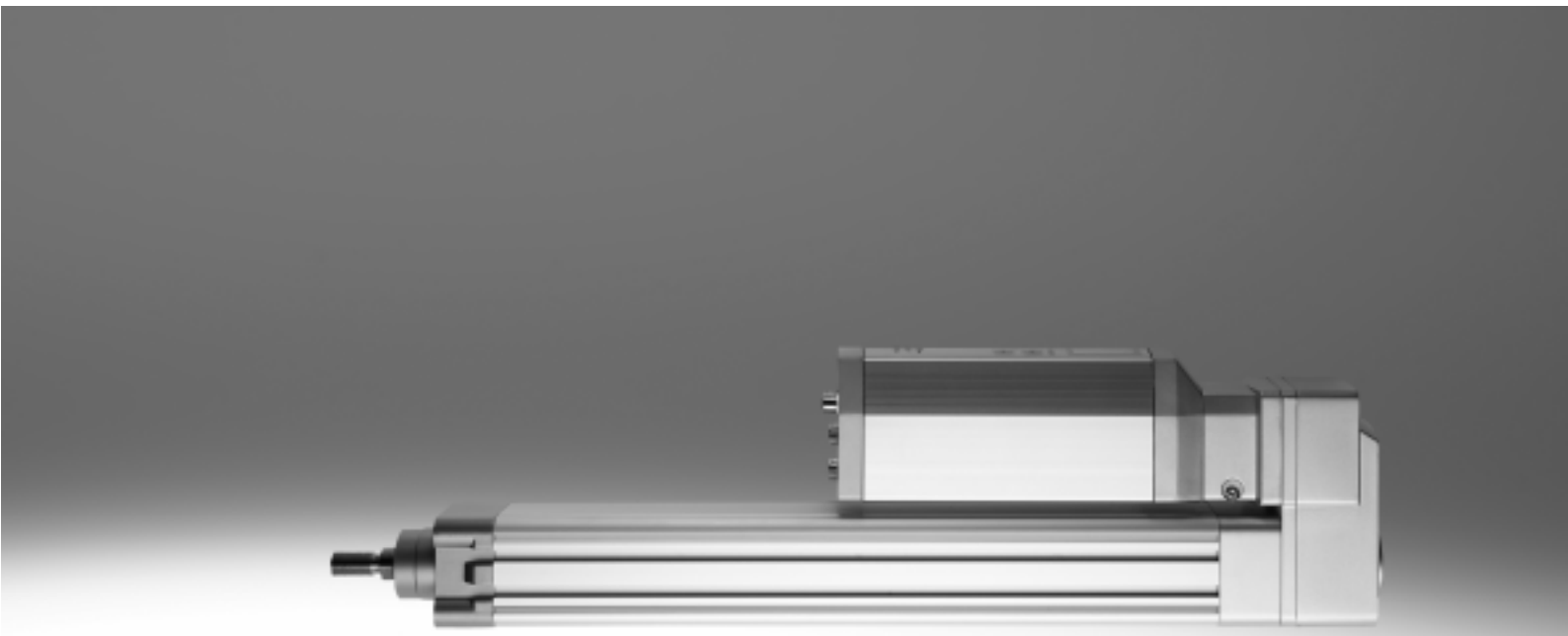
Electric cylinders DNCE, with spindle drive

FESTO



Electric cylinders DNCE, with spindle drive

Key features

At a glance

General

The electric cylinder DNCE is a mechanical linear axis with piston rod. The drive component consists of an electrically driven spindle, which converts the rotary motion of the motor into the linear motion of the piston rod.
The mechanical interfaces are largely compatible with the standard cylinder DNC.

Properties

- Choice of spindle type:
  - With lead screw (LS)
  - With ball screw (BS)
- Electric cylinder with lead screw spindle is self-retarding
- Compact dimensions

Optional:

- Protection class IP65
- High corrosion protection
- NSF-H1 lubricant for the food industry

Range of applications

- Lead screw spindle
  - For applications with slow feed speeds
- Ball screw spindle
  - For applications with high feed speeds and high running performance

Note

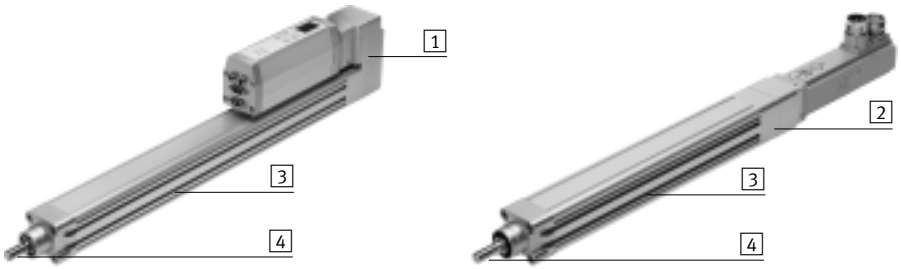
The electric cylinder is of limited suitability for the food industry.

Further information www.festo.com/sp ➔ User documentation.

Entire system consisting of electric cylinder, motor and motor mounting kit

Electric cylinder

➔ 6



1 Parallel kit
2 Axial kit
3 Slot for proximity sensor
4 Choice of spindle type:
- With lead screw spindle (LS)
- With ball screw spindle (BS)

Note

The lead screw spindle is self-retarding, which means that slow movements cannot be excluded in the event of vibration.
The entire system with intelligent motor unit MTR-DCI is self-locking.

Motor/motor unit

➔ 18

1 Motor unit MTR-DCI
2 Servo motor EMME-AS, EMMS-AS
3 Stepper motor EMMS-ST

Note

A range of specially adapted complete solutions is available for the electric cylinder DNCE and the motors/motor units.

Motor mounting kit

➔ 18

Axial kit

Parallel kit

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

Electric cylinders DNCE, with spindle drive

Key features and type codes

FESTO

Longer service life with bellows kit EADB

➔ 27

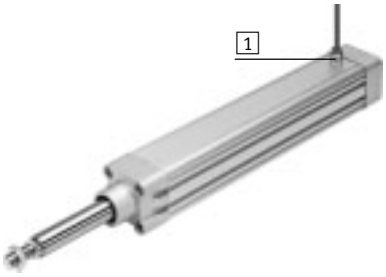
The protective bellows kit is a leak-free system. To prevent unwanted media from being drawn in, the supply and exhaust air must be ducted via a pressure compensation hole in the connection part 1.

The kit protects the piston rod, seal and bearings against a wide variety of media, for example:

- Dust
- Chippings
- Oil
- Grease
- Fuel

Use in dusty or wet environments thanks to protection to IP65 (feature P5)

➔ 17



The electric cylinder to IP65 fulfils the specifications to IEC 60 529.
Air is exchanged between the interior of the cylinder and the environment via a pressure compensation hole 1 in the cylinder barrel. This prevents negative pressure or excess pressure in the interior of the cylinder.

It also prevents unwanted media being drawn in.

Protection to IP65 can only be selected in combination with DNCE-...-BS (ball screw spindle).

Type codes

DNCE	–	32	–	100	–	BS	–	”10”P	–	Q-P5

Type	
DNCE	Electric cylinder

Size

Stroke [mm]

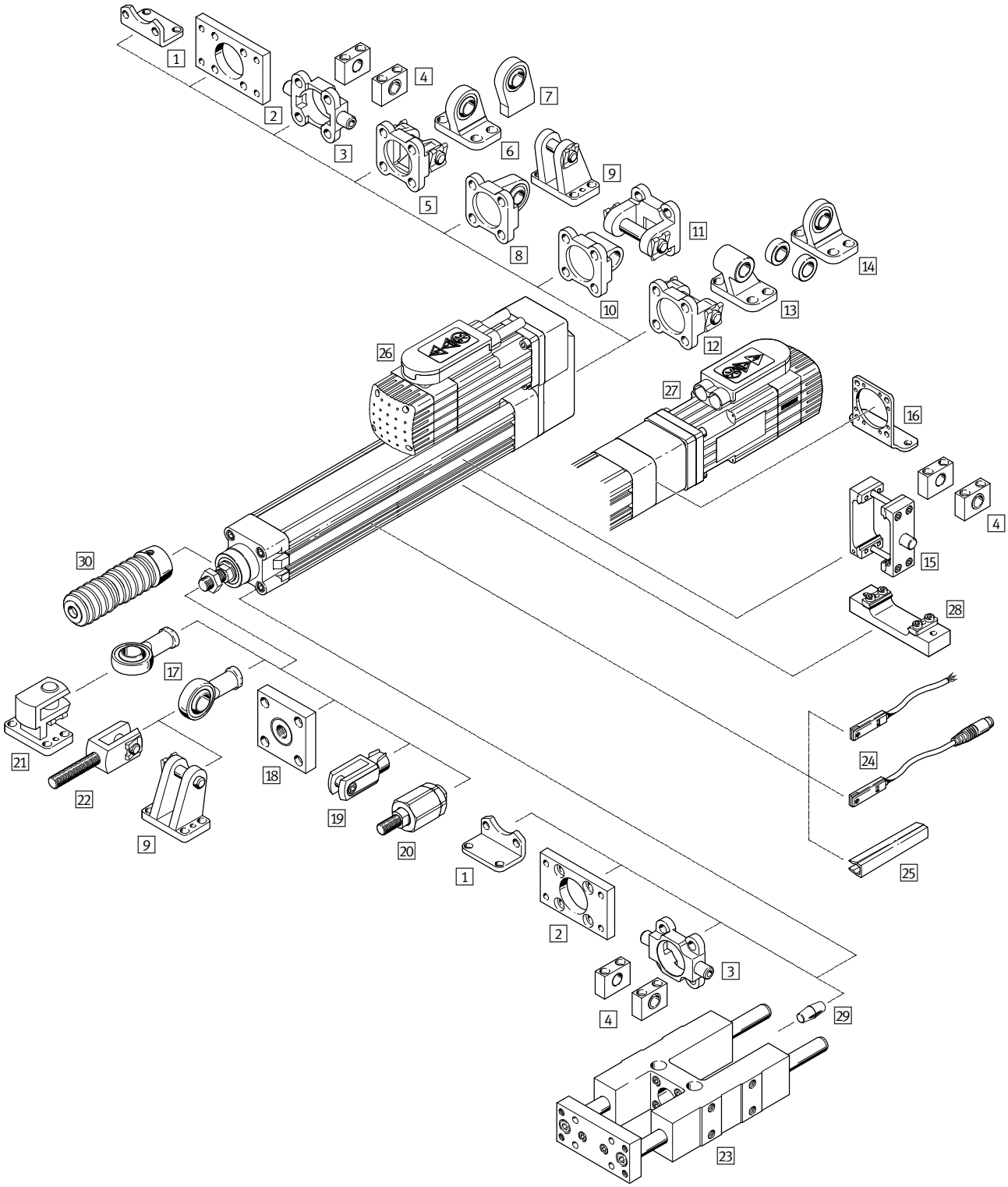
Drive function	
LS	Lead screw spindle
BS	Ball screw spindle

Spindle pitch [mm]

Variant	
Q	Non-rotating piston rod
K8	Extended piston rod
K3	Female piston rod thread
P5	Protection class IP65
R3	High corrosion protection
FG	Lubrication approved for use in food applications

Electric cylinders DNCE, with spindle drive

Peripherals overview



Mounting attachments and accessories		
	Description	**➔ Page/Internet**
1 Foot mounting HNC/CRHNC	For mounting the cylinder	32
2 Flange mounting FNC/CRFNG	– Cannot be used on the bearing cap in combination with bellows kit EADB	33
3 Trunnion flange ZNCF/CRZNG	– Cannot be used on the bearing cap in combination with bellows kit EADB	34

Electric cylinders DNCE, with spindle drive

Peripherals overview

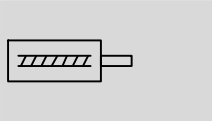
Mounting attachments and accessories			
		Description	➔ Page/Internet
4	Trunnion support LNZG/CRLNZG	For cylinders with trunnion mounting	35
5	Swivel flange SNC	With parallel motor mounting	36
6	Clevis foot LSNG	With parallel motor mounting, with spherical bearing	40
7	Clevis foot LSNSG	With parallel motor mounting, weld-on, with spherical bearing	40
8	Swivel flange SNCS	With parallel motor mounting, with spherical bearing	37
9	Clevis foot LBG	With parallel motor mounting, with spherical bearing	40
10	Swivel flange SNCL	With parallel motor mounting	38
11	Swivel flange SNCB/SNCB-...-R3	With parallel motor mounting, with spherical bearing	39
12	Swivel flange SNCB/SNCB-...-R3	With parallel motor mounting	39
13	Clevis foot LNG/CRLNG	With parallel motor mounting	40
14	Clevis foot LSN	With parallel motor mounting, with spherical bearing	40
15	Trunnion mounting kit DAMT	For mounting anywhere along the cylinder profile barrel. Cannot be mounted in the vicinity of the motor with parallel motor mounting	40
16	Foot mounting HNCE	– With axial motor mounting – Cannot be used in combination with the axial kit EAMM-A-...-S1 (protection class IP65)	30
17	Rod eye SGS/CRSGS	With spherical bearing	41
18	Coupling piece KSZ	To compensate for radial deviations	41
19	Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	41
20	Self-aligning rod coupler FK/CRFK	For compensating radial and angular deviations	41
21	Right-angle clevis foot LQG	For rod eye SGS	41
22	Rod clevis SGA	For swivel mounting of cylinders	41
23	Guide unit FENG	– For protecting electric cylinders against rotation at high torque loads – Cannot be used in combination with bellows kit EADB	41
24	Proximity sensor SME/SMT-8	For position sensing. Can be integrated in the sensor slot, thus avoiding projecting parts	42
25	Slot cover ABP-5-S	For protecting against the ingress of dirt	42
26	Parallel kit EAMM-U	For parallel motor mounting	18
27	Axial kit EAMM-A	For axial motor mounting	18
28	Profile mounting EAHF	– For mounting the electric cylinder via the profile – Cannot be mounted in the vicinity of the motor in combination with the parallel kit EAMM-U	31
29	Compensating element EADC	Compensates the play between the piston rod of the electric cylinder DNCE and the yoke plate of the guide unit FENG	42
30	Bellows kit EADB	– Protects the cylinder (piston rod, seal and bearings) against a wide range of media and thus prevents premature wear – The kit can only be used in combination with an extended piston rod (K8)	27

Electric cylinders DNCE, with spindle drive

Technical data

FESTO

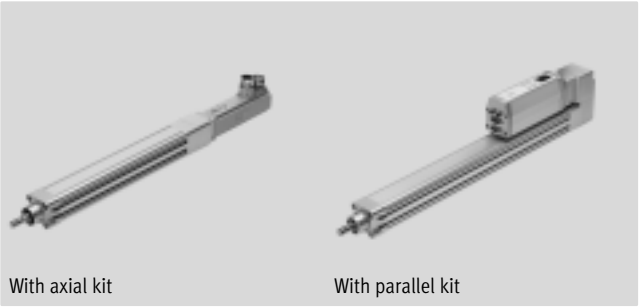
Function



Size
32 ... 63

Stroke length
1 ... 800 mm

www.festo.com



With axial kit

With parallel kit

General technical data				
Size		32	40	63
Design		With lead screw spindle (LS)		
		With ball screw spindle (BS)		
Piston rod thread				
Male thread		M10x1.25	M12x1.25	M16x1.5
Female thread		M6	M8	M10
Working stroke	[mm]	1 ... 400	1 ... 600	1 ... 800
Variant		Non-rotating piston rod		
Protection against rotation/guide		Plain-bearing guide		
Stroke reserve	[mm]	0		
Max. torsion angle of the piston rod	[°]	±0.30	±0.25	±0.20
Impact energy (E) in the end positions	[J]	0.0001 $E = 0.5 \times m \times v^2$	0.0002 $E = 0.5 \times m \times v^2$	0.0004 $E = 0.5 \times m \times v^2$
Duty cycle[1)]	[%]	100		
Position sensing		Via proximity sensor		
Type of mounting		Via female thread		
		Via accessories		
Mounting position		Any		

1) In the case of the variant with lead screw spindle (LS), the duty cycle depends on the speed

