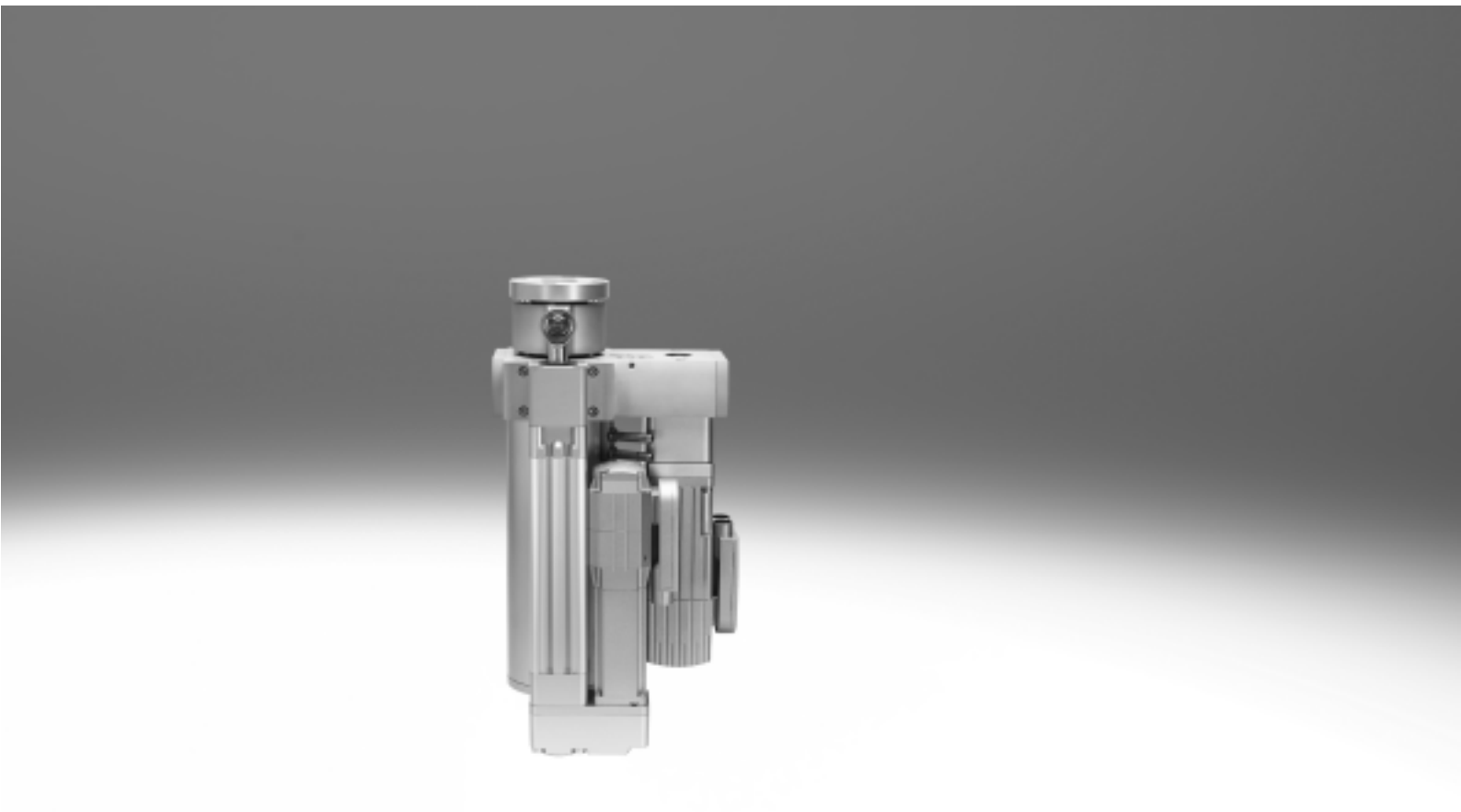
Rotary/lifting modules EHMB, electric

FESTO



Rotary/lifting modules EHMB, electric

Features

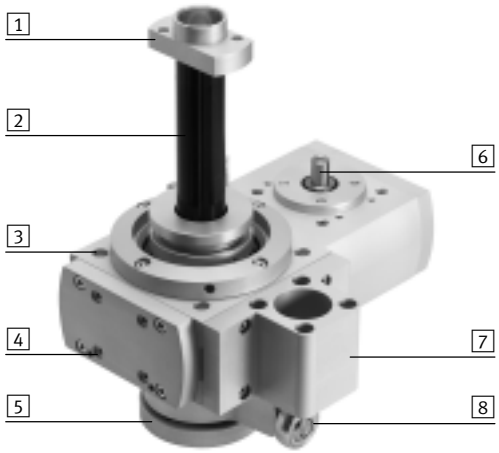
At a glance

The rotary/lifting module EHMB combines rotary and linear motion in one compact unit. The rotation is always transferred through a toothed belt to a hollow shaft by an electric motor while the linear motion is generated either by a pneumatic cylinder DSBC or an electric cylinder ESBF. Both movements act on the output flange, which is compatible with the semi-rotary drive DRQD, so that numerous grippers can be used.
Cables and tubes can be easily routed to the front unit of the rotary/lifting module through the large hollow shaft.
The movement range can also be sensed via proximity sensors at the rotary unit and the cylinder.

Advantages :
- Large hollow axis
- Stable bearing arrangement
- Various motors and cylinders enable the performance to be adapted to the application

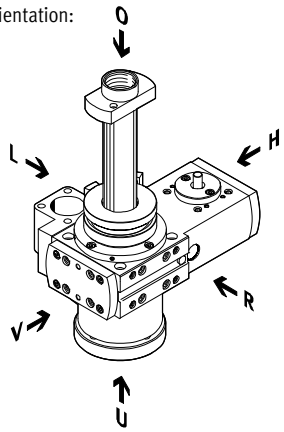
The technology in detail

1 Stop nut
2 Grooved shaft guide
3 Through-hole for mounting
4 Mounting thread/mounting hole
5 Output flange with centring hole and threaded hole for payload. Interface corresponds to that of the pneumatic semi-rotary drive DRQD
6 Drive shaft for rotation
7 Cylinder retainer
8 Rod eye and connecting bolt for linear motion



Flexible connection

Orientation:



O= top
U= underneath
R= right
V= front
L= left
H= rear

- The rotary/lifting module EHMB can be mounted on four sides:
  - On the right or left of the housing (L, R)
  - On the front cover (V)
  - Underneath the housing (U)
- The cylinder retainer can be mounted on three sides:
  - On the right or left of the housing (L, R)
  - On the front, after removing the front cover (V)

- The side where the cylinder retainer is mounted cannot be used for mounting the rotary/lifting module.
- Either a pneumatic standards-based cylinder DSBC or an electric cylinder ESBF can be attached to the cylinder holder. (These cylinders must be ordered separately).

