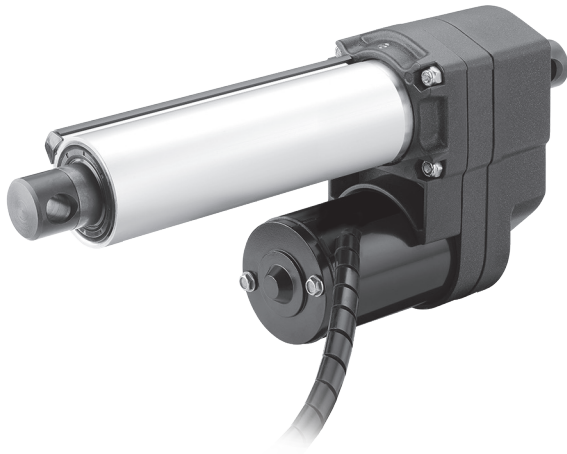


B-Track K2

Rugged Duty Actuators



B-Track IC DC – Technical Features



Standard Features

- Robust and reliable
- 12 and 24 Vdc as standard input voltages
- Acme and ball screw models
- Strokes up to 24 inch
- Load up to 12460 N (2800 lbf)
- IP66/IP69K protection
- Integrated controls for position feedback, end-of-stroke limit switches and end-of-stroke indication outputs
- Externally adjustable limit switches optional

General Specifications

Screw type	acme or ball
Nut type K2 (acme screw) K2X (ball screw)	self locking lead nut load lock ball nut
Manual override	no
Anti-rotation	no
Static load holding brake acme screw models ball screw models	no (self locking) yes
Safety features	overload clutch motor auto reset thermal switch
Anti coast brake K2 (acme screw) K2X (ball screw)	no no
Electrical connections power control options	flying leads with Packard connector control option dependent
Compliances	CE

Optional Electrical Features

Integrated end-of-stroke limit switches
Integrated end-of-stroke limit switches + end-of-stroke indication outputs
Externally adjustable end-of-stroke limit switches
Externally adjustable end-of-stroke limit switches + end-of-stroke indication outputs
Analog potentiometer position feedback output
Analog potentiometer position feedback output + externally adjustable end-of-stroke limit switches

Compatible Controls

Contact customer support at www.thomsonlinear.com/cs

B-Track IC DC – Technical Specifications

Mechanical Specifications		
Max. static load ⁽¹⁾	[N (lbf)]	13345 (3000)
Max. dynamic load (Fx)	[N (lbf)]	
K2xxxxG05-		1335 (300)
K2xxxxG10-		2225 (500)
K2xxxxG20-		3338 (700)
K2xxxxG30-		4896 (1100)
K2XxxxxG05-		2670 (600)
K2XxxxxG10-		5340 (1200)
K2XxxxxG20-		9790 (2200)
K2XxxxxG30-		12460 (2800)
Speed @ no load/max. load	[mm/s (in/s)]	
K2xxxxG05-		73 (2.85) / 43 (1.7)
K2xxxxG10-		37 (1.45) / 15 (0.60)
K2xxxxG20-		18 (0.70) / 8 (0.31)
K2xxxxG30-		12 (0.48) / 7 (0.27)
K2XxxxxG05-		67 (2.65) / 28 (1.10)
K2XxxxxG10-		37 (1.45) / 17 (0.65)
K2XxxxxG20-		19 (0.75) / 6.5 (0.25)
K2XxxxxG30-		11 (0.45) / 9.5 (0.38)
Min. ordering stroke (S) length	[in]	4
Max. ordering stroke (S) length ⁽²⁾⁽³⁾⁽⁴⁾	[in]	24
Operating temperature limits	[°C (F)]	-29 – 65 (-20 – 150)
Full load duty cycle @ 25 °C (77 °F)	[%]	25
End play, maximum	[mm (in)]	1.0 (0.04)
Restraining torque	[Nm (lbf-in)]	11.3 (100)
Protection class - static		IP66/IP69K
Salt spray resistance	[h]	250

(1) Max. static load at fully retracted stroke

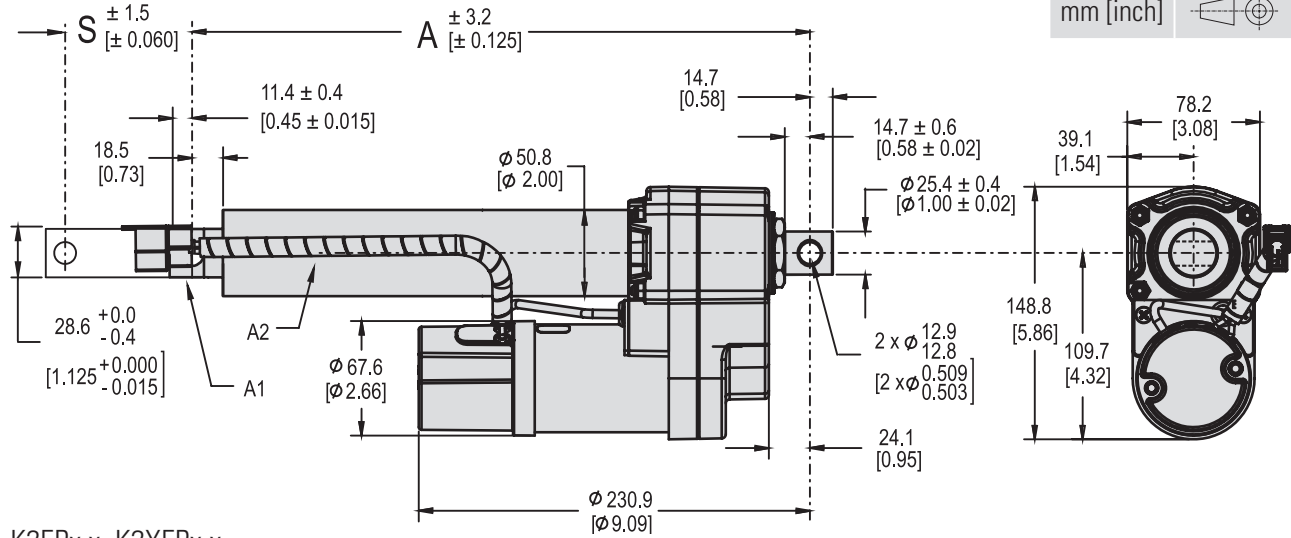
Electrical Specifications		
Available input voltages ⁽¹⁾⁽²⁾	[Vdc]	12, 24
Input voltage tolerance	[%]	± 10
Current draw @ no load/max. load	[A]	
K2xxxxG05-12V		3.8 / 25
K2xxxxG05-24V		2.0 / 12
K2xxxxG10-12V		3.8 / 25
K2xxxxG10-24V		0.75 / 12
K2xxxxG20-12V		2.0 / 25
K2xxxxG20-24V		0.75 / 12
K2xxxxG30-12V		2.0 / 21
K2xxxxG30-24V		0.75 / 11
K2XxxxxG05-12V		2.0 / 25
K2XxxxxG05-24V		0.75 / 12
K2XxxxxG10-12V		2.0 / 25
K2XxxxxG10-24V		0.75 / 12.5
K2XxxxxG20-12V		2.0 / 23
K2XxxxxG20-24V		0.75 / 11
K2XxxxxG30-12V		2.0 / 25
K2XxxxxG30-24V		0.75 / 12.5
Flying leads length	[mm (in)]	254 (10)
Flying leads spiral wrap diameter	[mm (in)]	11.5 (0.45)
Flying leads cross section	[mm ² (AWG)]	2 (14)



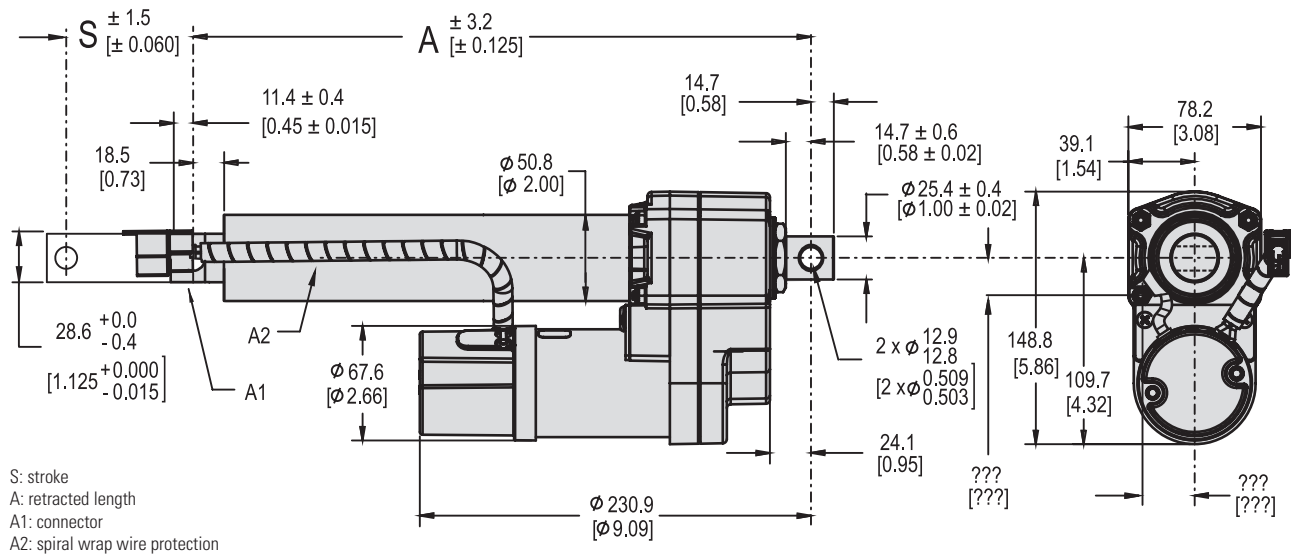
B-Track IC DC – Dimensions

K2Px.x, K2XPx.x

Dimensions	Projection
mm [inch]	



