

Positioning axes DMES



Positioning axes DMES

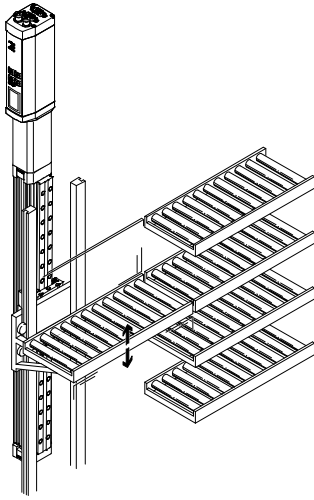
Key features



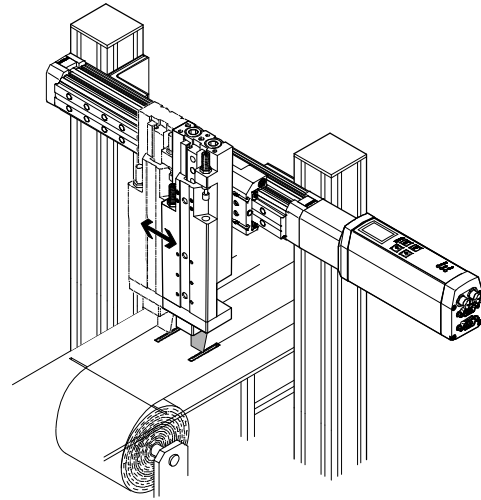
At a glance		
General	Properties	Range of applications
<p>DMES positioning axes are mechanical linear drives that are specially designed for movements involving high forces.</p> <p>The mechanical interfaces are compatible with the spindle axis DGE-SP.</p>	<ul style="list-style-type: none"> • High mechanical torques • High feed forces up to 3000 N • Self-retarding lead-screw spindle • Compact dimensions • Cost optimised 	<ul style="list-style-type: none"> • Alternatively: <ul style="list-style-type: none"> – without guide – with recirculating ball bearing guide KF • For format adjustment: <ul style="list-style-type: none"> – in printing, paper and foil wrapping machines – in packaging machines – in feed technology

Application examples

Adjusting sorting conveyors



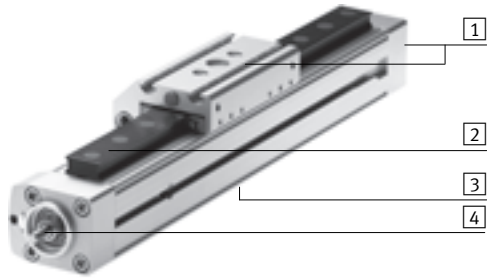
Programming formats for paper or foil cutting machines



The technology in detail

Positioning axis → 4

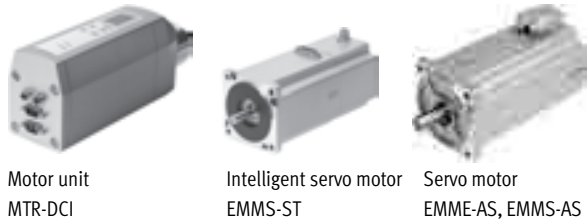
Motor → 40



- 1 Mechanical interfaces are identical to spindle axes DGE-...-SP
- 2 KF: Recirculating ball bearing guide
- 3 Slot for proximity sensor
- 4 Lead-screw spindle, for use with high forces

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 unit MTR-DCI Intelligent servo motor EMMS-ST Servo motor EMME-AS, EMMS-AS

A range of specially adapted complete solutions is available for the positioning axes DMES and the motors.

Two motor interfaces are available:

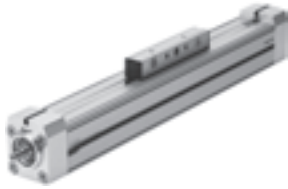
- Axial motor interface
- Parallel motor interface

Positioning axes DMES

Key features

Wide choice of variants

Basic design DMES, without guide



- For connection to an existing guide
- For small loads

Recirculating ball bearing guide DMES-KF



- With standard slide (GK) or extended slide (GV)
- For higher loads
- For high guide precision

Protected version DMES-GA

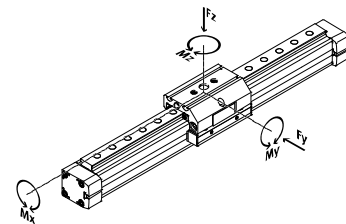
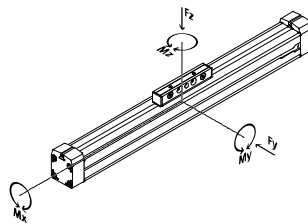


- With standard slide (GK)
- Guide and slide are fitted with a cover to protect against the ingress of particles from above and from the side

Guide characteristics

The specifications shown in the table are maximum values.

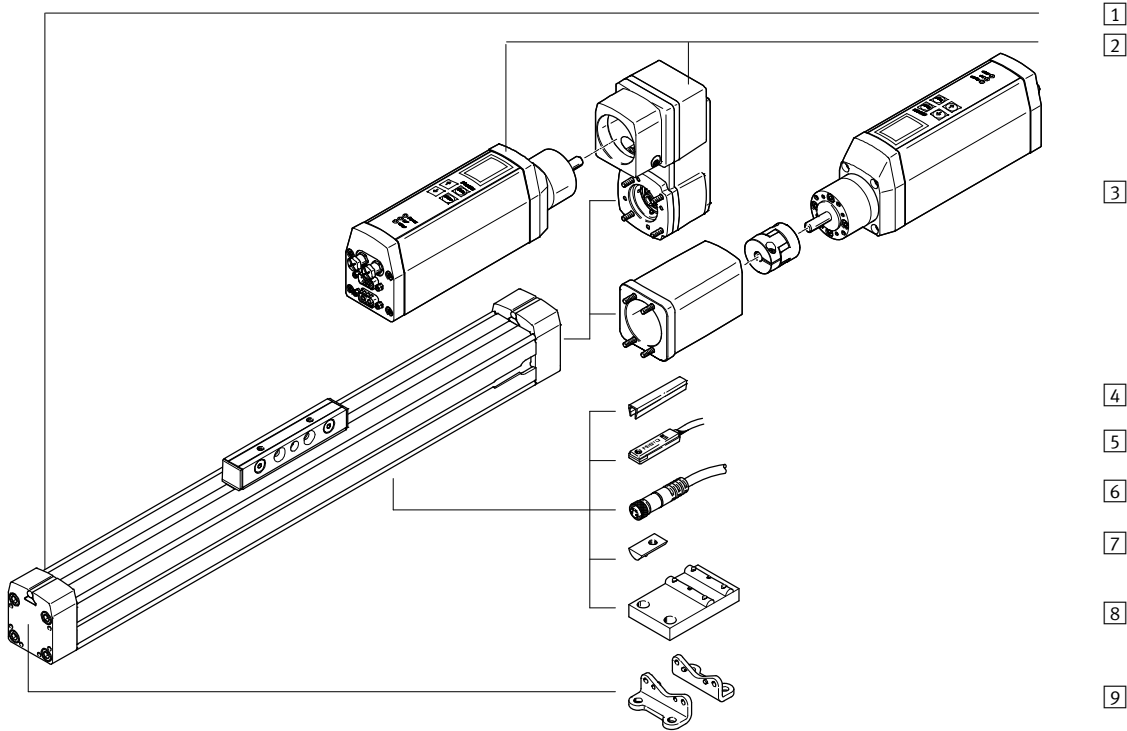
The precise values for each of the variants can be found in the relevant technical data in the catalogue.




	Size	Working stroke [mm]	Speed [m/s]	Repetition accuracy [mm]	Feed force [N]	Forces and torques					→ Page/ Internet
						Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]	
Basic design DMES											
	18	50 ... 400	0.05	±0.05	240	36	80	0.4	2	0.7	6
	25	50 ... 700	0.05	±0.05	500	80	100	1.3	4	1.6	
	40	50 ... 1200	0.05	±0.05	1000	92	390	2.2	20	4.6	
	63	50 ... 1800	0.05	±0.07	3000	300	900	12	80	22	
Recirculating ball bearing guide DMES-KF											
	18	50 ... 400	0.05	±0.05	240	930	930	7	45	45	20
	25	50 ... 700	0.05	±0.05	500	3080	3080	45	170	170	
	40	50 ... 1200	0.05	±0.05	1000	7300	7300	170	660	660	
	63	50 ... 1800	0.05	±0.07	3000	13900	14050	580	1820	1820	

Positioning axes DMES, without guide

Peripherals overview



Variants and accessories		
Type/Order code	Description	→ Page/Internet
1 Positioning axis DMES	Electromechanical axis without guide	6
2 Intelligent servo unit and parallel kit U	Complete package for parallel motor attachment, comprising parallel kit and intelligent motor unit MTR-DCI	14
3 Intelligent servo unit and axial kit AX	Complete package for axial motor attachment, comprising axial kit and intelligent motor unit MTR-DCI	14
4 Slot cover B/S	For protecting against ingress of dirt	47
5 Proximity sensor SMT-8	For providing a proximity signal or safety sensing	46
6 Connecting cable KM8	For proximity sensor	46
7 Slot nut for mounting slot Y	For mounting attachments	47
8 Central support M	For mounting the axis	44
9 Foot mounting F	For mounting the axis (can only be attached to end cap, must be combined with central support)	44

-  - Note
 Servo, stepper motors and the corresponding mounting kits must be ordered separately → 40

Positioning axes DMES, without guide

Type code

DMES - 25 - 500 - AX : ZUB - 2Y 2M

Type

DMES	Positioning axis
------	------------------

Size

Stroke [mm]

Motor unit

AX	Intelligent servo unit and axial kit
----	--------------------------------------

U	Intelligent servo unit and parallel kit
---	---

Accessories

ZUB	Accessories supplied loose
-----	----------------------------

Slot cover

...S	Sensor slot
------	-------------

...B	Mounting slot
------	---------------

Slot nut

...Y	For mounting slot
------	-------------------

Central support

...M	Central support
------	-----------------

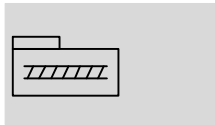
Foot mounting

...F	Foot mounting
------	---------------

Positioning axes DMES, without guide

Technical data

Function



- - Size
18 ... 63
- - Stroke length
50 ... 1800 mm

General technical data				
Size	18	25	40	63
Design	Electromechanical linear axis with lead-screw spindle			
Guide	None			
Assembly position	Any			
Working stroke [mm]	50 ... 400	50 ... 700	50 ... 1200	50 ... 1800
Max. feed force F_x [N]	240	500	1000	3000
Max. driving torque [Nm]	0.3	0.9	3	14
Max. no-load driving torque ¹⁾ [Nm]	0.07	0.2	0.45	1.1
Max. radial force ²⁾ [N]	40	75	250	800
Max. speed [m/s]	0.05			
Max. acceleration [m/s ²]	2.5			
Repetition accuracy [mm]	±0.05			±0.07
Positioning rigidity [N/mm]	1700	2300	4200	5600
Duty cycle [%]	100			
Reversing backlash ³⁾ [mm]	< 0.1			

- 1) Measured at a speed of 200 rpm.
- 2) On drive shaft
- 3) In new condition

Operating and environmental conditions	
Ambient temperature ¹⁾ [°C]	0 ... +50
Protection class	IP40

- 1) Note operating range of proximity sensors

Weights [kg]				
Size	18	25	40	63
Basic weight with 0 mm stroke ¹⁾	0.49	0.98	2.9	10.05
Additional weight per 100 mm stroke	0.2	0.36	0.74	1.97
Moving load	0.06	0.15	0.47	1.51

