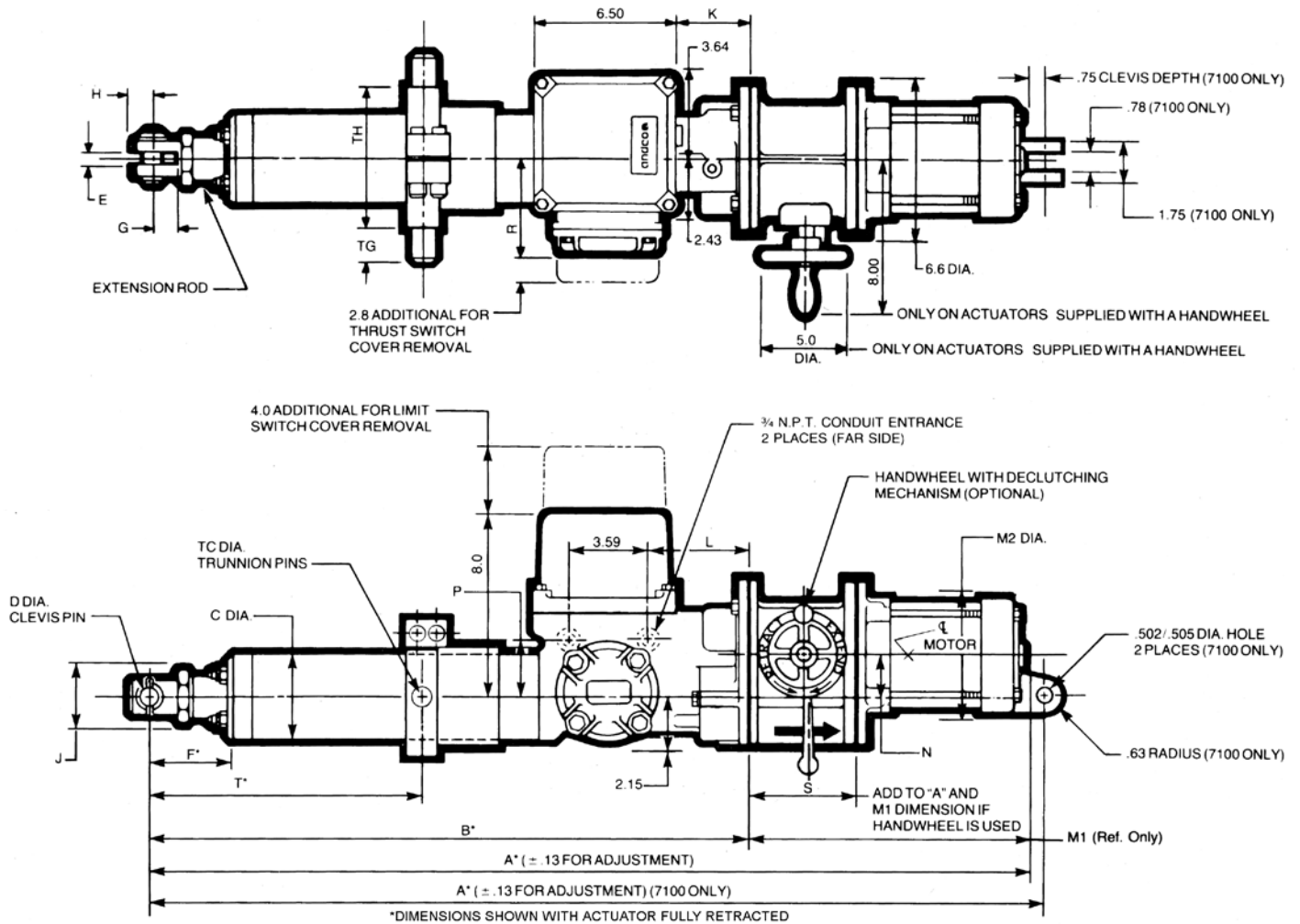
Model	C	D	E	F	G	H	J	K	L	M1	M2	N	P	R	S
7102S	2.50	.375	.38	2.53	1.00	.38	1.63	0.94	2.32	8.18	6.00	1.60	2.65	3.60	4.68
7105T										7.18					
7202S	2.75	.500	.50	2.40	1.00	.50	1.63	0.94	2.32	7.59	6.00	1.60	2.65	3.60	4.68
7205T										6.59					
7210T										7.59					
7310T	3.88	.750	.63	4.32	1.13	.75	2.25	3.29	4.72	7.57	6.00	2.00	2.82	4.19	5.18
7317T										8.00					
7324T										8.94					
74-7330T	4.38	1.25	1.26	6.13	2.00	1.25	3.25	3.29	4.72	9.94	6.86	2.00	2.82	4.19	5.18

