

Electrak® 5

230 and 400 Vac - load up to 6800 N



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» Electric Wiring Diagram - see page 58

Standard Features and Benefits

- Robust, strong and reliable
- Stainless steel extension tube
- Acme or ball screw models
- Overload clutch for mid and end of stroke protection
- Heavy duty motor with thermal switch
- Anti-coast brake for repeatable positioning on all ball screw models. Optional on acme screw models.
- Maintenance free

General Specifications

Parameter	Electrak 5
Screw type	acme or ball
Internally restrained	no
Manual override	no, optional
Dynamic braking	no
Holding brake acme screw models ball screw models	no, self-locking yes
End of stroke protection	overload clutch
Mid stroke protection	overload clutch
Motor protection	auto reset thermal switch
Motor connection	cable
Motor connector	no
Certificates	UL, CSA, CE
Options	<ul style="list-style-type: none"> • potentiometer • manual override

Performance Specifications

Parameter	Electrak 5
Maximum load, dynamic / static [N] A •• -05A5 (acme screw)* A •• -10A5 (acme screw) A •• -20A5 (acme screw) A •• -05B5 (ball screw) A •• -10B5 (ball screw) A •• -20B5 (ball screw) A •• -21B5 (ball screw)	1100 / 11350 2250 / 11350 2250 / 11350 2250 / 18000 4500 / 18000 4500 / 18000 6800 / 18000
Speed, at no load / at maximum load [mm/s] A •• -05A5 (acme screw)* A •• -10A5 (acme screw) A •• -20A5 (acme screw) A •• -05B5 (ball screw) A •• -10B5 (ball screw) A •• -20B5 (ball screw) A •• -21B5 (ball screw)	48 / 38 30 / 18 15 / 12 61 / 37 30 / 19 15 / 12 15 / 11
Available input voltages [Vac] Single phase Three phase	230** 400
Input frequency [Hz] 1 × 230 Vac model 3 × 400 Vac model	50/60 50
Standard stroke lengths [inch]	4, 6, 8, 10, 12, 14, 16, 18, 20, 24
Operating temperature limits [°C]	-25 – +65
Full load duty cycle @ 25 °C [%]	25
Maximum on time [s]	45
End play, maximum [mm]	1,0
Restraining torque [Nm]	11,3
Lead cross section [mm ²]	1,5
Cable length [mm]	600
Protection class	IP45

* Not possible with 400 Vac input voltage.

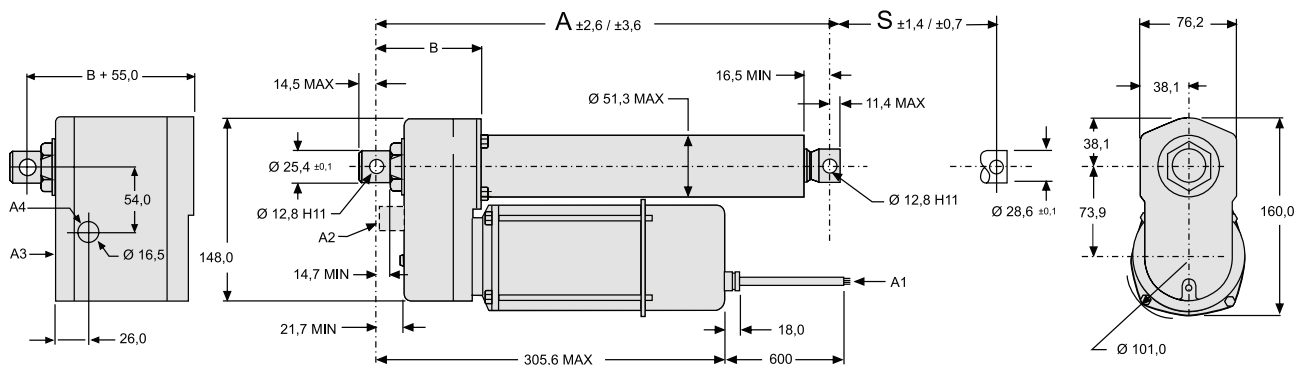
** 10 µF capacitor required to run the actuator, p/n 9200-448-003

