Electric cylinder units EPCE





Key features

At a glance

Plug and work with the Simplified Motion Series



The simplicity of pneumatics is now combined for the first time with the advantages of electric automation thanks to the Simplified Motion Series. These integrated drives are the perfect solution for all users who are looking for an electric alternative for very simple movement and positioning tasks between two mechanical end positions, but don't want the commissioning process for traditional electric drive systems that can often be quite complex.

Integrated

The integrated electronics in the drive are at the core of the Simplified Motion Series.

Simple

For commissioning, simply set all relevant parameters directly on the drive:

- · Speed and force
- Reference end position and cushioning
- Manual operation

OIO-Link

There is no need for any software since operation is simply based on the "plug and work" principle. Digital I/O (DIO) and IO-Link are always automatically included – a product with two types of control as standard.

Standardised

Electrical connection via M12 plug design

- Power (4-pin): power supply for the motor
- Logic (8-pin): control signal, sensor signal and power for the integrated electronics

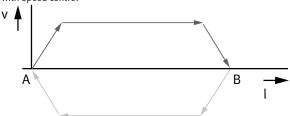
Connected

Use of extended functions possible via IO-Link.

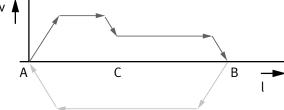
- Motion parameters can be set remotely
- Copy and backup function for transferring parameters
- Read function for extended process parameters

The functions of the Simplified Motion Series

Basic profile for movement between two end positions: with speed control



Extended motion profile for simplified press-fitting and clamping functions: with speed and force control



- These drives are designed for simple movements between two end positions.
- External, inductive sensing of the piston rod is required in order to implement any intermediate positions.

The products in the Simplified Motion Series

Spindle axis unit ELGS-BS-KF



Toothed belt axis unit ELGE



Toothed belt axis unit ELGS-TB-KF



Rotary drive unit ERMS



Mini slide unit EGSS-BS-KF



Electric cylinder unit



Electric cylinder unit

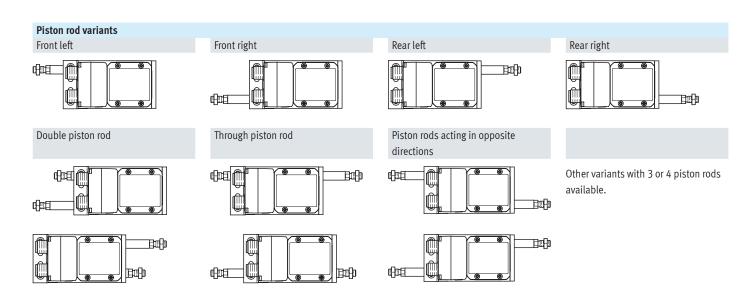


Key features

At a glance



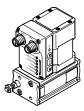
- Without external servo drive: all the necessary electronic components are combined in the integrated drive
- Two control options integrated as standard: digital I/O and IO-Link
- Complete solution for simple movements between mechanical end positions
- Simplified commissioning: all parameters can be manually set directly on the drive
- No special expertise required for commissioning
- Minimal zero stroke and extremely compact design make this product the perfect choice for applications where space is at a premium
- Innovative interpretation of toothed belt technology for maximum dynamic response and minimal positioning times
- Ideal for fast movement in sorting, distribution and testing applications

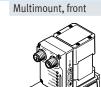


Peripherals overview

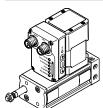
Cover variants

Standard

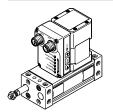








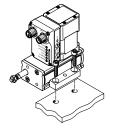
Multimount, both ends

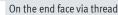


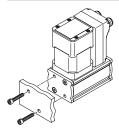
For the variants with multimount cover (EPCE-TB-...-MF / -MB / -MD), lateral female threads with centring diameter and through-holes are also available.

Mounting options

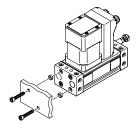
With standard cover variant
At the side via profile mounting



