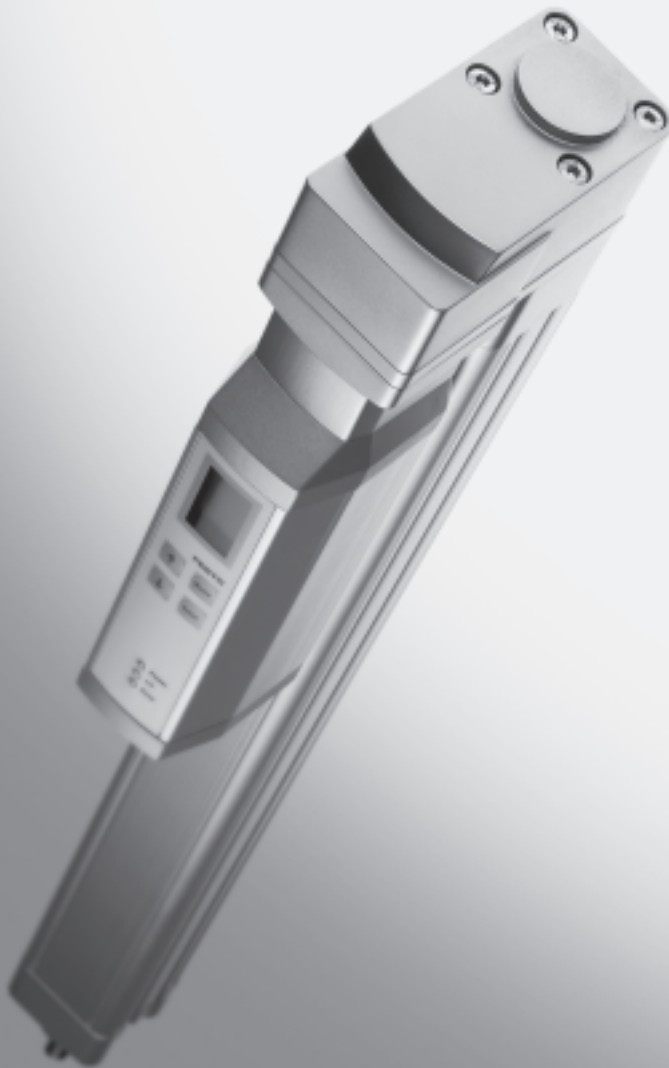


Electric cylinders DNCE, with piston rod



- Electromechanical linear axis with piston rod
- Linear drive with lead screw or ball screw
- Axial or parallel motor interface
- Comprehensive range of accessories from the DNC modular system

Electric cylinders DNCE, with piston rod

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 rotation 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 piston rod cylinder with lead screw is self-retarding
- Compact dimensions

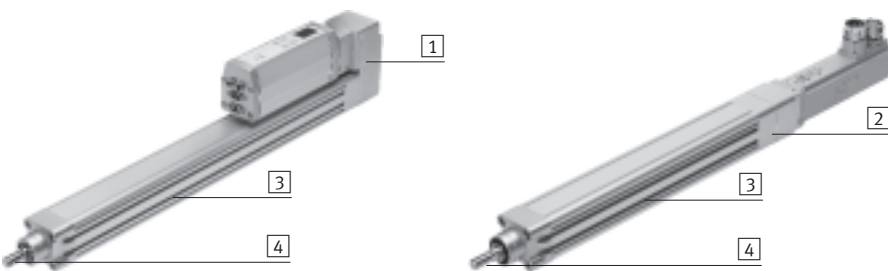
Range of applications

- Electric cylinder with lead screw
 - For applications with slow feed speeds
- Electric cylinder with ball screw
 - For applications with high feed speeds and high running performance

Entire system consists of electrical cylinder, motor and motor mounting kit

Electrical cylinder

→ 5 / 2.1-12



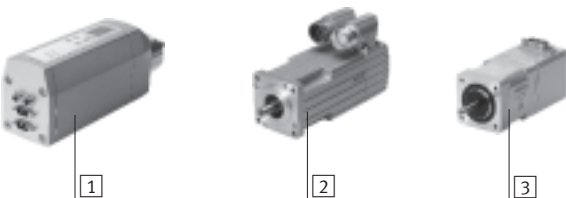
- 1** Parallel kit
- 2** Axial kit
- 3** Slot for proximity sensor
- 4** Options:
 - linear drive with lead screw (LS)
 - linear drive with ball screw (BS)

Note

The linear drive with lead screw 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

→ 5 / 2.1-19



- 1** Intelligent motor unit MTR-DCI
- 2** Servo motor MTR-AC
- 3** Stepper motor MTR-ST

Note

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

Motor mounting kit

→ 5 / 2.1-19

Axial kit

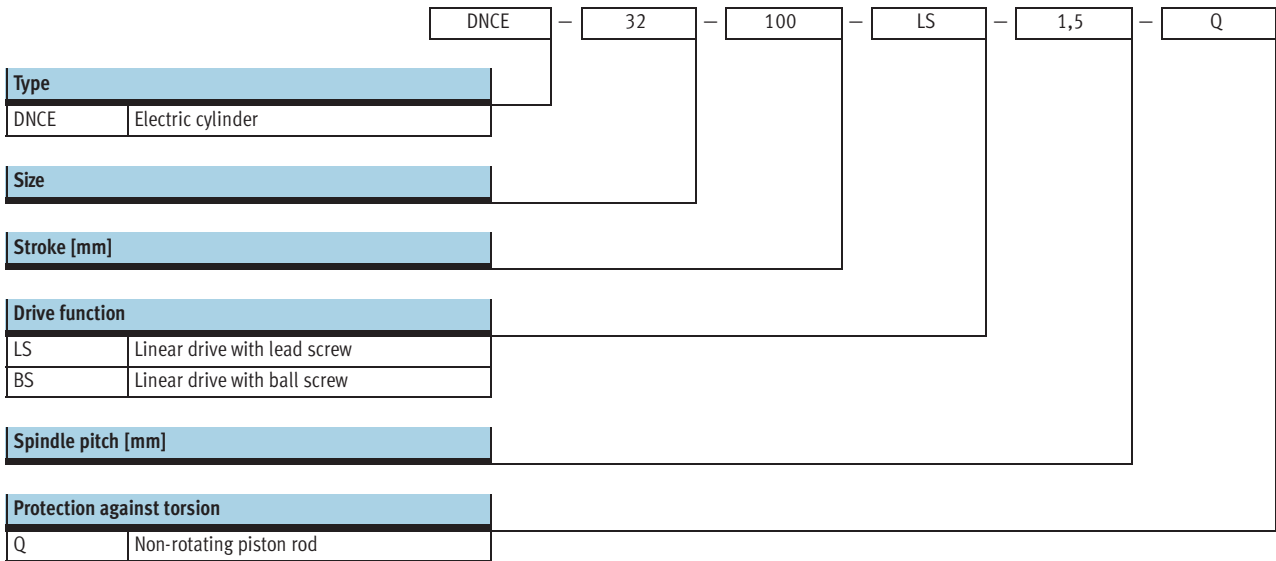
Parallel kit



There are complete kits for both parallel and axial motor attachment.

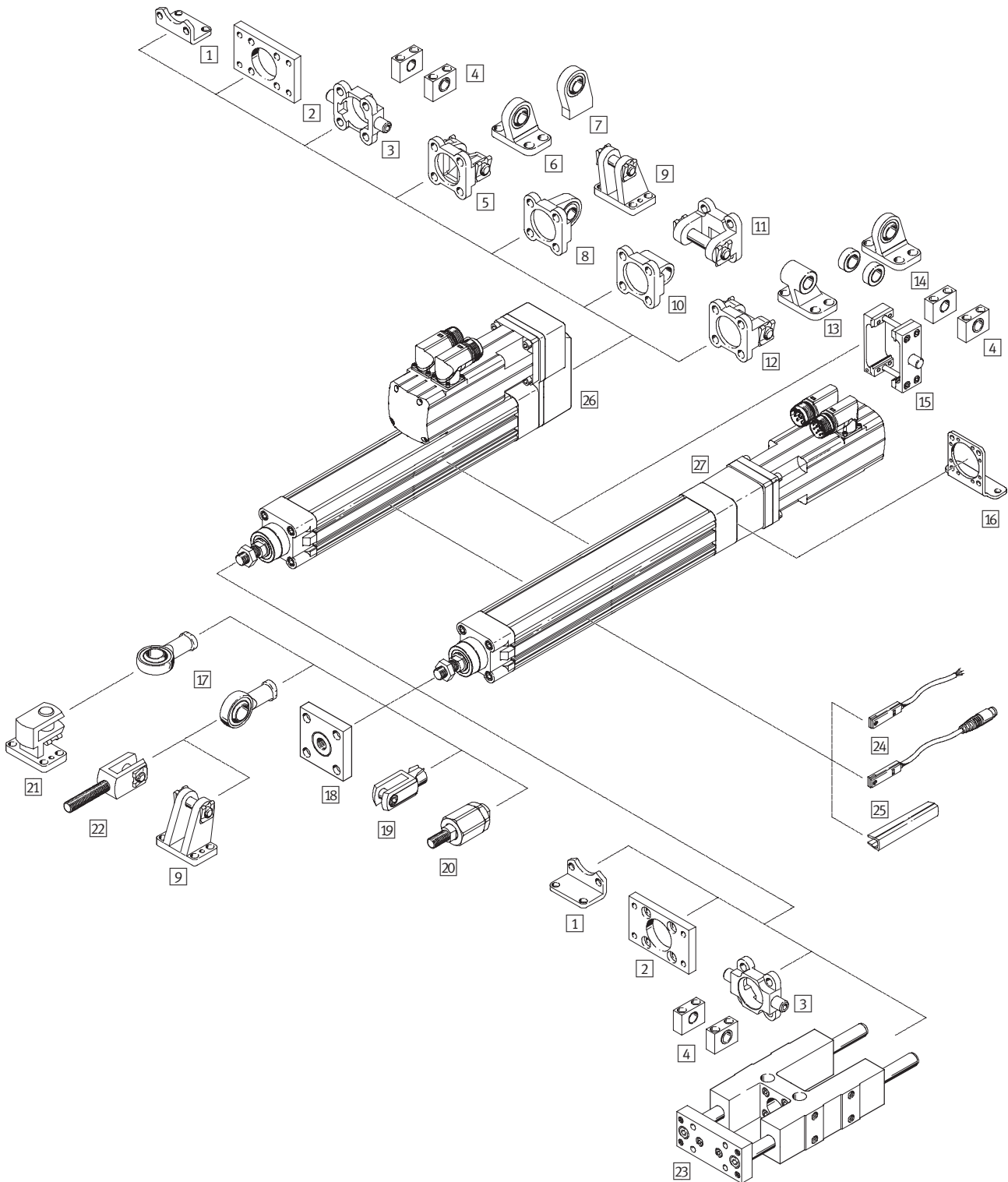
Electric cylinders DNCE, with piston rod

