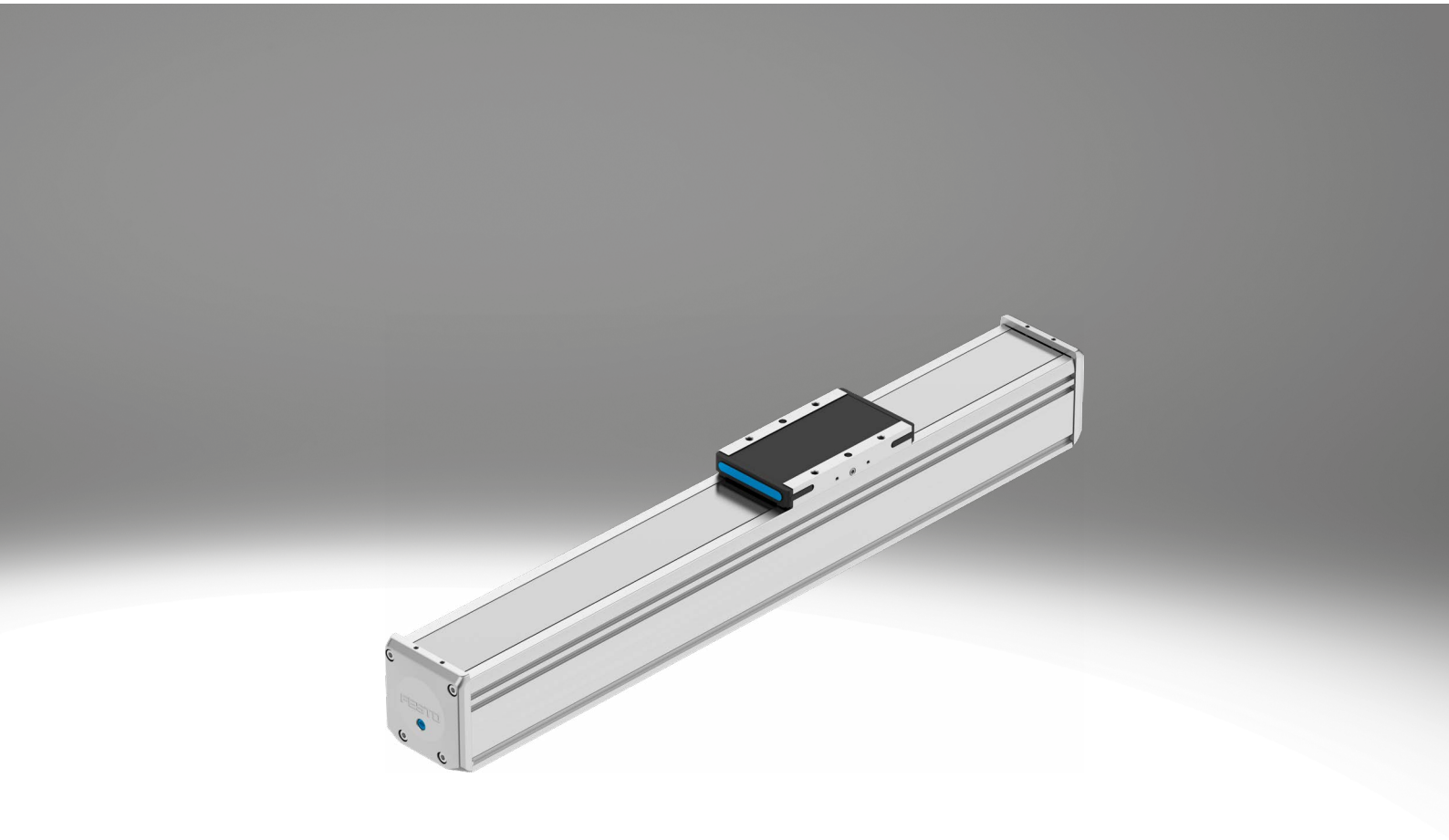
Guide axes ELFD, without drive



NEW

Key features

At a glance

- Driveless linear guide units with guide and freely movable slide
- The guide axis is designed to support forces and torques in multi-axis applications
- With NSF-H1 lubricant for the food zone
- Suitable for the production of Li-ion batteries

Innovative guide technology
- Excellent rigidity and load capacity of the guide for greater loads in the same installation space
- Less vibration and smoother slide movement protect sensitive workpieces

Innovative stainless steel cover strip solution
- Abrasion-free and clean surface protects workpieces from particles
- Minimised number of particles for use in cleanrooms
- Reduced ingress of dirt for use in harsh ambient conditions

Options:
- Extended or additional slide for higher axial and lateral torques and higher loads

Sealing air connection:
- Air is exchanged between the interior of the cylinder and the environment via the sealing air connection. This prevents negative pressure or excess pressure from building up inside the cylinder.
- Application of slight negative pressure prevents the emission of particles
- Application of slight excess pressure prevents the ingress of particles

Engineering tools

More information ➔ electric-motion-sizing

Save time with smart engineering tools for the optimal solution. Our goal is to increase your productivity. Our engineering tools play an integral part in achieving this goal. They help you size your system correctly, tap into unimagined productivity reserves and generate additional productivity along the entire value chain. In every phase of your project, from the initial contact to the modernisation of your machine, you will come across a number of different tools and useful tools.

Electric Motion Sizing
- Create the optimum drive package quickly and reliably. Electric Motion Sizing calculates suitable combinations of electric axis, electric motor and servo drive using just a few application details. It provides you with all the relevant data including the bill of materials and documentation for the selected combination. This avoids design errors and results in significantly improved energy efficiency for the system. A smooth connection to the Festo Automation Suite also makes commissioning easier for you.

Graphs

More information ➔elfd

The graphs shown in this document are also available online. There, precise values can be displayed.

Stroke reserve

- The stroke reserve is a safety distance from the mechanical end position and is not used in normal operation.
- The sum of the stroke length and 2x stroke reserve must not exceed the maximum working stroke.

Key features

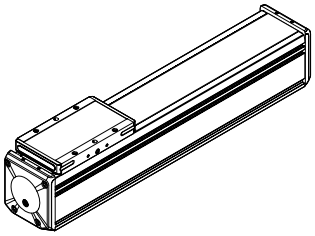
Stroke reserve

[...H] 0 ... 999 mm

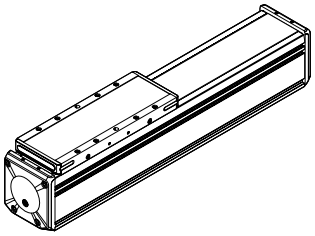
- The stroke reserve is a safety distance from the mechanical end position and is not used in normal operation.
- The sum of the stroke length and 2x stroke reserve must not exceed the maximum working stroke.

Slide design

[ ] Standard

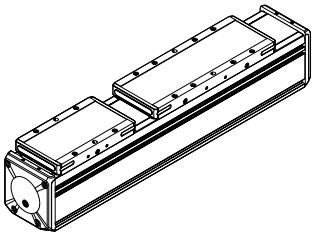


[L] Long

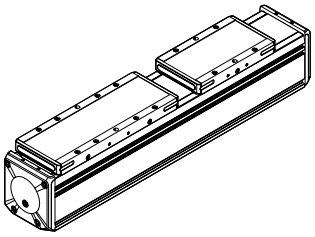


Additional slide

[ZL] Left



[ZR] Right



- The additional slide is always a standard slide

Lubrication

[ ] Standard

With lifetime lubrication. Lubrication nipple not included in delivery.

[GN] Lubrication nipple

- The lubrication adapters enable the guide to be permanently lubricated using semi- or fully automatic relubrication devices
- The adapters are suitable for oils and greases

Type of mounting

[M] Direct mounting

- If direct mounting is selected, the axis is supplied with threads in the bottom of the profile. This means that it can be installed without a profile mounting, thus saving space
- Additional centring holes allow the axis to be easily positioned in the machine

NEW

Type codes

001	Series	
ELFD	Guide axis	

002	Guide	
KF	Recirculating ball bearing guide	

003	Size	
60	60	
80	80	
120	120	

004	Stroke [mm]	
...	50 ... 8500	

005	Stroke reserve	
0H	None	
...H	0 ... 999 mm	

006	Slide design	
	Standard	
L	Slide, long	

007	Additional slide	
	None	
ZL	1 slide left	
ZR	1 slide right	

008	Lubrication	
	Standard	
GN	Lubrication nipple	

009	Type of mounting	
	Profile slots with clamping jaws	
M	Direct mounting	

Datasheet

General technical data							
Size		60		80		120	
Slide design			L		L		L
Design		Guide					
Guide		Recirculating ball bearing guide					
Mounting position		Any					
Working stroke	[mm]						
ELFD-...	[mm]	50 ... 8500		50 ... 8500		50 ... 8500	
ELFD-...-M	[mm]	50 ... 1400		50 ... 1400		50 ... 1400	
ELFD-...-L-M	[mm]	50 ... 1400		50 ... 1400		50 ... 1370	
Max. no-load resistance to shifting	[N]	6				12.5	
Max. speed	[m/s]	3					
Max. acceleration	[m/s²]	50					
Position sensing		For inductive sensors					

Operating and environmental conditions		
Ambient temperature[1]	[°C]	0 ... +60
Storage temperature	[°C]	–20 ... +60
Degree of protection		IP40
Duty cycle	[%]	100
Maintenance interval[2]		Lifetime lubrication

1) Note the operating range of the proximity switches
2) The specification applies under standard conditions. For special applications, please refer to the operating manual for the maintenance intervals.

