

Electrak® 1

12, 24 and 36 Vdc - load up to 340 N



Standard Features and Benefits

- Very compact and lightweight
- Integrated end of stroke limit switches
- Corrosion resistant housing
- Self-locking acme screw drive system
- Maintenance free
- Ideal for replacement of comparable size pneumatic and hydraulic cylinders

General Specifications

Parameter	Electrak 1
Screw type	acme
Internally restrained	no
Manual override	no
Dynamic braking	no
Holding brake	no, self-locking
End of stroke protection	end of stroke limit switches
Mid stroke protection	no
Motor protection	auto reset thermal switch
Motor connection	flying leads and connector
Motor connector	Packard Electric Pack-Con male 8911773 with terminal 6294511. Mating connector: 8911772 with terminal 8911639 (p/n 9300-448-001)
Certificates	CE
Options	none

» Ordering Key - see page 74

» Glossary - see page 85

» Electric Wiring Diagram - see page 56

Performance Specifications

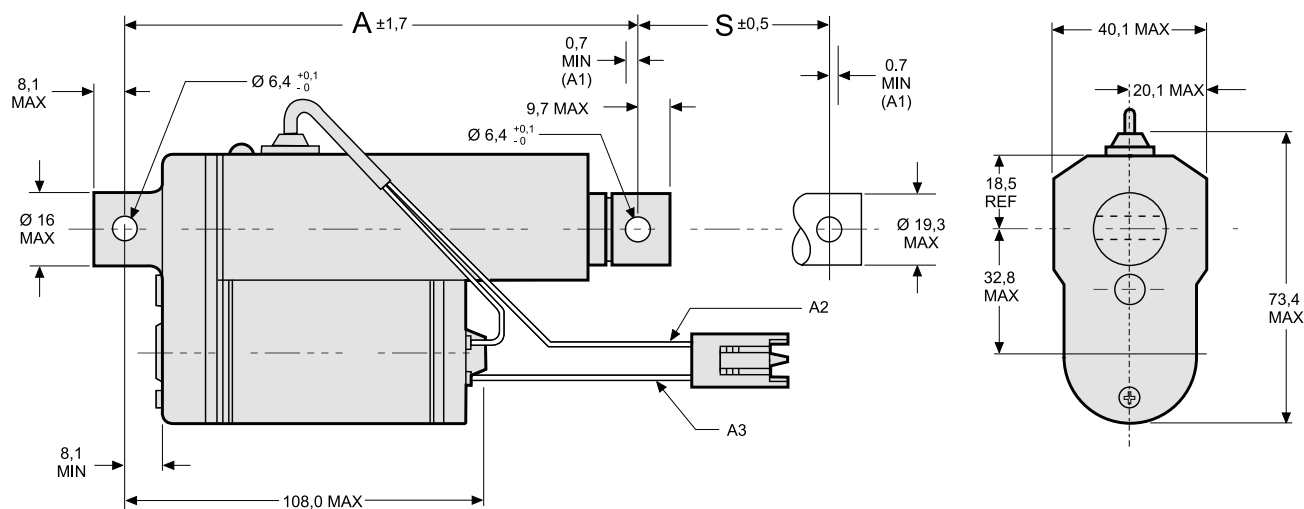
Parameter	Electrak 1
Maximum load, dynamic / static [N]	
S •• -09A04	110 / 1300
S •• -09A08	225 / 1300
S •• -17A08	340 / 1300
S •• -17A16	340 / 1300
Speed, at no load / at maximum load [mm/s]	
S •• -09A04	75 / 52
S •• -09A08	45 / 33
S •• -17A08	26 / 17
S •• -17A16	14 / 7
Available input voltages [Vdc]	12, 24, 36
Standard stroke lengths [inch]	1, 2, 3, 4, 5, 6
Operating temperature limits [°C]	-25 – +65
Full load duty cycle @ 25 °C [%]	25
End play, maximum [mm]	0,9
Restraining torque [Nm]	2,3
Lead cross section [mm²]	1
Lead length [mm]	110
Protection class	IP65

Compatible Controls

Control model	See page
DPDT switch	61
AC-247 ELS	64
DCG-150	66

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S: stroke

A: retracted length

A1: installation must include at least this much coast beyond limit switch shut off