K2EPx.x, K2XEPx.x



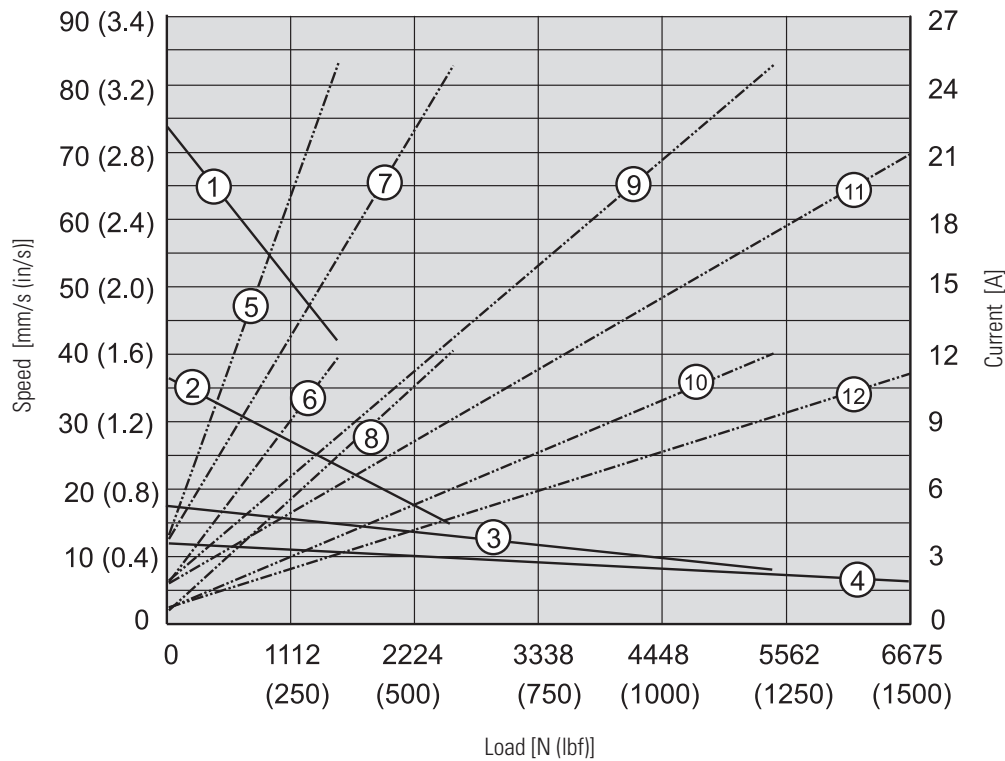
S: stroke
 A: retracted length
 A1: connector
 A2: spiral wrap wire protection

Stroke, Retracted Length and Weight Relationships

Ordering stroke (S)	[in]	4	6	8	12	18	24
Retracted length acme screw models (A)	[mm]	262.1	312.9	363.7	465.3	617.7	846.3
	[in]	10.32	12.32	14.32	18.32	24.32	33.32
Weight acme screw models	[kg]	4.2	4.5	4.7	5.3	6.1	7.3
	[lbs]	9.3	9.9	10.4	11.6	13.4	16.0
Retracted length ball screw models and acme screw models with long nut (A)	[mm]	302.0	352.8	403.6	505.2	657.6	886.2
	[in]	11.89	13.89	15.89	19.89	25.89	34.89
Weight ball screw models	[kg]	4.4	4.7	4.9	5.5	6.3	7.5
	[lbs]	9.8	10.4	10.9	12.1	13.9	16.5

B-Track IC DC – Performance Diagrams

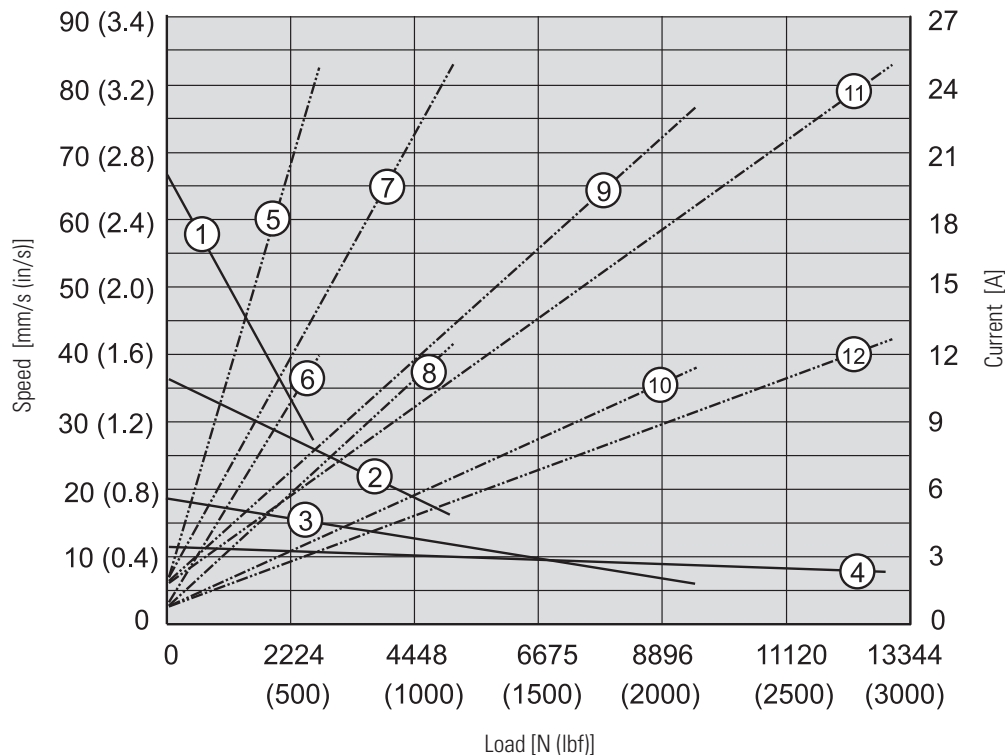
Acme Screw Models
Speed and Current vs. Load



- Speed
 1: K2xxxxxG05-
 2: K2xxxxxG10-
 3: K2xxxxxG20-
 4: K2xxxxxG30-

- Current
 5: K2xxxxxG05-12V
 6: K2xxxxxG05-24V
 7: K2xxxxxG10-12V
 8: K2xxxxxG10-24V
 9: K2xxxxxG20-12V
 10: K2xxxxxG20-24V
 11: K2xxxxxG30-12V
 12: K2xxxxxG30-24V

Ball Screw Models
Speed and Current vs. Load



- Speed
 1: K2XxxxxxG05-
 2: K2XxxxxxG10-
 3: K2XxxxxxG20-
 4: K2XxxxxxG30-

- Current
 5: K2XxxxxxG05-12V
 6: K2XxxxxxG05-24V
 7: K2XxxxxxG10-12V
 8: K2XxxxxxG10-24V
 9: K2XxxxxxG20-12V
 10: K2XxxxxxG20-24V
 11: K2XxxxxxG30-12V
 12: K2XxxxxxG30-24V



B-Track IC DC – Ordering Key

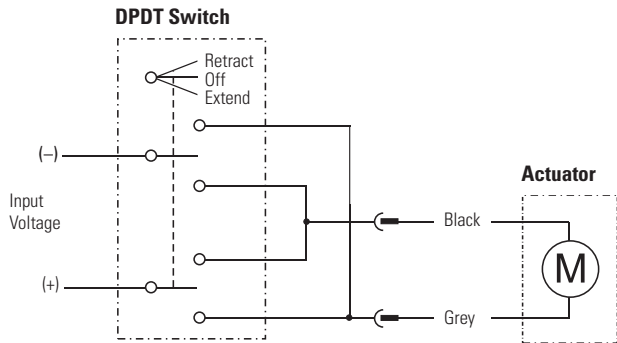
Ordering Key

1	2	3	4	5	6
K2P1.0	G05-	12V-	BR-	04	
<p>1. Model, version, control and screw type</p> <p>K2P1.0 = B-Track, IC, end of stroke limit switches, acme K2P1.2 = B-Track, IC, end of stroke limit switches + end of stroke indication output, acme K2EP1.0 = B-Track, IC, external, adjustable end of stroke limit switches, acme K2EP1.2 = B-Track, IC, external, adjustable end of stroke limit switches + end of stroke indication output, acme K2EP0.4 = B-Track, IC analog potentiometer position feedback output, acme ⁽¹⁾ K2EP1.4 = B-Track, IC, analog potentiometer position feedback output + external, adjustable end of stroke limit switches, acme ⁽¹⁾ K2XP1.0 = B-Track, IC, end of stroke limit switches, ball K2XP1.2 = B-Track, IC, end of stroke limit switches + end of stroke indication output, ball K2XEP1.0 = B-Track, IC, external, adjustable end of stroke limit switches, ball K2XEP1.2 = B-Track, IC, external, adjustable end of stroke limit switches + end of stroke indication output, ball K2XEP0.4 = B-Track, IC, analog potentiometer position feedback output, ball K2XEP1.4 = B-Track, IC, analog potentiometer position feedback output + external, adjustable end of stroke limit switches, ball</p> <p>2. Dynamic load capacity (acme screw / ball screw models)</p> <p>G05- = 1335 N (300 lbf) / 2670 N (600 lbf) G10- = 2670 N (600 lbf) / 5340 N (1200 lbf) G20- = 5340 N (1200 lbf) / 9790 N (2200 lbf) G30- = 6675 N (1500 lbf) / 12460 N (2800 lbf)</p>			<p>3. Supply voltage</p> <p>12V = 12 Vdc 24V = 24 Vdc</p> <p>4. Nut type</p> <p>BR- = Acme screw nut (for K2 models only) BRL- = Long acme screw nut (for K2 models) only ⁽²⁾ - = Ball screw nut (for all K2X models)</p> <p>5. Ordering stroke length ⁽³⁾</p> <p>04- = 4 inch 06- = 6 inch 08- = 8 inch 12- = 12 inch 18- = 18 inch 24- = 24 inch</p> <p>6. Rear adapter orientation</p> <p>blank = standard R30 = 30 ° turned R60 = 60 ° turned R90 = 90 ° turned R120 = 120 ° turned R150 = 150 ° turned</p> <p><small>(1) Only possible with nut type BRL. (2) An acme screw unit with long nut has the same retracted length (distance A) as a unit of the same stroke with a ball screw (3) Other stroke lengths possible on request, please contact customer support.</small></p>		