Weight [g]						
Size	60		80		120	
Slide design		L		L		L
Basic weight with 0 mm stroke[1]	1261	1683	2345	3645	3993	6575
Additional weight per 10 mm stroke	49	49	76	76	112	112
Moving mass	419	643	911	1615	1369	2820

1) Incl. slide

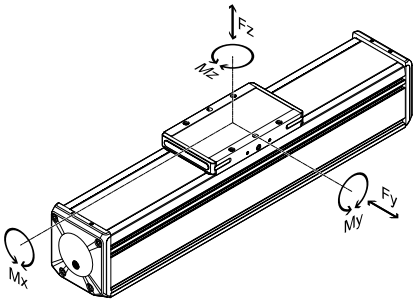
Materials

Axis	
End cap	Gravity die-cast aluminium, painted
Slide	Wrought aluminium alloy
Cover strip	High-alloy stainless steel
Guide	Steel
Profile	Anodised wrought aluminium alloy
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III
Suitable for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)

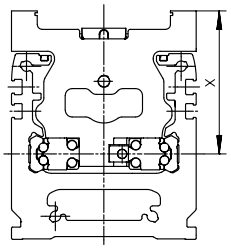
Datasheet

Load values

The indicated forces and torques refer to the centre of the guide.
The point of application of force is the point where the centre of the guide and the longitudinal centre of the slide intersect.
The appropriate size is selected using the following three steps:
1. Check the maximum permissible values (must not be exceeded)
2. Calculate the load comparison factor
3. Determine the service life



Distance from the slide surface to the centre of the guide



Distance from the slide surface to the centre of the guide

Size		60	80	120
Dimension x	[mm]	49	62	80

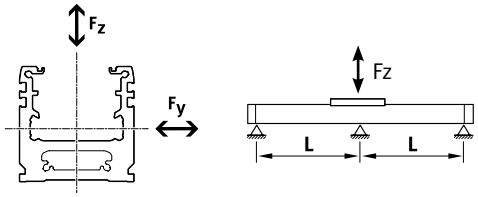
1. Check the max. permissible values

Max. permissible forces and torques for the overall axis (strength limits)

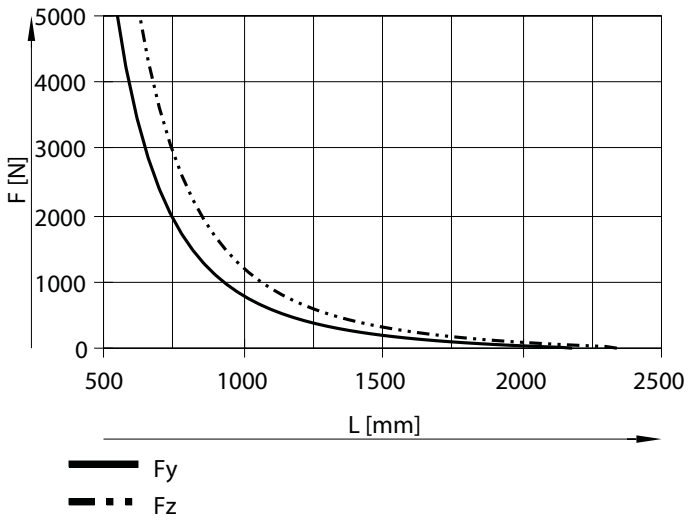
Size		60		80		120	
Slide design			L		L		L
Max. force Fy, overall axis	[N]	1945	3890	2800	5500	2957	5914
Max. force Fz, overall axis	[N]	4300	3200	3500	5600	6500	9000
Max. torque Mx, overall axis	[Nm]	68	119	136	190	251	520
Max. torque My, overall axis	[Nm]	40	128	95	356	80	819
Max. torque Mz, overall axis	[Nm]	40	133	79	383	105	527

Maximum permissible support spacing L as a function of force F

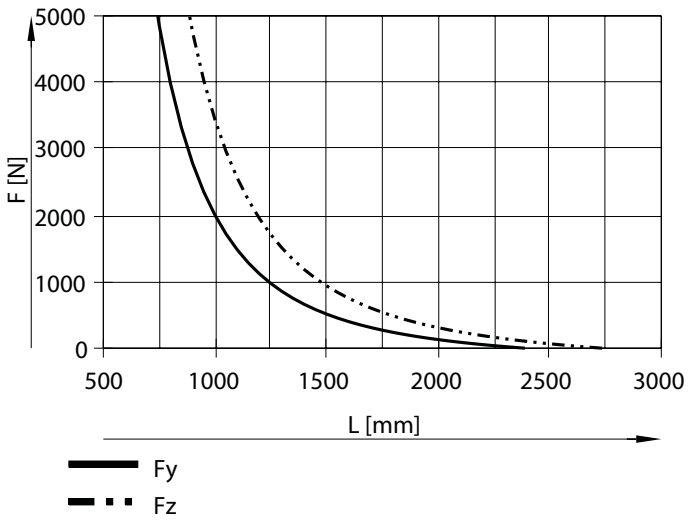
The axis may need to be supported in order to limit deflection in the case of long strokes.
The following graphs can be used to determine the maximum permissible support spacing L as a function of force F acting on the axis.
The deflection is f = 0.5 mm.



Size: 60

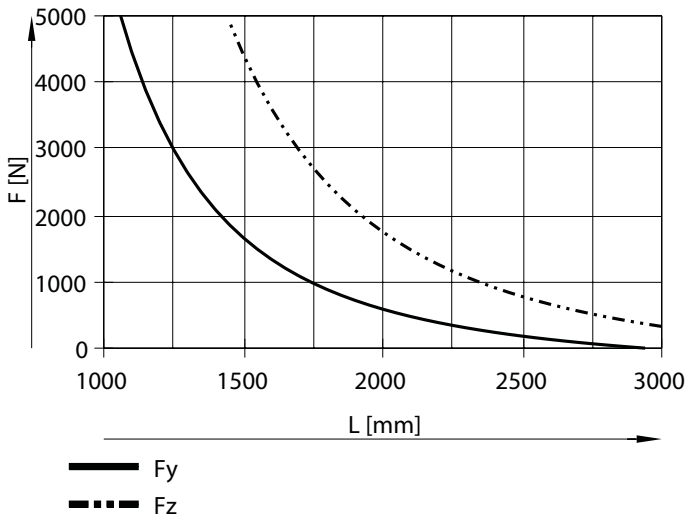


Size: 80



Datasheet

Size: 120



2. Calculate the load comparison factor

Note

For a guide system to have a service life of 5000 km, the load comparison factor must assume a value fv ≤ 1 based on the maximum permissible forces torques for a service life of 5000 km.
This formula can be used to calculate a guide value.
The engineering software "Electric Motion Sizing" is available for more precise calculations ➔ www.festo.com/x/electric-motion-sizing

If the axis is subjected to several of the indicated forces and torques at the same time, the following equation must be satisfied in addition to the indicated maximum loads:
Calculating the load comparison factor:

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

F_1/M_1 = values occurring in the application
F_2 = permissible values at 5000 km from the graph "support spacing over load"
M_2 = maximum permissible values (see table)

Max. permissible torques for the guide calculation with reference service life

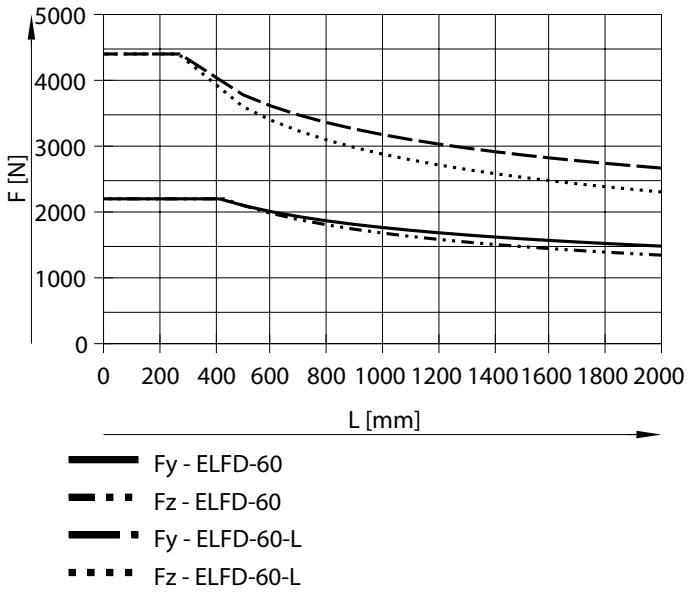
Size		60		80		120	
Slide design			L		L		L
Reference service life	[km]	5000					
Max. torque Mx	[Nm]	38	75	106	200	170	350
Max. torque My	[Nm]	15	150	42	390	50	620
Max. torque Mz	[Nm]	15	140	42	390	60	580