Type codes



Electric cylinders DNCE, with piston rod

Peripherals overview



Electric cylinders DNCE, with piston rod

Peripherals overview

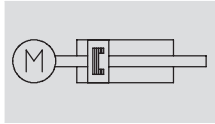
Mounting attachments and accessories		
Type/Order code	Brief description	→ Page
1 Foot mounting HNC/CRHNC	– With parallel motor attachment for bearing and gearing cap – With axial motor attachment for bearing cap	5 / 2.1-23
2 Flange mounting FNC/CRFNG	For bearing and gearing cap	5 / 2.1-24
3 Trunnion flange ZNCF/CRZNG	For bearing and gearing cap	5 / 2.1-25
4 Trunnion support LNZG/CRLNZG	For cylinders with trunnion mounting	5 / 2.1-26
5 Swivel flange SNC	For gearing cap	5 / 2.1-27
6 Clevis foot LSNG	With spherical bearing	5 / 2.1-30
7 Clevis foot LSNSG	Weld-on, with spherical bearing	5 / 2.1-30
8 Swivel flange SNCS	For spherical bearing	5 / 2.1-27
9 Clevis foot LBG	For spherical bearing	5 / 2.1-30
10 Swivel flange SNCL	For gearing cap	5 / 2.1-28
11 Swivel flange SNCB/SNCB-...-R3	For spherical bearing	5 / 2.1-29
12 Swivel flange SNCB/SNCB-...-R3	For gearing cap	5 / 2.1-29
13 Clevis foot LNG/CRLNG	–	5 / 2.1-30
14 Clevis foot LSN	With spherical bearing	5 / 2.1-30
15 Trunnion mounting kit ZNCM	For mounting anywhere along the cylinder profile barrel. Cannot be mounted in the area of the motor with parallel motor attachment	5 / 2.1-30
16 Foot mounting HNCE	With axial motor attachment for bearing cap	5 / 2.1-22
17 Rod eye SGS/CRSGS	With spherical bearing	5 / 2.1-31
18 Coupling piece KSZ	For compensating radial deviations	5 / 2.1-31
19 Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	5 / 2.1-31
20 Self-aligning rod coupler FK	For compensating radial and angular deviations	5 / 2.1-31
21 Right-angle clevis mounting LQG	For rod eye SGS	5 / 2.1-31
22 Rod clevis SGA	For swivel attachment of cylinders	5 / 2.1-31
23 Guide unit FENG	For protecting standard cylinders from torsion at high torque loads	5 / 2.1-31
24 Proximity sensor SME/SMT-8	For position sensing. Can be integrated in sensor slot, thus no projecting parts	5 / 2.1-32
25 Slot cover ABP-5-S	For protecting against ingress of dirt	5 / 2.1-33
26 Parallel kit EAMM-U	For parallel motor attachment	5 / 2.1-19
27 Axial kit EAMM-A	For axial motor attachment	5 / 2.1-19



Electric cylinders DNCE, with piston rod

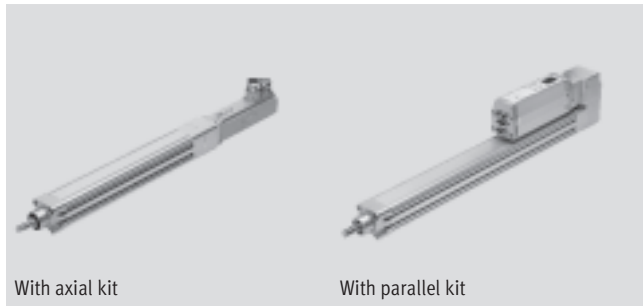
Technical data



Function



-  - Size
32, 40
-  - Stroke length
100 ... 600 mm



With axial kit

With parallel kit

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

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

Mechanical data							
Size	32			40			
Spindle design	LS-1,5	BS-3	BS-10	LS-2,5	BS-5	BS-12,7	
Lead screw pitch [mm/rev.]	1.5	3	10	2.5	5	12.7	
Spindle diameter [mm]	9	10	10	12.5	12	12.7	
Max. feed force $F_x^{1)}$ [N]	300	300	350	600	525	800	
Continuous feed force [N]	300	240	280	600	420	640	
Max. driving torque ²⁾ [Nm]	0.4	0.4	0.8	1.15	0.7	1.9	
No-load driving torque with axial kit ³⁾ [Nm]	0.06	0.08	0.08	0.15	0.12	0.12	
No-load driving torque with parallel kit ³⁾ [Nm]	0.11	0.13	0.13	0.25	0.22	0.22	
Continuous driving torque [Nm]	0.4	0.3	0.7	1.15	0.6	1.6	
Max. radial force on drive shaft [N]	45	45	45	120	120	120	
Max. speed [m/s]	0.06	0.15	0.5	0.07	0.25	0.64	
Max. acceleration [m/s ²]	1	6	6	1	6	6	
Reversing backlash ⁴⁾ [mm]	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	
Guide value for effective load, horizontal [kg]	30	30	36	60	50	80	
Guide value for effective load, vertical [kg]	15	15	18	30	25	40	

- 1) In the case of the variant with lead screw (LS), the feed force depends on the speed → 5 / 2.1-14
- 2) In the case of the variant with lead screw (LS), the driving torque depends on the rotational speed → 5 / 2.1-15
- 3) Measured at a speed of 200 rpm.
- 4) In new condition

Electric cylinders DNCE, with piston rod

Technical data

Operating and environmental conditions		
Ambient temperature ¹⁾	[°C]	0 ... 50
Storage temperature	[°C]	-25 ... +60
Protection class		IP40
Relative air humidity	[%]	0 ... 95

1) Note operating range of proximity sensors and motors

Weights [g]						
Size	32			40		
Spindle design	LS -1,5	BS-3	BS-10	LS -2,5	BS-5	BS-12,7
Basic weight with 0 mm stroke	720	750	770	1,210	1,270	1,350
Additional weight per 10 mm stroke	32.4	33	33.6	46.1	45.5	46.7
Moving load with 0 mm stroke	150	170	200	250	310	380
Moving load per 10 mm stroke	6.9	6.9	6.9	8.9	8.9	8.9

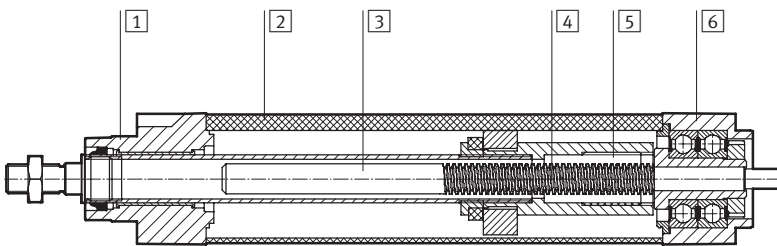
Mass moment of inertia							
Size	32			40			
Spindle design	LS-1,5	BS-3	BS-10	LS-2,5	BS-5	BS-12,7	
J_0 at 0 mm stroke	[kg cm ²]	0.0433	0.0439	0.0446	0.1316	0.1304	0.1337
j_H per metre stroke	[kg cm ² /m]	0.0361	0.0476	0.0595	0.1341	0.1163	0.1572
j_L per kg working load	[kg cm ² /kg]	0.0006	0.0023	0.0253	0.0016	0.0063	0.0409

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

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

Materials

Sectional view



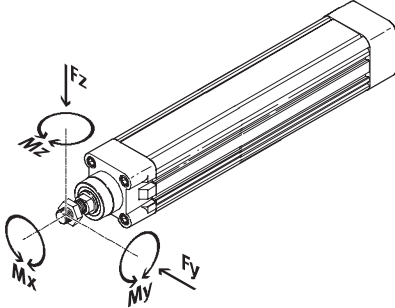
Electric cylinder		
1	Bearing cap	Die-cast aluminium, painted
2	Cylinder barrel	Wrought aluminium alloy, smooth anodised
3	Piston rod	High-alloy stainless steel
4	Spindle	Steel
5	Spindle nut for LS	Polyacetate
	Spindle nut for BS	Steel
6	Drive cover	Die-cast aluminium, painted
	Note on materials	Free of copper and PTFE