Mechanical data										
Size		32			40			63		
Spindle design		LS-”1,5”P	BS-”3”P	BS-”10”P	LS-”2,5”P	BS-”5”P	BS-”12,7”P	LS-”4”P	BS-”10”P	BS-”20”P
Spindle pitch	[mm/rev.]	1.5	3	10	2.5	5	12.7	4	10	20
Spindle diameter	[mm]	9	10	10	12.5	12	12.7	20	20	20
Max. stat. axial force	[N]	600	600	600	1400	1400	1400	3700	3700	3700
Max. feed force F_x[1)]	[N]	300	300	350	600	525	800	1000	2500	1625
Continuous feed force[1)]	[N]	300	240	280	600	420	640	1000	2000	1300
Max. driving torque[2)]	[Nm]	0.4	0.4	0.8	1.15	0.9	1.9	3	4.9	5.9
Max. radial force[3)]	[N]	120	120	120	260	260	260	300	300	300
Max. speed	[m/s]	0.06	0.15	0.5	0.07	0.25	0.64	0.07	0.5	1.0
Max. rotational speed	[rpm]	2400	3000	3000	1650	3000	3000	1050	3000	3000
Max. acceleration	[m/s²]	1	6	6	1	6	6	1	6	6
Reversing backlash[4)]	[mm]	0.2	0.05	0.05	0.2	0.05	0.05	0.2	0.05	0.05
Repetition accuracy	[mm]	±0.07	±0.02	±0.02	±0.07	±0.02	±0.02	±0.07	±0.02	±0.02

1) In the case of the variant with lead screw spindle (LS), the feed force depends on the speed ➔ 10
The feed force in the case of the variant with ball screw spindle (BS) ➔ 8
2) In the case of the variant with lead screw spindle (LS), the driving torque depends on the rotational speed ➔ 11
3) At the drive shaft
4) In new condition

Electric cylinders DNCE, with spindle drive

Technical data

Mechanical data										
Size		32			40			63		
Spindle design		LS-”1,5”P	BS-”3”P	BS-”10”P	LS-”2,5”P	BS-”5”P	BS-”12,7”P	LS-”4”P	BS-”10”P	BS-”20”P
No-load driving torque										
With axial kit[1]										
DNCE-...	[Nm]	0.08	0.08	0.08	0.12	0.12	0.12	0.3	0.2	0.2
DNCE-...-P5	[Nm]	–	0.12	0.12	–	0.18	0.18	–	0.3	0.3
With parallel kit[1]										
DNCE-...	[Nm]	0.13	0.13	0.13	0.22	0.22	0.22	0.6	0.5	0.5
DNCE-...-P5	[Nm]	–	0.17	0.17	0.17	0.28	0.28	–	0.6	0.6
Continuous driving torque	[Nm]	0.4	0.3	0.6	1.15	0.8	1.6	3	4.1	4.8

1) Measured at a speed of 200 rpm

Operating and environmental conditions		
Ambient temperature[1]	[°C]	0 ... 50
Storage temperature	[°C]	–25 ... +60
Protection class to IEC 60529		
DNCE-...		IP40
DNCE-...-P5		IP65
Relative air humidity	[%]	0 ... 95
Food-safe[2]		See supplementary material information
Corrosion resistance class CRC[3]		
DNCE-...-R3		3

1) Note operating range of proximity sensors and motors
2) Additional information www.festo.com/sp ➔ Certificates.
3) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Weight [g]									
Size	32			40			63		
Spindle design	LS-”1,5”P	BS-”3”P	BS-”10”P	LS-”2,5”P	BS-”5”P	BS-”12,7”P	LS-”4”P	BS-”10”P	BS-”20”P
Basic weight with 0 mm stroke	720	750	770	1210	1270	1350	2790	3010	3010
Additional weight per 10 mm stroke	32.4	33	33.6	46.1	45.5	46.7	79.8	81.2	81.2
Moving load with 0 mm stroke	150	170	200	250	310	380	600	810	810
Moving load per 10 mm stroke	6.9	6.9	6.9	8.9	8.9	8.9	12.8	12.8	12.8

Mass moment of inertia										
Size		32			40			63		
Spindle design		LS-”1,5”P	BS-”3”P	BS-”10”P	LS-”2,5”P	BS-”5”P	BS-”12,7”P	LS-”4”P	BS-”10”P	BS-”20”P
J_0 with 0 mm stroke	[kg cm^2]	0.0433	0.0439	0.0446	0.1316	0.1304	0.1337	0.7565	0.7626	0.7624
j_H per metre stroke	[kg cm^2/m]	0.0361	0.0476	0.0595	0.1341	0.1163	0.1572	0.8176	0.9090	0.9103
j_L per kg working load	[kg cm^2/kg]	0.0006	0,0023	0.0253	0.0016	0.0063	0.0409	0.0041	0.0253	0.1013

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

$J_A = J_0 + j_H \times \text{working stroke [m]} + j_L \times m_{\text{working load}}$ [kg]

Electric cylinders DNCE, with spindle drive

Technical data

Calculation of the mean feed force F_{xm} for the electric cylinder DNCE with ball screw spindle (BS)

The peak feed force value must not exceed the maximum feed force within a movement cycle. In the case of vertical operation, the peak value is generally achieved 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 spindle. The maximum speed must likewise not be exceeded.

$F_x \leq F_{xmax.}$

and

$v_x \leq v_{xmax.}$

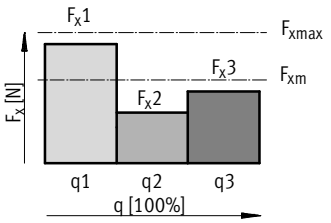
Mean feed force (to DIN 69 051-4)

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.

$F_{xm} \leq F_{xcont}$

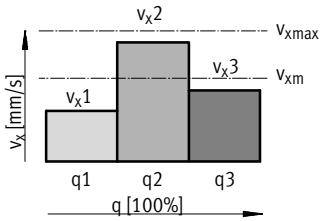
$$F_{xm} = \sqrt[3]{\sum F_x^3 \times \frac{v_x}{v_{xm}} \times \frac{q}{100}} =$$

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



Mean feed speed (to DIN 69 051-4)

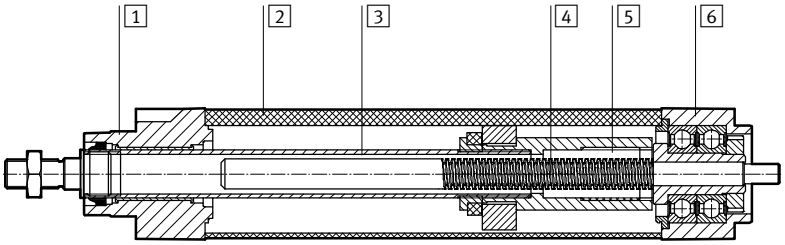
$$v_{xm} = \sum v_x \times \frac{q}{100} = v_{x1} \times \frac{q_1}{100} + v_{x2} \times \frac{q_2}{100} + v_{x3} \times \frac{q_3}{100} + \ldots$$



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

Materials

Sectional view

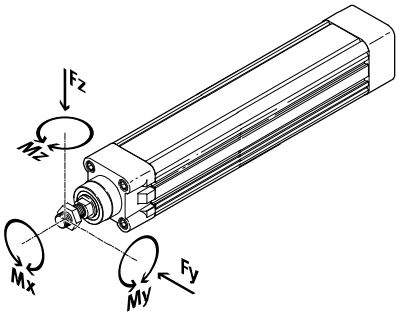


Electric cylinder		
1	Bearing cap	Painted die-cast aluminium
2	Cylinder barrel	Smooth anodised wrought aluminium alloy
3	Piston rod	High-alloy stainless steel
4	Spindle	Steel
5	Spindle nut for LS	Polyacetal
	Spindle nut for BS	Steel
6	Drive cover	Painted die-cast aluminium
–	Note on materials	RoHS-compliant
		Contains PWIS (paint-wetting impairment substances)

Electric cylinders DNCE, with spindle drive

Technical data

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:

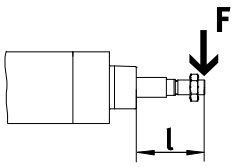
$$\frac{|Fy|}{Fy_{max.}} + \frac{|Fz|}{Fz_{max.}} + \frac{|My|}{My_{max.}} + \frac{|Mz|}{Mz_{max.}} \leq 1$$

$$|Fx| \leq Fxmax$$

$$|Mx| \leq Mxmax$$

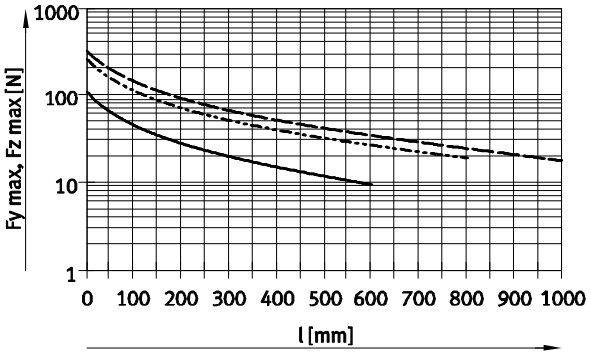
Definition of the stroke length l:

l = Stroke + value of the piston rod extension K8

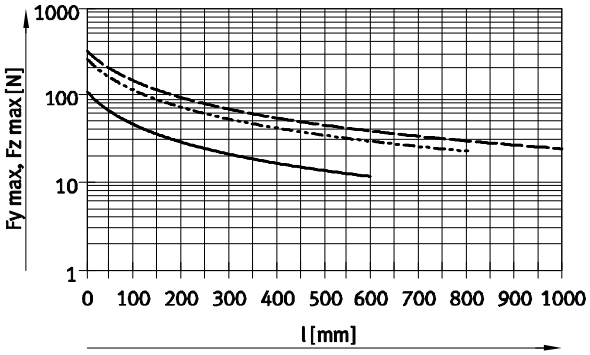


Maximum permissible lateral forces Fy_{max} and Fz_{max} on the piston rod as a function of stroke length l

Horizontal mounting position



Vertical mounting position



DNCE-32-LS/BS
DNCE-40-LS/BS
DNCE-63-LS/BS

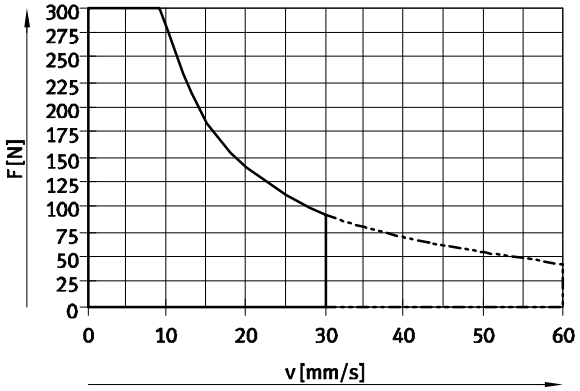
Note

PositioningDrives sizing software
➔ www.festo.com

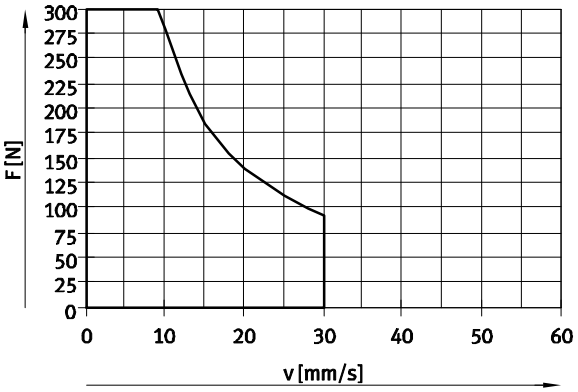
Size		32	40	63
Maximum permissible forces and torques				
Fx_{max} (static)	[N]	600	1400	3700
Mx_{max}	[Nm]	1	1	1.5
My_{max}, Mz_{max}	[Nm]	8	20	27

Feed force F as a function of speed v

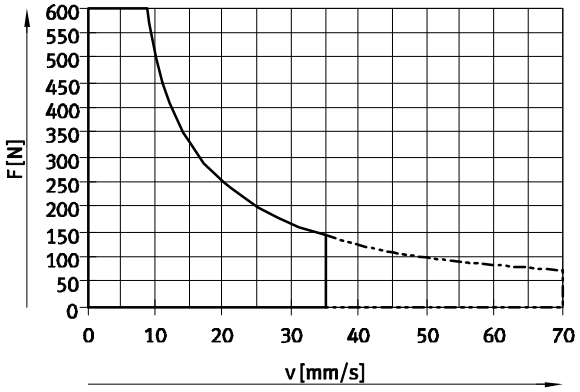
DNCE-32-1…299-LS-…



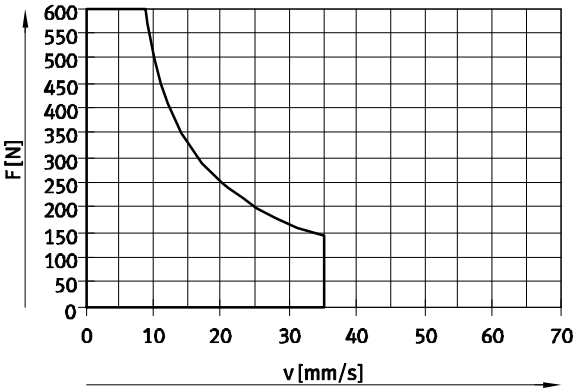
DNCE-32-300…400-LS-…



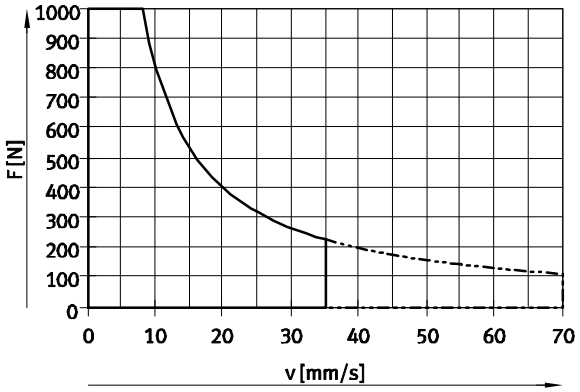
DNCE-40-1…299-LS-…



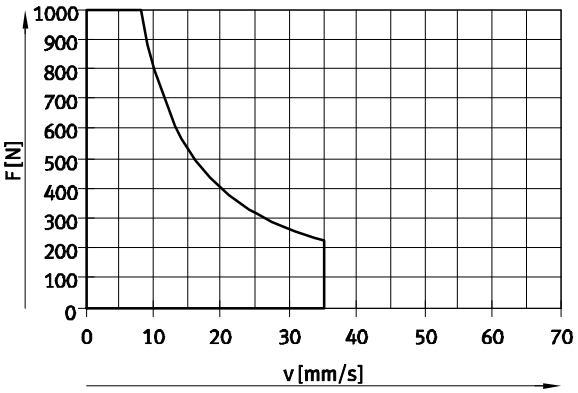
DNCE-40-300…600-LS-…



DNCE-63-1…419-LS-…



DNCE-63-420…800-LS-…

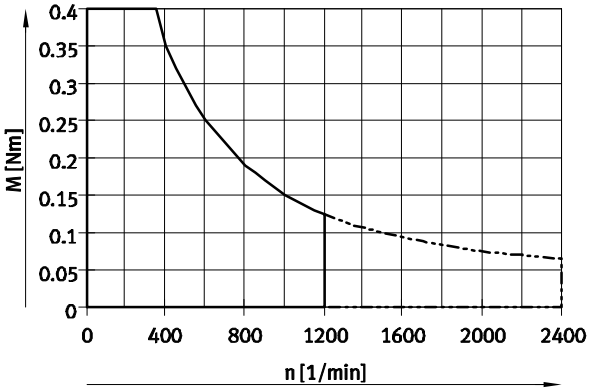


Recommended operating range

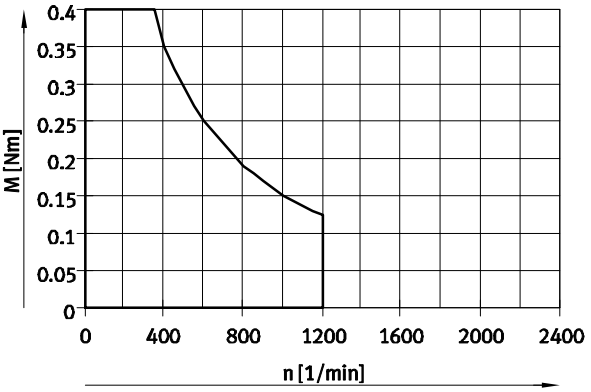
Permissible operating range
(duty cycle < 50% recommended)

