easyE-line

linear in-line actuators

Bansbach easylift

Gear ratio	C*	D	E	F	G	H
easyE-35			*12/24VDC power supply, permanent magnet motor*			
Maximum load [N]	120	400	600	900	1600	2200
Speed at maximum load [mm/s]	33	16	12	7,5	4	3
Current at maximum load: 12VDC = 3,6A, 24VDC = 1,8A						
easyE-50			*12/24VDC power supply, permanent magnet motor*			
Maximum load [N]	500	1750	2200	3100	4500	4500
Speed at maximum load [mm/s]	70	20	17	12	6	4
Current at maximum load: 12VDC = 16A, 24VDC = 8A						
easyE-60			*24VDC power supply, permanent magnet motor*			
Maximum load [N]		1900	4300	6600	8100	10000
Speed at maximum load [mm/s]		31	14	9	6	5
Current at maximum load: 24VDC = 10A						

*only 24V DC power supply

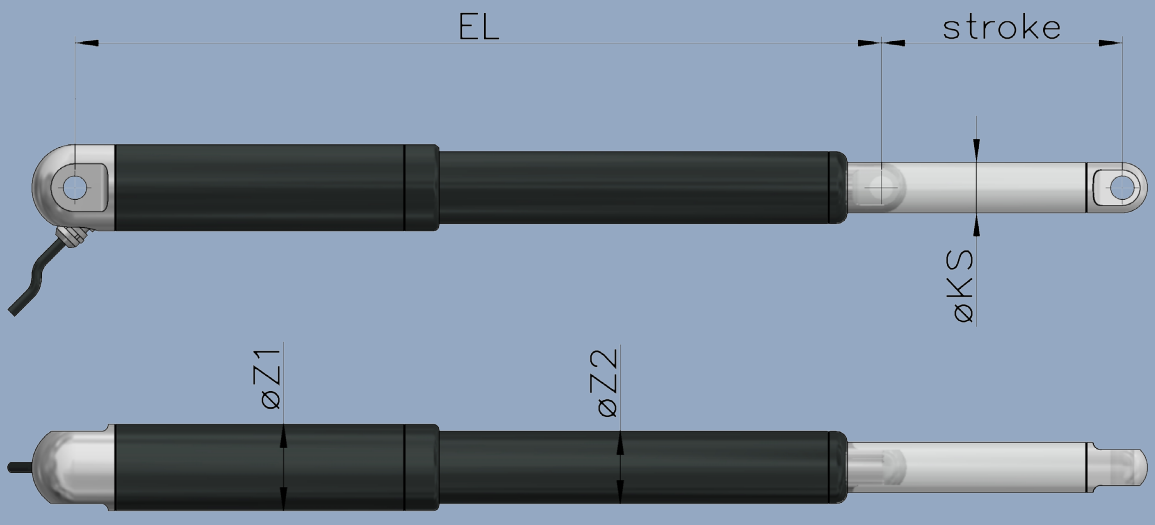
Features:

- Stroke length: 50, 100, 150, 200, 250, 300, 350, 400, 500 and 750mm (others on request)
- Cable: easyE-35: 1m, 2X0.65mm² (AWG19), Ø = 4.8mm, black, Molex Mini-Fit Jr. 6 pin
  easyE-50: 1m, 2X1.3mm² (AWG16), Ø=6.4mm, black, Molex Mini-Fit Jr. 6 pin
  easyE-60: 1m, 2X1.3mm² (AWG16), Ø=6.4mm, black, Molex Mini-Fit Jr. 6 pin
- Bending radius: 6x cable diameter
- Materials: Motor and actuator tube are powder coated steel or stainless steel
  Piston rod is aluminum (easyE-35) or stainless steel (easyE-50 and easyE-60)
  Front and rear brackets are PA, Aluminium or stainless steel
- Protection class: IP66 (standard), IP68, IP69K, ATEX
- Max. static load/ Self locking force: easyE-35: PA brackets: 2000N Alu/AISI: 5400N
  easyE-50: PA brackets: 4700N Alu/AISI: 16800N
  easyE-60: Alu/AISI: 16800N
  Depending on stroke length for push-applications
- Temperature: -5ºC to +70ºC
- Duty cycle: Max. 10% or 2 minutes in use followed by 18 minutes rest