Electric cylinders DNCE, with piston rod

Technical data



Maximum permissible loads on the piston rod



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

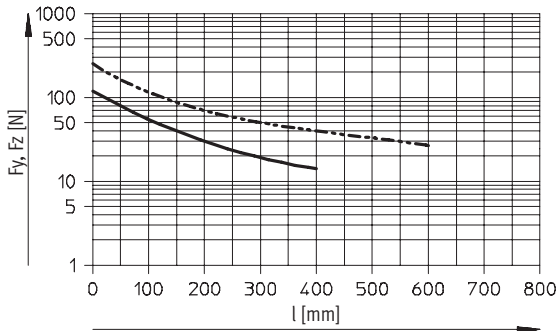
$$\frac{|F_y|}{F_{y_{max}}} + \frac{|F_z|}{F_{z_{max}}} + \frac{|M_y|}{M_{y_{max}}} + \frac{|M_z|}{M_{z_{max}}} \leq 1$$

$$|F_x| \leq F_{x_{max}}$$

$$|M_x| \leq M_{x_{max}}$$

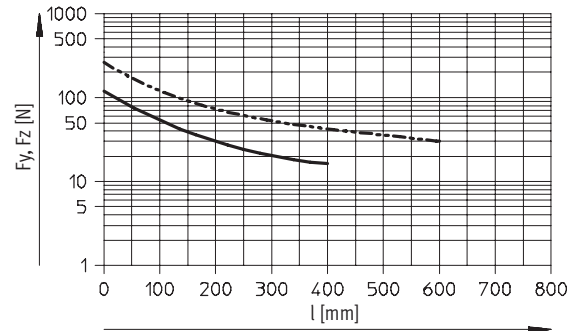
Maximum permissible lateral forces $F_{y_{max}}$ and $F_{z_{max}}$ on the piston rod

Mounting position, horizontal



— DNCE-32-...-LS/BS
 - - - DNCE-40-...-LS/BS

Mounting position, vertical

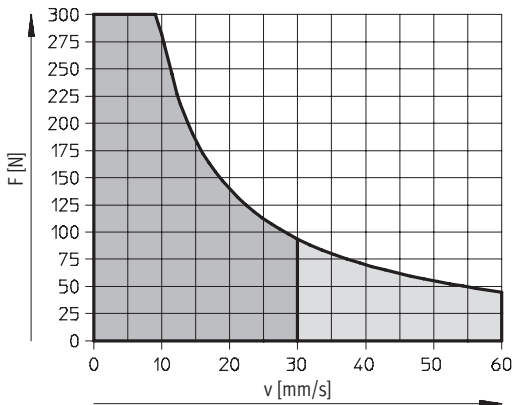


— DNCE-32-...-LS/BS
 - - - DNCE-40-...-LS/BS

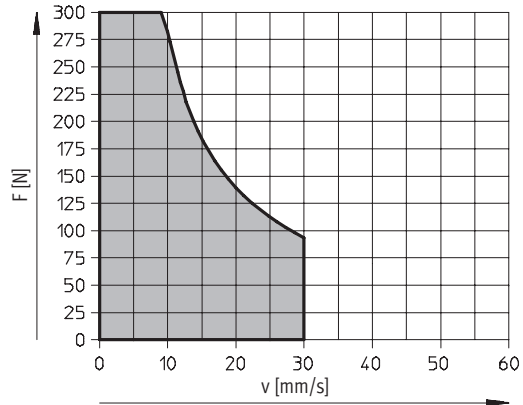
Size	32	40
Maximum permissible torques		
$M_{x_{max}}$ [Nm]	1	4
$M_{y_{max}}, M_{z_{max}}$ [Nm]	8	20



Feed force F as a function of speed v

DNCE-32-0...299-LS-...



DNCE-32-300...400-LS-...



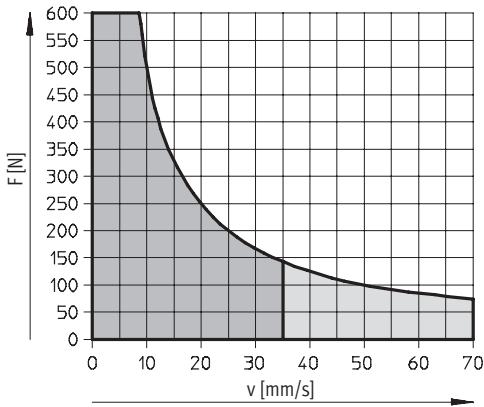
 Recommended operating range
 Permissible operating range
 (duty cycle < 50% recommended)

Electric cylinders DNCE, with piston rod

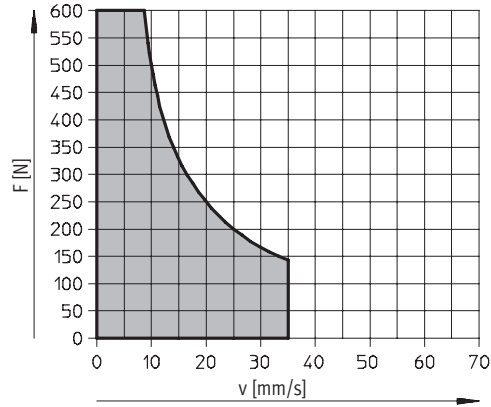
Technical data

Feed force F as a function of speed v

DNCE-40-0...299-LS-...



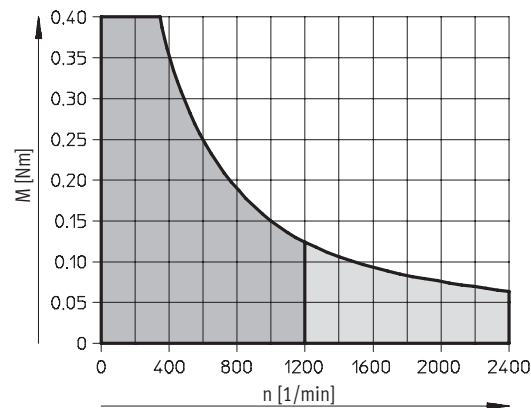
DNCE-40-300...600-LS-...



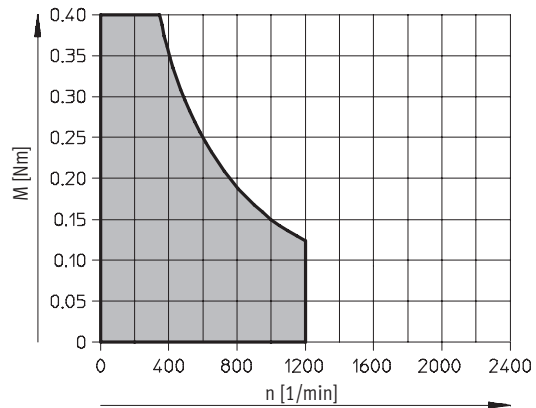
Recommended operating range
 Permissible operating range
 (duty cycle < 50% recommended)

Driving torque M as a function of rotational speed n

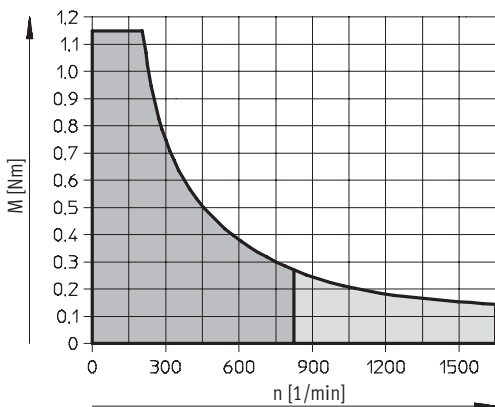
DNCE-32-0...299-LS-...



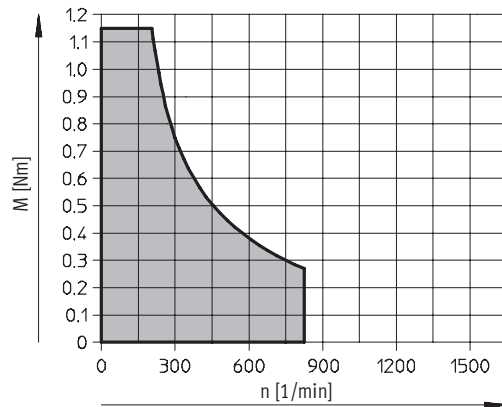
DNCE-32-300...400-LS-...



DNCE-40-0...299-LS-...



DNCE-40-300...600-LS-...



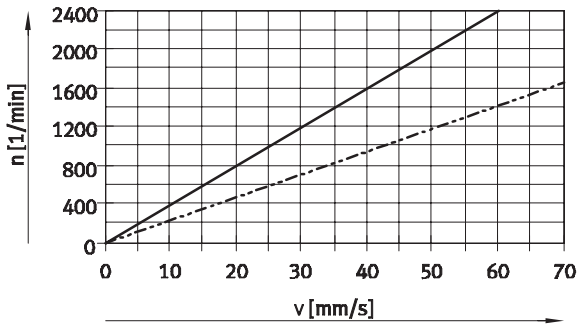
Recommended operating range
 Permissible operating range
 (duty cycle < 50% recommended)

Electric cylinders DNCE, with piston rod

Technical data

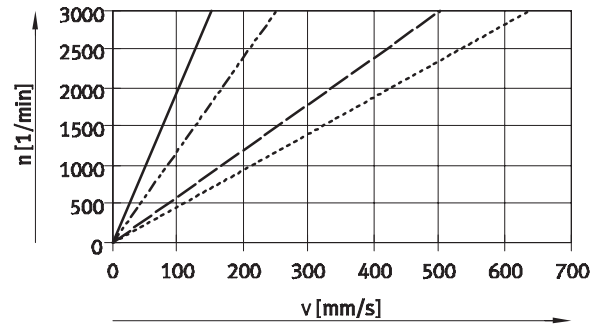
Rotational speed n as a function of speed v

DNCE-...-LS-...