7000 Series Screw Linear Actuators with Gearbox Assembly

Model	6" Stroke		12" Stroke		18" Stroke		24" Stroke		30" Stroke		36" Stroke		48" Stroke		60" Stroke	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
7102S	30.88	18.58	36.88	24.58	42.88	30.58	48.88	36.58	54.88	42.58	60.88	48.58	-	-	-	-
7205T	29.88	18.58	35.88	24.58	41.88	30.58	47.88	36.58	53.88	42.58	59.88	48.58	-	-	-	-
7302S	37.63	24.88	43.63	30.88	49.63	36.88	55.63	42.88	61.63	48.88	67.63	54.88	79.63	66.88	91.63	78.88
7305T	36.63	24.88	42.63	30.88	48.63	36.88	54.63	42.88	60.63	48.88	66.63	54.88	78.63	66.88	90.63	78.88
74-7330T	53.20	29.36	59.20	35.36	65.20	41.36	71.20	47.36	77.20	53.36	83.20	59.36	95.20	71.36	107.20	83.36

Andco* 7000 Series* Actuators

7000 Series Acme Screw Linear Actuators

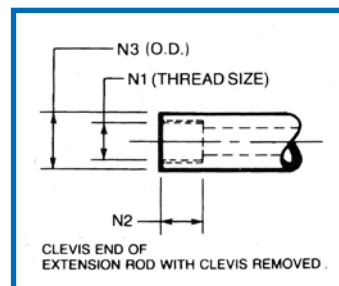


Model	C	D	E	F	G	H	J	K	L	M1	M2	N	P	R	S
7102S	2.75	.50	.50	2.50	1.00	.50	1.63	.94	2.32	12.30	6.00	1.60	2.65	3.60	4.68
7205T										11.30					
7302S	3.88	.75	.63	4.32	1.13	.75	2.25	3.29	4.72	12.75	6.00	2.00	2.82	4.19	5.18
7305T										11.75					
74-7330T	4.38	1.25	1.26	6.13	2.00	1.25	3.25	3.29	4.72			2.00	2.82	4.19	5.50

Series	N1	N2	N3
7100	1" - 20UN	1.00	1.187
7200	1-1/4" - 20UN	1.12	1.433
7300	1-5/8" - 16UN	1.18	1.860
74-7300	1-1/8" - 16UN	2.06	2.350

NOTES

For trunnion, clevis, and face flange mount dimensions see pages 14 and 15. Dimensions are for reference only. Contact GE for engineering drawings.