- 1) Without coupling housing

Positioning axes DMES, without guide

Technical data

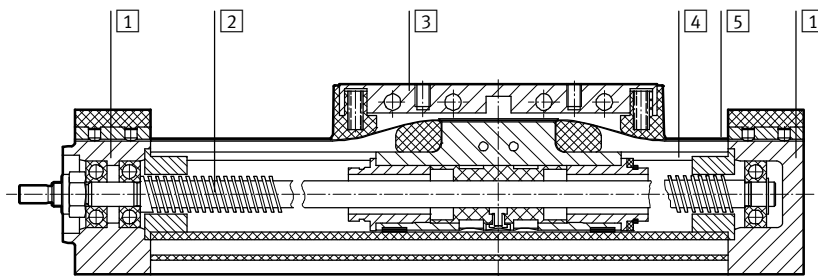
Mass moment of inertia					
Size		18	25	40	63
J_0	[kg cm ²]	0.0028	0.0147	0.1824	1.7747
j_H per metre stroke	[kg cm ² /m]	0.0210	0.0980	0.8400	5.5600
j_L per kg working load	[kg cm ² /Kg]	0.0006	0.0023	0.0041	0.0091

The mass moment of inertia J_A of the entire axis is calculated as follows: $J_A = J_0 + j_H \times \text{working stroke [m]} + j_L \times m_{\text{working load [kg]}}$

Spindle					
Size		18	25	40	63
Diameter	[mm]	8	12	20	32
Pitch	[mm/rev.]	1.5	2.5	4	6

Materials

Sectional view



Positioning axis		
1	Cover	Wrought aluminium alloy, anodised
2	Spindle	Steel
3	Piston, driver	Wrought aluminium alloy, anodised
4	Profile	Wrought aluminium alloy, anodised
5	Cover strip	High-alloy stainless steel

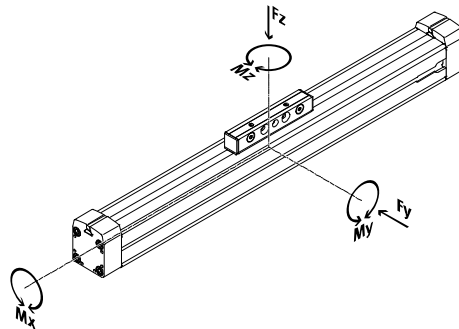
Positioning axes DMES, without guide

Technical data

Characteristic load values


The indicated forces refer to the centre line of the internal diameter of the profile.

They must not be exceeded during dynamic operation. Special attention must be paid to the cushioning phase.



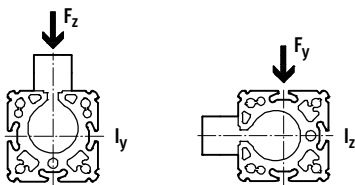
If the axis is subjected to more than two of the indicated forces simultaneously, the following equation must be satisfied in addition to the indicated maximum loads:

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

 Note
Positioning axes DMES without guide are not designed to absorb lateral forces or torques on the slide.

Permissible forces and torques					
Size		18	25	40	63
F _y _{max.}	[N]	36	80	92	300
F _z _{max.}	[N]	80	100	390	900
M _x _{max.}	[Nm]	0.4	1.3	2.2	12
M _y _{max.}	[Nm]	2	4	20	80
M _z _{max.}	[Nm]	0.7	1.6	4.6	22

2nd moment of area



Size		18	25	40	63
ly	[cm ⁴]	6.90	20.92	76.24	587.74
lz	[cm ⁴]	6.83	21.20	71.01	464.30

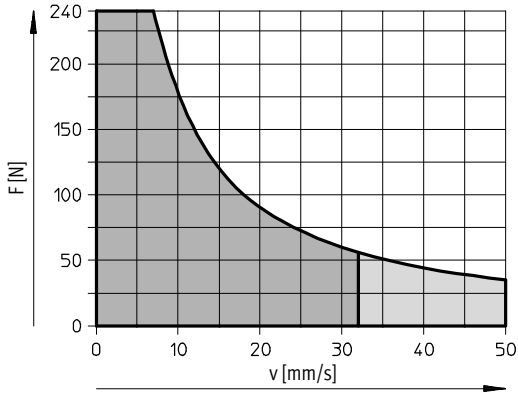
 Note
Sizing software
PositioningDrives
→ www.festo.com

Positioning axes DMES, without guide

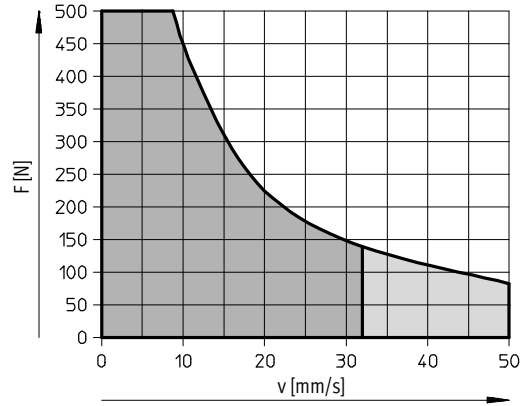
Technical data

Maximum permissible feed force F as a function of the feed speed v

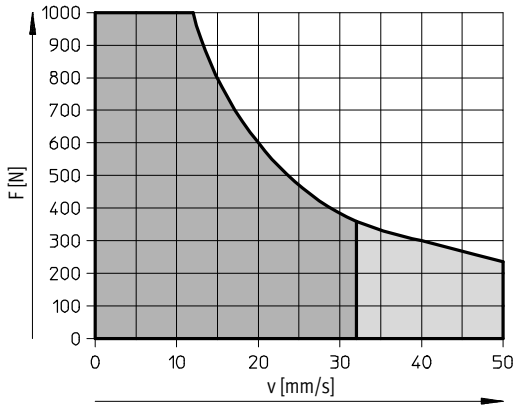
DMES-18



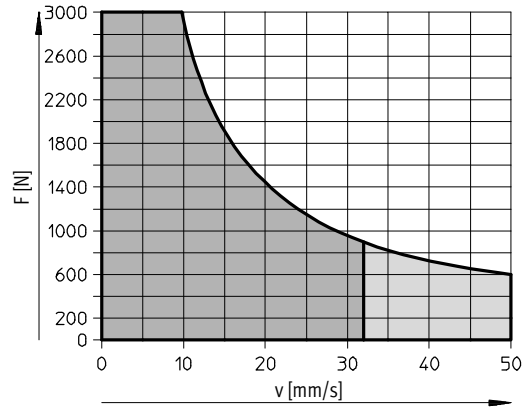
DMES-25



DMES-40



DMES-63



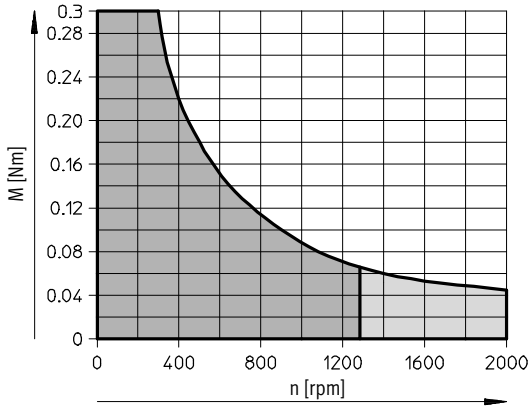
- Recommended operating range
- Permissible operating range (duty cycle < 50% recommended)

Positioning axes DMES, without guide

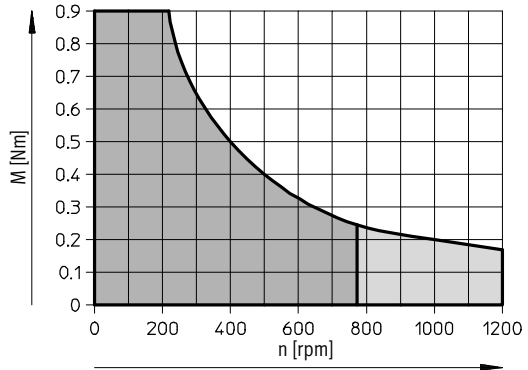
Technical data

Maximum permissible driving torque M as a function of n (rpm)

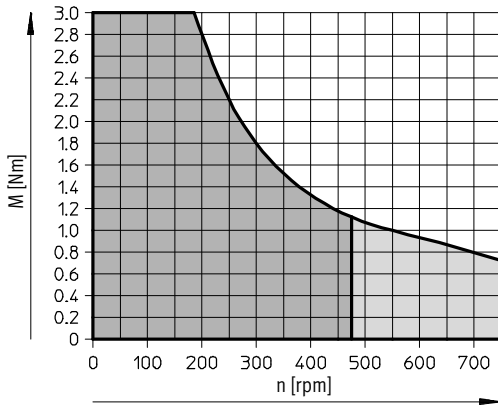
DMES-18



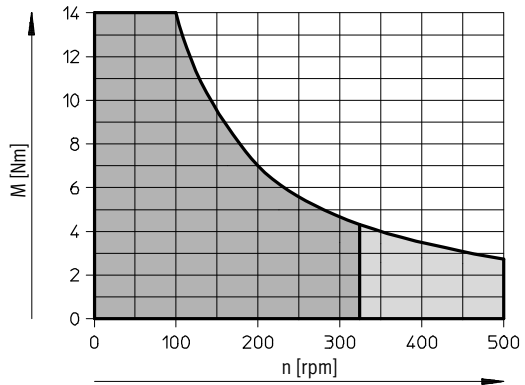
DMES-25



DMES-40

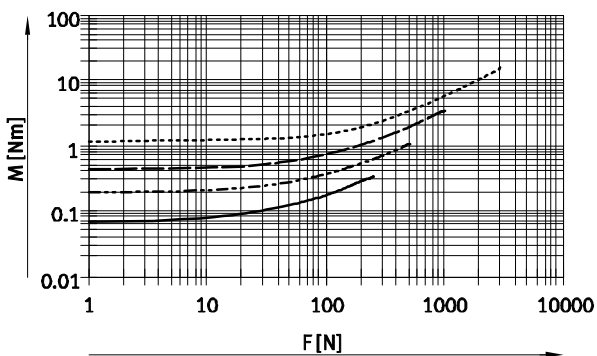


DMES-63

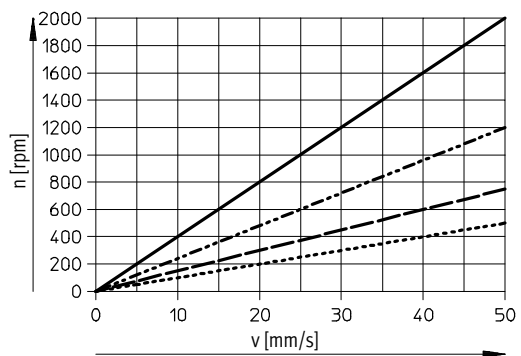


- Recommended operating range
- Permissible operating range (duty cycle < 50% recommended)