Datasheet

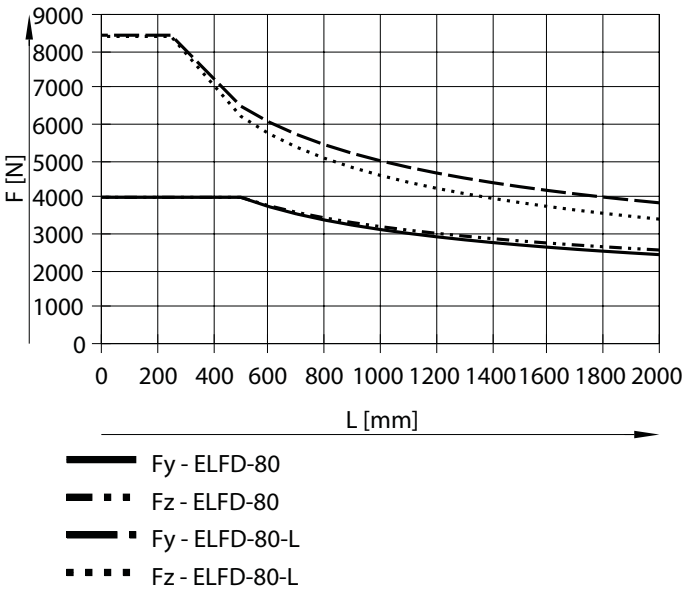
Max. permissible support spacing L as a function of the force F

Depending on how firmly the axis is supported, the maximum permissible forces vary due to the design of the guide system.
If the axis is used as a cantilever or in yoke operation, the values for a support spacing of 2000 mm can be selected.

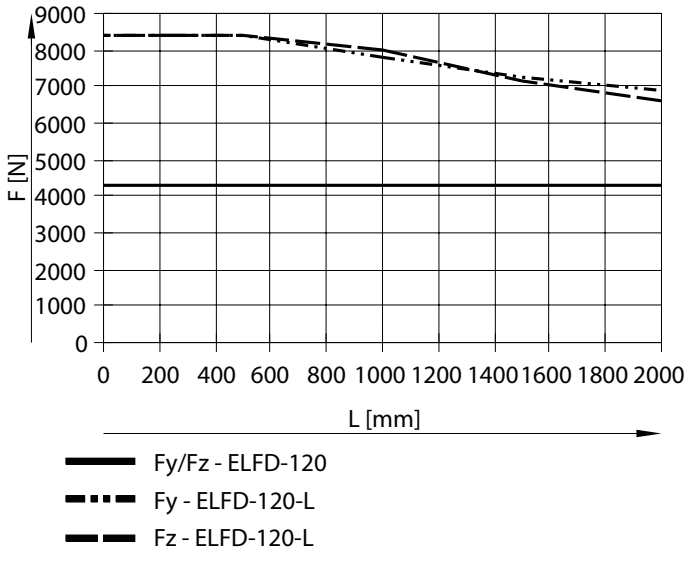
Size 60



Size 80



Size 120



Datasheet

3. Determine the service life

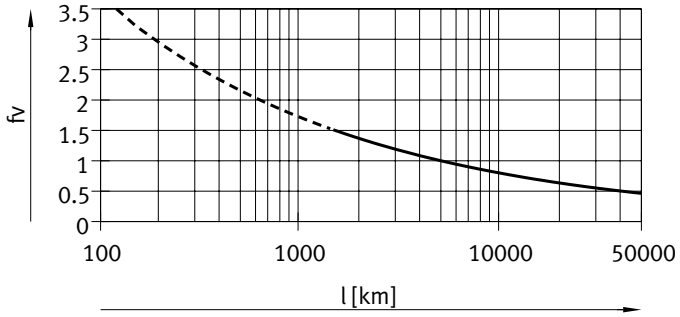
The service life of the guide depends on the load. To be able to provide an indication of the service life, the graph below plots the load comparison factor fv against the service life.

These values are only theoretical. You must consult your local contact at Festo for a load comparison factor fv greater than 1.3.

Load comparison factor f_v as a function of service life l

Example:
A user wants to move an x kg load. Using the formula (➔ page7) gives a value of 1.3 for the load comparison factor f_v. According to the graph, the guide has a service life of approx. 2500 km. Reducing the acceleration reduces the Mz and My values. A load comparison factor f_v of 1 now gives a service life of 5000 km.

Note:
If the application has been calculated using “Electric Motion Sizing”, the average guide comparison index represents the workload of the guide. (100% average guide comparison index corresponds to fv = 1). With this value, the service life can be estimated using the service life graph



Comparison of the characteristic load values for 100 km with dynamic forces and torques of recirculating ball bearing guides

The characteristic load values of the bearing guides are standardised to ISO and JIS using dynamic and static forces and torques. These forces and moments are based on an expected service life of the guide system of 100 km according to ISO or 50 km according to JIS.
As the characteristic load values are dependent on the service life, the maximum permissible forces and torques for a 5000 km service life cannot be compared with the dynamic forces and torques of bearing guides to ISO/JIS.

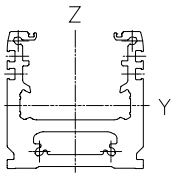
To make it easier to compare the guide capacity of guide axes ELFD with bearing guides, the table below lists the theoretically permissible forces and torques for a calculated service life of 100 km. This corresponds to the dynamic forces and torques to ISO.
These 100 km values have been calculated mathematically and are only to be used for comparing with dynamic forces and torques to ISO. The drives must not be loaded with these characteristic values as this could damage the axes.

Max. permissible forces and torques for a theoretical service life of 100 km (from a guide perspective only)

Size		60		80		120	
Slide design			L		L		L
$Fy_{max.}$	[N]	9208	18415	17576	35153	17576	35153
Fz_{max}	[N]	9208	18415	17576	35153	17576	35153
$Mx_{max.}$	[Nm]	157	314	422	844	730	1459
$My_{max.}$	[Nm]	60	500	162	1356	162	1920
$Mz_{max.}$	[Nm]	60	500	162	1356	162	1920

Datasheet

2nd moment of area



Size		60	80	120
Iy	[mm⁴]	0.485x10⁶	1.213x10⁶	3.55x10⁶
Iz	[mm⁴]	0.731x10⁶	2.052x10⁶	8.985x10⁶

Recommended deflection limits

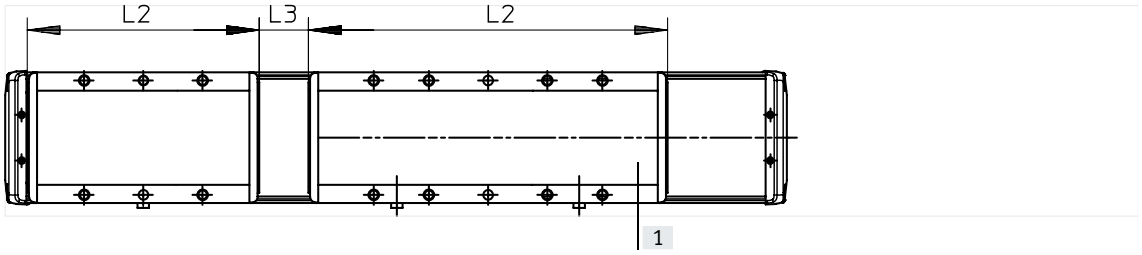
Compliance with the following critical limits for deflection is recommended to ensure the continuing functionality of the axes. Greater deformation can result in increased friction, greater wear and reduced service life.

Size	Dynamic deflection (load moves)	Stat. Deflection (stationary load)
60, 80, 120	0,05% of the length of the axis, max. 0.5 mm	0.1% of the length of the axis

Working stroke reduction

For axis ELGT with additional slide ZL/ZR

For a ball screw axis with additional slide, the working stroke is reduced by the length of the additional slide and the distance between both slides



L2 = Slide length
L2 = Additional slide length
L3 = Distance between the two slides
[1] Additional slide