Note

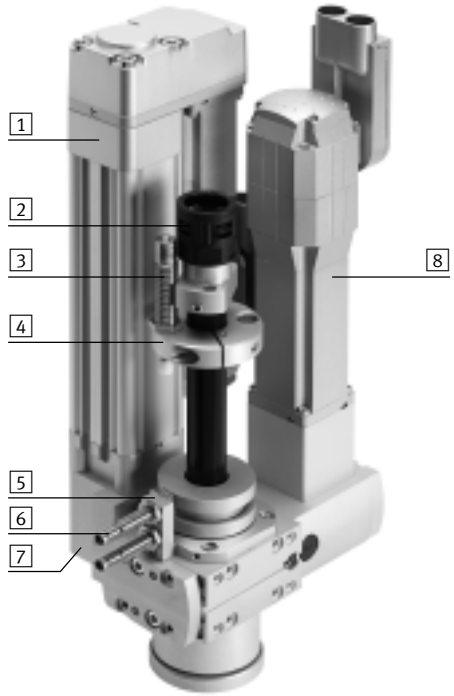
Eccentric loads can destroy the bearing.
The front side (V) may be used only to attach a symmetrical applied load.

Rotary/lifting modules EHMB, electric

Key features

Complete system comprising rotary/lifting module, motor and axial kit

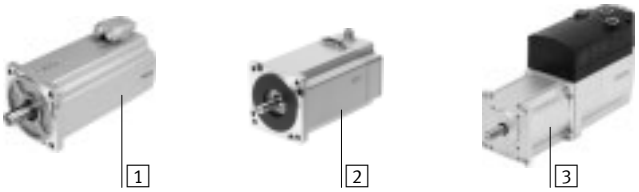
Rotary/lifting module ➔ 6



1 Electric cylinder ESBF, alternatively standards-based cylinder DSBC[1)]
2 Protective conduit fitting[1)]
3 Shock absorber[1)]
4 Shock absorber retainer[1)]
5 Sensor bracket
6 Proximity sensor SIEN[1)]
7 Cylinder retainer
8 Motor for rotation[1)]

1) These parts must be ordered separately as accessories.

Motors ➔17

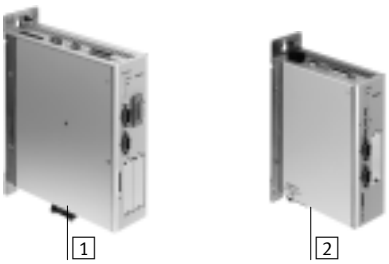


1 Servo motor EMME-AS, EMMS-AS
2 Stepper motor EMMS-ST
3 Integrated drive EMCA

- Note

A range of specially matched complete solutions is available for the rotary/lifting module EHMB and motors.

Motor controller Technical data ➔ Internet: motor controller



1 Servo motor controller CMMP-AS
2 Stepper motor controller CMMS-ST

Motor mounting kit ➔17

Axial kit

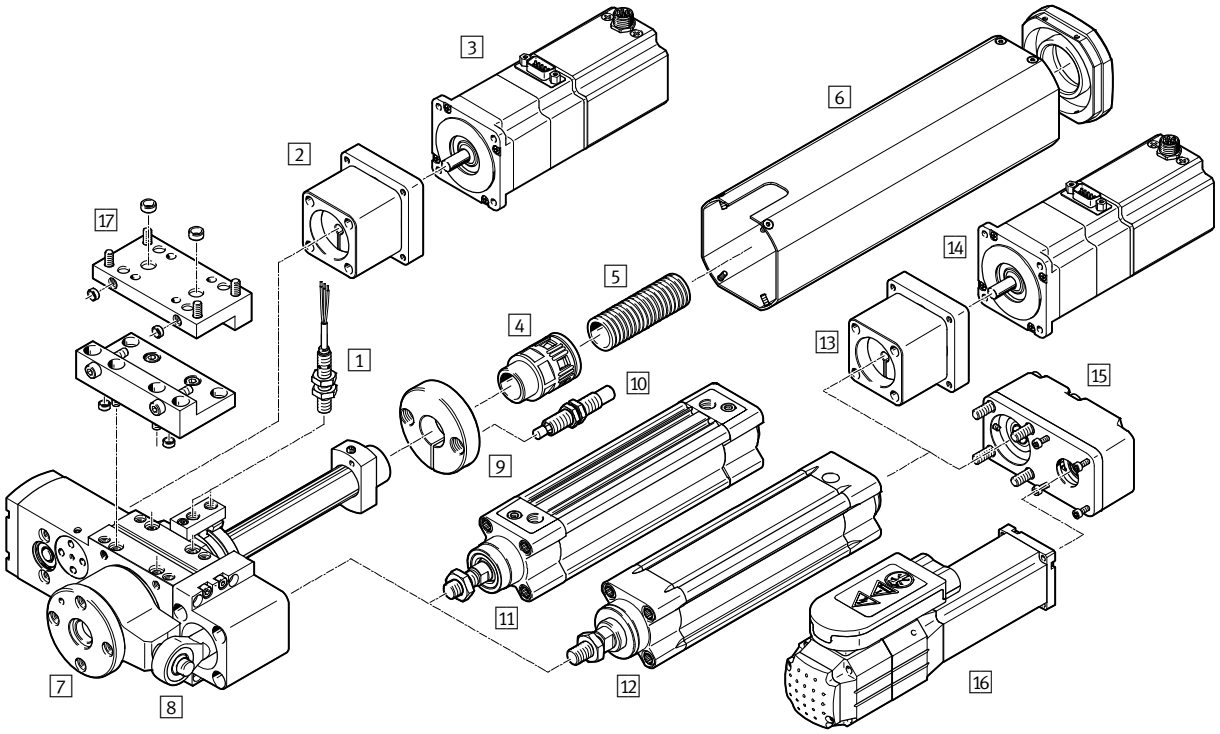
Parallel kit

Complete kits are available for both parallel and axial motor mounting.

Rotary/lifting modules EHMB, electric

Peripherals overview

Peripherals overview



Accessories

	Type	Description	➔ Page/Internet
1	Proximity sensor SIEN	• For use as a signal check and safety check • The holder for the proximity sensor SIEN is included in the scope of delivery of the rotary lifting module • Two cams ➔ 21, for sensing positions, are included in the scope of delivery	21
2	Axial kit EAMM-A	• For the rotation of the rotary/lifting module • For axial motor mounting • (consisting of: coupling, coupling housing and motor flange)	17
3	Motor EMMS, EMME, EMCA	• For the rotation of the rotary/lifting module • Motors specially matched to the axis, with or without brake • The motor can be mounted turned by 90° depending on the requirement. This means the connection side can be freely selected	17
4	Protective conduit fitting EASA	For attaching the protective conduit	21
5	Protective conduit MKR	For protecting electrical cables and compressed air tubing	21
6	Cover EASC	• For protecting the grooved shaft guide and the trip cams • Cannot be used in conjunction with the parallel kit EAMM-U for size 20, 25	20
7	Rotary/lifting module EHMB	Combination of linear and rotary drive	6
8	Rod eye SGS	• Connecting piece between rotary/lifting module and standard/electric cylinder • Included in the scope of delivery of the rotary lifting module	20
9	Shock absorber retainer EAYH	Retainer for the shock absorber DYSW	20

