

Electrak® 050

12, 24 and 36 Vdc - load up to 510 N



» Ordering Key - see page 75

» Glossary - see page 85

» Electric Wiring Diagram - see page 56

Standard Features and Benefits

- Designed for office or medical applications
- Small, quiet and lightweight
- Very short retracted length
- Low cost
- Durable and corrosion free plastic housing
- Color molded into the plastic, no painting required
- End of stroke limit switches with dynamic braking
- Maintenance free
- Internally restrained extension tube
- Estimated life is minimum 40000 cycles
- Q-version for noise sensitive applications

General Specifications

Parameter	Electrak 050
Screw type	worm
Internally restrained	yes
Manual override	no
Dynamic braking	yes, at end of stroke
Holding brake	no, self-locking
End of stroke protection	internal limit switches
Mid stroke protection	overload clutch
Motor protection	auto reset thermal switch
Motor connection	flying leads
Motor connector	no
Certificates	CE
Options	<ul style="list-style-type: none"> • potentiometer 10 kOhm* • cross holes rotated 90° • white housing

* See performance specification table for resistance change per mm of travel.

Performance Specifications

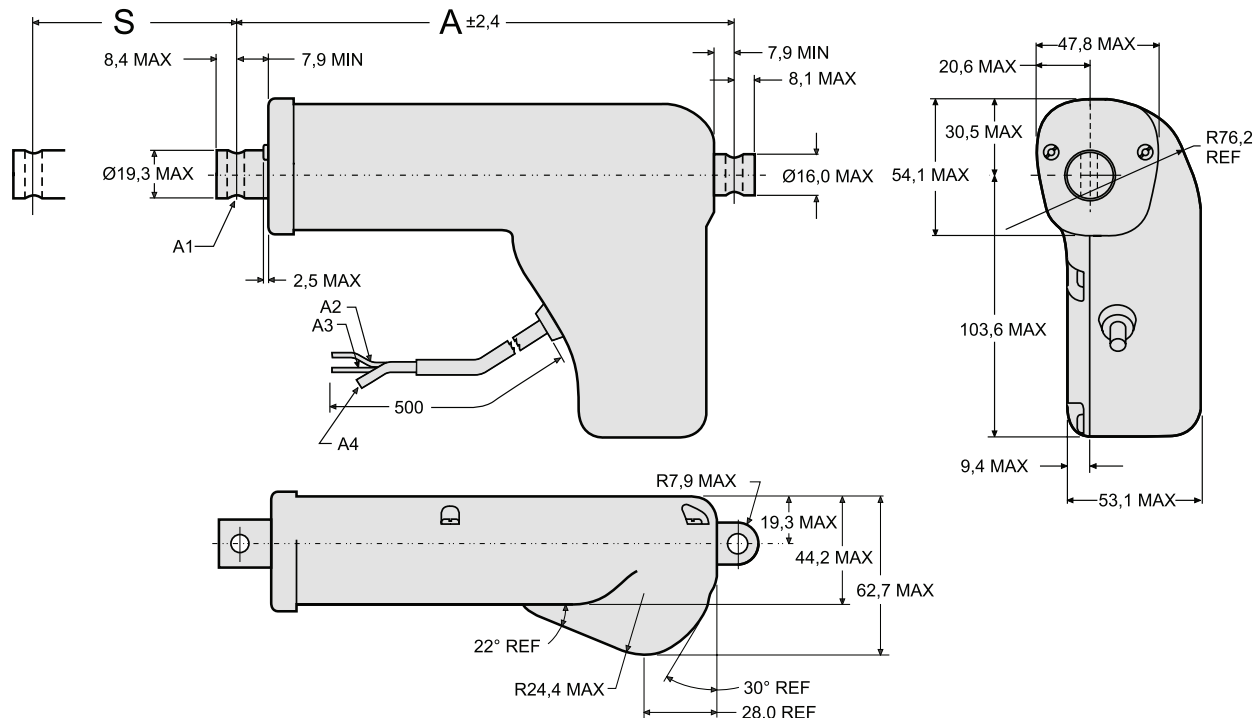
Parameter		Electrak 050
Maximum load, dynamic / static	[N]	
DE•••17W41		510 / 1020
DE•••17W42		275 / 550
DE•••17W44		140 / 280
Speed, at no load / at maximum load	[mm/s]	
DE•• - 17W41		12 / 9
DE•• - 17W42		24 / 18
DE•• - 17W44		48 / 37
DE•• Q17W41		9 / 7,5
DE•• Q17W42		18 / 14
DE•• Q17W44		38 / 30
Available input voltages	[Vdc]	
DE•• -		12, 24, 36
DE•• Q		24
Standard stroke lengths	[mm]	25, 50, 75, 100, 125, 150, 175, 200
Operating temperature limits	[°C]	-30 – +80
Full load duty cycle @ 20 °C	[%]	25
End play, maximum	[mm]	1,5
Restraining torque	[Nm]	0
Lead cross section	[mm ²]	1
Lead length	[mm]	500
Protection class		
DE•• -		IP56
DE•• Q		IP51
Potentiometer resistance change	[ohm/mm]	
DE•••17W41		22,0
DE•••17W42		21,9
DE•••17W44		21,2