A2: red lead

A3: yellow lead

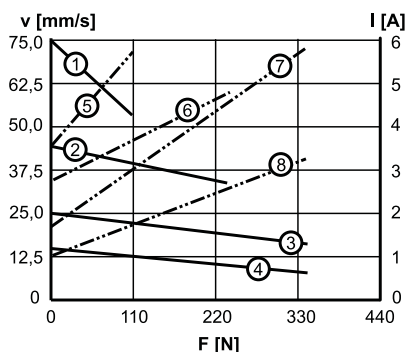
Ordering stroke	[inch]	1	2	3	4	5	6
Electrical stroke (S) *	[mm (inch)]	20,8 (0,82)	46,2 (1,82)	71,6 (2,82)	97,0 (3,82)	122,4 (4,82)	147,8 (5,82)
Retracted length (A)	[mm]	134,5	159,9	185,3	210,7	236,1	261,5
Weight	[kg]	0,52	0,54	0,60	0,63	0,66	0,68

* The electrical stroke is the stroke when the internal limit switches switch off the power to the motor. The installation then must allow the extension tube to coast at least 0,7 mm beyond that position before it becomes mechanically blocked to travel any further (distance A1). If there is no mechanical block the extension tube coasting distance will depend on the load, no load means the longest coasting distance while the distance becomes shorter as the load becomes higher. The exact coasting distance depends on the load, in which direction the load acts (push or pull), the mounting orientation of the actuator and any added friction to the system by guides or other installations and has to be determined on a case by case basis.

Performance Diagrams

Speed and Current vs. Load

12 Vdc

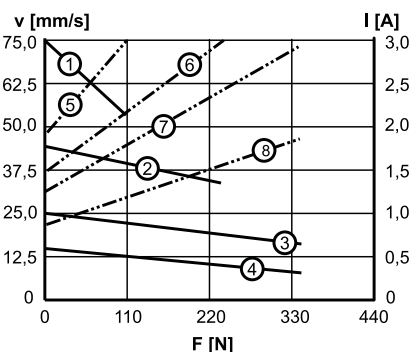


V: speed I: current F: load

- 1: speed S12-09A04
- 2: speed S12-09A08
- 3: speed S12-17A08
- 4: speed S12-17A16
- 5: current S12-09A04
- 6: current S12-09A08
- 7: current S12-17A08
- 8: current S12-17A16

Speed and Current vs. Load

24 Vdc

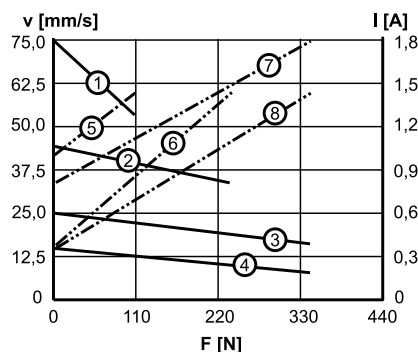


V: speed I: current F: load

- 1: speed S24-09A04
- 2: speed S24-09A08
- 3: speed S24-17A08
- 4: speed S24-17A16
- 5: current S24-09A04
- 6: current S24-09A08
- 7: current S24-17A08
- 8: current S24-17A16

Speed and Current vs. Load

36 Vdc



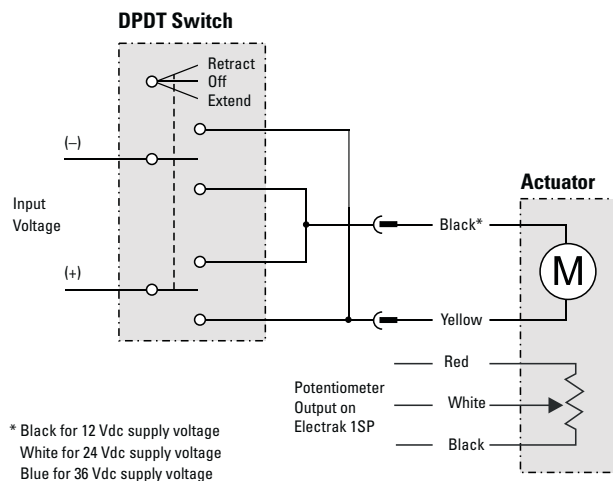
V: speed I: current F: load

- 1: speed S36-09A04
- 2: speed S36-09A08
- 3: speed S36-17A08
- 4: speed S36-17A16
- 5: current S36-09A04
- 6: current S36-09A08
- 7: current S36-17A08
- 8: current S36-17A16