Rotary/lifting modules EHMB, electric

Peripherals overview and type codes

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Accessories

	Type	Description	➔ Page/Internet
10	Shock absorber DYSW	Hydraulic shock absorber with path-controlled flow control function	20
11	Standards-based cylinder DSBC	Pneumatic drive for the linear motion of the rotary/lifting module	16
12	Electric cylinders ESBF	Electric drive for the linear motion of the rotary/lifting module	16
13	Axial kit EAMM-A	• For the linear motion of the rotary/lifting module • For axial motor mounting • Alternative parallel kit 15 • (consisting of: coupling, coupling housing and motor flange)	esbf
14	Motor EMMS, EMME, EMCA	• For the linear motion of the rotary/lifting module • Motors specially matched to the axis, with or without brake • The motor can be mounted turned by 90° depending on the requirement. This means the connection side can be freely selected	esbf
15	Parallel kit EAMM-U	• For the linear motion of the rotary/lifting module • For parallel motor mounting • Alternative axial kit 13 • (consisting of: housing, clamping component, clamping sleeve, toothed belt pulley, toothed belt)	esbf
16	Motor EMMS, EMME, EMCA	• For the linear motion of the rotary/lifting module • Motors specially matched to the axis, with or without brake • The motor can be mounted turned by 90° depending on the requirement. This means the connection side can be freely selected	esbf
17	Adapter plate kit EHAM	• For attaching the EHMB to the axes EGC and DGC • Screws and centring sleeves are included in the scope of delivery of the adapter plate kit	20
–	Adapters	For drive/drive connections	22
		For drive/gripper connections	gripper

Note

When laying electrical cables or compressed air tubing through the hollow shaft of the grooved guide, the rotation angle of the EHMB must be limited to a rotation angle appropriate to the cables or compressed air tubing. Endless rotation damages cables and tubes.

Type codes

EHMB – 25 – 100

Type	
EHMB	Rotary/lifting module

Size

Stroke

Rotary/lifting modules EHMB, electric

Technical data

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- Ø - Size
20, 25, 32

- Note
All values are based on a room temperature of 23 °C.

General technical data				
Size		20	25	32
Design		Electromechanical rotary/lifting module with toothed belt		
Drive pinion ∅	[mm]	6	8	12
Rotation angle		Infinite (➔ 5)		
Stroke, linear	[mm]	100, 200		
Repetition accuracy, rotary[1]				
With servo motor EMMS-AS	[°]	±0.03		
With stepper motor EMMS-ST[2]	[°]	±0.08		
With integrated drive EMCA	[°]	±0.05		
Max. speed, linear				
With standards-based cylinder DSBC	[m/s]	➔ 10		
With electric cylinder ESBF	[m/s]	1.1		1.2
Positioning times, rotary		➔ 11		
Gear ratio		4.5:1	4:1	3:1
Position sensing		Via proximity sensor		
Mounting position		Any		

1) When the travel profile remains the same. The specifications apply only when the motor is directly mounted. If a gearbox is also installed, the repetition accuracy will be different
2) Dependent on the encoder resolution.

- Note
The connection between the drive and the EHMB for linear motion is not backlash-free.

Mechanical data				
Size		20	25	32
Max. driving torque	[Nm]	0.7	2.2	6.7
Max. output torque[1]	[Nm]	3.15	8.8	20
Average no-load driving torque[2]	[Nm]	< 0.07	< 0.18	< 0.5
Max. input speed	[rpm]	1350	1200	900
Max. output speed	[rpm]	300	300	300
Max. payload, horizontal	[kg]	3	5	8
Max. payload, vertical	[kg]	3	5	15[3]
Toothed belt pitch		2	3	5

1) Output torque minus friction is dependent on speed.
2) At maximum rotational speed.
3) With symmetrical and non-eccentric arrangement.

Rotary/lifting modules EHMB, electric

Technical data

Mechanical data				
Size		20	25	32
Max. mass moment of inertia[1]	[kgcm^2]	1000	5000	10000
Max. inertia factor[2]				
for servo motor EMMS-AS/EMME-AS		45		
for stepper motor EMMS-ST		30		
for integrated drive EMCA		16		

1) These values specify the upper limit independently of what is determined using the inertia factor.
2) The inertia factor represents the maximum controllable ratio between the inertia of the load and the intrinsic inertia of the motor with brake.

Example:
Rotary/lifting module EHMB-20 ➔ transmission ratio i = 4.5
Motor EMME-AS-40-S with brake ➔ intrinsic inertia 0.055 kgcm^2
Gearbox EMGA-40-P-G3-40 ➔ transmission ratio i = 3

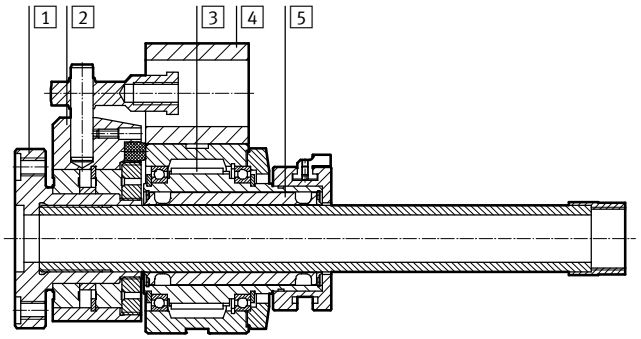
Limit for the inertia of the load (+ intrinsic inertia) on the output side:
0.055 kgcm^2 x 45 x 3^2 x 4.5^2 = 451 kgcm^2

Operating and environmental conditions				
Size		20	25	32
Ambient temperature	[°C]	–10 … +60		
Noise level $\bar{L}_{pAeq}$ with cover	[dB (A)]	57	56	53
Noise level $\bar{L}_{pAeq}$ without cover	[dB (A)]	54	51	51

Weight [g]							
Size		20		25		32	
Stroke	[mm]	100	200	100	200	100	200
Product weight							
Total		1716	1851	3347	3620	6112	6388
Moving load for linear motion							
Guide rod		501	681	1251	1651	1332	1732
Stop nut		25	25	53	53	53	53
Shock absorber retainer		64	64	99	99	99	99
Shock absorber		42	42	66	66	66	66
Rod eye		73	73	73	73	108	108
Moving mass of standards-based cylinder DSBC		200	290	200	290	365	525

Materials

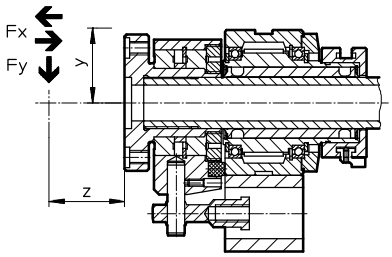
Sectional view



Rotary/lifting module		
1	Flange	Anodised aluminium
2	Mounting	Anodised wrought aluminium alloy
3	Toothed belt	Polychloroprene with glass fibre
4	Holder	Anodised aluminium
5	Drive shaft	Steel
–	Drive shaft	High-alloy stainless steel
–	Note on materials	RoHS compliant
		Contains paint-wetting impairment substances

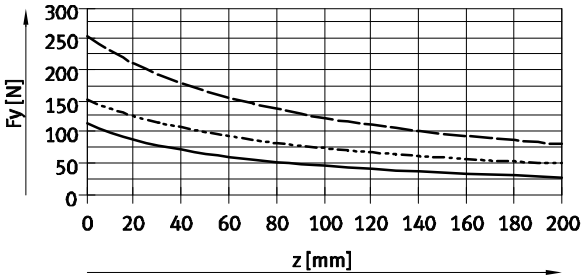
Maximum radial and axial force Fy/Fz at the output shaft as a function of distance x/z

If the rotary module is subjected to two or more forces at once, the following equation must be satisfied in addition to the maximum loads indicated below.

