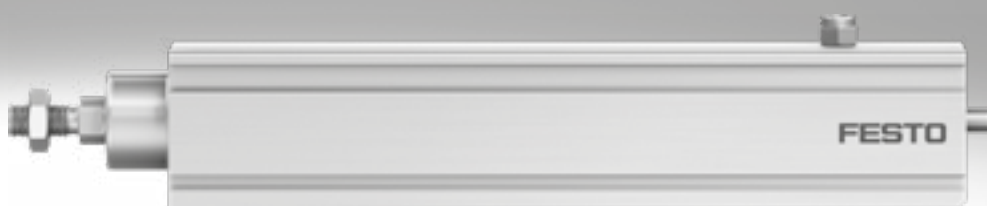


Electric cylinders EPCC, with spindle drive

FESTO



Characteristics

At a glance		
General information	Features	Application areas
The electric cylinder EPCC is a mechanical linear drive with piston rod. The driving component consists of an electrically actuated spindle that converts the rotary motion of the motor into linear motion of the piston rod.	• With ball screw drive • Degree of protection IP40 • Compact dimensions • Extensive mounting accessories for various installation situations	• Suitable for simple applications in factory automation that in the past were mostly carried out using pneumatic solutions

Complete system consisting of electric cylinder, motor and motor mounting kit
Electric cylinder → Page 3



Motor
→ Page 16



Motor mounting kit
Axial kit Parallel kit → Page 16



A range of complete kits is available for both parallel and axial motor mounting.

Servo drive/motor controller



Type codes

001	Series	
EPCC	Electric cylinder	

002	Drive system	
BS	Ball screw drive	

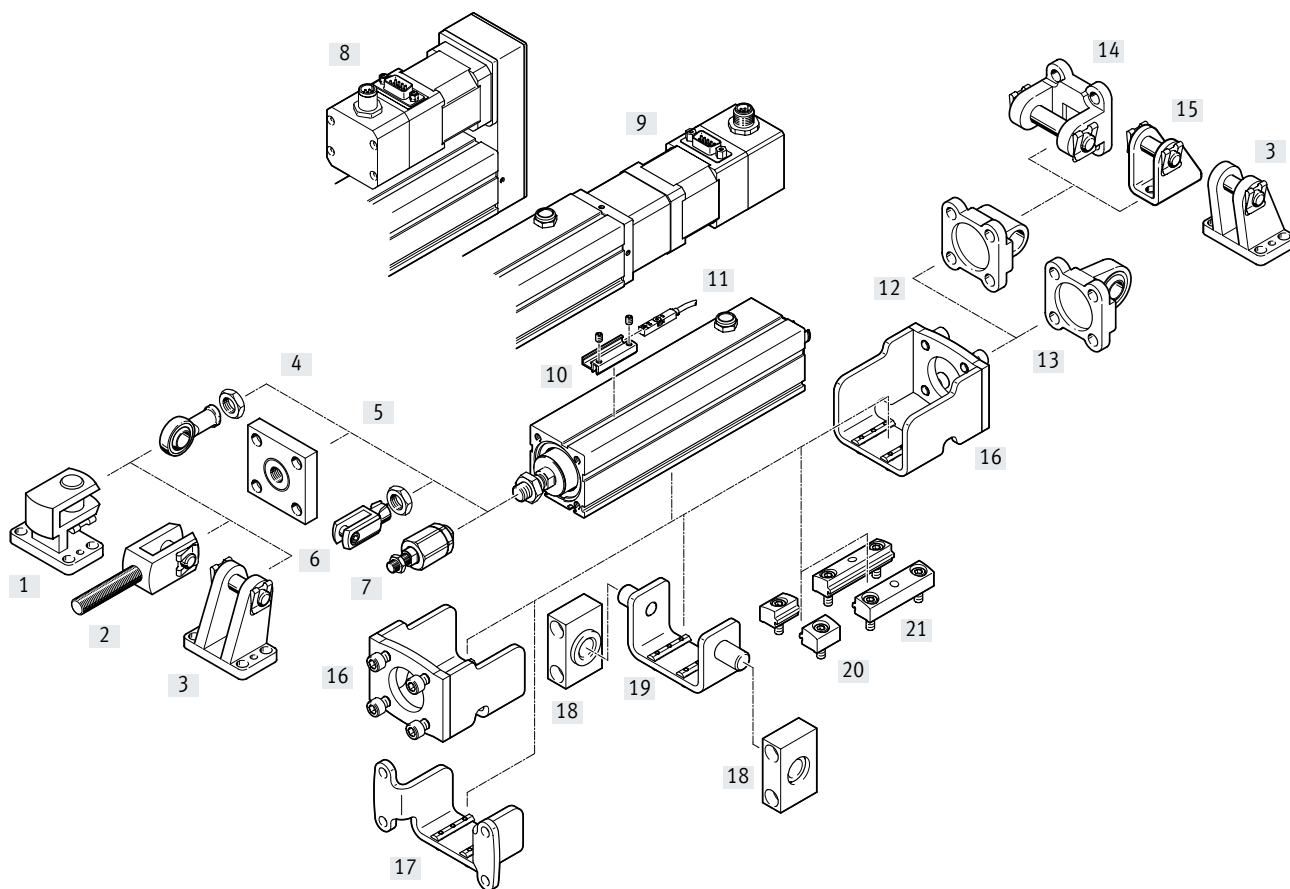
003	Size	
25	25	
32	32	
45	45	
60	60	

004	Stroke	
25	25	
50	50	
75	75	
100	100	
125	125	
150	150	
175	175	
200	200	
250	250	
300	300	
350	350	
400	400	
500	500	

005	Spindle pitch	
2P	2 mm	
3P	3 mm	
5P	5 mm	
6P	6 mm	
8P	8 mm	
10P	10 mm	
12P	12 mm	

006	Position sensing	
A	For proximity sensor	

Peripherals overview



Sealing air connection



Air is exchanged between the interior of the cylinder and the environment via a sealing air connection. This prevents negative pressure or overpressure arising in the interior of the cylinder.

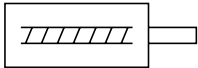
Additional functions of the connection:

- Application of slight negative pressure prevents emission of particles
- Application of slight overpressure prevents immission of particles

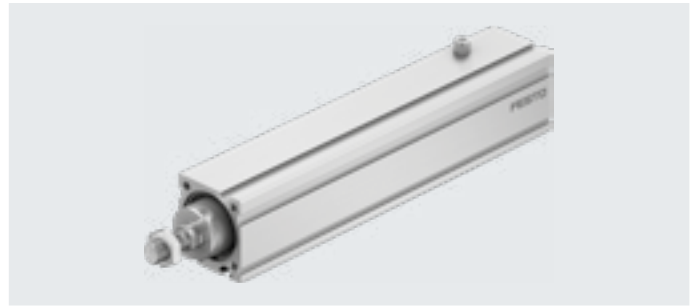
Peripherals overview

Mounting components and accessories		Description	For size				→ Page/ Internet
			25	32	45	60	
[1]	Right angle clevis foot LQG	For rod eye SGS	–	–	■	■	26
[2]	Rod clevis SGA	For swivel mounting of cylinders	–	–	■	■	26
[3]	Clevis foot LBG/LBG-...-R3	With parallel motor mounting, for spherical bearing	–	–	■	■	26
[4]	Rod eye SGS/CRSGS	With spherical bearing	■	■	■	■	26
[5]	Coupling piece KSG	For compensating radial deviations	–	–	■	■	26
[6]	Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	■	■	■	■	26
[7]	Self-aligning rod coupler FK/CRFK	For compensating radial and angular deviations	■	■	■	■	26
[8]	Parallel kit EAMM-U	For parallel motor mounting	■	■	■	■	17
[9]	Axial kit EAMM-A	For axial motor mounting	■	■	■	■	16
[10]	Sensor bracket EAPM-L2	For mounting the proximity sensors on the axis. The proximity sensors can only be mounted using the sensor bracket	■	■	■	■	27
[11]	Proximity sensor SMT-8M	Magnetic proximity sensor, for T-slot	■	■	■	■	27
[12]	Swivel flange SNCL	With parallel motor mounting	■	■	■	■	24
[13]	Swivel flange SNCS/CRSNCS/SNCS-...-R3	With parallel motor mounting	–	–	■	■	23
[14]	Swivel flange SNCB	With parallel motor mounting, for spherical bearing	–	–	■	■	25
[15]	Clevis foot LBN	With parallel motor mounting, for spherical bearing	■	■	■	■	26
[16]	Adapter kit EAHA-P2	- For mounting the swivel flange and trunnion flange on the front - Can only be mounted on the rear in conjunction with parallel kit EAMM-U	■	■	■	■	21
[17]	Flange mounting EAHH-P2	- For mounting the electric cylinder via the profile - Position freely selectable along the cylinder length	■	■	■	■	20
[18]	Trunnion support LNZG	For cylinders with trunnion flange mounting	■	■	■	■	22
[19]	Swivel mounting EAHS-P2	Position freely selectable along the cylinder length	■	■	■	■	22
[20]	Profile mounting EAHF-L2-P-S	For mounting the axis on the side of the profile	■	■	■	■	18
[21]	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	■	■	■	■	19