Driving torque M as a function of the feed force F



Speed as a function of the feed speed v



- DMES-18
- - - - - DMES-25
- · - · - DMES-40
- · - · - DMES-63

Positioning axes DMES, without guide

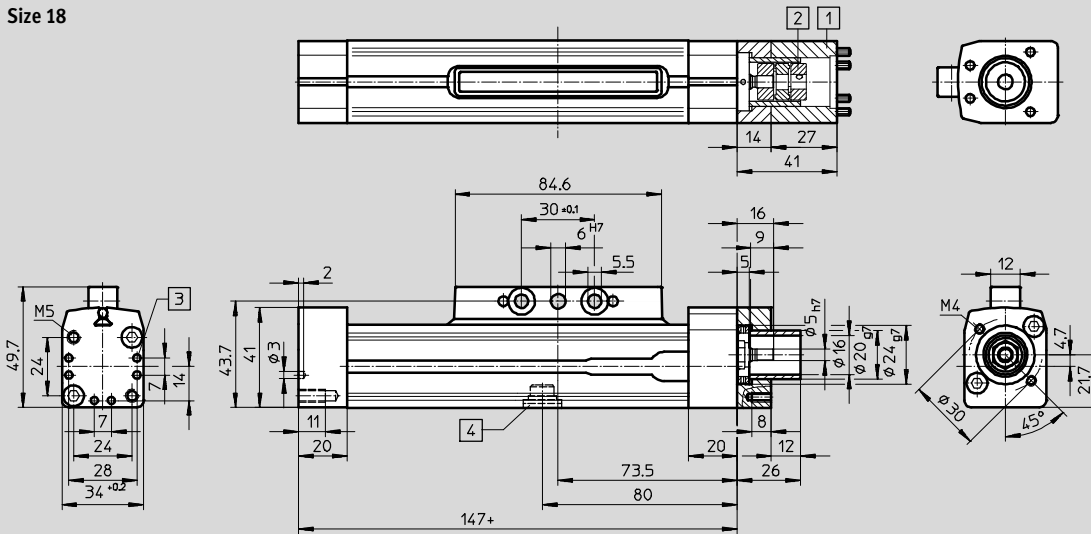
Technical data

FESTO

Dimensions

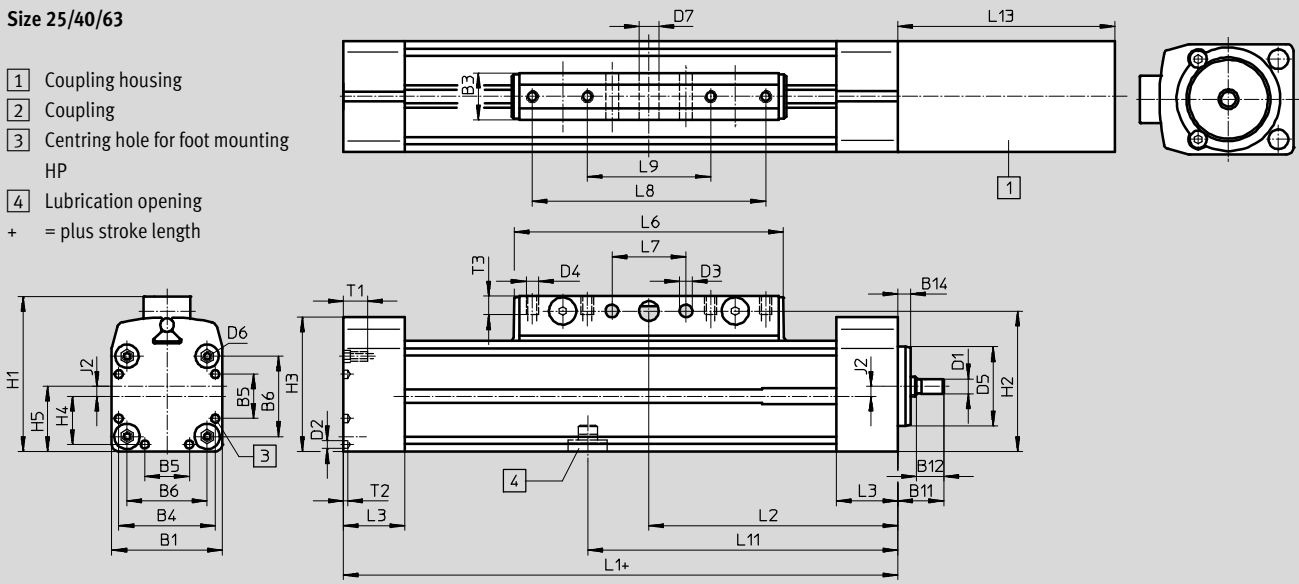
Download CAD data → www.festo.com

Size 18



Size 25/40/63

- 1 Coupling housing
- 2 Coupling
- 3 Centring hole for foot mounting HP
- 4 Lubrication opening
- + = plus stroke length



Size	B1	B3	B4	B5	B6	B11	B12	B14	D1	D2	D3	D4	D5	D6	D7	H1	H2	H3
	+0.4								∅ h7	∅	∅		∅ g7		∅ H10			
25	45	19	39.1	18	32.5	18.5	11	4	6	3.3	5.2	M5	32	M4	8	63	57	54.5
40	64	21	53	28	49	33.5	23	5	12	4.4	6.5	M6	48	M5	10	86	78	76.5
63	106	24	89	44	83	47.5	25	7	20	6.4	8.5	M8	72	M8	12	131	122	127.5

Size	H4	H5	J2	L1	L2	L3	L6	L7	L8	L9	L11	L13			T1	T2	T3
												1)	2)	3)			
25	19.6	26.5	4	175	87.5	25	108.8	30	–	50	105	88	101	–	13	2	7.5
40	26.5	37	5	250	126	31	170.8	70	130	40	151	121	135	–	13	6	10
63	44.5	61	8	328	164	36	233.8	110	190	70	196	150	150	150	21	6	12.5

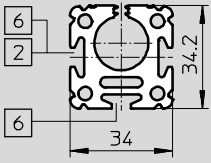
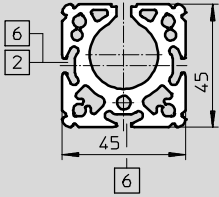
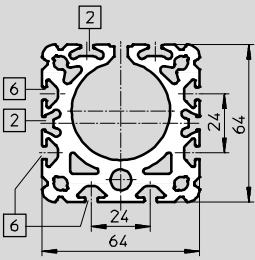
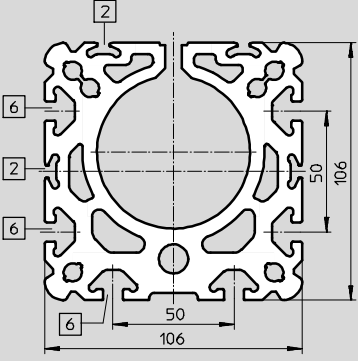
- 1) When combined with motor unit MTR-DCI with gear reduction 7:1.
- 2) When combined with motor unit MTR-DCI with gear reduction 14:1.
- 3) When combined with motor unit MTR-DCI with gear reduction 22:1.

Positioning axes DMES, without guide

Technical data

Dimensions Download CAD data → www.festo.com

Profile

Size 18	Size 25	Size 40	Size 63
			
<p>2 Sensor slot for proximity sensor</p>		<p>6 Mounting slot for slot nut NST</p>	

Positioning axes DMES, without guide

Ordering data – Modular products

Order processing for positioning axis DMES in combination with intelligent motor unit MTR-DCI

1 Ordering positioning axis DMES Ordering table → 15

The drive unit and corresponding accessories are configured in the ordering table for the positioning axis DMES.

The code “AX” or “U” is used to specify whether an intelligent motor unit MTR-DCI and an axial or a parallel kit are required for the positioning axis.

The motor unit design must be defined separately.

3 Ordering intelligent motor unit MTR-DCI Ordering table → 9

The motor unit order code determined from table **2** must now be completed with the “gear unit” and “parameterisation interface” codes.

The module number of the intelligent motor unit must not be specified when ordering with order code “AX” or “U”. It is determined automatically.

2 Permissible combinations with intelligent motor unit MTR-DCI

Positioning axis	Motor unit
DMES-18-...	MTR-DCI-32S-VCSC-E...
DMES-25-...	MTR-DCI-42S-VCSC-E...
DMES-40-...	MTR-DCI-52S-VCSC-E...
DMES-63-...	MTR-DCI-62S-VDSC-E...

4 Order example

Part No.	Type
	Positioning axis DMES
533700	DMES-25-700-AX:ZUB-2S2Y1M1F
	Intelligent motor unit MTR-DCI
-	MTR-DCI-42S-VCSC-EG7-R2IO

Note

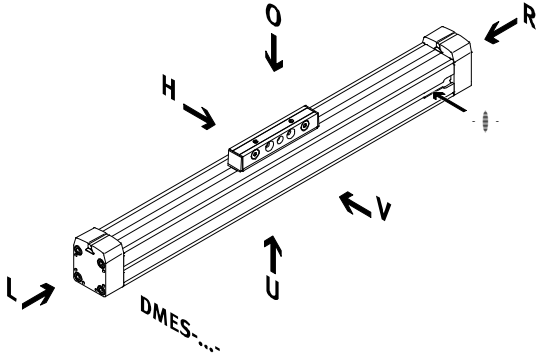
Servo, stepper motors and the corresponding mounting kits must be ordered separately → 40


Positioning axes DMES, without guide

Ordering data – Modular products

Order code

Mandatory data

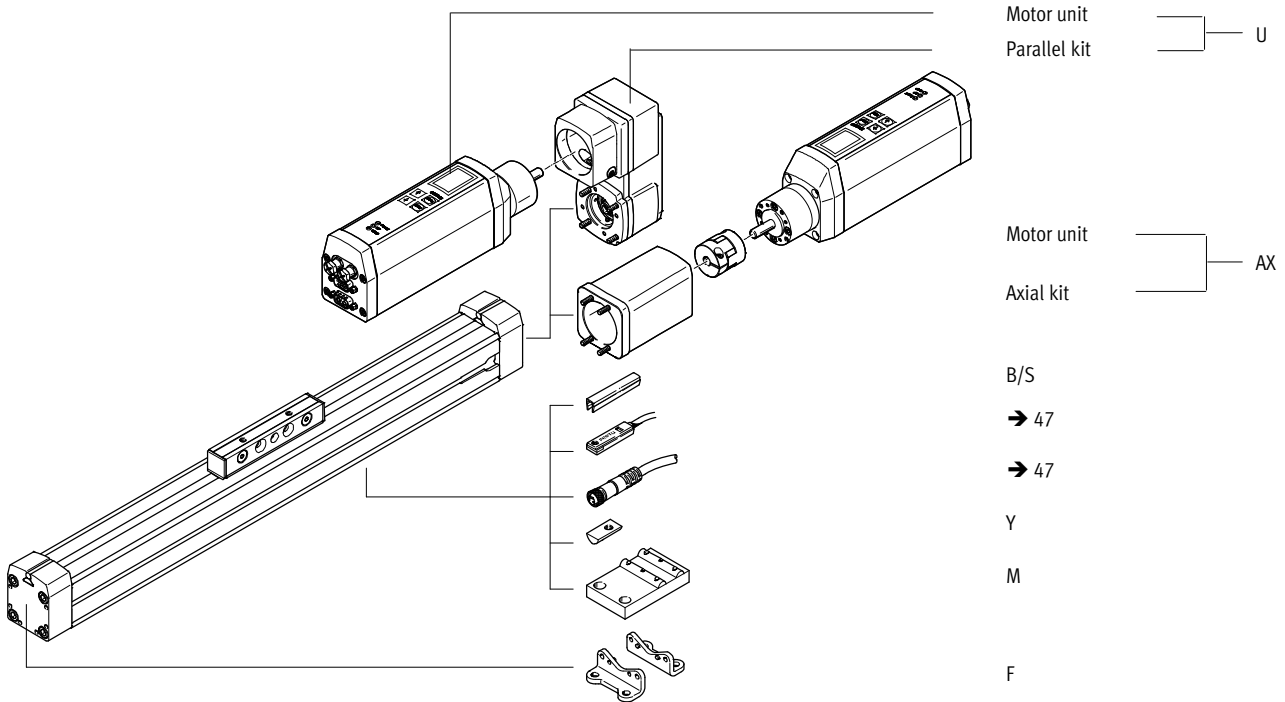


-  - Note	O top
	U underneath
	V front
	H rear
	R right
	L left

The insertion point for the proximity sensor is located on the right-hand side of the positioning axis.