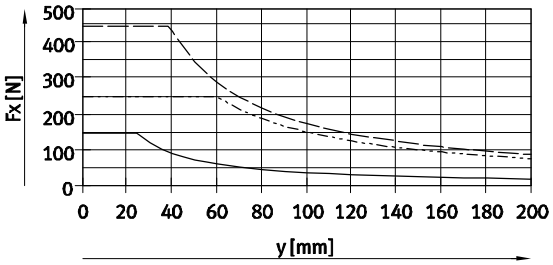


$$\frac{|Fx|}{Fx_{max.}} + \frac{|Fy|}{Fy_{max.}} + \frac{|Fz|}{Fz_{max.}} \leq 1$$

Max. radial force Fy, dynamic



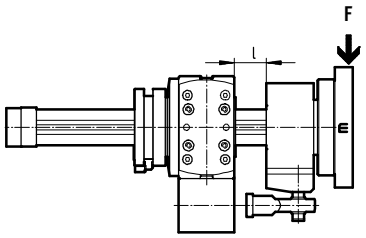
Max. axial force Fx, dynamic, pushing and pulling



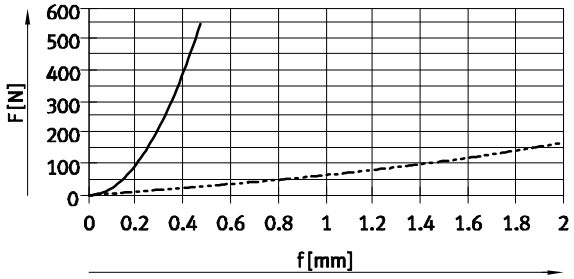
EHMB-20
EHMB-25
EHMB-32

Deflection f as a function of lateral stroke F and stroke l

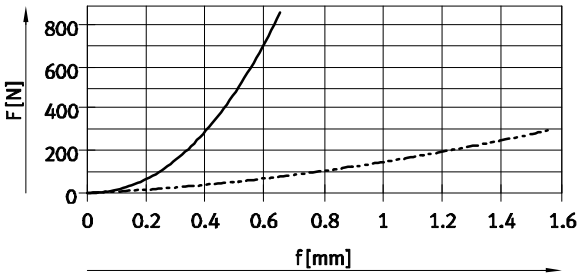
The following graphs show the deflection f of the rotary/lifting module under radial forces and with two strokes.



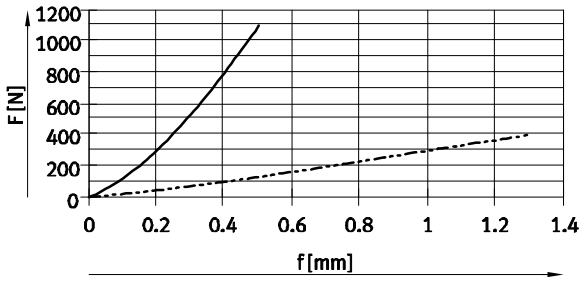
EHMB-20



EHMB-25



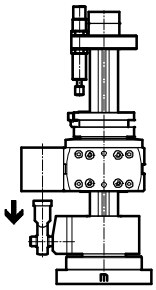
EHMB-32

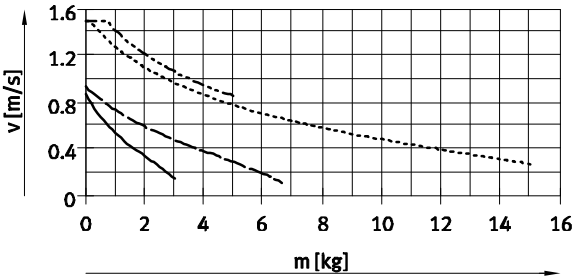


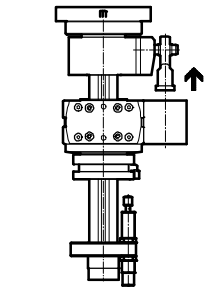
l = 10 mm
l = 200 mm

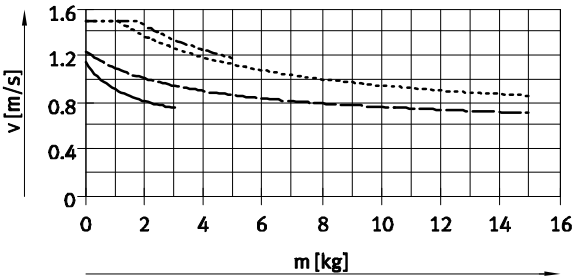
Max. speed v as a function of the payload m in conjunction with the pneumatic standards-based cylinder DSBC

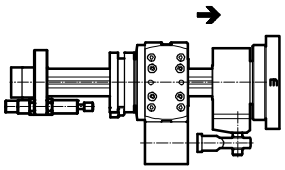
Mounting position:

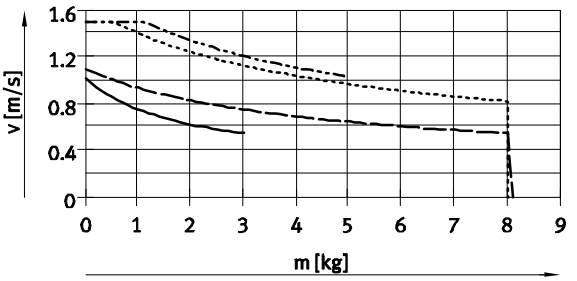










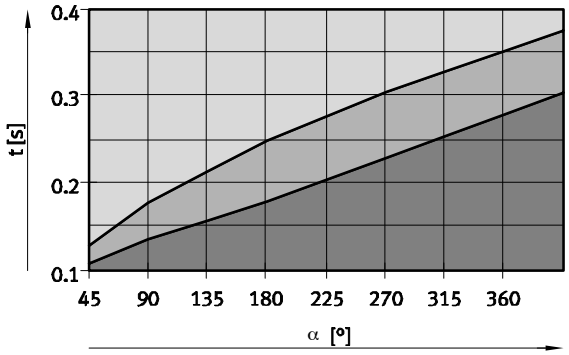


EHMB-20
EHMB-25
EHMB-32, with one shock absorber DYSW
EHMB-32, with two shock absorbers DYSW

Positioning time t as a function of the rotation angle α

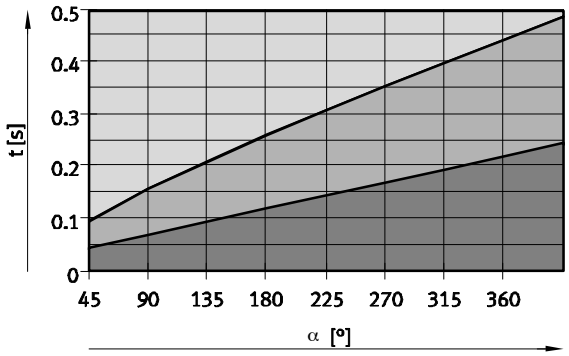
Size: 20

Example with servo motor EMMS-AS



Permissible range
The viability is dependent on the motor size and inertia of the load
Non-implementable range