Data sheet



- - Size
25 ... 60
- - Stroke length
25 ... 500 mm



General technical data

Size	25	32	45	60
Design	Electric cylinder with ball screw drive			
Piston rod thread	M6	M8	M10x1.25	M12x1.25
Piston rod end	Male thread			
Working stroke [mm]	25 ... 200	25 ... 200	25 ... 300	25 ... 500
Stroke reserve [mm]	0			
Protection against rotation/guide	With plain-bearing guide			
Max. angle of rotation at the piston rod [°]	≤ ±1			
Position sensing	Via proximity sensor			
Type of mounting	Via accessories			
Mounting position	Any			

Mechanical data

Size	25	32	45	60
Spindle design	2P	3P	3P	5P
Spindle pitch [mm/rev]	2	3	3	5
Spindle diameter [mm]	6	8	10	12
Max. payload				
Horizontal [kg]	12	24	60	120
Vertical [kg]	6	12	30	60
Max. feed force F_x [N]	75	150	450	1000
Max. radial force ¹⁾ [N]	30	75	180	230
Max. driving torque [Nm]	0.05	0.15	0.4	1.2
No-load driving torque ²⁾ [Nm]	0.02	0.065	0.08	0.235
Max. speed ³⁾ [m/s]	0.133	0.188	0.18	0.25
Max. acceleration [m/s ²]	5	5	5	5
Max. rotational speed [rpm]	4000	3750	3600	3000
Reversing backlash ⁴⁾ [mm]	≤ 0.1			
Repetition accuracy [mm]	±0.02			

1) At the driving shaft

2) Corresponds to the required driving torque without load, at a spindle speed of 200 rpm.

3) The speed is stroke-dependent → Page 9

4) When new

Operating and environmental conditions

Ambient temperature ¹⁾ [°C]	0 ... +60
Storage temperature [°C]	-20 ... +60
Relative humidity [%]	0 ... 95 (non-condensing)
Degree of protection to IEC 60529	IP40
Duty cycle [%]	100
Maintenance interval	Life-time lubrication

1) Note operating range of proximity sensors

Data sheet

Weight [g]	25	32	45	60
Size				
Basic weight with 0 mm stroke	132	225	555	1114
Additional weight per 10 mm stroke	13	24	41	69
Moving mass with 0 mm stroke	53	98	179	305
Moving mass per 10 mm stroke	2.6	3.3	4.9	6.5

Mass moments of inertia									
Size		25		32		45		60	
Spindle design		2P	6P	3P	8P	3P	10P	5P	12P
J ₀ with 0 mm stroke	[kg mm ²]	0.09	0.14	0.42	0.55	1.09	1.53	6.82	7.79
j _s per metre stroke	[kg mm ² /m]	0.56	0.95	2.56	3.11	5.03	7.11	11.95	15.19
j _L per kg payload	[kg mm ² /kg]	0.1	0.91	0.23	1.62	0.28	2.53	0.63	3.65

The mass moment of inertia J_A of the electric cylinder is calculated as follows:

$$J_A = J_0 + j_s \times \text{working stroke [m]} + j_L \times m_{\text{moving payload [kg]}}$$

Homing

Homing can be carried out in two ways:

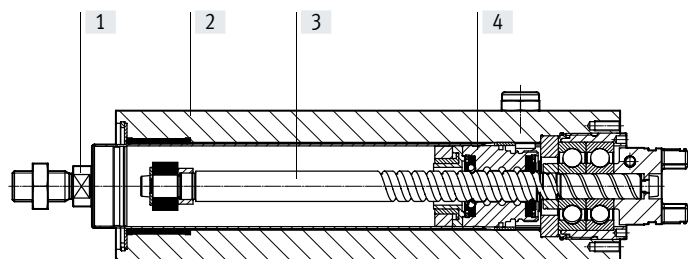
- Against a fixed stop
- Using a reference switch

The following values must be observed:

Size	25	32	45	60
Max. impact energy [J]	0.0012	0.0036	0.012	0.024
Max. homing speed [m/s]	0.01			

Materials

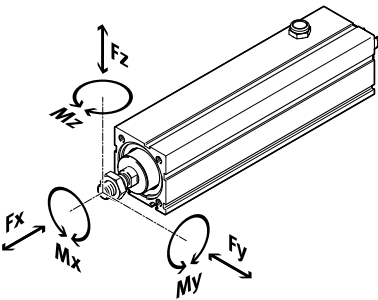
Sectional view



Electric cylinder	
[1] Piston rod	High-alloy stainless steel
[2] Housing	Smooth-anodised wrought aluminium alloy
[3] Spindle	Rolled steel
[4] Spindle nut	Steel
Note on materials	RoHS-compliant
	Contains paint-wetting impairment substances

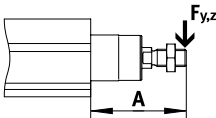
Data sheet

Maximum permissible loads on the piston rod

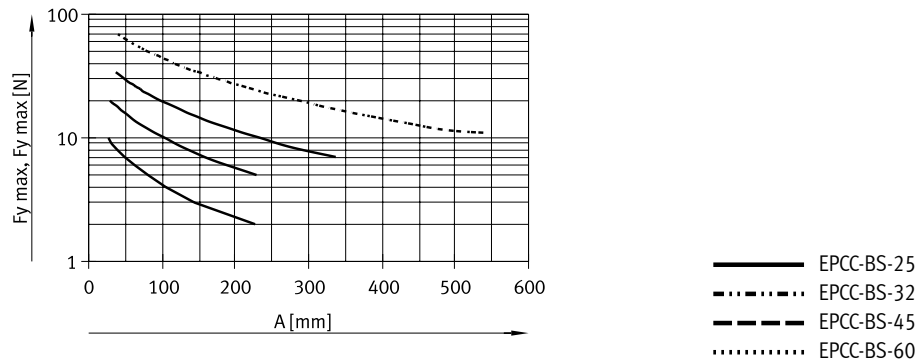


If there are two or more forces and torques simultaneously acting on the piston rod, the following equations must be satisfied:
 F_1/M_1 = dynamic value
 F_2/M_2 = maximum value

$$f_v = \frac{|F_{y1}|}{F_{y2}} + \frac{|F_{z1}|}{F_{z2}} + \frac{|M_{y1}|}{M_{y2}} + \frac{|M_{z1}|}{M_{z2}} \leq 1$$
$$|Fx| \leq Fx_{max}$$
$$|Mx| \leq Mx_{max}$$



Maximum permissible lateral force $F_{y_{max}}$ and $F_{z_{max}}$ on the piston rod as a function of projection A

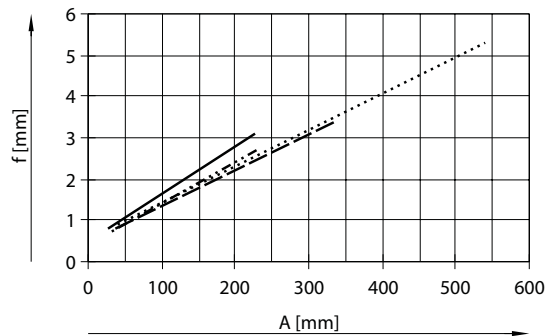
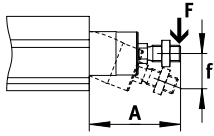


Size		25		32		45		60	
Spindle design		2P	6P	3P	8P	3P	10P	5P	12P
$F_{x_{max}}$ (static)	[N]	75	75	150	150	450	450	1000	1000
$M_{x_{max}}$	[Nm]	0							
$M_{y_{max}}, M_{z_{max}}$	[Nm]	0.6		1.5		2.9		6.4	

 **Note**

Engineering software
PositioningDrives
→ www.festo.com

Data sheet

Piston rod deflection f_2 as a function of projection A and lateral force F

- EPCC-BS-25 ($F_2 = 1.5 \text{ N}$)
- · - · - EPCC-BS-32 ($F_2 = 3.5 \text{ N}$)
- - - EPCC-BS-45 ($F_2 = 4.0 \text{ N}$)
- EPCC-BS-60 ($F_2 = 8.0 \text{ N}$)

$$f_1 = \frac{F_1}{F_2} \cdot f_2$$

- f_1 = Piston rod deflection caused by lateral force [mm]
- F_1 = Lateral force [N]
- F_2 = Standardised lateral force [N] (constant load from graph)
- f_2 = Piston rod deflection caused by lateral force [N]
(value read from graph)

Example: Electric cylinder EPCC-25-50-6P with a lateral force of 3 N
 $F_1 = 3 \text{ N}$ and $F_{\text{standard}} = 1.5 \text{ N}$

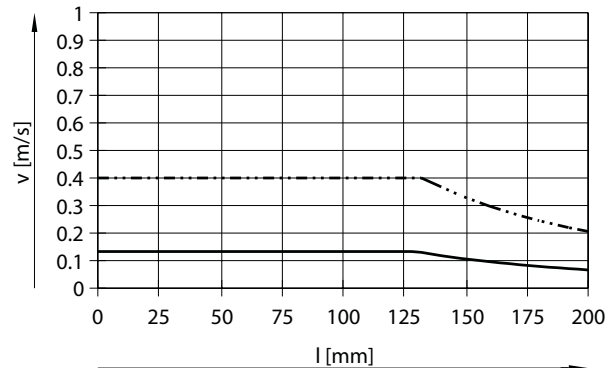
Value read from graph for EPCC-25 and projection = 50 mm
 $f_2 = 1 \text{ mm}$

Calculation of deflection caused by lateral force:

$$f_1 = \frac{F_1}{F_2} \cdot f_2 = \frac{3 \text{ N}}{1.5 \text{ N}} \cdot 1 \text{ mm} = 2 \text{ mm}$$

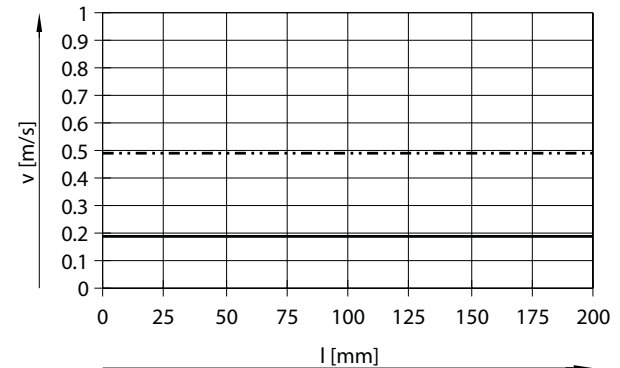
Feed speed v as a function of stroke length l

EPCC-BS-25-...



