BIBUS SINDBY
SUPPORTING YOUR SUCCESS

easyE-line

Linear in-line actuators

WWW.BIBUS-SINDBY.DK

BIBUS SINDBY A/S

BIBUS SINDBY A/S er et solidt og velkonsolideret import- og handelsfirma, der har industrien og autobranchen som de to største kundegrupper.
I de godt 100 år firmaet har eksisteret, er en videnbank bygget op omkring indkøb og udvikling af kvalitetsprodukter primært til industrien.
Sund fornuft og kvalitet er nøgleordene for al handling i virksomheden. Vi har været i konstant udvikling siden starten og har skabt en virksomhed, der er rustet til de stigende udfordringer og muligheder i industriens utallige nicher.
Adm. direktør Keld Hansen er i dag manden bag BIBUS SINDBY. I 2007 overtog BIBUS AG virksomheden efter den tidligere ejer og Sindby-familien, der siden 1918 har drevet firmaet over tre generationer. Virksomheden har løbende udviklet sig med kundeklientellet.

Idégrundlaget har lige siden starten altid været at have øje for alt det nye der har almen interesse, således at virkefeltet bestandigt vokser - **til glæde for kunderne og dermed for virksomheden.**
Idégrundlaget danner den dag i dag rammen for BIBUS SINDBYS aktiviteter.

BIBUS SINDBY A/S is a sound and well-established import business and wholesaler, whose customer base can be found mainly within industry and the automotive sector.
For almost 100 years we have been adding to the amount of expertise and knowledge built up around purchase and development of quality products, primarily for industry.
Common sense and quality are the keywords in every aspect of running our business.
From the outset we have continuously been developing and changing into a company that is ready to cope with new challenges and take on new opportunities presented by countless niches within industry.
Managing Director Keld Hansen is the man behind BIBUS SINDBY today. In 2007 BIBUS AG took over the business from the Sindby family, who had been running the business for more than three generations. The business has continuously developed alongside its customer base.

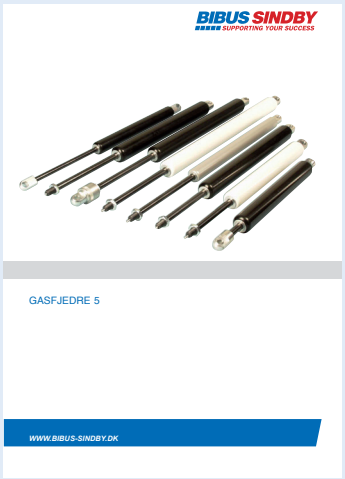
The aim has always been to spot new products, which could be added to the range of goods on offer – for the benefit of customers and our business. This aim is still at the heart of everything we do at BIBUS SINDBY.

Keld Asp Hansen
Adm. direktør
Managing Director

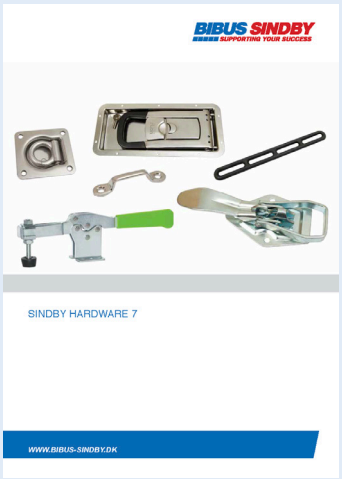
Kataloger Catalogs

Se mere af vores produktprogram i følgende kataloger.
Find more of our products in the following catalogs.

Gummiprofiler
Rubber profiles



Gasfjedre
Gas springs



Hardware
Hardware

Pumper
Pumps

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Gear ratio	C*	D	E	F	G	H
easyE-35						*12/24VDC*
Force *24V* (dyn. push and pull) [N]	120	400	600	900	1600	2200
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) = 8A (C-F), 7A (G), 4,5A (H)						
easyE-60						*24VDC*
Force *24V* (dyn. push and pull) [N]		1900	4300	6600	8100	10000
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)