Order code

Options



Positioning axes DMES, without guide

Ordering data – Modular products

M Mandatory data				O Options		
Module No.	Function	Size	Stroke	Motor unit	Accessories	Accessories supplied loose
533699	DMES	18	50 ... 1800	AX U		...S, ...B, ...Y, ...M, ...F
533700		25				
533701		40				
533702		63				
Order example						
533700	DMES	- 25	- 700	-	: ZUB	- 2S2Y2M
MTR-DCI-...S-...SC-E...-...IO						

Ordering table							
Size	18	25	40	63	Condi- tions	Code	Enter code
M Module No.	533699	533700	533701	533702			
Function	Positioning axis without guided slide					DMES	DMES
Size	18	25	40	63		-...	
Stroke [mm]	50 ... 400	50 ... 700	50 ... 1200	50 ... 1800		-...	
O Motor unit	Axial kit and motor unit (enclosed separately)				1	-AX	
	Parallel kit and motor unit (enclosed separately)				1	U	
Accessories	Supplied separately					:ZUB-	:ZUB-
Slot cover	Sensor slot	1 ... 10				...S	
	Mounting slot	-	-	1 ... 10		...B	
Slot nut	Mounting slot	1 ... 10				...Y	
Central support	1 ... 10					...M	
Foot mounting	1 ... 10					...F	

1 AX, U Order processing for intelligent motor unit MTR-DCI → 9.

M Mandatory data
O Options

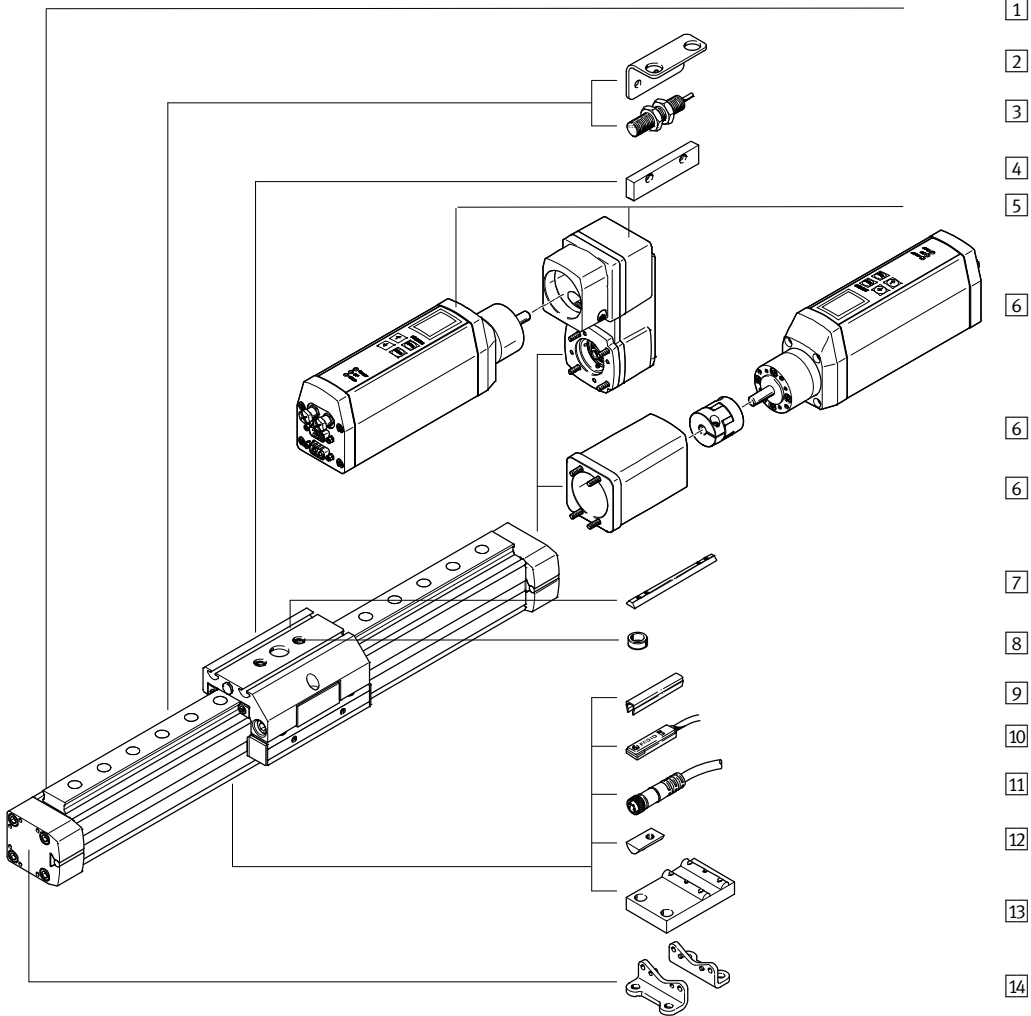
Transfer order code

	DMES	-		-		-		:	ZUB	-	
MTR-DCI-...S-...SC-E...-...IO											

Positioning axes DMES-KF, with recirculating ball bearing guide

Peripherals overview

FESTO




Positioning axes DMES-KF, with recirculating ball bearing guide

Peripherals overview

Variants and accessories				
Type/Order code	Description	GK/GV	GA	→ Page/Internet
1	Positioning axis DMES	■	■	20
2	Sensor retainer T	■	-	45
3	Inductive proximity sensor SIEN	■	-	46
4	Switching lug L	■	-	45
5	Motor unit and parallel kit U	■	■	37
6	Motor unit and axial kit AX	■	■	37
7	Slot nut for slide X	■	■	47
8	Centring sleeves Z	■	■	47
9	Slot cover B/S	■	■	47
10	Proximity sensor SMT-8	■	■	46
11	Connecting cable KM8	■	■	46
12	Slot nut for mounting slot Y	■	■	47
13	Central support M	■	■	44
14	Foot mounting F	■	■	44

GK: Standard slide
 GV: Extended slide
 GA: Protected version

 Note
 Servo, stepper motors and the corresponding mounting kits must be ordered separately → 40

Positioning axes DMES-KF, with recirculating ball bearing guide

Type code

DMES - 25 - 500 - KF - GK - SH - - AX

Type	
DMES	Positioning axis
Size	
Stroke [mm]	
Guide	
KF	Recirculating ball bearing guide
Slide	
GK	Standard slide
GV	Extended slide
GA	Protected version
Slide attachment position	
SV	Front
SH	Rear
Additional slide	
KL	Left
KR	Right
Motor unit	
AX	Motor unit and axial kit
U	Motor unit and parallel kit

Positioning axes DMES-KF, with recirculating ball bearing guide

Type code

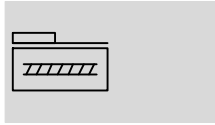
→	: ZUB	-		2X	2M		Z	2T	L
Accessories									
ZUB	Accessories supplied loose								
Slot cover									
...S	Sensor slot								
...B	Mounting slot								
Slot nut									
...Y	For mounting slot								
...X	For slide								
Central support									
...M	Central support								
Foot mounting									
...F	Foot mounting								
Centring sleeves									
...Z	For slide								
Mounting bracket									
...T	For inductive proximity sensors								
Switching lug									
L	Switching lug								

Positioning axes DMES-KF, with recirculating ball bearing guide

FESTO



Technical data

Function



 www.festo.com



-  Size
18 ... 63
-  Stroke length
50 ... 1,800 mm

General technical data					
Size		18	25	40	63
Design		Electromechanical linear axis with lead-screw spindle			
Guide		With recirculating ball bearing guide			
Assembly position		Any			
Working stroke	[mm]	50 ... 400	50 ... 700	50 ... 1200	50 ... 1800
Max. feed force F_x	[N]	240	500	1000	3000
Max. driving torque	[Nm]	0.3	0.9	3	14
Max. no-load driving torque ¹⁾	[Nm]	0.07	0.2	0.45	1.1
Max. radial force ²⁾	[N]	40	75	250	800
Max. speed	[m/s]	0.05			
Max. acceleration	[m/s ²]	2.5			
Repetition accuracy	[mm]	±0.05			±0.07
Positioning rigidity	[N/mm]	1700	2300	4200	5600
Duty cycle	[%]	100			
Reversing backlash ³⁾	[mm]	< 0.1			

- 1) Measured at a speed of 200 rpm.
- 2) On drive shaft
- 3) In new condition

Operating and environmental conditions		
Ambient temperature ¹⁾	[°C]	0 ... +50
Protection class		IP40

- 1) Note operating range of proximity sensors

Weights [kg]					
Size		18	25	40	63
Basic weight with 0 mm stroke ¹⁾	GK	0.93	1.70	5.06	16.48
	GV	1.37	2.61	8.06	27.14
	GA	1.65	2.90	8.14	–
Additional weight per 100 mm stroke	GK	0.294	0.547	1.170	2.958
	GV	0.294	0.547	1.170	2.958
	GA	0.369	0.638	1.294	–
Moving load	GK	0.38	0.66	1.83	5.29
	GV	0.56	0.99	2.72	7.88
	GA	0.81	1.30	3.24	–
Additional slide	KL/KR	0.29	0.440	1.21	3.55

- 1) Without coupling housing

Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

Mass moment of inertia			18	25	40	63
Size						
J_0	GK	[kg cm ²]	0.0030	0.0158	0.1879	1.8093
	GV	[kg cm ²]	0.0049	0.0265	0.3340	3.2258
	GA	[kg cm ²]	0.0039	0.0212	0.2476	–
j_H per metre stroke		[kg cm ² /m]	0.0210	0.0980	0.8400	5.5600
j_L per kg working load		[kg cm ² /Kg]	0.0006	0.0023	0.0041	0.0091
j_W for additional slide		[kg cm ²]	0.0002	0.0010	0.0049	0.0324

The mass moment of inertia J_A of the entire axis is calculated as follows:

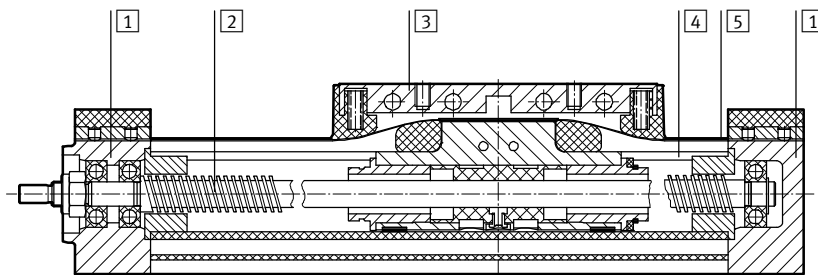
$$J_A = J_0 + j_H \times \text{working stroke [m]} + j_L \times m_{\text{working load [kg]}} + i \times j_W$$

i = Number of additional slides

Spindle					
Size		18	25	40	63
Diameter	[mm]	8	12	20	32
Pitch	[mm/rev.]	1.5	2.5	4	6

Materials

Sectional view



Positioning axis		
1	Cover	Wrought aluminium alloy, anodised
2	Spindle	Steel
3	Piston, driver	Wrought aluminium alloy, anodised
4	Profile	Wrought aluminium alloy, anodised
5	Cover strip	High-alloy stainless steel
–	Guide rail for KF	Hardened steel

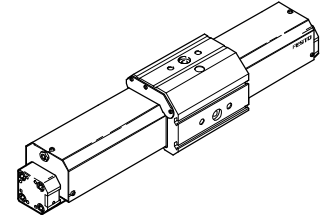
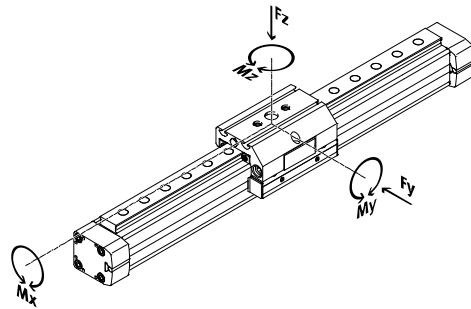
Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data



Characteristic load values for axis with standard slide GK or protected version GA

The indicated forces and torques refer to the centre of the guide rail. They must not be exceeded during dynamic operation. Special attention must be paid to the cushioning phase.



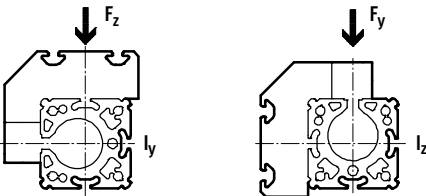
If the axis is subjected to more than two of the indicated forces and torques simultaneously, the following equation must be satisfied in addition to the indicated maximum loads:

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

Permissible forces and torques

Size		18	25	40	63
F _y _{max.}	[N]	930	2600	4300	6600
F _z _{max.}	[N]	930	2600	4300	6600
M _x _{max.}	[Nm]	7	45	160	400
M _y _{max.}	[Nm]	23	85	330	910
M _z _{max.}	[Nm]	23	85	330	910

2nd moment of area



Size		18	25	40	63
I _y	[cm ⁴]	14.37	47.60	176.24	992.06
I _z	[cm ⁴]	7.16	23.34	95.43	693.35

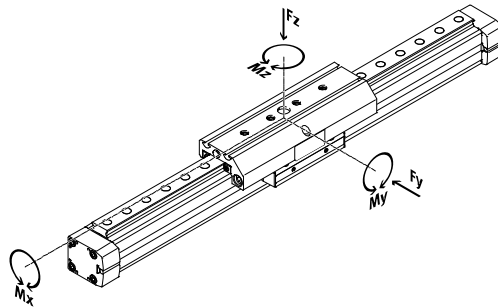
- - Note
Sizing software
PositioningDrives
→ www.festo.com

Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

Characteristic load values for axis with extended slide GV

The indicated forces and torques refer to the centre of the guide rail. They must not be exceeded during dynamic operation. Special attention must be paid to the cushioning phase.