Driving torque M as a function of rotational speed n

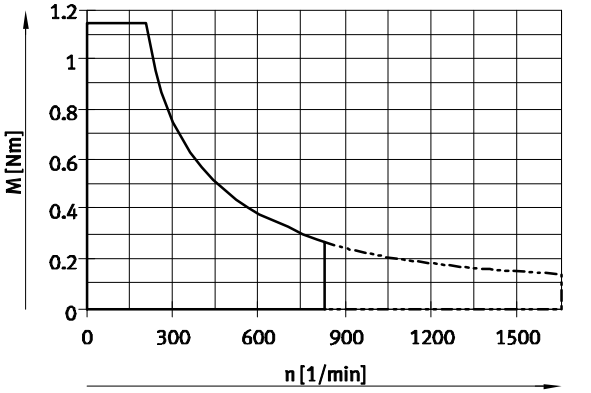
DNCE-32-1…299-LS-…



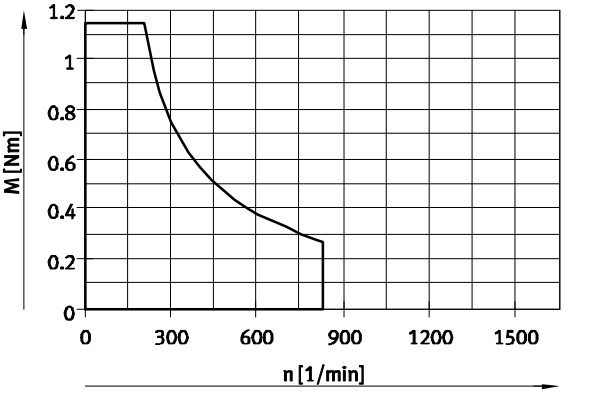
DNCE-32-300…400-LS-…



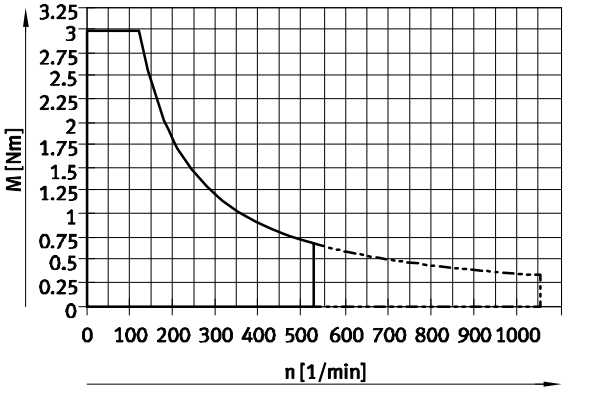
DNCE-40-1…299-LS-…



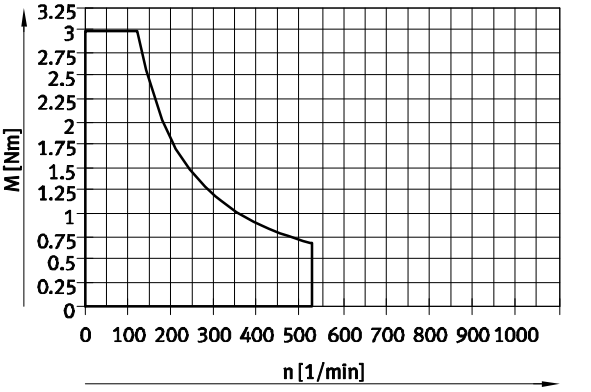
DNCE-40-300…600-LS-…



DNCE-63-1…419-LS-…



DNCE-63-420…800-LS-…



Recommended operating range

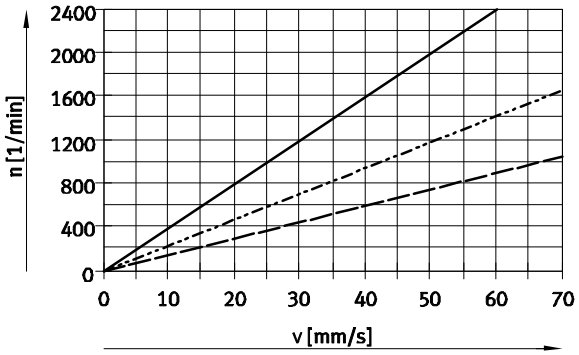
Permissible operating range
(duty cycle < 50% recommended)

Electric cylinders DNCE, with spindle drive

Technical data

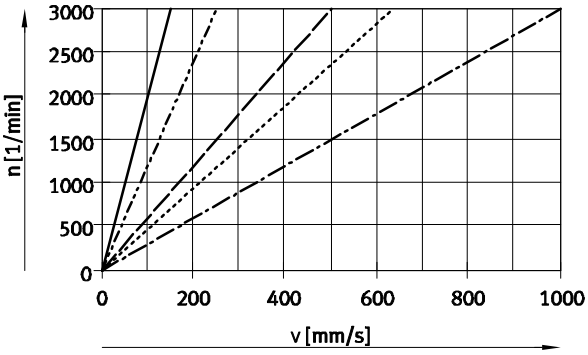
Rotational speed n as a function of speed v

DNCE-...-LS-...



DNCE-32-LS-”1,5”P
DNCE-40-LS-”2,5”P
DNCE-63-LS-”4”P

DNCE-...-BS-...



DNCE-32-BS-”3”P
DNCE-40-BS-”5”P
DNCE-63-BS-”10”P
DNCE-32-BS-”10”P
DNCE-40-BS-”12,7”P
DNCE-63-BS-”20”P

Driving torque M as a function of feed force F

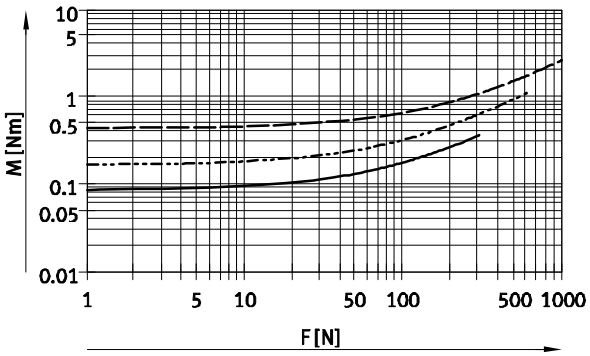
Note

The frictional torques at room temperature are taken into consideration in the graphs.

The frictional torques with the DNCE-...-LS (lead screw spindle) increase at lower temperatures.

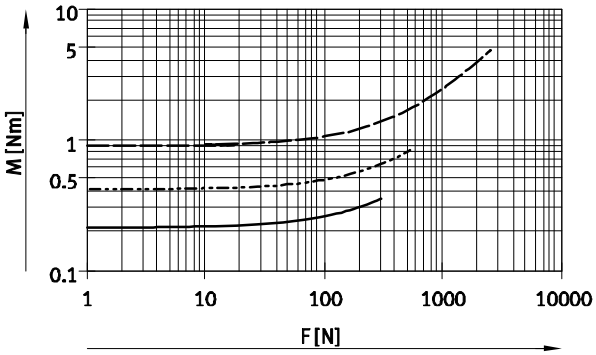
PositioningDrives sizing software
➔ www.festo.com

DNCE-...-LS-...

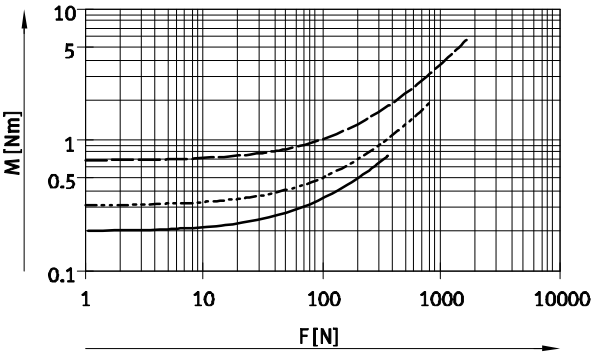


DNCE-32-LS-”1,5”P
DNCE-40-LS-”2,5”P
DNCE-63-LS-”4”P

DNCE-...-BS-...

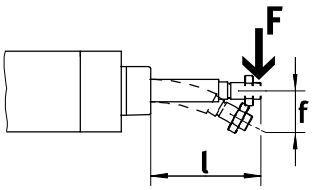


DNCE-32-BS-”3”P
DNCE-40-BS-”5”P
DNCE-63-BS-”10”P



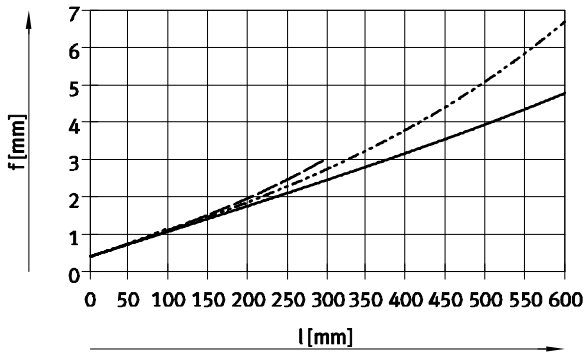
DNCE-32-BS-”10”P
DNCE-40-BS-”12,7”P
DNCE-63-BS-”20”P

Piston rod displacement f as a function of stroke length l



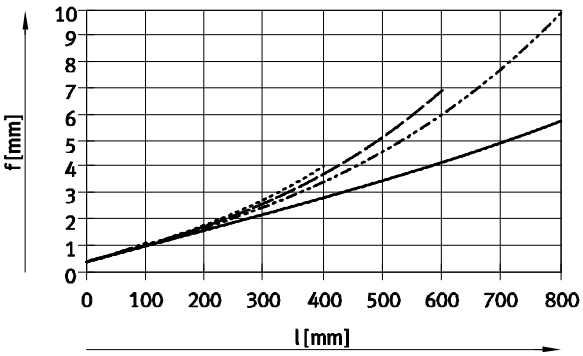
Definition of the stroke length l:
l = Stroke + value of the piston rod extension K8

DNCE-32-...



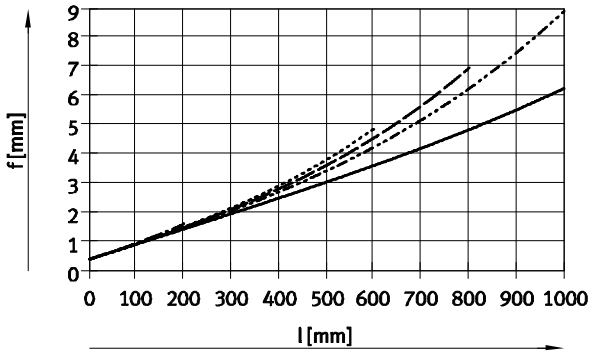
Lateral force F = 0 N
Lateral force F = 10 N
Lateral force F = 20 N
Lateral force F = 45 N

DNCE-40-...



Lateral force F = 0 N
Lateral force F = 20 N
Lateral force F = 30 N
Lateral force F = 40 N
Lateral force F = 115 N

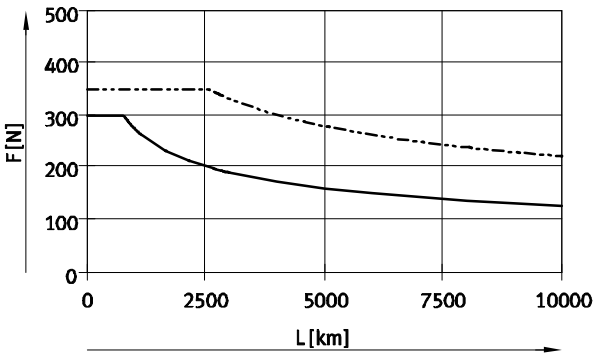
DNCE-63-...



Lateral force = 0 N
Lateral force = 20 N
Lateral force = 30 N
Lateral force = 40 N
Lateral force = 95 N

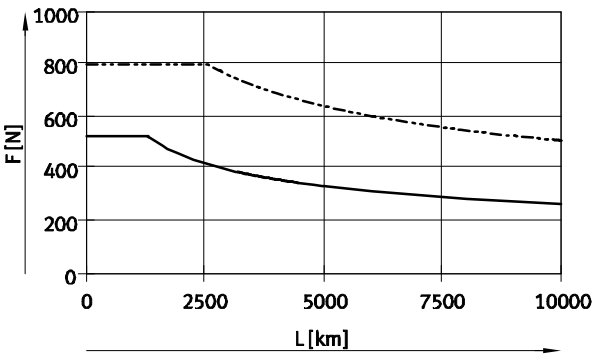
Mean feed force F as a function of running performance L (to DIN 69 051-4)

DNCE-32-...-BS-...



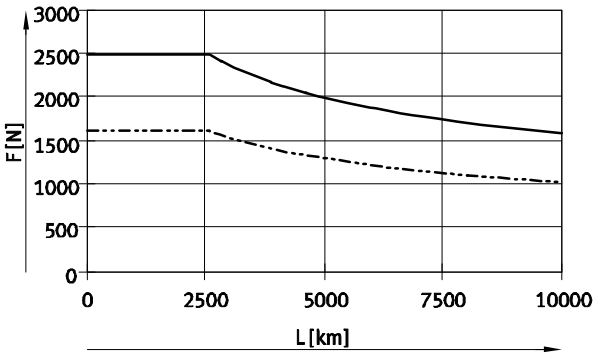
DNCE-32-BS-”3”P
DNCE-32-BS-”10”P

DNCE-40-...-BS-...



DNCE-40-BS-”5”P
DNCE-40-BS-”12,7”P

DNCE-63-...-BS-...



DNCE-63-BS-”10”P
DNCE-63-BS-”20”P

Note

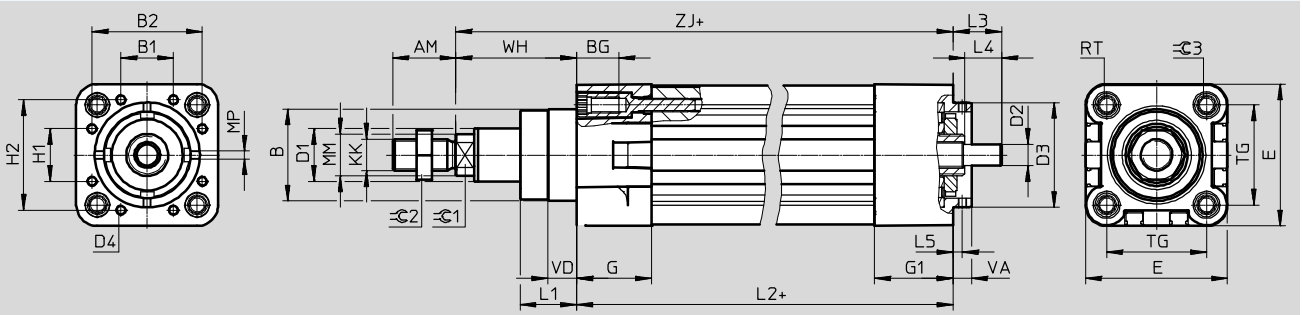
- The specifications for running performance are based on experimentally determined and theoretically calculated data. The running performance attainable in practice can deviate considerably from the specified curves under different parameters.