*only 24V DC power supply

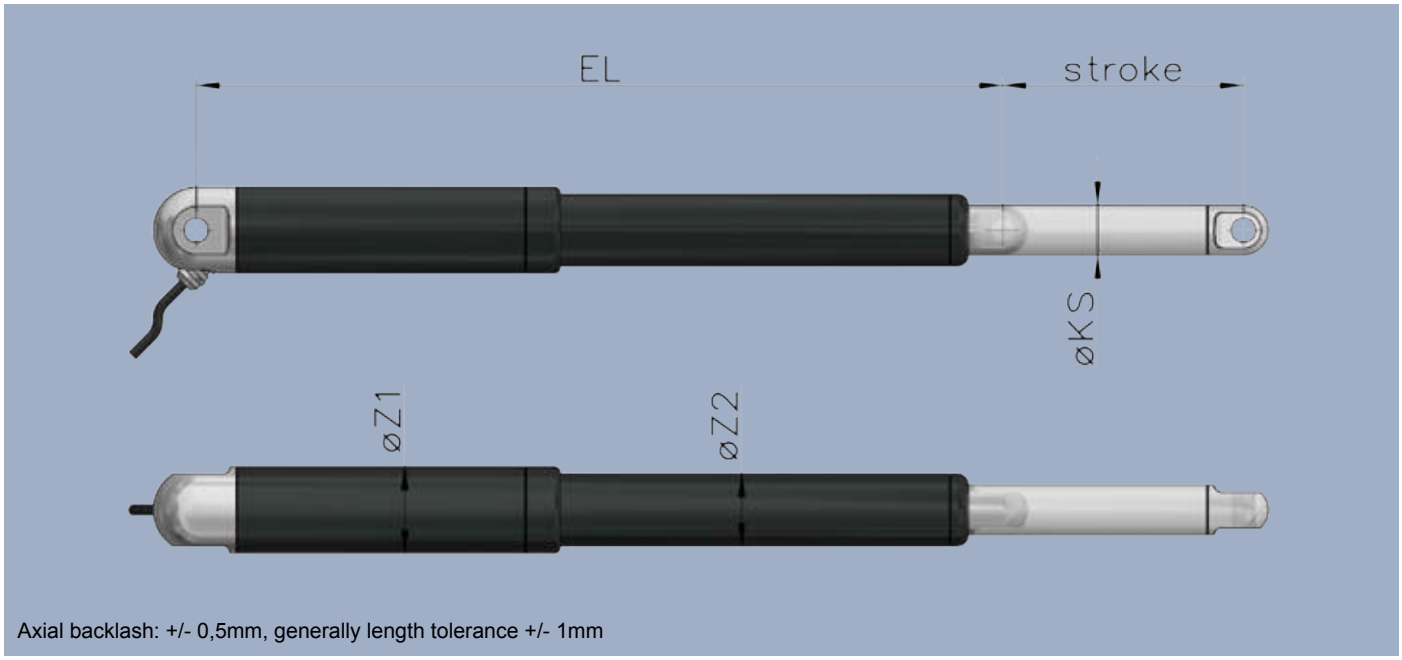
Features:

- 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), 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: -20ºC to +70ºC (easyE-35 and easyE-50) -20°C to +50°C (easyE-60)
  Storage: -40ºC to +70ºC
- 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 +5ºC to +48ºC, 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 ºC 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



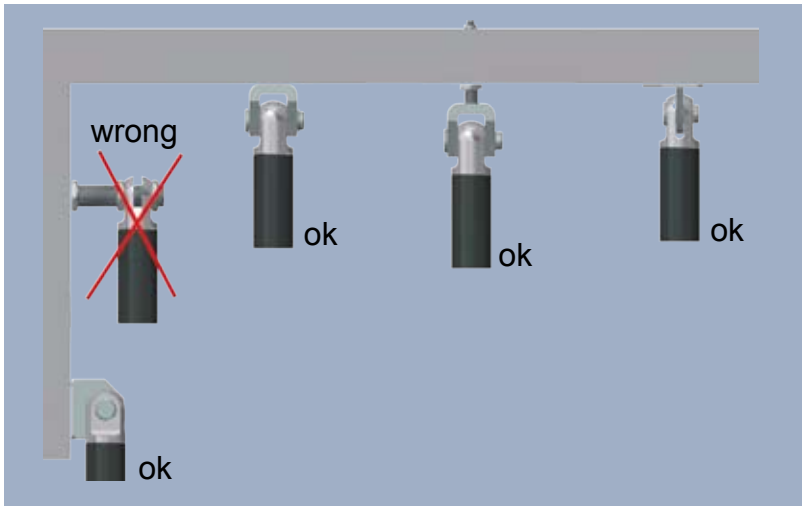
Axial backlash: +/- 0,5mm, generally length tolerance +/- 1mm

	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



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)

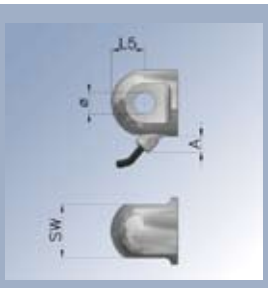
11. Hall sensor:
- ☐ no (standard)
- ☐ yes (cable will change)

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

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

14. Connecting parts

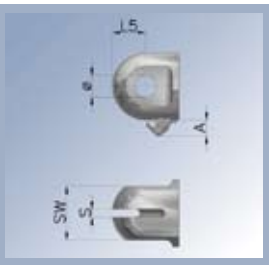
Connecting parts “motor side“:



Code	Ø	L5	SW	A	Material	Max static load
easyE-35	(mm)	(mm)	(mm)	(mm)		
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

with spherical bearings

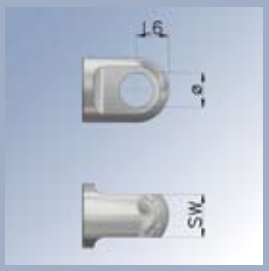
Code	Ø	L5	SW	A	Material	Max static load
easyE-35	(mm)	(mm)	(mm)	(mm)		
E1M	$8^{0}_{-0,008}$	17,5	28	-	Alu	5400 N
easyE-50						
E2M	$12^{0}_{-0,008}$	25	40	-	Alu	11000 N
easyE-60						
E3M	$15^{0}_{-0,008}$	30	50	12	Alu	11000 N
J3M	$15^{0}_{-0,008}$	30	50	12	stainless steel (316)	11000 N