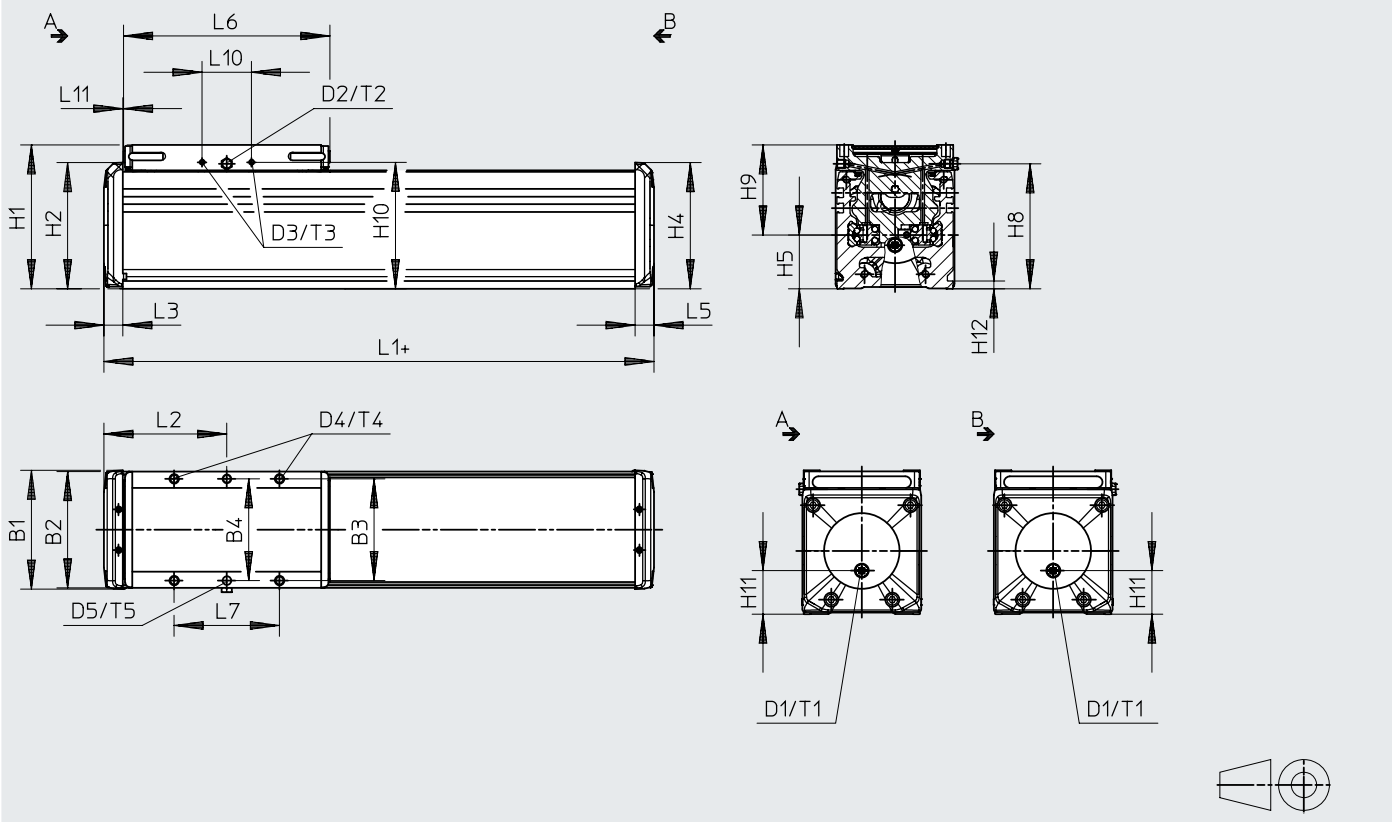
Example:
Type ELFD-KF-60-500-...-ZR
Working stroke without Additional slide = 500 mm
L3 = 50 mm
L2 = 118 mm
Working stroke with additional slide = 332 mm
(500 mm – 50 mm – 118 mm)

Dimensions – Additional slide

Size		60	80	120
Length L2	[mm]	118	142	162
Min. distance between the slides L3	[mm]	≥ 50	≥ 50	≥ 50

Datasheet

Dimensions – ELFD-... Download CAD data ➔ www.festo.com



+ = plus stroke length + 2x stroke reserve

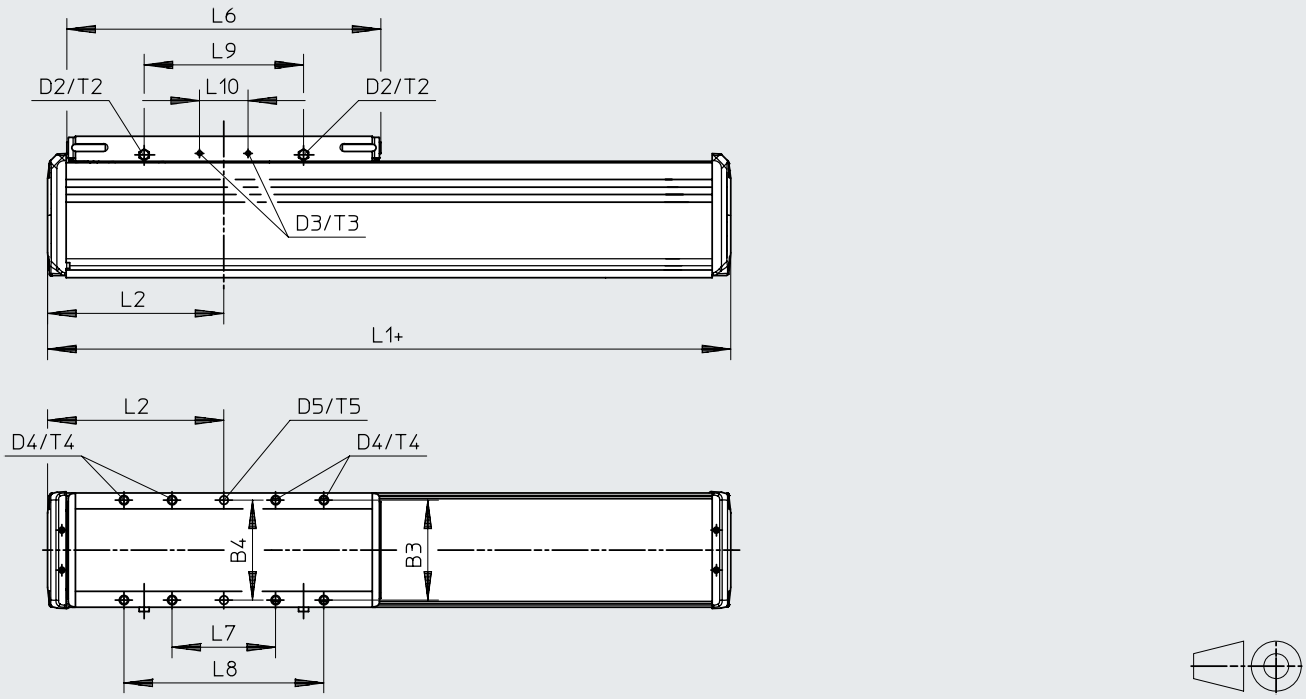
	B1	B2	B3	B4 ±0.03	D1	D2	D3	D4	D5 ø H7	H1	H2
ELFD-60	62	60	52.5	52.5	G1/8	M6	M3	M5	5	82	69.9
ELFD-80	82	80	70	70	G1/8	M6	M3	M6	6	99	86.9
ELFD-120	123	120	107	107	G1/8	M6	M3	M6	6	126.5	115

	H4	H5	H8	H9	H10	H11	H12	L1	L2 min.	L3	L5
ELFD-60	69.9	33	70	49	71	23.4	5.3	159.5	79.5	15.5	15.5
ELFD-80	86.9	37	86	62	87	30	5.3	178.5	89	13	13
ELFD-120	115	46.5	113.5	80	113.5	26.7	5.3	209.5	99	17.5	17.5

	L6	L7 ±0.1	L10	L11		T1	T2	T3	T4	T5
				min.	max.					
ELFD-60	118	50	34	1.5	5	6	6	7	16.5	7
ELFD-80	142	72.5	34	1.5	5	6	6	7	17.5	7
ELFD-120	162	92.5	34	0.5	–	6	7	7	17.5	8

Datasheet

Dimensions – ELFD-...-L (with long slide) Download CAD data ➔ www.festo.com



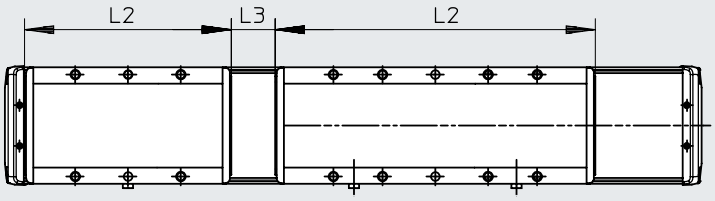
+ = plus stroke length + 2x stroke reserve

	B3	B4 ±0.03	D2	D3	D4	D5 ø H7	L1	L2 min.	L6
ELFD-60-L	52.5	52.5	M6	M3	M5	5	200.5	100	159
ELFD-80-L	70	70	M6	M3	M6	6	256.5	128	220
ELFD-120-L	107	107	M6	M3	M6	6	310.5	149.5	263

	L7 ±0.1	L8 ±0.1	L9	L10	T2	T3	T4	T5
ELFD-60-L	50	95	79	34	6	7	16.5	7
ELFD-80-L	72.5	140	124.6	34	6	7	17.5	7
ELFD-120-L	92.5	132.5	161	34	7	7	17.5	8