Electric cylinders DNCE, with spindle drive

Technical data

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

Basic version



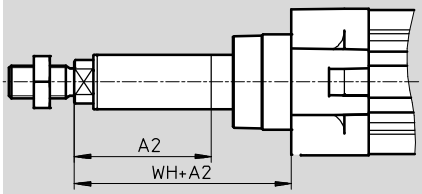
\+ = plus stroke length

Size [mm]	AM	B ∅ d11	B1	B2	BG	D1 ∅ h9	D2 ∅ h6	D3 ∅ f7	D4	E	G	G1	H1	H2	KK
32	22	30	19	32	16	16	6	32	M3	45.5	24	26	19	32	M10x1.25
40	24	35	20	42	16	20	8	40	M4	54	28.5	30	20	42	M12x1.25
63	32	45	31	62	17	28	12	60	M5	75.5	34	36	31	62	M16x1.5

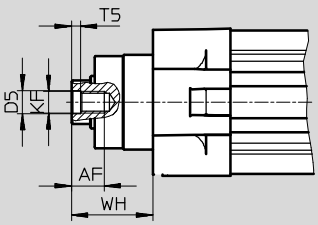
Size [mm]	L1	L2	L3	L4	L5	MM	MP	RT	TG	VA	VD +1/–0.7	WH	ZJ ±1	⌀C1	⌀C2	⌀C3
32	18	122	15.9	8	3.5	12	M3	M6	32.5	7	10	26	148	10	17	6
40	21.5	146.5	18.4	14	3.5	16	M3	M6	38	7	10.5	30	176.5	13	19	6
63	28.5	177	23.5	17	4.5	20	M4	M8	56.5	9	15	37	214	17	24	8

Variants

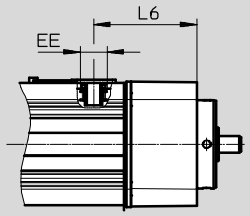
K8 – Extended piston rod



K3 – Female piston rod thread



P5 – Protection class IP65



Size [mm]	A2 max.	AF	EE	KF	L6	T5	D5	WH
32	200	12	G⅛	M6	37.6	2.6	6.4	26
40	200	12	G¼	M8	45.6	3.3	8.4	30
63	200	16	G¼	M10	57.6	4.7	10.5	37

Electric cylinders DNCE, with spindle drive

Technical data

Ordering data – DNCE-32

Stroke [mm]	Part No.	Type
Ball screw spindle with spindle pitch 3 mm		
100	**543115**	**DNCE-32-100-BS-”3”P-Q**
200	**543116**	**DNCE-32-200-BS-”3”P-Q**
300	**543117**	**DNCE-32-300-BS-”3”P-Q**
400	**543118**	**DNCE-32-400-BS-”3”P-Q**
Ball screw spindle with spindle pitch 10 mm		
100	**543119**	**DNCE-32-100-BS-”10”P-Q**
200	**543120**	**DNCE-32-200-BS-”10”P-Q**
300	**543121**	**DNCE-32-300-BS-”10”P-Q**
400	**543122**	**DNCE-32-400-BS-”10”P-Q**

Stroke [mm]	Part No.	Type
Lead screw spindle with spindle pitch 1.5 mm		
100	**543111**	**DNCE-32-100-LS-”1,5”P-Q**
200	**543112**	**DNCE-32-200-LS-”1,5”P-Q**
300	**543113**	**DNCE-32-300-LS-”1,5”P-Q**
400	**543114**	**DNCE-32-400-LS-”1,5”P-Q**

Ordering data – DNCE-40

Stroke [mm]	Part No.	Type
Ball screw spindle with spindle pitch 5 mm		
100	**543127**	**DNCE-40-100-BS-”5”P-Q**
200	**543128**	**DNCE-40-200-BS-”5”P-Q**
300	**555466**	**DNCE-40-300-BS-”5”P-Q**
400	**543129**	**DNCE-40-400-BS-”5”P-Q**
600	**543130**	**DNCE-40-600-BS-”5”P-Q**
Ball screw spindle with spindle pitch 12.7 mm		
100	**543131**	**DNCE-40-100-BS-”12,7”P-Q**
200	**543132**	**DNCE-40-200-BS-”12,7”P-Q**
300	**555467**	**DNCE-40-300-BS-”12,7”P-Q**
400	**543133**	**DNCE-40-400-BS-”12,7”P-Q**
600	**543134**	**DNCE-40-600-BS-”12,7”P-Q**

Stroke [mm]	Part No.	Type
Lead screw spindle with spindle pitch 2.5 mm		
100	**543123**	**DNCE-40-100-LS-”2,5”P-Q**
200	**543124**	**DNCE-40-200-LS-”2,5”P-Q**
300	**555465**	**DNCE-40-300-LS-”2,5”P-Q**
400	**543125**	**DNCE-40-400-LS-”2,5”P-Q**
600	**543126**	**DNCE-40-600-LS-”2,5”P-Q**

Ordering data – DNCE-63

Stroke [mm]	Part No.	Type
Ball screw spindle with spindle pitch 10 mm		
100	**555470**	**DNCE-63-100-BS-”10”P-Q**
200	**543139**	**DNCE-63-200-BS-”10”P-Q**
300	**555471**	**DNCE-63-300-BS-”10”P-Q**
400	**543140**	**DNCE-63-400-BS-”10”P-Q**
600	**543141**	**DNCE-63-600-BS-”10”P-Q**
800	**543142**	**DNCE-63-800-BS-”10”P-Q**
Ball screw spindle with spindle pitch 20 mm		
100	**555472**	**DNCE-63-100-BS-”20”P-Q**
200	**543143**	**DNCE-63-200-BS-”20”P-Q**
300	**555473**	**DNCE-63-300-BS-”20”P-Q**
400	**543144**	**DNCE-63-400-BS-”20”P-Q**
600	**543145**	**DNCE-63-600-BS-”20”P-Q**
800	**543146**	**DNCE-63-800-BS-”20”P-Q**

Stroke [mm]	Part No.	Type
Lead screw spindle with spindle pitch 4 mm		
100	**555468**	**DNCE-63-100-LS-”4”P-Q**
200	**543135**	**DNCE-63-200-LS-”4”P-Q**
300	**555469**	**DNCE-63-300-LS-”4”P-Q**
400	**543136**	**DNCE-63-400-LS-”4”P-Q**
600	**543137**	**DNCE-63-600-LS-”4”P-Q**
800	**543138**	**DNCE-63-800-LS-”4”P-Q**

Note

Order variable strokes via the modular product system ➔ 17

Electric cylinders DNCE, with spindle drive

Ordering data – Modular products

FESTO

Ordering table

	Size	32	40	63	Condi-tions	Code		Enter code
M	Module No.	**555488**	**555489**	**555490**				
	Function	Electric cylinder				**DNCE**		DNCE
	Size	32	40	63		**-...**		
	Stroke [mm]	100				**-...**		
		200						
		300						
		400						
		–	600					
		–	–	800				
		1 ... 400	1 ... 600	1 ... 800	1			
	Drive type	Lead screw spindle				**-LS**		
		Ball screw spindle				**-BS**		
	Spindle pitch [mm]	1.5	–	–	2	**-"..."P**		
		–	2.5	–	2			
		3	–	–	3			
		–	–	4	2			
		–	5	–	3			
		10	–	10	3			
		–	12.7	–	3			
		–	–	20	3			
	Protection against rotation	Non-rotating piston rod				**-Q**		-Q
O	Extended piston rod	1 ... 200			3	**-...K8**		
	Female thread	M6	M8	M10	3	**-K3**		
	Protection class to IEC 60529	IP65			3	**-P5**		
	Corrosion protection	High corrosion protection			3 4	**-R3**		
	Lubrication	Lubrication approved for use in food applications			3 5	**-FG**		

1 ... Additional stroke lengths on request

2 **"1.5"P, "2.5"P, "4"P**
Only with drive type LS

3 **"3"P, "5"P, "10"P, "12.7"P, "20"P, ...K8, K3, P5**
Only with ball screw spindle BS

4 **R3** Only with P5

5 **FG** Only with R3 and P5

Transfer order code

	DNCE	–		–		–		–		–	Q	–		–		–	

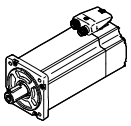
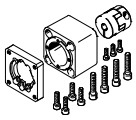
- Note

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 respective kit must be taking into consideration.

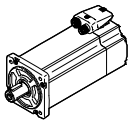
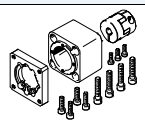
The following tool is available for sizing:
PositioningDrives engineering software
➔ www.festo.com

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

Motor/gear unit[1]	Axial kit	
		
Type	Part No.	Type
DNCE-32		
With servo motor		
EMME-AS-40-...	**1976465**	**EAMM-A-D32-40P**
	2207372	**EAMM-A-D32-40P-S1**[2]
EMMS-AS-40-...	**543147**	**EAMM-A-D32-40A**
	1322178	**EAMM-A-D32-40A-S1**[2]
EMMS-AS-55-...	**550979**	**EAMM-A-D32-55A**
	1322180	**EAMM-A-D32-55A-S1**[2]
EMME-AS-60-...	**1956054**	**EAMM-A-D32-60P**
	2234020	**EAMM-A-D32-60P-S1**[2]
With servo motor and gear unit		
EMME-AS-40-...	**1454238**	**EAMM-A-D32-40G**
EMGA-40-P-G...-EAS-40	**2256396**	**EAMM-A-D32-40G-S1**[2]
EMMS-AS-40-...	**1454238**	**EAMM-A-D32-40G**
EMGA-40-P-G...-SAS-40	**2256396**	**EAMM-A-D32-40G-S1**[2]
EMMS-AS-55-...	**2946758**	**EAMM-A-D32-60G**
EMGA-60-P-G...-SAS-55	**2946759**	**EAMM-A-D32-60G-S1**[2]
EMME-AS-60-...	**2946760**	**EAMM-A-D32-60H**
EMGA-60-P-G...-EAS-60	**2946761**	**EAMM-A-D32-60H-S1**[2]
EMMS-AS-70-...	**2946758**	**EAMM-A-D32-60G**
EMGA-60-P-G...-SAS-70	**2946759**	**EAMM-A-D32-60G-S1**[2]
With stepper motor		
EMMS-ST-42-...	**543148**	**EAMM-A-D32-42A**
	1322179	**EAMM-A-D32-42A-S1**[2]
EMMS-ST-57-...	**550980**	**EAMM-A-D32-57A**
	1322181	**EAMM-A-D32-57A-S1**[2]
With stepper motor and gear unit		
EMMS-ST-42-...	**1454238**	**EAMM-A-D32-40G**
EMGA-40-P-G...-SST-42	**2256396**	**EAMM-A-D32-40G-S1**[2]
EMMS-ST-57-...	**2946758**	**EAMM-A-D32-60G**
EMGA-60-P-G...-SST-57	**2946759**	**EAMM-A-D32-60G-S1**[2]
With integrated drive		
EMCA-EC-67-...	**1454239**	**EAMM-A-D32-67A**
	2256397	**EAMM-A-D32-67A-S1**[2]
With motor unit		
MTR-DCI-32S-...[3]	**543149**	**EAMM-A-D32-32B**
With integrated drive and gear unit		
EMCA-EC-67-...	**1454238**	**EAMM-A-D32-40G**
EMGC-40-...	**2256396**	**EAMM-A-D32-40G-S1**[2]
EMCA-EC-67-...	**2946760**	**EAMM-A-D32-60H**
EMGC-60-...	**2946761**	**EAMM-A-D32-60H-S1**[2]

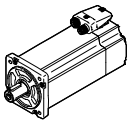
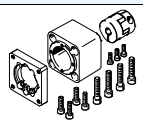
1) The input torque must not exceed the maximum permissible transferable torque of the axial kit.
2) With degree of protection IP65.
3) Only in combination with DNCE-...-LS.

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

Motor/gear unit[1]	Axial kit	
		
Type	Part No.	Type
DNCE-40		
With servo motor		
EMMS-AS-55-...	**543153**	**EAMM-A-D40-55A**
	1322182	**EAMM-A-D40-55A-S1**[2]
EMME-AS-60-...	**1977000**	**EAMM-A-D40-60P**
	2151519	**EAMM-A-D40-60P-S1**[2]
EMMS-AS-70-...	**550981**	**EAMM-A-D40-70A**
	1322185	**EAMM-A-D40-70A-S1**[2]
With servo motor and gear unit		
EMME-AS-40-...	**560282**	**EAMM-A-D40-40G**[3]
EMGA-40-P-G...-EAS-40	**2256398**	**EAMM-A-D40-40G-G2**
	2256399	**EAMM-A-D40-40G-S1**[2]
EMMS-AS-40-...	**560282**	**EAMM-A-D40-40G**[3]
EMGA-40-P-G...-SAS-40	**2256398**	**EAMM-A-D40-40G-G2**
	2256399	**EAMM-A-D40-40G-S1**[2]
EMMS-AS-55-...	**2256400**	**EAMM-A-D40-60G**
EMGA-60-P-G...-SAS-55	**2256409**	**EAMM-A-D40-60G-S1**[2]
EMME-AS-60-...	**1454242**	**EAMM-A-D40-60H**
EMGA-60-P-G...-EAS-60	**2256401**	**EAMM-A-D40-60H-S1**[2]
EMMS-AS-70-...	**2256400**	**EAMM-A-D40-60G**
EMGA-60-P-G...-SAS-70	**2256409**	**EAMM-A-D40-60G-S1**[2]
With stepper motor		
EMMS-ST-57-...	**543154**	**EAMM-A-D40-57A**
	1322183	**EAMM-A-D40-57A-S1**[2]
EMMS-ST-87-...	**550982**	**EAMM-A-D40-87A**
	1322186	**EAMM-A-D40-87A-S1**[2]
With stepper motor and gear unit		
EMMS-ST-42-...	**560282**	**EAMM-A-D40-40G**[3]
EMGA-40-P-G...-SST-42	**2256398**	**EAMM-A-D40-40G-G2**
	2256399	**EAMM-A-D40-40G-S1**[2]
EMMS-ST-57-...	**2256400**	**EAMM-A-D40-60G**
EMGA-60-P-G...-SST-57	**2256409**	**EAMM-A-D40-60G-S1**[2]
With integrated drive		
EMCA-EC-67-...	**1454243**	**EAMM-A-D40-67A**
	2256695	**EAMM-A-D40-67A-S1**[2]
With motor unit		
MTR-DCI-42S-...-G7[4]	**543155**	**EAMM-A-D40-42B**
MTR-DCI-42S-...-G14[4]	**543156**	**EAMM-A-D40-42C**
With integrated drive and gear unit		
EMCA-EC-67-...	**560282**	**EAMM-A-D40-40G**[3]
EMGC-40-...	**2256398**	**EAMM-A-D40-40G-G2**
	2256399	**EAMM-A-D40-40G-S1**[2]
EMCA-EC-67-...	**1454242**	**EAMM-A-D40-60H**
EMGC-60-...	**2256401**	**EAMM-A-D40-60H-S1**[2]

1) The input torque must not exceed the maximum permissible transferable torque of the axial kit.
2) With degree of protection IP65.
3) Type discontinued
4) Only in combination with DNCE-...-LS.

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

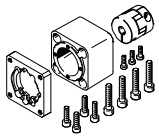
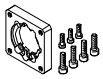
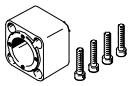
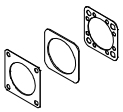
Motor/gear unit[1]	Axial kit	
		
Type	Part No.	Type
DNCE-63		
With servo motor		
EMMS-AS-70-...	**543161**	**EAMM-A-D60-70A**
	2256699	**EAMM-A-D60-70A-S1**[2]
EMME-AS-80-...	**1977073**	**EAMM-A-D60-80P**
	2218564	**EAMM-A-D60-80P-S1**[2]
EMME-AS-100-...	**550983**	**EAMM-A-D60-100A**
	2256700	**EAMM-A-D60-100A-S1**[2]
EMMS-AS-100-...	**550983**	**EAMM-A-D60-100A**
	2256700	**EAMM-A-D60-100A-S1**[2]
With servo motor and gear unit		
EMMS-AS-55-... **EMGA-60-P-G...-SAS-55**	**560283**	**EAMM-A-D60-60G**[3]
	2256696	**EAMM-A-D60-60G-G2**
	2256698	**EAMM-A-D60-60G-S1**[2]
EMME-AS-60-... **EMGA-60-P-G...-EAS-60**	**1454245**	**EAMM-A-D60-60H**
	2256697	**EAMM-A-D60-60H-S1**[2]
EMMS-AS-70-... **EMGA-60-P-G...-SAS-70**	**560283**	**EAMM-A-D60-60G**[3]
	2256696	**EAMM-A-D60-60G-G2**
	2256698	**EAMM-A-D60-60G-S1**[2]
EMMS-AS-70-... **EMGA-80-P-G...-SAS-70**	**1499402**	**EAMM-A-D60-80G**
	2946762	**EAMM-A-D60-80G-S1**[2]
EMME-AS-80-... **EMGA-80-P-G...-EAS-80**	**1499402**	**EAMM-A-D60-80G**
	2946762	**EAMM-A-D60-80G-S1**[2]
EMMS-AS-100-... **EMGA-80-P-G...-SAS-100**	**1499402**	**EAMM-A-D60-80G**
	2946762	**EAMM-A-D60-80G-S1**[2]
With stepper motor		
EMMS-ST-87-...	**543162**	**EAMM-A-D60-87A**
	1322188	**EAMM-A-D60-87A-S1**[2]
With stepper motor and gear unit		
EMMS-ST-57-... **EMGA-60-P-G...-SST-57**	**560283**	**EAMM-A-D60-60G**[3]
	2256696	**EAMM-A-D60-60G-G2**
	2256698	**EAMM-A-D60-60G-S1**[2]
EMMS-ST-87-... **EMGA-80-P-G...-SST-87**	**1499402**	**EAMM-A-D60-80G**
	2946762	**EAMM-A-D60-80G-S1**[2]
With motor unit[3]		
MTR-DCI-52S-...-G7[4]	**543163**	**EAMM-A-D60-52B**
MTR-DCI-52S-...-G14[4]	**543164**	**EAMM-A-D60-52C**
With integrated drive and gear unit		
EMCA-EC-67-...	**1454245**	**EAMM-A-D60-60H**
EMGC-60-...	**2256697**	**EAMM-A-D60-60H-S1**[2]

1) The input torque must not exceed the maximum permissible transferable torque of the axial kit.
2) With degree of protection IP65.
3) Type discontinued.
4) Only in combination with DNCE-...-LS.

