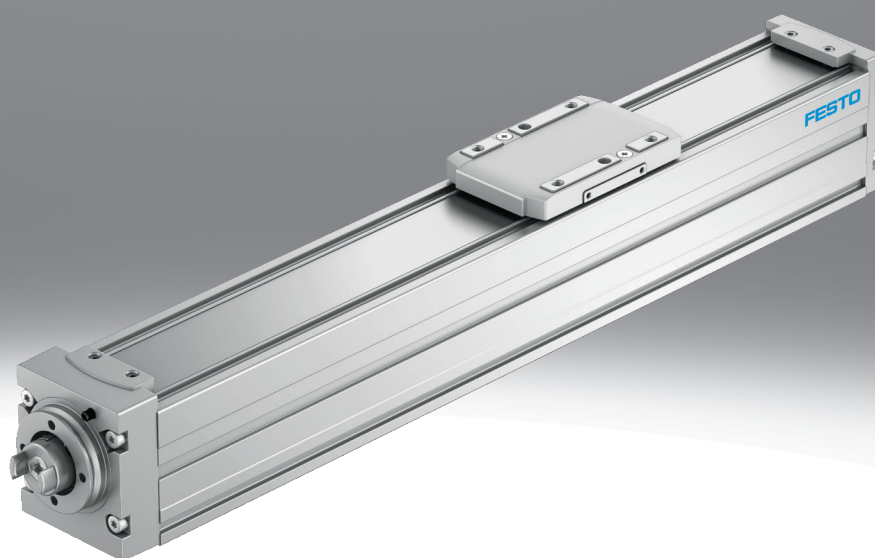


Ball screw axis ELGC-BS

FESTO



Characteristics

At a glance

Link [elgc-bs](#)

- Optimal installation space to working space ratio
- Protected against external influences by internal guide
- Unique mounting system enables adapter-free combination of spindle axis ELGC and mini slide EGSC
- Compact double bearing integrated in the axis to save space
- Stainless steel cover strip permanently attached by magnetic strip
- Wide range of mounting options for optimum machine integration
- Suitability for the production of Li-ion batteries

Sealing air connection

- Air is exchanged between the cylinder interior and the environment via the sealing air connection. This prevents underpressure or overpressure from developing in the cylinder interior.
- Application of slight negative pressure prevents the emission of particles
- Application of slight overpressure prevents the immission of particles

Engineering Tools

Link [engineering tools](#)



Save time with engineering tools: Smart engineering for the optimal solution. Our goal is to increase your productivity. Our engineering tools play an integral part in achieving this goal. Throughout the entire value chain, they help you size your system correctly, tap into unimagined productivity reserves or generate additional productivity. In every phase of your project, from initial contact to modernization of your machine, you will come across a number of tools that will prove beneficial to you.

Electric Motion Sizing

- Quickly and reliably to the optimum drive package: Electric Motion Sizing calculates suitable combinations of electric axis, electric motor and servo drive from just a few items of application data. You receive all relevant data for your selected combination, including the bill of materials and documentation. This avoids incorrect designs and results in significantly improved energy efficiency of the system. Consistency right through to Festo Automation Suite also makes commissioning easier for you.

Diagrams

Link [elgc-bs](#)



The diagrams shown in this document are also available online. There, it is possible to display precise values.

Actuator system

[BS] With ball screw drive

- For applications that require precision
- High reliability and long service life
- For large loads

Guide

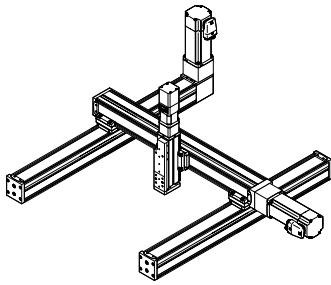
- Very robust and precise guiding principle for transmitting the drive force and moving additional masses
- High moments and forces can be absorbed very well by the guide

Ball screw pitch

The ball screw pitch describes the distance travelled by the ball screw nut per revolution of the ball screw in millimetres.

Characteristics

Overview



- From the single axis to the handling system, such as a cantilever system, planar surface gantry or three-dimensional gantry
- The toothed belt and ball screw axes ELGC and mini slides EGSC form a scalable modular system for compact automation systems
- The common platform architecture creates a consistent program with coordinated interfaces. A large number of systems can be implemented completely without adapter plates
- High-performance drive and guide elements ensure a long service life, load-bearing capacity and reliability
- The uniform and universal range of accessories reduces the effort involved in stock-keeping and designing

Type code

001	Series	
ELGC	Gantry axis	
002	Actuator system	
BS	With ball screw drive	
003	Guide	
KF	Ball bearing guide	
004	Size	
32	32	
45	45	
60	60	
80	80	

005	Stroke [mm]	
100	100	
200	200	
300	300	
400	400	
500	500	
600	600	
800	800	
1000	1000	
006	Ball screw pitch	
8P	8 mm	
10P	10 mm	
12P	12 mm	
16P	16 mm	

Datasheet

General technical data				
Size	32	45	60	80
Structural design	Electromechanical linear axis, With ball screw			
Guide	Recirculating ball bearing			
Mounting position	Any			
Working stroke	100 mm; 200 mm; 300 mm; 400 mm; 500 mm; 600 mm; 800 mm			100 mm; 200 mm; 300 mm; 400 mm; 500 mm; 600 mm; 800 mm; 1,000 mm
Max. feed force Fx	40 N	100 N	200 N	350 N
No-load torque at minimum travel speed	0.02 Nm	0.032 Nm	0.042 Nm	0.095 Nm
No-load torque at maximum travel speed	0.04 Nm	0.12 Nm	0.246 Nm	0.396 Nm
Max. radial force on actuator shaft	75 N	180 N	230 N	500 N
Max. speed ¹⁾	0.6 m/s		0.8 m/s	1 m/s
Max. rotational speed ²⁾	4,500 rpm	3,600 rpm	4,000 rpm	3,750 rpm
Max. acceleration	15 m/s²			
Repetition accuracy	±0.015 mm		±0.01 mm	
Reversing backlash	0.15 mm			
Position sensing	Via proximity switch, For inductive sensors			

1) Speed is stroke-dependent

2) Speed is stroke-dependent

Operating and environmental conditions	
Ambient temperature ¹⁾	0 ... 50°C
Degree of protection	IP40
Duty cycle	100%
Cleanroom suitability, measured according to ISO 14644-14	Class 7 according to ISO 14644-1
Maintenance interval	Lifetime lubrication

1) Note operating range of proximity switches

Weights				
Size	32	45	60	80
Basic weight with 0 mm stroke ¹⁾	296 g	724 g	1,682 g	2,942 g
Additional weight per 10 mm stroke	18 g	36 g	51 g	88 g
Moving mass	83.4 g	220 g	525 g	978 g

1) Incl. slide

Spindle				
Size	32	45	60	80
Screw diameter	8 mm	10 mm	12 mm	16 mm
Spindle pitch	8 mm/U	10 mm/U	12 mm/U	16 mm/U

Mass moment of inertia

$$J_A = J_O + J_H \cdot l + J_L \cdot m$$

The mass moment of inertia J of the spindle axis is calculated as follows.

l = Working stroke

m = moving payload

Size	32	45	60	80
Mass moment of inertia J _O	0.00274 kgcm ²	0.0082 kgcm ²	0.02235 kgcm ²	0.07856 kgcm ²
Mass moment of inertia J _H per meter of stroke	0.02218 kgcm ²	0.05056 kgcm ²	0.10779 kgcm ²	0.35257 kgcm ²
Mass moment of inertia J _L per kg of payload	0.016211 kgcm ²	0.02533 kgcm ²	0.036476 kgcm ²	0.064846 kgcm ²

Datasheet

Homing

Referencing can be performed in two ways:

- against a fixed stop
- via a reference switch

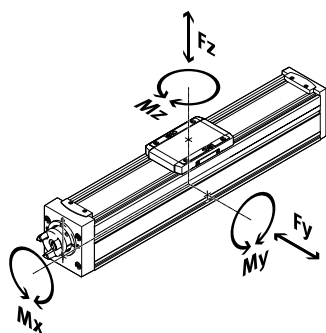
The following values must be observed:

Size	32	45	60	80
Impact energy in the end positions	0.25 mJ	0.5 mJ	1 mJ	2 mJ
Note on the impact energy in the end positions	At maximum speed of the reference run of 0.01 m/s			

Materials

Drive cover material	Die cast aluminum, painted
Ball screw nut material	Steel
Slide material	Die-cast aluminum
Slide carriage material	Steel
Spindle material	Steel
Cover strip material	high-alloy stainless steel
Profile material	Wrought aluminum alloy, anodized
Material of end caps	Die cast aluminum, painted
Note on materials	RoHS compliant
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)

Permitted forces and torques



The specified forces and torques refer to the guide center. The point of application is the intersection of the center of the guide and the center of the length of the slide. They must not be exceeded during dynamic operation. Particular attention must be paid to the braking process.

Permissible forces and moments on the overall axis (strength limits)

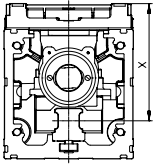
Size	32	45	60	80
Max. force F_y total axis	150 N	300 N	600 N	900 N
Max. force F_z total axis	300 N	600 N	1,800 N	2,700 N
Max. moment M_x total axis	1.3 Nm	5.5 Nm	29.1 Nm	59.8 Nm
Max. moment M_y total axis	1.1 Nm	4.7 Nm	31.8 Nm	56.2 Nm
Max. moment M_z total axis	1.1 Nm	4.7 Nm	31.8 Nm	56.2 Nm

Permissible forces and moments for the guide calculation with reference service life

Size	32	45	60	80
Reference service life	5,000 km			
Max. force F_y	356 N	880 N	3,641 N	5,543 N
Max. force F_z	356 N	880 N	3,641 N	5,543 N
Max. torque M_x	1.3 Nm	5.5 Nm	29.1 Nm	59.8 Nm
Max. torque M_y	1.1 Nm	4.7 Nm	31.8 Nm	56.2 Nm
Max. torque M_z	1.1 Nm	4.7 Nm	31.8 Nm	56.2 Nm

Datasheet

Distance x between slide surface and guide center



Distance x:

Size: 32/45/60/80

Dimension x: 31.4 mm / 42.8 mm / 54.6 mm / 72.5 mm

Calculation of the load comparison factor

$$f_v = \frac{|F_{y1}|}{F_{y2}} + \frac{|F_{z1}|}{F_{z2}} + \frac{|M_{x1}|}{M_{x2}} + \frac{|M_{y1}|}{M_{y2}} + \frac{|M_{z1}|}{M_{z2}} \leq 1$$

If several of the mentioned forces and moments act on the axis at the same time, the equation on the left must be fulfilled in addition to the listed maximum loads. For a guide system service life of 5000 km, the load comparison factor, based on the maximum permissible forces and moments at 5000 km service life, must assume a value of $f_v < 1$. This formula can be used to calculate a guide value. The „Electric Motion Sizing“ sizing software is available for precise calculations.