Please Note:

- Power supply without over-current protection can cause serious damage to the actuator at mechanical end-stop or when actuator is overloaded in another way
- Effective stroke is reduced by up to 3mm
- Radial forces might have an adverse affect on the performance or lead to damage of the actuator
- Keep piston tube clean
- Longer cable lengths may cause voltage drop which affects the performance of the actuator
- For medical applications maximum ambient temperature is 48˚C
- Function of the actuator is subject to the settings of the control box
- The dust and water sealing of IP68/IP69K actuators might affect their performance
- All specifications are for 25 ºC ambient – low temperature might affect performance

Please note the important advices at www.bansbach.de/easyE-line



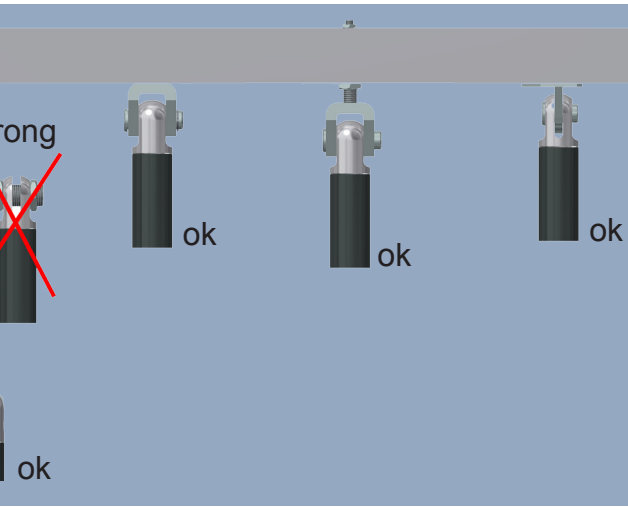
Axial backlash: +/- 0,5mm, generally length tolerance +/- 1mm

	EL	ØZ1	ØZ2	ØKS	Clevis rear	Hall	UL/ EN60.601	IP68/ IP69K
***easyE**-35*								
Gear ratio: C, D, E, F	stroke+160*	35	28	20	+10	+10	+10	+11
Gear ratio: G, H	stroke+170*							
***easyE**-50*								
Gear ratio: C, D, E, F	stroke+240	50	40	30	-	+15	+15	+14
Gear ratio: G, H	stroke+255							
***easyE**-60*								
Gear ratio: all ratios	stroke+358	60	50	35	-	+15	+15	+25

*If stroke >500mm: EL+7mm, if stroke >700mm: EL+42mm

Recommended mounting methods:

- Do not clamp actuators on tubing
- Always keep both brackets mounted in the same orientation and ensure to flush mount actuator
- Brackets must always be able to rotate on axis in mountings



Choose your actuator:

1. Model:
- ☐ ***easyE**-35*
- ☐ ***easyE**-50*
- ☐ ***easyE**-60*

2. Stroke length:
- ☐ 50, 100, 150, 200, 250, 300, 350, 400, 500 and 750mm (others on request)

3. Gear ratio:
- ☐ C, D, E, F, G, H (speed and load see table)

4. Voltage:
- ☐ 12V DC (only easyE-35 and easyE-50)
- ☐ 24V DC
- ☐ 24V EN/UL 60.601

5. Temperature:
- ☐ standard (-5°C - +70°C)
- ☐ low (-40°C - +70°C)
- ☐ high (-5°C - +90°C)

6. Cable length:
- ☐ 1m - 9m (others on request)

7. Connector:
- ☐ no connector
- ☐ Molex minifit

8. Material:
- ☐ Standard steel
- ☐ AISI 316

9. Protection class:
- ☐ IP66 (standard)
- ☐ IP68
- ☐ IP69K
- ☐ ATEX zone 22, group II 3D complient

9. Certification (only easyE-35 and easyE-50)**:**
- ☐ EN/UL/CSA 60.601 (only 24 V DC)

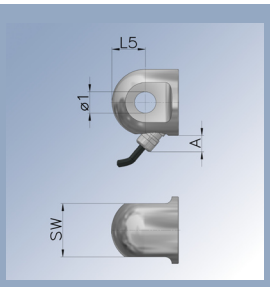
10. Hall sensor:
- ☐ no (standard)
- ☐ yes (cable will change)

11. Low noise:
- ☐ no (standard)
- ☐ yes (not available in stainless steel)

12. Color:
- ☐ Black (standard)
  Available in all RAL colors

13. Connecting parts

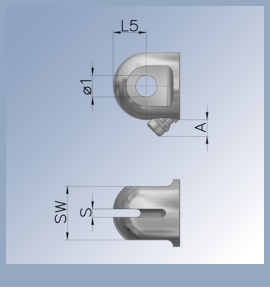
Connecting parts “motor side“:



Code	Ø1	L5	SW	A	Material	Max static load
easyE-35	(mm)	(mm)	(mm)	(mm)		
A1M	10	17,5	28	6	Alu	5400 N
B1M	10	17,5	28	-	Polyamid (PA)	2000 N
C1M	10	17,5	28	6	stainless steel	5400 N
easyE-50						
A2M	16	25	40	12,3	Alu	16800 N
B2M	16	25	40	-	Polyamid (PA)	4700 N
C2M	16	25	40	12,3	stainless steel	16800 N
easyE-60						
A3M	16	30	50	12,3	Alu	16800 N
C3M	16	30	50	12,3	stainless steel	16800 N

with spherical bearings

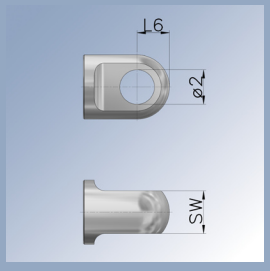
Code	Ø1	L5	SW	A	Material	Max static load
easyE-35	(mm)	(mm)	(mm)	(mm)		
E1M	8	17,5	28	-	Alu	5400 N
easyE-50						
E2M	12	25	40	-	Alu	11000 N



Code	Ø1	L5	SW	A	S	Material	Max static load
easyE-35	(mm)	(mm)	(mm)	(mm)	(mm)		
F1M	10	17,5	28	6	6,2	Alu	5400 N
G1M	10	17,5	28	-	4,2	Polyamid (PA)	2000 N
H1M	10	17,5	28	6	6,2	stainless steel	5400 N
easyE-50							
F2M	16	25	40	12,3	6,2	Alu	16800 N
G2M	16	25	40	-	6,2	Polyamid (PA)	4700 N
H2M	16	25	40	12,3	6,2	stainless steel	16800 N

PA-connecting parts are not available for gear ratio G and H

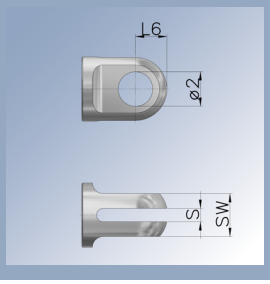
Connecting parts “piston rod side“:



Code	Ø2	L6	SW	Material	Max static load
easyE-35	(mm)	(mm)	(mm)		
A1K	10	10	13	Alu	5400 N
B1K	10	10	13	Polyamid (PA)	2000 N
C1K	10	10	13	stainless steel	5400 N
easyE-50					
A2K	16	15	20	Alu	16800 N
B2K	16	15	20	Polyamid (PA)	4700 N
C2K	16	15	20	stainless steel	16800 N
easyE-60					
A3K	16	17,5	25	Alu	16800 N
C3K	16	17,5	25	stainless steel	16800 N

with spherical bearings

Code	Ø2	L6	SW	Material	Max static load
easyE-35	(mm)	(mm)	(mm)		
E1K	8	12	18	Alu	5400 N
easyE-50					
E2K	12	15	20	Alu	11000 N