Code	Ø	L5	SW	A	S	Material	Max static load
easyE-35	(mm)	(mm)	(mm)	(mm)	(mm)		
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

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

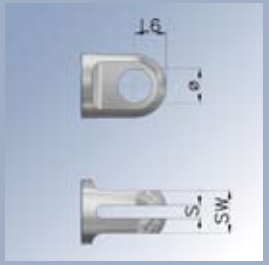
Connecting parts “piston rod side“:



Code	Ø	L6	SW	Material	Max static load
easyE-35	(mm)	(mm)	(mm)		
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

with spherical bearings

Code	Ø	L6	SW	Material	Max static load
easyE-35	(mm)	(mm)	(mm)		
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	(mm)	(mm)	(mm)	(mm)		
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

PPA-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: 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

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

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02/2020

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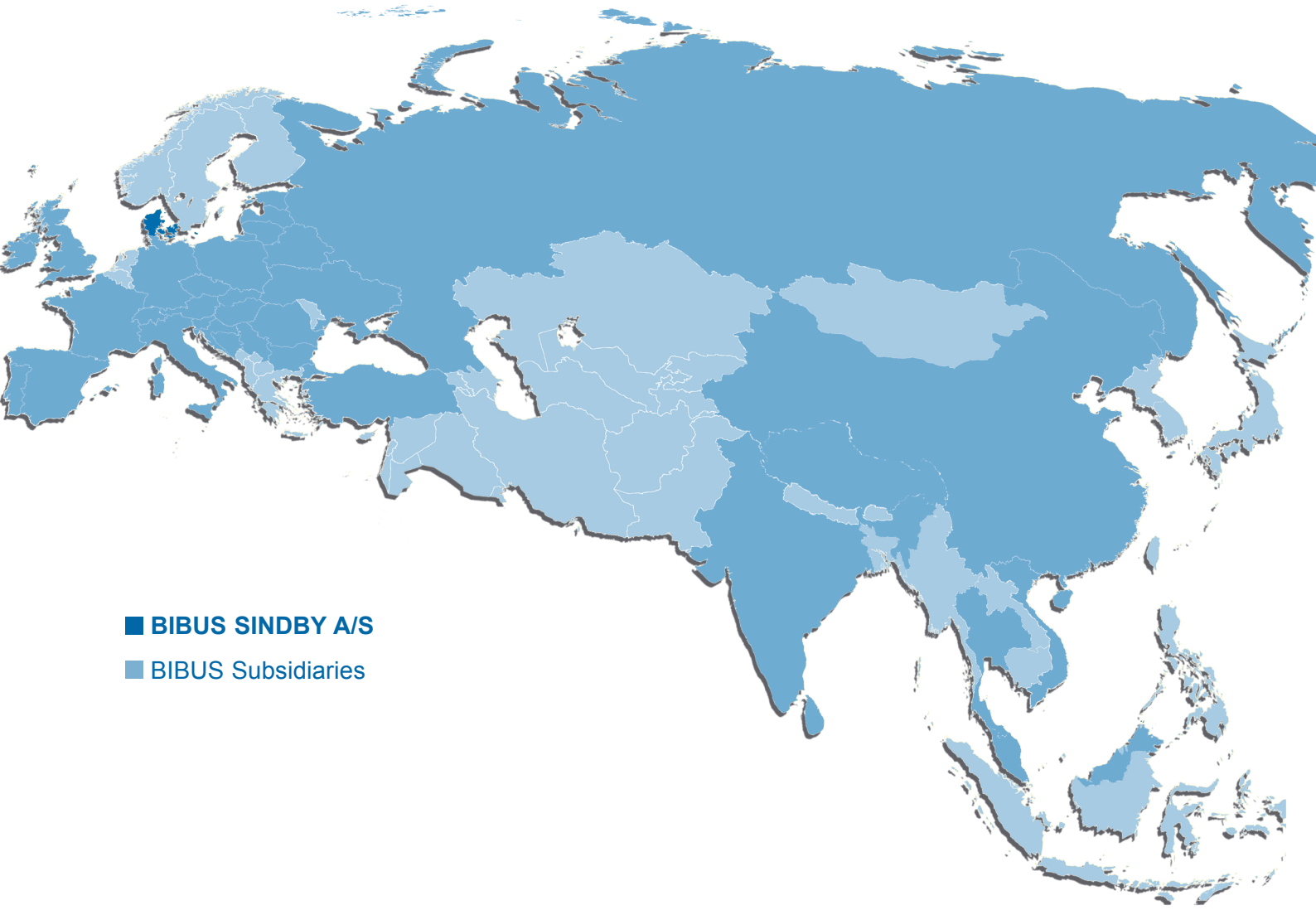

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