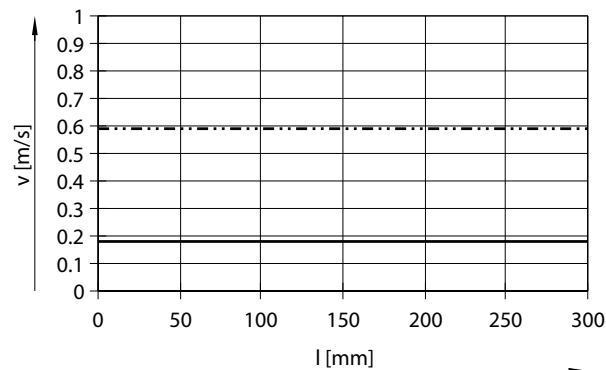
- EPCC-BS-25-2P
- - - EPCC-BS-25-6P

EPCC-BS-32-...



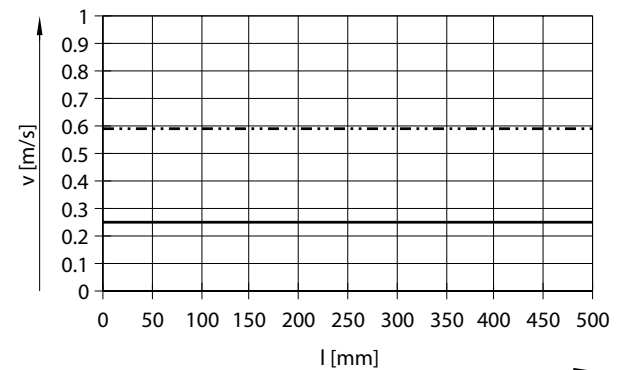
- EPCC-BS-32-3P
- - - EPCC-BS-32-8P

EPCC-BS-45-...



- EPCC-BS-45-3P
- - - EPCC-BS-45-10P

EPCC-BS-60-...



- EPCC-BS-60-5P
- - - EPCC-BS-60-12P

Data sheet

Calculating the mean feed force F_{xm} with the electric cylinder EPCC

The peak feed force value must not exceed the maximum feed force within a movement cycle. The peak value is generally achieved in vertical operation during the acceleration phase of the upwards stroke. If the maximum feed force is exceeded, this can increase wear and thus shorten the service life of the ball screw drive. The maximum speed must likewise not be exceeded:

$F_x \leq F_{xmax}$
and
 $V_x \leq V_{xmax}$

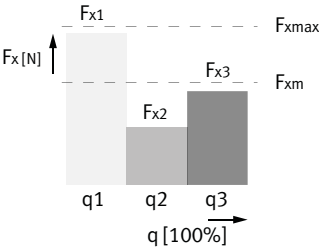
Calculating the mean feed force F_{xm} (to DIN 69051-4)

During operation, the continuous feed force may be briefly exceeded up to the maximum feed force. The continuous feed force must, however, be adhered to when averaged over a movement cycle:

$F_{xm} \leq F_{xcontinuous}$

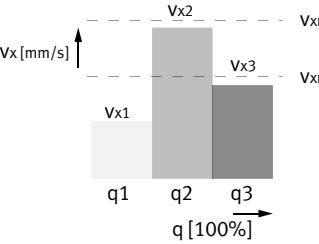
$$F_{xm} = \sqrt[3]{\sum F_x^3 \cdot \frac{v_x}{v_{xm}} \cdot \frac{q}{100}} =$$

$$F_{xm} = \sqrt[3]{F_{x1}^3 \cdot \frac{v_{x1}}{v_{xm}} \cdot \frac{q_1}{100} + F_{x2}^3 \cdot \frac{v_{x2}}{v_{xm}} \cdot \frac{q_2}{100} + F_{x3}^3 \cdot \frac{v_{x3}}{v_{xm}} \cdot \frac{q_3}{100} + \dots}$$



Mean feed speed (to DIN 69051-4)

$$v_{xm} = \sum v_x \cdot \frac{q}{100} = v_{x1} \cdot \frac{q_1}{100} + v_{x2} \cdot \frac{q_2}{100} + v_{x3} \cdot \frac{q_3}{100} + \dots$$

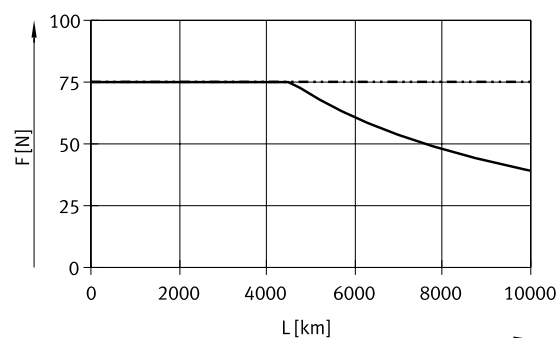


- F_x Feed force
- F_{xm} Mean feed force
- $F_{xmax.}$ Max. feed force
- $F_{xcontinuous}$ Continuous feed force
- q Time
- v_x Feed speed
- v_{xm} Mean feed speed
- $v_{xmax.}$ Max. feed speed

Data sheet

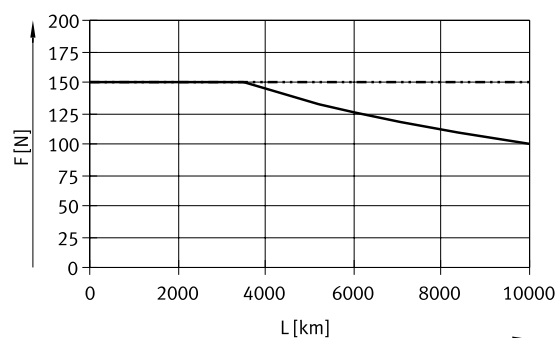
Mean feed force F_{xm} as a function of running performance L , with an operating coefficient f_B of 1.0 at room temperature

EPCC-BS-25-...



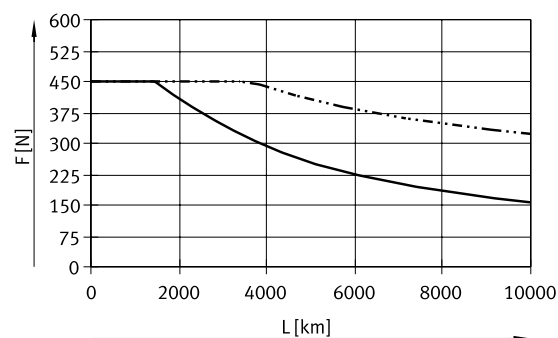
— EPCC-BS-25-2P
- · - · - EPCC-BS-25-6P

EPCC-BS-32-...



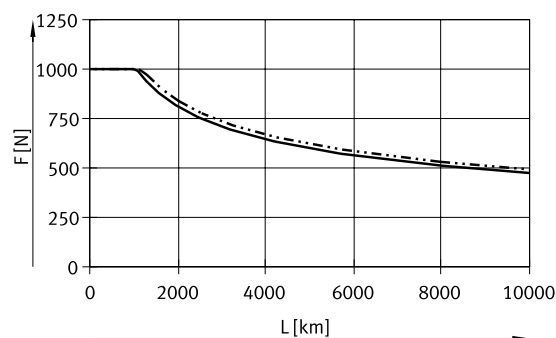
— EPCC-BS-32-3P
- · - · - EPCC-BS-32-8P

EPCC-BS-45-...



— EPCC-BS-45-3P
- · - · - EPCC-BS-45-10P

EPCC-BS-60-...



— EPCC-BS-60-5P
- · - · - EPCC-BS-60-12P

$$L_1 = \frac{L}{f_B^3}$$

L_1 Actual service life

L Target service life
(→ graphs)

f_B Operating coefficient

Service life taking into account the operating coefficient

Load ¹⁾	Operating coefficient f_B	Application example
None	1.0 ... 1.2	Measuring machine
Light	1.2 ... 1.4	Handling, robotics
Medium	1.4 ... 1.6	Press-in operations
High	1.6 ... 2.0	Construction, agriculture

1) This refers to loads caused by impact, temperature, contamination, shock and vibrations that affect the cylinder or piston rod.