Note

The axial kit (without "S1" in the type code) can be retrofitted with a seal set EADS-F to change the degree of protection from IP40 to IP65.

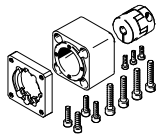
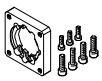
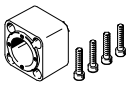
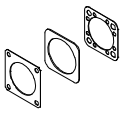
More information ➔ eamm-u

Component parts of the axial kit				
Axial kit	Comprising:			
	Motor flange	Coupling	Coupling housing	Seal set
				
Part No. Type	Part No.. Type	Part No. Type	Part No. Type	Part No. Type
DNCE-32				
543149 **EAMM-A-D32-32B**[2]	–	**543420** **EAMC-16-20-6-6**	**552156** **EAMK-A-D32-32B**	–
543147 **EAMM-A-D32-40A**	**552163** **EAMF-A-28B-40A**	**543420** **EAMC-16-20-6-6**	**552155** **EAMK-A-D32-28B**	–
1322178 **EAMM-A-D32-40A-S**[1]				**1561526** **EADS-F-D32-40A**
1454238 **EAMM-A-D32-40G**	**1460095** **EAMF-A-44C-40G-S1**	**562681** **EAMC-30-32-6-10**	**551006** **EAMK-A-D32-44A/C**	–
2256396 **EAMM-A-D32-40G-S1**[1]				**2253500** **EADS-F-D32-40G**
1976465 **EAMM-A-D32-40P**	**1976704** **EAMF-A-28B-40P**	**1232854** **EAMC-16-20-6-8**	**552155** **EAMK-A-D32-28B**	–
2207372 **EAMM-A-D32-40P-S1**[1]				**2207219** **EADS-F-D32-40P**
543148 **EAMM-A-D32-42A**	**552164** **EAMF-A-28B-42A**	**543419** **EAMC-16-20-5-6**	**552155** **EAMK-A-D32-28B**	–
1322179 **EAMM-A-D32-42A-S1**[1]				**1561527** **EADS-F-D32-42A**
550979 **EAMM-A-D32-55A**	**529942** **EAMF-A-44A/B-55A**	**551003** **EAMC-30-32-6-9**	**551006** **EAMK-A-D32-44A/C**	–
1322180 **EAMM-A-D32-55A-S1**[1]				**1561528** **EADS-F-D32-55A**
550980 **EAMM-A-D32-57A**	**530081** **EAMF-A-44A/B-57A**	**551002** **EAMC-30-32-6-6.35**	**551006** **EAMK-A-D32-44A/C**	–
1322181 **EAMM-A-D32-57A-S1**[1]				**1561529** **EADS-F-D32-57A**
2946758 **EAMM-A-D32-60G**	**1460105** **EAMF-A-44C-60G/H-S1**	**318577** **EAMC-30-32-6-11**	**551006** **EAMK-A-D32-44A/C**	–
2946759 **EAMM-A-D32-60G-S1**[1]				**8022150** **EADS-F-D32-60G/H**
2946760 **EAMM-A-D32-60H**	**1460105** **EAMF-A-44C-60G/H-S1**	**1233256** **EAMC-30-32-6-14**	**551006** **EAMK-A-D32-44A/C**	–
2946761 **EAMM-A-D32-60H-S1**[1]				**8022150** **EADS-F-D32-60G/H**
1956054 **EAMM-A-D32-60P**	**1956846** **EAMF-A-44C-60P**	**1233256** **EAMC-30-32-6-14**	**551006** **EAMK-A-D32-44A/C**	–
2234020 **EAMM-A-D32-60P-S1**[1]				**2234012** **EADS-F-D32-60P**
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**	–
2256397 **EAMM-A-D32-67A-S1**[1]				**2253501** **EADS-F-D32-67A**

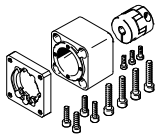
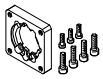
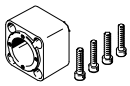
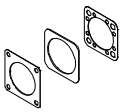
1) With degree of protection IP65.
2) Only with DNCE-...-LS.

Electric cylinders DNCE, with spindle drive

Accessories

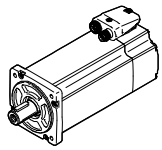
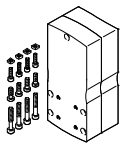
Part components of the axial kit				
Axial kit	Comprising:			
	Motor flange	Coupling	Coupling housing	Seal set
				
Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
DNCE-40				
543155 **EAMM-A-D40-42B**[3]	–	**543422** **EAMC-30-32-8-8**	**552158** **EAMK-A-D40-42B**	–
543156 **EAMM-A-D40-42C**[3]	–	**543422** **EAMC-30-32-8-8**	**552159** **EAMK-A-D40-42C**	–
560282 **EAMM-A-D40-40G**[2]	**550986** **EAMF-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-S1**	**558029** **EAMC-30-32-8-10**	**552157** **EAMK-A-D40-44A/C**	–
2256399 **EAMM-A-D40-40G-S1**[1]				**2253502** **EADS-F-D40-40G**
543153 **EAMM-A-D40-55A**	**529942** **EAMF-A-44A/B-55A**	**543423** **EAMC-30-32-8-9**	**552157** **EAMK-A-D40-44A/C**	–
1322182 **EAMM-A-D40-55A-S1**[1]				**1561530** **EADS-F-D40-55A**
543154 **EAMM-A-D40-57A**	**530081** **EAMF-A-44A/B-57A**	**543421** **EAMC-30-32-6.35-8**	**552157** **EAMK-A-D40-44A/C**	–
1322183 **EAMM-A-D40-57A-S1**[1]				**1561531** **EADS-F-D40-57A**
2256400 **EAMM-A-D40-60G**	**1460105** **EAMF-A-44C-60G/H-S1**	**551004** **EAMC-30-32-8-11**	**552157** **EAMK-A-D40-44A/C**	–
2256409 **EAMM-A-D40-60G-S1**[1]				**2253503** **EADS-F-D40-60G/H**
1454242 **EAMM-A-D40-60H**	**1460105** **EAMF-A-44C-60G/H-S1**	**562682** **EAMC-30-32-8-14**	**552157** **EAMK-A-D40-44A/C**	–
2256401 **EAMM-A-D40-60H-S1**[1]				**2253503** **EADS-F-D40-60G/H**
1977000 **EAMM-A-D40-60P**	**1956846** **EAMF-A-44C-60P**	**562682** **EAMC-30-32-8-14**	**552157** **EAMK-A-D40-44A/C**	–
2151519 **EAMM-A-D40-60P-S1**[1]				**2151545** **EADS-F-D40-60P**
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**	–
2256695 **EAMM-A-D40-67A-S1**[1]				**2253504** **EADS-F-D40-67A**
550981 **EAMM-A-D40-70A**	**529943** **EAMF-A-44A/B-70A**	**551004** **EAMC-30-32-8-11**	**552157** **EAMK-A-D40-44A/C**	–
1322185 **EAMM-A-D40-70A-S1**[1]				**1561532** **EADS-F-D40-70A**
550982 **EAMM-A-D40-87A**	**530082** **EAMF-A-44A/B-87A**	**551004** **EAMC-30-32-8-11**	**552157** **EAMK-A-D40-44A/C**	–
1322186 **EAMM-A-D40-87A-S1**[1]				**1561533** **EADS-F-D40-87A**

1) With degree of protection IP65.
2) Type discontinued.
3) Only with DNCE-...-LS.

Component parts of the axial kit				
Axial kit	Comprising:			
	Motor flange	Coupling	Coupling housing	Seal set
				
Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
DNCE-63				
543163 **EAMM-A-D60-52B**[3]	–	**533709** **EAMC-42-50-12-12**	**552161** **EAMK-A-D60-52B**	–
543164 **EAMM-A-D60-52C**[3]	–	**533709** **EAMC-42-50-12-12**	**552162** **EAMK-A-D60-52C**	–
560283 **EAMM-A-D60-60G**[2]	**550987** **EAMF-A-64A/B-60G/H**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**	–
2256696 **EAMM-A-D60-60G-G2**	**2256289** **EAMF-A-64B-60G/H-S1**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**	–
2256698 **EAMM-A-D60-60G-S1**[1]				**2253505** **EADS-F-D60-60G/H**
1454245 **EAMM-A-D60-60H**	**2256289** **EAMF-A-64B-60G/H-S1**	**1455671** **EAMC-42-50-12-14**	**552160** **EAMK-A-D60-64B**	–
2256697 **EAMM-A-D60-60H-S1**[1]				**2253505** **EADS-F-D60-60G/H**
543161 **EAMM-A-D60-70A**	**529945** **EAMF-A-64A/B-70A**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**	–
2256699 **EAMM-A-D60-70A-S1**[1]				**8022145** **EADS-F-D60-70A**
1499402 **EAMM-A-D60-80G**	**2843290** **EAMF-A-64C-80G-S1**	**2138701** **EAMC-42-50-12-20**	**551007** **EAMK-A-D60-64C**	–
2946762 **EAMM-A-D60-80G-S1**[1]				**8022146** **EADS-F-D60-80G**
1977073 **EAMM-A-D60-80P**	**1977113** **EAMF-A-64A/C-80P**	**551005** **EAMC-42-50-12-19**	**551007** **EAMK-A-D60-64C**	–
2218564 **EAMM-A-D60-80P-S1**[1]				**2218523** **EADS-F-D60-80P**
543162 **EAMM-A-D60-87A**	**533140** **EAMF-A-64A/B-87A**	**543424** **EAMC-42-50-11-12**	**552160** **EAMK-A-D60-64B**	–
1322188 **EAMM-A-D60-87A-S1**[1]				**1561536** **EADS-F-D60-87A**
550983 **EAMM-A-D60-100A**	**529947** **EAMF-A-64A/C/D-100A**	**551005** **EAMC-42-50-12-19**	**551007** **EAMK-A-D60-64C**	–
2256700 **EAMM-A-D60-100A-S1**[1]				**2253507** **EADS-F-D60-100A**

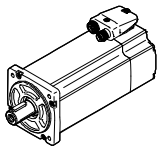
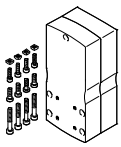
1) With degree of protection IP65.
2) Type discontinued.
3) Only with DNCE-...-LS.

Permissible axis/motor combinations with parallel kit — Technical data ➔ Internet: eamm-u

Motor/gear unit[1]	Parallel kit		
		• Increased housing rigidity • More flexible motor mounting possible • Larger toothed belt bending radii for improved service life • Components can be mounted to the kit facing any direction • Use in combination with third-party motors on request	
Type	Part No.	Type	
DNCE-32			
With servo motor			
EMME-AS-40-...	**2153283**	**EAMM-U-50-D32-40P-78**	
	2154009	**EAMM-U-50-D32-40AP-78-S1**[2]	
EMMS-AS-40-...	**1201591**	**EAMM-U-50-D32-40A-78**	
	1202302	**EAMM-U-50-D32-40A-78-S1**[2]	
EMMS-AS-55-...	**1210126**	**EAMM-U-60-D32-55A-91**	
	1210450	**EAMM-U-60-D32-55A-91-S1**[2]	
EMME-AS-60-...	**2619586**	**EAMM-U-70-D32-60P-96**	
	2619688	**EAMM-U-70-D32-60P-96-S1**[2]	
EMMS-AS-70-...	**2755565**	**EAMM-U-70-D32-70A-96**	
	2781711	**EAMM-U-70-D32-70A-96-S1**[2]	
With stepper motor			
EMMS-ST-42-...	**1201607**	**EAMM-U-50-D32-42A-78**	
	1202312	**EAMM-U-50-D32-42A-78-S1**[2]	
EMMS-ST-57-...	**1210419**	**EAMM-U-60-D32-57A-91**	
	1210453	**EAMM-U-60-D32-57A-91-S1**[2]	
With motor unit[3]			
MTR-DCI-32S-...	**1570862**	**EAMM-U-50-D32-32B-78**	
MTR-DCI-42S-...	**1577393**	**EAMM-U-60-D32-42B/C-91**	
	1577380	**EAMM-U-60-D32-42B/C-91-S1**[2]	
MTR-DCI-52S-...	**2755890**	**EAMM-U-70-D32-52B/C-96**	
	2781778	**EAMM-U-70-D32-52B/C-96-S1**[2]	
With gear unit			
EMGA-40-P-...	**1577358**	**EAMM-U-60-D32-40G-91**	
EMGC-40-P-...	**1577346**	**EAMM-U-60-D32-40G-91-S1**[2]	
EMGA-60-P-...-SAS/SST[4]	**2748181**	**EAMM-U-70-D32-60G-96**	
	2778302	**EAMM-U-70-D32-60G-96-S1**[2]	
EMGA-60-P-...-EAS,	**2778393**	**EAMM-U-70-D32-60H-96**	
EMGC-60-P-...[4]	**2781450**	**EAMM-U-70-D32-60H-96-S1**[2]	

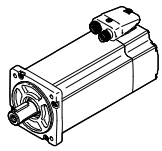
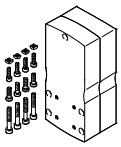
1) The input torque must not exceed the maximum permissible transferable torque of the parallel kit.
2) With degree of protection IP65
3) Only with DNCE-...-LS
4) Gear unit drive shaft ∅: EMGA-60-P-...-SAS/-SST11 mm; EMGA-60-P-...-EAS, EMGC-60-P14 mm

Permissible axis/motor combinations with parallel kit — Technical data ➔ Internet: eamm-u

Motor/gear unit[1]	Parallel kit		
			• Increased housing rigidity • More flexible motor mounting possible • Larger toothed belt bending radii for improved service life • Components can be mounted to the kit facing any direction • Use in combination with third-party motors on request
Type	Part No.	Type	
DNCE-40			
With servo motor			
EMMS-AS-55-...	**1210438**	**EAMM-U-60-D40-55A-91**	
	1210458	**EAMM-U-60-D40-55A-91-S1**[2]	
EMME-AS-60-...	**2617488**	**EAMM-U-70-D40-60P-96**	
	2546123	**EAMM-U-70-D40-60P-96-S1**[2]	
EMMS-AS-70-...	**2786204**	**EAMM-U-70-D40-70A-96**	
	2786316	**EAMM-U-70-D40-70A-96-S1**[2]	
EMMS-AS-70-...	**1212826**	**EAMM-U-86-D40-70A-102**	
	1212854	**EAMM-U-86-D40-70A-102-S1**[2]	
EMME-AS-80-...	**2802441**	**EAMM-U-86-D40-80P-102**	
	2802656	**EAMM-U-86-D40-80P-102-S1**[2]	
With stepper motor			
EMMS-ST-57-...	**1210442**	**EAMM-U-60-D40-57A-91**	
	1210462	**EAMM-U-60-D40-57A-91-S1**[2]	
EMMS-ST-87-...	**1215802**	**EAMM-U-86-D40-87A-102**	
	1215814	**EAMM-U-86-D40-87A-102-S1**[2]	
With motor unit[3]			
MTR-DCI-42S-...	**1570950**	**EAMM-U-60-D40-42B/C-91**	
	1430735	**EAMM-U-60-D40-42B/C-91-S1**[2]	
MTR-DCI-52S-...	**2786802**	**EAMM-U-70-D40-52B/C-96**	
	2786845	**EAMM-U-70-D40-52B/C-96-S1**[2]	
MTR-DCI-52S-...	**1537046**	**EAMM-U-86-D40-52B/C-102**	
	1537011	**EAMM-U-86-D40-52B/C-102-S1**[2]	
With gear unit			
EMGA-40-P-...	**1577165**	**EAMM-U-60-D40-40G-91**	
EMGC-40-P-...	**1435968**	**EAMM-U-60-D40-40G-91-S1**[2]	
EMGA-60-P-...-SAS/SST[4]	**2785471**	**EAMM-U-70-D40-60G-96**	
	2785542	**EAMM-U-70-D40-60G-96-S1**[2]	
EMGA-60-P-...-EAS,	**2786101**	**EAMM-U-70-D40-60H-96**	
EMGC-60-P-...[4]	**2786137**	**EAMM-U-70-D40-60H-96-S1**[2]	
EMGA-60-P-...-SAS/SST[4]	**1586445**	**EAMM-U-86-D40-60G-102**	
	1586429	**EAMM-U-86-D40-60G-102-S1**[2]	
EMGA-60-P-...-EAS,	**1586496**	**EAMM-U-86-D40-60H-102**	
EMGC-60-P-...[4]	**1586372**	**EAMM-U-86-D40-60H-102-S1**[2]	

