

# Electrak Pro

12 and 24 Vdc - load up to 9000 N

» Ordering Key - see page 67

» Glossary - see page 72

» Electric Wiring Diagram - see page 44



## Standard Features and Benefits

- Designed for heavy duty operation, IP66 protection
- Optimized overall envelope with minimal retracted length
- Durable and corrosion resistant aluminum housing
- Cover tube and extension tube in stainless steel<sup>2/5</sup>
- Acme or ball screw models
- Maintenance free
- Electronic load monitoring (ELM)
- Manual override
- Wide range of options

## General Specifications

Parameter	Electrak Pro
Screw type	acme or ball
Internally restrained	no / yes <sup>1</sup>
Manual override	yes
Dynamic braking	yes
Holding brake acme screw models ball screw models	no, self-locking yes
End of stroke protection	electronic load monitoring
Mid stroke protection	electronic load monitoring
Motor protection	electronic load monitoring
Motor connection	connector integrated in housing
Motor connector	Delphi Metri-Pack 280
Certificates	CE
Options	<ul style="list-style-type: none"> <li>• linear potentiometer<sup>2</sup></li> <li>• encoder</li> <li>• programmable limit switches<sup>2</sup></li> <li>• low voltage power switching<sup>3</sup></li> <li>• end of stroke indication outputs<sup>2</sup></li> <li>• ELM trip indication output</li> <li>• signal follower input<sup>2/3</sup></li> <li>• PWM speed control monitoring<sup>4</sup></li> <li>• IP67<sup>5</sup></li> <li>• black paint<sup>6</sup></li> </ul>

## Performance Specifications

Parameter		Electrak Pro
Maximum load, dynamic / static	[N]	
PR •• 02-2A65 (acme screw)		1125 / 2250
PR •• 05-4A65 (acme screw)		2250 / 4500
PR •• 07-8A65 (acme screw)		3375 / 6750
PR •• 05-2B65 (ball screw)		2250 / 3375
PR •• 10-4B65 (ball screw)		4500 / 9000
PR •• 15-8B65 (ball screw)		6800 / 13600
PR •• 20-8B65 (ball screw)		9000 / 18000
Speed, at no load / at maximum load	[mm/s]	
PR •• 02-2A65 (acme screw)		50 / 43
PR •• 05-4A65 (acme screw)		28 / 23
PR •• 07-8A65 (acme screw)		14 / 12
PR •• 05-2B65 (ball screw)		50 / 38
PR •• 10-4B65 (ball screw)		25 / 20
PR •• 15-8B65 (ball screw)		14 / 11
PR •• 20-8B65 (ball screw)		14 / 10
Available input voltages	[Vdc]	12, 24
Standard stroke lengths <sup>7</sup>	[mm]	100, 150, 200, 300
Operating temperature limits	[°C]	-40 – + 85
Full load duty cycle @ 25 °C	[%]	25
End play, maximum	[mm]	1,0
Restraining torque, maximum	[Nm]	17 / 0 <sup>1</sup>
Protection class		IP66

## Compatible Controls

Control model	See page
DPDT switch	48
DPDT switch box	49
DCG-190	54
AC-063	50

<sup>1</sup> Without / with anti-rotation option. When the anti-rotation option is being used, the front adapter cross hole can't be freely rotated. Instead the front cross hole must be ordered in standard position (shown in the drawing) or rotated 90°.

<sup>2</sup> Actuators with linear potentiometer, programmable limit switches or signal follower input option must have the anti-rotation option and an aluminum cover tube. Note that a programming unit is necessary for the programmable limit switch option, see page 62.

<sup>3</sup> Only possible on models with 12 Vdc input voltage.

<sup>4</sup> PWM speed control monitoring requires the ELM to be set from factory to match the customer's PWM source. Contact customer support for more information.