F1 / M1 = dynamic value

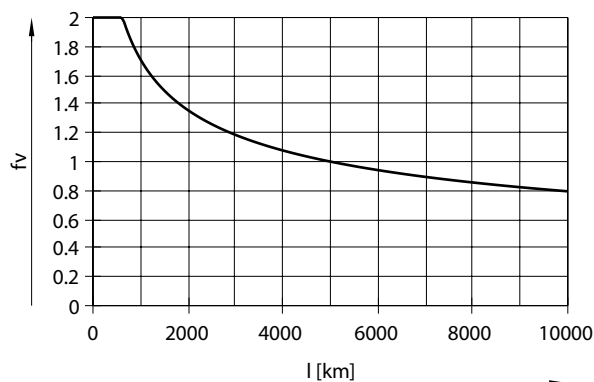
F2 / M2 = maximum value

Calculation of the service life of the guide

The service life of the guide depends on the load. In order to be able to make a statement about the service life, the load comparison factor, f_v is shown in the following diagram as a characteristic in relation to the service life.

This representation only reflects the theoretical value. If the load comparison factor, f_v is greater than 1, it is essential to consult your local contact at Festo.

Service life of the guide



The service life of the guide depends on the load. In order to be able to make a statement about the service life, the load comparison factor, f_v is shown in the following diagram as a characteristic in relation to the service life.

This representation only reflects the theoretical value. If the load comparison factor, f_v is greater than 1, it is essential to consult your local contact at Festo.

Example:

A user wants to move a mass of X kg. The calculation results in a value of 1.5 for the load comparison factor, f_v . According to the diagram, the guide has a service life of approx. 1500 km. Reducing the acceleration reduces the value of M_z and M_y . Now, with a load comparison factor, f_v of 1, this results in a service life of 5000 km.

Datasheet

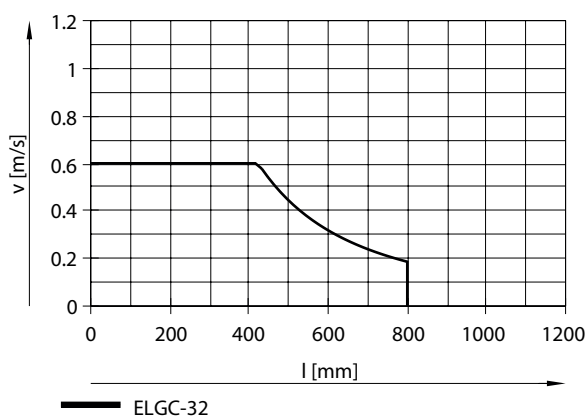
Permissible forces and torques at a theoretical service life of 100 km (pure load on the guide)

The characteristic load values of bearing guides are standardized according to ISO and JIS by dynamic and static forces and torques. These forces and torques are based on an expected service life of the guide system of 100 km according to ISO or 50 km according to JIS. Due to the dependence of the characteristic load values on the service life, the max. permissible forces and torques at a service life of 5000 km cannot be compared with the dynamic forces and torques of bearing guides according to ISO/JIS.

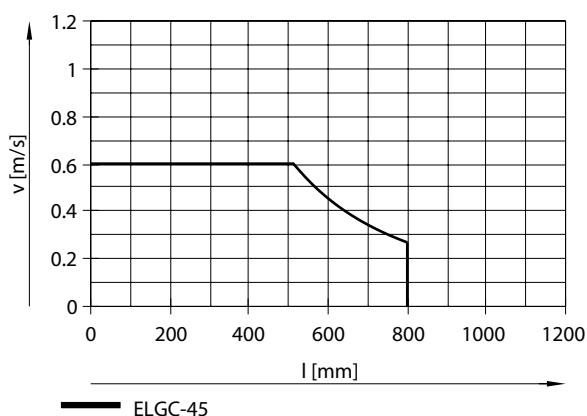
For easier comparison of the guide capacity of ELGC linear axes with bearing guides, the following table shows the theoretically permissible forces and torques for a calculated service life of 100 km. This corresponds to the dynamic forces and moments according to ISO. These 100 km values are determined purely by calculation and are used solely for comparability with dynamic forces and moments according to ISO. The drives must not be loaded with these characteristic values, since this can lead to damage to the axes.

Size	32	45	60	80
F _y with theoretical service life of 100 km (from a guide perspective only)	1,310 N	3,240 N	13,400 N	20,400 N
F _z with theoretical service life of 100 km (from a guide perspective only)	1,310 N	3,240 N	13,400 N	20,400 N
M _x with theoretical service life of 100 km (from a guide perspective only)	5 Nm	20 Nm	107 Nm	220 Nm
M _y with theoretical service life of 100 km (from a guide perspective only)	4 Nm	17 Nm	117 Nm	207 Nm
M _z with theoretical service life of 100 km (from a guide perspective only)	4 Nm	17 Nm	117 Nm	207 Nm

Speed, v , as a function of working stroke, l , for size 32

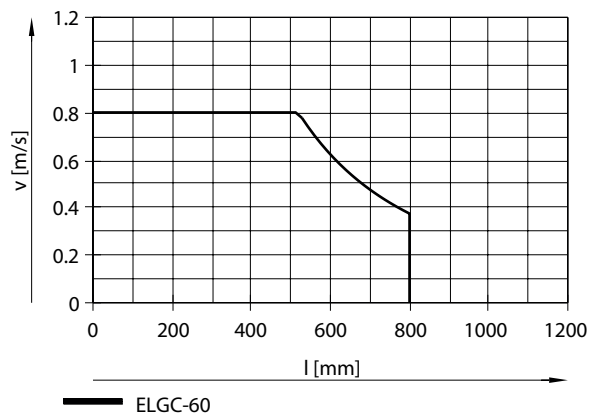


Speed, v , as a function of working stroke, l , for size 45

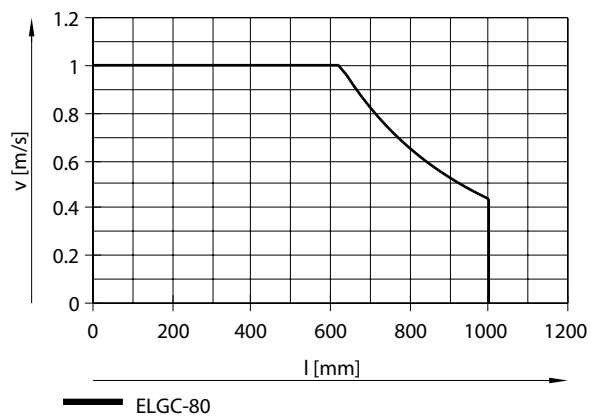


Datasheet

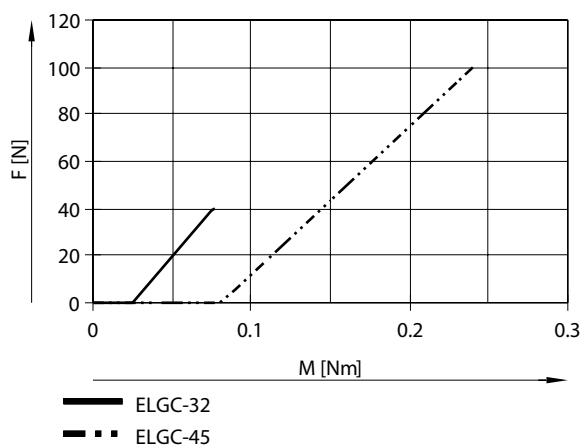
Speed, v , as a function of working stroke, l , for size 60



Speed, v , as a function of working stroke, l , for size 80

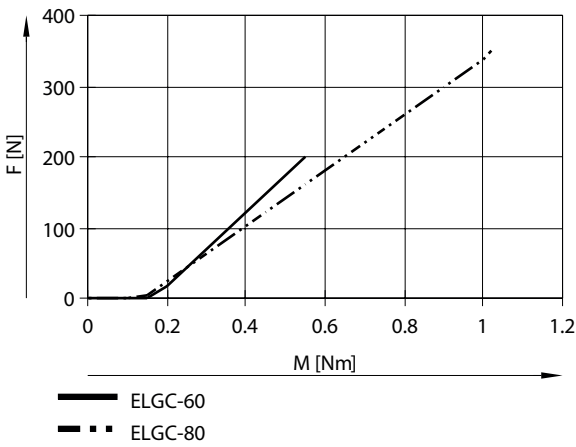


Theoretical feed force, F , as a function of input torque, M , for size 32/45

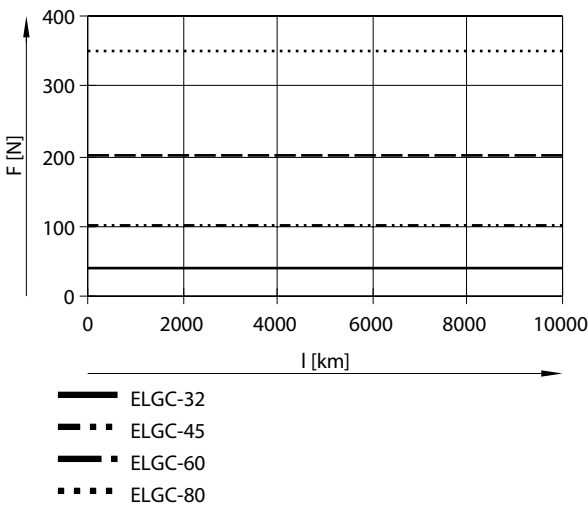


Datasheet

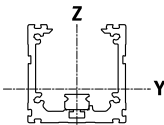
Theoretical feed force ,F' as a function of input torque ,M' for size 60/80



Feed force F as a function of service life l



2nd moment of area



Size	32	45	60	80
2nd moment of area Iy	38,000 mm ⁴	140,000 mm ⁴	441,000 mm ⁴	1,370,000 mm ⁴
2nd moment of area Iz	45,000 mm ⁴	170,000 mm ⁴	542,000 mm ⁴	1,660,000 mm ⁴

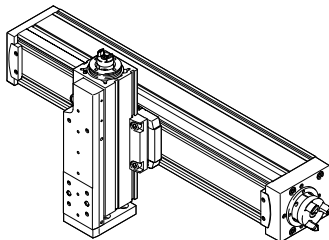
Recommended deflection limits

In order not to impair the functionality of the axes, compliance with the following deflection limits is recommended. Greater deformations can result in increased friction, increased wear and reduced service life.

Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1% of axis length

Datasheet

Combinations between axis ELGC, ELGS, mini slide EGSC-BS, EGSS-BS, electric cylinder EPCC, EPCS and guide axis ELFC



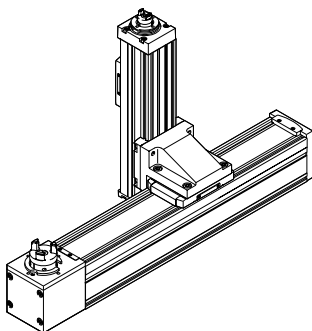
Mounting options with profile mounting EAHF-L2-...-P-D

- Mounting option: Base axis with next smaller assembly axis

Base axis:
Product: ELGC, ELGS, ELFC
Size 32, 45, 60, 80

Assembly axis:
Product: ELGC, ELGS, EGSC, EGSS, EPCC, EPCS, ELFC
Size 25, 32, 45, 60

Combinations between axis ELGC, ELGS, mini slide EGSC-BS, EGSS-BS, electric cylinder EPCC, EPCS and guide axis ELFC



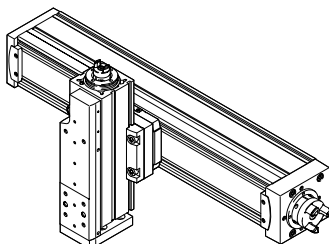
Mounting options with profile mounting EAHF-L2-...-P-D

- Mounting option: Base axis with next smaller assembly axis

1. Base axis:
Product: ELGC, ELGS, ELFC
Size 32, 45, 60, 80

2. Assembly axis:
Product: ELGC, ELGS, EGSC, EGSS, EPCC, EPCS, ELFC
Size 25, 32, 45, 60

Combinations between axis ELGC, ELGS, mini slide EGSC-BS, EGSS-BS, electric cylinder EPCC, EPCS and guide axis ELFC



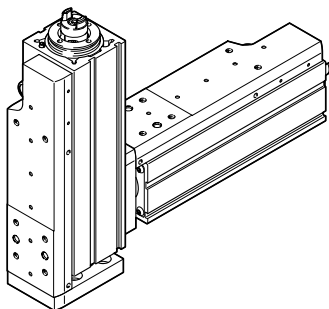
Mounting options with EHAA-D-L2 adapter kit

- Mounting option: Base axis with assembly axis of the same size
- Mounting option: Base axis with height offset for the next smaller assembly axis
- When motors are mounted using parallel kits, interfering contours may occur. In this case, the adapter plate is required for height offset

1. Base axis:
Product: ELGC, ELGS, ELFC
Size 32, 45, 60, 80

2. Assembly axis:
Product: ELGC, ELGS, EGSC, EGSS, EPCC, EPCS, ELFC
Size 25, 32, 45, 60, 80

Combinations between mini slides EGSC-BS, EGSS-BS



Mounting options with direct fastening

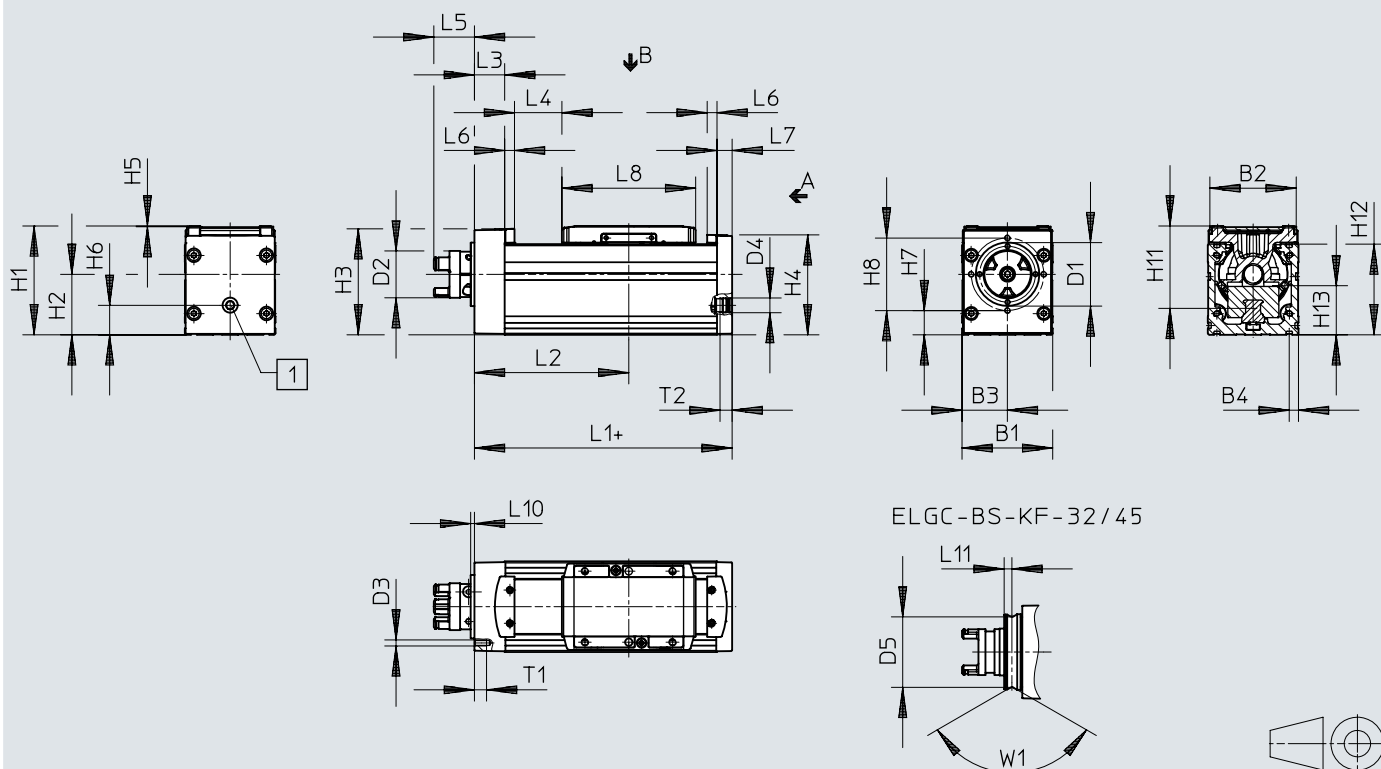
- Mounting option: Base axis with assembly axis of the same size

1. Base axis:
Product: EGSC, EGSS
Size 25, 32, 45, 60

2. Assembly axis:
Product: EGSC, EGSS
Size 25, 32, 45, 60

Dimensions

Dimensions – ELGC-BS-KF spindle axes

Download CAD data www.festo.com

- [1] Sealing air connection (D4)
 [2] + = plus stroke length
 [3] L4 = End position zero stroke

	B1	B2	B3	B4	D1 ø	D2 ¹⁾ ø	D3	D4	D5 ø	H1	H2
ELGC-BS-KF-32	32	29,6	16	4,9	25	15,5	–	M5	23	38,5	20
ELGC-BS-KF-45	45	42,6	22,5	6,1	32	16,3	–	G1/8	29,6	54	27,9
ELGC-BS-KF-60	60	57,1	30	6,1	42	31,4	M4	G1/8	–	72	40
ELGC-BS-KF-80	80	77,1	40	6,1	46	31,4	M6	G1/8	–	96	50

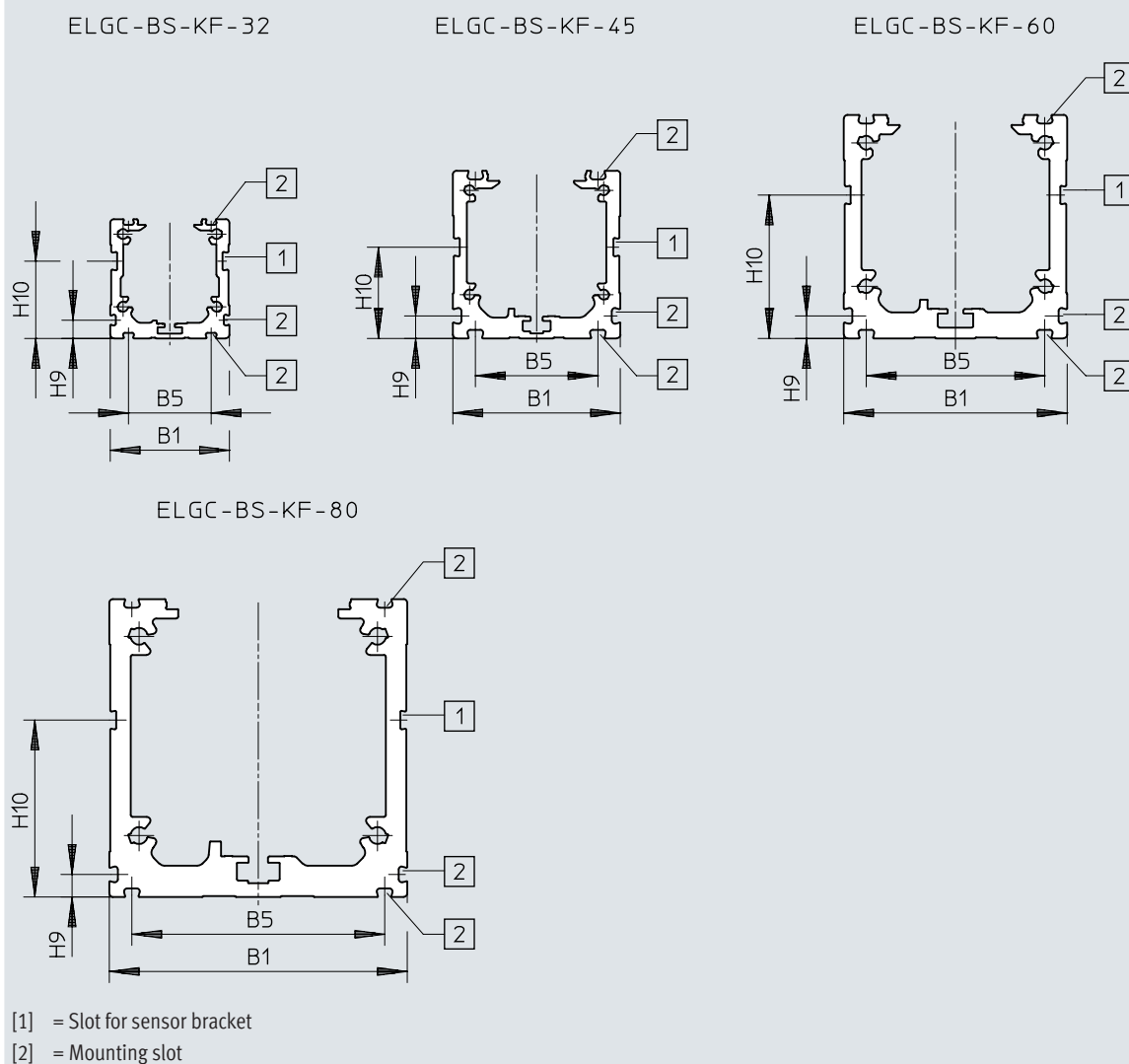
	H3	H4	H5	H6	H7	H8	H11	H12	H13	L1	L2 min.
ELGC-BS-KF-32	36,3	35,6	0,3	8	–	–	31,4	32	13,7	104,5	57,9
ELGC-BS-KF-45	50,8	49,6	0,5	12,5	–	–	42,8	45	18,5	134,3	79,7
ELGC-BS-KF-60	70,1	66,1	0,5	19,5	16	48	54,6	60	32,5	170,5	102,1
ELGC-BS-KF-80	90,6	88,1	0,5	20	17,5	65	72,5	80	41,5	198,5	119,6

	L3	L4	L5	L6	L7	L8	L10	L11	T1	T2	W1
ELGC-BS-KF-32	10,5	13,4	19,9	4,5	5	59	6	2,6	–	5,5	120°
ELGC-BS-KF-45	14,8	24,6	19,9	6,5	7	67,5	6	2,9	–	8	90°
ELGC-BS-KF-60	20	31,4	26,9	6,5	10	88,5	2,5	–	8	8	–
ELGC-BS-KF-80	21	39,1	25,9	6,5	12	106	2,5	–	15	8	–