— DNCE-32-LS-1,5
- - - DNCE-40-LS-2,5

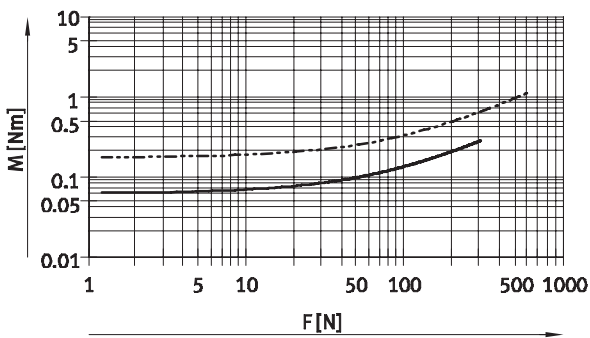
DNCE-...-BS-...



— DNCE-32-BS-3
- - - DNCE-40-BS-5
- · - DNCE-32-BS-10
· · · DNCE-40-BS-12,7

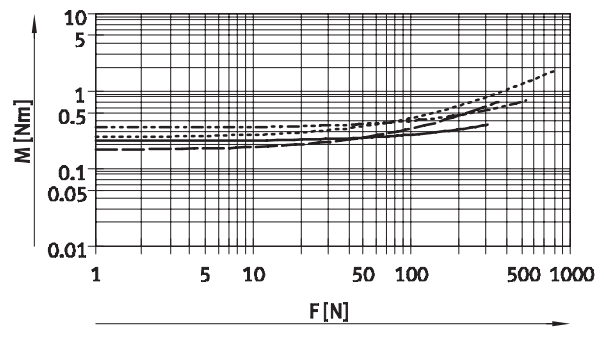
Driving torque M as a function of feed force F

DNCE-...-LS-...




— DNCE-32-LS-1,5
- - - DNCE-40-LS-2,5

DNCE-...-BS-...



— DNCE-32-BS-3
- - - DNCE-40-BS-5
- · - DNCE-32-BS-10
· · · DNCE-32-BS-12,7

 Note

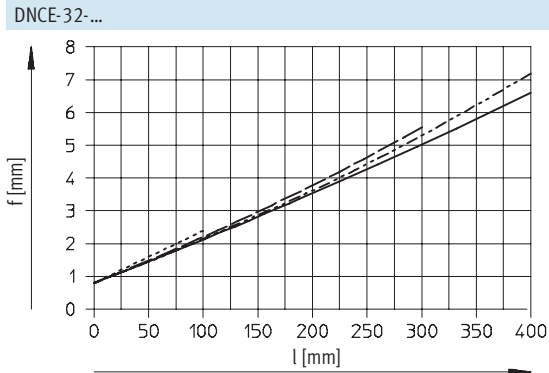
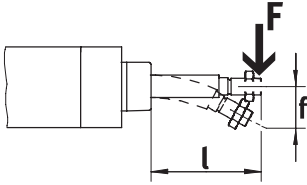
The values take the friction torques of the electric cylinder into account.

Electric cylinders DNCE, with piston rod

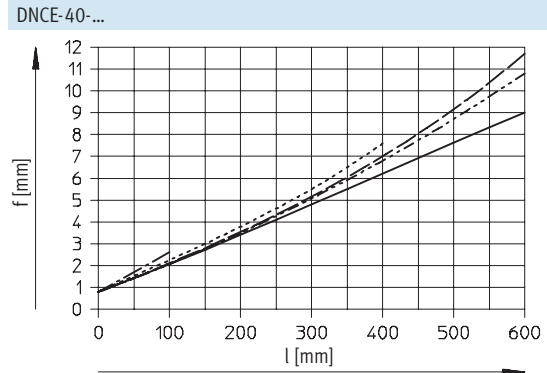
Technical data



Piston rod displacement f as a function of stroke length l



- Lateral force $F = 0$ N
- - - Lateral force $F = 10$ N
- · - Lateral force $F = 20$ N
- · · Lateral force $F = 45$ N

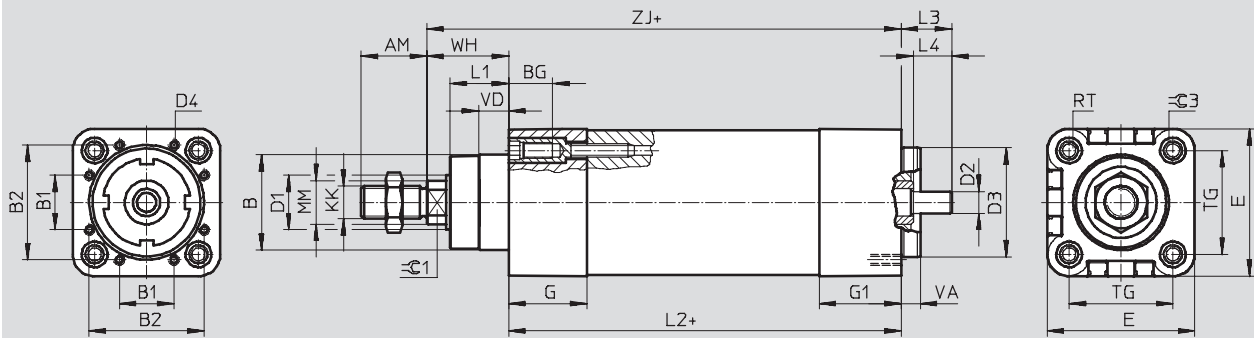


- Lateral force $F = 0$ N
- - - Lateral force $F = 20$ N
- · - Lateral force $F = 30$ N
- · · Lateral force $F = 40$ N
- · · Lateral force $F = 115$ N

Dimensions

Electric cylinder DNCE

Download CAD data → www.festo.com/en/engineering



+ = plus stroke length

Size	AM	B	B1	B2	BG	D1	D2	D3	D4	E	G	G1	KK
[mm]		∅ d11				∅ h9	∅ h6	∅ g7					
32	22	30	19	32	16	16	6	32	M3	45.5	24	26	M10x1.25
40	24	35	20	42	16	20	8	40	M4	54	28.5	30	M12x1.25


Size	L1	L2	L3	L4	MM	RT	TG	VA	VD	WH	ZJ	∅1	∅3
[mm]											±1		
32	18	122	15.9	8	12	M6	32.5	7	10	26	148	10	6
40	21.5	146.5	18.4	14	16	M6	38	7	10.5	30	176.5	13	6

Electric cylinders DNCE, with piston rod

Technical data

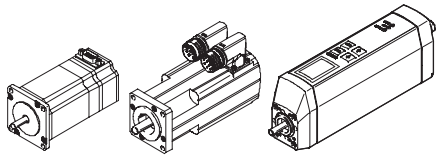
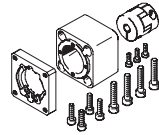
Ordering data – Size 32			Ordering data – Size 32		
Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
Linear drive with ball screw with spindle pitch 3 mm			Linear drive with lead screw with spindle pitch 1.5 mm		
100	543 115	DNCE-32-100-BS-3-Q	100	543 111	DNCE-32-100-LS-1,5-Q
200	543 116	DNCE-32-200-BS-3-Q	200	543 112	DNCE-32-200-LS-1,5-Q
300	543 117	DNCE-32-300-BS-3-Q	300	543 113	DNCE-32-300-LS-1,5-Q
400	543 118	DNCE-32-400-BS-3-Q	400	543 114	DNCE-32-400-LS-1,5-Q
Linear drive with ball screw with spindle pitch 10 mm					
100	543 119	DNCE-32-100-BS-10-Q			
200	543 120	DNCE-32-200-BS-10-Q			
300	543 121	DNCE-32-300-BS-10-Q			
400	543 122	DNCE-32-400-BS-10-Q			

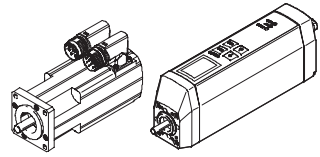
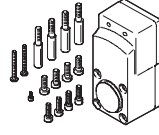
Ordering data – Size 40			Ordering data – Size 40		
Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
Linear drive with ball screw with spindle pitch 5 mm			Linear drive with lead screw with spindle pitch 2.5 mm		
100	543 127	DNCE-40-100-BS-5-Q	100	543 123	DNCE-40-100-LS-2,5-Q
200	543 128	DNCE-40-200-BS-5-Q	200	543 124	DNCE-40-200-LS-2,5-Q
400	543 129	DNCE-40-400-BS-5-Q	400	543 125	DNCE-40-400-LS-2,5-Q
600	543 130	DNCE-40-600-BS-5-Q	600	543 126	DNCE-40-600-LS-2,5-Q
Linear drive with ball screw with spindle pitch 12.7 mm					
100	543 131	DNCE-40-100-BS-12,7-Q			
200	543 132	DNCE-40-200-BS-12,7-Q			
400	543 133	DNCE-40-400-BS-12,7-Q			
600	543 134	DNCE-40-600-BS-12,7-Q			

 **Note**
Variable strokes on request.


Electric cylinders DNCE, with piston rod

Accessories

Permissible axis/motor combinations with axial kit			
	Motor/motor unit		Axial kit → 5 / 2.1-20
			