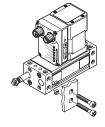


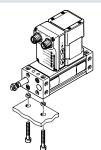


With multimount cover
On the end face via thread

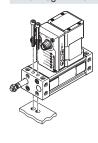


At the side/underneath via thread



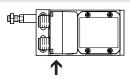


Via through-holes

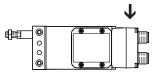


Motor mounting variants

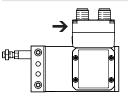
Standard



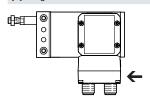








[R] Right

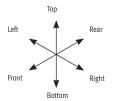


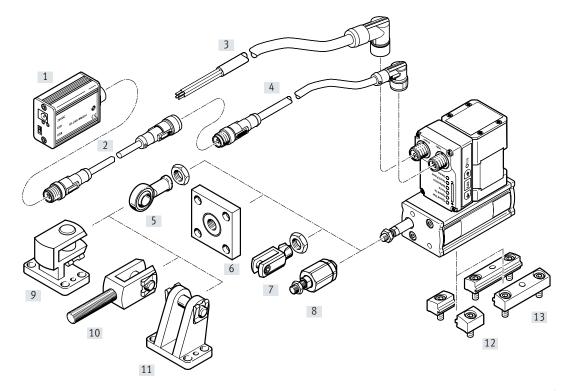
Control elements



[1] Pushbuttons for parameterisation and control

Peripherals overview





Acces	Accessories					
	Type/order code	Description	→ Page/Internet			
[1]	IO-Link master USB CDSU-1	For straightforward use of the electric cylinder unit with IO-Link	23			
[2]	Adapter NEFC-M12G8	Connection between the motor and the IO-Link master Only for use with IO-Link Port Class A Master (recommended)	23			
[3]	Supply cable NEBL-T12	For connecting load and logic supply	23			
[4]	Connecting cable NEBC-M12	For connection to a controller	23			
[5]	Rod eye SGS	With spherical bearing	22			
[6]	Coupling piece KSG	For compensating radial deviations	22			
[7]	Rod clevis SG	Permits a swivelling movement of the cylinder in one plane	22			
[8]	Self-aligning rod coupler FK	For compensating radial and angular deviations	22			
[9]	Right angle clevis foot LQG	For rod eye SGS	22			
[10]	Rod clevis SGA	For swivel mounting of the cylinder	22			
[11]	Clevis foot LBG	With parallel motor mounting, for spherical bearing	22			
[12]	Profile mounting EAHF-L2-P-S	For mounting the axis on the side of the profile	20			
[13]	Profile mounting EAHF-L2-P	 For mounting the axis on the side of the profile The profile mounting can be attached to the mounting surface using the drilled hole in the centre 	21			
-	Centring sleeve ZBH	Centring sleeves can be used to centre the electric cylinder unit in combination with the multimount cover	22			

Type codes

001	Series	
EPCE	Toothed belt	
002	Drive system	
TB	Toothed belt	
יוו	loothed belt	
003	Size	
45	45	
60	60	
004	Stroke	
5	5	
10	10	
15	15	_
20	20	
25	25	
30	30	
35	35	
40	40	
45	45	
50	50	
60	60	
80	80	
005	Piston rod, front left	
	None	
FL	Piston rod with male thread	
006	Terre and a set of	
006	Piston rod, rear left	
DI	None	
BL	Piston rod with male thread	
007	Piston rod, front right	
	None	
FR	Piston rod with male thread	
008	Piston rod, rear right	
	None	
	1	

009	Cover variant	
	Standard	
MB	Multimount, rear	
MD	Multimount, both ends	
MF	Multimount, front	
010	Motor type	
ST	Stepper motor ST	
011	Controller	
М	Integrated	
012	Control panel	
H1	Integrated	
013	Bus protocol/activation	
PLK	PNP and IO-Link®	
NLK	NPN and IO-Link®	
014	End-position sensing	
AA	With integrated end-position sensing	
015	Cable outlet direction	
	Standard	
L	Left	
R	Right	
В	Rear	
016	Electrical accessories	
	None	
L1	Adapter for operation as IO-Link® device	
017	Operating instructions	
	With operating instructions	
DN	Without operating instructions	

BR

Piston rod with male thread



- **Ø** - Size 45, 60 - **1** - Stroke length 5 ... 80 mm



General technical data			
Size		45	60
Design		Electric cylinder with toothed belt and integrated dr	ive
Motor type		Stepper motor	
Protection against rotation/guide		With plain-bearing guide	
Piston rod end		Male thread	
Piston rod thread		M6	M10x1.25
Mounting position		Any	
Working stroke	[mm]	5, 10, 15, 20, 25, 30, 35, 40, 45, 50	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 80
Stroke reserve	[mm]	0	
Additional functions		Integrated end-position sensing	
		User interface	
Display		LED	
Homing		Positive fixed stop block	
		Negative fixed stop block	
Type of mounting		Via female thread	
		Via through-hole (only with multimount cover)	
		With accessories	
		Via centring sleeve (only with multimount cover)	
Max. cable length			
Inputs/outputs	[m]	15	
IO-Link operation	[m]	20	
Reference value, service life	[km]	50 500	50 800
	[cycles]	5 million	5 million