¹⁾ Coupling diameter or interference circuit diameter clamping screw

Dimensions

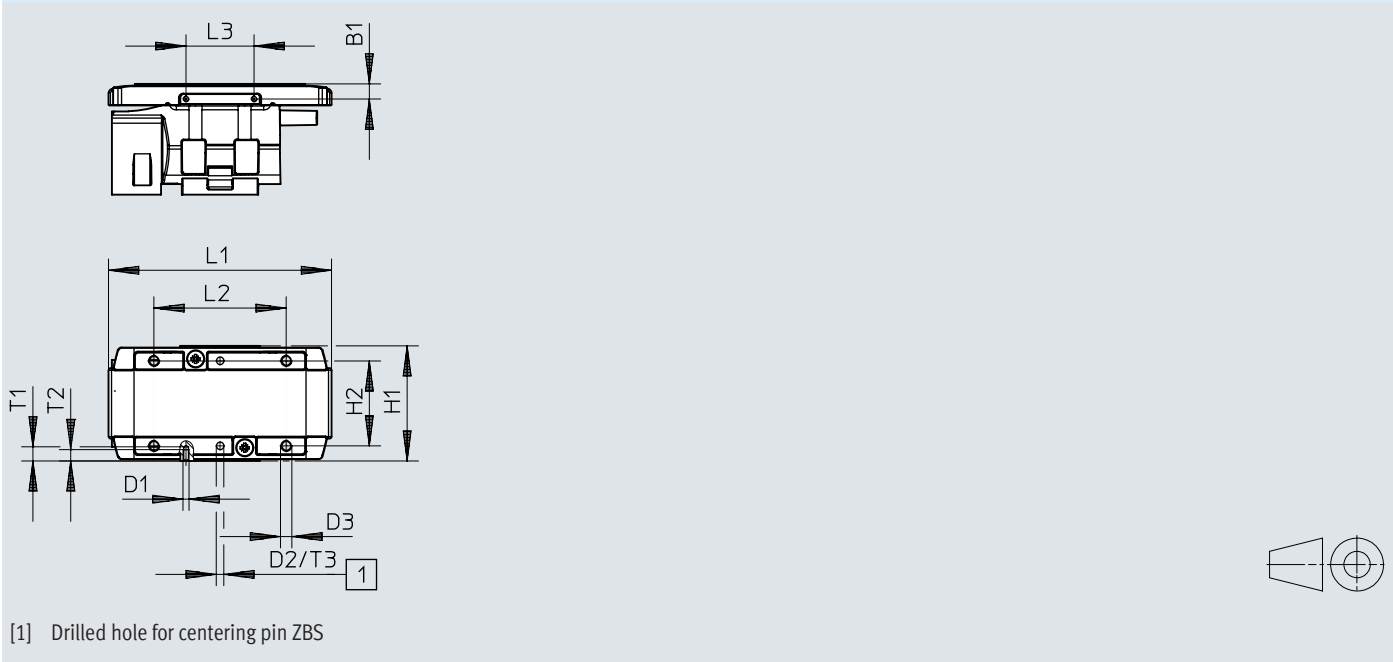
Dimensions – ELGC-BS-KF spindle axes (profile)

[Download CAD data](http://www.festo.com)


	B1	B5	H9	H10
ELGC-BS-KF-32	32	22,2	4,9	20,8
ELGC-BS-KF-45	45	32,9	6,1	24,5
ELGC-BS-KF-60	60	47,9	6,1	38,5
ELGC-BS-KF-80	80	67,9	6,1	47,5

Dimensions

Dimensions – ELGC-BS-KF spindle axes, size 32 (slide) Download CAD data www.festo.com



	B1	D1	D2 ø H8	D3	H1	H2 ±0,1
ELGC-BS-KF-32	±0,1 4	M1,6	2	M3	±0,1 30,5	22,5

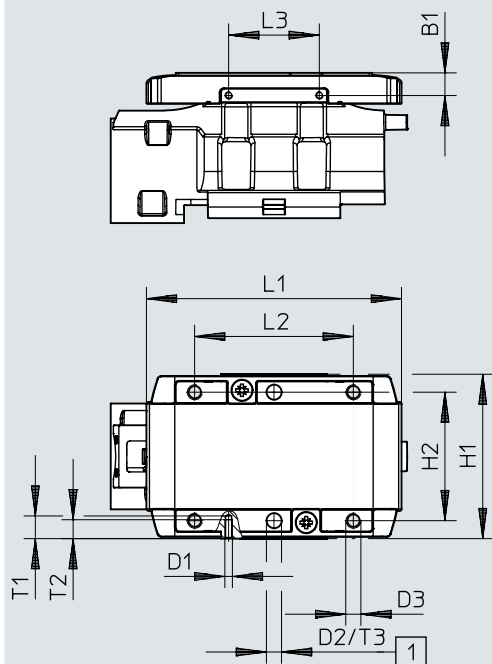
	L1	L2	L3	T1	T2	T3	T4 ¹⁾
ELGC-BS-KF-32		±0,1 35	±0,1 18	3,8	3	+0,1 3,1	4 ... 5

1) Recommended screw-in depth

Dimensions

Dimensions – ELGC-BS-KF spindle axes, size 45 (slide)

Download CAD data www.festo.com



[1] Drilled hole for centering pin ZBS

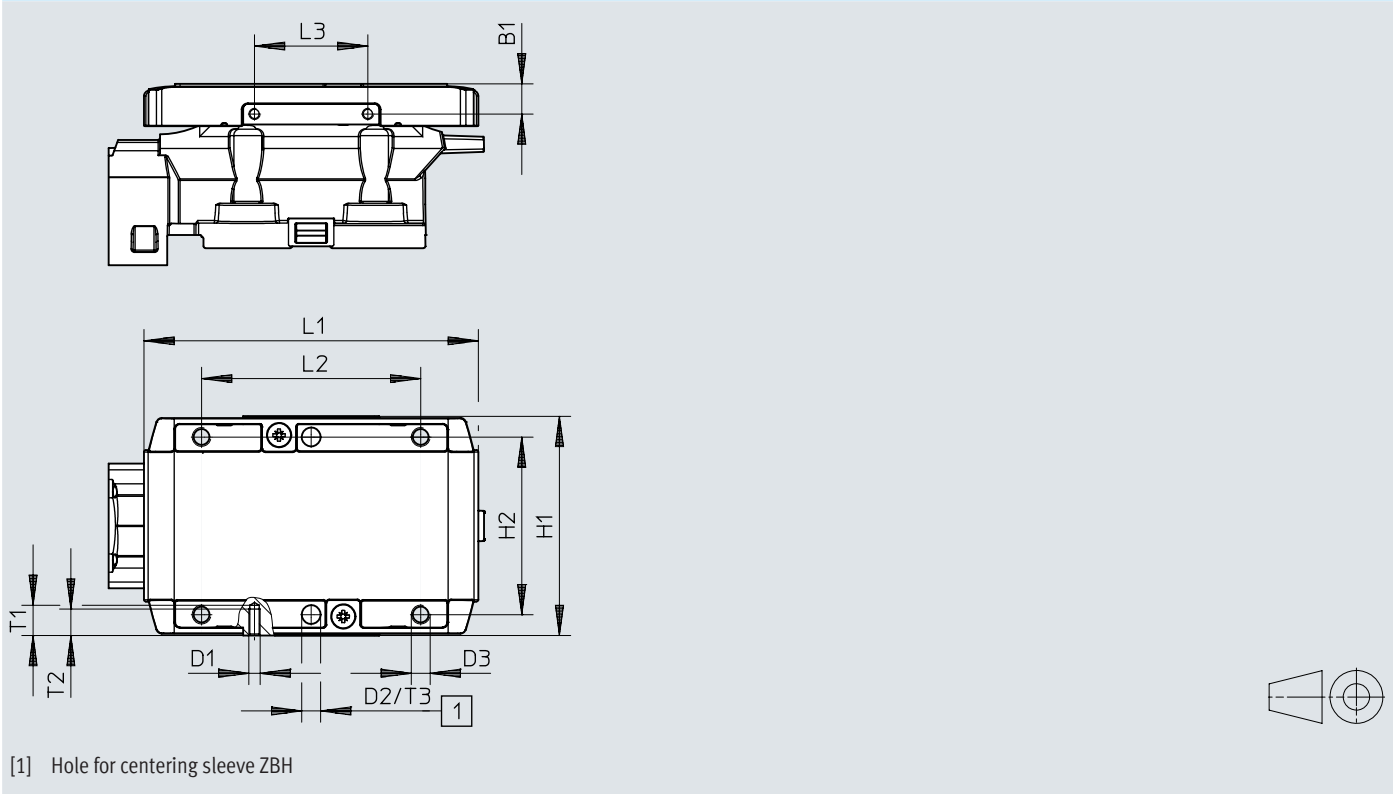
	B1	D1	D2 Ø H8	D3	H1	H2 ±0,1
ELGC-BS-KF-45	±0,1 6	M2	4	M4	±0,1 43,5	34

	L1	L2	L3	T1	T2	T3	T4 ¹⁾
		±0,1	±0,1			+0,1	
ELGC-BS-KF-45	67,5	42	24	6	5	3,1	6 ... 7,5

1) Recommended screw-in depth

Dimensions

Dimensions – ELGC-BS-KF spindle axes, size 60 (slide) Download CAD data www.festo.com



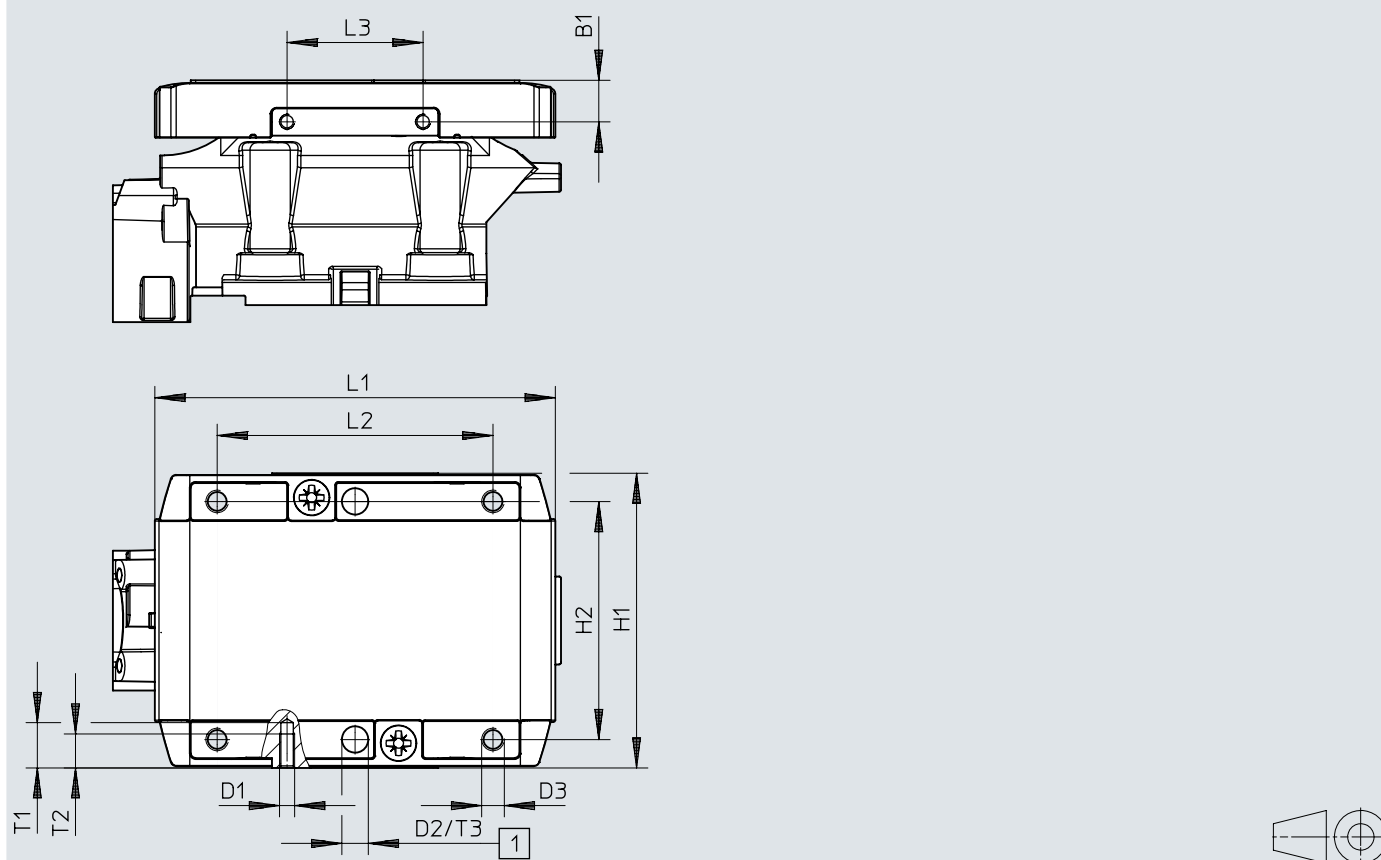
	B1	D1	D2 ø H8	D3	H1	H2
	±0,1				±0,1	±0,1
ELGC-BS-KF-60	8	M3	5	M5	58	47