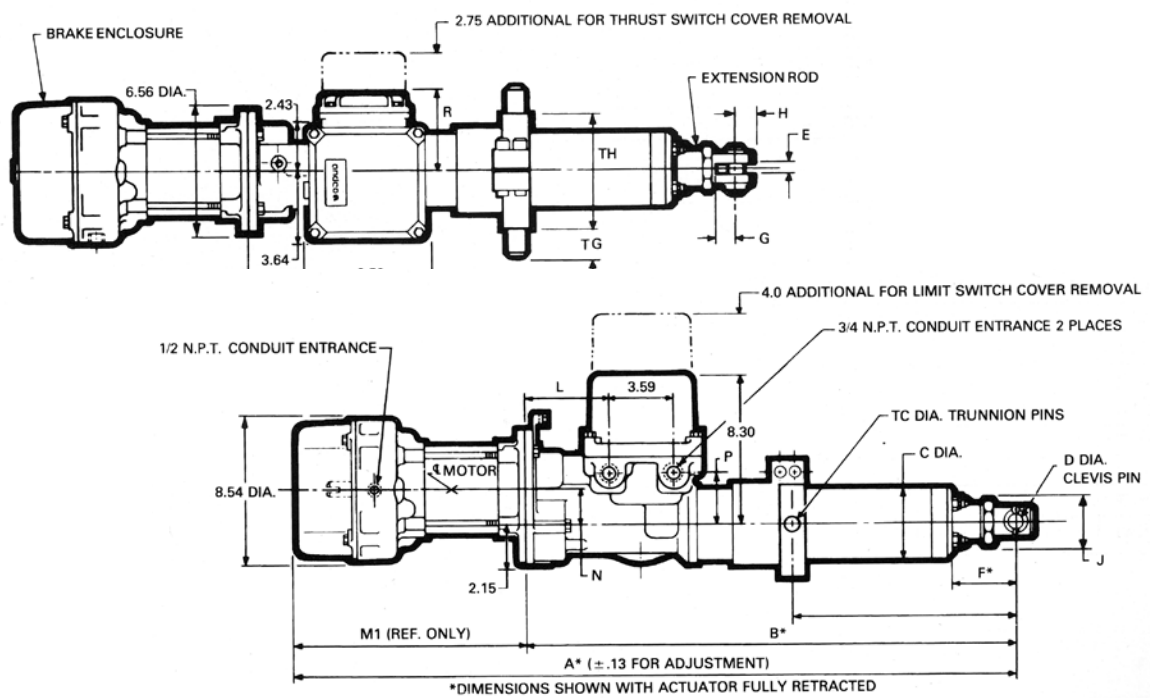


Andco* 7000 Series* Actuators

7000 Series Ball Screw Linear Actuators

Model	6" Stroke		12" Stroke		18" Stroke		24" Stroke		30" Stroke		36" Stroke		48" Stroke		60" Stroke	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
7302S	40.50	27.70	46.50	33.70	52.50	39.70	58.50	45.70	64.50	51.70	70.50	57.70	82.50	69.70	-	-
7301T	40.50	27.70	46.50	33.70	52.50	39.70	58.50	45.70	64.50	51.70	70.50	57.70	82.50	69.70	-	-
7317T	40.83	27.70	46.83	33.70	52.83	39.70	58.83	45.70	64.83	51.70	70.83	57.70	82.83	69.70	-	-
7324T	41.70	27.70	47.70	33.70	53.70	39.70	59.70	45.70	65.70	51.70	71.70	57.70	83.70	69.70	-	-
7430T	-	-	65.10	50.10	71.10	56.10	77.10	62.10	-	-	89.10	74.10	101.10	86.10	113.10	98.10
7450T	-	-	68.50	50.10	74.50	56.10	80.50	62.10	-	-	92.50	74.10	104.50	86.10	116.50	98.10
7530T	-	-	82.40	58.60	88.40	64.60	94.40	70.60	-	-	106.40	74.10	118.40	86.10	130.40	98.10
7550T	-	-	82.40	58.60	87.80	64.60	93.80	70.60	-	-	105.80	74.10	117.80	86.10	129.80	98.10

Model	C	D	E	F	G	H	J	K	L	M1	N	P	R	TC	TG	TH
7302S										12.80						
7310T										12.80						
7317T	3.88	0.750	0.63	4.00	1.13	0.75	2.25	3.29	4.72	13.13	2.00	2.82	4.19	0.875	1.19	6.50
7324T										14.00						
7430T										15.00						
7450T	4.38	1.250	1.26	6.13	2.00	1.25	3.25	3.29	4.72	18.40	2.00	2.82	4.19	1.000	1.50	7.50
7530T										23.80						
7550T	6.50	1.500	1.54	5.75	2.38	1.75	4.56	3.29	4.72	23.20	2.00	2.82	4.19	1.750	2.50	10.00



Series	N1	N2	N3
7200	1-1/4" - 20UN	1.12	1.43
7300	1-5/8" - 16 UN	1.18	1.86
7400	1-1/8" - 16UN	2.06	2.35
7500	2-1/2" - 16UN	2.75	3.00

NOTES
 For trunnion, clevis, and face flange mount dimensions see pages 14 and 15. Dimensions are for reference only. Contact GE for engineering drawings.