For size	Part No.	Type	Part No. Type
32	With servo motor		543 147 EAMM-A-D32-40A
	540 299	MTR-AC-40-3S-AA	
	540 300	MTR-AC-40-3S-AB	
	With stepper motor		543 148 EAMM-A-D32-42A
	530 057	MTR-ST-42-48S-AA	
530 058	MTR-ST-42-48S-AB		
With intelligent motor unit		543 149 EAMM-A-D32-32B	
1)	MTR-DCI-32-...		
40	With servo motor		543 153 EAMM-A-D40-55A
	526 723	MTR-AC-55-3S-AA	
	526 724	MTR-AC-55-3S-AB	
	With stepper motor		543 154 EAMM-A-D40-57-A
	530 061	MTR-ST-57-48S-AA	
	530 062	MTR-ST-57-48S-AB	
	With intelligent motor unit		543 155 EAMM-A-D40-42B
1)	MTR-DCI-42-G07		
1)	MTR-DCI-42-G14	543 156 EAMM-A-D40-42C	

Permissible axis/motor combinations with parallel kit			
	Motor/motor unit		Parallel kit → 5 / 2.1-21
			
For size	Part No.	Type	Part No. Type
32	With servo motor		543 150 EAMM-U-D32-40A
	540 299	MTR-AC-40-3S-AA	
	540 300	MTR-AC-40-3S-AB	
With intelligent motor unit		543 152 EAMM-U-D32-32B	
1)	MTR-DCI-32-...		
40	With servo motor		543 157 EAMM-U-D40-55A
	526 723	MTR-AC-55-3S-AA	
	526 724	MTR-AC-55-3S-AB	
	With intelligent motor unit		543 159 EAMM-U-D40-42B
	1)	MTR-DCI-42-G07	
1)	MTR-DCI-42-G14	543 160 EAMM-U-D40-42C	

1) The intelligent motor unit is a modular product; for information on configuration and ordering → 5 / 2.2-9

 Note

Some of the permissible limit values of the electric cylinder cannot be achieved with recommended axis/motor combinations. The motor data must therefore be taken into account during configuration.

Electric cylinders DNCE, with piston rod

Accessories



Axial kit EAMM-A...

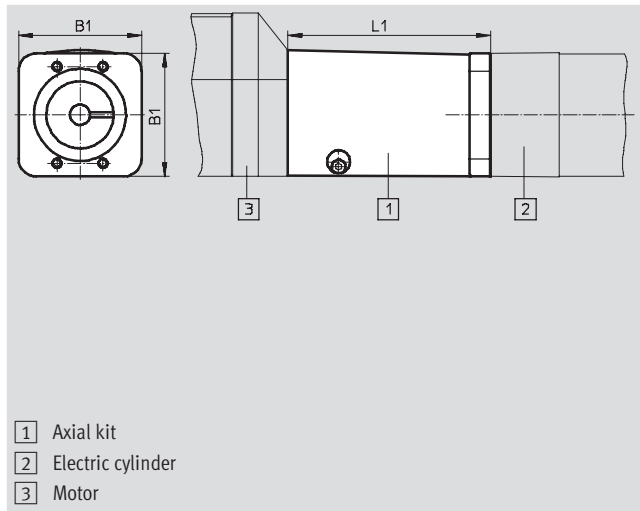
Material:

Coupling housing: Die-cast aluminium

Coupling hubs: Wrought aluminium alloy

Clamping component: High-alloy steel

Screws: Galvanised steel




General technical data		D32-32B	D32-40A	D32-42A	D40-42B	D40-42C	D40-55A	D40-57A
Type EAMM-A...								
Transferable torque	[Nm]	1.1	1.1	0.8	8	8	8	6
Mass moment of inertia	[kgmm ²]	0.3	0.3	0.3	5.82	5.82	5.82	5.82
Max. speed	[rpm]	3 000						
Mounting position		Any						

Operating and environmental conditions		
Ambient temperature	[°C]	0 ... 50
Storage temperature	[°C]	-25 ... 60
Protection class ¹⁾		IP40
Relative air humidity	[%]	0 ... 95
Note on materials		Free of copper and PTFE

1) Only with combined attachment of motor and axis

Dimensions and ordering data					
Type	B1	L1	Weight [g]	Part No.	Type
EAMM-A-D32-32B	45	43	150	543 149	EAMM-A-D32-32B
EAMM-A-D32-40A		39.8	130	543 147	EAMM-A-D32-40A
EAMM-A-D32-42A		48	140	543 148	EAMM-A-D32-42A
EAMM-A-D40-42B	53.5	88	340	543 155	EAMM-A-D40-42B
EAMM-A-D40-42C		101	370	543 156	EAMM-A-D40-42C
EAMM-A-D40-55A		49.2	350	543 153	EAMM-A-D40-55A
EAMM-A-D40-57A		50.5	350	543 154	EAMM-A-D40-57A

 Note
Permissible axis/motor combinations
→ 5 / 2.1-19

Electric cylinders DNCE, with piston rod

Accessories

Parallel kit EAMM-U-...

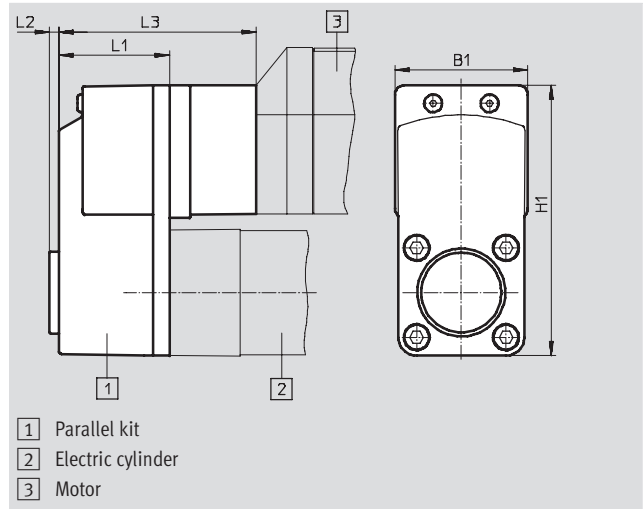
Material:

Coupling housing: Die-cast aluminium

Clamping component, clamping sleeve, toothed belt disc: High-alloy steel

Toothed belt: Polychloroprene

Screws: Galvanised steel




General technical data		D32-32B	D32-40A	D40-42B	D40-42C	D40-55A
Type EAMM-U-...						
Transferable torque	[Nm]	0.4	0.4	1.2	1.2	0.7
No-load drive torque	[Nm]	0.05	0.05	0.1	0.1	0.1
Mass moment of inertia	[kgmm ²]	2.925	2.925	10.015	10.015	10.015
Max. speed	[rpm]	500	3 000	500	500	3 000
Mounting position		Any				

Operating and environmental conditions		
Ambient temperature	[°C]	0 ... 50
Storage temperature	[°C]	-25 ... 60
Protection class ¹⁾		IP40
Relative air humidity	[%]	0 ... 95
Note on materials		Free of copper and PTFE

1) Only with combined attachment of motor and axis

Dimensions and ordering data							
Type	B1	H1	L1	L2	L3	Weight [g]	Part No. Type
EAMM-U-D32-32B	45.1	93.1	40	4	-	300	543 152 EAMM-U-D32-32B
EAMM-U-D32-40A						300	543 150 EAMM-U-D32-40A
EAMM-U-D40-42B	56,5	115	47	4	84	660	543 159 EAMM-U-D40-42B
EAMM-U-D40-42C					97	690	543 160 EAMM-U-D40-42C
EAMM-U-D40-55A					-	530	543 157 EAMM-U-D40-55A

 Note
Permissible axis/motor combinations
→ 5 / 2.1-19

Electric cylinders DNCE, with piston rod

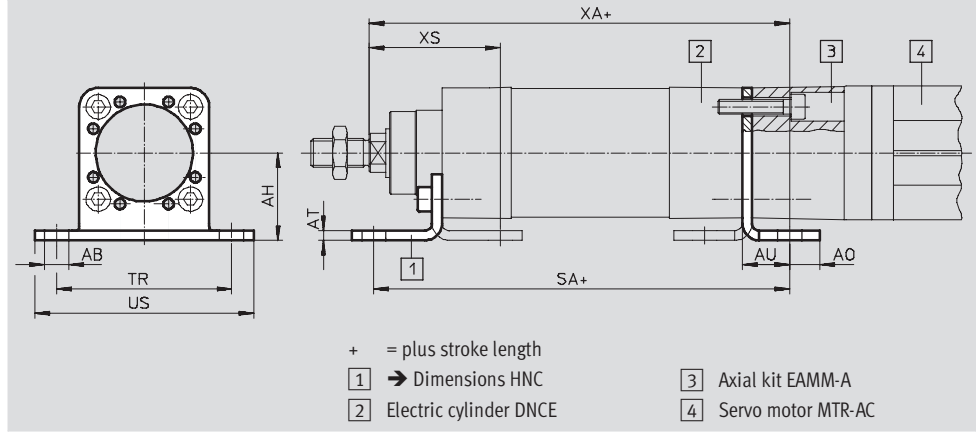
Accessories



Foot mounting HNCE, for axial motor attachment

Material: Galvanised steel

Copper, PTFE and silicone-free



Electrical positioning systems
Electromechanical drives

2.1

Dimensions and ordering data										
For size	AB	AH	AO	AT	AU	SA	TR	US	XA	XS
[mm]	∅									
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

For size	CRC ¹⁾	Weight	Part No.	Type
[mm]	[g]	[g]		
32	2	160	547 949	HNCE-32-AX
40	2	220	547 950	HNCE-40-AX