Mechanical data	Mechanical data				
Size		45	60		
Max. payload					
Horizontal	[kg]	5	10		
Vertical	[kg]	2.5	5		
Max. feed force F _x	[N]	85	150		
Max. speed	[m/s]	0.44	0.6		
Speed press	[m/s]	0.02			
Max. acceleration	[m/s ²]	9	9		
Repetition accuracy	[mm]	±0.05	±0.05		
Max. impact energy	[J]	0.003	0.016		
Position sensing		Via IO-Link			

Toothed belt				
Size		45	60	
Pitch	[mm]	2		
Elongation ¹⁾	[%]	0.310	0.375	
Effective diameter	[mm]	10.18		
Feed constant	[mm/rev]	32		

1) At max. feed force

Electrical data					
Size		45	60		
Motor					
Nominal voltage DC	[V]	24 (±15%)			
Nominal current	[A]	3	5.3		
Max. current consumption (load)	[A]	3	5.3		
Max. current consumption (logic)	[mA]	300			
Encoder					
Rotor position encoder		Absolute encoder, single turn			
Rotor position encoder measuring principle		Magnetic			
Rotor position encoder resolution	[bit]	16			

Interfaces				
Size		45	60	
Parameterisation interface				
IO-Link		Yes		
User interface		Yes		
Digital inputs				
Quantity		2		
Switching logic		PNP		
		NPN		
Characteristics		Not galvanically isolated		
		Configurable		
Specification		Based on IEC 61131-2, type 1		
Operating range	[V]	24		
Digital outputs				
Quantity		2		
Switching logic		PNP		
		NPN		
Rotor position encoder		Absolute encoder, single turn		
Characteristics		Not galvanically isolated		
		Configurable		
Max. current	[mA]	100		

Technical data – IO-Link				
Size		45	60	
SIO mode support		Yes		
Communication mode		COM3 (230.4 kBd)		
Connection technology		Plug		
Port class		A		
Number of ports		1		
Process data width OUT	[byte]	2		
Process data content OUT	[bit]	1 (Move in)		
	[bit]	1 (Move out)		
	[bit]	1 (Quit Error)		
Process data width IN	[byte]	2		
Process data content IN	[bit]	1 (State Device)		
	[bit]	1 (State Move)		
	[bit]	1 (State in)		
	[bit]	1 (State out)		
Service data content IN	[bit]	32 (Force)		
	[bit]	32 (Position)		
	[bit]	32 (Speed)		
Minimum cycle time	[ms]	1		
Data memory required	[kilobyte]	0.5	·	
Protocol version		Device V 1.1		

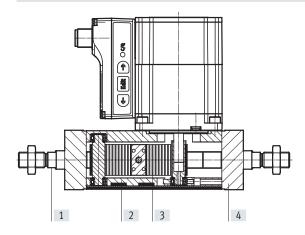
Operating and environmental condition	perating and environmental conditions				
Size		45	60		
Insulation class		В			
Ambient temperature	[°C]	0 +50			
Storage temperature	[°C]	-20 +60			
Note on ambient temperature		Above an ambient temperature of 3	0°C, the power must be reduced by 2% per K		
Temperature monitoring		Switch-off for excessive temperatur			
		Integrated precise CMOS temperatu	Integrated precise CMOS temperature sensor with analogue output		
Relative humidity	[%]	0 90 (non-condensing)	0 90 (non-condensing)		
Protection class		III			
Degree of protection		IP40			
Duty cycle	[%]	100			
CE marking		To EU EMC Directive			
		To EU RoHS Directive			
KC mark	KC mark		KCEMC		
Certification		RCM mark			
Vibration resistance		Transport application test with severity class 1 in accordance with FN 942017-4 and EN 60068-2-6			
Shock resistance	Shock resistance		Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27		
Maintenance interval		Lifetime lubrication			

Weight				
Size		45	60	
Basic weight with 0 mm stroke	[g]	775/807 ¹⁾	1350/1397 ¹⁾	
Additional weight per 10 mm stroke	[g]	29	45	
Moving mass at 0 mm stroke	[g]	83/871)	188/197 ¹⁾	
Additional moving mass per 10 mm stroke	[g]	4.55	9.75	