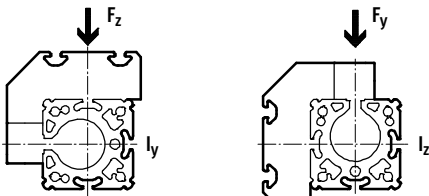


If the axis is subjected to more than two of the indicated forces and torques simultaneously, the following equation must be satisfied in addition to the indicated maximum loads:

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

Permissible forces and torques					
Size		18	25	40	63
F _{y_{max.}}	[N]	930	3080	7300	13900
F _{z_{max.}}	[N]	930	3080	7300	14050
M _{x_{max.}}	[Nm]	7	45	170	580
M _{y_{max.}}	[Nm]	45	170	660	1820
M _{z_{max.}}	[Nm]	45	170	660	1820

2nd moment of area



Size		18	25	40	63
I _y	[cm ⁴]	14.37	47.60	176.24	992.06
I _z	[cm ⁴]	7.16	23.34	95.43	693.35

Positioning axes DMES-KF, with recirculating ball bearing guide

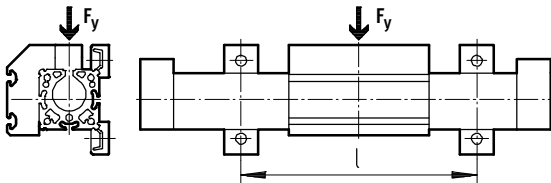
Technical data



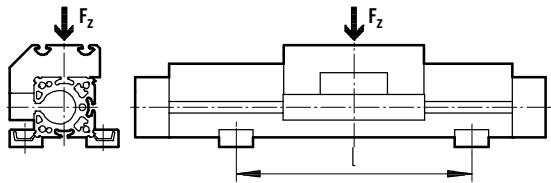
Deflection of the positioning axis as a function of the working load F and the support span l

The following diagrams can be used to determine the deflection of a positioning axis supported externally at both ends (see drawing below). A differentiation is made between two load directions. The axis may also need to be supported with central supports MUP in order to limit deflection in the case of large strokes.

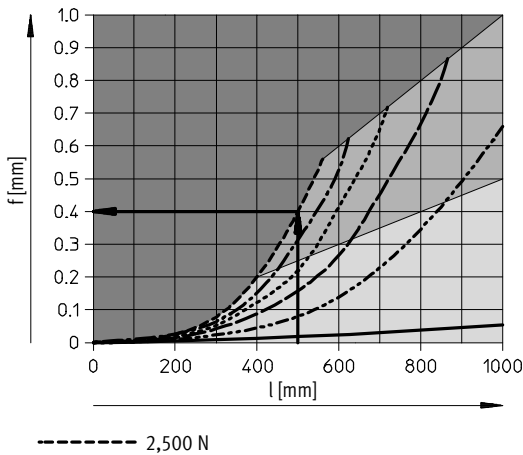
Deflection along the y-axis



Deflection along the z-axis



Example showing how to determine deflection



Given:

Positioning axis
DMES-25-700-KF-...

Working stroke = 700 mm
Total length of the positioning axis, dimensional drawing \rightarrow 29
700 mm + 175 mm = 875 mm
Working load F = 2500 N
Support span l = 500 mm

Procedure:

A support span of 500 mm (see X-axis) and a working load of 2500 N (see characteristic curve) produces a deflection of 0.4 mm.

Note:

The slide may not be moved under this load as the operating point is in the static area of the diagram. In order to be able to operate the slide dynamically, the support span must be reduced to 400 mm.

To be found:

Deflection f

- Impermissible range:** The positioning axis may not be used.
- Static range:** The slide must not be moved under load.
- Static and dynamic range:** The slide must be moved under load.

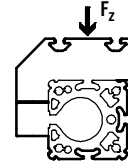
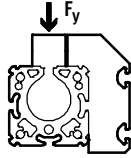
Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

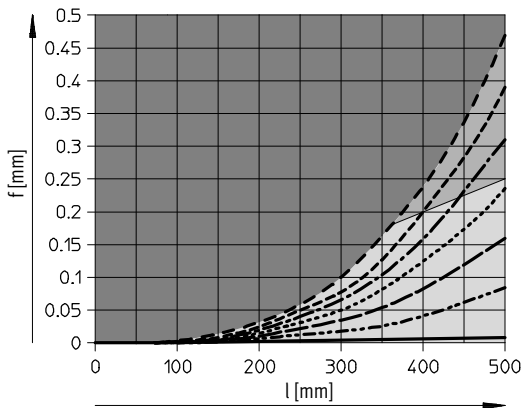
Deflection of the positioning axis as a function of the working load F and the working stroke l

Along the y-axis

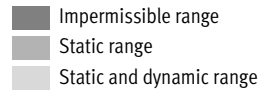
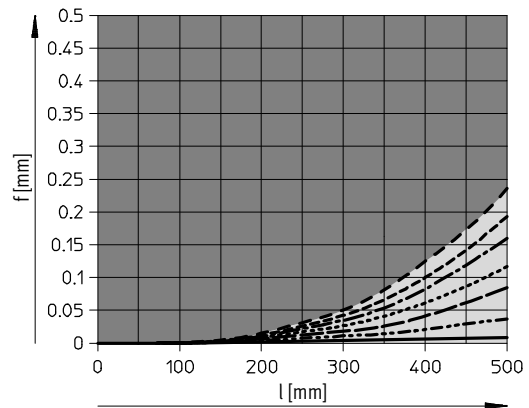
Along the z-axis



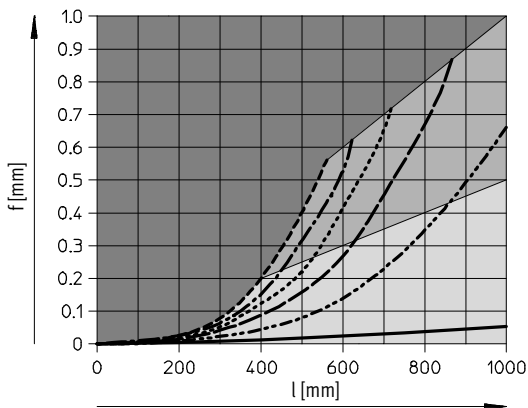
DMES-18



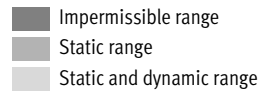
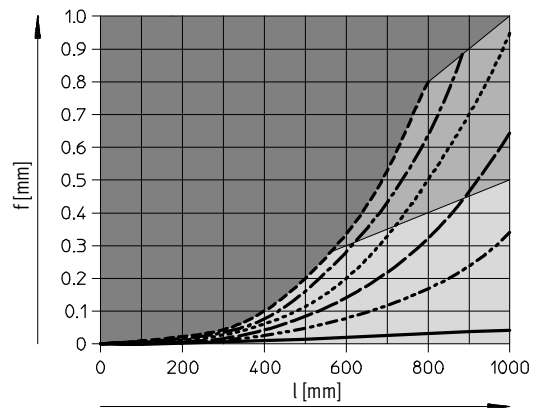
DMES-18



DMES-25



DMES-25



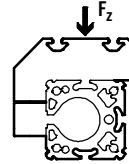
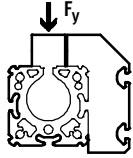
Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

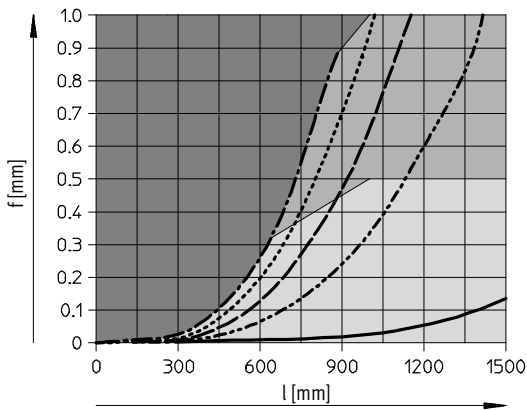
Deflection of the positioning axis as a function of the working load F and the working stroke l

Along the y-axis

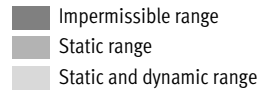
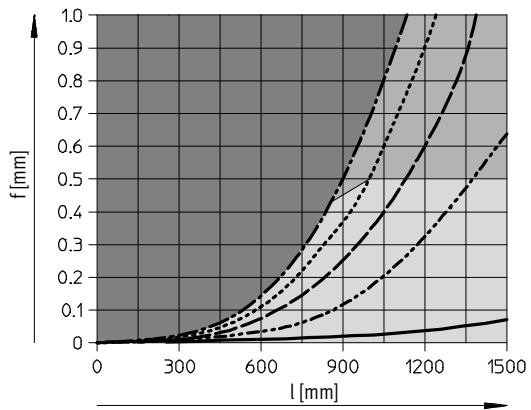
Along the z-axis



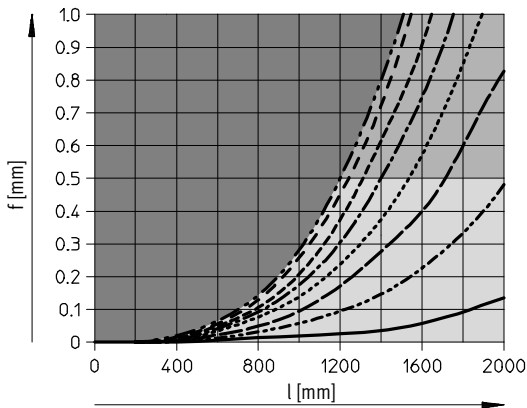
DMES-40



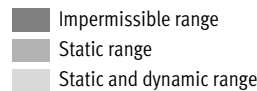
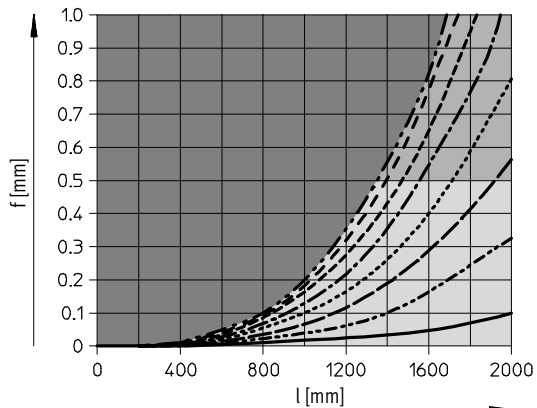
DMES-40