1) The input torque must not exceed the maximum permissible transferable torque of the parallel kit.
2) With degree of protection IP65
3) Only with DNCE-...-LS
4) Gear unit drive shaft ∅: EMGA-60-P-...-SAS/-SST11 mm; EMGA-60-P-...-EAS, EMGC-60-P14 mm

Permissible axis/motor combinations with parallel kit — Technical data ➔ Internet: eamm-u

Motor/gear unit[1]	Parallel kit		
		• Increased housing rigidity • More flexible motor mounting possible • Larger toothed belt bending radii for improved service life • Components can be mounted to the kit facing any direction • Use in combination with third-party motors on request	
Type	Part No.	Type	
DNCE-63			
With servo motor			
EMMS-AS-70-...	**1212477**	**EAMM-U-86-D60-70A-102**	
	1212835	**EAMM-U-86-D60-70A-102-S1**[2]	
EMME-AS-80-...	**2155875**	**EAMM-U-86-D60-80P-102**	
	2156527	**EAMM-U-86-D60-80P-102-S1**[2]	
EMME-AS-100-...	**1202436**	**EAMM-U-110-D60-100A-120**	
	1203112	**EAMM-U-110-D60-100A-120-S1**[2]	
EMMS-AS-100-...	**1202436**	**EAMM-U-110-D60-100A-120**	
	1203112	**EAMM-U-110-D60-100A-120-S1**[2]	
With stepper motor			
EMMS-ST-87-...	**1215784**	**EAMM-U-86-D60-87A-102**	
	1215810	**EAMM-U-86-D60-87A-102-S1**[2]	
With motor unit[3]			
MTR-DCI-52S-...	**1537000**	**EAMM-U-86-D60-52B/C-102**	
	1431381	**EAMM-U-86-D60-52B/C-102-S1**[2]	
MTR-DCI-62S-...	**1536988**	**EAMM-U-110-D60-62B-120**	
	1431443	**EAMM-U-110-D60-62B-120-S1**[2]	
With gear unit			
EMGA-60-P-...-SAS/SST[4]	**1586347**	**EAMM-U-86-D60-60G-102**	
	1437163	**EAMM-U-86-D60-60G-102-S1**[2]	
EMGA-60-P-...-EAS, **EMGC-60-P-...**[4]	**1586276**	**EAMM-U-86-D60-60H-102**	
	1530837	**EAMM-U-86-D60-60H-102-S1**[2]	
EMGA-60-P-.....-SAS/SST[4]	**1543240**	**EAMM-U-110-D60-60G-120**	
	1436183	**EAMM-U-110-D60-60G-120-S1**[2]	
EMGA-60-P-...-EAS, **EMGC-60-P-...**[4]	**1542264**	**EAMM-U-110-D60-60H-120**	
	1530621	**EAMM-U-110-D60-60H-120-S1**[2]	
EMGA-80-P-...	**1532949**	**EAMM-U-110-D60-80G-120**	
	1530875	**EAMM-U-110-D60-80G-120-S1**[2]	

1) The input torque must not exceed the maximum permissible transferable torque of the parallel kit.
2) With degree of protection IP65
3) Only with DNCE-...-LS
4) Gear unit drive shaft ∅: EMGA-60-P-...-SAS/-SST11 mm; EMGA-60-P-...-EAS, EMGC-60-P14 mm

- Note

The clamping component EADT is required to adjust the toothed belt pretension with EAMM-U-110.

The motor and/or axis shaft can optionally be supported with a counter bearing EAMG.
More information ➔ eamm-u

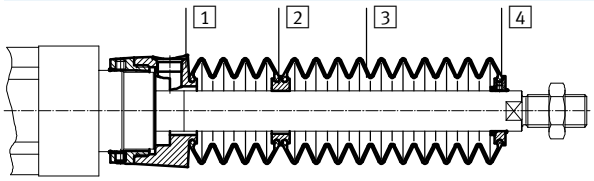
Protective bellows kit EADB

General technical data				
Type EADB-V1-		32	40	63
Max. stroke range of cylinder[1)]	[mm]	10 … 400	10 … 500	10 … 500
Type of mounting		Push-on		
		Via threaded pin		
Mounting position		Any		
Resistance to media		Dust, chippings, oil, grease, petrol (➔ Internet: Resistance to media)		
Ambient temperature[2)]	[°C]	–10 … +80		
Degree of protection to IEC 60529		IP65		
Corrosion resistance class CRC[3)]		3		

1) In combination with the protective bellows kit EADB
2) Note operating range of proximity sensors and cylinder
3) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Materials

Sectional view

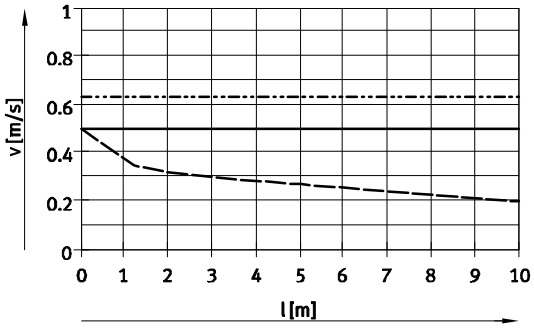


Bellows		
1	Connection	Anodised wrought aluminium alloy
2	Adapter	Polyamide
3	Bellows	NBR
4	End piece	Anodised wrought aluminium alloy
–	O-ring	NBR
	Note on materials	Free of copper and PTFE
		RoHS-compliant

Weight [g]			
Type EADB-V1- Stroke [mm]	32	40	63
Product weight			
10 … 100	77	116	196
101 … 200	108	153	263
201 … 300	122	172	309
301 … 400	153	209	376
401 … 500	–	227	397
Moving load			
10 … 100	35	43	86
101 … 200	66	80	153
201 … 300	80	99	199
301 … 400	111	136	266
401 … 500	–	154	287

Travel speed v as a function of tubing length l

The protective bellows kit is a leak-free system.
To prevent unwanted media from being drawn in, the supply and exhaust air for the kit must be ducted via a pressure compensation hole in the connection part 1.
The pressure generated in the protective bellows kit by the positioning motion is primarily defined by the travel speed and tubing length. The recommended tubing length based on the travel speed of the drive can be read from the graph.



EADB-V1-32/tubing ∅ 8 mm
EADB-V1-40/tubing ∅ 16 mm
EADB-V1-63/tubing ∅ 16 mm

Note

The push-in fittings in the adjacent table must be used for the pressure compensation hole.

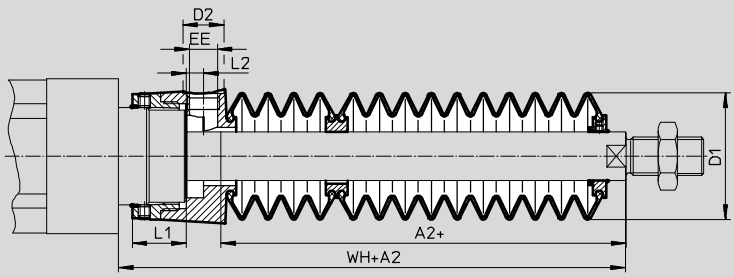
Silencers can be used as an alternative. This reduces the travel speed slightly.

Tubing size and push-in fitting

∅ [mm]	Tubing O.D. [mm]	Push-in fitting Part No.	Type
32	8	**186109**	**QS-G⅛-8-I**
		578376	**NPQH-DK-G18-Q8-P10**
40, 63	16	**186350**	**QS-G¼-12**
		578344	**NPQH-D-G14-Q12-P10**
		153261	**QSH-16-12**

Dimensions

Download CAD data ➔ **www.festo.com**



\+ = plus stroke length

∅	32							40						
Stroke [mm]	A2[1)]	D1 max.	D2	EE	L1	L2	WH+A2	A2[1)]	D1 max.	D2	EE	L1	L2	WH+A2
10 … 100	44	46	14	G⅛	12.9	5.4	70	48	57	17	G¼	16.3	7	78
101 … 200	74						100	77						107
201 … 300	88						114	88						118
301 … 400	117						143	117						147
401 … 500	–	–	–	–	–	–	–	135						165

∅	63						
Stroke [mm]	A2[1)]	D1 max.	D2	EE	L1	L2	WH+A2
10 … 100	43	93	17	G¼	22.4	7	80
101 … 200	68						105
201 … 300	80						117
301 … 400	104						141
401 … 500	117						154

1) The dimension corresponds to the K8 value (extended piston rod) of the cylinder

Ordering data – Protective bellows kit

An extended piston rod (order code K8) ➔ 17 is absolutely essential when using a protective bellows kit.

The necessary dimension for K8 as a function of cylinder size and stroke as well as the corresponding protective bellows kit are indicated in the table below:

Order example:
Selected electric cylinder:
DNCE-32-250-BS-“3”P-Q-...K8
The dimension for the corresponding K8 value (see table):
88 mm
Complete type code for electric cylinder:
DNCE-32-250-BS-“3”P-Q-88K8
The corresponding protective bellows kit:
EADB-V1-32-S201-300

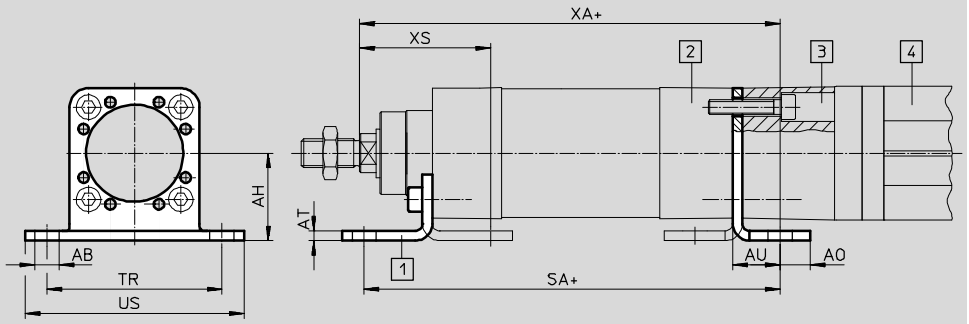
Cylinder data			Protective bellows kit	
∅ [mm]	Stroke [mm]	Dimension for K8 [mm]	Part No.	Type
32	10 ... 100	44	**570262**	**EADB-V1-32-S10-100**
	101 ... 200	74	**570263**	**EADB-V1-32-S101-200**
	201 ... 300	88	**570264**	**EADB-V1-32-S201-300**
	301 ... 400	117	**570265**	**EADB-V1-32-S301-400**
	–			
63	10 ... 100	43	**570271**	**EADB-V1-63-S10-100**
	101 ... 200	68	**570272**	**EADB-V1-63-S101-200**
	201 ... 300	80	**570273**	**EADB-V1-63-S201-300**
	301 ... 400	104	**570274**	**EADB-V1-63-S301-400**
	401 ... 500	117	**570275**	**EADB-V1-63-S401-500**

Cylinder data			Protective bellows kit	
∅ [mm]	Stroke [mm]	Dimension for K8 [mm]	Part No.	Type
40	10 ... 100	48	**570266**	**EADB-V1-40-S10-100**
	101 ... 200	77	**570267**	**EADB-V1-40-S101-200**
	201 ... 300	88	**570268**	**EADB-V1-40-S201-300**
	301 ... 400	117	**570269**	**EADB-V1-40-S301-400**
	401 ... 500	135	**570270**	**EADB-V1-40-S401-500**

Foot mounting HNCE
for axial motor attachment

Materials:
Galvanised steel

Free of copper and PTFE



\+ = plus stroke length
1 See dimensions for HNC
2 Electric cylinder DNCE
3 Axial kit EAMM-A
4 Servo motor

Dimensions and ordering data

For size [mm]	AB ∅	AH	AO	AT	AU	SA	TR	US	XA	XS
32	7	32	10.5	4	17.5	163.5	58	71	165.5	46
40	10	36	12.5	4	19.5	194.5	72	90	196	54
63	10	50	15	5	23	232	92	110	237	64

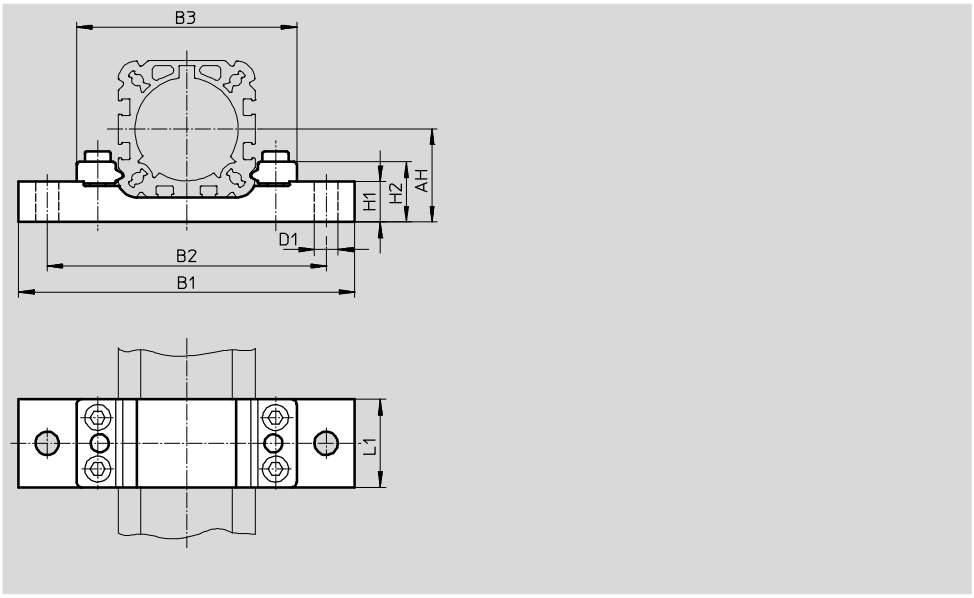
For size [mm]	CRC[1)]	Weight [g]	Part No.	Type
32	1	160	**547949**	**HNCE-32-AX**
40	1	220	**547950**	**HNCE-40-AX**
63	1	470	**547951**	**HNCE-63-AX**

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Profile mounting EAHF

Materials:
Plate: Anodised aluminium
Clamping piece: Galvanised steel

RoHS-compliant



Dimensions and ordering data

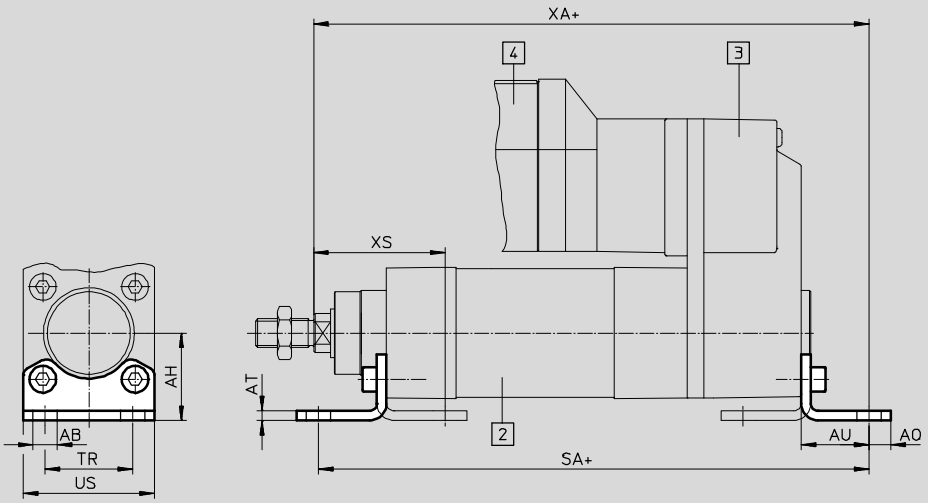
For size [mm]	AH	B1	B2	B3	D1 ∅	H1	H2	L1
32	32	100	84	66.1	6.6	17.5	26.1	32
40	36	130	108	85.2	9	15.7	23.3	34
63	50	150	128	104.8	9	22.9	30.4	41

For size [mm]	CRC[1)]	Weight [g]	Part No.	Type
32	1	175	**1098473**	**EAHF-V1-32-P**
40	1	230	**1098478**	**EAHF-V1-40-P**
63	1	400	**1098481**	**EAHF-V1-63-P**