¹⁾ With cover variant EPCE-...-MF

Materials

Sectional view



Axis		
[1]	Piston rod	High-alloy stainless steel
[2]	Housing	Anodised wrought aluminium alloy
[3]	Toothed belt	Polychloroprene with glass fibre
[4]	Cover	Anodised wrought aluminium alloy
	Note on materials	RoHS-compliant
		Contains paint-wetting impairment substances

Pin allocation

Power supply

Plug

M12x1, 4-pin, T-coded to EN 61076-2-111



Pin	Function				
1	Power voltage supply (24 V DC)				
2	Reference potential, power voltage supply (GND)				
3 Reserved, do not connect					
4	Functional earth (FE)				

Logic interface

Plug

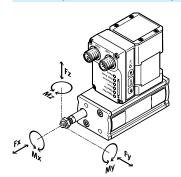
M12x1, 8-pin, A-coded to EN 61076-2-101



When use	When used with digital I/O					
Pin	Function					
1	Logic voltage supply (24 V DC)					
2	Digital output 1 (State "In")					
3	Digital output 2 (State "Out")					
4	Reference potential, logic voltage supply (GND)					
5	Digital input 1 (Move "In")					
6	Digital input 2 (Move "Out")					
7	Reserved, do not connect					
8	Reference potential, logic voltage supply (GND)					

When used wit	When used with IO-Link					
Pin Function						
1	L+ IO-Link power supply (24 V DC)					
2	Reserved, do not connect					
3	C/Q communication with the IO-Link master					
4	L – Reference potential, IO-Link power supply (0 V)					
5	Reserved, do not connect					
6 Reserved, do not connect						
7 Reserved, do not connect						
8	L – Reference potential, IO-Link power supply (0 V)					

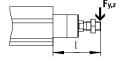
Maximum permissible loads on the piston rod



If there are two or more forces and torques simultaneously acting on the piston rod, the following equations must be satisfied:

 $F_1/M_1 = dynamic value$

 $F_2/M_2 = maximum value$

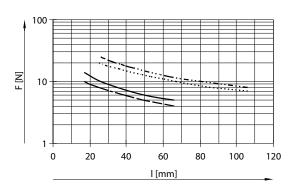


$$f_v = \frac{\left|F_{y1}\right|}{F_{y2}} + \frac{\left|F_{z1}\right|}{F_{z2}} + \frac{\left|M_{y1}\right|}{M_{y2}} + \frac{\left|M_{z1}\right|}{M_{z2}} \leq 1$$

 $|Fx| \le Fx_{max}$

 $|Mx| \leq Mx_{max}$

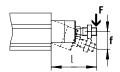
Maximum permissible lateral forces Fy_{max} and Fz_{max} on the piston rod as a function of projection l

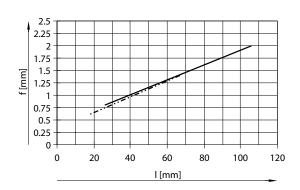


EPCE-TB-45
EPCE-TB-45-M...
EPCE-TB-60
EPCE-TB-60-M...

Size		45	60
Fx _{max} (static)	[N]	85	150
Mx _{max} (dynamic)	[Nm]	0	
My _{max} , Mz _{max}	[Nm]	0.9	2.9

Piston rod displacement f as a function of projection l





EPCE-TB-45
------ EPCE-TB-60

Sizing example

Application data:

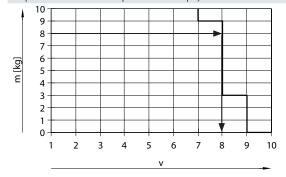
- Payload: 8 kg
- Mounting position: horizontal
- Stroke: 60 mm
- Max. permissible positioning time: 0.5 s (one direction)

Step 1: Selection of the smallest possible size from the table → page 12

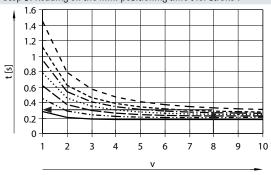
Mechanical data			
Size		45	60
Max. payload			
Horizontal	[kg]	5	10
Vertical	[kg]	2.5	5

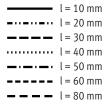
→ Smallest possible size: EPCE-TB-60

Step 2: Selection of max. speed level v for payload m



Step 3: Reading off the min. positioning time t for stroke $\ensuremath{\mathsf{l}}$





→ Max. speed level for payload: level 8 → Min. positioning time for 60 mm at level 8: 0.3 s

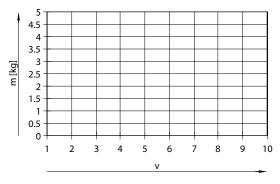
Result

The application can be implemented using EPCE-TB-60-60. A minimum positioning time (one direction) of 0.3 s is achieved. Longer positioning times can be selected at any time using a lower speed level.

