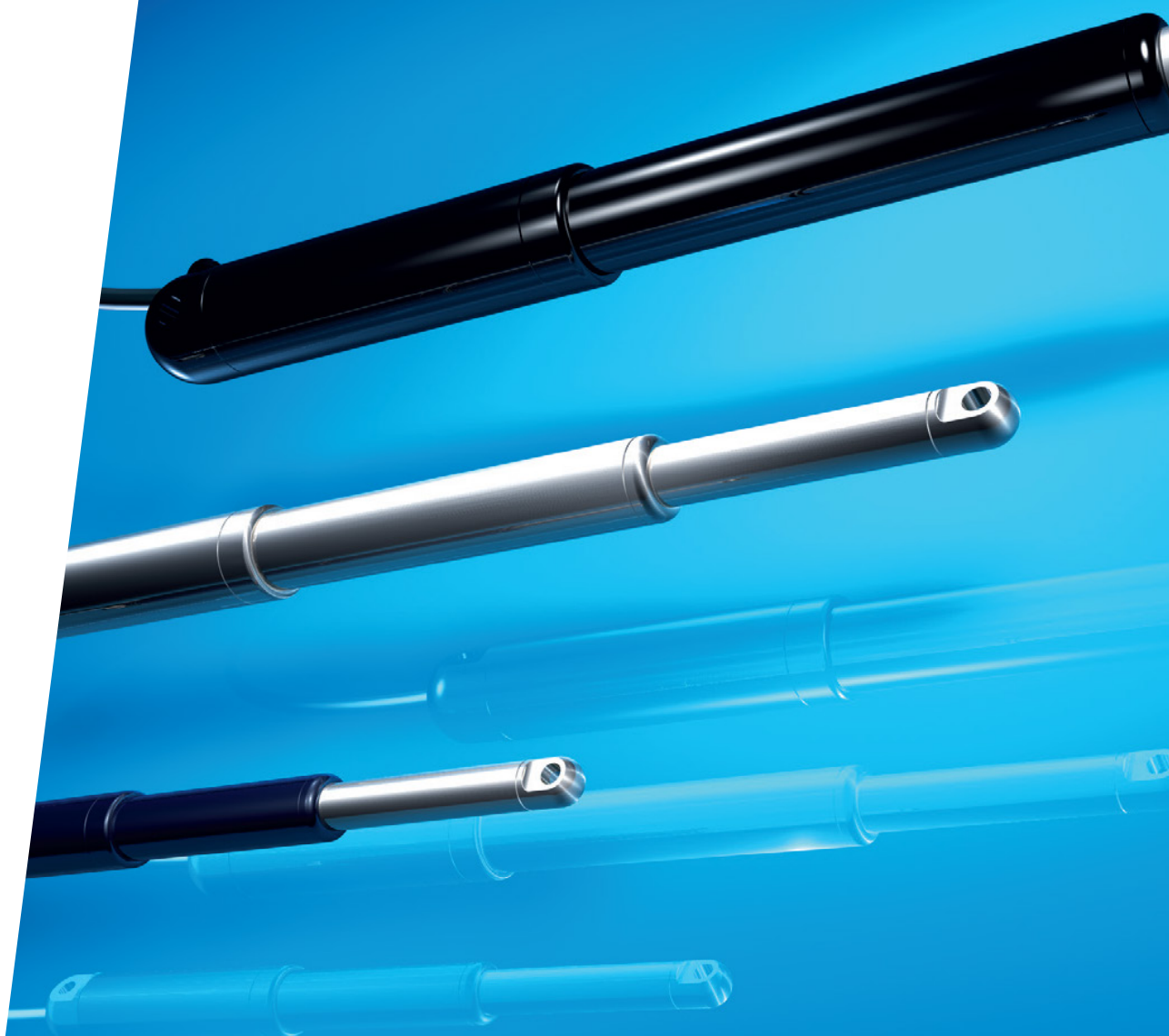


BIBUS

BIBUS SINDBY



easyE-line

Linear in-line actuators

Velkommen

BIBUS SINDBY A/S er et solidt import- og handelsfirma med mere end 100 års erfaring inden for kvalitetsprodukter til industrien. Virksomheden bygger på kvalitet, ordentlighed og tæt samarbejde med kunder og leverandører.

Vi arbejder aktivt med energioptimering og bæredygtighed, blandt andet gennem reduceret energiforbrug og fokus på biodiversitet omkring virksomheden.