Electrical Wiring Diagrams

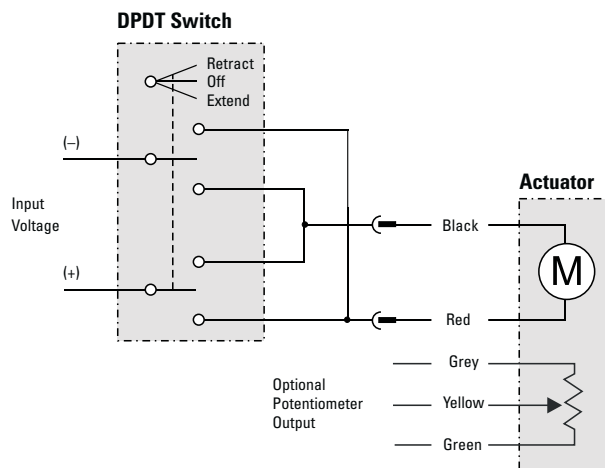
DC-actuators

Electrak 1 and 1SP



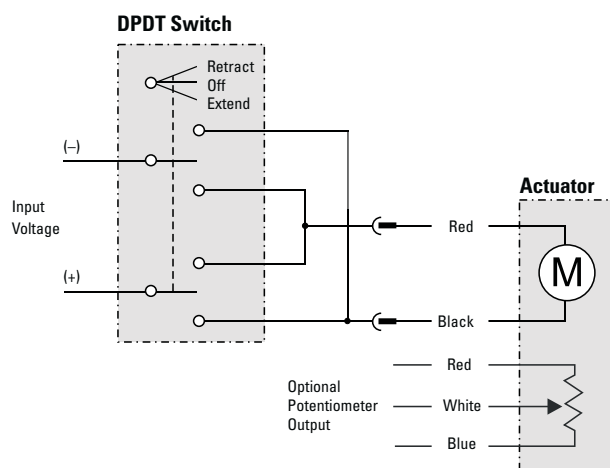
Connect the yellow lead to positive and black, white or blue* to negative to extend the actuator. Change polarity to retract the actuator. The potentiometer output has 0 ohm between white and red when the actuator is fully retracted. The actuator should be protected from overload conditions by a customer provided fuse in the circuit (6 A for 12 Vdc, 3 A for 24 Vdc and 2 A for 36 Vdc).

Electrak 10, LA14



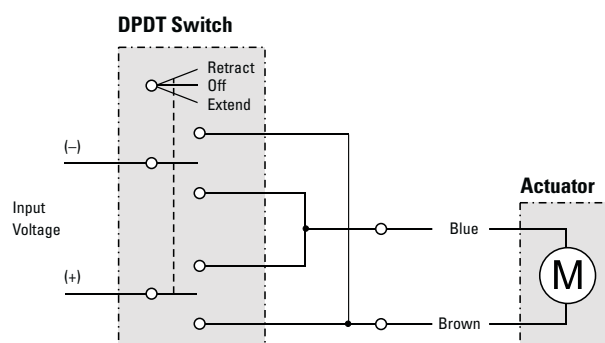
Connect the red lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The potentiometer output has 0 ohm between grey and yellow when the actuator is fully extended.

Electrak 050



Connect the black lead to positive and red to negative to extend the actuator. Change polarity to retract the actuator. The potentiometer output has 0 ohm between white and red when the actuator is fully retracted.

DMD



Connect the brown lead to positive and blue to negative to extend the actuator. Change polarity to retract the actuator.

Ordering Keys

Electrak DC-actuators

Electrak 1		
1	2	3
S24 -	09A04 -	06
1. Model and input voltage S12 - = Electrak 1, 12 Vdc S24 - = Electrak 1, 24 Vdc S36 - = Electrak 1, 36 Vdc	2. Dynamic load capacity and max. speed 09A04 = 110 N, 75 mm/s 09A08 = 225 N, 45 mm/s 17A08 = 340 N, 26 mm/s 17A16 = 340 N, 14 mm/s	3. Electrical stroke (actual stroke in mm) 01 = 1 inch (20,8 mm) 02 = 2 inch (46,2 mm) 03 = 3 inch (71,6 mm) 04 = 4 inch (97,0 mm) 05 = 5 inch (122,4 mm) 06 = 6 inch (147,8 mm)

Electrak 1SP		
1	2	3
SP24 -	09A04 -	06
1. Model and input voltage SP12 - = Electrak 1SP, 12 Vdc SP24 - = Electrak 1SP, 24 Vdc SP36 - = Electrak 1SP, 36 Vdc	2. Dynamic load capacity and max. speed 09A04 = 110 N, 75 mm/s 09A08 = 225 N, 45 mm/s 17A08 = 340 N, 26 mm/s 17A16 = 340 N, 16 mm/s ¹	3. Ordering stroke (actual stroke in mm) 02 = 2 inch (50,8 mm) 04 = 4 inch (101,6 mm) 06 = 6 inch (152,4 mm) ¹ Not possible in combination with 6 inch stroke.