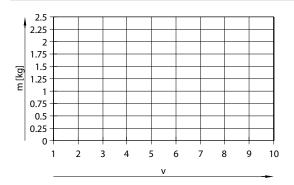
Mass m as a function of speed level v

Horizontal

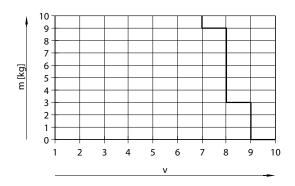




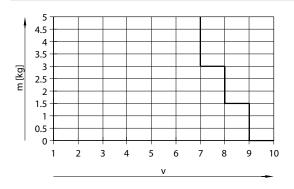
Vertical EPCE-45



EPCE-60



EPCE-60

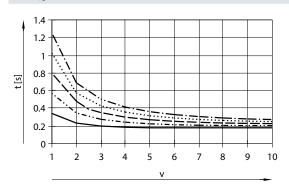


- 🖣 - Note

The lines represent the maximum values. The lower speed levels can be set at any time.

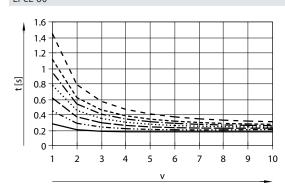
Positioning time t as a function of speed level v and stroke l

EPCE-45



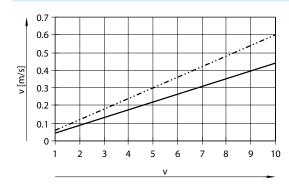
l = 10 mm
l = 20 mm
l = 30 mm
l = 40mm
l = 50 mm

EPCE-60



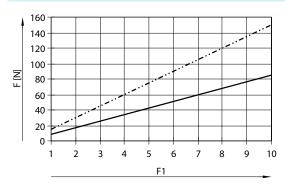
l = 10 mm
l = 20 mm
l = 30 mm
l = 40 mm
l = 50 mm
l = 60 mm
l = 80 mm