Example with stepper motor EMMS-ST



Permissible range
The viability is dependent on the motor size and inertia of the load
Non-implementable range

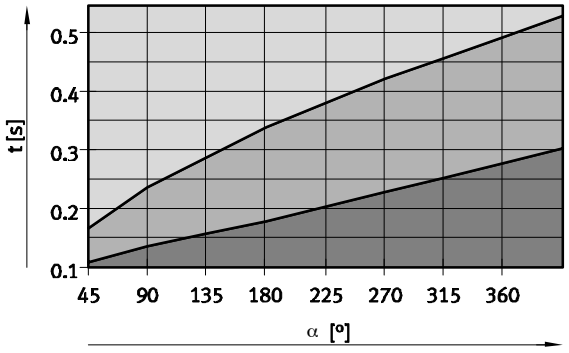
Note

The following tool is available for sizing:
Engineering software PositioningDrives
➔ www.festo.com

Positioning time t as a function of the rotation angle α

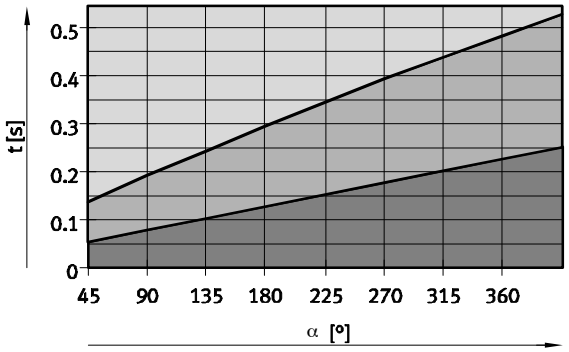
Size: 25

Example with servo motor EMMS-AS



Permissible range
The viability is dependent on the motor size and inertia of the load
Non-implementable range

Example with stepper motor EMMS-ST



Permissible range
The viability is dependent on the motor size and inertia of the load
Non-implementable range

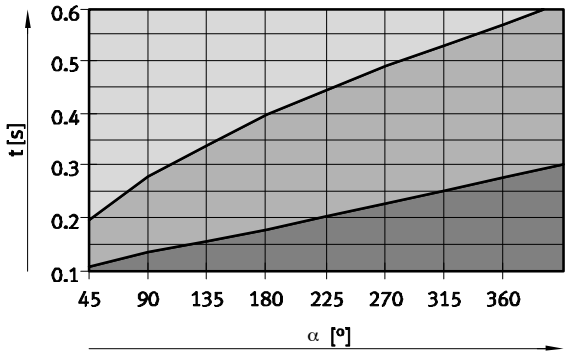
- Note

The following tool is available for sizing:
Engineering software PositioningDrives
➔ www.festo.com

Positioning time t as a function of the rotation angle α

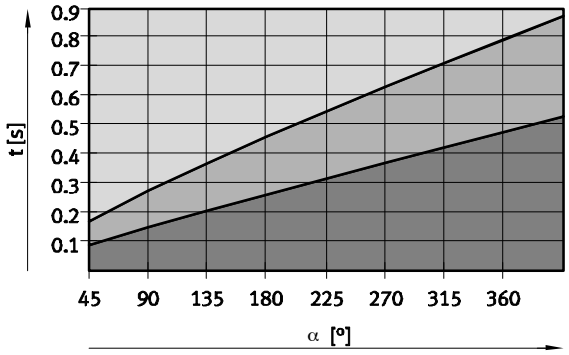
Size: 32

Example with servo motor EMMS-AS



Permissible range
The viability is dependent on the motor size and inertia of the load
Non-implementable range

Example with stepper motor EMMS-ST

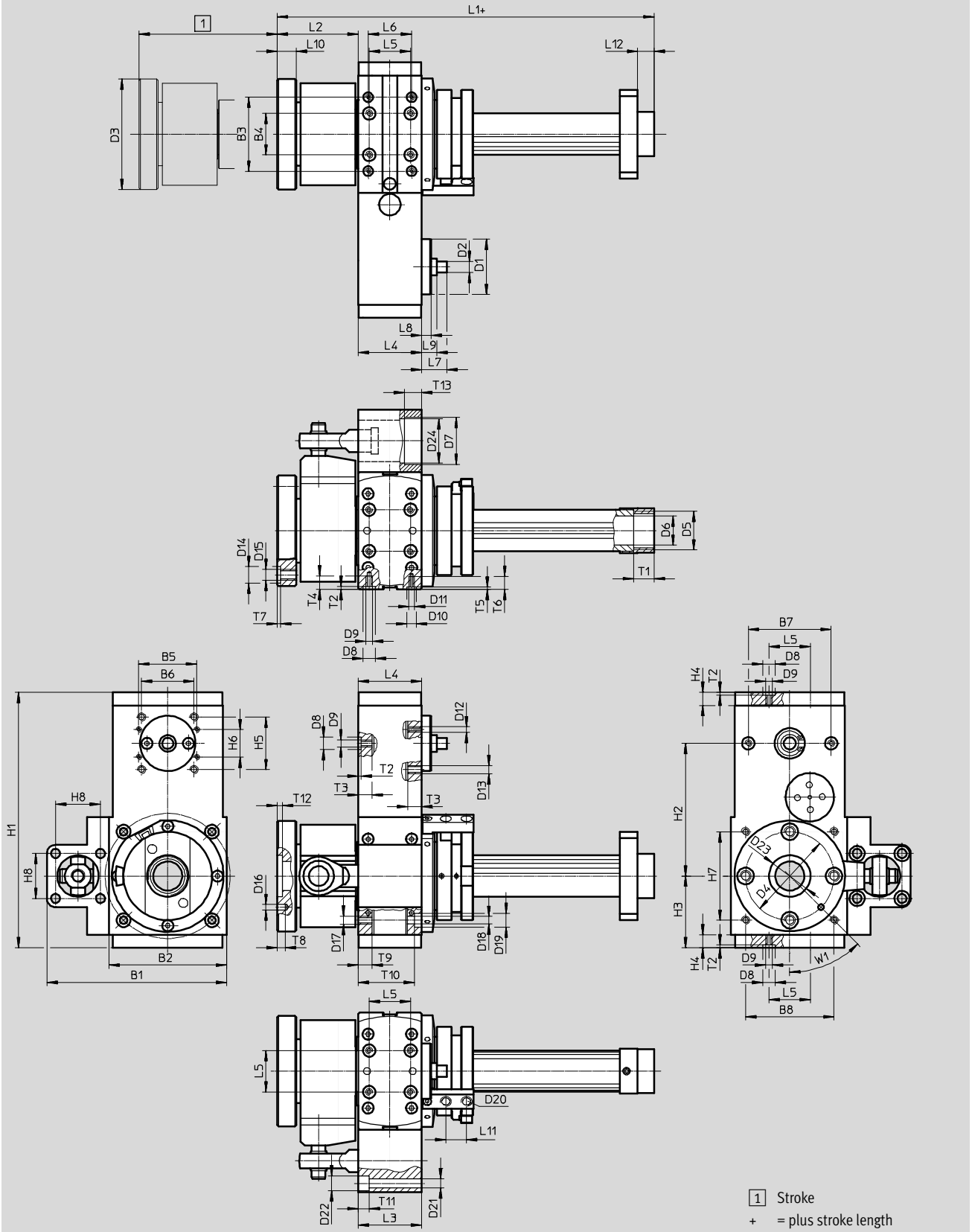


Permissible range
The viability is dependent on the motor size and inertia of the load
Non-implementable range