B-Track IC DC – Electrical Connections

K2xP1.0xxx-12(24)V

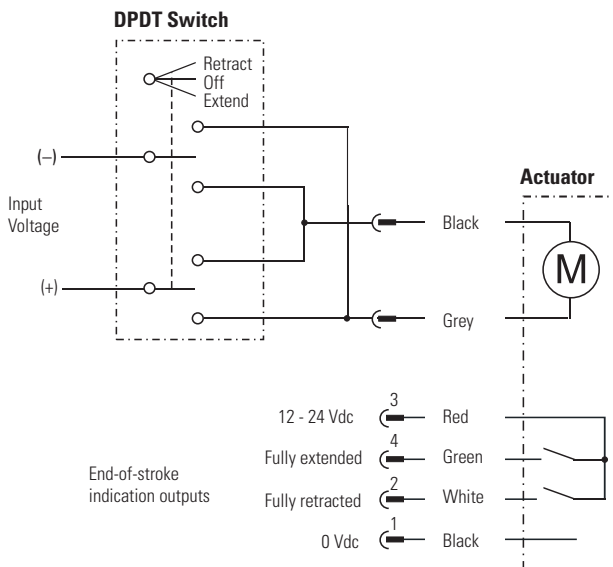
Actuator supply voltage	[Vdc]	
K2xxxxxxxxx12V		12
K2xxxxxxxxx24V		24



Connect the grey lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The actuator has internal end-of-stroke limit switches which when affected will stop further motion in respectively direction.

K2xP1.2xxx-12(24)V

Actuator supply voltage	[Vdc]	
K2xxxxxxxxx12V		12
K2xxxxxxxxx24V		24
End-of-stroke indication outputs supply voltage	[Vdc]	12 - 24
End-of-stroke indication outputs output voltage	[Vdc]	same as the supply voltage
End-of-stroke indication outputs maximum current	[A]	0.5

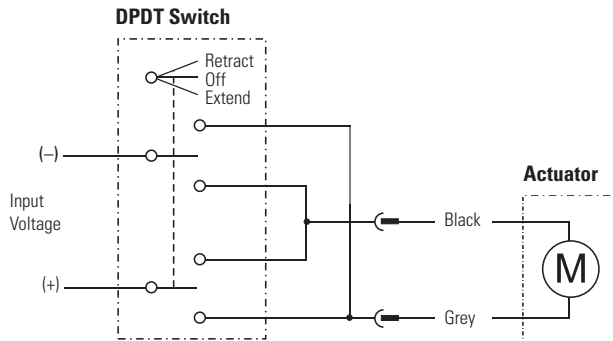


Connect the grey lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The actuator has internal end-of-stroke limit switches which when affected will stop further motion in respectively direction and at the same time the corresponding end-of-stroke indication output will close.



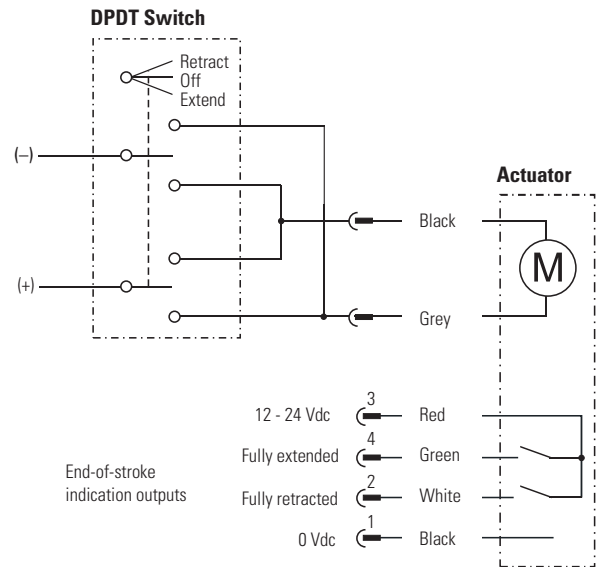
B-Track IC DC – Electrical Connections

K2xEP1.0xxx-12(24)V		
Actuator supply voltage	[Vdc]	
K2xxxxxxxx12V		12
K2xxxxxxxx24V		24



Connect the grey lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The actuator has external adjustable end-of-stroke limit switches which when affected will stop further motion in respectively direction. The switch positions are factory set to fully extended and retracted.

K2xEP1.2xxx-12(24)V		
Actuator supply voltage	[Vdc]	
K2xxxxxxxx12V		12
K2xxxxxxxx24V		24
End-of-stroke indication outputs supply voltage	[Vdc]	12 - 24
End-of-stroke indication outputs output voltage	[Vdc]	same as the supply voltage
End-of-stroke indication outputs maximum current	[A]	0.5

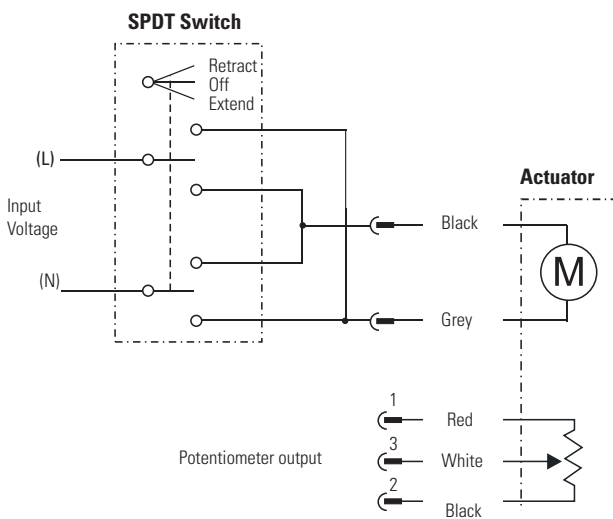
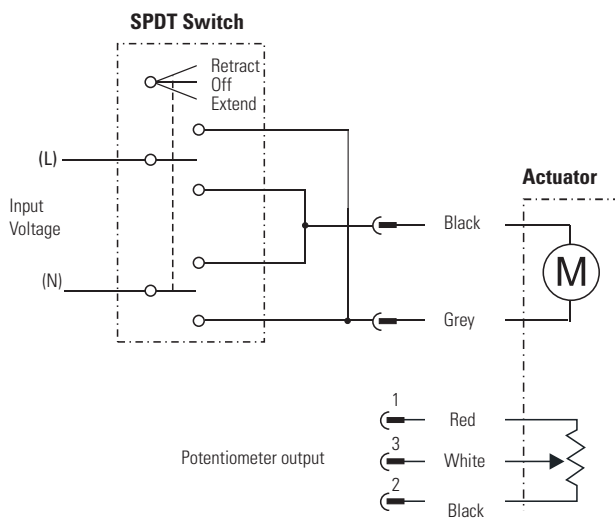


Connect the grey lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The actuator has external adjustable end-of-stroke limit switches which when affected will stop further motion in respectively direction and at the same time the corresponding end-of-stroke indication output will close.

B-Track IC DC – Electrical Connections

K2xEP0.4xxx-12(24)V		
Actuator supply voltage	[Vdc]	12 24
Potentiometer type		membrane
Potentiometer voltage, maximum	[Vdc]	27
Potentiometer resistance	[kOhm]	12
Potentiometer tolerance	[± %]	20
Potentiometer linearity	[%]	5

K2xEP1.4xxx-12(24)V		
Actuator supply voltage	[Vdc]	12 24
Potentiometer type		membrane
Potentiometer voltage, maximum	[Vdc]	27
Potentiometer resistance	[kOhm]	12
Potentiometer tolerance	[± %]	20
Potentiometer linearity	[%]	5



Connect the grey lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The potentiometer output connector will between pins 2 and 3 have 0.5 kOhm when fully retracted and increase proportionally to 11.5 kOhm when fully extended.

Connect the grey lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator. The actuator has external adjustable end-of-stroke limit switches which when affected will stop further motion in respectively direction. The switch positions are factory set to fully extended and retracted. The potentiometer output connector will between pins 2 and 3 have 0.5 kOhm when fully retracted and increase proportionally to 11.5 kOhm when fully extended. If the external end-of-stroke sensors are moved in order to limit the stroke the output signal from the potentiometer will be reduced accordingly meaning if the maximum extended move is reduced by 50%, then the resistance at that point will be 50% of 11.5 kOhm.