Datasheet

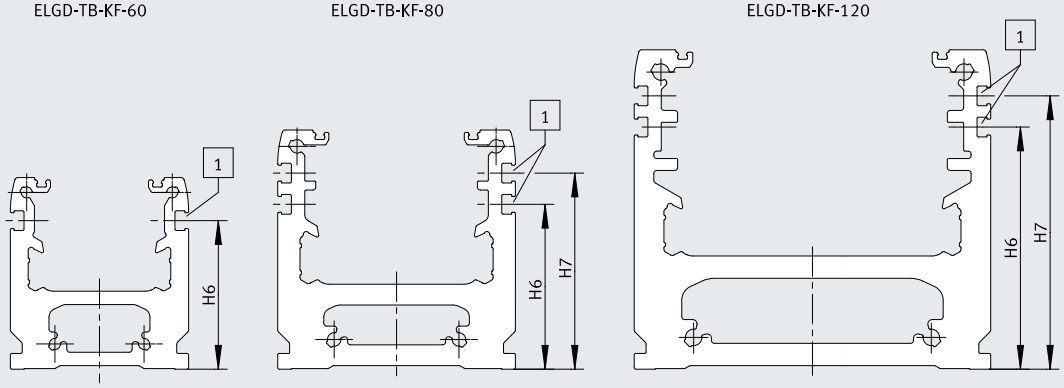
Dimensions – ELFD-...-ZL/-ZR (with additional slide) Download CAD data ➔ www.festo.com



	L2	L3
ELFD-60	118	50
ELFD-80	142	50
ELFD-120	162	50
ELFD-60-L	159	50
ELFD-80-L	220	50
ELFD-120L	263	50

Dimensions – ELFD-...- (profile) Download CAD data ➔ www.festo.com

ELGD-TB-KF-60 ELGD-TB-KF-80 ELGD-TB-KF-120

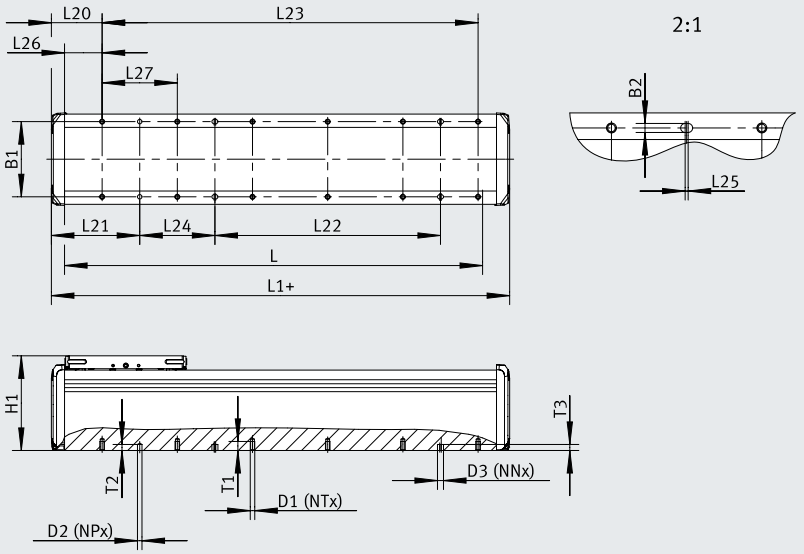


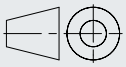
[1] Sensor slot for proximity switch

	H6	H7
ELFD-60	50	–
ELFD-80	55.5	66
ELFD-120	81.5	92

Datasheet

Dimensions - ELFD-...-M (for direct mounting) Download CAD data ➔ www.festo.com





+ = plus stroke length + 2x stroke reserve
L23 = (NT/2-1) x 100

	B1	B2 H7	D1	D2 ø H7	H1	L	L20	L21
ELFD-60-...-M	43	6	M5	6	81.4	128.5	65.5	115.5
ELFD-60-...-L-M						169.5		
ELFD-80-...-M	61		M6		98.4	152.5	63	113
ELFD-80-...-L-M						230.5		
ELFD-120-...-M	100		M6		125.9	174.5	67.5	117.5
ELFD-120-...-L-M						275.5		

	L25	L26	L27	T1	T2	T3
ELFD-60-...-M	2	50	100	10.5	8	8
ELFD-60-...-L-M						
ELFD-80-...-M				12.5		
ELFD-80-...-L-M						
ELFD-120-...-M				12.5		
ELFD-120-...-L-M						

Datasheet

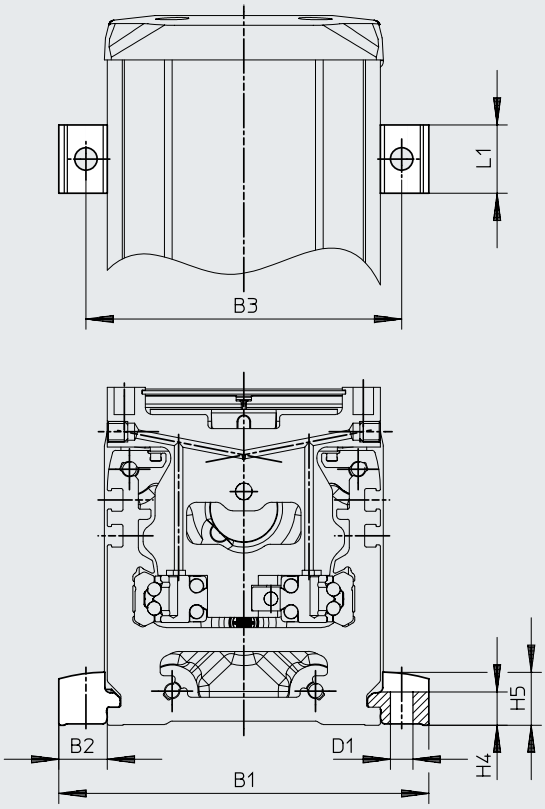
L	D1[1]		D2[2]	D3[3]		L24
	NT	L23	NP	NN	L22	
<270	4	100	2	–	–	100
≥270	6	200		2		
≥370	8	300		4	100	
≥470	10	400			200	
≥570	12	500			300	
≥670	14	600			400	
≥770	16	700			500	
≥870	18	800			600	
≥970	20	900			700	
≥1070	22	1000			800	
≥1170	24	1100			900	
≥1270	26	1200			1000	
≥1370	28	1300			1100	
≥1470	30	1400			1200	
≥1570 ≤1650	32	1500			1300	

1) Threaded hole
2) Pin hole
3) Slotted hole

Datasheet

Dimensions – Profile mounting EAHF-E24-60-P-S

Download CAD data → www.festo.com

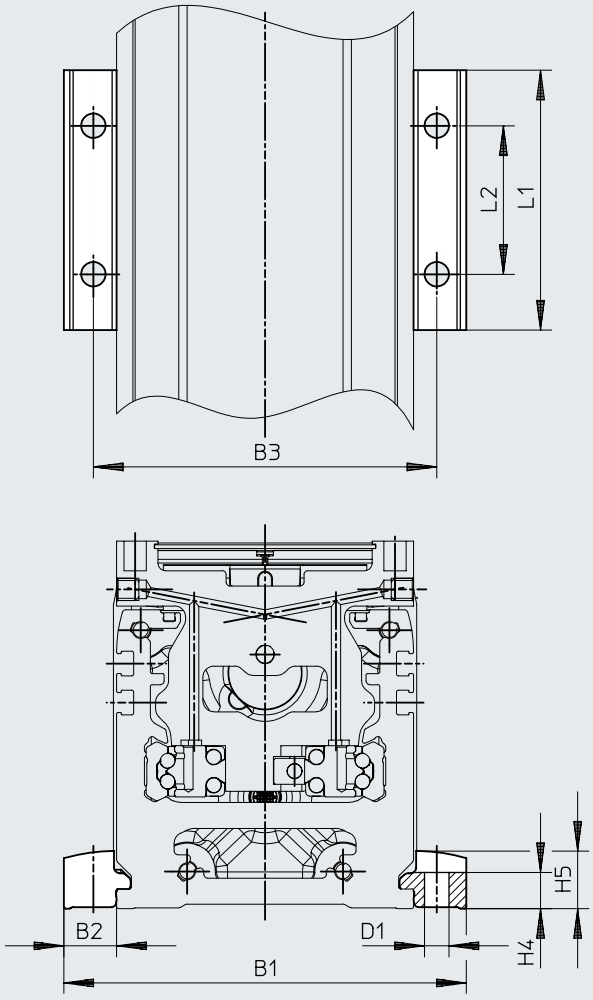


		B1	B2	B3	D1 ø H13	H4 0.1	H5	L1
EAHF-E24-60-P-S	ELFD-60	88.4	14.2	72.5	6.6	10.3	16.5	20
	ELFD-80	108.4	14.2	92.5	6.6	10.3	16.5	20
	ELFD-120	148.4	14.2	132.5	6.6	10.3	16.5	20