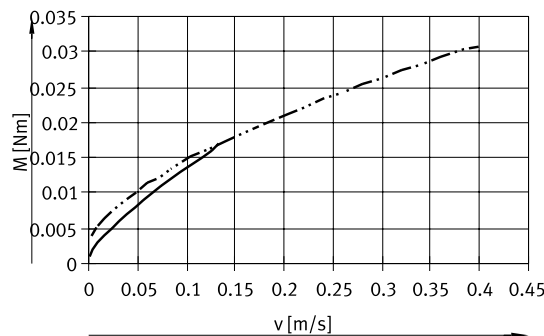
Note

The specifications for running performance are based on experimentally determined and theoretically calculated data (at room temperature). The running performance that can be achieved in practice can deviate considerably from the specified curves under different parameters.

Data sheet

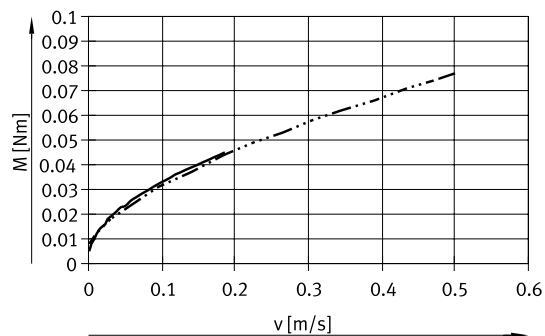
Friction torque M_v as a function of feed speed v

EPCC-BS-25



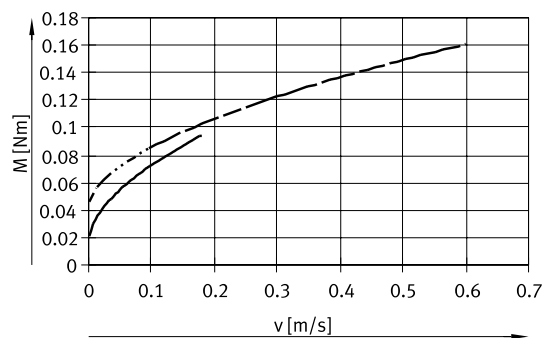
— EPCC-BS-25-2P
 - - - EPCC-BS-25-6P

EPCC-BS-32



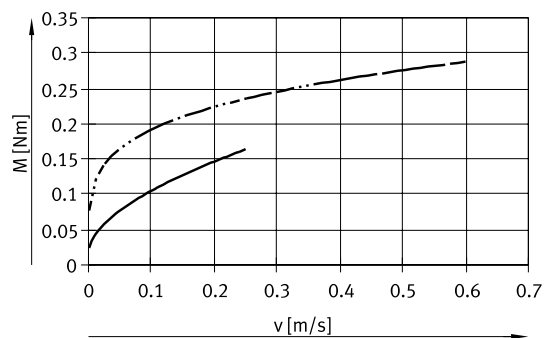
— EPCC-BS-32-3P
 - - - EPCC-BS-32-8P

EPCC-BS-45



— EPCC-BS-45-3P
 - - - EPCC-BS-45-10P

EPCC-BS-60



— EPCC-BS-60-5P
 - - - EPCC-BS-60-12P

Friction losses and driving torque

Friction losses

The friction losses comprise the no-load driving torque and the speed-dependent friction losses.

$$M_{\text{friction}} = M_{\text{no-load}} + M_v$$

M_{friction} = Friction torque

$M_{\text{no-load}}$ = No-load driving torque

M_v = Friction torque as a function of the feed speed

Driving torque

The driving torque required for the cylinder comprises the friction torque and the effective torque.

$$M_{\text{drive}} = M_{\text{friction}} + M_{\text{effective}}$$

M_{drive} = Required driving torque

M_{friction} = Friction torque

$M_{\text{effective}}$ = Effective torque

No-load driving torque¹⁾

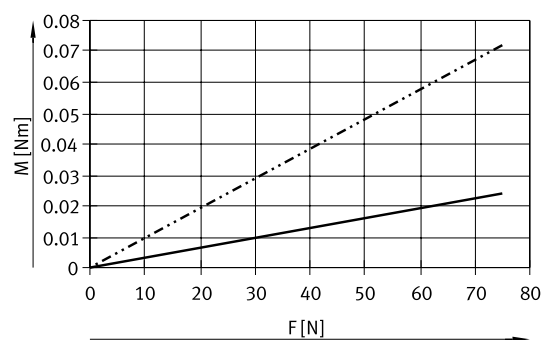
Size	25		32		45		60	
Spindle pitch [mm/rev]	2	6	3	8	3	10	5	12
No-load driving torque $M_{\text{no-load}}$ [Nm]	0.02	0.055	0.065	0.095	0.08	0.16	0.235	0.325

1) Corresponds to the required driving torque without load, at a spindle rotational speed of 200 rpm.

Data sheet

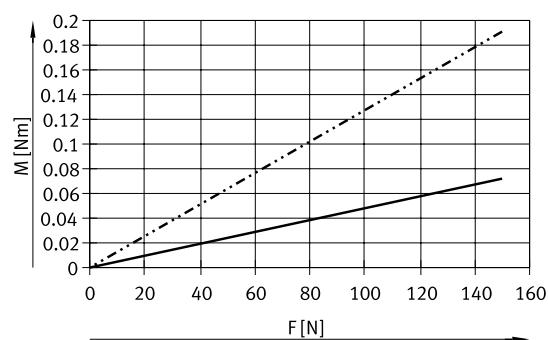
Effective torque $M_{\text{effective}}$ as a function of feed force F

EPCC-BS-25-...



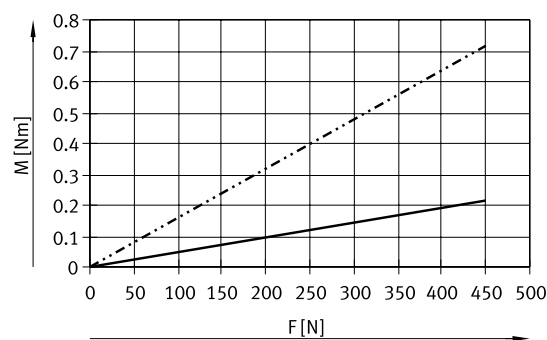
— EPCC-BS-25-2P
 - - - EPCC-BS-25-6P

EPCC-BS-32-...



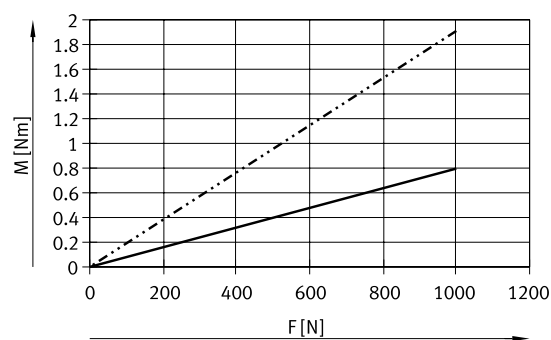
— EPCC-BS-32-3P
 - - - EPCC-BS-32-8P

EPCC-BS-45-...



— EPCC-BS-45-3P
 - - - EPCC-BS-45-10P

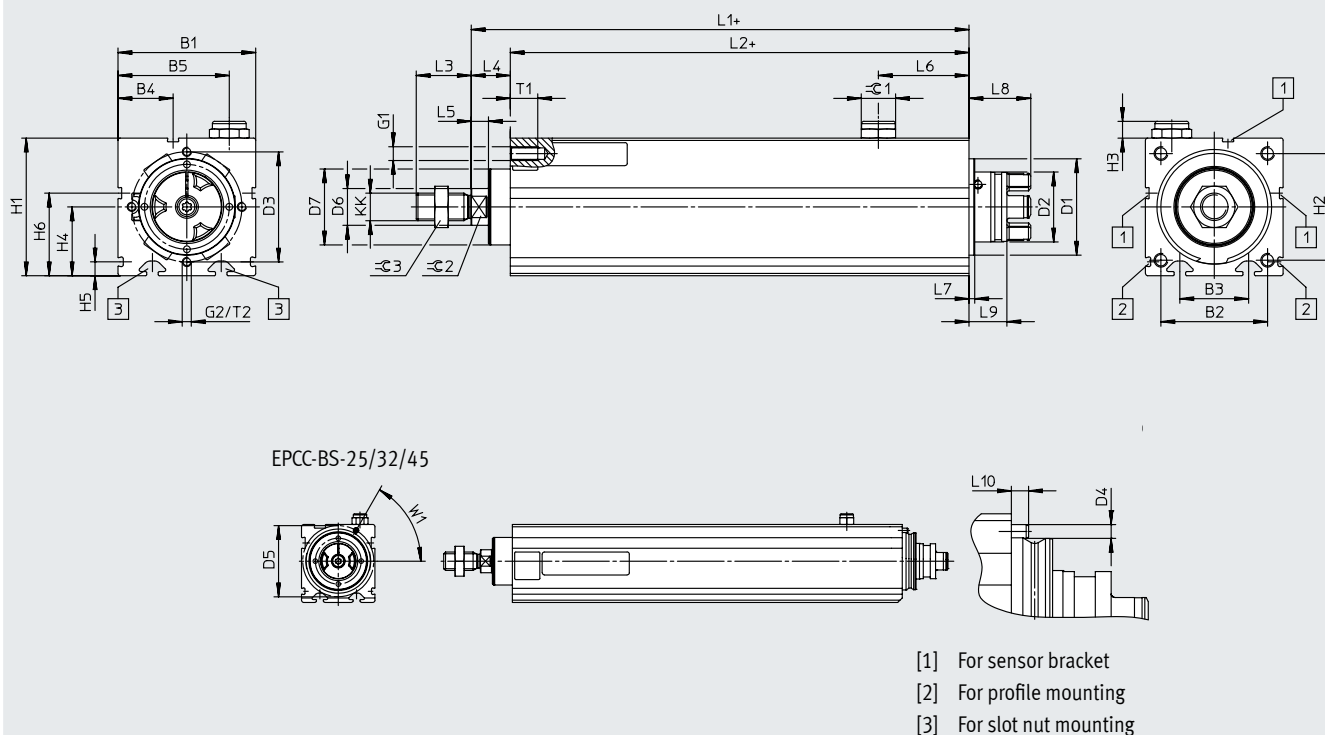
EPCC-BS-60-...