B-Track IC AC – Technical Features



Standard Features

- Robust and reliable
- 1 × 115 and 1 × 230 Vac as standard input voltages
- Acme and ball screw models
- Strokes up to 24 inch
- Load up to 12460 N (2800 lbf)
- IP66/IP69K protection
- Integrated controls for position feedback, end-of-stroke limit switches and end-of-stroke indication outputs
- Externally adjustable limit switches optional

General Specifications

Screw type	acme or ball
Nut type K2 (acme screw) K2X (ball screw)	self locking lead nut load lock ball nut
Manual override	no
Anti-rotation	no
Static load holding brake acme screw models ball screw models	no (self locking) yes
Safety features	overload clutch motor auto reset thermal switch
Anti coast brake K2 (acme screw) K2X (ball screw)	no no
Electrical connections power control options	cable with flying leads control option dependent
Compliances	CE

Optional Electrical Features

Integrated end-of-stroke limit switches
Integrated end-of-stroke limit switches + end-of-stroke indication outputs
Externally adjustable end-of-stroke limit switches
Externally adjustable end-of-stroke limit switches + end-of-stroke indication outputs
Analog potentiometer position feedback output
Analog potentiometer position feedback output + externally adjustable end-of-stroke limit switches

Compatible Controls

Contact customer support at www.thomsonlinear.com/cs

B-Track IC AC – Technical Specifications

Mechanical Specifications		
Max. static load ⁽¹⁾	[N (lbf)]	13345 (3000)
Max. dynamic load (Fx)	[N (lbf)]	
K2xxxxG10-		2225 (500)
K2xxxxG20-		3338 (700)
K2xxxxG30-		4896 (1100)
K2XxxxxG05-		2225 (500)
K2XxxxxG10-		5340 (1200)
K2XxxxxG20-		9790 (2200)
K2XxxxxG30-		12460 (2800)
Speed @ no load/max. load	[mm/s (in/s)]	
K2xxxxG10-		26.5 (1.07) / 23 (0.9)
K2xxxxG20-		14.5 (0.58) / 13 (0.52)
K2xxxxG30-		10 (0.39) / 9 (0.35)
K2XxxxxG05-		44.(1.75) / 32 (1.28)
K2XxxxxG10-		26.5 (1.07) / 24 (0.94)
K2XxxxxG20-		14 (0.55) / 12.5 (0.5)
K2XxxxxG30-		9.5 (0.38) / 8 (0.32)
Min. ordering stroke (S) length	[in]	4
Max. ordering stroke (S) length ⁽²⁾⁽³⁾⁽⁴⁾	[in]	24
Operating temperature limits	[°C (F)]	-29 – 65 (-20 – 150)
Full load duty cycle @ 25 °C (77 °F)	[%]	25
End play, maximum	[mm (in)]	1.0 (0.04)
Restraining torque	[Nm (lbf-in)]	11.3 (100)
Protection class - static		IP66/IP69K
Salt spray resistance	[h]	250

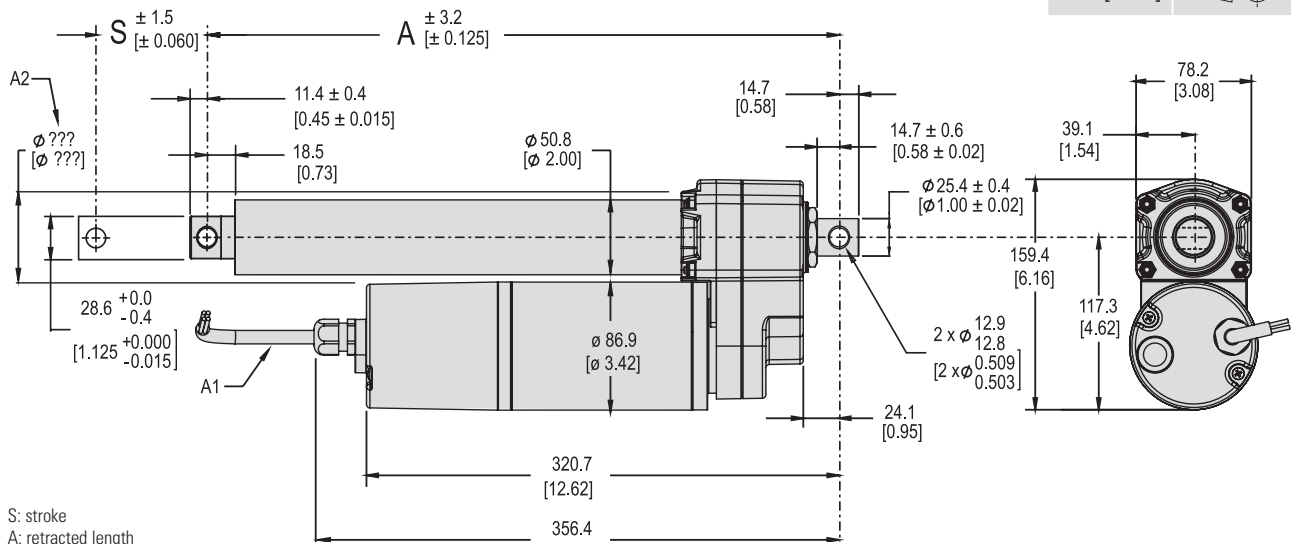
(1) Max. static load at fully retracted stroke

Electrical Specifications		
Available input voltages	[Vac]	1 × 115, 1 × 230
Input voltage tolerance	[%]	± 10
Current draw @ no load/max. load	[A]	
K2xxxxG10-115V		2.3 / 3.1
K2xxxxG10-230V		1.2 / 1.8
K2xxxxG20-115V		2.3 / 2.6
K2xxxxG20-230V		1.1 / 1.3
K2xxxxG30-115V		2.3 / 2.5
K2xxxxG30-230V		1.1 / 1.3
K2XxxxxG05-115V		2.3 / 3.3
K2XxxxxG05-230V		1.2 / 1.6
K2XxxxxG10-115V		2.4 / 3.3
K2XxxxxG10-230V		3.2 / 4.3
K2XxxxxG20-115V		2.3 / 2.7
K2XxxxxG20-230V		1.1 / 1.3
K2XxxxxG30-115V		2.4 / 2.6
K2XxxxxG30-230V		2.8 / 3.7
Cable length	[mm (in)]	597 (23.5)
Cable diameter	[mm (in)]	10 (0.4)
Cable leads cross section	[mm ² (AWG)]	0.75 (18)



B-Track IC AC – Dimensions

Dimensions	Projection
mm [inch]	



S: stroke

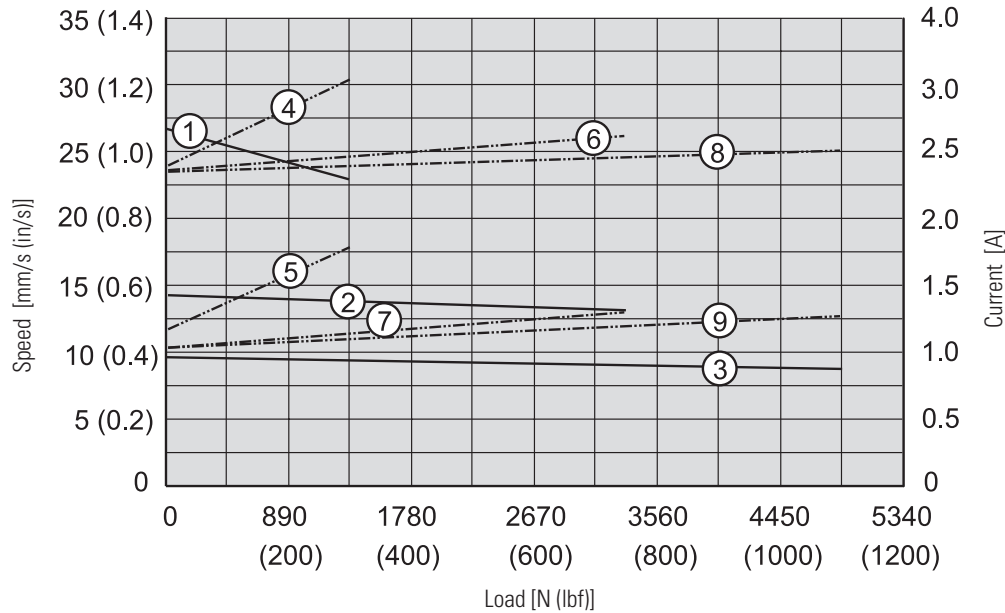
A: retracted length

A1: cable

A2: depending of control option the cover tube will have limit switches, limit switch rails and cables mounted within this diameter at positions that are different depending on the stroke. Therefore, make sure no external objects interfere with this diameter. If critical, please contact customer support for information on the exact position of these objects for your stroke.

B-Track IC AC – Performance Diagrams

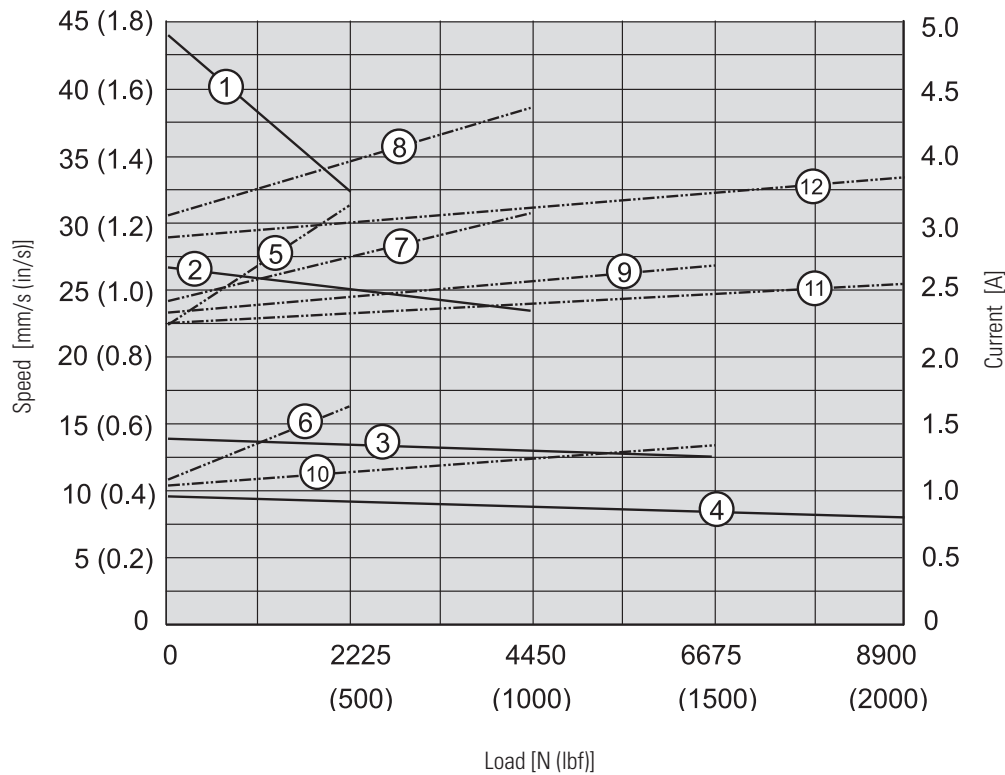
Acme Screw Models
Speed and Current vs. Load*