Compatible Controls

Control model	See page
DPDT switch	61

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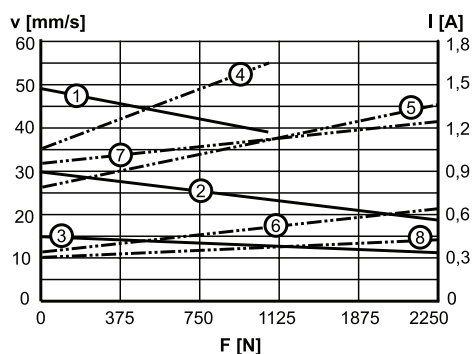
S: stroke, tolerance acme / ball screw
 A: retracted length, tolerance acme / ball screw
 A1: cable
 A2: manual override input (optional)
 A3: housing dimensions for potentiometer option
 A4: potentiometer cable output, cable length = min. 500 mm
 B: 86,1 mm

Stroke (S)	[inch (mm)]	4 (101,6)	6 (152,4)	8 (203,2)	10 (254,0)	12 (304,8)	14 (355,6)	16 (406,4)	18 (457,2)	20 (508,0)	24 (609,6)
Retracted length, acme screw models (A)	[mm]	262,3	313,1	363,9	414,7	465,5	567,1	617,9	668,7	719,5	821,1
Retracted length, ball screw models (A)	[mm]	302,3	353,1	403,9	454,7	505,5	607,1	657,9	708,7	759,5	861,1
Add on length for potentiometer*	[mm]	55,0	55,0	55,0	55,0	55,0	55,0	55,0	55,0	55,0	55,0
Weight, acme screw models	[kg]	5,9	6,1	6,3	6,5	6,7	6,9	7,1	7,3	7,5	7,8
Weight, ball screw models	[kg]	6,5	6,7	6,9	7,1	7,3	7,5	7,7	7,9	8,1	8,4
Add on weight for potentiometer*	[kg]	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3
Potentiometer resistance change*	[ohm/mm]	39	39	39	39	20	20	20	20	20	10

* Potentiometer is optional (NPO, BPO option)

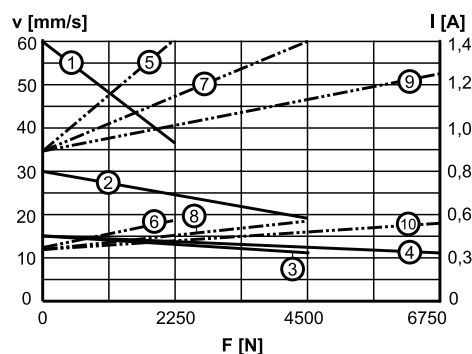
Performance Diagrams

Acme Screw Models
Speed and Current vs. Load



V: speed
 I: current
 F: load
 1: speed A22-05A5
 2: speed A••-10A5
 3: speed A••-20A5
 4: current 230 Vac, A22-05A5
 5: current 230 Vac, A22-10A5
 6: current 400 Vac, A42-10A5
 7: current 230 Vac, A22-20A5
 8: current 400 Vac, A42-20A5