Standard Options

Electric Motor Brake

An electric brake option is available for all sizes of Andco 7000, 8000 and QR actuators (standard on all ball screw actuators). The brake is recommended where high vibration is present or for accurate positioning applications when inertial coast is not permitted. The predictable coast of the actuator varies with velocity for each model and with the opposing load the actuator is moving. Consult factory for specific applications.

Single Phase Electronic (Dynamic) Motor Braking

Automatically applies a D.C. motor voltage to the actuator motor upon shutoff of A.C. power. The brake is prewired and terminated in the actuator. Input voltage is 115 VAC, 60 Hz single phase. Not available on ball screw actuators.

Three Phase Motor Control

All 7000 Series three phase actuators can be furnished with an integral motor control that includes:

- Reversing contractor
- Thermal overload
- Control transformer with fuse
- Compartment space heater
- Prewired with all connecting points terminated

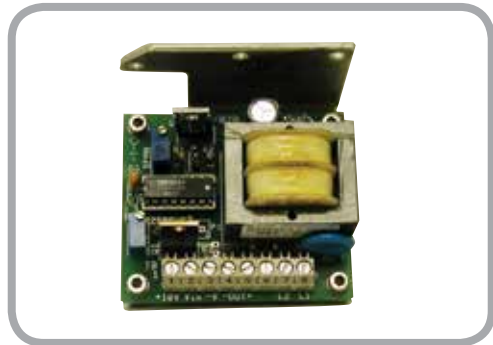
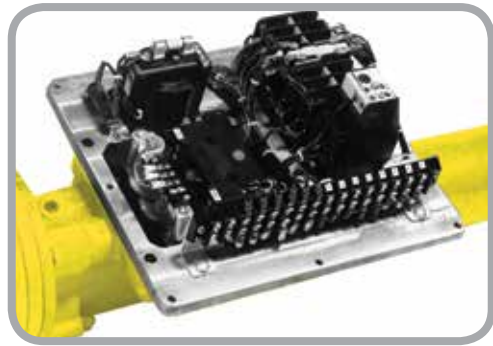
Positran™ Transmitter

This position transmitter outputs a 4-20mA signal proportional to actuator position. The signal can be used for the following functions:

- Drive a position indicating meter
- A feedback or control signal for other control devices

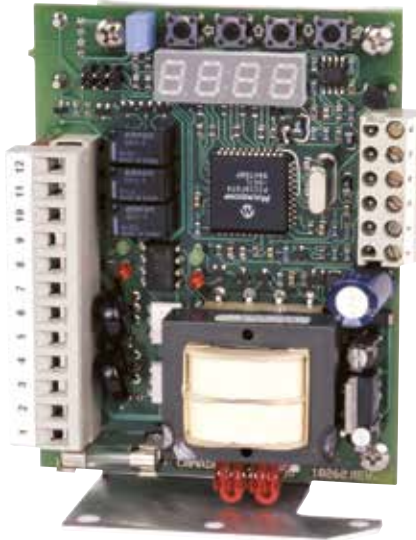
A potentiometer and compartment heater are required with the actuator.

Positran is a trademark of Positran Manufacturing, Inc.



Electric Actuator Smart Controller (EASC)

Model SCC10



Models

SCC10-115/230 VAC 115 or 230 Volt A.C. Actuators
SCC10-24 VAC 24 Volt A.C. Actuators

EASC (Micro-Processor Based Analog Controller)