Vores medarbejdere er vores vigtigste ressource, og vi vægter balance mellem arbejde, familieliv og fritid højt. Samtidig prioriterer vi ansvarlige samarbejder og langsigtede relationer frem for kortsigtet profit.

Gennem stærke partnerskaber og et globalt netværk udvikler vi løbende nye produkter og løsninger sammen med vores kunder.

Vi ser frem til samarbejdet.

Hvert år udvikles +400 nye produkter i samarbejde med kunderne, enten som eksklusive produkter eller som nye lagervarer hos os. Dette aftales fra projekt til projekt og kommer an på, hvad der er mest fordelagtigt for begge parter.

Vi ser frem til vores samarbejde!

Med venlig hilsen

Keld Hansen

Gear ratio	C*	D	E	F	G	H
easyE-35						12/24VDC
Force 24V (dyn. push and pull) [N]	120	400	600	900	1600	200
Speed at maximum load [mm/s]	33	16	12	7,5	4	3
Force 12V (dyn. push and pull) [N]		400	600	900	1500	2000
Speed at maximum load [mm/s]		16	9	7,5	3,5	2,5
Current at maximum load: 12VDC (max 14 VDC) = 3,6A, 24VDC (max 28 VDC) = 1,8A						
easyE-50						12/24VDC
Force 24V (dyn. push and pull) [N]	500	1750	2200	3100	4500	4500
Speed at maximum load [mm/s]	70	20	17	12	6	4
Force 12V (dyn. push and pull) [N]		1400	1700	2400	4500	4500
Speed at maximum load [mm/s]		14	10	6	3	3,5
Current at maximum load: 12VDC (max 14 VDC) = 16A (ratio C-F), 14A (G), 9A (H), 24VDC (max 28VDC) = 8 (C-F), 7A (G), 4,5A (H)						
easyE-60						24 DC
Force 24V (dyn. push and pull) [N]		1900	4300	6600	8100	10.000
Speed at maximum load [mm/s]		26	12	8	6	5
Current at maximum load: 24VDC (max 28VDC) = 11,5A						

Max. load limited for stroke > 400mm:

1000N (easyE-35), 2000N (easyE-50), 5000N (easyE-60)

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

*only 24V DC power supply

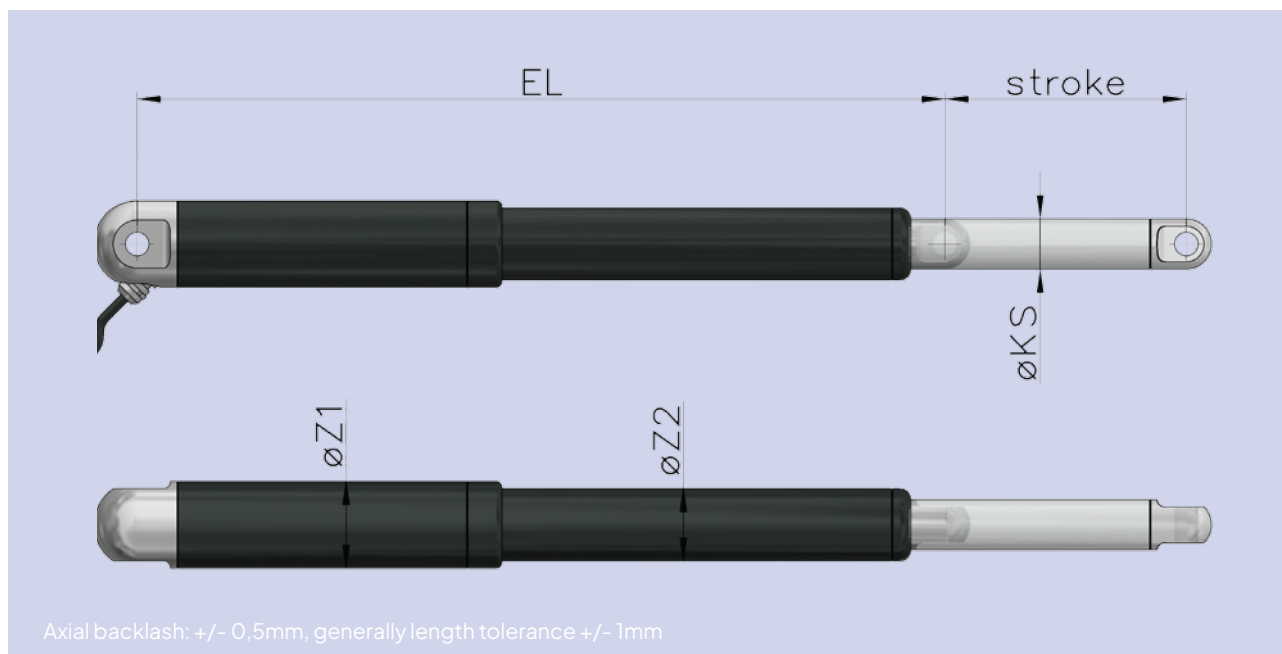
Features:

- **Stroke length:** 50, 100, 150, 200, 250, 300, 350, 400, 500 and 750mm (others on request)
- **Cable:** **easyE-35:** 1m, 2X0.52mm² (AWG20), 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), harsh environment (according to IP68 and IP69)
- **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: 18100N
Depending on stroke length for push-applications
- **Temperature:** Operation: -20°C to +70°C (easyE-35 and easyE-50) -20°C to +50°C (easyE-60).
Storage: -40°C to +70°C
- **Duty cycle:** Max. 10% or 2 minutes in use followed by 18 minutes rest

Please Note:

- Never expose the actuator to hammer strike during installation or in other situations
- Retrofitted bushings should be pressed into the bracket-borings. No hammering
- 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
- Keep piston tube clean
- Longer cable lengths may cause voltage drop which affects the performance of the actuator
- For medical applications (IEC60601-1, ANSI/AAMI/ES60601-1, CAN/CSA-C22.2 No60601-1): Operating temperature +5°C to +48°C, Relative humidity 20% - 70% atmospheric pressure = 1atm. Connect to medically approved supply source only and according to guidelines provided with the source.
- Function of the actuator is subject to the settings of the control box. If using your own controller please contact us.
- The dust and water sealing of harsh environment actuators might affect their performance
- All specifications are for 25 °C ambient – low temperature might affect performance
- Depending on load and application, nominal and actual stroke length may differ due to internal disc springs not being fully compressed.
- The combination of gearing and stroke can cause limitations in the use of „End limit FW“ when using the S2-3 controller. See more in the datasheet for S2-3.

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



	EL	Clevis rear	Hall	UL/ EN60.601	harsh env.	Emergency lowering/spline	ØZ1	ØZ2	ØKS
easyE-35									
Gear ratio: C, D, E, F	stroke+160*	+10	+10	+10	+11	-	Ø35	Ø28	Ø20
Gear ratio: G, H	stroke+170*								
easyE-50									
Gear ratio: C, D, E, F	stroke+240**	-	+15	+15	+14	+23 / +6	Ø50	Ø40	Ø30
Gear ratio: G, H	stroke+255**								
easyE-60									
Gear ratio: all ratios	stroke+358***	-	+15		+25	+31 / +10	Ø60	Ø50	Ø35

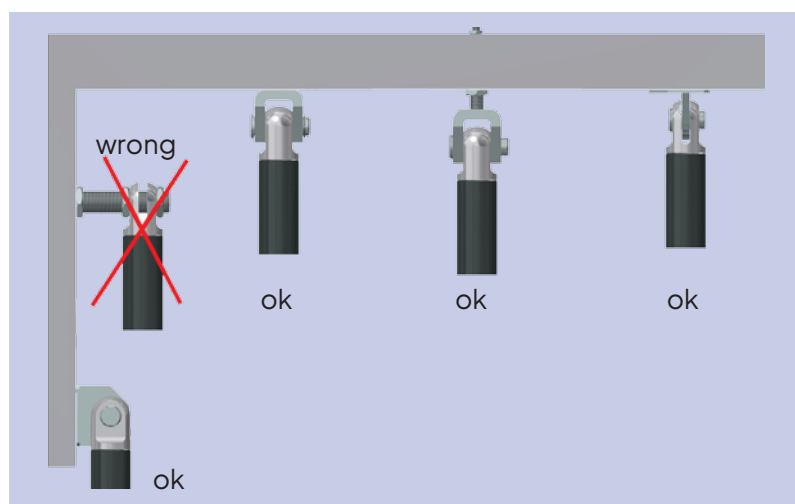
*If stroke > 400mm: EL+7mm, if stroke > 700mm: EL+42mm

**If stroke > 750mm: EL+100mm (on request)

***If stroke > 400mm: EL+25mm (not Harsh-Environment-version)

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
- Avoid radial forces at all times



Please contact us for special requirements!