Ball Screw Models
Speed and Current vs. Load



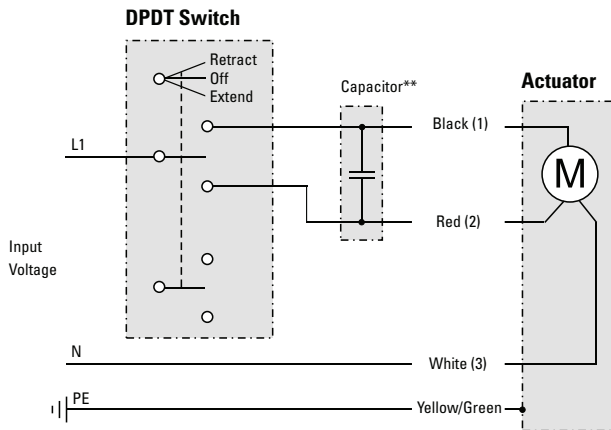
V: speed
 I: current
 F: load
 1: speed A22-05B5, A42-05B5
 2: speed A22-10B5, A42-10B5
 3: speed A22-20B5, A42-20B5
 4: speed A22-21B5, A42-21B5
 5: current 230 Vac, A22-05B5
 6: current 400 Vac, A42-05B5
 7: current 230 Vac, A22-10B5, A22-20B5
 8: current 400 Vac, A42-10B5, A42-20B5
 9: current 230 Vac, A22-21B5
 10: current 400 Vac, A42-21B5

Electrical Wiring Diagrams

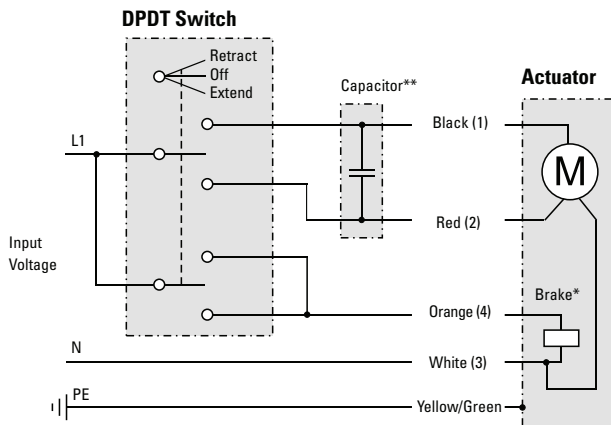
AC-actuators

Electrak 5, LA24 and DMA - 1 × 230 Vac

Without anti coast brake*



With anti coast brake*



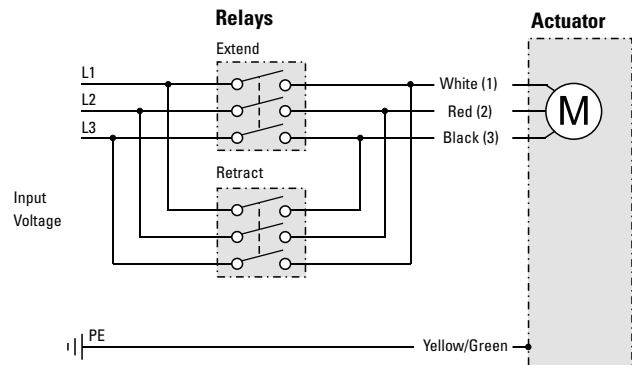
* Anti coast brake is standard on Electrak 5 / LA24 for ball screw models and optional for acme screw models. On DMA there are no anti coast brake on acme models while ball screw models always are equipped with an anti coast brake.

** 10 µF capacitor required to run the actuator, p/n 9200-448-003.

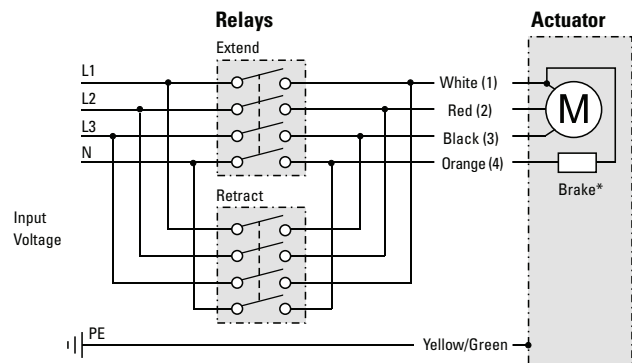
Leads can be either color or number marked. Connect black (1) lead to L1 and white (3) lead to N (neutral) to retract the actuator. Change L1 from lead black (1) to lead red (2) to extend the actuator. If the actuator is equipped with an anti coast brake, release the brake by connecting orange (4) lead lead to L1.