DMES-63



DMES-63

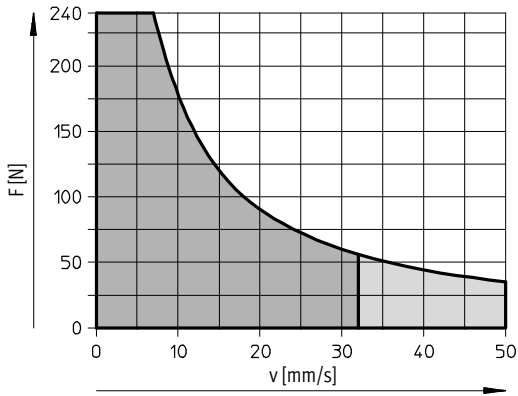


Positioning axes DMES-KF, with recirculating ball bearing guide

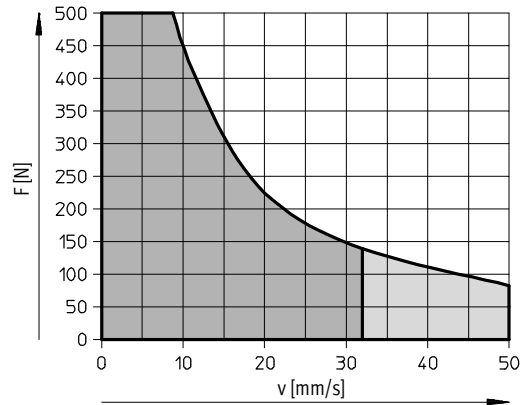
Technical data

Maximum permissible feed force F as a function of the feed speed v

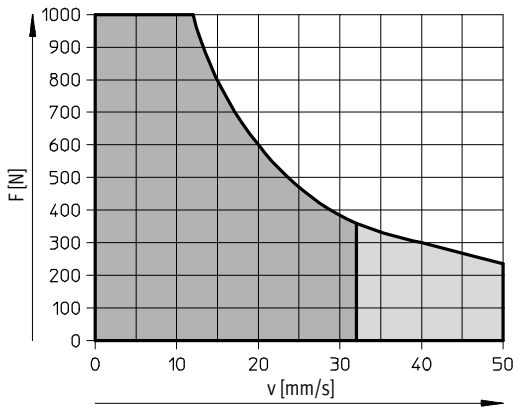
DMES-18



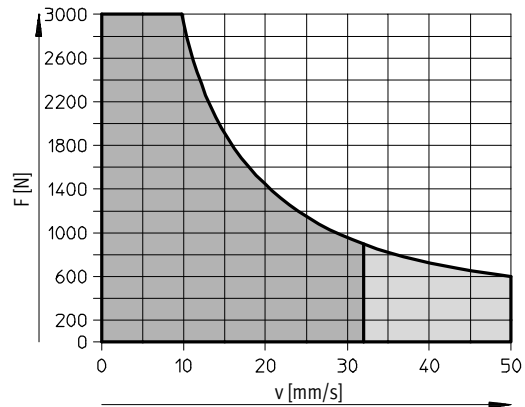
DMES-25



DMES-40



DMES-63



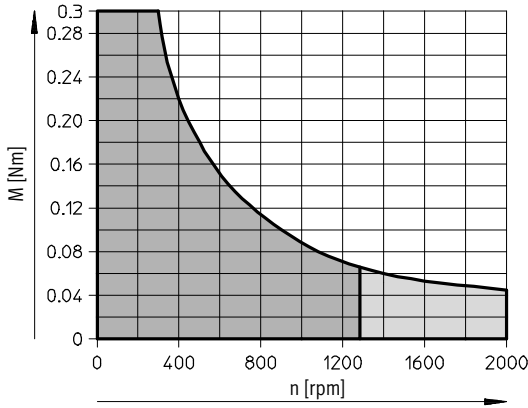
- Recommended operating range
- Permissible operating range (duty cycle < 50% recommended)

Positioning axes DMES-KF, with recirculating ball bearing guide

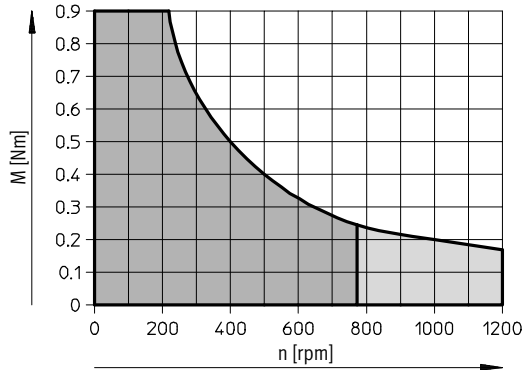
Technical data

Maximum permissible driving torque M as a function of n (rpm)

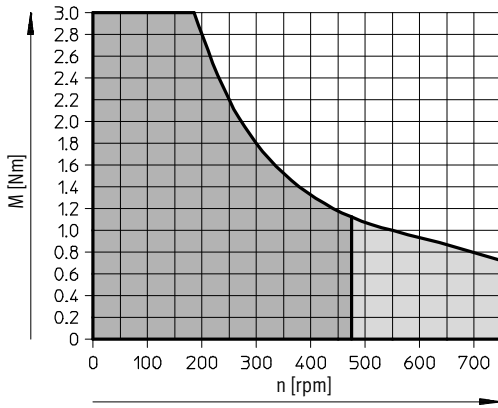
DMES-18



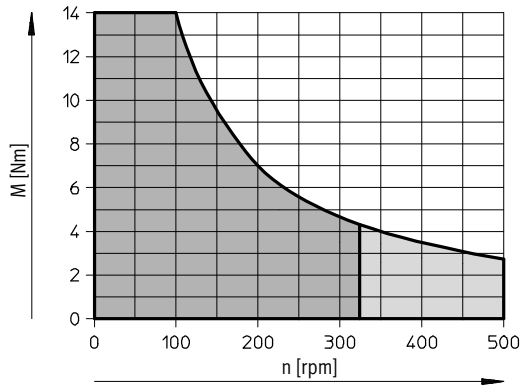
DMES-25



DMES-40

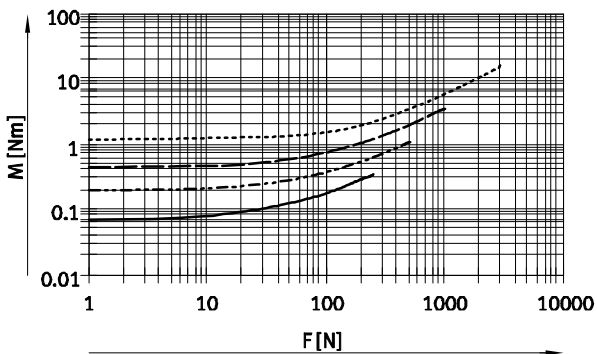


DMES-63

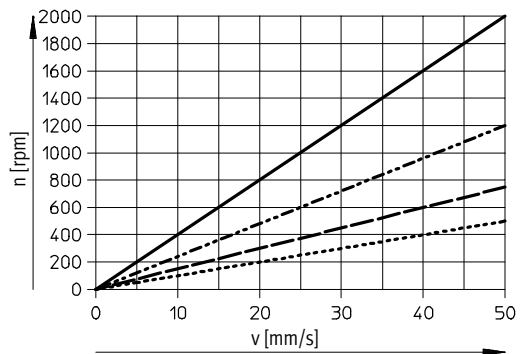


- Recommended operating range
- Permissible operating range (duty cycle < 50% recommended)

Driving torque M as a function of the feed force F



Speed as a function of the feed speed v



- DMES-18
- - - - - DMES-25
- · - · - DMES-40
- · - · - DMES-63

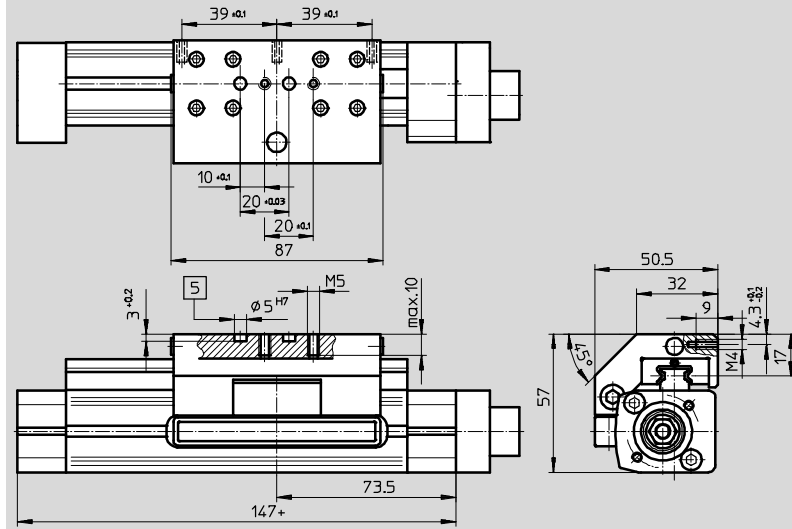
Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

Dimensions Download CAD data → www.festo.com

Standard slide GK

Size 18

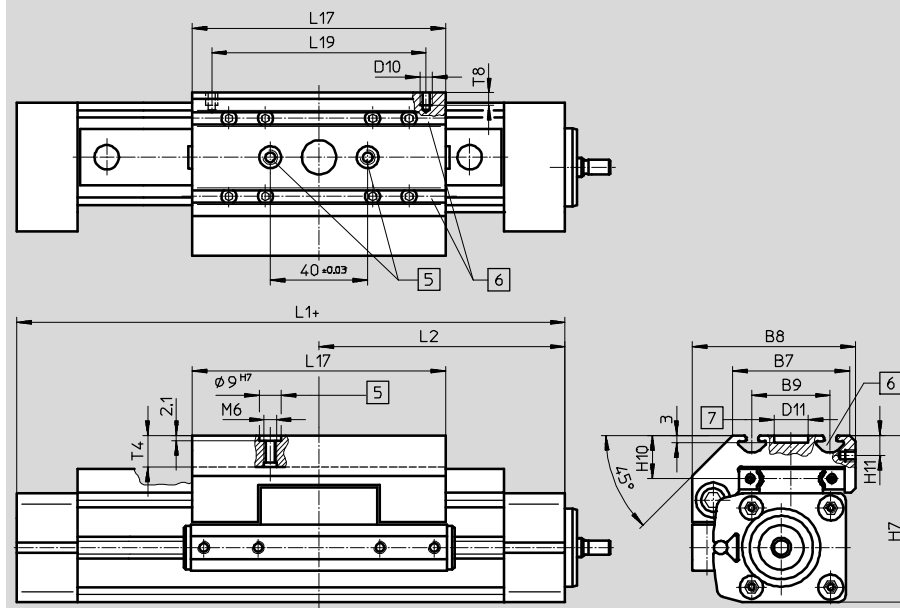


5 Hole for centring pin ZBS-5

Basic dimensions

→ 11

Size 25/40/63



5 Hole for centring pin ZBH-9

6 Mounting slot for slot nut NSTL

7 Hole for central mounting SLZZ

+ = plus stroke length

Basic dimensions

→ 11

Size	B7	B8	B9	D10	D11	H7	H10	H11	L1	L2	L17	L19	T4	T8
			± 0.2		ϕ G7			$+0.3$				± 0.1	max.	
25	48	67	32	M5	14	68.5	18.5	8.2	175	87.5	105	88	12.5	8.5
40	78.5	96.5	55	M5	25	90.5	20	7	250	126	167	150	12.5	8.5
63	121	142	90	M8	25	144.5	30	12.5	328	164	230	200	20.5	10.5

Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

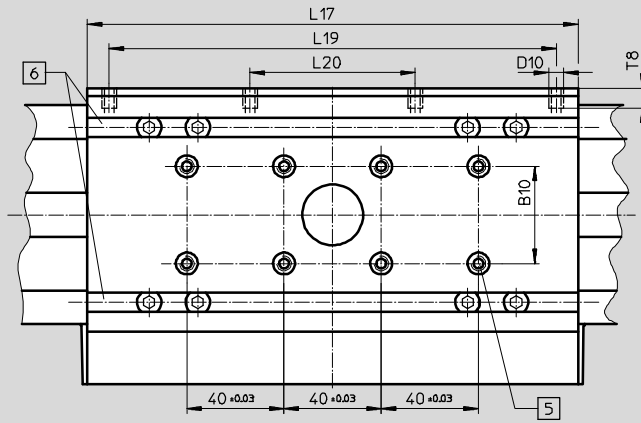


Dimensions

Download CAD data → www.festo.com

Standard slide GK

Size 40/63



- 5 Hole for centring pin ZBH-9
- 6 Mounting slot for slot nut NSTL
- + = plus stroke length

Size	D10	L17	L19	L20	T8
			±0.1	±0.1	
25	M5	105	88	-	8.5
40	M5	167	150	58	8.5
63	M8	230	200	72	10.5