Speed v as a function of speed level v

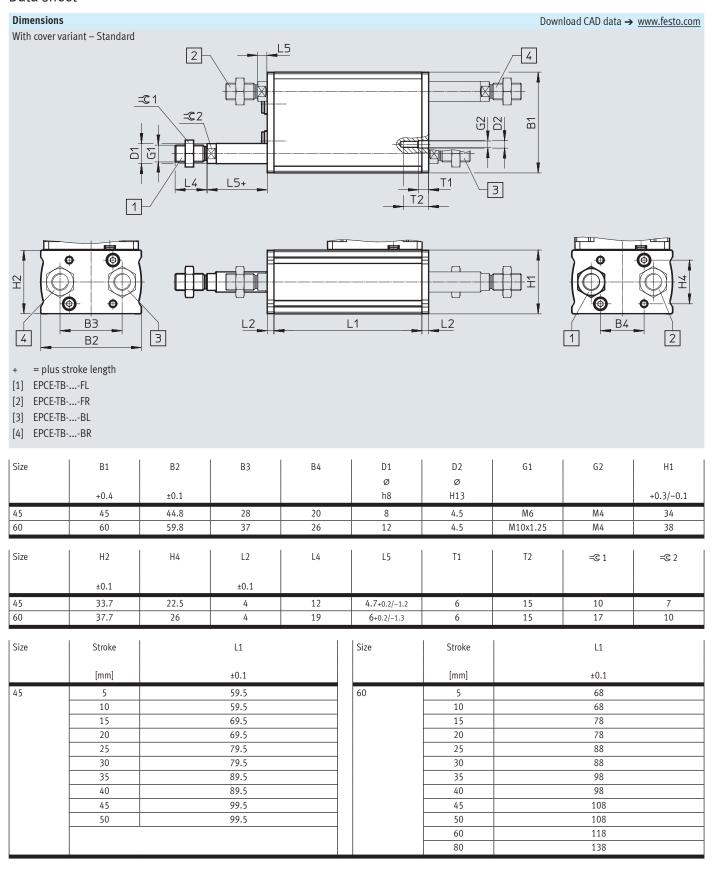


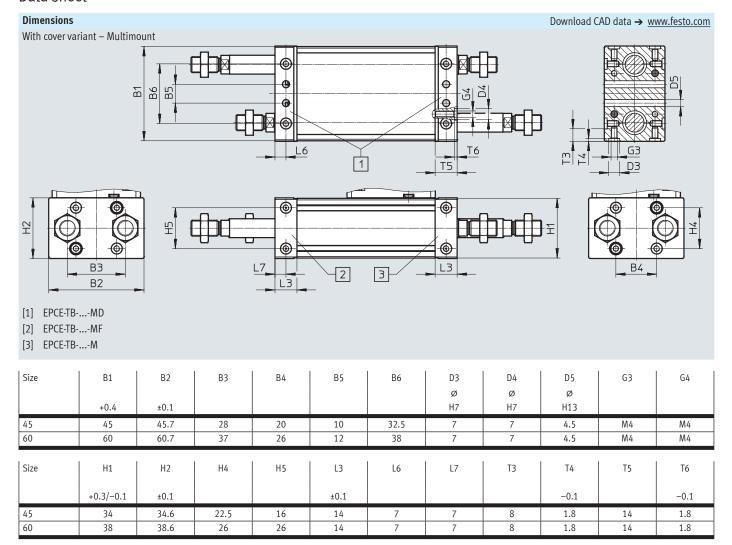
EPCE-TB-45
EPCE-TB-60

Feed force F as a function of force level F1



EPCE-TB-45
EPCE-TB-60

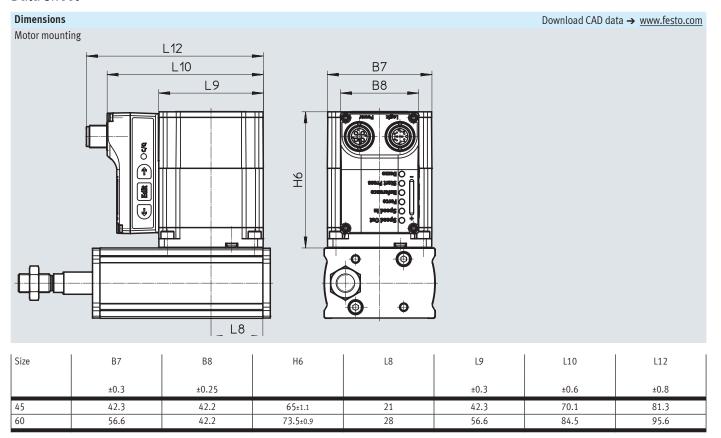




- 🏺 - Note

For size 60, the through-holes cannot be used with the following combinations:

- Through-hole at the front: not in combination with stroke 5 or 10 mm and motor mounting variant "Standard" (at front)
- Through-hole at the rear: not in combination with motor mounting variant "Rear"



Ordering data							
	Size	Stroke	Part no.	Туре			
	45	Cover variant: Standard					
		10	8101539	EPCE-TB-45-10-FL-ST-M-H1-PLK-AA			
		20	8101540	EPCE-TB-45-20-FL-ST-M-H1-PLK-AA			
		30	8101541	EPCE-TB-45-30-FL-ST-M-H1-PLK-AA			
		50	8101542	EPCE-TB-45-50-FL-ST-M-H1-PLK-AA			
		Cover variant: Multimount, front					
		20	8101544	EPCE-TB-45-20-FL-MF-ST-M-H1-PLK-AA			
		30	8101545	EPCE-TB-45-30-FL-MF-ST-M-H1-PLK-AA			
		50	8101546	EPCE-TB-45-50-FL-MF-ST-M-H1-PLK-AA			
_	60	Cover variant: Standard					
		10	8102163	EPCE-TB-60-10-FL-ST-M-H1-PLK-AA			
		20	8102162	EPCE-TB-60-20-FL-ST-M-H1-PLK-AA			
		30	8102164	EPCE-TB-60-30-FL-ST-M-H1-PLK-AA			
		50	8102170	EPCE-TB-60-50-FL-ST-M-H1-PLK-AA			
		80	8102167	EPCE-TB-60-80-FL-ST-M-H1-PLK-AA			
		Cover variant: Multimount, front					
		10	8102166	EPCE-TB-60-10-FL-MF-ST-M-H1-PLK-AA			
		20	8102169	EPCE-TB-60-20-FL-MF-ST-M-H1-PLK-AA			
		30	8102168	EPCE-TB-60-30-FL-MF-ST-M-H1-PLK-AA			
		50	8102165	EPCE-TB-60-50-FL-MF-ST-M-H1-PLK-AA			
		80	8102171	EPCE-TB-60-80-FL-MF-ST-M-H1-PLK-AA			