Speed
1: K2xxxxG10-
2: K2xxxxG20-
3: K2xxxxG30-

Current
4: K2xxxxG10-115V
5: K2xxxxG20-115V
6: K2xxxxG30-115V
7: K2xxxxG10-230V
8: K2xxxxG20-230V
9: K2xxxxG30-230V

Ball Screw Models
Speed and Current vs. Load*



Speed
1: K2xxxxG05-
2: K2xxxxG10-
3: K2xxxxG20-
4: K2xxxxG30-

Current
5: K2xxxxG05-115V
6: K2xxxxG10-115V
7: K2xxxxG20-115V
8: K2xxxxG30-115V
9: K2xxxxG05-230V
10: K2xxxxG10-230V
11: K2xxxxG20-230V
12: K2xxxxG30-230V



B-Track IC AC – Ordering Key

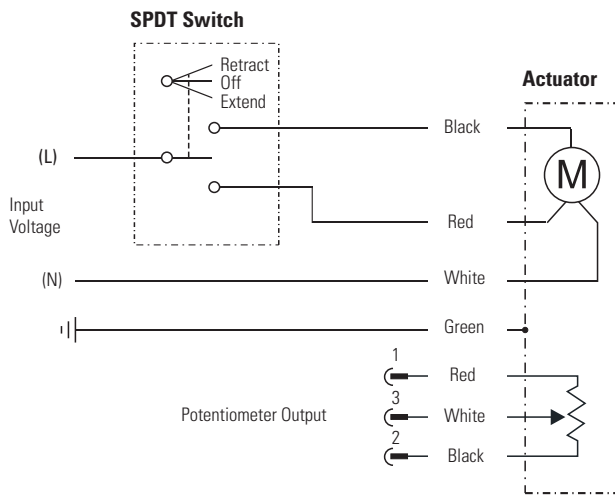
Ordering Key

1	2	3	4	5	6
K2EP0.4	G10-	115V-	BR-	04	
<p>1. Model, version, control and screw type K2EP0.4 = B-Track, IC, analog potentiometer position feedback output, acme ⁽¹⁾ K2EP1.4 = B-Track, IC, analog potentiometer position feedback output + external, adjustable end of stroke limit switches, acme ⁽¹⁾ K2XEP0.4 = B-Track, IC, analog potentiometer position feedback output, ball K2XEP1.4 = B-Track, IC, analog potentiometer position feedback output + external, adjustable end of stroke limit switches, ball</p> <p>2. Dynamic load capacity (acme screw / ball screw models) G05- = -not available / 2225 N (500 lbf) G10- = 2225 N (500 lbf) / 4450 N (1000 lbf) G20- = 3338 N (750 lbf) / 6675 N (1500 lbf) G30- = 4895 N (1100 lbf) / 8900 N (2000 lbf)</p> <p>3. Supply voltage 115V = 1 × 115 Vac 230V = 1 × 230 Vac</p>			<p>4. Nut type BR- = Acme screw nut (for K2 models only) BRL- = Long acme screw nut (for K2 models) only ⁽²⁾ - = Ball screw nut (for all K2X models)</p> <p>5. Ordering stroke length ⁽³⁾ 04 = 4 inch 06 = 6 inch 08 = 8 inch 12 = 12 inch 18 = 18 inch 24 = 24 inch</p> <p>6. Rear adapter orientation blank = standard R30 = 30 ° turned R60 = 60 ° turned R90 = 90 ° turned R120 = 120 ° turned R150 = 150 ° turned</p> <p><small>(1) Only possible with nut type BRL. (2) An acme screw unit with long nut has the same retracted length (distance A) as a unit of the same stroke with a ball screw. (3) Other stroke lengths possible on request, please contact customer support.</small></p>		

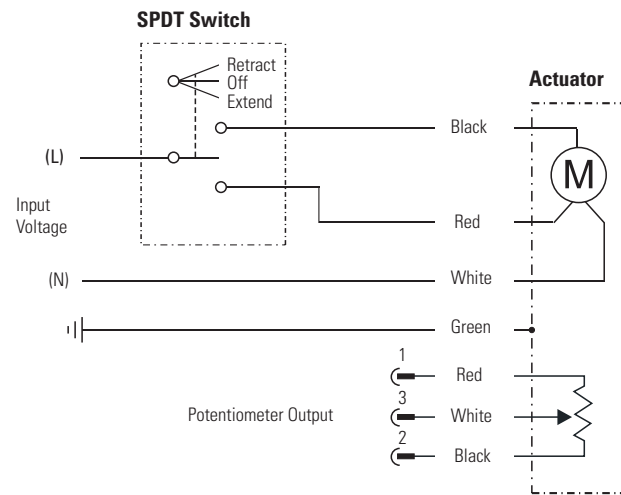
B-Track IC AC – Electrical Connections

K2xEP0.4xxx-115(230)V		
Actuator supply voltage	[Vac]	1 × 115 1 × 230
Potentiometer type		membrane
Potentiometer voltage, maximum	[Vdc]	27
Potentiometer resistance	[kOhm]	12
Potentiometer tolerance	[± %]	20
Potentiometer linearity	[%]	5

K2xEP1.4xxx-115(230)V		
Actuator supply voltage	[Vac]	1 × 115 1 × 230
Potentiometer type		membrane
Potentiometer voltage, maximum	[Vdc]	27
Potentiometer resistance	[kOhm]	12
Potentiometer tolerance	[± %]	20
Potentiometer linearity	[%]	5



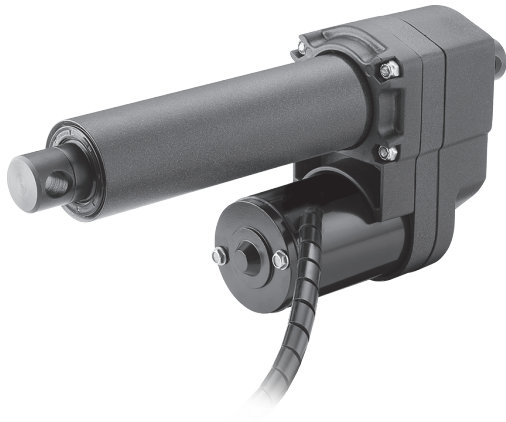
Connect white lead to neutral (N). To extend the actuator connect L to the red lead. To retract the actuator, change L to the black lead. The potentiometer output connector will between pins 2 and 3 have 0.5 kOhm when fully retracted and increase proportionally to 11.5 kOhm when fully extended.



Connect white lead to neutral (N). To extend the actuator connect L to the red lead. To retract the actuator, change L to the black lead. The actuator has external adjustable end-of-stroke limit switches which when affected will stop further motion in respectively direction. The switch positions are factory set to fully extended and retracted. The potentiometer output connector will between pins 2 and 3 have 0.5 kOhm when fully retracted and increase proportionally to 11.5 kOhm when fully extended. If the external end-of-stroke sensors are moved in order to limit the stroke the output signal from the potentiometer will be reduced accordingly meaning if the maximum extended move is reduced by 50%, then the resistance at that point will be 50% of 11.5 kOhm.



B-Track DC – Technical Features



Standard Features

- Robust and reliable
- 12, 24, 36, 48 and 90 Vdc as standard input voltages
- Acme and ball screw models
- Strokes up to 24 inches
- Load up to 12460 N (2800 lbf)
- IP66/IP69K protection

General Specifications

Screw type	acme or ball
Nut type K2 (acme screw) K2X (ball screw)	self-locking lead nut load lock ball nut
Manual override	no
Anti-rotation	no
Static load holding brake acme screw models ball screw models	no (self-locking) yes
Safety features	overload clutch motor auto reset thermal switch
Anti coast brake K2 (acme screw) K2X (ball screw)	no no
Electrical connection	flying leads with Packard 56 connector
Compliances	CE

Compatible Controls

Contact customer support at www.thomsonlinear.com/cs

B-Track DC – Technical Specifications

Mechanical Specifications		
Max. static load ⁽¹⁾	[N (lbf)]	13345 (3000)
Max. dynamic load (Fx)	[N (lbf)]	
K2G05-		1335 (300)
K2G10-		2225 (500)
K2G20-		3338 (700)
K2G30-		4896 (1100)
K2XG05-		2670 (600)
K2XG10-		5340 (1200)
K2XG20-		9790 (2200)
K2XG30-		12460 (2800)
Speed @ no load/max. load	[mm/s (in/s)]	
K2G05-		73 (2.85) / 43 (1.7)
K2G10-		37 (1.45) / 15 (0.60)
K2G20-		18 (0.70) / 8 (0.31)
K2G30-		12 (0.48) / 7 (0.27)
K2XG05-		67 (2.65) / 28 (1.10)
K2XG10-		37 (1.45) / 17 (0.65)
K2XG20-		19 (0.75) / 6.5 (0.25)
K2XG30-		11 (0.45) / 9.5 (0.38)
Min. ordering stroke (S) length	[in]	4
Max. ordering stroke (S) length ⁽²⁾⁽³⁾⁽⁴⁾	[in]	24
Operating temperature limits	[°C (F)]	-29 – 65 (-20 – 150)
Full load duty cycle @ 25 °C (77 °F)	[%]	25
End play, maximum	[mm (in)]	1.0 (0.04)
Restraining torque	[Nm (lbf-in)]	11.3 (100)
Protection class - static		IP66/IP69K
Salt spray resistance	[h]	250