	L1	L2	L3	T1	T2	T3	T4 ¹⁾
		±0,1	±0,1			+0,1	
ELGC-BS-KF-60	88,5	58	30	9	7	1,3	8,5 ... 10

1) Recommended screw-in depth

Dimensions

Dimensions – ELGC-BS-KF spindle axes, size 80 (slide)

[Download CAD data](#) www.festo.com


[1] Hole for centering sleeve ZBH

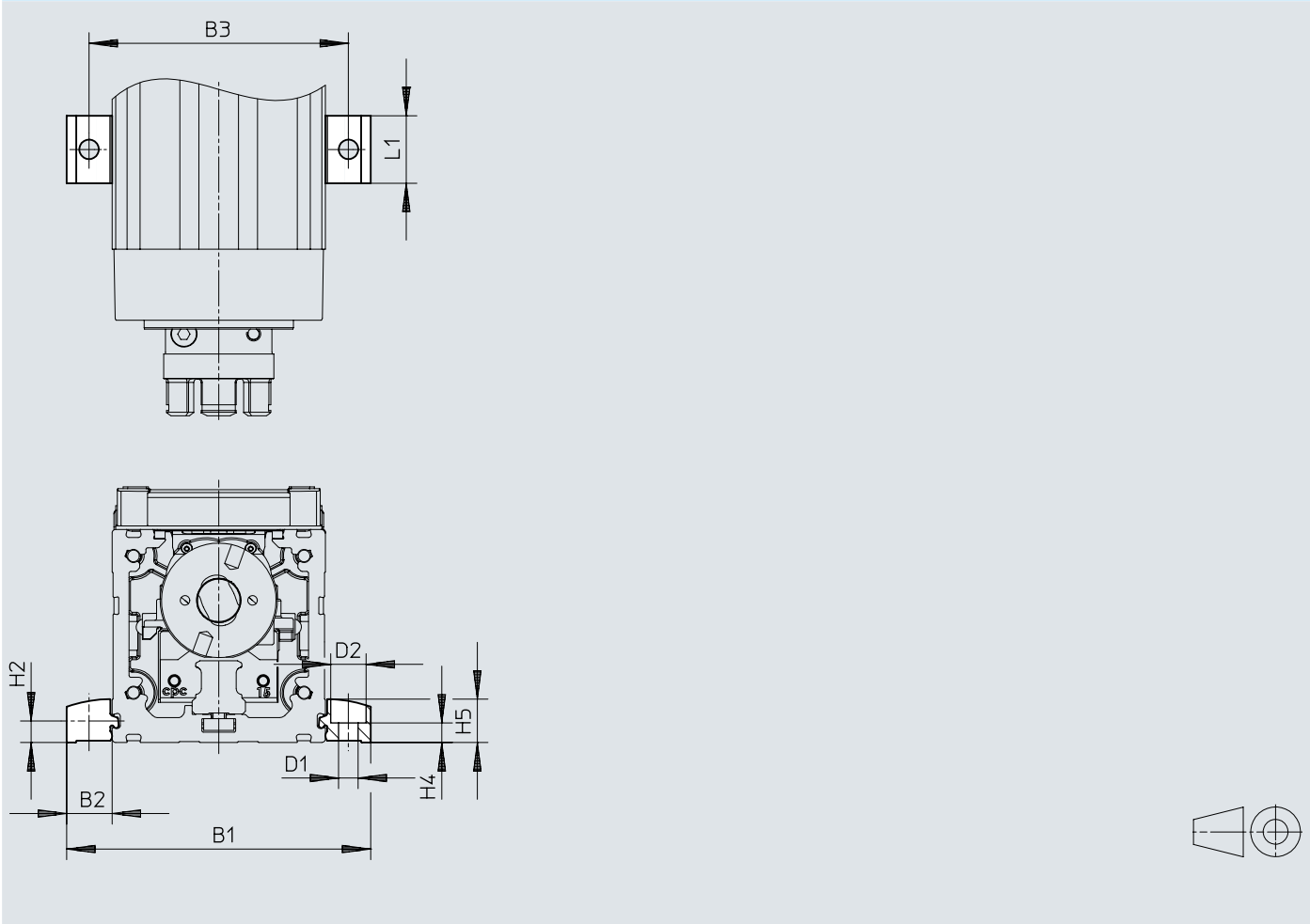
	B1	D1	D2 Ø H8	D3	H1	H2
	±0,1				±0,1	±0,1
ELGC-BS-KF-80	11	M4	7	M6	78	63

	L1	L2	L3	T1	T2	T3	T4 ¹⁾
		±0,1	±0,1			+0,1	
ELGC-BS-KF-80	106	73	36	12	9	1,6	11 ... 14

1) Recommended screw-in depth

Dimensions

Dimensions – EAHF-L2-...-P-S profile mounting [Download CAD data](#) www.festo.com

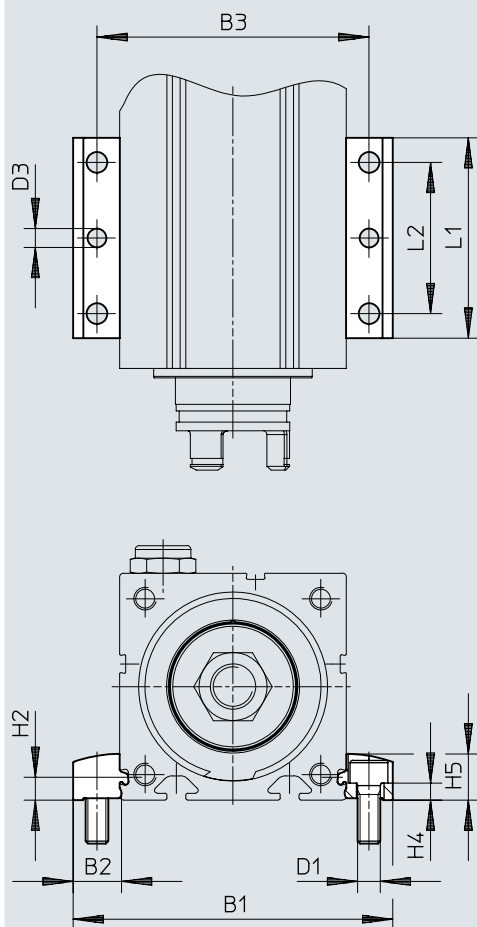


		B1	B2	B3	D1 Ø H13	D2 Ø H13	H2	H4 ±0,1	H5	L1
EAHF-L2-25-P-S	ELGC-BS-KF-32	51,4	9,7	42	4,5	8	4,9	4,2	9	19
EAHF-L2-45-P-S	ELGC-BS-KF-45	70,6	12,8	58	5,5	10	6,1	5,5	12,2	19
EAHF-L2-45-P-S	ELGC-BS-KF-60	85,6	12,8	73	5,5	10	6,1	5,5	12,2	19
EAHF-L2-45-P-S	ELGC-BS-KF-80	105,6	12,8	93	5,5	10	6,1	5,5	12,2	19

Dimensions

Dimensions – EAHF-L2-...-P profile mounting

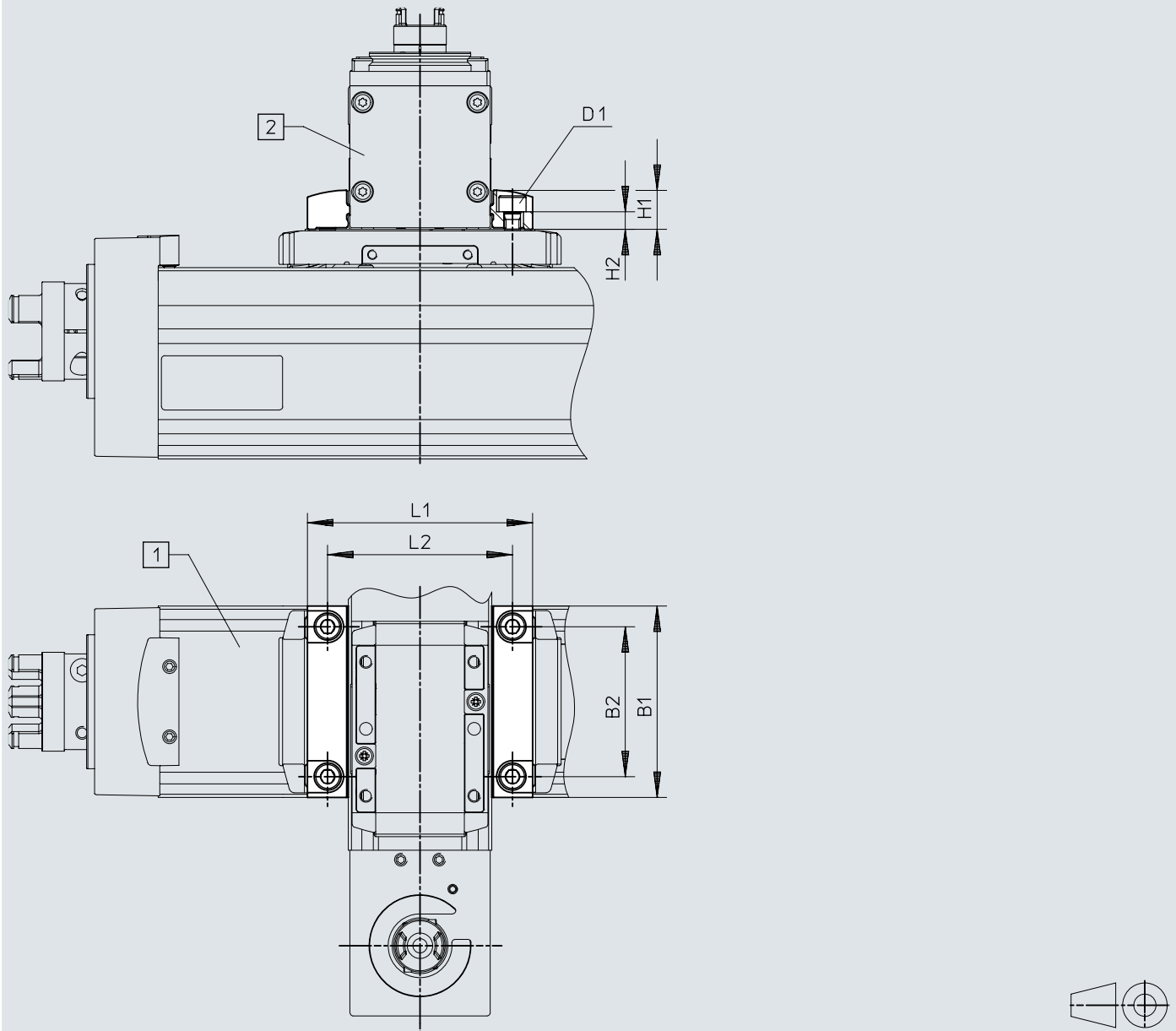
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		B1	B2	B3	D1 ø H13	D2 ø H13	D3 ø	H2	H4 ±0,1	H5	L1	L2
EAHF-L2-25-P	ELGC-BS-KF-32	51,4	9,7	42	4,5	8	4	4,9	4,2	9	53	40
EAHF-L2-45-P	ELGC-BS-KF-45	70,6	12,8	58	5,5	10	5	6,1	5,5	12,2	53	40
EAHF-L2-45-P	ELGC-BS-KF-60	85,6	12,8	73	5,5	10	5	6,1	5,5	12,2	53	40
EAHF-L2-45-P	ELGC-BS-KF-80	105,6	12,8	93	5,5	10	5	6,1	5,5	12,2	53	40