Note

The following tool is available for sizing:
Engineering software PositioningDrives
➔ www.festo.com

Dimensions Download CAD data ➔ **www.festo.com**



Rotary/lifting modules EHMB, electric

Technical data

Size	B1 ±0.5	B2 ±0.2	B3[1]	B4[1]	B5 ±0.15	B6 ±0.15	B7[1]	B8 ±0.15	D1 ∅ g7	D2 ∅ H6	D3 ∅	D4 ∅ ±0.05
20	110	65	54	34	32	32.5	30	52	32	6	58	45
25	130	85	53.5	30	42	38	60	64	40	8	80	64
32	169.5	115	70	40	62	56.5	80	88	60	12	80	64

Size	D5	D6 ∅	D7 ∅ H8	D8 ∅ H7	D9	D10 ∅ H7	D11	D12	D13	D14 ∅ H7	D15	D16 ∅ H7	D17
20	Pg16	14	34/30[2]	9	M5	7	M4	M3	M6	9	M6	4	M5
25	Pg21	21	34/30[2]	9	M5	7	M4	M4	M6	12	M8	4	M6
32	Pg21	21	39/35[2]	9	M5	–	M5	M5	M8	12	M8	4	M6

Size	D18 ∅	D19 ∅	D20	D21 ∅	D22 ∅	D23 ∅	D24 ∅	H1 ±0.5	H2 ±0.05	H3	H4	H5 ±0.15	H6 ±0.15
20	–	–	M8x1	6.6	11	19^{H8}	32	149	72	45	9.5	32.5	19
25	5.5	10	M8x1	6.6	11	30^{H7}	32	185	96	52	9.5	38	20
32	6.2	10	M8x1	6.6	11	30^{H7}	37	229.5	108	70.5	13	56.5	31

Size	H7 ±0.15	H8	L1	L2 Min.	L3 ±0.1	L4 ±0.1	L5[1]	L6[1]	L7	L8	L9	L10	L11 ±0.1	L12
20	44	32.5	147.5	40.5	52	40	30	30	15.8	5	7.8	9	15	12
25	64	32.5	173	58.6	46	46	30	31.5	18.35	7	–	14	15	12
32	88	38	183	61.4	60	60	40	47	23.3	6	–	14	15	12

Size	T1	T2 +0.1	T3	T4	T5 +0.2	T6	T7 +0.1	T8	T9	T10 ±0.2	T11	T12 ±0.5	T13 +0.4	W1
20	14	2.1	10	9	1.6	9.5	2.1	6	8.5	–	11	3	12.5	45°
25	15	2.1	10	9.6	1.6	9.5	2.7	6	10	40.8	8	4	12.5	45°
32	15	2.1	10	9	–	9.5	2.7	6	10	54.3	15	4	14.5	45°

1) Tolerance for centring hole ±0.02 mm.
Tolerance for thread ±0.1 mm.

Note

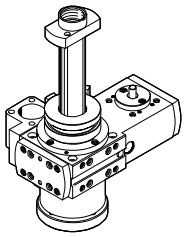
2) Using a centring ring, the diameter can be reduced (included in the scope of delivery of EHMB).

Rotary/lifting modules EHMB, electric

Technical data

FESTO

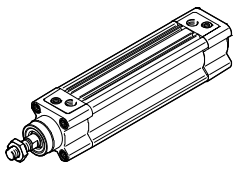
Ordering data

	Size	Stroke [mm]	Part No.	Type
	20	100	**1107096**	**EHMB-20-100**
		200	**1107097**	**EHMB-20-200**
	25	100	**1095933**	**EHMB-25-100**
		200	**1095934**	**EHMB-25-200**
	32	100	**1098558**	**EHMB-32-100**
		200	**1098559**	**EHMB-32-200**

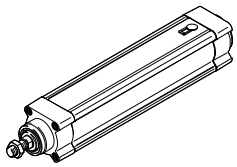
Cylinder connection for linear motion

Ordering data

In conjunction with the pneumatic standards-based cylinder DSBC — Technical data ➔ Internet: dsbc

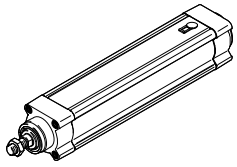
	For rotary/lifting module	Standards-based cylinder DSBC	
		Part No.	Type
	EHMB-20-100	**1376426**	**DSBC-32-100-PPVA-N3**
	EHMB-20-200	**1376429**	**DSBC-32-200-PPVA-N3**
	EHMB-25-100	**1376426**	**DSBC-32-100-PPVA-N3**
	EHMB-25-200	**1376429**	**DSBC-32-200-PPVA-N3**
	EHMB-32-100	**1376660**	**DSBC-40-100-PPVA-N3**
	EHMB-32-200	**1376663**	**DSBC-40-200-PPVA-N3**

In conjunction with electric cylinder ESBF — Technical data ➔ Internet: esbf

	For rotary/lifting module	Electric cylinder ESBF[1)]	
		Part No.	Type
	EHMB-20-100	**8022562**	**ESBF-BS-32-100-5P**
	EHMB-20-200	**2215384**	**ESBF-BS-32-200-5P**
	EHMB-25-100	**8022562**	**ESBF-BS-32-100-5P**
	EHMB-25-200	**2215384**	**ESBF-BS-32-200-5P**
	EHMB-32-100	**8022574**	**ESBF-BS-40-100-5P**
	EHMB-32-200	**2215385**	**ESBF-BS-40-200-5P**

1) Ball screw with spindle pitch 5 mm, with reduced dynamic response

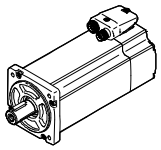
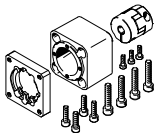
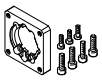
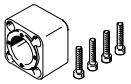
In conjunction with electric cylinder ESBF — Technical data ➔ Internet: esbf

	For rotary/lifting module	Electric cylinder ESBF[2)]	
		Part No.	Type
	EHMB-20-100	**8022565**	**ESBF-BS-32-100-10P**
	EHMB-20-200	**8022566**	**ESBF-BS-32-200-10P**
	EHMB-25-100	**8022565**	**ESBF-BS-32-100-10P**
	EHMB-25-200	**8022566**	**ESBF-BS-32-200-10P**
	EHMB-32-100	**8022577**	**ESBF-BS-40-100-10P**
	EHMB-32-200	**8022578**	**ESBF-BS-40-200-10P**