1) Corrosion resistance class 2 to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

Electric cylinders DNCE, with piston rod

Accessories

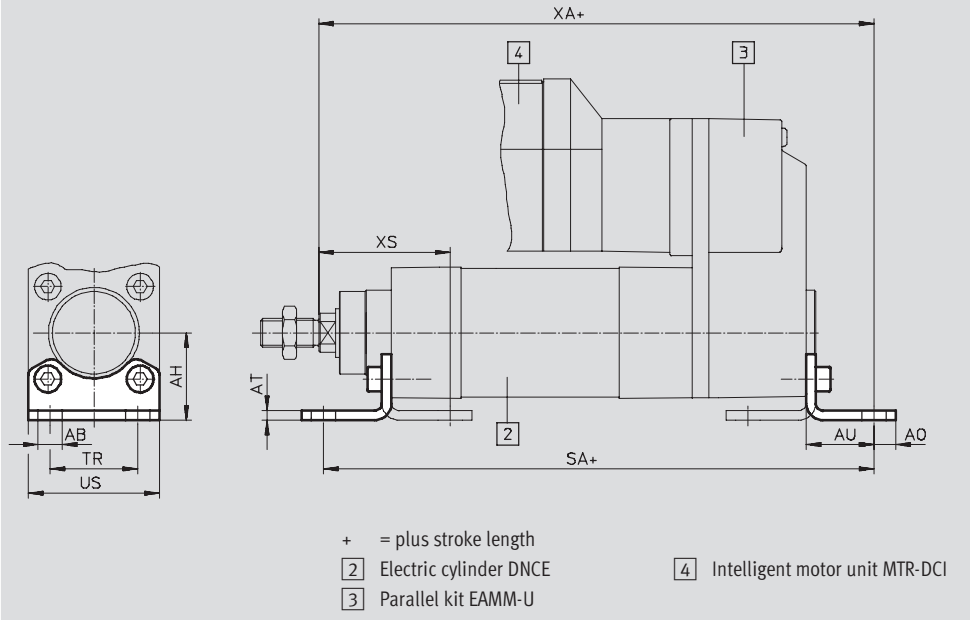
FESTO

Foot mounting HNC/CRHNC, for parallel motor attachment



Material:
HNC: Galvanised steel

CRHNC: High-alloy steel
Copper, PTFE and silicone-free



Dimensions and ordering data										
For size	AB	AH	AO	AT	AU	SA	TR	US	XA	XS
[mm]	∅									
32	7	32	6.5	4	24	210	32	45	212	46
40	10	36	9	4	28	249.5	36	54	251.5	54

For size	Basic type				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]								
32	2	135	174 369	HNC-32	4	135	176 937	CRHNC-32
40	2	180	174 370	HNC-40	4	180	176 938	CRHNC-40

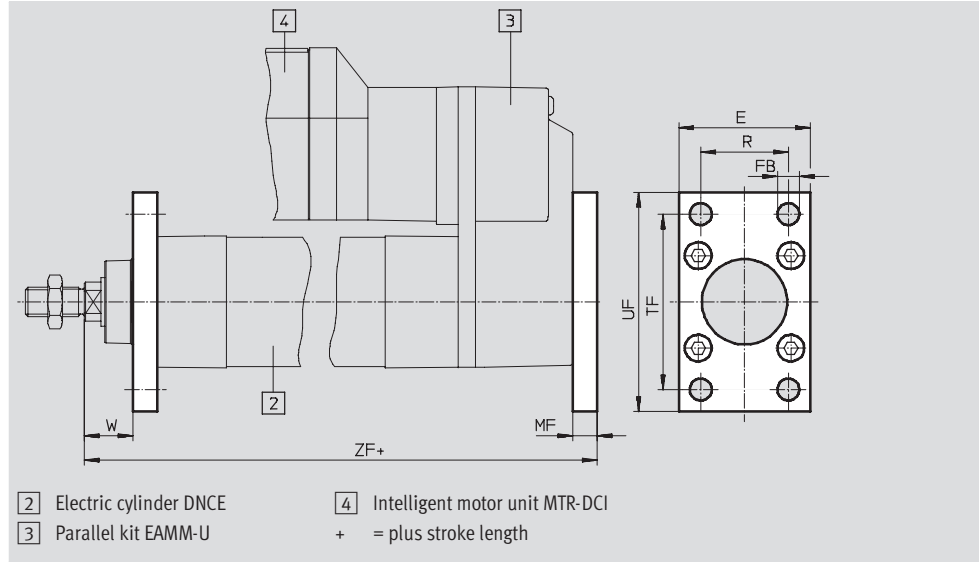
1) Corrosion resistance class 2 to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents
 Corrosion resistance class 4 to Festo standard 940 070
 Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

Electric cylinders DNCE, with piston rod

Accessories

Flange mounting FNC/CRFNG

Material:
 FNC: Galvanised steel
 CRFNG: High-alloy steel
 Copper, PTFE and silicone-free



Dimensions and ordering data

For size [mm]	E	FB ∅ H13	MF	R	TF	UF	W	ZF
32	45	7	10	32	64	80	16	198
40	54	9	10	36	72	90	20	233.5

For size [mm]	Basic type				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	240	174 376	FNC-32	4	240	161 846	CRFNG-32
40	2	280	174 377	FNC-40	4	300	161 847	CRFNG-40

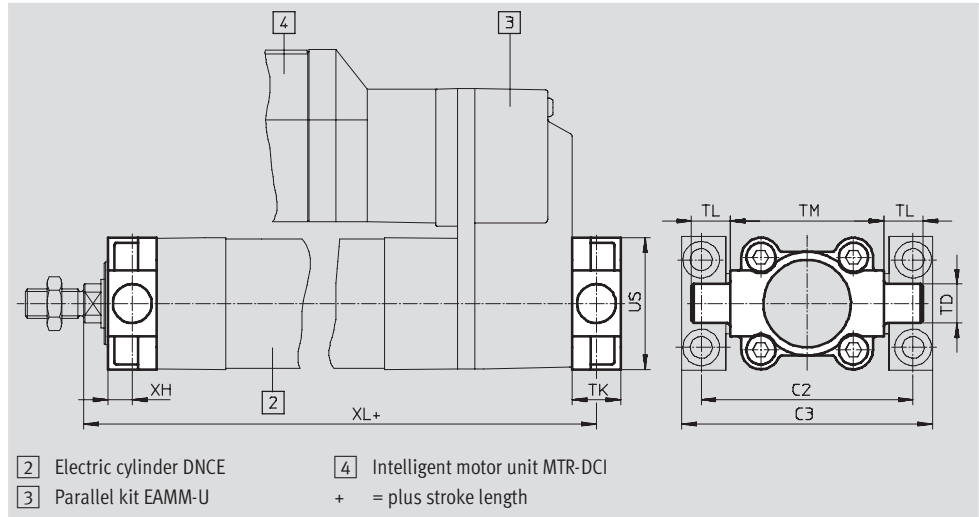
1) Corrosion resistance class 2 to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents
 Corrosion resistance class 4 to Festo standard 940 070
 Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

Electric cylinders DNCE, with piston rod

Accessories

Trunnion flange ZNCF/CRZNG

Material:
 ZNCF: Stainless steel casting
 CRZNG: Electrolytically polished stainless steel casting
 Copper, PTFE and silicone-free



Dimensions and ordering data									
For size	C2	C3	TD ∅ e9	TK	TL	TM	US	XH	XL
[mm]									
32	71	86	12	16	12	50	45	18	196
40	87	105	16	20	16	63	54	20	233.5

For size [mm]	Basic type				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	130	174 411	ZNCF-32	4	150	161 852	CRZNG-32
40	2	240	174 412	ZNCF-40	4	260	161 853	CRZNG-40

1) Corrosion resistance class 2 to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents
 Corrosion resistance class 4 to Festo standard 940 070
 Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

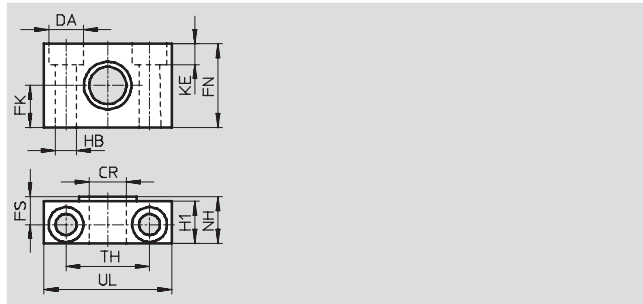
Electric cylinders DNCE, with piston rod

Accessories



Trunnion support LNZG

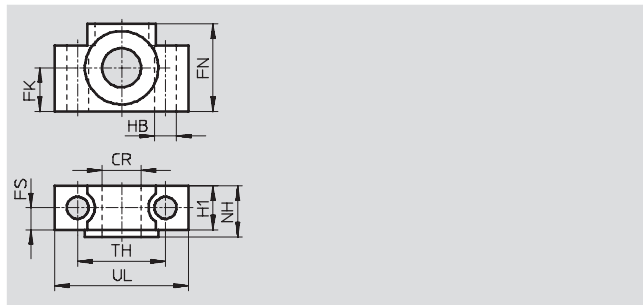
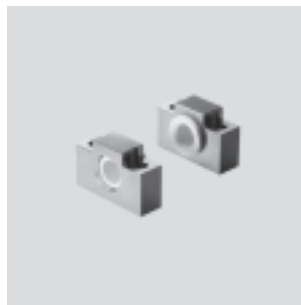
Material:
 Trunnion support: Anodised aluminium
 Plain bearing: Plastic
 Copper, PTFE and silicone-free