Dimensions

Dimensions – Profile mounting EAHF-L2-...-P-D... [Download CAD data](#) www.festo.com



- [1] Base axis ELGC/ELGS/ELFC
- [2] ELGC/ELGS/ELFC/EGSC body axis

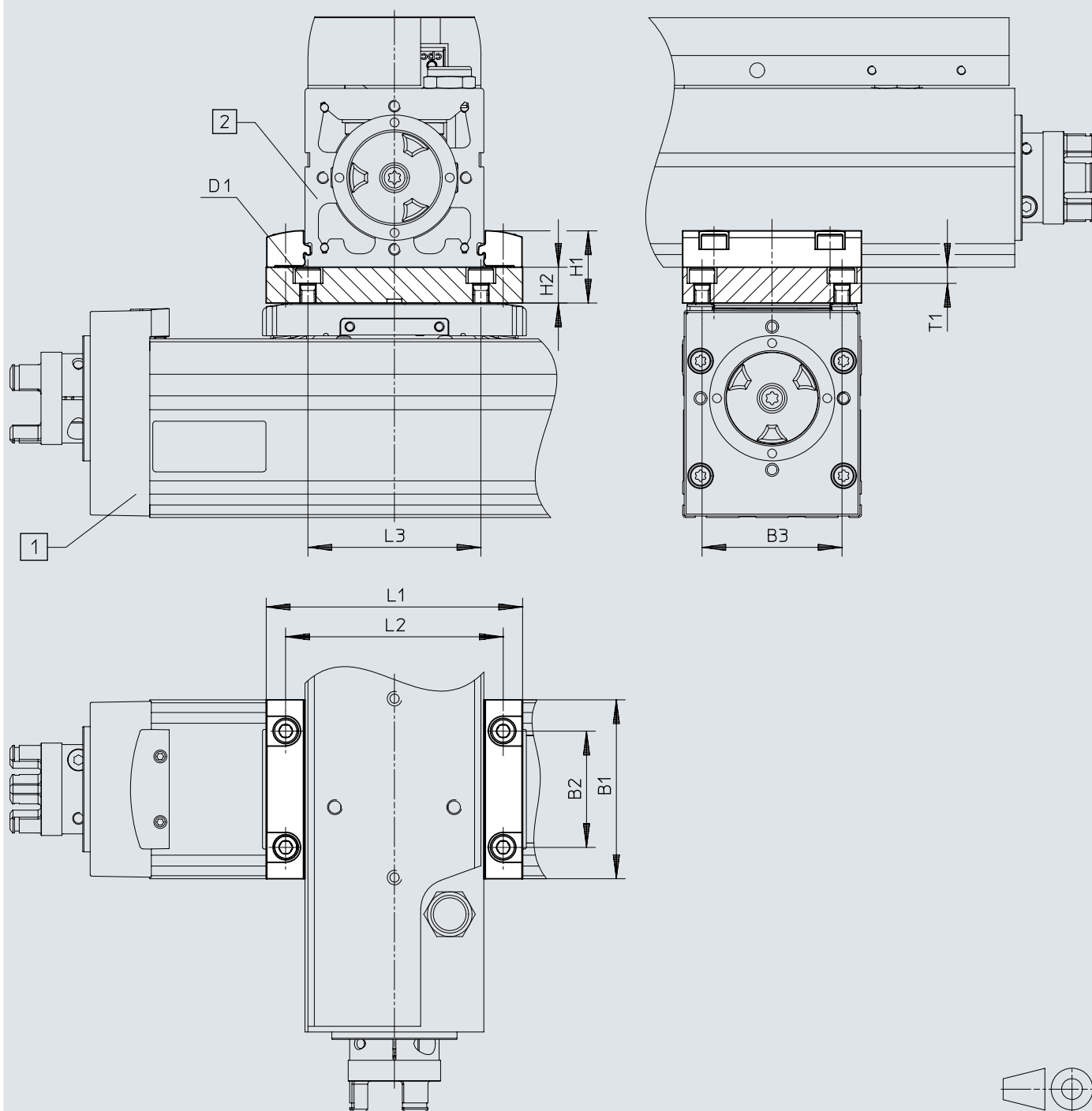
	1)	B1	B2	D1	H1	H2 ±0,1	L1	L2
EAHF-L2-25-P-D1	32/25	32	22,5	M3	9	5,1	44,4	35
EAHF-L2-25-P-D2	45/32	45	34	M4	9	3,7	51,4	42
EAHF-L2-45-P-D3	60/45	60	47	M5	12,2	5,5	70,6	58
EAHF-L2-45-P-D4	80/60	78	63	M6	12,2	4,5	85,6	73

1) Base axis/assembly axis

Dimensions

Dimensions – Adapter kit EHAA-D-L2

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- [1] Base axis ELGC/ELGS/ELFC
[2] ELGC/ELGS/ELFC/EGSC body axis

Dimensions

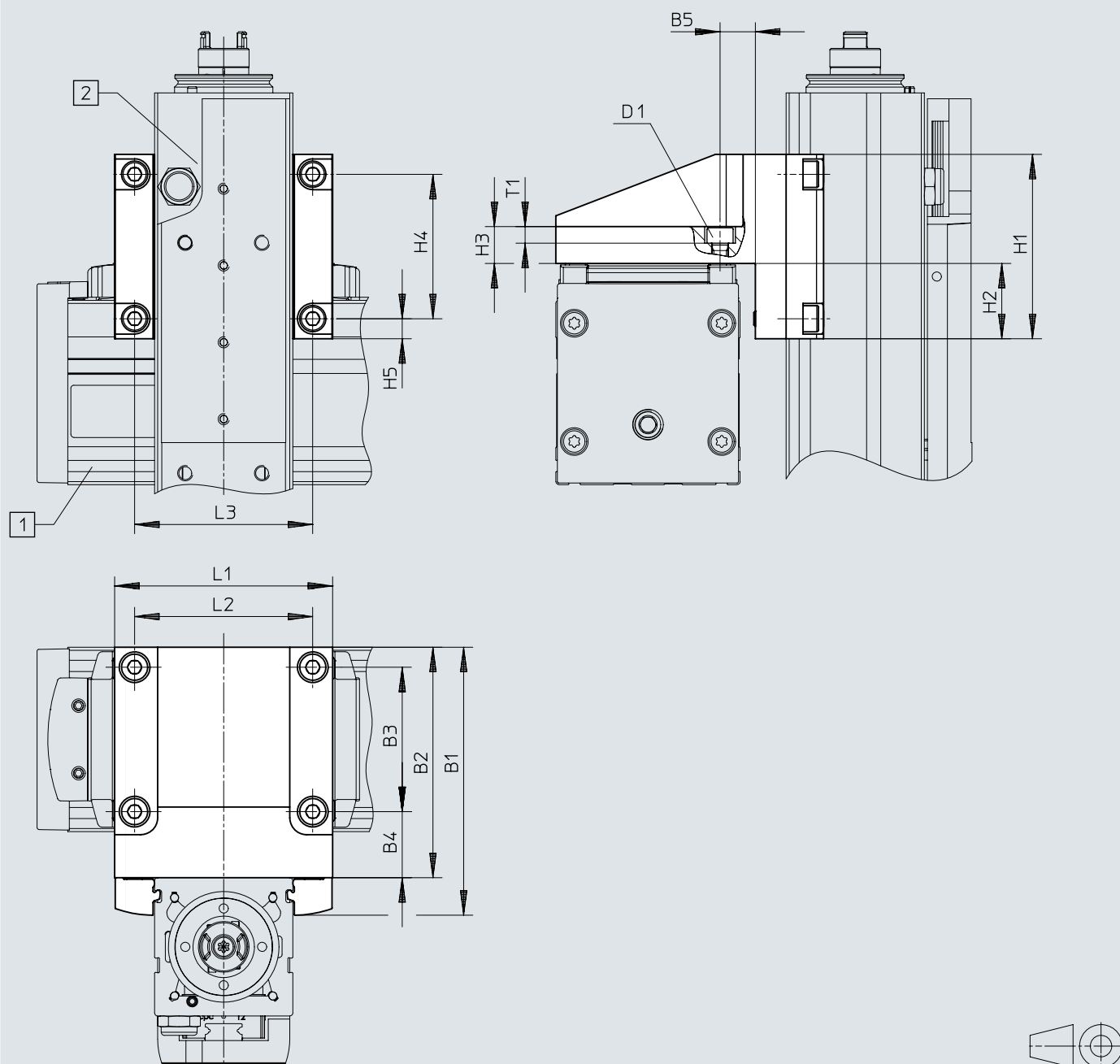
	1)	B1	B3 ±0,05	D1	H1	H2	L1	L2	L3	T1
EHAA-D-L2-32-L2-32	32/25	32	22,5	M3	19	10	44,4	35	35	4,2
EHAA-D-L2-45-L2-45	45/32	45	34	M4	19	10	51,4	42	42	5,4
EHAA-D-L2-60-L2-60	60/45	60	47	M5	24,2	12	70,6	58	58	5,4
EHAA-D-L2-80-L2-80	80/60	78	63	M6	24,2	12	85,6	73	73	6,4

	1)	B1	B2	B3 ±0,05	D1	H1	H2	L1	L2	L3	T1
EHAA-D-L2-32-L2-32	32/32	32	14,5	22,5	M3	19	10	52	42	35	4,2
EHAA-D-L2-45-L2-45	45/45	45	32	34	M4	22,2	10	71	58	42	5,4
EHAA-D-L2-60-L2-60	60/60	60	39	47	M5	24,2	12	86	73	58	5,4
EHAA-D-L2-80-L2-80	80/80	78	63	63	M6	24,2	12	106	93	73	6,4

1) Base axis/assembly axis

Dimensions

Dimensions – EHAA-D-L2-...-AP angle kit

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- [1] Base axis ELGC/ELGS/ELFC
 [2] ELGC/ELGS/ELFC/EGSC body axis