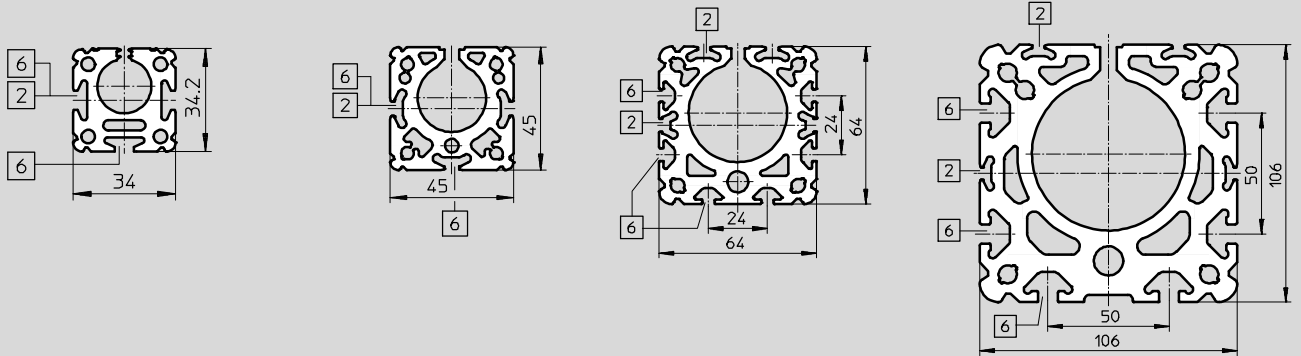
Profile

Size 18

Size 25

Size 40

Size 63



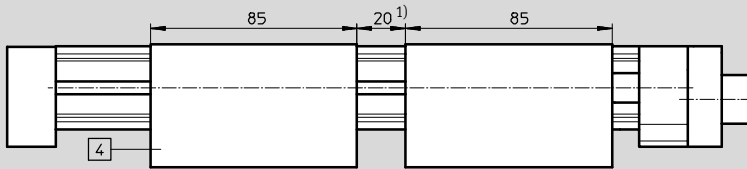
- 2 Sensor slot for proximity sensor
- 6 Mounting slot for slot nut NST

Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

Additional slide KL/KR

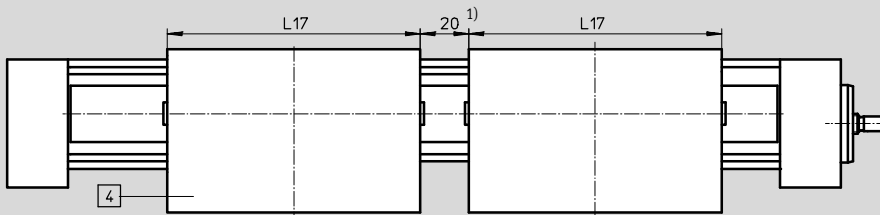
Size 18



4 Additional slide
DMES-...-KL/KR

1) Recommended minimum distance for access to lubrication nipple

Size 25/40/63



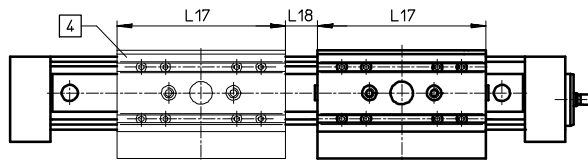
4 Additional slide
DMES-...-KL/KR

1) Recommended minimum distance for access to lubrication nipple

Size	L17
18	85
25	105
40	167
63	230

Working stroke reduction with standard slide GK or extended slide GV and additional slide KL/KR

- L17 = Slide/additional slide length
- L18 = Distance between both slides
- 4 Additional slide



For a toothed belt axis with additional slide, the working stroke is reduced by the length of the additional slide and the distance between both slides.

Example:
 Type DMES-25-500-KF-GK ... KL
 Working stroke without additional slide = 500 mm
 L18 = 20 mm
 L17 = 105 mm
 Working stroke with additional slide = 375 mm
 (500 mm – 20 mm – 105 mm)

Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

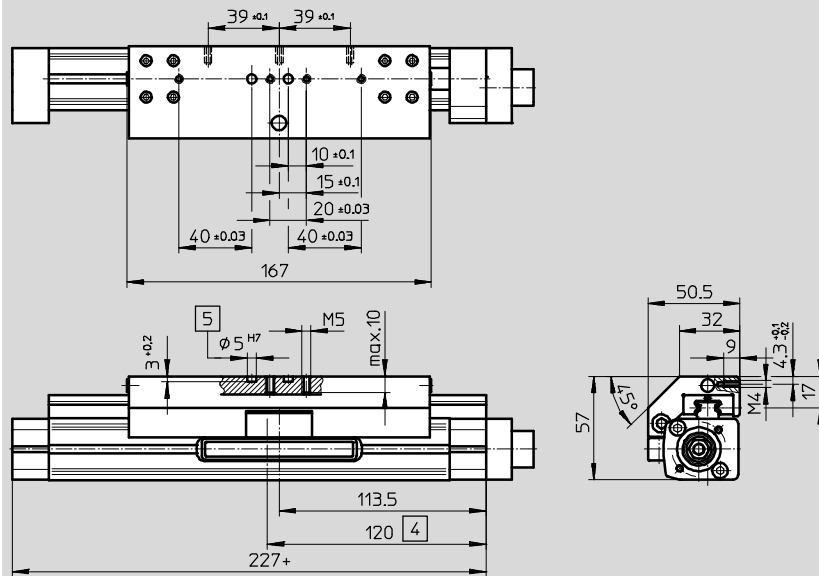
FESTO

Dimensions

Download CAD data → www.festo.com

Extended slide GV

Size 18



- 4 Lubrication opening
- 5 Hole for centring pin ZBS-5
- + = plus stroke length

Basic dimensions
→ 11

Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

Dimensions Download CAD data → www.festo.com

Extended slide GV

Size 25/40/63

Size 40

Size	B7	B8	B9	B10	D10	D11	H7	H10	H11
			±0.2			∅ G7			+0.3
25	48	67	32	–	M5	14	68.5	18.5	8.2
40	78.5	96.5	55	20	M5	25	90.5	20	7
63	121	142	90	40	M8	25	144.5	30	12.5

Size	L1	L2	L11	L17	L19	L20	L21	T4	T8
				±0.1	±0.1	±0.1	±0.1	max.	
25	275	137.5	155	205	88	–	–	12.5	8.5
40	420	211	236	337	150	58	40	12.5	8.5
63	578	289	321	480	200	72	120	20.5	10.5

Positioning axes DMES-KF, with recirculating ball bearing guide

Technical data

Dimensions Download CAD data → www.festo.com

Protected version GA

Size 18

4 Lubrication opening
 + = plus stroke length

Size 25

4 Lubrication opening
 + = plus stroke length

Positioning axes DMES-KF, with recirculating ball bearing guide

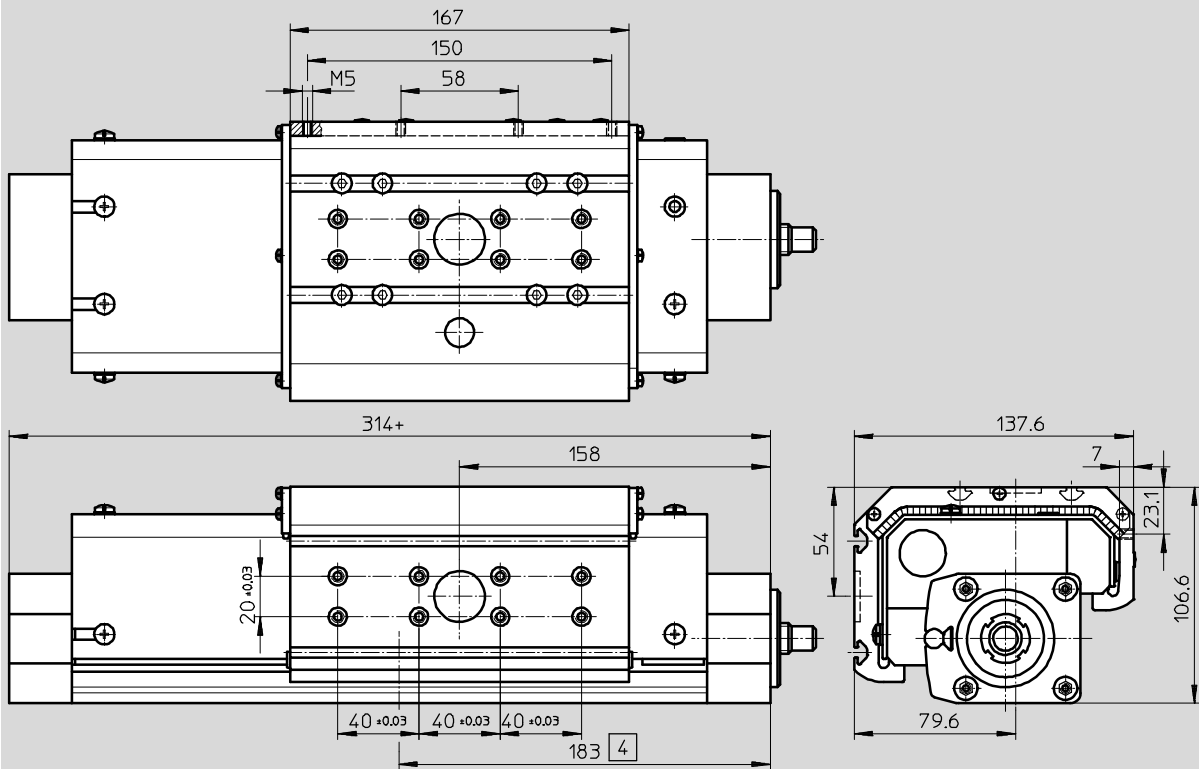
Technical data

Dimensions

Download CAD data → www.festo.com

Protected version GA

Size 40



4 Lubrication opening
+ = plus stroke length

Positioning axes DMES-KF, with recirculating ball bearing guide

Ordering data – Modular products



Order processing for positioning axis DMES in combination with intelligent motor unit MTR-DCI

1 Ordering positioning axis DMES Ordering table → 38

The drive unit and corresponding accessories are configured in the ordering table for the positioning axis DMES.

The code “AX” or “U” is used to specify whether an intelligent motor unit MTR-DCI and an axial or a parallel kit are required for the positioning axis.

The motor unit design must be defined separately.

Module No.	Motor unit	Size	Stroke	Control cable	Guide	Mounting interface	Additional kit	Motor unit	Accessories	Accessories supplied
533 449	MTR-DCI	25	25 - 1,800	67	67	70	66	42		J, K, L
533 700		25		67	67	70	66			J, K, L
533 701		40								J, K, L
533 702		63								J, K, L
533 703	MTR-DCI	40	40 - 1,800	67	67	70	66	42		J, K, L

Module No.	Motor unit	Size	Stroke	Control cable	Guide	Mounting interface	Additional kit	Motor unit	Accessories	Accessories supplied
533 449	MTR-DCI	25	25 - 1,800	67	67	70	66	42		J, K, L
533 700		25		67	67	70	66			J, K, L
533 701		40								J, K, L
533 702		63								J, K, L
533 703	MTR-DCI	40	40 - 1,800	67	67	70	66	42		J, K, L

3 Ordering intelligent motor unit MTR-DCI Ordering table → 9

The motor unit order code determined from table 2 must now be completed with the “gear unit” and “parameterisation interface” codes.

The module number of the intelligent motor unit must not be specified when ordering with order code “AX” or “U”. It is determined automatically.