— EPCC-BS-60-5P
 - - - EPCC-BS-60-12P

Data sheet

Dimensions

Download CAD data → www.festo.com

Size	B1 ±0.15	B2	B3	B4	B5	D1 ø	D2 ¹⁾ ø	D3 ø	D4 ø
25	25	–	14	5.8	20	20.5	10.8	–	2
32	32	24	16	8.1	25.5	25	15.5	–	2
45	45	32.5	24	16.5	35	32	16.3	–	3
60	60	46.5	30	24	48.5	42	31.4	48	–

Size	D5 ø	D6 ø	D7 ø	G1	G2	H1 ±0.15	H2	H3	H4
25	25	8	17.3	–	–	27	–	4.7	–
32	31	10	21.3	M4	–	34	24	4.7	–
45	41	12	26.5	M5	–	45	32.5	6.3	–
60	–	16	33.6	M6	M4	60	46.5	7.3	30

Size	H5	H6 +0.15	KK	L1	L2	L3	L4	L5	L6
25	4.9	22.5	M6	74.5	60	12	14.5	4.7	21.2
32	4.9	26	M8	82.9	70	16	12.9	5.2	24.2
45	6.1	28.5	M10x1.25	99.9	83	20	16.9	5.7	30.5
60	6.1	36	M12x1.25	116	100	24	16	7.5	39.5

Size	L7	L8	L9	L10	T1	T2	W1	≈G1	≈G2	≈G3
25	5	15	10.5	2.5	–	–	60°	6	7	10
32	6	19.9	14.5	2.5	8	–	60°	6	9	13
45	6	19.9	14.5	3	10	–	60°	12	10	16
60	2.5	26.9	16.5	–	12	10	–	15	13	18

1) Coupling diameter or interference diameter of locking screw

Data sheet

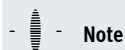
Ordering data EPCC-BS-25					
Stroke [mm]	Part no.	Type	Stroke [mm]	Part no.	Type
Spindle pitch 2 mm/rev			Spindle pitch 6 mm/rev		
25	5428805	EPCC-BS-25-25-2P-A	25	5428813	EPCC-BS-25-25-6P-A
50	5428806	EPCC-BS-25-50-2P-A	50	5428814	EPCC-BS-25-50-6P-A
75	5428807	EPCC-BS-25-75-2P-A	75	5428815	EPCC-BS-25-75-6P-A
100	5428808	EPCC-BS-25-100-2P-A	100	5428816	EPCC-BS-25-100-6P-A
125	5428809	EPCC-BS-25-125-2P-A	125	5428817	EPCC-BS-25-125-6P-A
150	5428810	EPCC-BS-25-150-2P-A	150	5428818	EPCC-BS-25-150-6P-A
175	5428811	EPCC-BS-25-175-2P-A	175	5428819	EPCC-BS-25-175-6P-A
200	5428812	EPCC-BS-25-200-2P-A	200	5428820	EPCC-BS-25-200-6P-A

EPCC-BS-32					
Stroke [mm]	Part no.	Type	Stroke [mm]	Part no.	Type
Spindle pitch 3 mm/rev			Spindle pitch 8 mm/rev		
25	5428833	EPCC-BS-32-25-3P-A	25	5428841	EPCC-BS-32-25-8P-A
50	5428834	EPCC-BS-32-50-3P-A	50	5428842	EPCC-BS-32-50-8P-A
75	5428835	EPCC-BS-32-75-3P-A	75	5428843	EPCC-BS-32-75-8P-A
100	5428836	EPCC-BS-32-100-3P-A	100	5428844	EPCC-BS-32-100-8P-A
125	5428837	EPCC-BS-32-125-3P-A	125	5428845	EPCC-BS-32-125-8P-A
150	5428838	EPCC-BS-32-150-3P-A	150	5428846	EPCC-BS-32-150-8P-A
175	5428839	EPCC-BS-32-175-3P-A	175	5428847	EPCC-BS-32-175-8P-A
200	5428840	EPCC-BS-32-200-3P-A	200	5428848	EPCC-BS-32-200-8P-A

EPCC-BS-45					
Stroke [mm]	Part no.	Type	Stroke [mm]	Part no.	Type
Spindle pitch 3 mm/rev			Spindle pitch 10 mm/rev		
25	5428858	EPCC-BS-45-25-3P-A	25	5428868	EPCC-BS-45-25-10P-A
50	5428859	EPCC-BS-45-50-3P-A	50	5428869	EPCC-BS-45-50-10P-A
75	5428860	EPCC-BS-45-75-3P-A	75	5428870	EPCC-BS-45-75-10P-A
100	5428861	EPCC-BS-45-100-3P-A	100	5428871	EPCC-BS-45-100-10P-A
125	5428862	EPCC-BS-45-125-3P-A	125	5428872	EPCC-BS-45-125-10P-A
150	5428863	EPCC-BS-45-150-3P-A	150	5428873	EPCC-BS-45-150-10P-A
175	5428864	EPCC-BS-45-175-3P-A	175	5428874	EPCC-BS-45-175-10P-A
200	5428865	EPCC-BS-45-200-3P-A	200	5428875	EPCC-BS-45-200-10P-A
250	5428866	EPCC-BS-45-250-3P-A	250	5428876	EPCC-BS-45-250-10P-A
300	5428867	EPCC-BS-45-300-3P-A	300	5428877	EPCC-BS-45-300-10P-A

EPCC-BS-60					
Stroke [mm]	Part no.	Type	Stroke [mm]	Part no.	Type
Spindle pitch 5 mm/rev			Spindle pitch 12 mm/rev		
25	5428888	EPCC-BS-60-25-5P-A	25	5428901	EPCC-BS-60-25-12P-A
50	5428889	EPCC-BS-60-50-5P-A	50	5428902	EPCC-BS-60-50-12P-A
75	5428890	EPCC-BS-60-75-5P-A	75	5428903	EPCC-BS-60-75-12P-A
100	5428891	EPCC-BS-60-100-5P-A	100	5428904	EPCC-BS-60-100-12P-A
125	5428892	EPCC-BS-60-125-5P-A	125	5428905	EPCC-BS-60-125-12P-A
150	5428893	EPCC-BS-60-150-5P-A	150	5428906	EPCC-BS-60-150-12P-A
175	5428894	EPCC-BS-60-175-5P-A	175	5428907	EPCC-BS-60-175-12P-A
200	5428895	EPCC-BS-60-200-5P-A	200	5428908	EPCC-BS-60-200-12P-A
250	5428896	EPCC-BS-60-250-5P-A	250	5428909	EPCC-BS-60-250-12P-A
300	5428897	EPCC-BS-60-300-5P-A	300	5428910	EPCC-BS-60-300-12P-A
350	5428898	EPCC-BS-60-350-5P-A	350	5428911	EPCC-BS-60-350-12P-A
400	5428899	EPCC-BS-60-400-5P-A	400	5428912	EPCC-BS-60-400-12P-A
500	5428900	EPCC-BS-60-500-5P-A	500	5428913	EPCC-BS-60-500-12P-A

Accessories

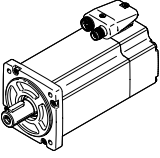
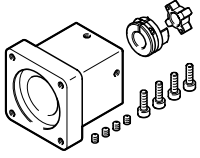
**Note**

Depending on the combination of motor and drive, it may not be possible to reach the maximum feed force of the drive.

When using parallel kits, the no-load driving torque of the particular kit must be taken into consideration.

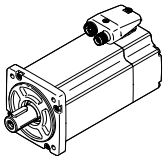
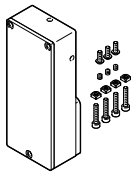
Permissible axis/motor combinations with axial kit

Data sheets → Internet: eamm-a

Motor/gear unit ¹⁾	Axial kit	
		
Type	Part no.	Type
EPCC-25		
With stepper motor		
EMMS-ST-28-...	4505258	EAMM-A-V20-28A
EPCC-32		
With servo motor		
EMME-AS-40-...	4491059	EAMM-A-V25-40P
With stepper motor		
EMMS-ST-42-...	4582608	EAMM-A-V25-42A
EPCC-45		
With servo motor		
EMME-AS-40-...	4595742	EAMM-A-V32-40P
EMMT-AS-60-..., EMME-AS-60-...	4608750	EAMM-A-V32-60P
With stepper motor		
EMMS-ST-42-...	4281142	EAMM-A-V32-42A
EMMS-ST-57-...	4597016	EAMM-A-V32-57A
EPCC-60		
With servo motor		
EMMT-AS-60-..., EMME-AS-60-...	4133487	EAMM-A-T42-60P
EMMT-AS-80-..., EMME-AS-80-...	4623788	EAMM-A-T42-80P
With stepper motor		
EMMS-ST-57-...	4327034	EAMM-A-T42-57A
EMMS-ST-87-...	4610008	EAMM-A-T42-87A

1) The input torque must not exceed the maximum permissible transferable torque of the axial kit.