Dimensions

	1)	B1	B2	B3	B4	B5	D1	H1	H2
EHAA-D-L2-32-L2-25-AP	32/25	53	44	22,5	16,8	8,8	M3	32	11
EHAA-D-L2-45-L2-32-AP	45/32	69	60	34	20,5	11,5	M4	45	17,5
EHAA-D-L2-60-L2-45-AP	60/45	87,2	75	47	21,5	11,5	M5	60	24,5
EHAA-D-L2-80-L2-60-AP	80/60	107,2	95	63	23,5	13,5	M6	78	33,5

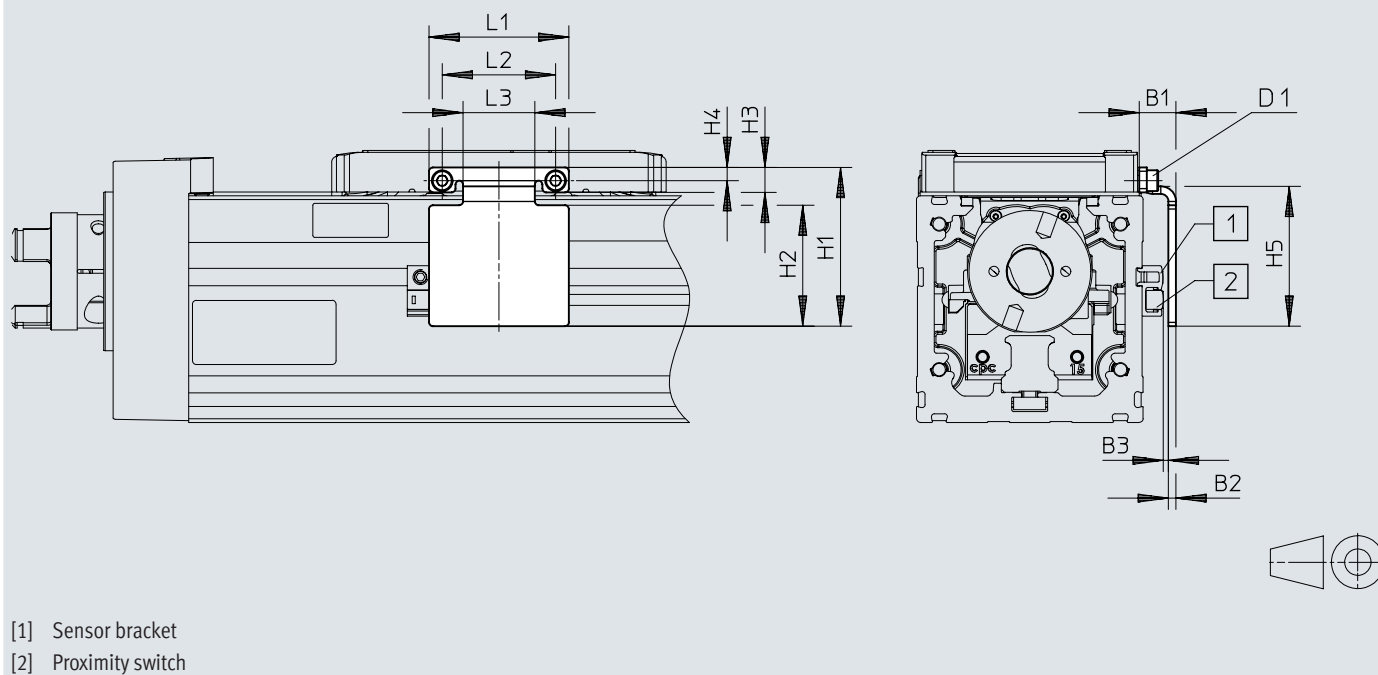
	1)	H3	H4	H5	L1	L2	L3	T1
EHAA-D-L2-32-L2-25-AP	32/25	10	22,5	4,8	45	35	35	4,2
EHAA-D-L2-45-L2-32-AP	45/32	10	34	5,5	52	42	42	5,4
EHAA-D-L2-60-L2-45-AP	60/45	12	47	6,5	71	58	58	5,4
EHAA-D-L2-80-L2-60-AP	80/60	12	63	7,5	86	73	73	6,4

1) Base axis/assembly axis

Dimensions

Dimensions – EAPM-L2-SLS switch lug

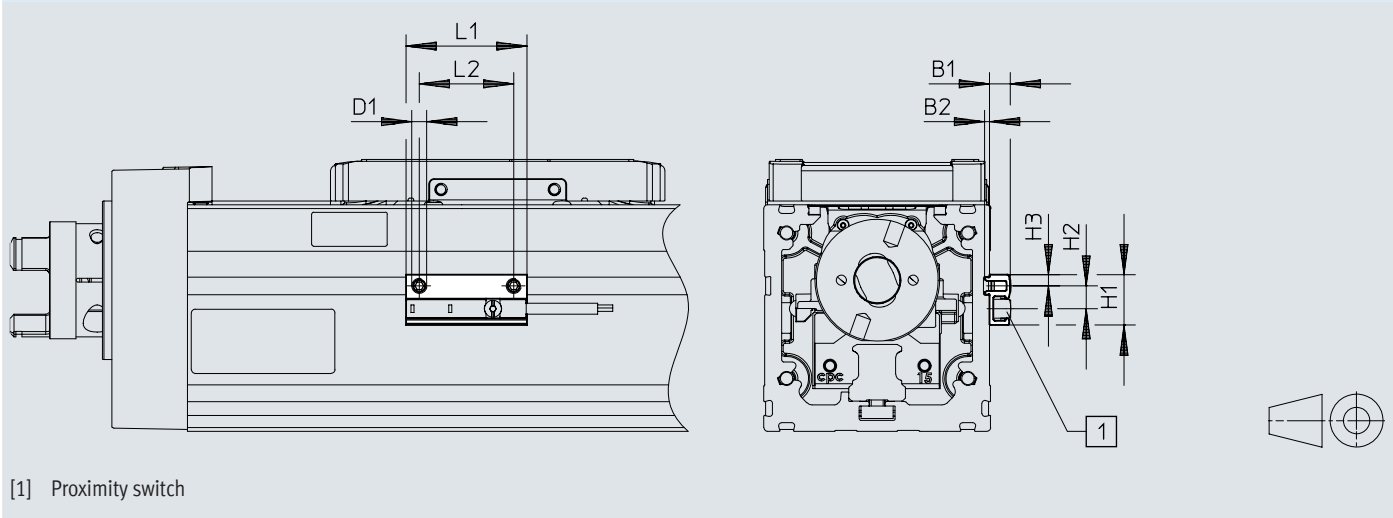
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	B1	B2	B3	D1	H1 ±0,2	H2	H3	H4	H5 ±0,2	L1 ±0,2	L2 ±0,15	L3
EAPM-L2-32-SLS	9,2	2	1,0±0,31	M1,6	27	19	4,3	2,5	24	22	18	10
EAPM-L2-45-SLS	9,4	2	1,2±0,31	M2	37	28	5,5	3,3	33	30	24	14
EAPM-L2-60-SLS	9,7	2	1,3±0,31	M3	37	32	6,6	3,5	37	42	30	19
EAPM-L2-80-SLS	9,5	2	1,1±0,32	M4	53,5	42	8,3	4,5	47	44,6	36	23,4

Dimensions

Dimensions – EAPM-L2-SH sensor bracket [Download CAD data](http://www.festo.com) www.festo.com



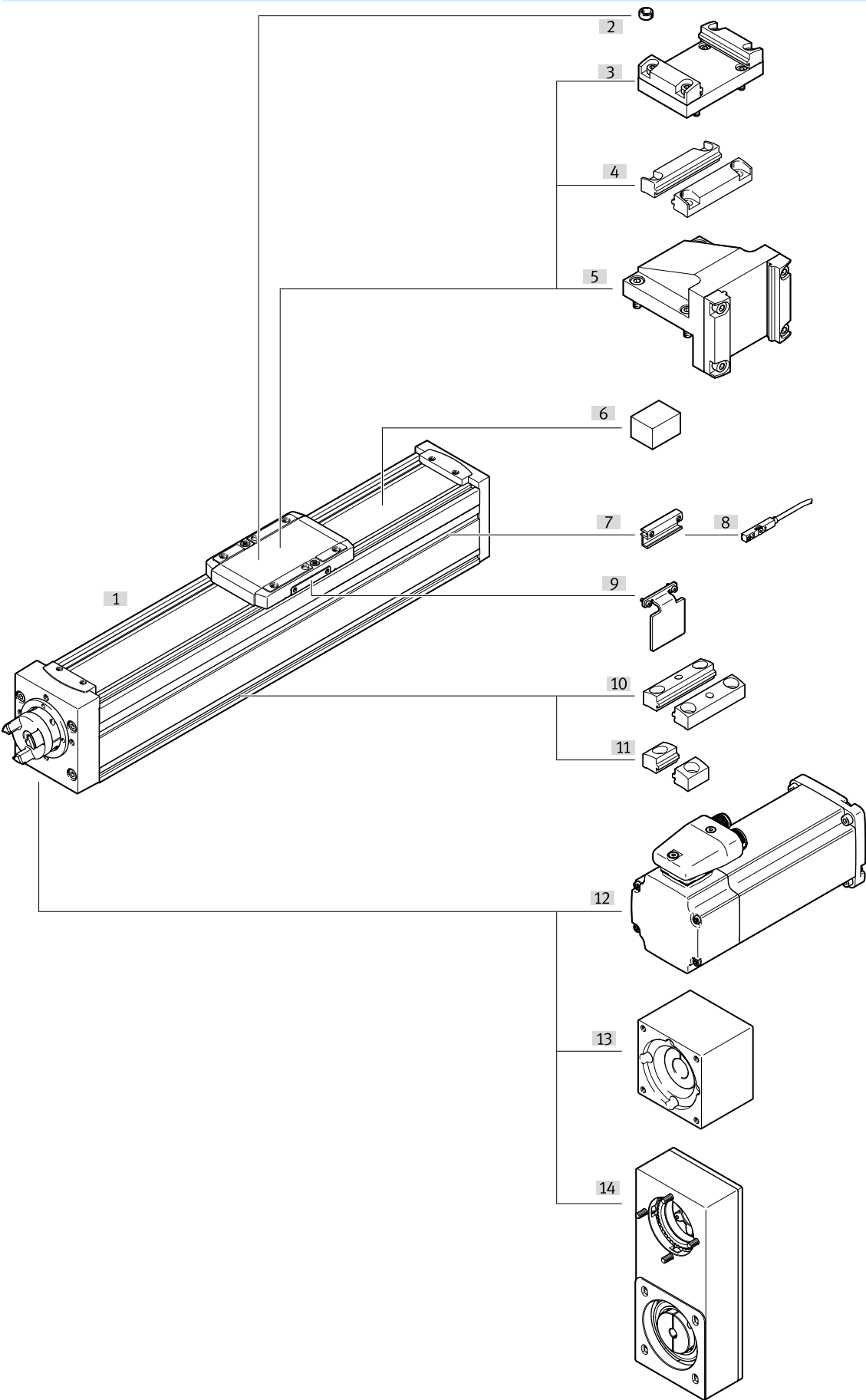
	B1	B2	D1	H1	H2	H3	L1	L2
EAPM-L2-SH	5,5	1,3	M4	13,4	6	3	32	25