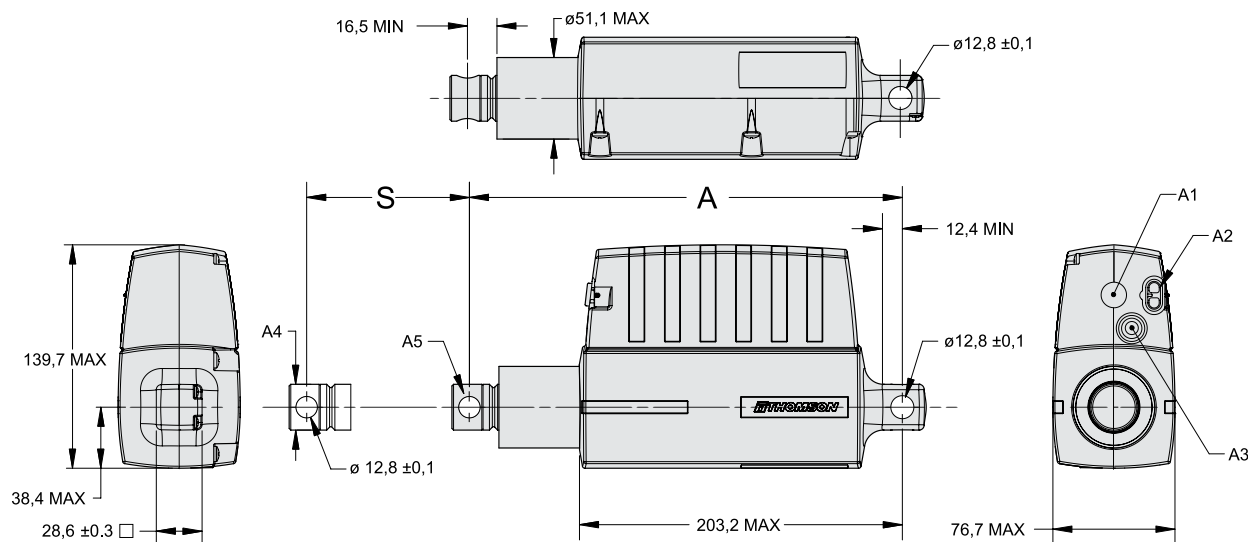
<sup>5</sup> IP67 requires the mating connector be installed and the factory sealing, including the manual override cover, must not be compromised.

<sup>6</sup> Black paint requires a carbon steel or an aluminum cover tube.

<sup>7</sup> For longer stroke length, contact customer support.

# Electrak Pro

12 and 24 Vdc - load up to 9000 N



S: stroke  
 A: retracted length  
 A1: manual override cover (manual override requires 5 mm or 3/16 hexagon key to operate)  
 A2: motor connector

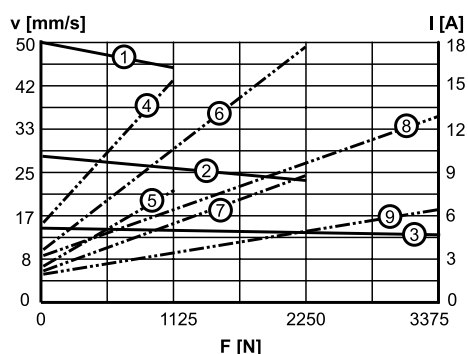
A3: knock out plug for signal wire exit  
 A4: adapter / extension tube diam. for 1125 - 6800 N models =  $28,58 \pm 0,13$  mm, for 9000 N model diam. =  $30,16 \pm 0,13$  mm.  
 A5: front adapter cross hole shown in standard position

Stroke (S)	[mm]	100	150	200	300
Retracted length, acme screw models (A)	[mm]	257,5	307,5	357,5	457,5
Retracted length, ball screw models (A)	[mm]	289,5	339,5	389,5	489,5
Weight, acme screw models	[kg]	3,0	3,2	3,4	3,9
Weight, ball screw models	[kg]	3,4	3,6	3,8	4,1
Potentiometer resistance change*	[ohm/mm]	36,2	26,5	41,7	29,3