Accessories

Permissible axis/motor combinations with parallel kit			Data sheets → Internet: eamm-u
Motor/gear unit ¹⁾	Parallel kit		
	 The kit can be mounted in all directions		
Type	Part no.	Type	
EPCC-25			
With stepper motor			
EMMS-ST-28-...	4767125	EAMM-U-30-V20-28A-44	
EPCC-32			
With servo motor			
EMME-AS-40-...	4782056	EAMM-U-45-V25-40P-63	
With stepper motor			
EMMS-ST-42-...	4825645	EAMM-U-45-V25-42A-63	
EPCC-45			
With servo motor			
EMME-AS-40-...	4718297	EAMM-U-45-V32-40P-63	
With stepper motor			
EMMS-ST-42-...	4280674	EAMM-U-45-V32-42A-63	
EPCC-60			
With servo motor			
EMMT-AS-60-..., EMME-AS-60-...	4784301	EAMM-U-65-T42-60P-87	
With stepper motor			
EMMS-ST-57-...	4331535	EAMM-U-65-T42-57A-87	

1) The input torque must not exceed the max. permissible transferable torque of the parallel kit.

Accessories

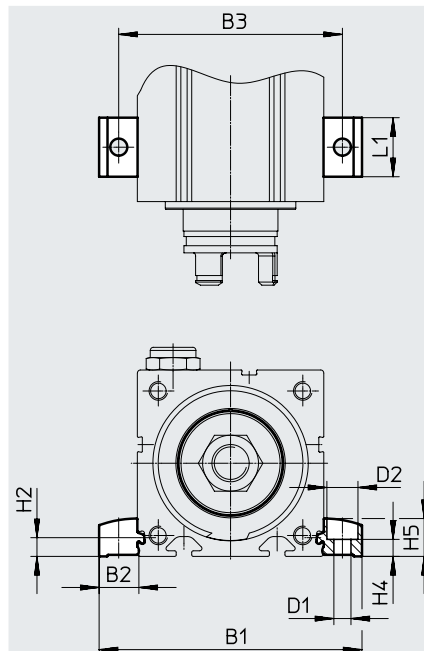
Profile mounting EAHF-L2-...-P-S

Material:

Anodised wrought aluminium alloy

RoHS-compliant

- For mounting the slide on the side of the profile



Dimensions and ordering data

For size	B1	B2	B3	D1 Ø H13	D2 Ø H13	H2
25	44.4	9.7	35	4.5	8	4.9
32	51.4	9.7	42	4.5	8	4.9
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	H5	L1	Weight [g]	Part no.	Type
25	4.2	9	19	4	5183153	EAHF-L2-25-P-S
32	4.2	9	19	4	5183153	EAHF-L2-25-P-S
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

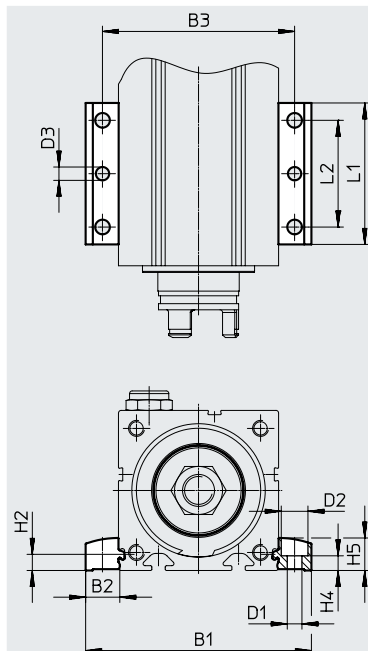
Material:

Anodised wrought aluminium alloy

RoHS-compliant

- For mounting the slide 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 ordering data**

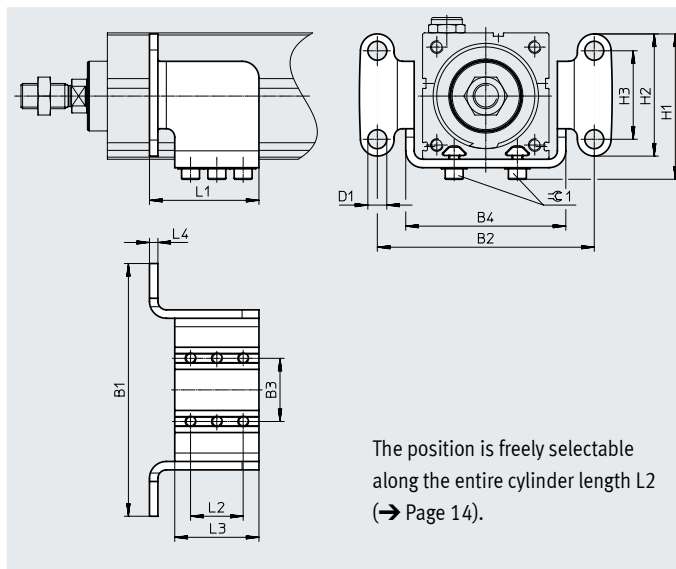
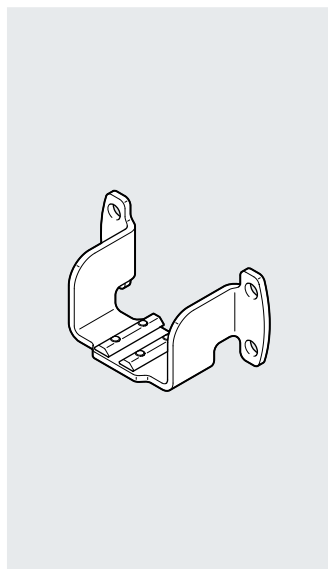
For size	B1	B2	B3	D1 Ø H13	D2 Ø H13	D3 Ø	H2
25	44.4	9.7	35	4.5	8	4	4.9
32	51.4	9.7	42	4.5	8	4	4.9
45	70.6	12.8	58	5.5	10	5	6.1
60	85.6	12.8	73	5.5	10	5	6.1

For size	H4 ±0.1	H5	L1	L2	Weight [g]	Part no.	Type
25	4.2	9	53	40	19	4835684	EAHF-L2-25-P
32	4.2	9	53	40	19	4835684	EAHF-L2-25-P
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

Accessories

Flange mounting EAHH

Material:
Galvanised steel
RoHS-compliant



Dimensions and ordering data

For size	B1	B2	B3 ±0.1	B4	D1 Ø	H1	H2	H3	L1
25	61	50	14	35	4.5	32.5	25	15	38
32	70	58	16	42	5.5	39	31	20	38
45	100	85	24	61	6.6	54.5	48	35	42
60	120	103	30	76	9	69	58	42	52

For size	L2	L3	L4	≈C1	CRC ¹⁾	Weight [g]	Part no.	Type
25	20	30	2.5	2.5	1	65	5127286	EAHH-P2-25
32	20	30	2.5	2.5	1	80	5126157	EAHH-P2-32
45	20	30	4	2.5	1	185	5126669	EAHH-P2-45
60	25	40	4	4	1	320	5127005	EAHH-P2-60

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

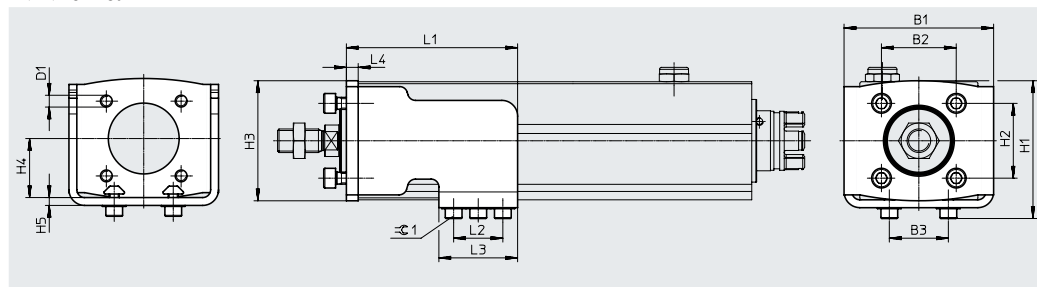
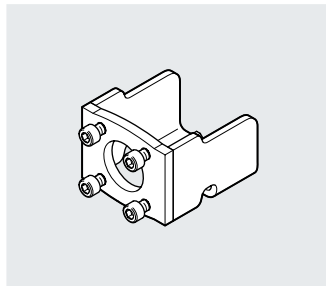
Accessories

Adapter kit EAHA

Material:

RoHS-compliant

Galvanised steel



Dimensions and ordering data

For size	B1	B2	B3	D1	H1	H2	H3	H4	H5
		±0.2	±0.1			±0.2			
25	37	18	14	M4	35	18	30	14.5	2.5
32	53	22	16	M5	42	22	37	18	2.5
45	61	32.5	24	M6	54	32.5	49	22.5	4
60	76	38	30	M6	69.5	38	61	30	4