Code	Ø2	L6	SW	S	Material	Max static load
easyE-35	(mm)	(mm)	(mm)	(mm)		
F1K	10	10	15	6,2	Alu	5400 N
G1K	10	10	13	4,2	Polyamid (PA)	2000 N
H1K	10	10	15	6,2	stainless steel	5400 N
easyE-50						
F2K	16	15	20	6,2	Alu	16800 N
G2K	16	15	20	6,2	Polyamid (PA)	4700 N
H2K	16	15	20	6,2	stainless steel	16800 N

PA-connecting parts are not available for gear ratio G and H

Controllers:

EEL-S1
For 1-3 actuators

FEATURES:
- Plug and play solution
- Handset or external switches
- for easyE-35 and easyE-50

TECHNICAL DETAILS:
- Supply: 230 V

EEL-S2-1
For 1 actuator

FEATURES:
- Adjustable start and stop ramp
- Adjustable current limit
- Continuous-mode, impulse-mode
- Easy interfacing to PLC etc.
- DIN-rail fittable
- Hall sensors not supported

TECHNICAL DETAILS:
- Supply: 12 or 24 VDC
- Over voltage protection: 40 V
- Idle current: Approx. 15 mA
- Driving current: 10 A continuous, 16 A with duty cycle 50%, Max 16 A on duty 2 min

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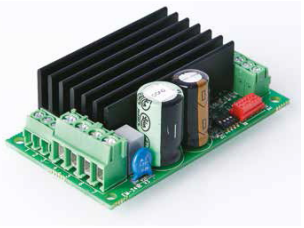
EEL-S2-2
For 1 actuator



FEATURES:
- Precise position control from analog voltage input
- Adjustable start and stop ramp
- Settable current limit
- High momentary load capacity
- DIN-rail base fittable
- “Position reached” - signal
- Hall sensors necessary

TECHNICAL DETAILS:
- Supply voltage: 12 or 24 VDC
- Actuator current continuous max: 15A
- Current limit adj.: 0.1-20A
- Overheat limit: 100°C
- Hall input freq.: Max 1kHz
- Input control logic (pos.): High=4-30V, Low=0-1V or open

EEL-S2-3
For 2 actuators

FEATURES:
- Synchronized operation of 2 actuators
- Current and temperature protection
- Settable drive speed
- Adjustable start- and stop ramp
- Easy setting with serial interface
- Autobalance feature
- Hall sensors necessary

TECHNICAL DETAILS:
- Supply Voltage: 12 or 24 VDC
- Quiescent current: 15mA
- Motor current: 2x10A cont. 2x20A, 25% duty
- Current limit: 1-20A
- Pulse input freq. max.: 1kHz
- Pulse inputs pull- up/down: 10kO
- Control inputs: 0-1V=OFF; 4-30V=ON

EEL-S3
EEL-S4
For 1-4 actuators

FEATURES:
- Battery powered for mobile use
- 24VDC NiMh or Li-Ion battery
- Customized colors and foil design
- Wired handset

EEL-S3:
- 1 actuator
- up- and down function

EEL-S4:
- Adjustable current limit in and out
- Adjustable calibration speed and current
- Adjustable virtual min/max-position
- Individual or synchronous operation for drive 1-4 actuators

TECHNICAL DETAILS:
- Supply: 24VDC NiMH or Li-Ion battery
- Idle current: < 5mA
- Current limit: 8A/ch max. total 12A
- Ramps 0-3 sec
- Connector type Molex Mini-Fit 6 pin

Bansbach easylift GmbH

Barbarossastraße 8
D-73547 Lorch

Tel. +49 (0) 7172/9107-0
Fax +49 (0) 7172/9107-44

info@bansbach.de
www.bansbach.de

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