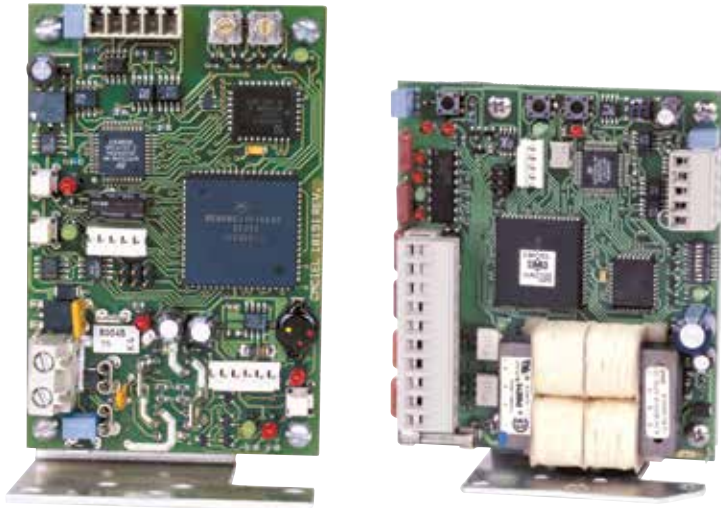
The Electric Actuator Smart Controller (EASC Model SCC-10) card provides accurate positioning control of electric motor actuators using an analog input signal. Setup and calibration is greatly simplified using microprocessor based technology. There are no dip switches to set or trim pots to adjust. Setup is quick and easy using the EASC menu viewed on an LED display. No external meters are required, even for potentiometer setup. Once the initial menu settings are chosen, the EASC performs a self-calibration routine, applying the menu selections to actual actuator performance. Calibration values are then stored in permanent non-volatile memory.

Features

- Onboard LED display facilitates setup and calibration using the EASC Menu Setup.
- Menu selection of input/output ranges including 4-20 mA_{dc}, 1-5 VDC, 2-10 VDC and 0-10 VDC, or virtually any custom range required.
- Automatic calibration; no resistors to add; no jumpers, trim pots or dip switches to adjust. Calibration is as simple as pressing a button.
- Three relay outputs: fault, full closed and full open. (A.C. Models Only.)
- Current sensing (over torque protection).
 - Optional on A.C. Models. Standard on D.C. Models.
- Menu selectable fail options.
- Intelligent positioning reduces motor cycling, increases motor life and extends the actuator duty.
- Auto-jog feature. Constantly corrects and refines the positioning accuracy.
- Quick disconnect terminal strips facilitate fast and easy actuator maintenance and troubleshooting.
- Always wires the same; no need to determine rotation direction during installation; rotation is selected using the EASC Menu.
- Robust power switching components, designed specifically for actuator motors, virtually eliminates field failures.

Profibus® DP Controller

Models DPC-100 and DPC-120



Model
DPC-100 12 or 24 Volt D.C. Actuators

Model
DPC-120 115 Volt A.C. Actuators

Features

- Two wire control reduces installation and start up time compared to multi-cable wiring
- Automatic calibration cuts down on start up time
- No deadband eliminates need for field adjustment.
- On line configuration of 36 operational parameters using generic Profibus software
- Low power consumption; does not require ventilation
- Electronic overload protection with built-in current monitoring
- LED indicators for input, outputs and communication channel
- Automatic calibration with local pushbutton or remote command
- Dynamic breaking eliminates overshooting
- Robust power switching components, designed specifically for actuator motors, virtually eliminates field failures

Specifications

Power Supply

DPC-100: 24/12 VDC
DPC-120: 120 VAC

Communication Interface

Profibus Standard

Protocol

Profibus DP (Distributed Process)

Feedback

Potentiometer 1000 Ohms/Optical Encoder

Application

Protocol: Profibus DP (Distributed Process)

For on/off positioning control of motorized valve, it also serves as the vital intelligence link between PLC's in the control room and the actuators in the field. Up to 126 actuated valves can be controlled on a single network. The automatic calibration feature requires no loop tuning. All operating parameters can be set from the communications center over the bus.

Position Input Accuracy

1.0% full scale standard, Maximum 0.1%

Temperature

-40°F to +158°F (-40°C to +70°C)

Relative Humidity

0 to 90% non-condensing

Dimensions

DPC-100: 4.0 x 1.5 x 2.5 in.
DPC-120: 4.25 x 1.75 x 3.75 in.

The DPC-100 & DPC-120 provide the following status and fault signals:

- Valve full closed
- Valve full open
- Percentage of open
- Valve seeking position
- Motor running
- Valve closing
- Valve opening
- Motor thermostat tripped
- Incomplete travel
- Valve opening or closing manually
- Valve jammed/current limiting
- Motor still energized after stop or end of travel
- Controller self-test (detects problems)
- Communication failure
- Average running current load
- Peak running current load
- Idle current load