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

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)
- ☐ harsh environment (according to IP68 and IP69)

10. Certification

- ☐ For medical applications:
IEC60601-1, ANSI/AAMI/ES60601-1, CAN/CSA-22.2
No60601-1 (only 24 V DC)
(Operation temperature: +5°C to +48°C)

11. Hall sensor

- ☐ no (standard)
- ☐ yes (cable will change)

12. Low noise

- ☐ no (standard)
- ☐ yes (not available in stainless steel)

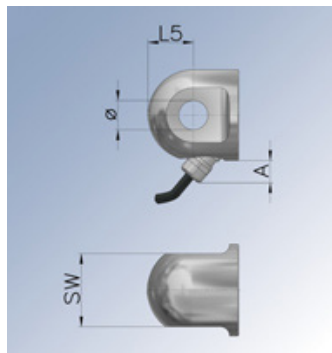
13. Color

- ☐ Black (standard)
- ☐ Available in all RAL colors

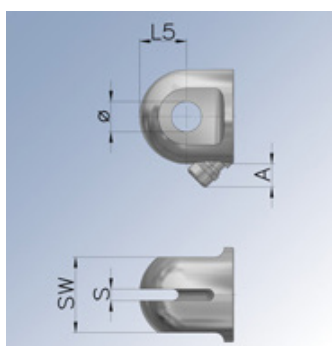
14. Connecting parts



Connecting parts “*motor side*”:



with spherical bearings



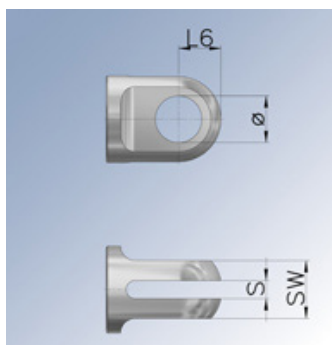
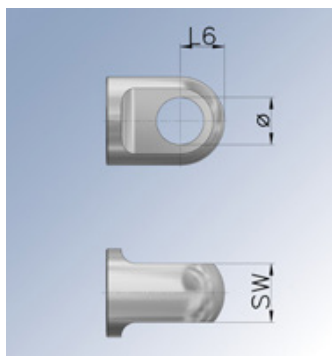
PA-connecting parts are not available for gear ratio G and H

Code	Ø	L5	SW	A	Material	Max static load
easyE-35						
A1M	10 $^{+0.2}_{0}$	17,5	28	6	Alu	5400 N
B1M	10 $^{+0.2}_{0}$	17,5	28	-	Polyamid (PA)	2000 N
C1M	10 $^{+0.2}_{0}$	17,5	28	6	stainless steel (316)	5400 N
easyE-50						
A2M	16 $^{+0.2}_{0}$	25	40	12,3	Alu	16800 N
B2M	16 $^{+0.2}_{0}$	25	40	-	Polyamid (PA)	4700 N
C2M	16 $^{+0.2}_{0}$	25	40	12,3	stainless steel (316)	16800 N
easyE-60						
A3M	16 $^{+0.2}_{0}$	30	50	12,3	Alu	18100 N
C3M	16 $^{+0.2}_{0}$	30	50	12,3	stainless steel (316)	18100 N

Code	Ø	L5	SW	A	Material	Max static load
easyE-35						
E1M	8 $^{0}_{-0.008}$	17,5	28		Alu	5400 N
easyE-50						
E2M	12 $^{0}_{-0.008}$	25	40		Alu	11000 N
easyE-60						
F3M	15 $^{0}_{-0.008}$	30	50	12	Alu	11000 N
H3M	15 $^{0}_{-0.008}$	30	50	12	stainless steel (316)	11000 N