Datasheet

Dimensions – Profile mounting EAHF-E24-60-P

Download CAD data ➔ www.festo.com

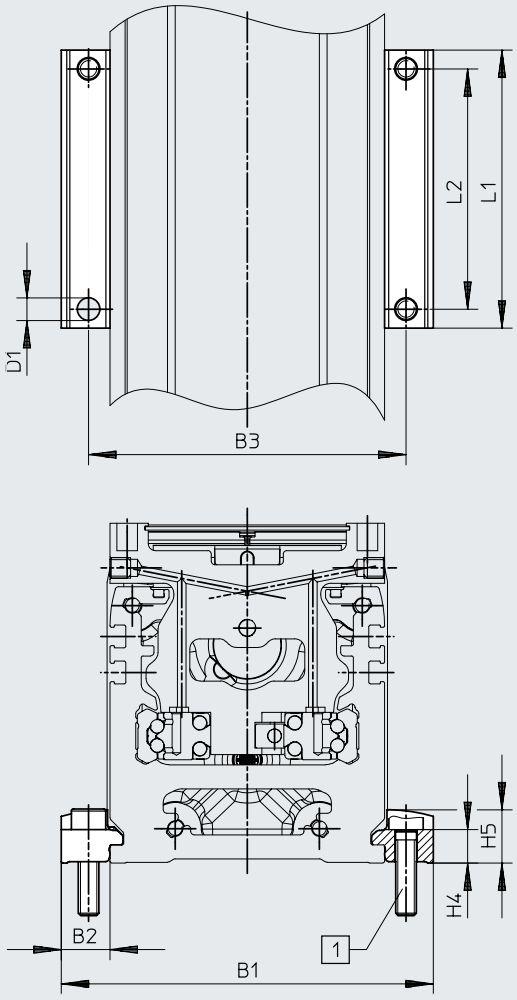


		B1	B2	B3	D1 ø H13	H4 0.1	H5	L1	L2
EAHF-E24-60-P	ELFD-60	88.4	14.2	72.5	6.6	10.3	16.5	70	40
	ELFD-80	108.4	14.2	92.5	6.6	10.3	16.5	70	40
	ELFD-120	148.4	14.2	132.5	6.6	10.3	16.5	70	40

Datasheet

Dimensions – Profile mounting EAHF-E24-60-P-D

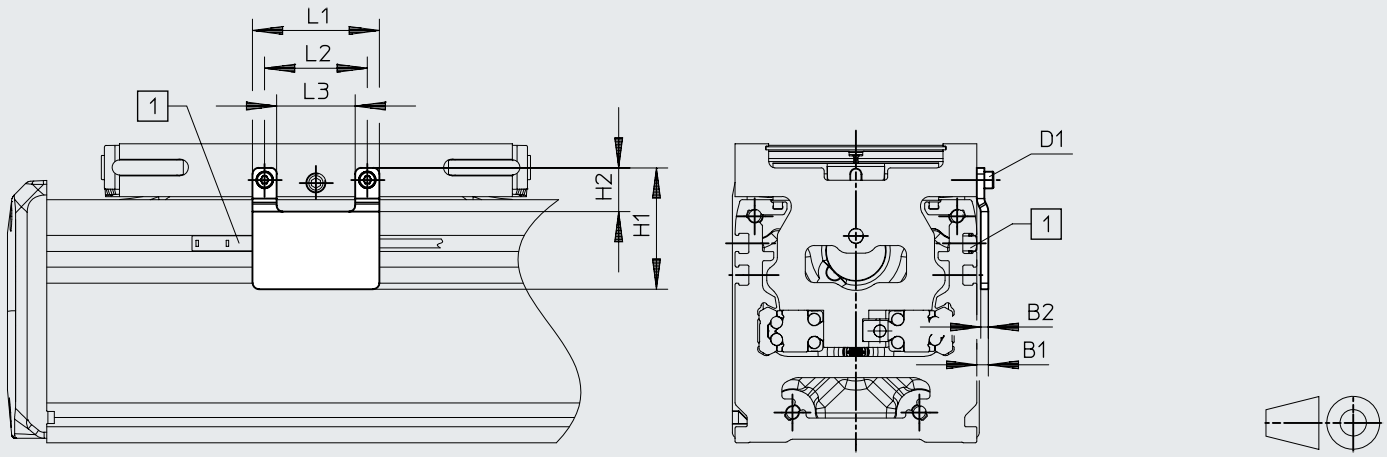
Download CAD data → www.festo.com



		B1	B2	B3	D1 ø H13	H4 0.1	H5	L1	L2
EAHF-E24-60-P-D5	ELFD-60	88.4	14.2	72.5	5.5	10.3	16.5	62	52.5
EAHF-E24-60-P-D4	ELFD-80	108.4	14.2	92.5	6.6	10.3	16.5	81	70
EAHF-E24-60-P-D7	ELFD-120	148.4	14.2	132.5	6.6	10.3	16.5	120	107