Ordering table					
Size	45	60	Conditions	Code	Enter code
Module no.	8103354	8103355			
Series	EPCE			EPCE	EPCE
Drive type	Toothed belt			-TB	-TB
Size	45	60			
Stroke [mm]	5, 10, 15, 20, 25, 30, 35, 40, 45, 50	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 80			
Piston rod, front left	None		[1]		
	Piston rod with male thread			-FL	
Piston rod, rear left	None		[1]		
	Piston rod with male thread			-BL	
Piston rod, front right	None		[1]		
	Piston rod with male thread		-FR		
Piston rod, rear right	None	[1]			
	Piston rod with male thread		-BR		
Cover variant	Standard				
	Multimount, rear	[3]	-MB		
	Multimount, both ends	[2], [3]	-MD		
	Multimount, front	[2]	-MF		
Motor type	Stepper motor ST			-ST	-ST
Controller	Integrated		-M	-M	
Control panel	Integrated		-H1	-H1	
Bus protocol/actuation	NPN and IO-Link		-NLK		
	PNP and IO-Link		-PLK		
End-position detection	With integrated end-position sensing			-AA	-AA
Cable outlet direction	Standard		[2]		
	Rear		[3]	-B	
	Left			-L	
	Right		-R		
Electrical accessories	None				
	Adapter for operation as IO device		+L1		
Operating instructions	With operating instructions				
	Without operating instructions			DN	

- [1] At least one piston rod must be selected.
- [2] For size 45 with stroke 5 mm or 10 mm and cover variant -MF or -MD, not in combination with cable outlet direction "Standard".
 [3] For size 45 and cover variant -MB or -MD, not in combination with cable outlet direction "Rear"

Note

For size 60, the through-holes cannot be used with the following combinations:

- $\bullet\,$ Through-hole at the front: not in combination with stroke 5 or 10 mm and motor mounting variant "Standard" (at front)
- Through-hole at the rear: not in combination with motor mounting variant

Accessories

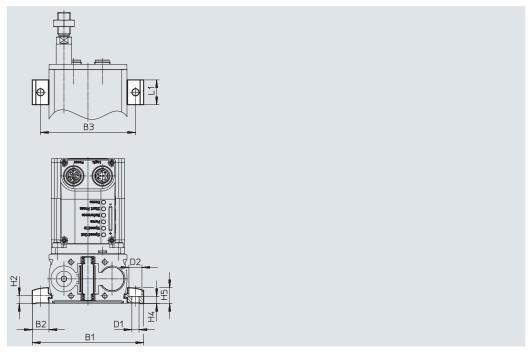
Profile mounting EAHF-L2-...-P-S

Material:

Anodised wrought aluminium alloy RoHS-compliant

• For mounting the cylinder on the side of the profile





Dimensions and ord	Dimensions and ordering data									
For size	B1	B2	B3	D1	D2	H2				
				Ø	Ø					
				H13	H13					
45	70.6	12.8	58	5.5	10	6.1				
60	85.6	12.8	73	5.5	10	6.1				

For size	H4 ±0.1	Н5	L1	Weight [g]	Part no.	Туре
45	5.5	12.2	19	6	5184133	EAHF-L2-45-P-S
60	5.5	12.2	19	6	5184133	EAHF-L2-45-P-S

Accessories

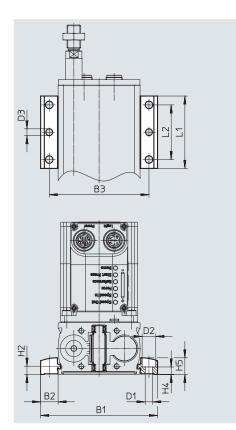
Profile mounting EAHF-L2-...-P

Material:

Anodised wrought aluminium alloy RoHS-compliant

For mounting the cylinder on the side of the profile.
 The profile mounting can be attached to the mounting surface using the drilled hole in the centre





Dimensions and ord	Dimensions and ordering data									
For size	B1	B2	B3	D1	D2	D3	H2			
				Ø	Ø	Ø				
				H13	H13					
45	70.6	12.8	58	5.5	10	5	6.1			
60	85.6	12.8	73	5.5	10	5	6.1			

For size	H4	H5	L1	L2	Weight [g]	Part no.	Туре
	±0.1				191		
45	5.5	12.2	53	40	35	4835728	EAHF-L2-45-P
60	5.5	12.2	53	40	35	4835728	EAHF-L2-45-P

PU¹⁾

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Data sheets → Internet: clevis foot