\* Potentiometer is optional

## Performance Diagrams

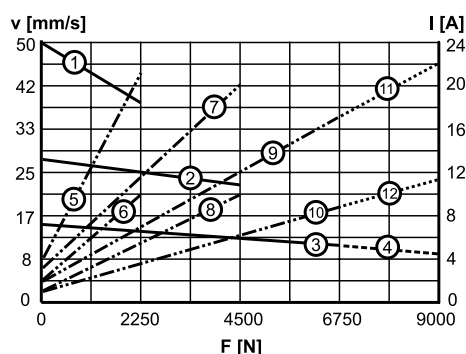
Acme Screw Models  
 Speed and Current vs. Load



V: speed  
 I: current  
 F: load

1: speed PR •• 02-2A65  
 2: speed PR •• 05-4A65  
 3: speed PR •• 07-8A65  
 4: current 12 Vdc, PR1202-2A65  
 5: current 24 Vdc, PR2402-2A65  
 6: current 12 Vdc, PR1205-4A65  
 7: current 24 Vdc, PR2405-4A65  
 8: current 12 Vdc, PR1207-8A65  
 9: current 24 Vdc, PR2407-8A65

Ball Screw Models  
 Speed and Current vs. Load



V: speed  
 I: current  
 F: load

1: speed PR •• 05-2B65  
 2: speed PR •• 10-4B65  
 3: speed PR •• 15-8B65  
 4: speed PR •• 20-8B65  
 5: current 12 Vdc, PR1205-2B65  
 6: current 24 Vdc, PR2405-2B65  
 7: current 12 Vdc, PR1210-4B65  
 8: current 24 Vdc, PR2410-4B65  
 9: current 12 Vdc, PR1215-8B65  
 10: current 24 Vdc, PR2415-8B65  
 11: current 12 Vdc, PR1220-8B65  
 12: current 24 Vdc, PR2420-8B65

# Ordering Keys

## Electrak DC-actuators

Electrak Pro						
1	2	3	4	5	6	7
PR24	20-8B65	D	10	R	C	S
<b>1. Model and input voltage</b> PR12 = Electrak Pro, 12 Vdc PR24 = Electrak Pro, 24 Vdc  <b>2. Dynamic load capacity and screw type</b> 02-2A65 = 1100 N, acme 05-4A65 = 2250 N, acme 07-8A65 = 3375 N, acme 05-2B65 = 2250 N, ball 10-4B65 = 4500 N, ball 15-8B65 = 6750 N, ball 20-8B65 = 9000 N, ball  <b>3. Protection class</b> D = IP66 (standard) G = IP67		<b>4. Stroke</b> 10 = 100 mm 15 = 150 mm 20 = 200 mm 30 = 300 mm  <b>5. Control PCB options</b> S = electronic load monitoring, ELM (standard) D = ELM + encoder L = ELM + linear potentiometer <sup>1</sup> P = ELM + programmable limit switches <sup>1</sup> T = ELM + low level power switching <sup>2</sup> R = ELM + end of stroke indication outputs <sup>1</sup> U = ELM + ELM trip indication output W = ELM + PWM speed control monitoring <sup>3</sup> K = ELM + signal follower input <sup>1/2</sup>  <b>6. Front adapter hole and anti-rotation options</b> C = freely rotatable cross hole, no anti-rotation S = adapter hole in standard position, anti-rotation <sup>4</sup> M = adapter hole rotated 90°, anti-rotation <sup>4</sup>		<b>7. Finish</b> S = no paint (standard) B = actuator painted black  <sup>1</sup> Requires anti-rotation mechanism (specify option S or M in position 6). <sup>2</sup> Only possible on 12 Vdc input voltage models. <sup>3</sup> PWM speed control monitoring requires the ELM to be set from factory to match the customer's PWM source. Contact customer support for more information. <sup>4</sup> Definition of adapter hole positions.		
						<p>The diagram shows a top-down view of the actuator's front plate. It features a central circular hole with a cross-hatch pattern. Two arrows point to different positions for a secondary adapter hole: one labeled '(S) standard' pointing to a position directly above the center, and another labeled '(M) 90°' pointing to a position rotated 90 degrees clockwise from the center.</p>