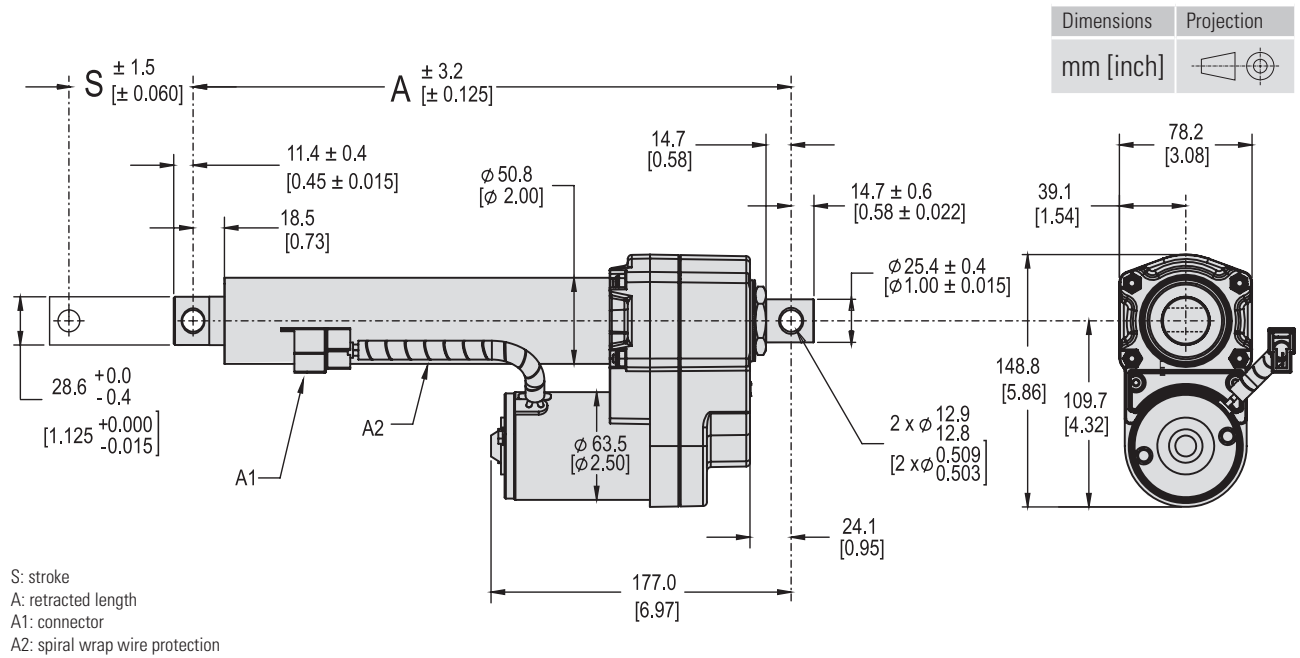
(1) Max. static load at fully retracted stroke

(2) Contact customer support for data on 36, 48 or 90 Vdc models

Electrical Specifications		
Available input voltages ⁽²⁾	[Vdc]	12, 24, 36, 48, 90
Input voltage tolerance	[%]	± 10
Current draw @ no load/max. load	[A]	
K2G05-12V		3.8 / 25
K2G05-24V		2.0 / 12
K2G10-12V		3.8 / 25
K2G10-24V		0.75 / 12
K2G20-12V		2.0 / 25
K2G20-24V		0.75 / 12
K2G30-12V		2.0 / 21
K2G30-24V		0.75 / 11
K2XG05-12V		2.0 / 25
K2XG05-24V		0.75 / 12
K2XG10-12V		2.0 / 25
K2XG10-24V		0.75 / 12.5
K2XG20-12V		2.0 / 23
K2XG20-24V		0.75 / 11
K2XG30-12V		2.0 / 25
K2XG30-24V		0.75 / 12.5
Flying leads length	[mm (in)]	254 (10)
Flying leads spiral wrap diameter	[mm (in)]	11.5 (0.45)
Flying leads cross section	[mm ² (AWG)]	2 (14)



B-Track DC – Dimensions

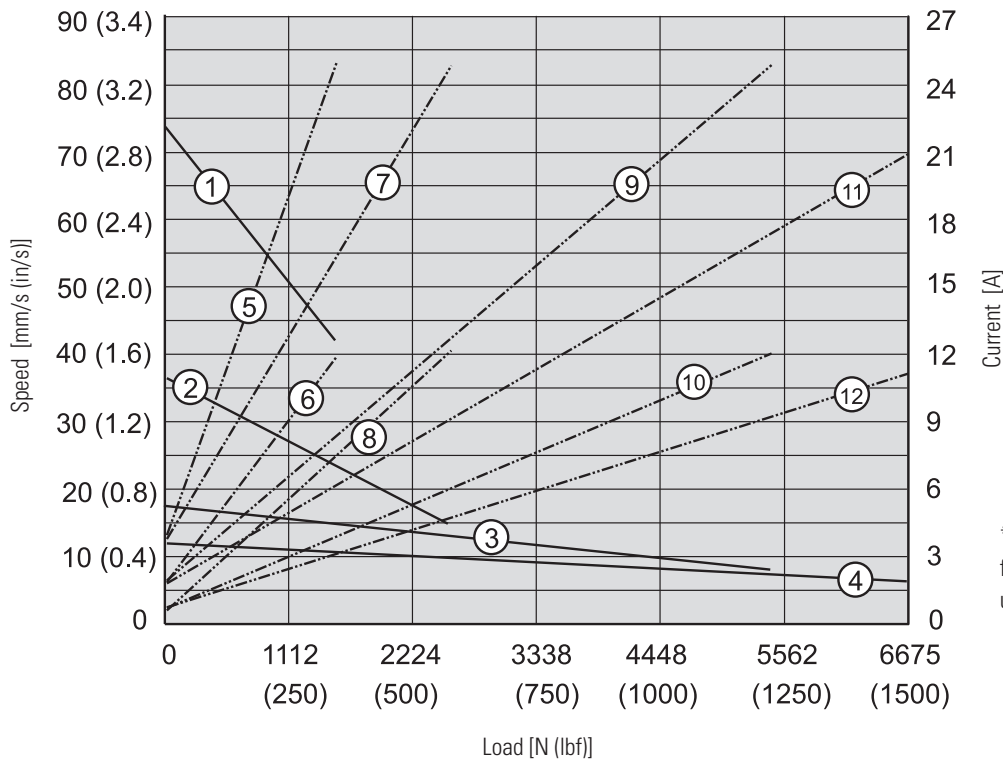


Stroke, Retracted Length and Weight Relationships

Ordering stroke (S)	[in]	4	6	8	12	18	24
Retracted length acme screw models (A)	[mm]	262.1	312.9	363.7	465.3	617.7	846.3
	[in]	10.32	12.32	14.32	18.32	24.32	33.32
Weight acme screw models	[kg]	4.3	4.7	5.0	5.7	6.7	8.3
	[lbs]	9.5	10.3	11.0	12.6	14.9	18.3
Retracted length ball screw models and acme screw models with long nut (A)	[mm]	302.0	352.8	403.6	505.2	657.6	886.2
	[in]	11.89	13.89	15.89	19.89	25.89	34.89
Weight ball screw models	[kg]	4.5	4.9	5.2	5.9	7.0	8.5
	[lbs]	10.0	10.8	11.5	13.1	15.4	18.8

B-Track DC – Performance Diagrams

Acme Screw Models
Speed and Current vs. Load*

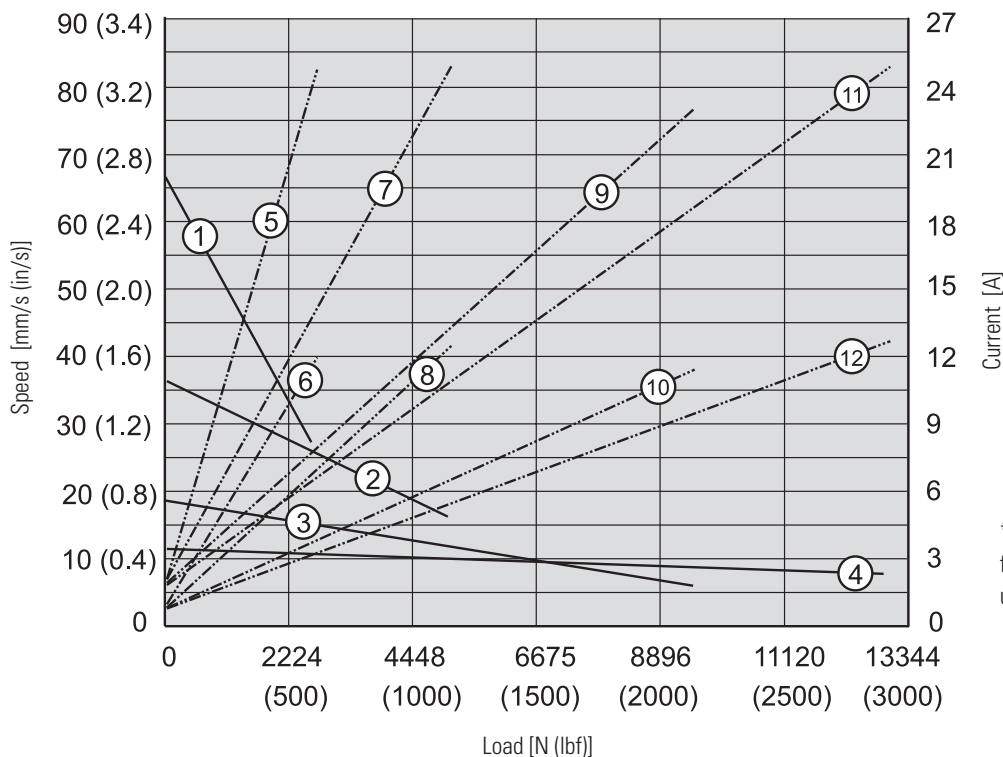


Speed
1: K2G05-
2: K2G10-
3: K2G20-
4: K2G30-

Current
5: K2G05-12V
6: K2G05-24V
7: K2G10-12V
8: K2G10-24V
9: K2G20-12V
10: K2G20-24V
11: K2G30-12V
12: K2G30-24V

* Contact customer support for data on 36, 48 and 90 Vdc units.