For size	L1	L2	L3	L4	±1	CRC ¹⁾	Weight [g]	Part no.	Type
25	58	20	30	4	2.5	1	110	5172843	EAHA-P2-25
32	64	20	30	4	2.5	1	165	5173020	EAHA-P2-32
45	68	20	30	6	2.5	1	340	5172353	EAHA-P2-45
60	87	25	40	6	4	1	560	5173082	EAHA-P2-60

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

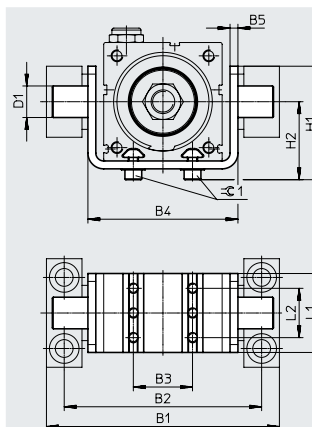
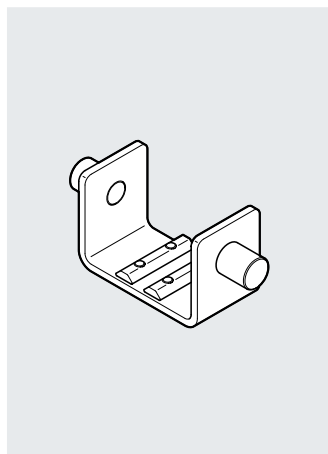
Accessories

Swivel mounting EAHS

Material:

Galvanised steel

RoHS-compliant



The position is freely selectable along the entire cylinder length L2 (→ Page 14).

Dimensions and ordering data

For size	B1	B2	B3 ± 0.1	B4	B5	D1 $\varnothing$ e9	H1
25	61	50	14	35	2.5	8	30
32	68	57	16	42	2.5	8	32
45	98	83	24	62	4	12	44.5
60	118	100	30	76	4	16	57

For size	H2	L1	L2	$\varnothing 1$	CRC ¹⁾	Weight [g]	Part no.	Type
25	20	30	20	2.5	1	70	5125383	EAHS-P2-25
32	23.5	30	20	2.5	1	75	5125041	EAHS-P2-32
45	29.5	30	20	2.5	1	165	5125167	EAHS-P2-45
60	39	40	25	4	1	305	5125281	EAHS-P2-60

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Trunnion support LNZG

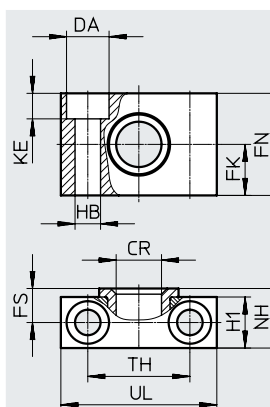
Material:

Trunnion support: Anodised aluminium

Plain bearing: Plastic

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data

For size	CR $\varnothing$ D11	DA $\varnothing$ H13	FK $\varnothing$ ± 0.1	FN	FS	H1	HB $\varnothing$ H13	KE	NH	TH ± 0.2	UL	CRC ¹⁾	Weight [g]	Part no.	Type
25, 32	8	8	10	20	7.5	11	4.5	4.6	13	20	30	2	26	1434912	LNZG-16
45	12	11	15	30	10.5	15	6.6	6.8	18	32	46	2	83	32959	LNZG-32
60	16	15	18	36	12	18	9	9	21	36	55	2	129	32960	LNZG-40/50

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

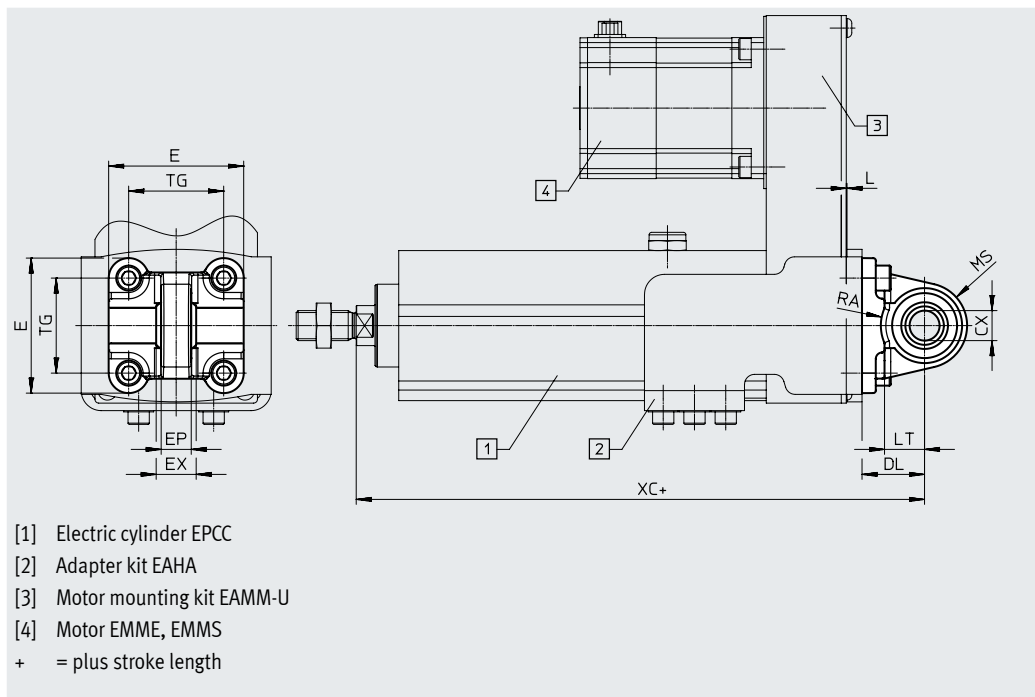
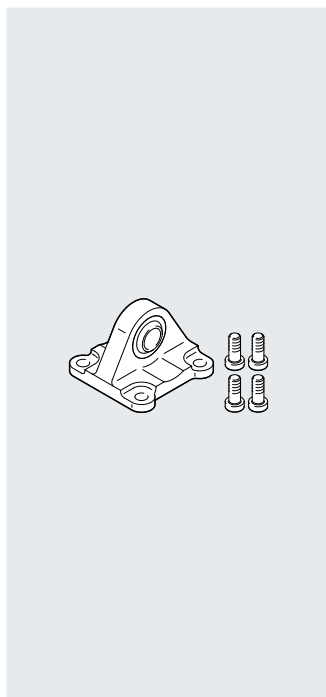
Moderate corrosion stress. Indoor applications in which condensation can occur. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Swivel flange SNCS

Material:
Die-cast aluminium

Free of copper and PTFE
RoHS-compliant



Dimensions and ordering data

For size	CX	DL	E	L	EP	EX	LT
		±0.2			±0.2		
45	10 ^{+0.13}	22	45 ^{+0.2/-0.5}	3	10.5	14	13
60	12 ^{+0.15}	25	54 ^{-0.5}	3	12	16	16

For size	MS	RA	TG	XC	CRC ¹⁾	Weight [g]	Part no.	Type
45	15	14.5	32.5	154.9	1	86	174397	SNCS-32
60	17	17.5	38	182	1	122	174398	SNCS-40

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

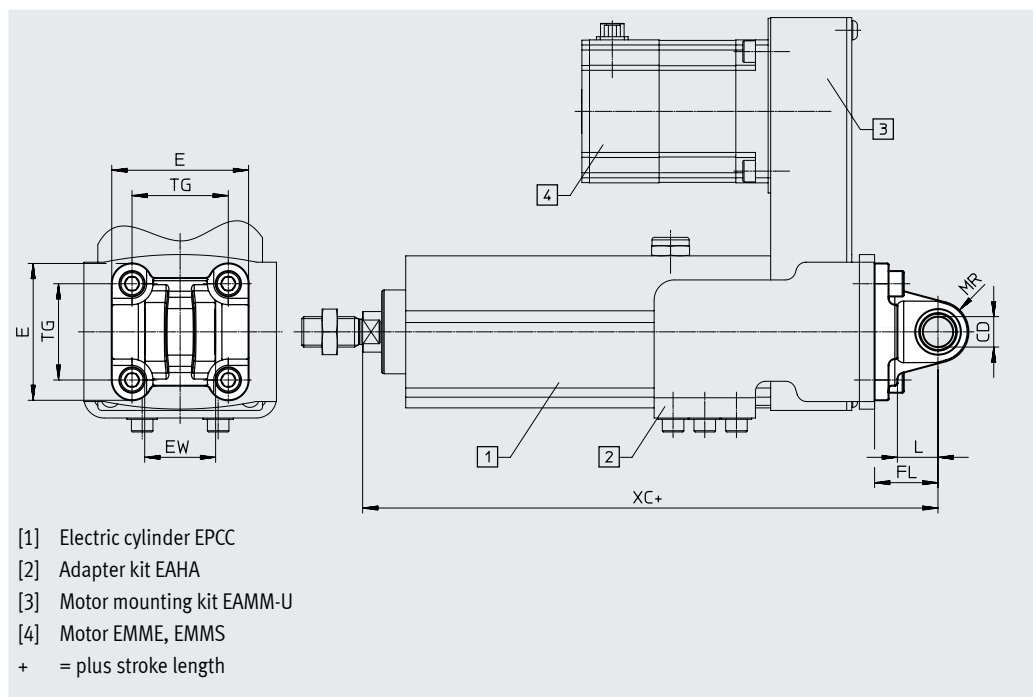
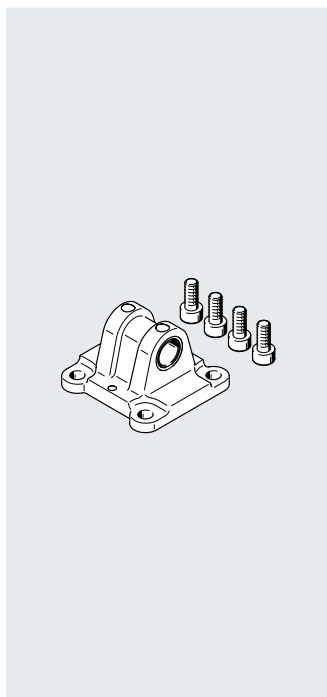
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Accessories