2) Ball screw with spindle pitch 10 mm

Motor mounting for rotary motion

Permissible axis/motor combinations with axial kit – Without gearbox Technical data ➔ Internet: eamm-a

Motor[1]	Axial kit	Axial kit comprises:		
		Motor flange	Coupling	Coupling housing
				
Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
EHMB-20				
With servo motor				
EMME-AS-40-...	**2207441** **EAMM-A-D32-35A-40P**	**–**	**533708** **EAMC-30-32-6-8**	**2207509** **EAMK-A-D32-35-40P**
EMMS-AS-40-...	**560281** **EAMM-A-D32-35A-40A**	**–**	**558312** **EAMC-30-32-6-6**	**560280** **EAMK-A-D32-35-40A**
With stepper motor				
EMMS-ST-42-...	**543148** **EAMM-A-D32-42A**	**552164** **EAMF-A-28B-42A**	**543419** **EAMC-16-20-5-6**	**552155** **EAMK-A-D32-28B**
EMMS-ST-57-...	**550980** **EAMM-A-D32-57A**	**530081** **EAMF-A-44A/B-57A**	**551002** **EAMC-30-32-6-6.35**	**551006** **EAMK-A-D32-44A/C**
With integrated drive				
EMCA-EC-67-...	**1454239** **EAMM-A-D32-67A**	**1476305** **EAMF-A-44A/B/C-67A-S1**	**551003** **EAMC-30-32-6-9**	**551006** **EAMK-A-D32-44A/C**
EHMB-25				
With servo motor				
EMMS-AS-55-...	**543153** **EAMM-A-D40-55A**	**529942** **EAMF-A-44A/B-55A**	**543423** **EAMC-30-32-8-9**	**552157** **EAMK-A-D40-44A/C**
EMME-AS-60-...	**1977000** **EAMM-A-D40-60P**	**1956846** **EAMF-A-44C-60P**	**562682** **EAMC-30-32-8-14**	**552157** **EAMK-A-D40-44A/C**
EMMS-AS-70-...	**550981** **EAMM-A-D40-70A**	**529943** **EAMF-A-44A/B-70A**	**551004** **EAMC-30-32-8-11**	**552157** **EAMK-A-D40-44A/C**
With stepper motor				
EMMS-ST-57-...	**543154** **EAMM-A-D40-57A**	**530081** **EAMF-A-44A/B-57A**	**543421** **EAMC-30-32-6.35-8**	**552157** **EAMK-A-D40-44A/C**
With integrated drive				
EMCA-EC-67-...	**1454243** **EAMM-A-D40-67A**	**1476305** **EAMF-A-44A/B/C-67A-S1**	**543423** **EAMC-30-32-8-9**	**552157** **EAMK-A-D40-44A/C**

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

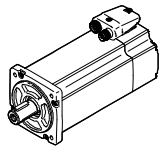
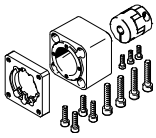
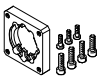
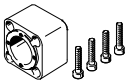
Note

Note the maximum permissible driving torque of the EHMB. The motor current may need to be limited.

The following tool is available for sizing:
Engineering software PositioningDrives
➔ www.festo.com

Motor mounting for rotary motion

Permissible axis/motor combinations with axial kit – Without gearbox — Technical data ➔ Internet: eamm-a

Motor[1]	Axial kit	Axial kit comprises:		
		Motor flange	Coupling	Coupling housing
				
Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
EHMB-32				
With servo motor				
EMMS-AS-70-...	**543161** **EAMM-A-D60-70A**	**529945** **EAMF-A-64A/B-70A**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**
EMME-AS-80-...	**1977073** **EAMM-A-D60-80P**	**1977113** **EAMF-A-64A/C-80P**	**551005** **EAMC-42-50-12-19**	**551007** **EAMK-A-D60-64C**
EMME-AS-100-...	**550983** **EAMM-A-D60-100A**	**529947** **EAMF-A-64A/C/D-100A**	**551005** **EAMC-42-50-12-19**	**551007** **EAMK-A-D60-64C**
EMMS-AS-100-...	**550983** **EAMM-A-D60-100A**	**529947** **EAMF-A-64A/C/D-100A**	**551005** **EAMC-42-50-12-19**	**551007** **EAMK-A-D60-64C**
With stepper motor				
EMMS-ST-87-...	**543162** **EAMM-A-D60-87A**	**533140** **EAMF-A-64A/B-87A**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**

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

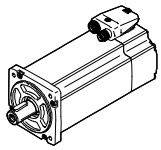
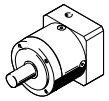
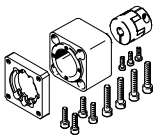
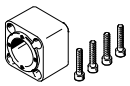
Note

Note the maximum permissible driving torque of the EHMB. The motor current may need to be limited.

The following tool is available for sizing:
Engineering software PositioningDrives
➔ www.festo.com

Motor mounting for rotary drive

Permissible axis/motor combinations with axial kit – With gearbox — Technical data ➔ Internet: eamm-a

Motor[1]	Gear units	Axial kit	Axial kit comprises:		
			Motor flange	Coupling	Coupling housing
					
Type	Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
EHMB-20					
With integrated drive					
EMCA-EC-67-...	**EMGC-40-...**	**1454238** **EAMM-A-D32-40G**	**1460095** **EAMF-A-44C-40G-S**	**562681** **EAMC-30-32-6-10**	**551006** **EAMK-A-D32-44A/C**
	EMGC-60-...	**2946760** **EAMM-A-D32-60H**	**1460105** **EAMF-A-44C-60G/H-S1**	**1233256** **EAMC-30-32-6-14**	**551006** **EAMK-A-D32-44A/C**
EHMB-25					
With servo motor					
EMME-AS-40-...	**EMGA-40-P-G...-EAS-40**	**560282** **EAMM-A-D40-40G**	**550986** **EAMF-A-44A/B-40G**	**558029** **EAMC-30-32-8-10**	**552157** **EAMK-A-D40-44A/C**
EMMS-AS-40-...	**EMGA-40-P-G...-SAS-40**	**560282** **EAMM-A-D40-40G**	**550986** **EAMF-A-44A/B-40G**	**558029** **EAMC-30-32-8-10**	**552157** **EAMK-A-D40-44A/C**
With stepper motor					
EMMS-ST-42-...	**EMGA-40-P-G...-SST-42**	**560282** **EAMM-A-D40-40G**	**550986** **EAMF-A-44A/B-40G**	**558029** **EAMC-30-32-8-10**	**552157** **EAMK-A-D40-44A/C**
With integrated drive					
EMCA-EC-67-...	**EMGC-40-...**	**560282**[2] **EAMM-A-D40-40G**	**550986** **EAMF-A-44A/B-40G**	**558029** **EAMC-30-32-8-10**	**552157** **EAMK-A-D40-44A/C**
		2256398 **EAMM-A-D40-40G-G2**	**1460095** **EAMF-A-44C-40G-S**	**558029** **EAMC-30-32-8-10**	**552157** **EAMK-A-D40-44A/C**
	EMGC-60-...	**1454242** **EAMM-A-D40-60H**	**1460105** **EAMF-A-44C-60G/H-S1**	**562682** **EAMC-30-32-8-14**	**552157** **EAMK-A-D40-44A/C**
EHMB-32					
With servo motor					
EMMS-AS-55-...	**EMGA-60-P-G...-SAS-55**	**560283** **EAMM-A-D60-60G**	**550987** **EAMF-A-64A/B-60G/H**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**
EMMS-AS-70-...	**EMGA-60-P-G...-SAS-70**	**560283** **EAMM-A-D60-60G**	**550987** **EAMF-A-64A/B-60G/H**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**
With stepper motor					
EMMS-ST-57-...	**EMGA-60-P-G...-SST-57**	**560283** **EAMM-A-D60-60G**	**550987** **EAMF-A-64A/B-60G**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**
With integrated drive					
EMCA-EC-67-...	**EMGC-60-...**	**1454245** **EAMM-A-D60-60H**	**2256289** **EAMF-A-64B-60G/H-S1**	**1455671** **EAMC-42-50-12-14**	**552160** **EAMK-A-D60-64B**