Ball Screw Models
Speed and Current vs. Load*



Speed
1: K2XG05-
2: K2XG10-
3: K2XG20-
4: K2XG30-

Current
5: K2XG05-12V
6: K2XG05-24V
7: K2XG10-12V
8: K2XG10-24V
9: K2XG20-12V
10: K2XG20-24V
11: K2XG30-12V
12: K2XG30-24V

* Contact customer support for data on 36, 48 and 90 Vdc units.



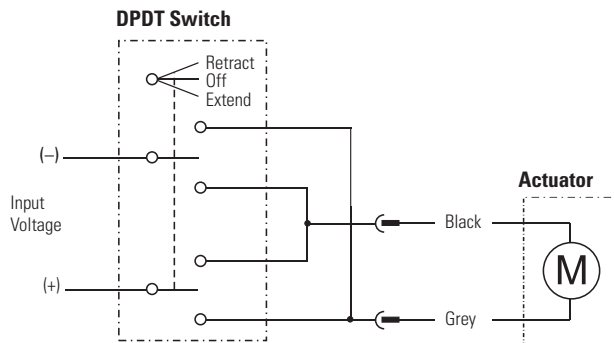
B-Track DC – Ordering Key

Ordering Key					
1	2	3	4	5	6
K2	G05-	12V	BR-	-04	
<p>1. Model, version and screw type K2 = B-Track, acme K2 = B-Track, acme K2 = B-Track, acme K2 = B-Track, acme K2X = B-Track, ball K2X = B-Track, ball K2X = B-Track, ball K2X = B-Track, ball</p> <p>2. Dynamic load capacity (acme screw / ball screw models) G05- = 1335 N (300 lbf) / 2670 N (600 lbf) G10- = 2670 N (600 lbf) / 5340 N (1200 lbf) G20- = 5340 N (1200 lbf) / 9790 N (2200 lbf) G30- = 6675 N (1500 lbf) / 12460 N (2800 lbf)</p> <p>3. Supply voltage 12V = 12 Vdc 24V = 24 Vdc 36V = 36 Vdc 48V = 48 Vdc 90V = 90 Vdc</p>			<p>4. Nut type BR- = Acme screw nut (for K2 models) BRL- = Long acme screw nut (for K2 models) ⁽¹⁾ - = Ball screw nut (for all K2X models)</p> <p>5. Ordering stroke length ⁽²⁾ 04 = 4 inch 06 = 6 inch 08 = 8 inch 12 = 12 inch 18 = 18 inch 24 = 24 inch</p> <p>6. Rear adapter orientation blank = standard R30 = 30 ° turned R60 = 60 ° turned R90 = 90 ° turned R120 = 120 ° turned R150 = 150 ° turned</p> <p><small>(1) An acme screw unit with long nut has the same retracted length (distance A) as a unit of the same stroke with a ball screw. (2) Other stroke lengths possible on request, please contact customer support.</small></p>		

B-Track DC – Electrical Connections

Standard

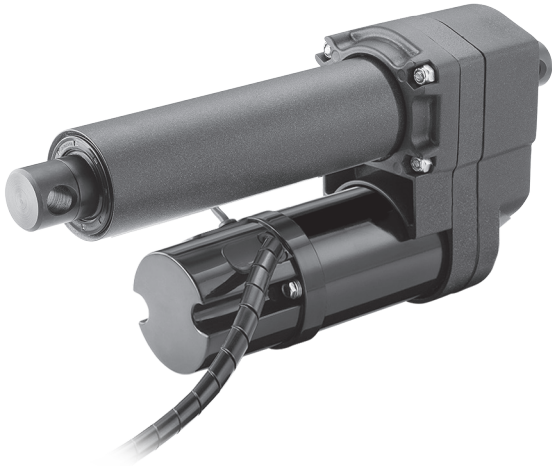
Actuator supply voltage	[Vdc]	
K2xxxx12V		12
K2xxxx24V		24
K2xxxx36V		36
K2xxxx48V		48
K2xxxx90V		90



Connect the grey lead to positive and black to negative to extend the actuator. Change polarity to retract the actuator.



B-Track AC – Technical Features



Standard Features

- Robust and reliable
- 1 × 115 and 1 × 230 Vac as standard input voltages
- Acme and ball screw models
- Strokes up to 24 inches
- Load up to 12460 N (2800 lbf)
- IP66/IP69K protection

General Specifications

Screw type	acme or ball
Nut type K2 (acme screw) K2X (ball screw)	self-locking lead nut load lock ball nut
Manual override	no
Anti-rotation	no
Static load holding brake acme screw models ball screw models	no (self-locking) yes
Safety features	overload clutch motor auto reset thermal switch
Anti coast brake K2 (acme screw) K2X (ball screw)	no no
Electrical connections	cable with flying leads
Compliances	CE

Compatible Controls

Contact customer support at www.thomsonlinear.com/cs

B-Track AC – Technical Specifications

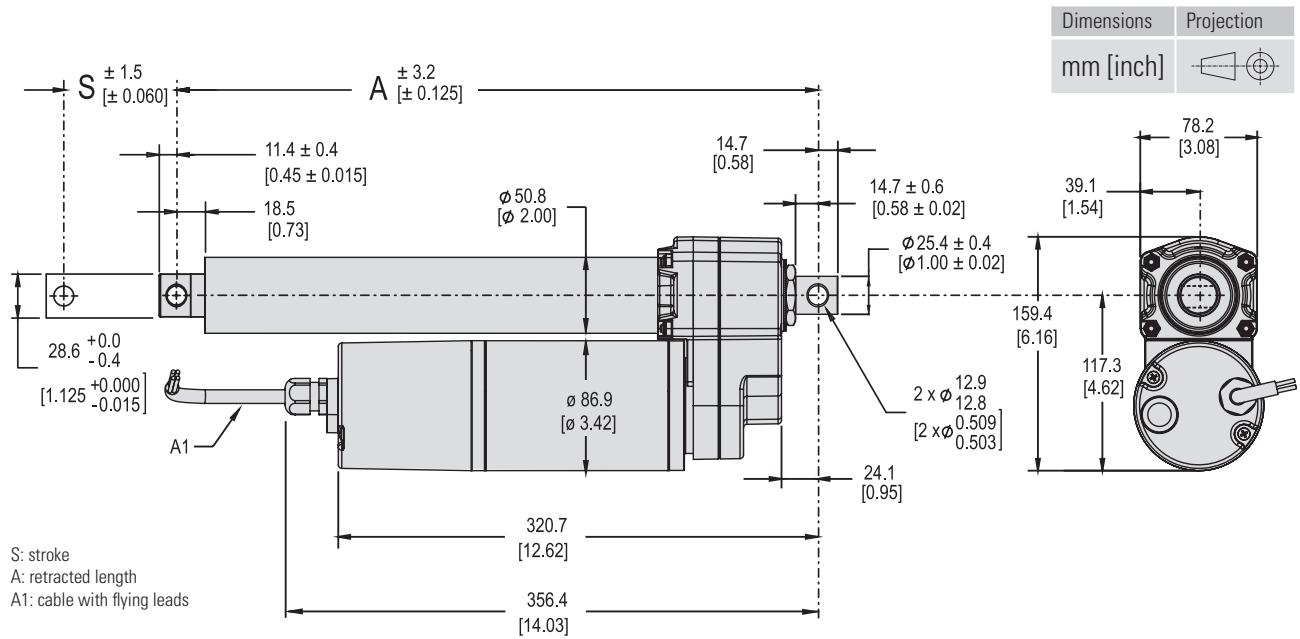
Mechanical Specifications		
Max. static load ⁽¹⁾	[N (lbf)]	13345 (3000)
Max. dynamic load (Fx)	[N (lbf)]	
K2G10-		2225 (500)
K2G20-		3338 (700)
K2G30-		4896 (1100)
K2XG05-		2225 (500)
K2XG10-		5340 (1200)
K2XG20-		9790 (2200)
K2XG30-		12460 (2800)
Speed @ no load/max. load	[mm/s (in/s)]	
K2G10-		26.5 (1.07) / 23 (0.9)
K2G20-		14.5 (0.58) / 13 (0.52)
K2G30-		10 (0.39) / 9 (0.35)
K2XG05-		44 (1.75) / 32 (1.28)
K2XG10-		26.5 (1.07) / 24 (0.94)
K2XG20-		14 (0.55) / 12.5 (0.5)
K2XG30-		9.5 (0.38) / 8 (0.32)
Min. ordering stroke (S) length	[in]	4
Max. ordering stroke (S) length ⁽²⁾⁽³⁾⁽⁴⁾	[in]	24
Operating temperature limits	[°C (F)]	-29 – 65 (-20 – 150)
Full load duty cycle @ 25 °C (77 °F)	[%]	25
End play, maximum	[mm (in)]	1.0 (0.04)
Restraining torque	[Nm (lbf-in)]	11.3 (100)
Protection class - static		IP66/IP69K
Salt spray resistance	[h]	250