Swivel flange SNCL

Material:
Wrought aluminium alloy

Free of copper and PTFE
RoHS-compliant



Dimensions and ordering data

For size	CD Ø H10	E	EW	FL	L	LT
25	6	27.5 _{-0.6}	12 _{h12}	16	3	10
32	8	34.5 _{-0.6}	16 _{h12}	20	3	14
45	10	45 _{+0.2/-0.5}	26 _{-0.2/-0.6}	22	3	13
60	12	54 _{-0.5}	28 _{-0.2/-0.6}	25	3	16

For size	MR	TG	XC	CRC ¹⁾	Weight [g]	Part no.	Type
25	6	18	115.7	2	21	537791	SNCL-16
32	8	22	133.9	2	38	537792	SNCL-20
45	10	32.5	154.9	1	71	174404	SNCL-32
60	12	38	182	1	95	174405	SNCL-40

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Corrosion resistance class CRC 2 to Festo standard FN 940070

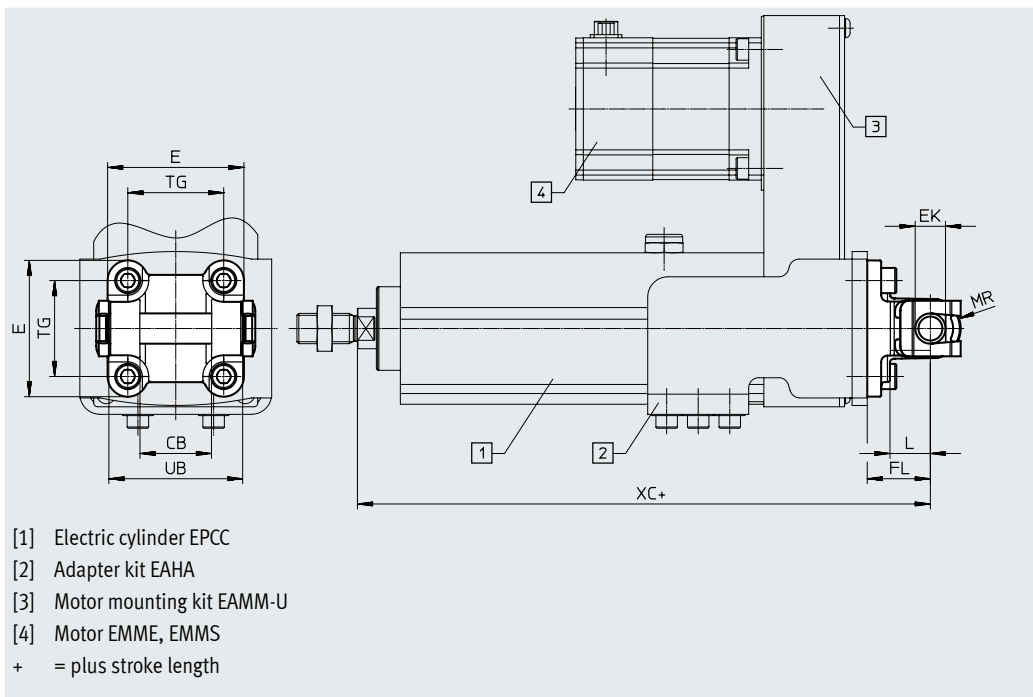
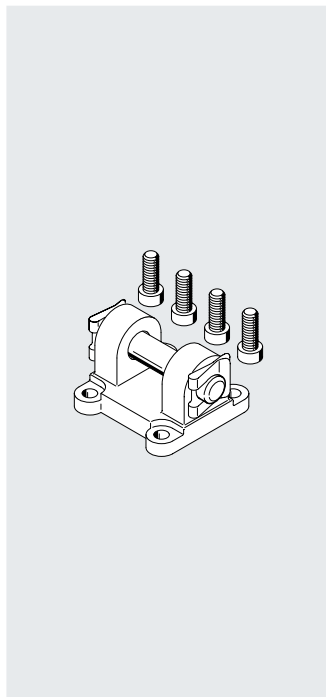
Moderate corrosion stress. Indoor applications in which condensation can occur. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Swivel flange SNCB

Material:
Die-cast aluminium

Free of copper and PTFE
RoHS-compliant



Dimensions and ordering data

For size	CB	E	EK Ø H10/e8	FL ±0.2	L	LT	MR -0.5
45	26	45 ^{+0.2/-0.5}	10	22	3	13	8.5
60	28	54 ^{-0.5}	12	25	3	16	12

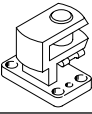
For size	TG	UB h14	XC	CRC ¹⁾	Weight [g]	Part no.	Type
45	32.5	45	154.9	1	103	174390	SNCB-32
60	38	52	182	1	155	174391	SNCB-40

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

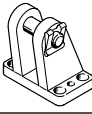
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Accessories

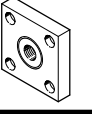
Ordering data – Mounting components

Designation	For size	Part no.	Type
Right-angle clevis foot LQG			
	45	31768	LQG-32
	60	31769	LQG-40
Clevis foot LBN			
	25	6058	LBN-12/16
	32	6059	LBN-20/25
	45	195860	LBN-32
	60	195861	LBN-40

Data sheets → Internet: clevis foot

Designation	For size	Part no.	Type
Clevis foot LBG			
	45	31761	LBG-32
	60	31762	LBG-40

Ordering data – Piston rod attachments

Designation	For size	Part no.	Type
Rod eye SGS			
	25	9254	SGS-M6
	32	9255	SGS-M8
	45	9261	SGS-M10x1.25
	60	9262	SGS-M12x1.25
Self-aligning rod coupler FK			
	25	2061	FK-M6
	32	2062	FK-M8
	45	6140	FK-M10x1.25
	60	6141	FK-M12x1.25
Coupling piece KSG			
	45	32963	KSG-M10x1.25
	60	32964	KSG-M12x1.25

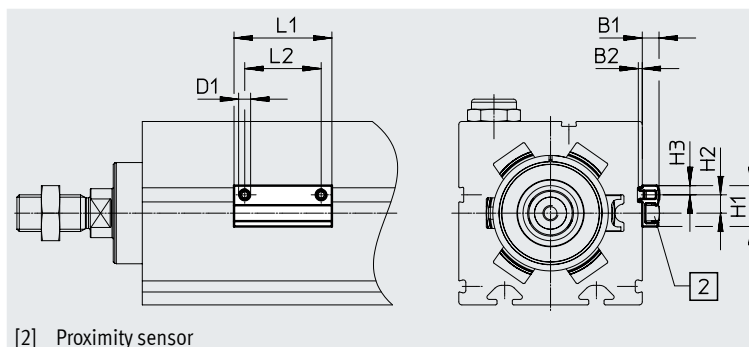
Data sheets → Internet: piston rod attachment

Designation	For size	Part no.	Type
Rod clevis SG			
	25	3110	SG-M6
	32	3111	SG-M8
	45	6144	SG-M10x1.25
	60	6145	SG-M12x1.25
Rod clevis SGA			
	45	32954	SGA-M10x1.25
	60	10767	SGA-M12x1.25

Accessories

Sensor bracket EAPM-L2

Material:
Anodised wrought aluminium alloy
RoHS-compliant



[2] Proximity sensor

Dimensions and ordering data

For size	B1	B2	D1	H1	H2
25, 32, 45, 60	5.5	1.3	M4	13.4	6

For size	H3	L1	L2	Weight [g]	Part no.	Type
25, 32, 45, 60	3	32	25	4	4759852	EAPM-L2-SH

Ordering data – Proximity sensors for T-slot, magneto-resistive

Data sheets → Internet: smt

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	2.5	574335	SMT-8M-A-PS-24V-E-2.5-OE
			Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0.3-M8D
		NPN	Cable, 3-wire	2.5	574338	SMT-8M-A-NS-24V-E-2,5-OE
			Plug M8x1, 3-pin	0.3	574339	SMT-8M-A-NS-24V-E-0,3-M8D
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7.5-OE
		NPN		2.5	8138000	SMT-8M-A-NO-24V-E-2,5-OE
				7.5	8138001	SMT-8M-A-NO-24V-E-7,5-OE

Ordering data – Connecting cables

Data sheets → Internet: nebu

	Electrical connection, left	Electrical connection, right	Cable length [m]	Part no.	Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3
			5	541341	NEBU-M8W3-K-5-LE3