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Foot mounting HNC/CRHNC, for parallel motor attachment

Materials:
HNC: Galvanised steel
CRHNC: High-alloy steel
Free of copper and PTFE



\+ = plus stroke length
2 Electric cylinder DNCE
3 Parallel kit EAMM-U
4 Motor unit MTR-DCI

Dimensions and ordering data

For size [mm]	AB ∅	AH	AO	AT	AU	TR	US	XS
32	7	32	6.5	4	24	32	45	46
40	10	36	9	4	28	36	54	54
63	10	50	12.5	5	32	50	75	64

For size	with parallel kit									
	EAMM-U-50		EAMM-U-60		EAMM-U-70		EAMM-U-86		EAMM-U-110	
[mm]	SA	XA	SA	XA	SA	XA	SA	XA	SA	XA
32	215	217	226	228	234.5	236.5	–	–	–	–
40	–	–	258.5	260.5	267	269	271.5	273.5	–	–
63	–	–	–	–	–	–	312	317	323	328

For size	with parallel kit					
	EAMM-U-D32		EAMM-U-D40		EAMM-U-D60	
[mm]	SA	XA	SA	XA	SA	XA
32	210	212	–	–	–	–
40	–	–	249.5	251.5	–	–
63	–	–	–	–	299	304

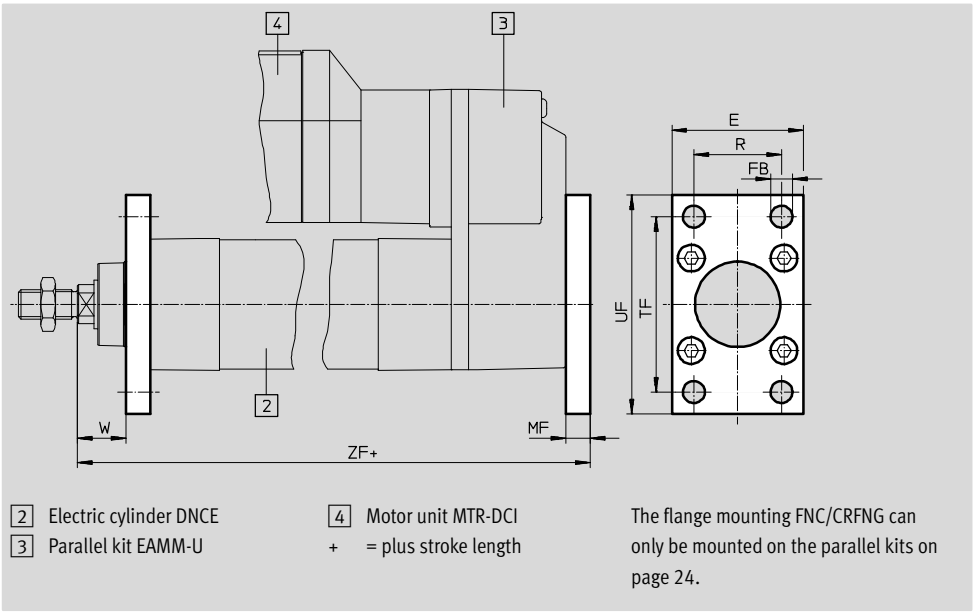
For size	Basic version				High corrosion protection			
	CRC[1]	Weight	Part No.	Type	CRC[1]	Weight	Part No.	Type
[mm]		[g]				[g]		
32	2	144	**174369**	**HNC-32**	4	139	**176937**	**CRHNC-32**
40	2	193	**174370**	**HNC-40**	4	188	**176938**	**CRHNC-40**
63	2	436	**174372**	**HNC-63**	4	424	**176940**	**CRHNC-63**

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.
Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Flange mounting FNC/CRFNG

Materials:
FNC: Galvanised steel
CRFNG: High-alloy steel

Free of copper and PTFE
RoHS-compliant



2 Electric cylinder DNCE
3 Parallel kit EAMM-U
4 Motor unit MTR-DCI
\+ = plus stroke length

The flange mounting FNC/CRFNG can only be mounted on the parallel kits on page 24.

Dimensions and ordering data

For size [mm]	E	FB ∅ H13	MF	R	TF	UF	W
32	45	7	10	32	64	80	16
40	54	9	10	36	72	90	20
63	75	9	12	50	100	120	25

For size	ZF with parallel kit				
[mm]	EAMM-U-50	EAMM-U-60	EAMM-U-70	EAMM-U-86	EAMM-U-110
32	203	214	222.5	–	–
40	–	242.5	251	255.5	–
63	–	–	–	297	308

For size	ZF with parallel kit		
[mm]	EAMM-U-D32	EAMM-U-D40	EAMM-U-D60
32	198	–	–
40	–	233.5	–
63	–	–	284

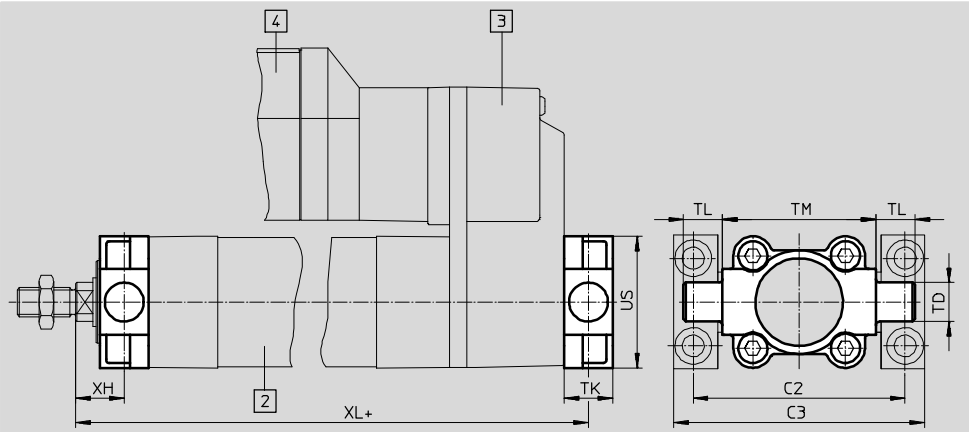
For size	Basic version				High corrosion protection			
[mm]	CRC[1]	Weight [g]	Part No.	Type	CRC[1]	Weight [g]	Part No.	Type
32	1	221	**174376**	**FNC-32**	4	220	**161846**	**CRFNG-32**
40	1	291	**174377**	**FNC-40**	4	291	**161847**	**CRFNG-40**
63	1	679	**174379**	**FNC-63**	4	680	**161849**	**CRFNG-63**

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).
Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

Trunnion flange ZNCF/CRZNG

Materials:
ZNCF: Stainless steel casting
CRZNG: Electropolished stainless steel casting

Free of copper and PTFE
RoHS-compliant



2 Electric cylinder DNCE
3 Parallel kit EAMM-U
4 Motor unit MTR-DCI
\+ = plus stroke length

Dimensions and ordering data

For size [mm]	C2	C3	TD ∅ e9	TK	TL	TM	US	XH
32	71	86	12	16	12	50	45	18
40	87	105	16	20	16	63	54	20
63	116	136	20	24	20	90	75	25

For size [mm]	XL with parallel kit				
	EAMM-U-50	EAMM-U-60	EAMM-U-70	EAMM-U-86	EAMM-U-110
32	201	212	220.5	–	–
40	–	242.5	251	255.5	–
63	–	–	–	297	308

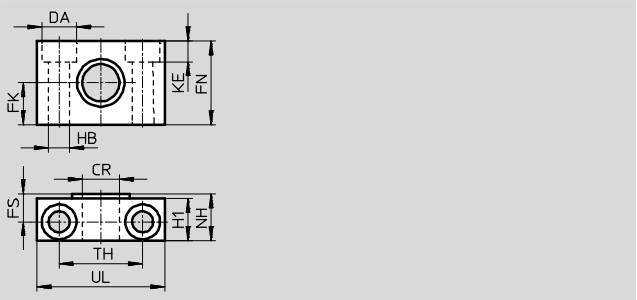
For size [mm]	XL with parallel kit		
	EAMM-U-D32	EAMM-U-D40	EAMM-U-D60
32	196	–	–
40	–	233.5	–
63	–	–	284

For size	Basic version				High corrosion protection			
[mm]	CRC[1)]	Weight [g]	Part No.	Type	CRC[1)]	Weight [g]	Part No.	Type
32	2	150	**174411**	**ZNCF-32**	4	150	**161852**	**CRZNG-32**
40	2	285	**174412**	**ZNCF-40**	4	285	**161853**	**CRZNG-40**
63	2	687	**174414**	**ZNCF-63**	4	687	**161855**	**CRZNG-63**

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.
Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

Trunnion support LNZG

Materials:
Trunnion support: Anodised aluminium
Plain bearing: Plastic
Free of copper and PTFE
RoHS-compliant

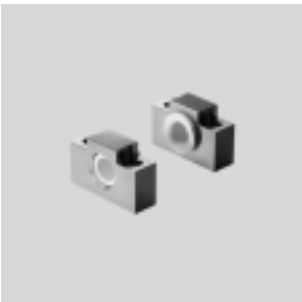


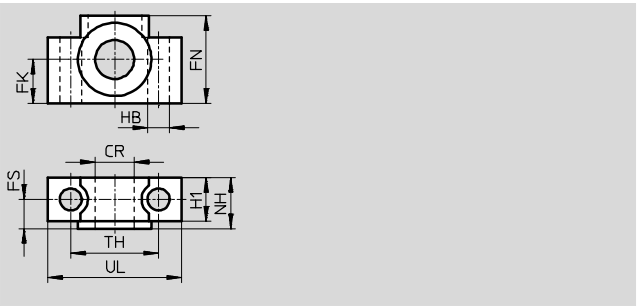
Dimensions and ordering data

For size	CR ∅	DA ∅	FK ∅	FN	FS	H1	HB ∅	KE	NH	TH	UL	CRC[1]	Weight	Part No.	Type
[mm]	D11	H13	±0.1				H13			±0.2			[g]		
32	12	11	15	30	10.5	15	6.6	6.8	18	32	46	2	83	**32959**	**LNZG-32**
40	16	15	18	36	12	18	9	9	21	36	55	2	129	**32960**	**LNZG-40/50**
63	20	18	20	40	13	20	11	11	23	42	65	2	178	**32961**	**LNZG-63/80**

Trunnion support CRLNZG

Materials:
High-alloy steel
Free of copper and PTFE
RoHS-compliant





Dimensions and ordering data

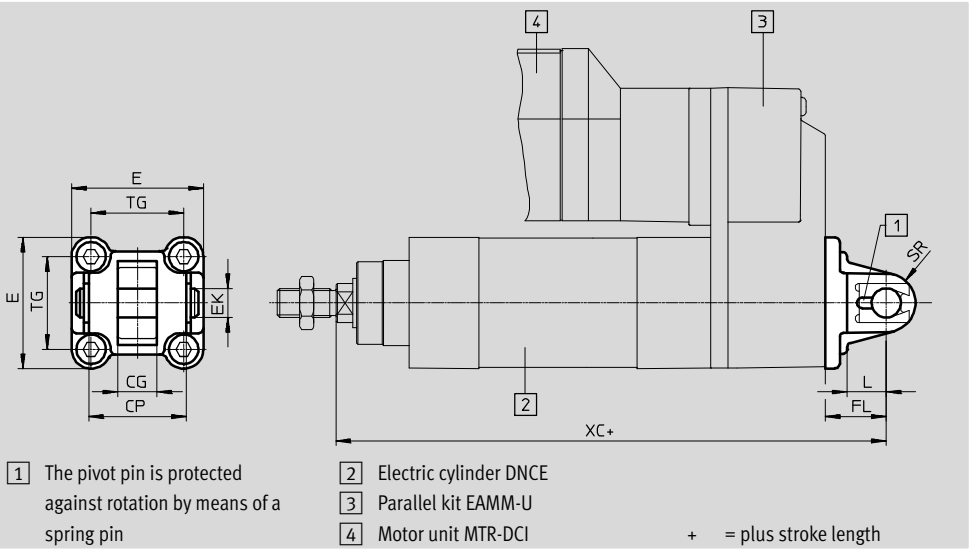
For size	CR ∅	FK ∅	FN	FS	H1	HB ∅	NH	TH	UL	CRC[1]	Weight	Part No.	Type
[mm]	D11	±0.1				H13		±0.2			[g]		
32	12	15	30	10.5	15	6.6	18	32	46	4	205	**161874**	**CRLNZG-32**
40	16	18	36	12	18	9	21	36	55	4	323	**161875**	**CRLNZG-40/50**
63	20	20	40	13	20	11	23	42	65	4	435	**161876**	**CRLNZG-63/80**

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.
Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

Swivel flange SNC

Materials:
Die-cast aluminium

Free of copper and PTFE
RoHS-compliant



1 The pivot pin is protected against rotation by means of a spring pin

2 Electric cylinder DNCE
3 Parallel kit EAMM-U
4 Motor unit MTR-DCI

\+ = plus stroke length

Dimensions and ordering data

For size	CG	CP	E	EK ∅	FL	L	SR	TG
[mm]	H14	h14		H9	±0.2			
32	14	34	45 +0.2/–0.5	10	22	13	10	32.5
40	16	40	54 –0.5	12	25	16	12	38
63	21	51	75 –0.6	16	32	21	16	56.5

For size	XC with parallel kit				
[mm]	EAMM-U-50	EAMM-U-60	EAMM-U-70	EAMM-U-86	EAMM-U-110
32	215	226	234.5	–	–
40	–	257.5	264	269	–
63	–	–	–	317	328

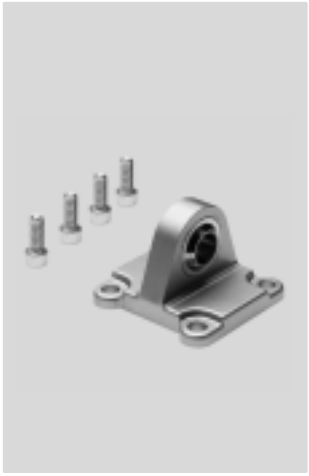
For size	XC with parallel kit			CRC[1)]	Weight	Part No.	Type
[mm]	EAMM-U-D32	EAMM-U-D40	EAMM-U-D60		[g]		
32	210	–	–	2	93	**174383**	**SNC-32**
40	–	248.5	–	2	140	**174384**	**SNC-40**
63	–	–	304	2	331	**174386**	**SNC-63**

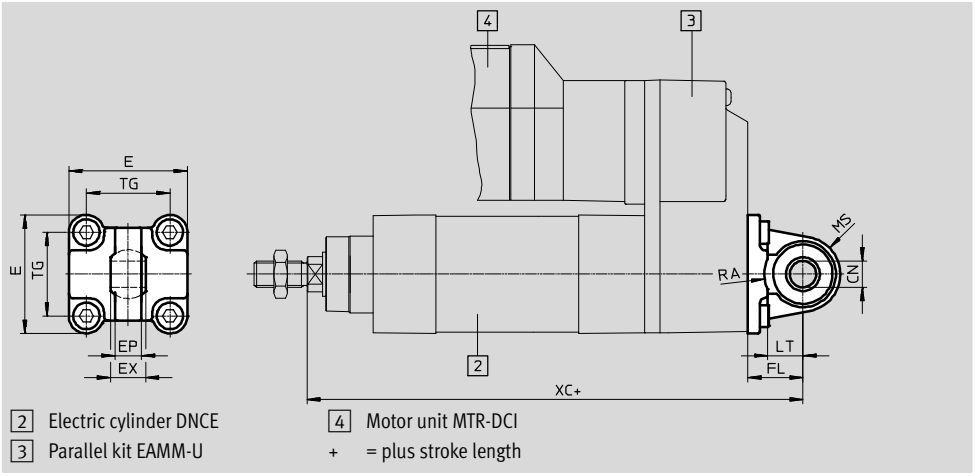
1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial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

Swivel flange SNCS

Materials:
Die-cast aluminium

Free of copper and PTFE
RoHS-compliant





2 Electric cylinder DNCE
3 Parallel kit EAMM-U
4 Motor unit MTR-DCI
\+ = plus stroke length

Dimensions and ordering data

For size	CN ∅	E	EP	EX	FL	LT	MS	RA	TG
[mm]			+0.2		±0.2			+1	
32	10+0.013	45+0.2/–0.5	10.5	14	22	13	15+0.5	14.5	32.5
40	12+0.015	54–0.5	12	16	25	16	17+0.5	17.5	38
63	16+0.015	75–0.6	15	21	32	21	23–0.5	23	56.5

For size	XC with parallel kit				
[mm]	EAMM-U-50	EAMM-U-60	EAMM-U-70	EAMM-U-86	EAMM-U-110
32	215	226	234.5	–	–
40	–	257.5	264	269	–
63	–	–	–	317	328

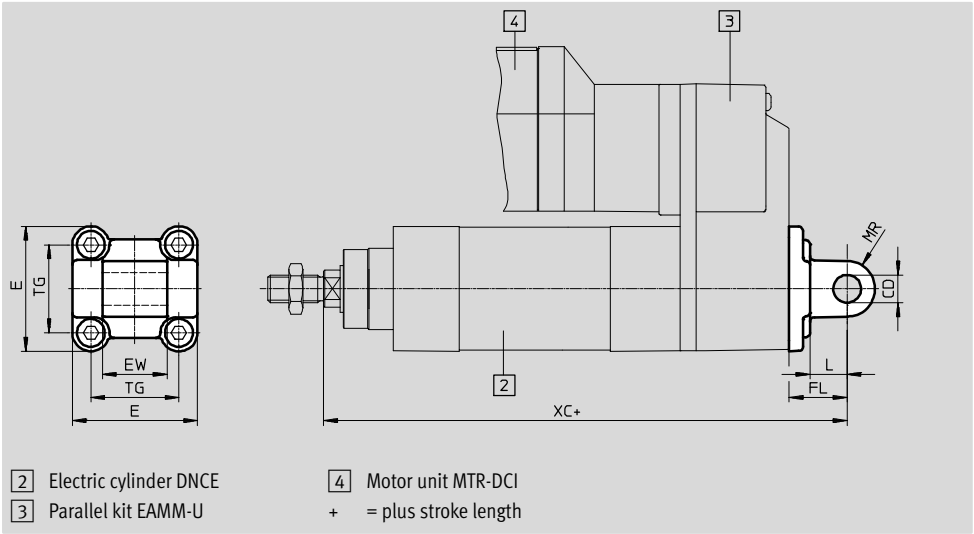
For size	XC with parallel kit			CRC[1]	Weight	Part No.	Type
[mm]	EAMM-U-D32	EAMM-U-D40	EAMM-U-D60		[g]		
32	210	–	–	2	86	**174397**	**SNCS-32**
40	–	248.5	–	2	122	**174398**	**SNCS-40**
63	–	–	304	2	281	**174400**	**SNCS-63**

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.