Code	Ø	L5	SW	A	S	Material	Max static load
easyE-35							
F1M	10 $^{+0.2}_{0}$	17,5	28	6	6,2	Alu	5400 N
G1M	10 $^{+0.2}_{0}$	17,5	28	-	4,2	Polyamid (PA)	2000 N
H1M	10 $^{+0.2}_{0}$	17,5	28	6	6,2	stainless steel (316)	5400 N
easyE-50							
F2M	16 $^{+0.2}_{0}$	25	40	12,3	6,2	Alu	16800 N
G2M	16 $^{+0.2}_{0}$	25	40	-	6,2	Polyamid (PA)	4700 N
H2M	16 $^{+0.2}_{0}$	25	40	12,3	6,2	stainless steel(316)	16800 N
easyE-60							
F3M	16 $^{+0.2}_{0}$	30	50	14	8,2	Alu	18100 N
H3M	16 $^{+0.2}_{0}$	30	50	14	8,2	stainless steel(316)	18100 N

Connecting parts “*piston rod side*”



Code	Ø	L6	SW	Material	Max static load
easyE-35					
A1K	10 $^{+0.2}_{0}$	10	13	Alu	5400 N
B1K	10 $^{+0.2}_{0}$	10	13	Polyamid (PA)	2000 N
C1K	10 $^{+0.2}_{0}$	10	13	stainless steel (316)	5400 N
easyE-50					
A2K	16 $^{+0.2}_{0}$	15	20	Alu	16800 N
B2K	16 $^{+0.2}_{0}$	15	20	Polyamid (PA)	4700 N
C2K	16 $^{+0.2}_{0}$	15	20	stainless steel (316)	16800 N
easyE-60					
A3K	16 $^{+0.2}_{0}$	17,5	25	Alu	18100 N
C3K	16 $^{+0.2}_{0}$	17,5	25	stainless steel (316)	18100 N

Code	Ø	L6	SW	Material	Max static load
easyE-35					
E1K	8 $^{0}_{-0.008}$	12	18	Alu	5400 N
easyE-50					
E2K	12 $^{0}_{-0.008}$	15	20	Alu	11000 N
easyE-60					
E3K	15 $^{0}_{-0.008}$	20	28	Alu	11000 N
J3K	15 $^{0}_{-0.008}$	20	28	stainless steel (316)	11000 N

Code	Ø	L6	SW	S	Material	Max static load
easyE-35						
F1K	10 $^{+0.2}_{0}$	10	15	6,2	Alu	5400 N
G1K	10 $^{+0.2}_{0}$	10	13	4,2	Polyamid (PA)	2000 N
H1K	10 $^{+0.2}_{0}$	10	15	6,2	stainless steel (316)	5400 N
easyE-50						
F2K	16 $^{+0.2}_{0}$	15	20	6,2	Alu	16800 N
G2K	16 $^{+0.2}_{0}$	15	20	6,2	Polyamid (PA)	4700 N
H2K	16 $^{+0.2}_{0}$	15	20	6,2	stainless steel(316)	16800 N
easyE-60						
F3K	16 $^{+0.2}_{0}$	17	25	8,2	Alu	18100 N
H3K	16 $^{+0.2}_{0}$	17	25	8,2	stainless steel(316)	18100 N

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: 230V
- Output voltage: 24V

EEL-S2-1

For 1 actuator



Features

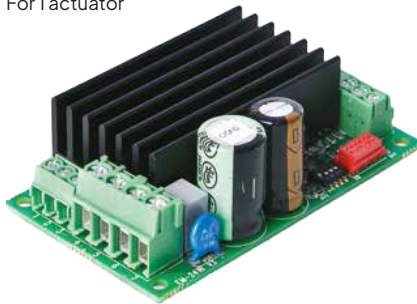
- Adjustable start and stop ramp
- Adjustable current limit
- Continuous-mode, impulse-mode
- Easy interfacing to PLC etc.
- DIN-rail fittable
- Hall sensors not supported

Technical details

- Supply: 10 to 35VDC
- Output voltage = supply voltage
- 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

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: 10 to 35VDC
- Output voltage = supply voltage
- 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: 10 to 35VDC
- Output voltage = supply voltage
- Quiescent current: 15mA
- Motor current: 2x10A cont. 2x20A, 25% duty
- Current limit: 1-20A
- Pulse input freq. max.: 1kHz
- Pulse inputs pull-up/down: 10kΩ
- 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:

- 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
- Output voltage: 24V
- Idle current: < 5mA
- Current limit: 8A/ch max. total 12A
- Ramps 0-3 sec
- Connector type Molex Mini-Fit 6 pin



BIBUS SINDBY A/S

Edisonvej 11
DK-7100 Vejle

Tel. +45 75 88 21 22
Fax +45 75 88 21 21
bibus@bibus.dk
www.bibus-sindby.dk