Ordering data

with recirculating ball bearing guide					
	Size	Spindle pitch	Working stroke	Part no.	Type
	32	8 mm/U	100 mm	8061477	ELGC-BS-KF-32-100-8P
			200 mm	8061478	ELGC-BS-KF-32-200-8P
			300 mm	8061479	ELGC-BS-KF-32-300-8P
			400 mm	8061480	ELGC-BS-KF-32-400-8P
			500 mm	8061481	ELGC-BS-KF-32-500-8P
			600 mm	8061482	ELGC-BS-KF-32-600-8P
			800 mm	8061483	ELGC-BS-KF-32-800-8P
	45	10 mm/U	100 mm	8061484	ELGC-BS-KF-45-100-10P
			200 mm	8061485	ELGC-BS-KF-45-200-10P
			300 mm	8061486	ELGC-BS-KF-45-300-10P
			400 mm	8061487	ELGC-BS-KF-45-400-10P
			500 mm	8061488	ELGC-BS-KF-45-500-10P
			600 mm	8061489	ELGC-BS-KF-45-600-10P
			800 mm	8061490	ELGC-BS-KF-45-800-10P
	60	12 mm/U	100 mm	8061491	ELGC-BS-KF-60-100-12P
			200 mm	8061492	ELGC-BS-KF-60-200-12P
			300 mm	8061493	ELGC-BS-KF-60-300-12P
			400 mm	8061494	ELGC-BS-KF-60-400-12P
			500 mm	8061495	ELGC-BS-KF-60-500-12P
			600 mm	8061496	ELGC-BS-KF-60-600-12P
			800 mm	8061497	ELGC-BS-KF-60-800-12P
	80	16 mm/U	100 mm	8061498	ELGC-BS-KF-80-100-16P
			200 mm	8061499	ELGC-BS-KF-80-200-16P
			300 mm	8061500	ELGC-BS-KF-80-300-16P
			400 mm	8061501	ELGC-BS-KF-80-400-16P
			500 mm	8061502	ELGC-BS-KF-80-500-16P
			600 mm	8061503	ELGC-BS-KF-80-600-16P
			800 mm	8061504	ELGC-BS-KF-80-800-16P
			1,000 mm	8061505	ELGC-BS-KF-80-1000-16P

Peripherals overview

Peripherals overview

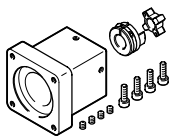


Peripherals overview

Accessories		→ Page/Internet
Type/order code	Description	
[1] ELGC-BS-KF spindle axis	Electric drive	elgc-bs
[2] ZBS centering sleeve	For centering loads and attachments on the slide	31
[2] ZBH centering sleeve	For centering loads and attachments on the slide	31
[3] EHAA-D-L2 adapter kit	- For axis/axis mounting with adapter plate - Mounting option: basic axis with body axis of the same or next smaller size - Interference contours can occur when parallel kits are used for motor mounting. In this case, the adapter plate is required for height compensation	30
[4] EAHF-L2-...-P-D... profile mounting	- For axis/axis mounting without adapter plate - Mounting option: base axis with next smaller body axis	30
[5] EHAA-D-L2-...-AP angle kit	For mounting vertical axes (body axes) of the next smaller size on basic axes with „slide up“ mounting position	30
[6] EADTS-L5 clamping element	Tool for retensioning the cover strip	31
[7] EAPM-L2-SH sensor bracket	For fastening the proximity switches to the axis. The proximity switches can only be fastened with the sensor bracket	31
[8] Proximity switch SIES-8	Inductive proximity sensors, for T-slot 27	32
[8] Proximity switch SMT-8	Magnetic proximity switches, for T-slot	32
[9] Switch lug EAPM-L2-...-SLS	For sensing the slide position in conjunction with SIES inductive proximity sensors	31
[10] EAHF-L2-...-P profile mounting	For fastening the axis, on the side of the profile. The hole in the middle allows the profile mounting to be fixed to the mounting surface	30
[11] EAHF-L2-...-P-S profile mounting	For fastening the axis, on the side of the profile	30
[12] Motor EMMT-ST	Motors and kits specially matched to the axis Detailed information: www.festo.com/catalogue/eamm Engineering tool: www.festo.com/x/electric-motion-sizing	emmt-st
[12] Motor EMMT-AS	Motors and kits specially matched to the axis Detailed information: www.festo.com/catalogue/eamm Engineering tool: www.festo.com/x/electric-motion-sizing	emmt-as
[13] Axial kit EAMM-A	For axial motor mounting More detailed information → www.festo.com/x/electric-motion-sizing	eamm-a
[14] Parallel kit EAMM-U	For parallel motor mounting	eamm-u

Accessories

Permitted axis/motor combinations for axial and parallel kits



Under the following links you will find all information about:

- Axis/motor combinations
- Permitted third-party motors
- Technical data
- Dimensions

For axial kits → Internet: www.festo.com/catalogue/eammm-a

For parallel kits → Internet: www.festo.com/catalogue/eammm-u

EAHF-L2-....P-S profile mounting

	Description	Suitability for the production of Li-ion batteries	Plate material	Product weight	Part no.	Type
	for size 32	F1a	Wrought aluminum alloy, anodized	4 g	5183153	EAHF-L2-25-P-S
	for size 45, 60, 80			6 g	5184133	EAHF-L2-45-P-S

EAHF-L2-....P profile mounting

	Description	Suitability for the production of Li-ion batteries	Plate material	Product weight	Part no.	Type
	for size 32	F1a	Wrought aluminum alloy, anodized	19 g	4835684	EAHF-L2-25-P
	for size 45, 60, 80			35 g	4835728	EAHF-L2-45-P

Profile mounting EAHF-L2-....P-D...

	Description ¹⁾	Suitability for the production of Li-ion batteries	Plate material	Product weight	Part no.	Type
	for size 32/25	F1a	Wrought aluminum alloy, anodized	16 g	4759753	EAHF-L2-25-P-D1
	for size 45/32			24 g	4759748	EAHF-L2-25-P-D2
	for size 60/45			56 g	4759739	EAHF-L2-45-P-D3
	for size 80/60			77 g	4759726	EAHF-L2-45-P-D4

1) Basic axis/assembly axis

Adapter kit EHAA-D-L2

	Description ¹⁾	Product weight	Part no.	Type
	for size 32/25	60 g	8066713	EHAA-D-L2-32-L2-32
	for size 45/32	136 g	8066714	EHAA-D-L2-45-L2-45
	for size 60/45	205 g	8066715	EHAA-D-L2-60-L2-60
	for size 80/60	315 g	8066716	EHAA-D-L2-80-L2-80

1) Basic axis/assembly axis

EHAA-D-L2-....AP angle kit

	Description ¹⁾	Product weight	Part no.	Type
	for size 32/25	107 g	8066717	EHAA-D-L2-32-L2-25-AP
	for size 45/32	222 g	8066718	EHAA-D-L2-45-L2-32-AP
	for size 60/45	433 g	8066719	EHAA-D-L2-60-L2-45-AP
	for size 80/60	768 g	8066720	EHAA-D-L2-80-L2-60-AP

1) Basic axis/assembly axis

Accessories

EAPM-L2-SLS switch lug						
	Description	Suitability for the production of Li-ion batteries	Product weight	Part no.	Type	
	for size 32	F1a	10 g	8067259	EAPM-L2-32-SLS	
	for size 45		18 g	8067260	EAPM-L2-45-SLS	
	for size 60		27 g	8067261	EAPM-L2-60-SLS	
	for size 80		42 g	8067262	EAPM-L2-80-SLS	

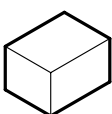
EAPM-L2-SH sensor bracket						
	Description	Suitability for the production of Li-ion batteries	Sensor holder material	Product weight	Part no.	Type
	for size 32, 45, 60, 80	F1a	Wrought aluminum alloy, anodized	4 g	4759852	EAPM-L2-SH

Centering pin ZBS/Centering sleeve ZBH						
	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	For diameter 6	Steel	10	1 g	525273	ZBS-2

Centering pin ZBS/Centering sleeve ZBH						
	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	for size 45	high-alloy stainless steel	10	0.5 g	562959	ZBS-4

Centering pin ZBS/Centering sleeve ZBH						
	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	for size 60	Steel	10	1 g	8146543	ZBH-5-B

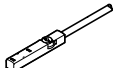
Centering pin ZBS/Centering sleeve ZBH						
	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	For size 80	Steel	10	1 g	8146544	ZBH-7-B

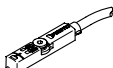
EADT clamping element						
	Description	Clamping element material	Product weight	Part no.	Type	
	for size 32, 45, Tool for retensioning the cover strip	NBR	12 g	8065818	EADT-S-L5-32	
	for size 60, Tool for retensioning the cover strip		50 g	8058451	EADT-S-L5-70	

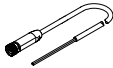
Accessories

QSM push-in fitting						
	Description	Housing material	Pack size	Product weight	Part no.	Type
	for size 32, 1-phase, 6 A, sufficient for: 2x CMMT-AS-C2-3A or 1x CMMT-AS-C4-3A	Brass, nickel-plated	10	3 g	133004	QSM-M5-4-I-R
				3.2 g	133003	QSM-M5-3-I-R

QSM push-in fitting						
	Description	Housing material	Pack size	Product weight	Part no.	Type
	for size 45, 60, 80, 1-phase, 6 A, sufficient for: 2x CMMT-AS-C2-3A or 1x CMMT-AS-C4-3A	Brass, nickel-plated	10	8.9 g	186266	QSM-G1/8-4-I
				9.5 g	186267	QSM-G1/8-6-I

SIES proximity switch for T-slot, inductive						Link sies-8m
	Switching output	Electrical connection 1, connection technology	Switching element function	Cable length	Part no.	Type
	NPN	M8x1 A-coded as per EN 61076-2-104	NC contact	0.3 m	551402	SIES-8M-NO-24V-K-0,3-M8D
			N.O. contact		551397	SIES-8M-NS-24V-K-0,3-M8D
		Open end	NC contact	7.5 m	551401	SIES-8M-NO-24V-K-7,5-OE
			N.O. contact		551396	SIES-8M-NS-24V-K-7,5-OE
	PNP	M8x1 A-coded as per EN 61076-2-104	NC contact	0.3 m	551392	SIES-8M-PO-24V-K-0,3-M8D
			N.O. contact		551387	SIES-8M-PS-24V-K-0,3-M8D
		Open end	NC contact	7.5 m	551391	SIES-8M-PO-24V-K-7,5-OE
			N.O. contact		551386	SIES-8M-PS-24V-K-7,5-OE

SMT proximity switch for T-slot, magneto-resistive						Link smt-8m
	Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
	Screwed on, Can be inserted in slot from above	3-wire PNP N/C contact	Open end	7.5 m	574340	SMT-8M-A-PO-24V-E-7,5-OE
				2.5 m	574335	SMT-8M-A-PS-24V-E-2,5-OE
		3-wire PNP N/O contact	Plug M8, A-coded	0.3 m	574334	SMT-8M-A-PS-24V-E-0,3-M8D

Connecting cable NEBA, straight						Link neba
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M8x1 A-coded as per EN 61076-2-104	Open end	3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3

Accessories

Connecting cable NEBA, angled					Link neba	
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M8x1 A-coded as per EN 61076-2-104	Open end	3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3