1) The input torque must not exceed the maximum permissible transferable torque of the axial kit.
2) Type to be discontinued

- Note

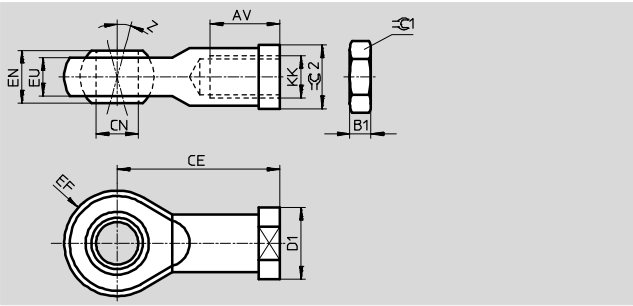
Note the maximum permissible driving torque of the EHMB. The motor current may need to be limited.

The following tool is available for sizing:
Engineering software PositioningDrives
➔ www.festo.com

Rod eye SGS

Scope of delivery:
1 rod eye, 1 hex nut to DIN 439

Materials:
Galvanised steel

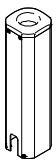
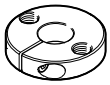
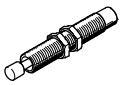
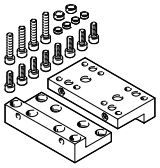


Dimensions and ordering data

For size	AV	B1	CE	CN ∅ H7	D1 ∅	EF ±0.5	EN	EU
20, 25	20 –2	5	43	10	19	14	14	10.5
32	22 –2	6	50	12	22	16	16	12

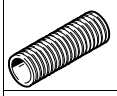
For size	EU	KK	Z	⌀C1	⌀C2	Part No.	Type
20, 25	10.5	M10x1.25	13	17	17	**9261**	**SGS-M10x1,25**
32	12	M12x1.25	13	19	19	**9262**	**SGS-M12x1,25**

Ordering data

	For size	Brief description	Weight [g]	Part No.	Type	PU[1]
Cover EASC						
	20	• For protecting the grooved shaft guide • Cannot be used in conjunction with parallel kit EAMM-U	303	**1099901**	**EASC-H1-20-100**	1
			388	**1099902**	**EASC-H1-20-200**	
	25		385	**1096387**	**EASC-H1-25-100**	
			482	**1096388**	**EASC-H1-25-200**	
	32	For protecting the grooved shaft guide	383	**1107235**	**EASC-H1-32-100**	
			481	**1107236**	**EASC-H1-32-200**	
Shock absorber retainer EAYH						
	20	For attaching the shock absorbers	68	**1153896**	**EAYH-H1-20**	1
	25, 32		106	**1153905**	**EAYH-H1-25**	
Shock absorber DYSW						
	20	Progressive shock absorbers	42	**548073**	**DYSW-8-14-Y1F**	1
	25, 32		67	**548074**	**DYSW-10-17-Y1F**	
Adapter plate kit EHAM						
	20	For attaching the EHMB to the axes EGC and DGC	288	**1132369**	**EHAM-H1-20-L2-80**	1
	25		292	**1132402**	**EHAM-H1-25-L2-80**	
	32		668	**1132529**	**EHAM-H1-32-L2-120**	

1) Packaging unit

Ordering data

	For size	Brief description	Weight [g]	Part No.	Type	PU[1]
Protective conduit fitting EASA						
	20	For attaching the protective conduit	8	**1157774**	**EASA-H1-20-PG16**	1
	25, 32		12	**1096549**	**EASA-H1-25-PG21**	
Protective conduit MKR						
	20	For protecting lines and tubing	–	**177566**	**MKR-16,5-PG-16**	–
	25, 32		–	**177567**	**MKR-23-PG-21**	
Cam EAPS						
	20	For sensing positions (2 cams included in the scope of delivery)	11	**1234887**	**EAPS-H1-20-CK**	2
	25, 32		11	**1234888**	**EAPS-H1-25-CK**	
Centring sleeve						
	– [2]	For centring loads and attachments	1	**186717**	**ZBH-7**	10
			1	**150927**	**ZBH-9**	
			1	**189653**	**ZBH-12**	

1) Packaging unit
2) ➔ Dimensional drawing 14

Ordering data – Proximity sensor, inductive Technical data ➔ Internet: sien

	Contact	Connection	Part No.	Type
	N/O contact	Cable, 2.5 m	**150386**	**SIEN-M8B-PS-K-L**
		Plug connector	**150387**	**SIEN-M8B-PS-S-L**
	N/C contact	Cable, 2.5 m	**150390**	**SIEN-M8B-PO-K-L**
		Plug connector	**150391**	**SIEN-M8B-PO-S-L**

Note

The holder for the proximity sensor SIEN is included in the scope of delivery of the rotary/lifting module.

Ordering data – Connecting cables Technical data ➔ 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**

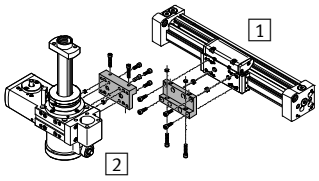
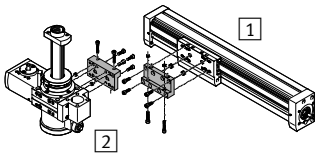
Adapter kit
EHAM

Materials:
Wrought aluminium alloy
Free of copper and PTFE
RoHS compliant

Note
The kit includes the individual mounting interface as well as the necessary mounting material.

Permissible drive/drive combinations with adapter kit

Download CAD data ➔ **www.festo.com**

Combination	1 Drive	2 Drive	Adapter kit		
	Size	Size	CRC[1]	Part No.	Type
DGC/EHMB	DGC	EHMB	EHAM		
	25	20	2	**1132369**	**EHAM-H1-20-L2-80**
	25	25		**1132402**	**EHAM-H1-25-L2-80**
	40	32		**1132529**	**EHAM-H1-32-L2-120**
EGC/EHMB	EGC	EHMB	EHAM		
	80	20	2	**1132369**	**EHAM-H1-20-L2-80**
	80	25		**1132402**	**EHAM-H1-25-L2-80**
	120	32		**1132529**	**EHAM-H1-32-L2-120**

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.