Datasheet

Dimensions – Switch lug EAPM-E24-60-SLS Download CAD data ➔ www.festo.com

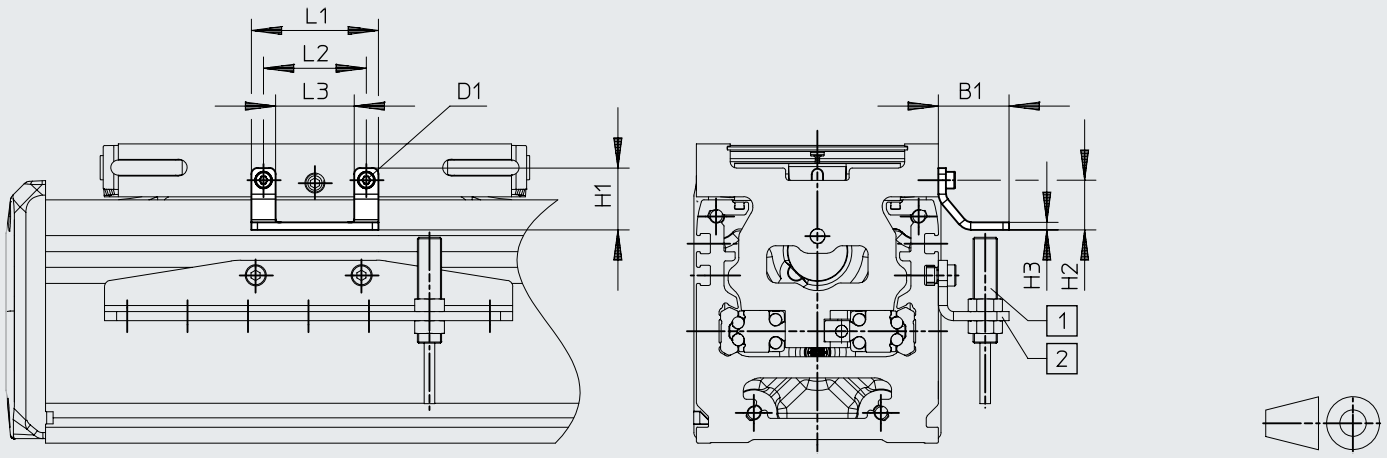


[1] Sensor slot for proximity switch SIES-8M

		B1	B2	D1	H1	H2	L1	L2	L3
EAPM-E24-60-SLS	ELFD-60 ELFD-80 ELFD-120	3.8	2.5	M3x8	40.2	14.5	42	34	26

Datasheet

Dimensions – Switch lug EAPM-E24-...-SLE Download CAD data ➔ www.festo.com

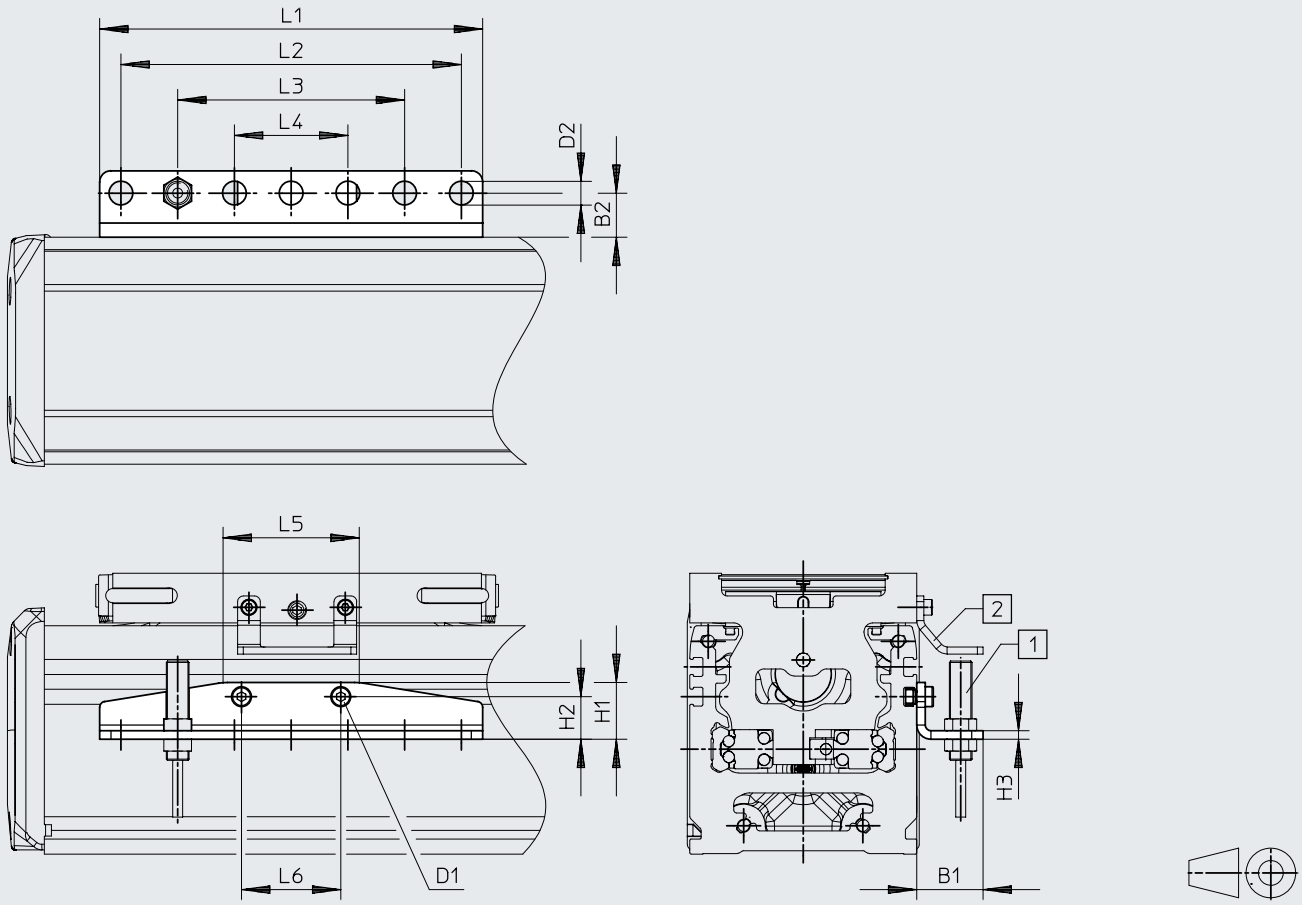


[1] Proximity switch SIEN-M8
[2] Sensor bracket EAPM-E24-60-SHE

		B1	D1	H1	H2	H3	L1	L2	L3
EAPM-E24-60-SLE	ELFD-60 ELFD-80 ELFD-120	23.4	M3	20.5	16.5	2.5	42	34	26

Datasheet

Dimensions – Sensor bracket EAPM-E24-60-SHE Download CAD data ➔ www.festo.com



[1] Proximity switch SIEN-8M
[2] Switch lug EAPM-E24-60-SLE

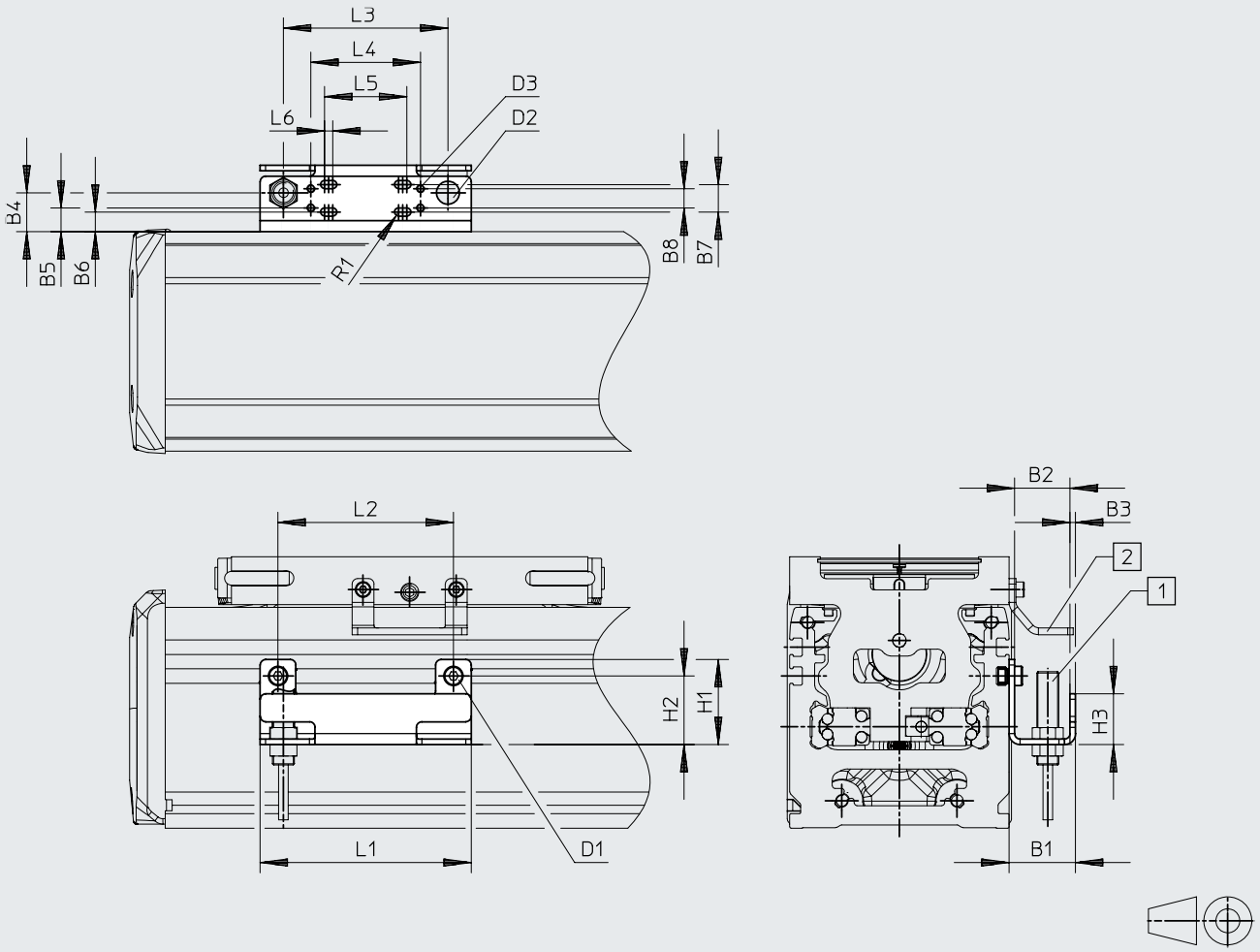
		B1 ±0.3	B2	D1	D2 ø H13	H1 ±0.3	H2	H3
EAPM-E24-60-SHE	ELFD-60 ELFD-80 ELFD-120	23.4	15.5	M4x6	8.4	20	15	3