Ordering data – Mounting components

Accessories

Designation	For size	Part no.	Туре		Designation	For size	Part no.	Туре
Right angle cle	vis foot LQG				Clevis foot LBG			
	60	31768	LQG-32			60	31761	LBG-32
					111700			
							-	
Ordering data	- Piston rod attac	hments					Data shee	ts → Internet: piston rod attachment
Designation	For size	Part no.	Туре	ĺ	Designation	For size	Part no.	Туре
Rod eye SGS			71		Rod clevis SG			71
	45	9254	SGS-M6		~~	45	3110	SG-M6
	60	9261	SGS-M10x1.25			60	6144	SG-M10x1.25
					4		•	
Self-aligning ro	nd counter FK				Rod clevis SGA			
Jen duşimiş ie	45	2061	FK-M6		Nod cicvis 3d/1	60	32954	SGA-M10x1.25
	60	6140	FK-M10x1.25				l l	
	140.0							
Coupling piece		22062	VCC MAD. 4 OF					
0	60	32963	KSG-M10x1.25					
₩								

Part no.

186717

Туре

ZBH-7

Ordering data – Centring sleeves

Description

(EPCE-TB-...-MF / -MB / -MD)

• For centring the electric cylinder unit in combination with multimount cover

¹⁾ Packaging unit

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Accessories

Accessories					
Ordering data -	O-Link master USB		1		Data sheets → Internet: cdsu
	Description		Cable length [m]	Part no.	Туре
	For using the unit with IO-Link		0.3	8091509	CDSU-1
	An external power supply plug is addition	nally required			
0:	(not included in the scope of delivery)				
99					
Ordering data – Adapter Data sheets → Internet: nefc					
	Electrical connection, left	Electrical connection, right	Cable length	Part no.	Туре
			[m]		7,7
	Straight socket, M12x1, 8-pin	Straight plug, M12x1, 5-pin	0.3	8080777	NEFC-M12G8-0.3-M12G5-LK
STATE OF THE PERSON OF THE PER		Only for use with IO-Link Port Class A			
OF STATE OF		Master (recommended)			
Ordering data -	- Supply cables				Data sheets → Internet: nebl
	Electrical connection, left	Electrical connection, right	Cable length	Part no.	Туре
			[m]		
8	Angled socket, M12x1, 4-pin	Cable, open end, 4-wire	2	8080778	NEBL-T12W4-E-2-N-LE4
)		5	8080779	NEBL-T12W4-E-5-N-LE4
			10	8080780	NEBL-T12W4-E-10-N-LE4
			15	8080781	NEBL-T12W4-E-15-N-LE4
	Straight socket, M12x1, 4-pin	Cable, open end, 4-wire	2	8080790	NEBL-T12G4-E-2-N-LE4
			5	8080791	NEBL-T12G4-E-5-N-LE4
			10	8080792	NEBL-T12G4-E-10-N-LE4
			15	8080793	NEBL-T12G4-E-15-N-LE4
Ordering data -	- Connecting cables	Terror in the same	len i	ln.,	Data sheets → Internet: nebc
	Electrical connection, left	Electrical connection, right	Cable length	Part no.	Туре
			[m]		
	Angled socket, M12x1, 8-pin	Cable, open end, 8-wire	2	8094476	NEBC-M12W8-E-2-N-B-LE8
			5	8094478	NEBC-M12W8-E-5-N-B-LE8
			10	8094481	NEBC-M12W8-E-10-N-B-LE8
			15	8094479	NEBC-M12W8-E-15-N-B-LE8
		Straight plug, M12x1, 8-pin	2	8080786	NEBC-M12W8-E-2-N-M12G8
	1		5	8080787	NEBC-M12W8-E-5-N-M12G8
			10	8080788	NEBC-M12W8-E-10-N-M12G8
			15	8080789	NEBC-M12W8-E-15-N-M12G8
O La Contraction de la Contrac	Straight socket, M12x1, 8-pin	Cable, open end, 8-wire	2	8094480	NEBC-M12G8-E-2-N-B-LE8
			5	8094477	NEBC-M12G8-E-5-N-B-LE8
			10	8094482	NEBC-M12G8-E-10-N-B-LE8
			15	8094475	NEBC-M12G8-E-15-N-B-LE8
		Straight plug, M12x1, 8-pin	2	8080782	NEBC-M12G8-E-2-N-M12G8
Mark Market			5	8080783	NEBC-M12G8-E-5-N-M12G8
			10	8080784	NEBC-M12G8-E-10-N-M12G8
Nature 1			15	8080785	NEBC-M12G8-E-15-N-M12G8
1	1	1	1		



The angled cables are positioned at a 45° angle to the axis.