Compatible Controls

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

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S: stroke (tolerances: 17W41 = ± 3,23 mm, 17W42 = ± 4,25 mm, 17W44 = ± 5,26 mm)
 A: retracted length
 A1: Ø 6 mm +0,15/-0 mounting cross holes (2 ×) in standard position

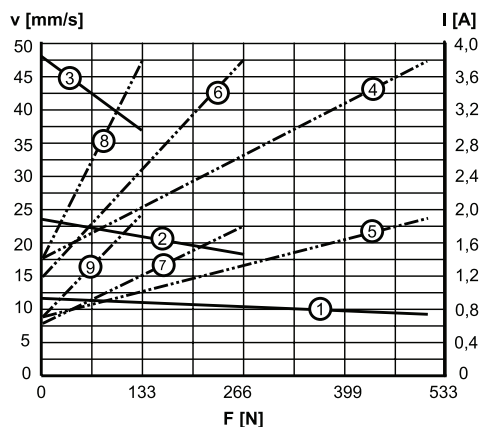
A2: red lead
 A3: yellow lead
 A4: vent tube Ø 3 mm

Stroke (S)	[mm]	25	50	75	100	125	150	175	200
Retracted length (A)	[mm]	114,2	139,2	164,2	189,2	214,2	239,2	264,2	289,2
Retracted length, with potentiometer (A)	[mm]	145,7	170,7	195,7	220,7	245,7	270,7	295,7	- *
Weight	[kg]	0,59	0,64	0,69	0,73	0,78	0,82	0,87	0,91
Weight with potentiometer	[kg]	0,69	0,74	0,79	0,83	0,88	0,92	0,97	- *

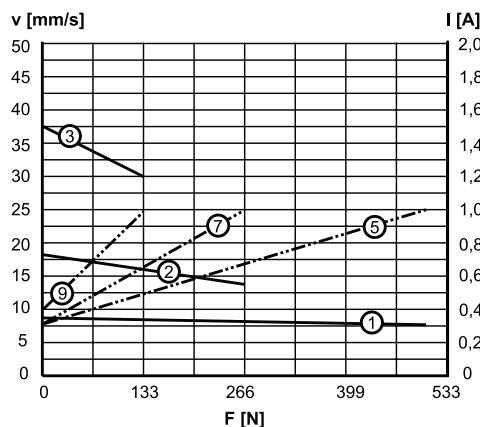
* 200 mm stroke not possible with potentiometer (PO, MP, PF options)

Performance Diagrams

050, standard version
 Speed and Current vs. Load



050, Q-version
 Speed and Current vs. Load

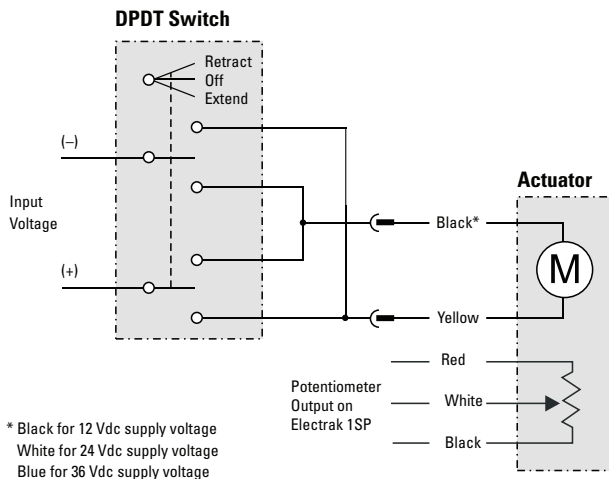


V: speed I: current F: load
 1: speed DE ••• 17W41
 2: speed DE ••• 17W42
 3: speed DE ••• 17W44
 4: current 12 Vdc, DE12 - 17W41
 5: current 24 Vdc, DE24 • 17W41
 6: current 12 Vdc, DE12 - 17W42
 7: current 24 Vdc, DE24 • 17W42
 8: current 12 Vdc, DE12 - 17W44
 9: current 24 Vdc, DE24 • 17W44