(1) Max. static load at fully retracted stroke

Electrical Specifications		
Available input voltages	[Vac]	1 × 115, 1 × 230
Input voltage tolerance	[%]	± 10
Current draw @ no load/max. load	[A]	
K2G10-115V		2.3 / 3.1
K2G10-230V		1.2 / 1.8
K2G20-115V		2.3 / 2.6
K2G20-230V		1.1 / 1.3
K2G30-115V		2.3 / 2.5
K2G30-230V		1.1 / 1.3
K2XG05-115V		2.3 / 3.3
K2XG05-230V		1.2 / 1.6
K2XG10-115V		2.4 / 3.3
K2XG10-230V		3.2 / 4.3
K2XG20-115V		2.3 / 2.7
K2XG20-230V		1.1 / 1.3
K2XG30-115V		2.4 / 2.6
K2XG30-230V		2.8 / 3.7
Cable length	[mm (in)]	597 (23.5)
Cable diameter	[mm (in)]	10 (0.4)
Cable leads cross section	[mm ² (AWG)]	0.75 (18)



B-Track AC – Dimensions

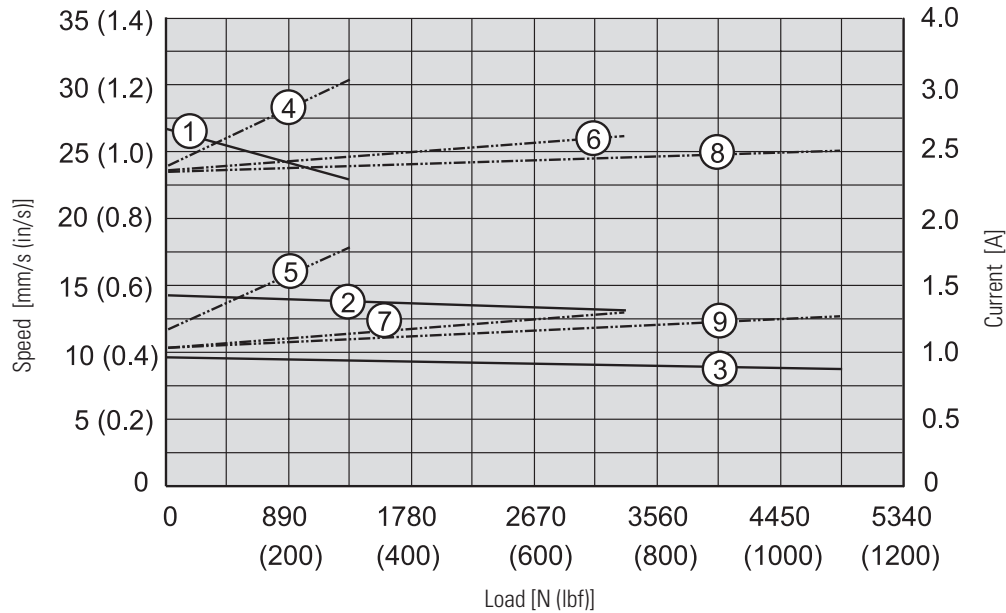


Stroke, Retracted Length and Weight Relationships

Ordering stroke (S)	[in]	4	6	8	12	18	24
Retracted length acme screw models (A)	[mm]	262.1	312.9	363.7	465.3	617.7	846.3
	[in]	10.32	12.32	14.32	18.32	24.32	33.32
Weight acme screw models	[kg]	7.3	7.7	8.0	8.7	9.7	11.3
	[lbs]	16.1	16.9	17.7	19.2	21.5	24.9
Retracted length ball screw models (A)	[mm]	302.0	352.8	403.6	505.2	657.6	886.2
	[in]	11.89	13.89	15.89	19.89	25.89	34.89
Weight ball screw models	[kg]	7.6	7.9	8.3	9.0	10.0	11.6
	[lbs]	16.7	17.5	18.3	19.8	22.1	25.5

B-Track AC – Performance Diagrams

Acme Screw Models
Speed and Current vs. Load*



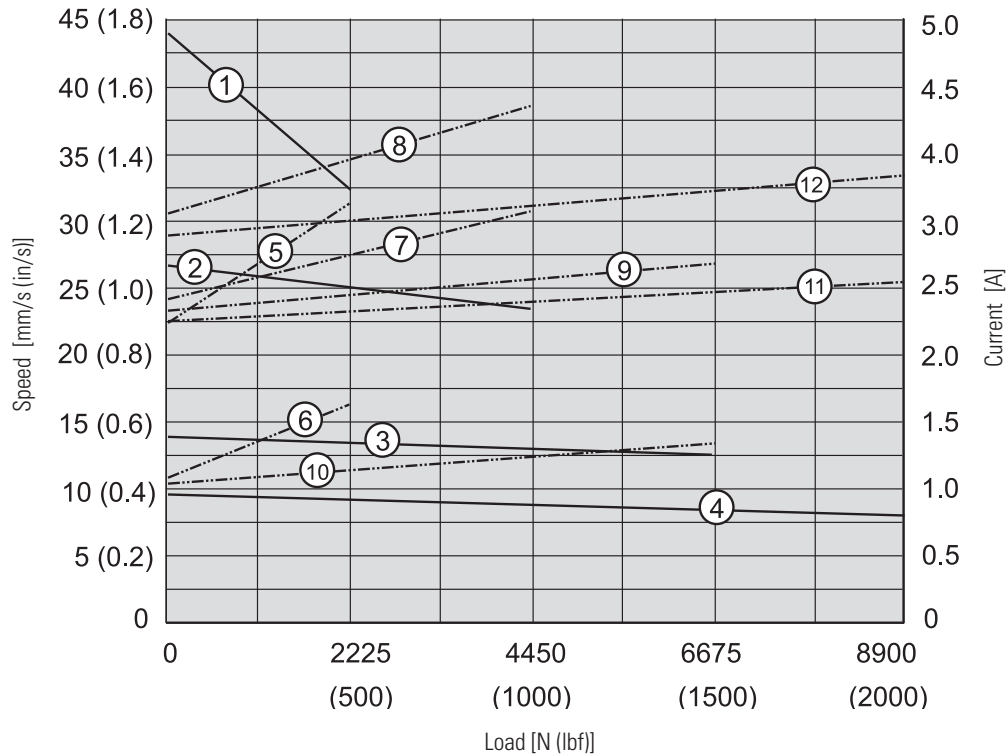
Speed

- 1: K2G10-
- 2: K2G20-
- 3: K2G30-

Current

- 4: K2G10-115V
- 5: K2G10-230V
- 6: K2G20-115V
- 7: K2G20-230V
- 8: K2G30-115V
- 9: K2G30-230V

Ball Screw Models
Speed and Current vs. Load*



Speed

- 1: K2XG05-
- 2: K2XG10-
- 3: K2XG20-
- 4: K2XG30-

Current

- 5: K2XG05-115V
- 6: K2XG05-230V
- 7: K2XG10-115V
- 8: K2XG10-230V
- 9: K2XG20-115V
- 10: K2XG20-230V
- 11: K2XG30-115V
- 12: K2XG30-230V

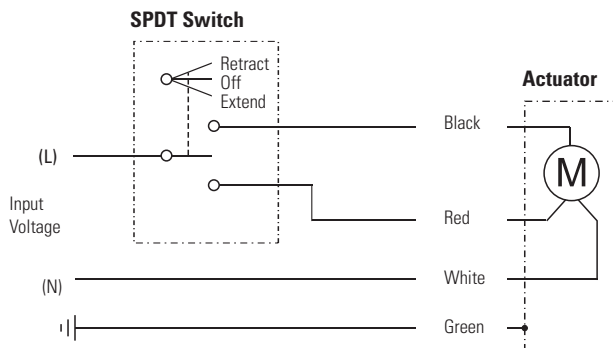


B-Track AC – Ordering Key

Ordering Key					
1	2	3	4	5	6
K2	G10-	115V	BR-	04	
<p>1. Model, version and screw type K2 = B-Track, acme K2 = B-Track, acme K2 = B-Track, acme K2X = B-Track, ball K2X = B-Track, ball K2X = B-Track, ball</p> <p>2. Dynamic load capacity (acme screw / ball screw models) G05- = -not available / 2225 N (500 lbf) G10- = 2225 N (500 lbf) / 4450 N (1000 lbf) G20- = 3338 N (750 lbf) / 6675 N (1500 lbf) G30- = 4895 N (1100 lbf) / 8900 N (2000 lbf)</p> <p>3. Supply voltage 115V = 1 × 115 Vac 230V = 1 × 230 Vac</p> <p>4. Nut type BR- = Acme screw nut (for all K2 models) - = Ball screw nut (for all K2X models)</p>			<p>5. Ordering stroke length ⁽²⁾ 04 = 4 inch 06 = 6 inch 08 = 8 inch 12 = 12 inch 18 = 18 inch 24 = 24 inch</p> <p>6. Rear adapter orientation blank = standard R30 = 30 ° turned R60 = 60 ° turned R90 = 90 ° turned R120 = 120 ° turned R150 = 150 ° turned</p> <p>(1) An acme screw unit with long nut has the same retracted length (distance A) as a unit of the same stroke with a ball screw. (2) Other stroke lengths possible on request, please contact customer support.</p>		

B-Track AC – Electrical Connections

Standard		
Actuator supply voltage	[Vac]	
K2xxxxx115V		1 × 115
K2xxxxx230V		1 × 230



Connect white lead to neutral (N). To extend the actuator connect L to the red lead. To retract the actuator connect L to the black lead.

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