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	125	32 959	LNZG-32
40	16	15	18	36	12	18	9	9	21	36	55	2	400	32 960	LNZG-40/50

Trunnion support CRLNZG

Material:
 High-alloy steel
 Copper, PTFE and silicone-free



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	200	161 874	CRLNZG-32	
40	16	18	36	12	18	9	21	36	55	4	330	161 875	CRLNZG-40/50	

1) Corrosion resistance class 2 to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents
 Corrosion resistance class 4 to Festo standard 940 070
 Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

Electric cylinders DNCE, with piston rod

Accessories

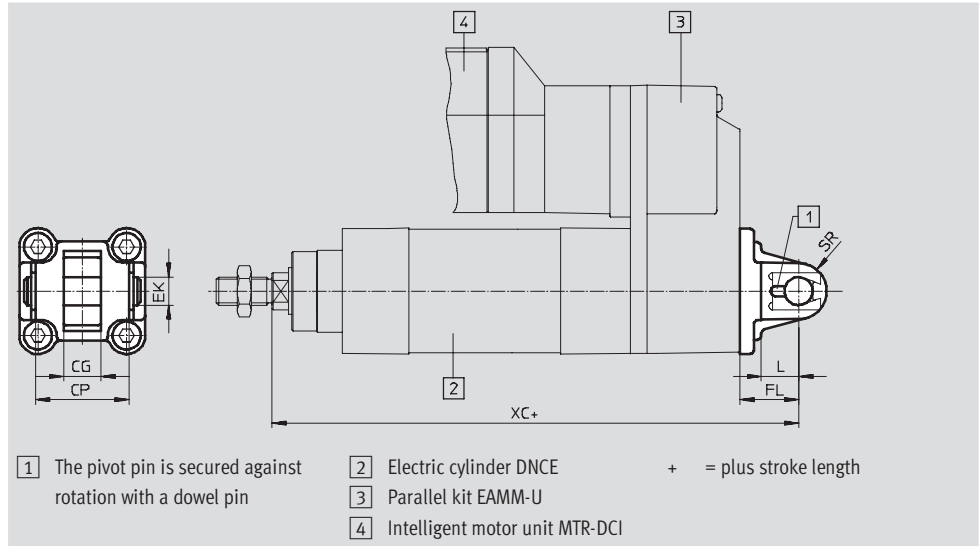


Swivel flange SNC

Material:

Die-cast aluminium

Copper, PTFE and silicone-free



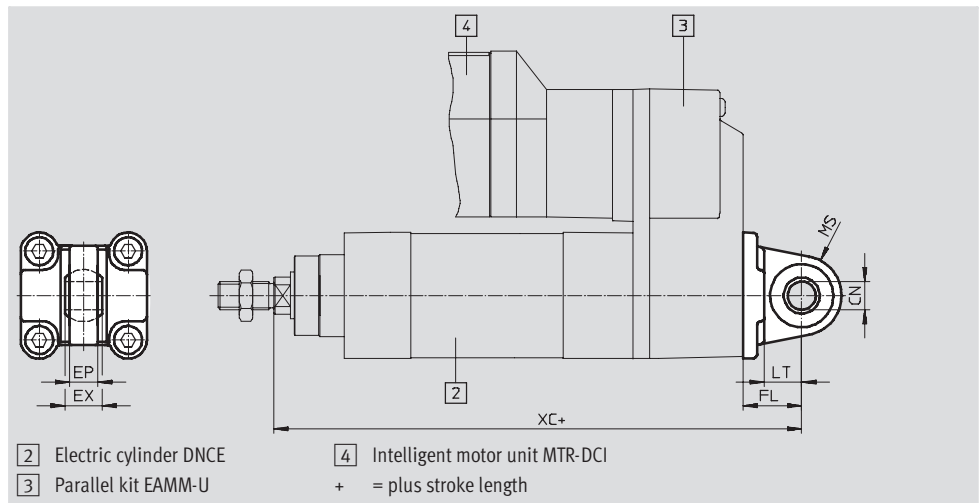
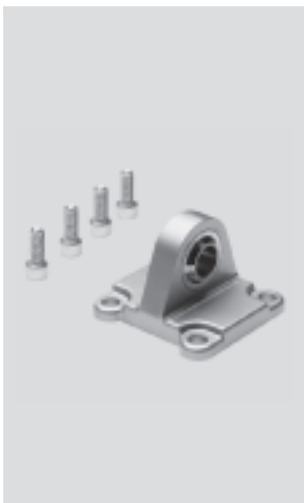
Dimensions and ordering data											
For size	CG	CP	EK	FL	L	SR	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	H14	h14	∅	±0.2					[g]		
32	14	34	10	22	13	10	210	2	90	174 383	SNC-32
40	16	40	12	25	16	12	248.5	2	120	174 384	SNC-40

Swivel flange SNCS

Material:

Die-cast aluminium

Copper, PTFE and silicone-free



Dimensions and ordering data											
For size	CN	EP	EX	FL	LT	MS	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	∅	H7	+0.2	±0.2					[g]		
32	10	10.5	14	22	13	15	210	2	85	174 397	SNCS-32
40	12	12	16	25	16	17	248.5	2	125	174 398	SNCS-40

1) Corrosion resistance class 2 to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

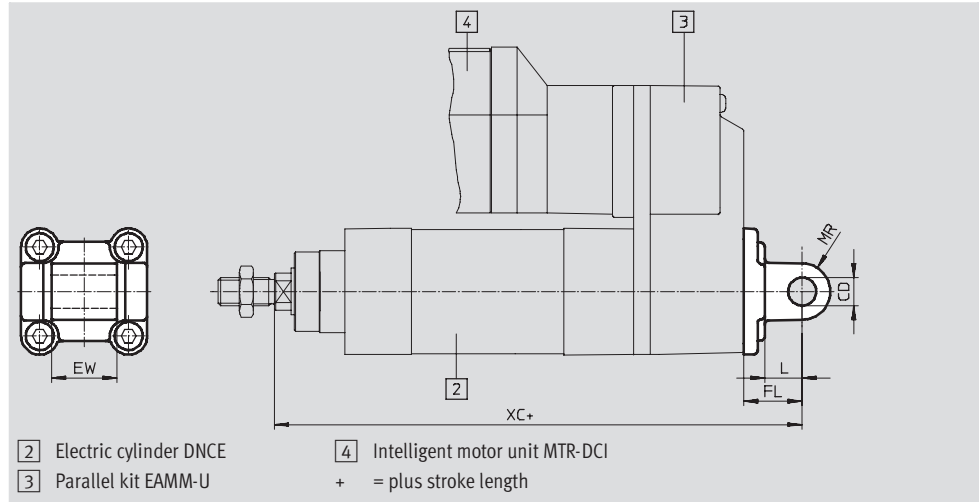
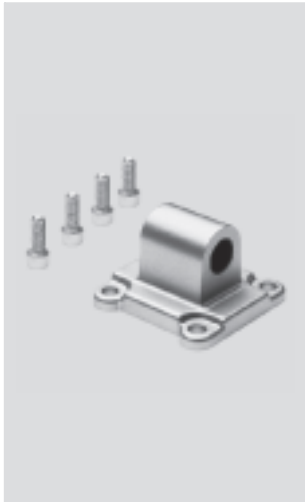
Electric cylinders DNCE, with piston rod

Accessories



Swivel flange SNCL

Material:
Die-cast aluminium
Copper, PTFE and silicone-free



Dimensions and ordering data										
For size	CD	EW	FL	L	MR	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	∅ H9	h12	±0.2					[g]		
32	10	26	22	13	10	210	2	75	174 404	SNCL-32
40	12	28	25	16	12	248.5	2	100	174 405	SNCL-40

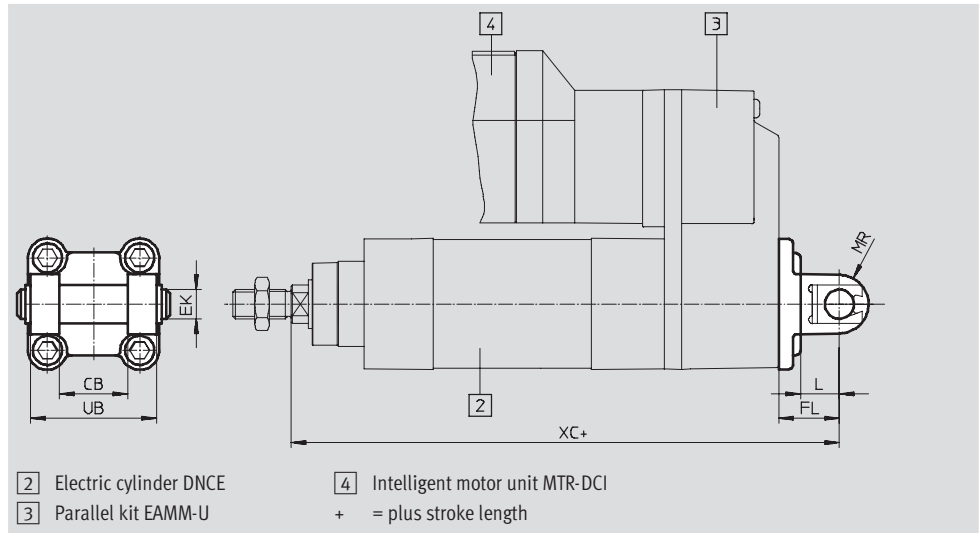
1) Corrosion resistance class 2 to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