		L1 ±0.2	L2	L3	L4	L5	L6
EAPM-E24-60-SHE	ELFD-60 ELFD-80 ELFD-120	135	120	80	40	48	35

Datasheet

Dimensions – Sensor bracket EAPM-E24-60-SHO

Download CAD data → www.festo.com



[1] Inductive sensor (Omron)
[2] Switch lug EAPM-E24-60-SLE

		B1	B2	B3	B4	B5	B6	B7
EAPM-E24-60-SHO	ELFD-60 ELFD-80 ELFD-120	24.2	20.2	2	14.1	8.6	7.1	10

		B8	D1	D2 ø	D3	H1	H2	H3
EAPM-E24-60-SHO	ELFD-60 ELFD-80 ELFD-120	7	M3	8.4	M3	31	25	18.5

		L1	L2	L3	L4	L5	L6	R1
EAPM-E24-60-SHO	ELFD-60 ELFD-80 ELFD-120	77	64	60	40	24	3	1.5

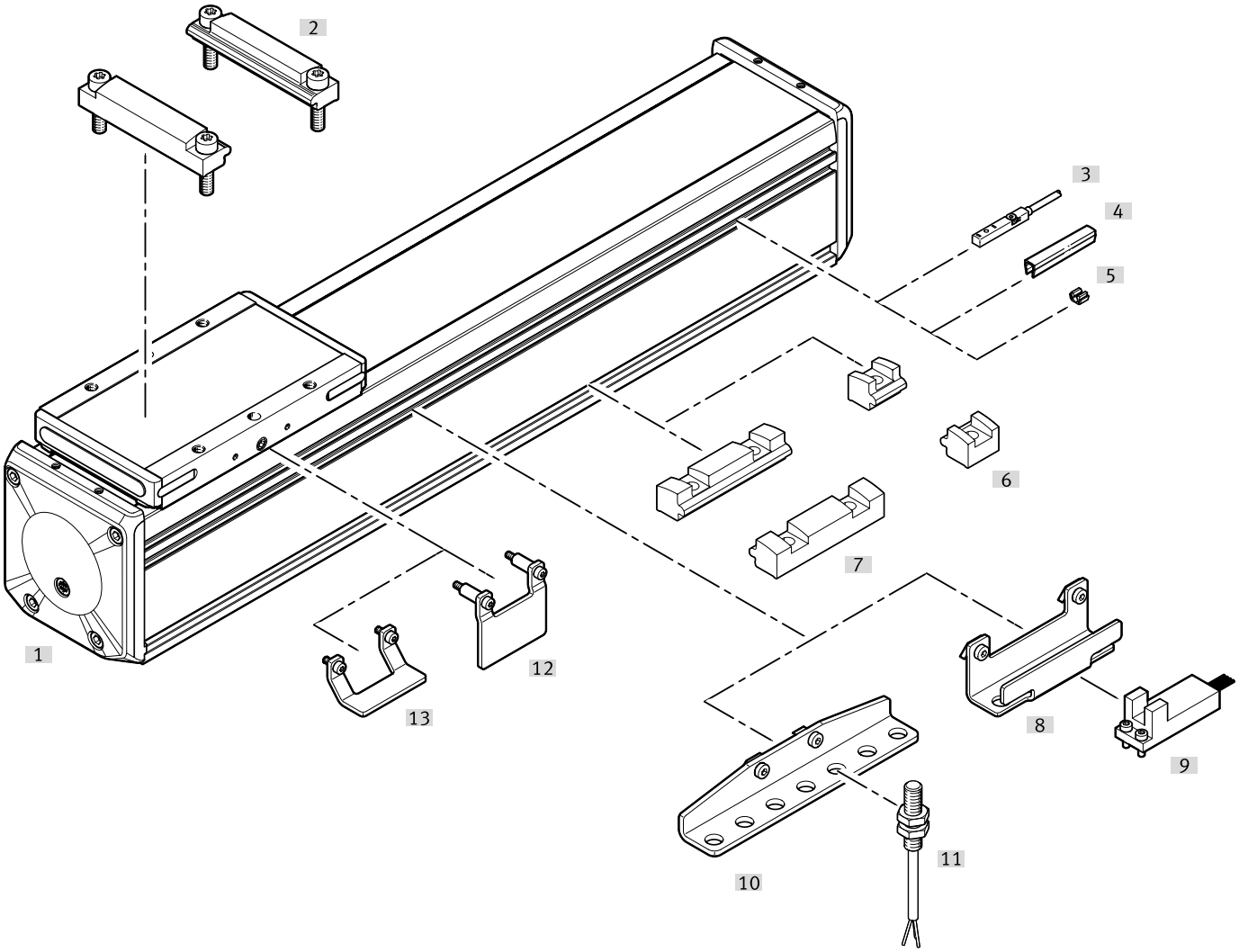
Datasheet

Ordering data – Modular product system

More information ➔ elfd

	Size	Stroke [mm]	Part no.	Type
	60	50 ... 8500	**8182487**	**ELFD-KF-60-...**
	80	50 ... 8500	**8182488**	**ELFD-KF-80-...**
	120	50 ... 8500	**8182489**	**ELFD-KF-120-...**

Peripherals overview

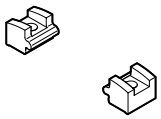


Accessories

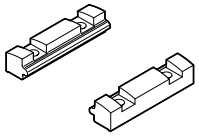
	Type	Description	→ Page/Internet
[1]	Guide axis ELFD	Guide axis	elfd
[2]	Profile mounting EAHF-E24-...-D...	For axis/axis mounting with adapter plate	25
[3]	Proximity switch, T-slot SIES-8M	Inductive proximity switch, for T-slot	26
[4]	Slot cover ABP-S	For protection against contamination	26
[5]	Clip SMBK	For mounting the proximity switch cable in the slot	26
[6]	Profile mounting EAHF-E24-...-S	For mounting the axis on the side of the profile	25
[7]	Profile mounting EAHF-E24-...	For mounting the axis on the side of the profile	25
[8]	Sensor bracket EAPM-E24-SHO	For mounting third-party sensors on the axis	26
[9]	Sensor OMRON	Third-party sensor OMRON, EE-SX674 series	–
[10]	Sensor bracket EAPM-E24-SHE	For mounting the inductive proximity switches SIEN-M8 (round design) on the axis	25
[11]	Proximity switch, M8 SIEN-M8	Inductive proximity switch, round design	26
[12]	Switch lug EAPM-E24-SLS	For sensing the slide position using inductive proximity switch SIES-8M or for optical sensors (Omron) with sensor bracket EAPM-E24-SHO	25
[13]	Switch lug EAPM-E24-SLE	For sensing the slide position using inductive proximity switch SIEN-M8 (round design) and sensor bracket EAPM-E24-SHE	25

Accessories

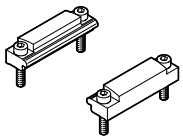
Profile mounting EAHF-E24-...-P-S

	Description	Material	Product weight	Part no.	Type
	For sizes 60, 80, 120	Anodised wrought aluminium alloy	18 g	**8197128**	**EAHF-E24-60-P-S**

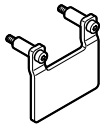
Profile mounting EAHF-E24-...-P

	Description	Material	Product weight	Part no.	Type
	For sizes 60, 80, 120	Anodised wrought aluminium alloy	71 g	**8197132**	**EAHF-E24-60-P**

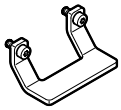
Profile mounting EAHF-E24-...-P-D...

	Description	Material	Product weight	Part no.	Type
	ELGD-60 on ELGD-60	Anodised wrought aluminium alloy	87 g	**8197131**	**EAHF-E24-60-P-D5**
	ELGD-60 to ELGD-80		119 g	**8197129**	**EAHF-E24-60-P-D4**
	ELGD-60 to ELGD-100-L		133 g	**8197130**	**EAHF-E24-60-P-D6**
	ELGD-80 to ELGD-100-L		133 g	**8197130**	**EAHF-E24-60-P-D6**
	ELGD-80 to ELGD-120-L		165 g	**8229954**	**EAHF-E24-60-P-D7**
	ELGD-100-L to ELGD-120-L		165 g	**8229954**	**EAHF-E24-60-P-D7**

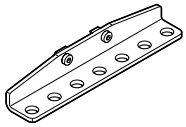
Switch lug EAPM-E24-...-SLS

	Description	Material	Product weight	Part no.	Type
	For sizes 60, 80, 120	Steel	32 g	**8197117**	**EAPM-E24-60-SLS**

Switch lug EAPM-E24-...-SLE

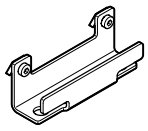
	Description	Material	Product weight	Part no.	Type
	For sizes 60, 80, 120	Steel	20 g	**8197116**	**EAPM-E24-60-SLE**

Sensor bracket EAPM-E24-...-SHE

	Description	Material	Product weight	Part no.	Type
	For sizes 60, 80, 120	Steel	103 g	**8197123**	**EAPM-E24-60-SHE**

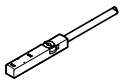
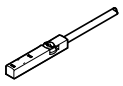
Accessories

Sensor bracket EAPM-E24-...-SHO

	Description	Material	Product weight	Part no.	Type
	For sizes 60, 80, 120	Steel	67 g	**8197121**	**EAPM-E24-60-SHO**

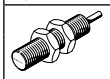
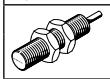
Proximity switch for T-slot, inductive

Datasheets → Internet: sies

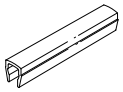
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type
N/O						
	Inserted in the slot from above, flush with the cylinder profile	PNP	Cable, 3-core	7.5	**551386**	**SIES-8M-PS-24V-K-7.5-OE**
			Plug M8x1, 3-pin	0.3	**551387**	**SIES-8M-PS-24V-K-0.3-M8D**
		NPN	Cable, 3-core	7.5	**551396**	**SIES-8M-NS-24V-K-7.5-OE**
			Plug M8x1, 3-pin	0.3	**551397**	**SIES-8M-NS-24V-K-0.3-M8D**
N/C						
	Inserted in the slot from above, flush with the cylinder profile	PNP	Cable, 3-core	7.5	**551391**	**SIES-8M-PO-24V-K-7.5-OE**
			Plug M8x1, 3-pin	0.3	**551392**	**SIES-8M-PO-24V-K-0.3-M8D**
		NPN	Cable, 3-core	7.5	**551401**	**SIES-8M-NO-24V-K-7.5-OE**
			Plug M8x1, 3-pin	0.3	**551402**	**SIES-8M-NO-24V-K-0.3-M8D**

Proximity switch M8 (round design), inductive

Datasheets → Internet: sien

	Switching output	Electrical connection	Cable length [m]	Part no.	Type
N/O					
	PNP	Cable, 3-core	2.5	**150386**	**SIEN-M8B-PS-K-L**
	NPN		2.5	**150384**	**SIEN-M8B-NS-K-L**
	PNP	Plug M8x1, 3-pin	–	**150387**	**SIEN-M8B-PS-S-L**
	NPN		–	**150385**	**SIEN-M8B-NS-S-L**
N/C					
	PNP	Cable, 3-core	2.5	**150390**	**SIEN-M8B-PO-K-L**
	NPN		2.5	**150388**	**SIEN-M8B-NO-K-L**
	PNP	Plug M8x1, 3-pin	–	**150391**	**SIEN-M8B-PO-S-L**
	NPN		–	**150389**	**SIEN-M8B-NO-S-L**

Slot cover ABP-5-S1

	Description	Material	Pack size	Product weight	Part no.	Type
	For sizes 60, 80, 120	ABS	2 each 0.5m	13 g	**563360**	**ABP-5-S1**

Clip SMBK

	Description	Pack size	Product weight	Part no.	Type
	For sizes 60, 80, 120	10	1g	**534254**	**SMBK-8**