Swivel flange SNCL

Materials:
Die-cast aluminium

Free of copper and PTFE
RoHS-compliant



2 Electric cylinder DNCE
3 Parallel kit EAMM-U
4 Motor unit MTR-DCI
\+ = plus stroke length

Dimensions and ordering data

For size	CD ∅	E	EW	FL	L	MR	TG
[mm]	H9		–0.2/–0.6	±0.2			
32	10	$45^{+0.2/-0.5}$	26	22	13	10	32.5
40	12	$54_{-0.5}$	28	25	16	12	38
63	16	$75_{-0.6}$	40	32	21	16	56.5

For size	XC with parallel kit				
[mm]	EAMM-U-50	EAMM-U-60	EAMM-U-70	EAMM-U-86	EAMM-U-110
32	215	226	234.5	–	–
40	–	257.5	264	269	–
63	–	–	–	317	328

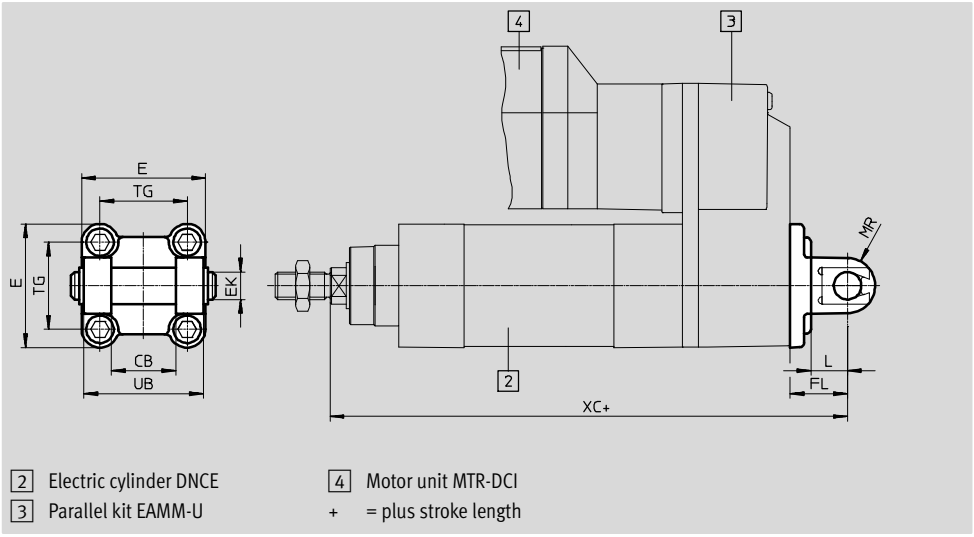
For size	XC with parallel kit			CRC[1]	Weight	Part No.	Type
[mm]	EAMM-U-D32	EAMM-U-D40	EAMM-U-D60		[g]		
32	210	–	–	2	71	**174404**	**SNCL-32**
40	–	248.5	–	2	95	**174405**	**SNCL-40**
63	–	–	304	2	225	**174407**	**SNCL-63**

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.

Swivel flange
SNCB/SNCB-...-R3

Materials:
SNCB: Die-cast aluminium
SNCB-...-R3: Die-cast aluminium with protective coating, high corrosion protection

Free of copper and PTFE
RoHS-compliant



2 Electric cylinder DNCE
3 Parallel kit EAMM-U
4 Motor unit MTR-DCI
\+ = plus stroke length

Dimensions and ordering data

For size [mm]	CB H14	E	EK ∅ H9/e8	FL ±0.2	L	MR –0,5	TG	UB h14
32	26	$45^{+0.2/-0.5}$	10	22	13	8.5	32.5	45
40	28	$54_{-0.5}$	12	25	16	12	38	52
63	40	$75_{-0.6}$	16	32	21	16	56.5	70

For size [mm]	XC with parallel kit				
	EAMM-U-50	EAMM-U-60	EAMM-U-70	EAMM-U-86	EAMM-U-110
32	215	226	234.5	–	–
40	–	257.5	264	269	–
63	–	–	–	317	328

For size [mm]	XC with parallel kit		
	EAMM-U-D32	EAMM-U-D40	EAMM-U-D60
32	210	–	–
40	–	248.5	–
63	–	–	304

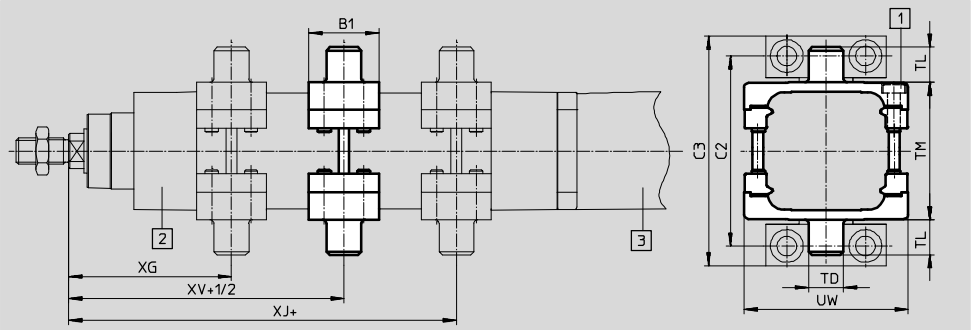
For size [mm]	Basic version				Variant R3 – High corrosion protection			
	CRC[1]	Weight [g]	Part No.	Type	CRC[1]	Weight [g]	Part No.	Type
32	2	103	**174390**	**SNCB-32**	3	100	**176944**	**SNCB-32-R3**
40	2	155	**174391**	**SNCB-40**	3	151	**176945**	**SNCB-40-R3**
63	2	375	**174393**	**SNCB-63**	3	371	**176947**	**SNCB-63-R3**

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.
Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Trunnion mounting kit DAMT

Materials:
Galvanised steel
Free of copper and PTFE

The kit can be mounted at any position along the cylinder profile barrel. The trunnion mounting kit cannot be mounted in the vicinity of the motor when used in combination with the parallel kit EAMM-U.



1 Max. tightening torque
2 Electric cylinder DNCE
3 Axial kit EAMM-A

\+ = plus stroke length
+½ = plus half stroke length

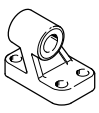
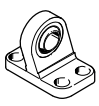
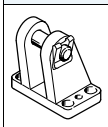
Dimensions and ordering data

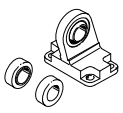
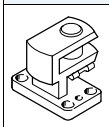
For size [mm]	B1	C2	C3	TD ∅ e9	TL	TM	UW	XG
32	30	71	86	12	12	50	65	65
40	32	87	105	16	16	63	75	74.5
63	41	116	136	20	20	90	105	91.5

For size [mm]	XJ	XV	Max. tightening torque [Nm]	CRC[1)]	Weight [g]	Part No.	Type
32	107	86	4+1	1	213	**2213233**	**DAMT-V1-32-A**
40	130.5	102.5	8+1	1	388	**2214899**	**DAMT-V1-40-A**
63	157.5	124.5	18+2	1	911	**2214971**	**DAMT-V1-63-A**

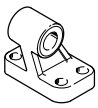
1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Ordering data – Mounting attachments Technical data ➔ Internet: clevis foot

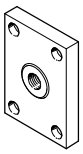
Designation	For size	Part No.	Type
Clevis foot LNG			
	32	**33890**	**LNG-32**
	40	**33891**	**LNG-40**
	63	**33893**	**LNG-63**
Clevis foot LSNG			
	32	**31740**	**LSNG-32**
	40	**31741**	**LSNG-40**
	63	**31743**	**LSNG-63**
Clevis foot LBG			
	32	**31761**	**LBG-32**
	40	**31762**	**LBG-40**
	63	**31764**	**LBG-63**

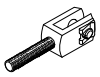
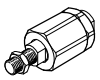
Designation	For size	Part No.	Type
Clevis foot LSN			
	32	**5561**	**LSN-32**
	40	**5562**	**LSN-40**
	63	**5564**	**LSN-63**
Clevis foot LSNSG			
	32	**31747**	**LSNSG-32**
	40	**31748**	**LSNSG-40**
	63	**31750**	**LSNSG-63**
Right-angle clevis foot LQG			
	32	**31768**	**LQG-32**
	40	**31769**	**LQG-40**
	63	**31771**	**LQG-63**

Ordering data – Mounting components, corrosion-resistant — Technical data ➔ Internet: clevis foot

Designation	For size	Part No.	Type
Clevis foot CRLNG			
	32	**161840**	**CRLNG-32**
	40	**161841**	**CRLNG-40**
	63	**161843**	**CRLNG-63**

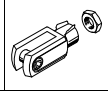
Ordering data – Piston-rod attachments — Technical data ➔ Internet: piston-rod attachment

Designation	For size	Part No.	Type
Rod eye SGS			
	32	**9261**	**SGS-M10x1,25**
	40	**9262**	**SGS-M12x1,25**
	63	**9263**	**SGS-M16x1,5**
Rod clevis SG			
	32	**6144**	**SG-M10x1,25**
	40	**6145**	**SG-M12x1,25**
	63	**6146**	**SG-M16x1,5**
Coupling piece KSZ			
	32	**36125**	**KSZ-M10x1,25**
	40	**36126**	**KSZ-M12x1,25**
	63	**36127**	**KSZ-M16x1,5**

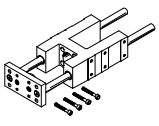
Designation	For size	Part No.	Type
Rod clevis SGA			
	32	**32954**	**SGA-M10x1,25**
	40	**10767**	**SGA-M12x1,25**
	63	**10768**	**SGA-M16x1,5**
Self-aligning rod coupler FK			
	32	**6140**	**FK-M10x1,25**
	40	**6141**	**FK-M12x1,25**
	63	**6142**	**FK-M16x1,5**

Ordering data – Piston-rod attachments, corrosion-resistant — Technical data ➔ Internet: piston-rod attachment

Designation	For size	Part No.	Type
Rod eye CRSGS			
	32	**195582**	**CRSGS-M10x1,25**
	40	**195583**	**CRSGS-M12x1,25**
	63	**195584**	**CRSGS-M16x1,5**
Self-aligning rod coupler CRFK			
	32	**2305778**	**CRFK-M10x1,25**
	40	**2305779**	**CRFK-M12x1,25**
	63	**2490673**	**CRFK-M16x1,5**

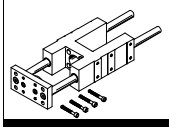
Designation	For size	Part No.	Type
Rod clevis CRSG			
	32	**13569**	**CRSG-M10x1,25**
	40	**13570**	**CRSG-M12x1,25**
	63	**13571**	**CRSG-M16x1,5**

Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only) — Technical data ➔ Internet: feng

	Stroke [mm]	Part No.	Type
	For size 32		
	10 … 100	**34494**	**FENG-32-100-KF**
	10 … 200	**34496**	**FENG-32-200-KF**
	10 … 320	**34497**	**FENG-32-320-KF**
	10 … 400	**150290**	**FENG-32-400-KF**
	10 … 500	**34498**	**FENG-32-500-KF**
	For size 63		
	10 … 100	**34514**	**FENG-63-100-KF**
	10 … 200	**34516**	**FENG-63-200-KF**
	10 … 320	**34518**	**FENG-63-320-KF**
	10 … 400	**34519**	**FENG-63-400-KF**
	10 … 500	**34520**	**FENG-63-500-KF**

Stroke [mm]	Part No.	Type
For size 40		
10 … 100	**34500**	**FENG-40-100-KF**
10 … 200	**34502**	**FENG-40-200-KF**
10 … 320	**34504**	**FENG-40-320-KF**
10 … 400	**150291**	**FENG-40-400-KF**
10 … 500	**34505**	**FENG-40-500-KF**

Ordering data – Guide units for variable strokes — Technical data ➔ Internet: feng

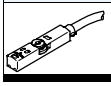
	For size [mm]	Stroke [mm]	With recirculating ball bearing guide Part No.	Type	With plain-bearing guide Part No.	Type
	32	10 … 500	**34487**	**FENG-32-…-KF**	**34481**	**FENG-32-…**
	40	10 … 500	**34488**	**FENG-40-…-KF**	**34482**	**FENG-40-…**
	63	10 … 500	**34490**	**FENG-63-…-KF**	**34484**	**FENG-63-…**

Ordering data – Compensating components in combination with guide unit FENG

Designation	For size	Part No.	Type
	32	**570305**	**EADC-V1-32**
	40	**570306**	**EADC-V1-40**
	63	**570307**	**EADC-V1-50/63**

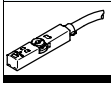
Permissible proximity sensors in combination with motor units MTR-DCI

Ordering data – Proximity sensor for T-slot, magneto-resistive — Technical data ➔ Internet: smt

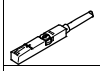
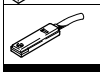
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile, short design	PNP	Plug connector M8x1, 3-pin	0.3	**574334**	**SMT-8M-A-PS-24V-E-0,3-M8D**

Permissible proximity sensors in combination with servo motors EMMS-AS, stepper motors EMMS-ST or guide units FENG

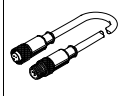
Ordering data – Proximity sensor for T-slot, magneto-resistive — Technical data ➔ Internet: smt

	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**

Ordering data – Proximity sensors for T-slot, magnetic reed — Technical data ➔ Internet: sme

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Inserted in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	**543862**	**SME-8M-DS-24V-K-2,5-OE**
				5.0	**543863**	**SME-8M-DS-24V-K-5,0-OE**
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	**150855**	**SME-8-K-LED-24**

Ordering data – Connecting cable — Technical data ➔ Internet: km8

	Assembly	Connection	Cable length [m]	Part No.	Type
Straight socket					
	Union nut M8, both ends	3-pin	0.5	**175488**	**KM8-M8-GSGD-0,5**
			1	**175489**	**KM8-M8-GSGD-1**
			2.5	**165610**	**KM8-M8-GSGD-2,5**
			5	**165611**	**KM8-M8-GSGD-5**

Ordering data – Slot cover for T-slot

	Mounting	Length	Part No.	Type
	Insertable	2x 0.5 m	**151680**	**ABP-5-S**