Electric cylinders DNCE, with piston rod

Accessories

Swivel flange
SNCB/SNCB-...-R3

Material:
 SNCB: Die-cast aluminium
 SNCB-...-R3: Die-cast aluminium with protective coating, high corrosion protection
 Copper, PTFE and silicone-free



Dimensions and ordering data							
For size	CB	EK	FL	L	MR	UB	XC
[mm]	H14	∅ e8	±0.2			h14	
32	26	10	22	13	10	45	210
40	28	12	25	16	12	52	248.5

For size	Basic type				Variant R3 – High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	100	174 390	SNCB-32	3	100	176 944	SNCB-32-R3
40	2	150	174 391	SNCB-40	3	150	176 945	SNCB-40-R3

1) Corrosion resistance class 3 to Festo standard 940 070
 Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Electric cylinders DNCE, with piston rod

Accessories

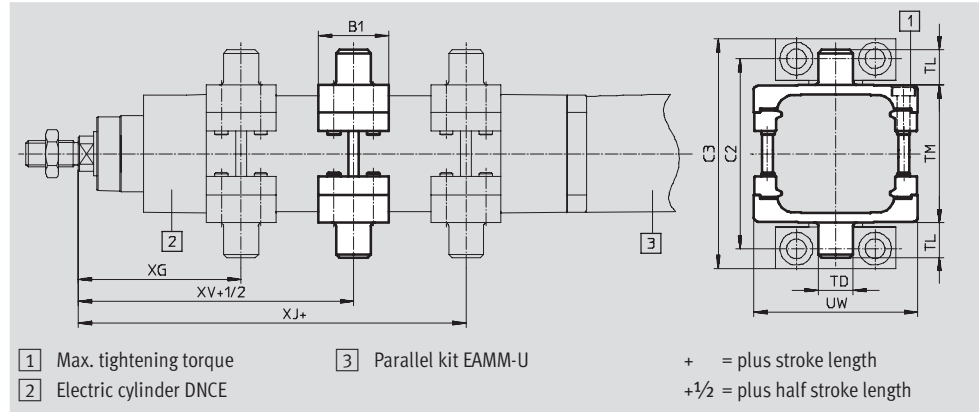


Trunnion mounting kit ZNCM

Material:
Tempered steel

The mounting kit can be attached at any position along the profile barrel of a cylinder.

When used in conjunction with the parallel kit EAMM-U, the swivel pin kit cannot be fitted near to the motor.



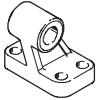
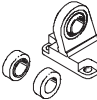


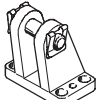
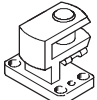
Electrical positioning systems
Electromechanical drives

2.1

Dimensions and ordering data								
For size	B1	C2	C3	TD	TL	TM	UW	XG
[mm]				∅ e9				
32	30	71	86	12	12	50	65	65
40	32	87	105	16	16	63	75	74.5

For size	XJ	XV	Max. tightening torque	CRC ¹⁾	Weight	Part No.	Type
[mm]			[Nm]		[g]		
32	107	86	4+1	2	210	163 525	ZNCM-32
40	130.5	102.5	8+1	2	385	163 526	ZNCM-40

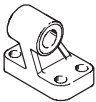
1) Corrosion resistance class 2 to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents





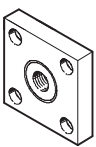
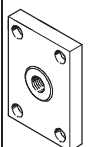

Ordering data – Mounting attachments				Technical data → 1 / 10.1-2			
Designation	For size	Part No.	Type	Designation	For size	Part No.	Type
Clevis foot LNG				Clevis foot LSN			
	32	33 890	LNG-32		32	5 561	LSN-32
	40	33 891	LNG-40		40	5 562	LSN-40
Clevis foot mounting LSNG				Weld-on clevis foot LSNSG			
	32	31 740	LSNG-32		32	31 747	LSNSG-32
	40	31 741	LSNG-40		40	31 748	LSNSG-40
Clevis foot LBG				Right-angle clevis foot LQG			
	32	31 761	LBG-32		32	31 768	LQG-32
	40	31 762	LBG-40		40	31 769	LQG-40



Electric cylinders DNCE, with piston rod

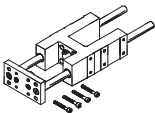
Accessories

FESTO

Ordering data – Mounting attachments, corrosion-resistant			Technical data → 1 / 10.1-2	
Designation	For size	Part No.	Type	
Clevis foot CRLNG				
	32	161 840	CRLNG-32	
	40	161 841	CRLNG-40	

Ordering data – Piston rod attachments				Technical data → 1 / 10.3-2			
Designation	For size	Part No.	Type	Designation	For size	Part No.	Type
Rod eye SGS				Rod clevis SGA			
	32	9 261	SGS-M10x1,25		32	32 954	SGA-M10x1,25
	40	9 262	SGS-M12x1,25		40	10 767	SGA-M12x1,25
Rod clevis SG				Self-aligning rod coupler FK			
	32	6 144	SG-M10x1,25		32	6 140	FK-M10x1,25
	40	6 145	SG-M12x1,25		40	6 141	FK-M12x1,25
Coupling piece KSG				Coupling piece KSZ			
	32	32 963	KSG-M10x1,25		32	36 125	KSZ-M10x1,25
	40	32 964	KSG-M12x1,25		40	36 126	KSZ-M12x1,25
Adapter AD							
	32	157 333	AD-M10x1,25-1/8				
		157 334	AD-M10x1,25-1/4				
	40	160 256	AD-M12x1,25-1/4				
		160 257	AD-M12x1,25-3/8				

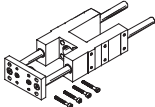
Ordering data – Piston rod attachments, corrosion-resistant				Technical data → 1 / 10.3-2			
Designation	For size	Part No.	Type	Designation	For size	Part No.	Type
Rod eye CRSGS				Rod clevis CRSG			
	32	195 582	CRSGS-M10x1,25		32	13 569	CRSG-M10x1,25
	40	195 583	CRSGS-M12x1,25		40	13 570	CRSG-M12x1,25

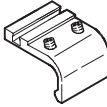
Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only)				Technical data → 1 / 10.4-2			
	Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type	
	For size 32			For size 40			
	10 ... 100	34 494	FENG-32-100-KF	10 ... 100	34 500	FENG-40-100-KF	
	10 ... 200	34 496	FENG-32-200-KF	10 ... 200	34 502	FENG-40-200-KF	
	10 ... 320	34 497	FENG-32-320-KF	10 ... 320	34 504	FENG-40-320-KF	
	10 ... 400	150 290	FENG-32-400-KF	10 ... 400	150 291	FENG-40-400-KF	
	10 ... 500	34 498	FENG-32-500-KF	10 ... 500	34 505	FENG-40-500-KF	

Electric cylinders DNCE, with piston rod

Accessories




Ordering data – Guide units for variable strokes					Technical data → 1 / 10.4-2	
	For size [mm]	Stroke [mm]	With recirculating ball bearing guide		With plain-bearing guide	
			Part No.	Type	Part No.	Type
	32	10 ... 500	34 487	FENG-32-...-KF	34 481	FENG-32-...
	40	10 ... 500	34 488	FENG-40-...-KF	34 482	FENG-40-...



Ordering data – Mounting kit for proximity sensors SMT-8			Technical data → www.festo.com/catalogue/smb	
	For size	Part No.	Type	
		32	175 705	SMB-8-FENG-32/40
	40			



2.1

Permissible proximity sensors in combination with motor units MTR-DCI

Ordering data – Proximity switches for T-slot, magneto-resistive					Technical data → www.festo.com/catalogue/sm	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type
	N/O contact					
	Insertable in the slot from above, flush with cylinder profile	PNP	Plug M8x1, 3-pin	0,3	543 866	SMT-8M-PS-24V-K-0,3-M8D

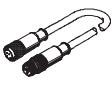
Permissible proximity sensors in combination with servo motors MTR-AC, stepper motors MTR-ST or guide units FENG


Ordering data – Proximity switches for T-slot, magneto-resistive					Technical data → www.festo.com/catalogue/sm	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type
	N/O contact					
	Insertable in the slot from above, flush with cylinder profile	PNP	Cable, 3-wire	2,5	543 867	SMT-8M-PS-24V-K-2,5-OE
	Insertable in the slot lengthwise, flush with the cylinder profile	PNP	Cable, 3-wire	2,5	175 436	SMT-8-PS-K-LED-24-B

Ordering data – Proximity switches for T-slot, magnetic reed					Technical data → www.festo.com/catalogue/sm	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type
	N/O contact					
	Insertable in the slot from above, flush with cylinder profile	Contacting	Cable, 3-wire	2,5	543 862	SME-8M-DS-24V-K-2,5-OE
				5,0	543 863	SME-8M-DS-24V-K-5,0-OE
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2,5	150 855	SME-8-K-LED-24

Electric cylinders DNCE, with piston rod

Accessories

Ordering data – Connecting cable				Technical data → 1 / 10.2-114	
	Assembly	Connection	Cable length [m]	Part No.	Type
Straight plug socket					
	Union nut M8, both ends	3-pin	0.5	175 488	KM8-M8-GSGD-0,5
			1	175 489	KM8-M8-GSGD-1
			2.5	165 610	KM8-M8-GSGD-2,5
			5	165 611	KM8-M8-GSGD-5

Ordering data – Slot cover for T-slot				
	Assembly	Length	Part No.	Type
	Insertable from above	2x 0.5 m	151 680	ABP-5-S