Electrical Wiring Diagrams

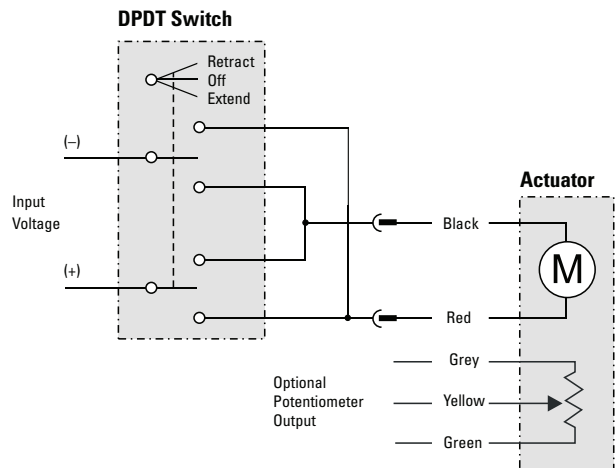
DC-actuators

Electrak 1 and 1SP



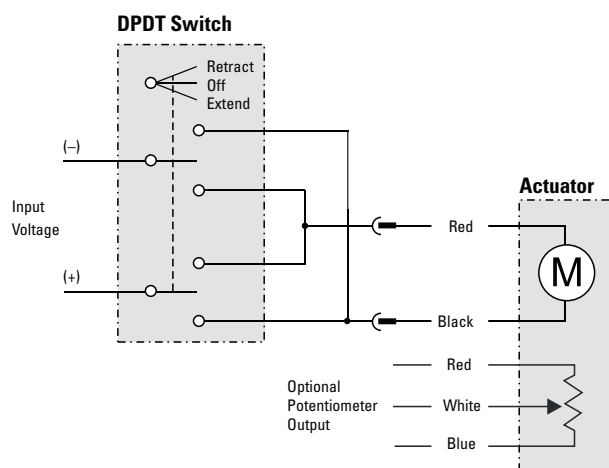
Connect the yellow lead to positive and black, white or blue* to negative to extend the actuator. Change polarity to retract the actuator. The potentiometer output has 0 ohm between white and red when the actuator is fully retracted. The actuator should be protected from overload conditions by a customer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

Electrak 10, LA14



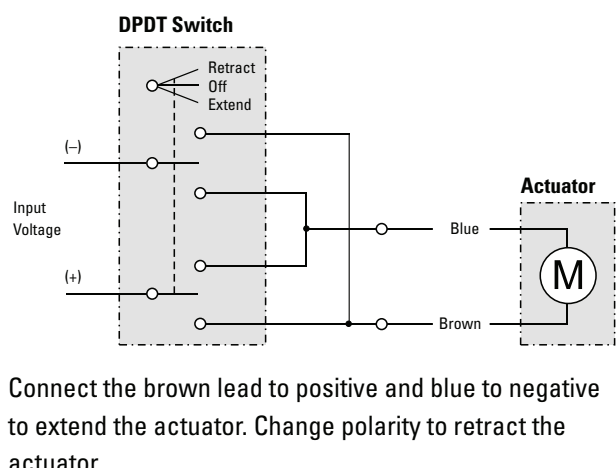
Connect the red lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The potentiometer output has 0 ohm between grey and yellow when the actuator is fully extended.

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 050			
1	2	3	4
DE24 -	17W44M	15	FS
1. Model and input voltage DE12 - = Electrak 050, 12 Vdc DE24 - = Electrak 050, 24 Vdc DE36 - = Electrak 050, 36 Vdc DE24Q = Electrak 050, 24 Vdc, Q-version ¹		3. Stroke 02 = 25 mm 05 = 50 mm 07 = 75 mm 10 = 100 mm 12 = 125 mm 15 = 150 mm 17 = 175 mm 20 = 200 mm	
2. Dynamic load capacity and color 17W41M = 510 N, black housing 17W42M = 275 N, black housing 17W44M = 140 N, black housing 17W41W = 510 N, white housing ¹ 17W42W = 275 N, white housing ¹ 17W44W = 140 N, white housing ¹		4. End of stroke limit switches and potentiometer FS = limit switches and no potentiometer PO = potentiometer ² PF = limit switches and potentiometer ² MF = crossholes rotated 90° and limit switches MP = crossholes rotated 90° and potentiometer ²	
		¹ White housing is standard for the Q-version. ² Not possible in combination with 200 mm stroke.	

Electrak PPA-DC					
1	2	3	4	5	6
PPA24 -	58B65 -	18	N -	LS	X
1. Model and input voltage PPA12 - = Electrak PPA-DC, 12 Vdc PPA24 - = Electrak PPA-DC, 24 Vdc PPA36 - = Electrak PPA-DC, 36 Vdc		3. Stroke 04 = 4 inch (101,6 mm) 08 = 8 inch (203,2 mm) 12 = 12 inch (304,8 mm) 18 = 18 inch (457,2 mm) 24 = 24 inch (609,6 mm) 36 = 36 inch (914,4 mm)		5. Feedback option XX = no feedback option LS = end of stroke limit switches PO = potentiometer ¹ HS = encoder HL = encoder + end of stroke limit switches	
2. Dynamic load capacity 18B65 - = 3330 N 58B65 - = 6670 N		4. Brake option N - = no brake option		6. Bellows option X = no bellows C = bellows	
				¹ Not available with limit switches.	