Electrak 5, LA24 and DMA - 3 × 400 Vac

Without anti coast brake*



With anti coast brake*

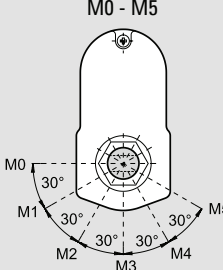
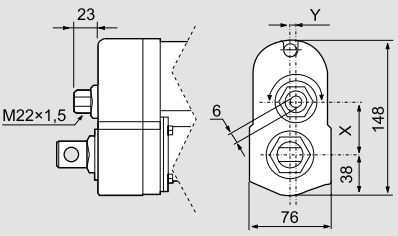


* Anti coast brake is optional on Electrak 5 / LA24 on both acme and ball screw models. On DMA there are no anti coast brake on acme models while ball screw models always are equipped with an anti coast brake.

Leads can be either color or number marked. Connect white (1) lead to L1, red (2) lead to L2 and black (3) lead to L3 to extend the actuator. Change the places of white (2) lead and black (3) to retract the actuator. If the actuator is equipped with an anti coast brake, release the brake by connecting orange (4) lead lead to N (neutral).

Ordering Keys

Electrak AC-actuators

Electrak 5														
1	2	3	4	5										
A22 -	20B5 -	04	M0	BPO										
<p>1. Input voltage A22 - = 1 × 230 Vac A42 - = 3 × 400 Vac</p> <p>2. Dynamic load capacity, screw type and maximum speed 05A5 - = 1100 N, acme, 54 mm/s¹ 10A5 - = 2250 N, acme, 30 mm/s 20A5 - = 2250 N, acme, 15 mm/s 05B5 - = 2250 N, ball, 61 mm/s 10B5 - = 4500 N, ball, 30 mm/s 20B5 - = 4500 N, ball, 15 mm/s 21B5 - = 6800 N, ball, 15 mm/s</p> <p>3. Stroke 04 = 4 inch (101,6 mm) 06 = 6 inch (152,4 mm) 08 = 8 inch (203,2 mm) 10 = 10 inch (254,0 mm) 12 = 12 inch (304,8 mm) 14 = 14 inch (355,6 mm) 16 = 16 inch (406,4 mm) 18 = 18 inch (457,2 mm) 20 = 20 inch (508,0 mm) 24 = 24 inch (609,6 mm)</p>	<p>4. Rear adapter hole position² M0 = adaptor at 0° (standard position) M1 = adaptor at 30° M2 = adaptor at 60° M3 = adaptor at 90° M4 = adaptor at 120° M5 = adaptor at 150°</p> <p>5. Options³ N = no option B = anti coast brake³ NPO = potentiometer NHW = manual override⁴ BPO = anti coast brake and potentiometer³ BHW = anti coast brake and manual override^{3/4}</p> <p>¹05A5 - not possible with 400 Vac input voltage. ²Definition of rear adapter hole positions.</p> 	<p>³Ball screw versions must always be ordered with an anti coast brake while acme versions can be ordered with or without an anti coast brake.</p> <p>⁴Dimensions for manual override option.</p>  <table border="1"> <thead> <tr> <th>Model</th> <th>X</th> <th>Y</th> </tr> </thead> <tbody> <tr> <td>05A(B)5 -</td> <td>49,6</td> <td>0,0</td> </tr> <tr> <td>10A(B)5 -</td> <td>43,3</td> <td>5,2</td> </tr> <tr> <td>20(21)A(B)5 -</td> <td>38,9</td> <td>0,0</td> </tr> </tbody> </table>	Model	X	Y	05A(B)5 -	49,6	0,0	10A(B)5 -	43,3	5,2	20(21)A(B)5 -	38,9	0,0
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05A(B)5 -	49,6	0,0												
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20(21)A(B)5 -	38,9	0,0												