Module No.	Motor unit	Type of motor	Flange size	Flange base	Rated voltage	Plug design	Encoder	Gear unit	Parameterisation interface	Electrical connection technology
424	424	DC	50	50	24	DC	4	67	42	42
425	425	DC	50	50	24	DC	4	67	42	42
426	426	DC	50	50	24	DC	4	67	42	42
427	427	DC	50	50	24	DC	4	67	42	42
428	428	DC	50	50	24	DC	4	67	42	42
429	429	DC	50	50	24	DC	4	67	42	42
430	430	DC	50	50	24	DC	4	67	42	42
431	431	DC	50	50	24	DC	4	67	42	42
432	432	DC	50	50	24	DC	4	67	42	42
433	433	DC	50	50	24	DC	4	67	42	42
434	434	DC	50	50	24	DC	4	67	42	42
435	435	DC	50	50	24	DC	4	67	42	42
436	436	DC	50	50	24	DC	4	67	42	42
437	437	DC	50	50	24	DC	4	67	42	42
438	438	DC	50	50	24	DC	4	67	42	42
439	439	DC	50	50	24	DC	4	67	42	42
440	440	DC	50	50	24	DC	4	67	42	42
441	441	DC	50	50	24	DC	4	67	42	42
442	442	DC	50	50	24	DC	4	67	42	42
443	443	DC	50	50	24	DC	4	67	42	42
444	444	DC	50	50	24	DC	4	67	42	42
445	445	DC	50	50	24	DC	4	67	42	42
446	446	DC	50	50	24	DC	4	67	42	42
447	447	DC	50	50	24	DC	4	67	42	42
448	448	DC	50	50	24	DC	4	67	42	42
449	449	DC	50	50	24	DC	4	67	42	42
450	450	DC	50	50	24	DC	4	67	42	42
451	451	DC	50	50	24	DC	4	67	42	42
452	452	DC	50	50	24	DC	4	67	42	42
453	453	DC	50	50	24	DC	4	67	42	42
454	454	DC	50	50	24	DC	4	67	42	42
455	455	DC	50	50	24	DC	4	67	42	42
456	456	DC	50	50	24	DC	4	67	42	42
457	457	DC	50	50	24	DC	4	67	42	42
458	458	DC	50	50	24	DC	4	67	42	42
459	459	DC	50	50	24	DC	4	67	42	42
460	460	DC	50	50	24	DC	4	67	42	42
461	461	DC	50	50	24	DC	4	67	42	42
462	462	DC	50	50	24	DC	4	67	42	42
463	463	DC	50	50	24	DC	4	67	42	42
464	464	DC	50	50	24	DC	4	67	42	42
465	465	DC	50	50	24	DC	4	67	42	42
466	466	DC	50	50	24	DC	4	67	42	42
467	467	DC	50	50	24	DC	4	67	42	42
468	468	DC	50	50	24	DC	4	67	42	42
469	469	DC	50	50	24	DC	4	67	42	42
470	470	DC	50	50	24	DC	4	67	42	42
471	471	DC	50	50	24	DC	4	67	42	42
472	472	DC	50	50	24	DC	4	67	42	42
473	473	DC	50	50	24	DC	4	67	42	42
474	474	DC	50	50	24	DC	4	67	42	42
475	475	DC	50	50	24	DC	4	67	42	42
476	476	DC	50	50	24	DC	4	67	42	42
477	477	DC	50	50	24	DC	4	67	42	42
478	478	DC	50	50	24	DC	4	67	42	42
479	479	DC	50	50	24	DC	4	67	42	42
480	480	DC	50	50	24	DC	4	67	42	42
481	481	DC	50	50	24	DC	4	67	42	42
482	482	DC	50	50	24	DC	4	67	42	42
483	483	DC	50	50	24	DC	4	67	42	42
484	484	DC	50	50	24	DC	4	67	42	42
485	485	DC	50	50	24	DC	4	67	42	42
486	486	DC	50	50	24	DC	4	67	42	42
487	487	DC	50	50	24	DC	4	67	42	42
488	488	DC	50	50	24	DC	4	67	42	42
489	489	DC	50	50	24	DC	4	67	42	42
490	490	DC	50	50	24	DC	4	67	42	42
491	491	DC	50	50	24	DC	4	67	42	42
492	492	DC	50	50	24	DC	4	67	42	42
493	493	DC	50	50	24	DC	4	67	42	42
494	494	DC	50	50	24	DC	4	67	42	42
495	495	DC	50	50	24	DC	4	67	42	42
496	496	DC	50	50	24	DC	4	67	42	42
497	497	DC	50	50	24	DC	4	67	42	42
498	498	DC	50	50	24	DC	4	67	42	42
499	499	DC	50	50	24	DC	4	67	42	42
500	500	DC	50	50	24	DC	4	67	42	42

2 Permissible combinations with intelligent motor unit MTR-DCI

Positioning axis	Motor unit
DMES-18-...	MTR-DCI-32S-VCSC-E...
DMES-25-...	MTR-DCI-42S-VCSC-E...
DMES-40-...	MTR-DCI-52S-VCSC-E...
DMES-63-...	MTR-DCI-62S-VDSC-E...

4 Order example

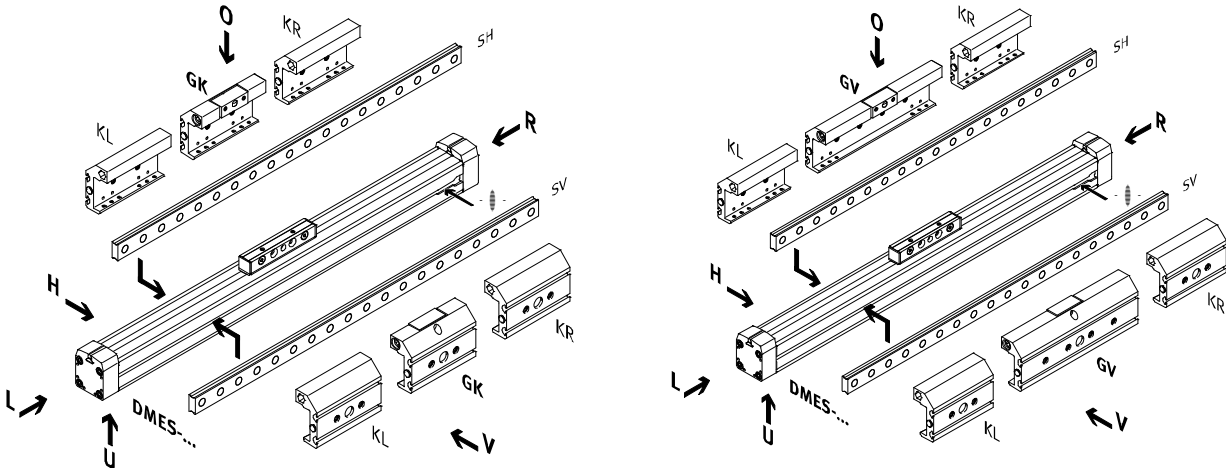
Part No.	Type
	Positioning axis DMES
533700	DMES-25-700-KF-GK-SH-AX:ZUB-2S2Y1M1F
	Intelligent motor unit MTR-DCI
-	MTR-DCI-42S-VCSC-EG7-R2IO

Note
Servo, stepper motors and the corresponding mounting kits must be ordered separately → 40

Positioning axes DMES-KF, with recirculating ball bearing guide

Ordering data – Modular products

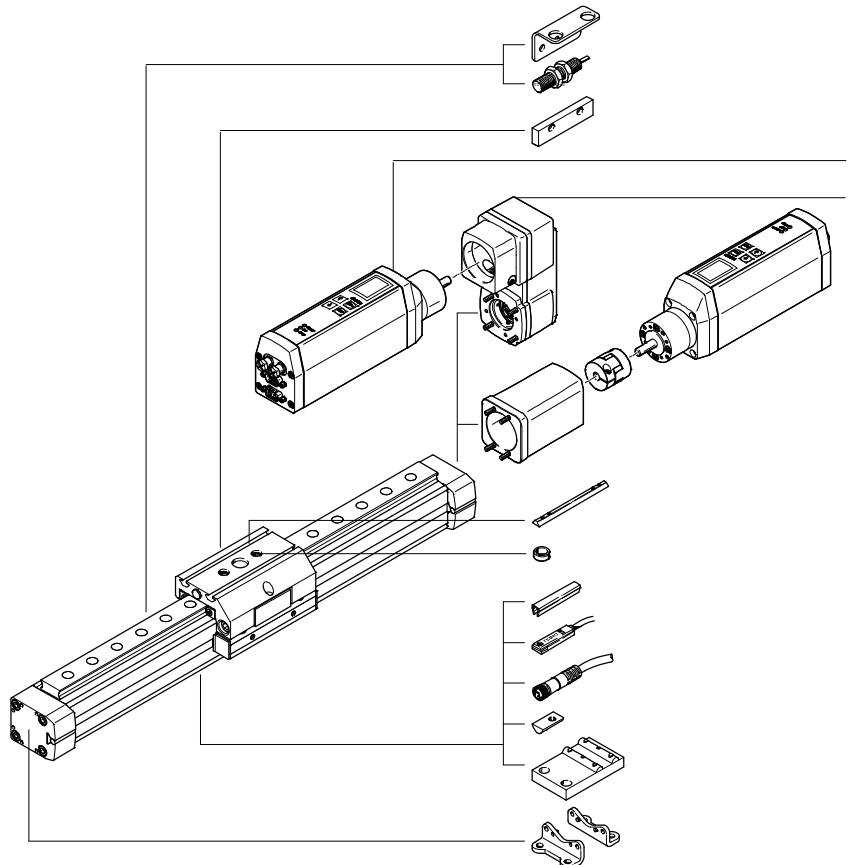
Order code
 Mandatory data
 DMES-...-GK DMES-...-GV



- Note
 The insertion point for the proximity sensor is located on the right-hand side of the positioning axis.

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

Order code
 Options



- T
- 47
- L
- Motor unit U
- Parallel kit
- Motor unit AX
- Axial kit
- X
- Z
- B/S
- 47
- 47
- Y
- M
- F

Positioning axes DMES-KF, with recirculating ball bearing guide



Ordering data – Modular products

Mandatory data			Options				
Module No.	Function	Stroke	Guide	Slide attachment position	Motor unit	Accessories	
	Size		Slide	Additional slide		Accessories supplied loose	
533699	DMES 18	50 ... 1800	KF	SV	AX	...S, ...B, ...Y, ...X, ...M, ...F, ...Z, ...T, L	
533700	25		GK	SH	U		
533701	40		GV	KL			
533702	63		GA	KR			
Order example							
533701	DMES - 40	- 800	- KF	- GV	- SV	- KL	- : ZUB - 2X2M20Z
MTR-DCI-...S-VCSC-E...-...IO							

Ordering table							
Size	18	25	40	63	Condi- tions	Code	Enter code
M Module No.	533699	533700	533701	533702			
Function	Positioning axis with slide					DMES	DMES
Size	18	25	40	63		-...	
Stroke [mm]	50 ... 400	50 ... 700	50 ... 1200	50 ... 1800		-...	
Guide	Recirculating ball bearing guide				1	-KF	-KF
Slide	Standard slide				2	-GK	
	Extended slide				2	-GV	
	Protected version				2	-GA	
Slide attachment position	Slide at front				2	-SV	
	Slide at rear				2	-SH	
Additional slide	Additional slide, standard, at left				3	-KL	
	Additional slide, standard, at right				3	-KR	
Motor unit	Axial kit and motor unit (enclosed separately)				4	-AX	
	Parallel kit and motor unit (enclosed separately)				4	-U	
Accessories	Supplied separately					:ZUB-	:ZUB-
Slot cover	Sensor slot	1 ... 10				...S	
	Mounting slot	-	-	1 ... 10		...B	
Slot nut	Mounting slot	1 ... 10				...Y	
	Slide	-	1 ... 10		2	...X	
Central support	1 ... 10					...M	
Foot mounting	1 ... 10					...F	
Centring sleeve (pack of 10)	10 ... 90				2	...Z	
Mounting bracket for inductive proximity sensors	1 ... 5				5	...T	
Switching lug	1				5	L	

1 KF Only with slide GK, GV or GA and with slide attachment position SV or SH.

2 GK, GV, GA, SV, SH, X, Z

Only with guide KF

M Mandatory data

3 KL, KR

Only with guide KF (recirculating ball bearing guide) and with slide GK or GV

O Options

4 AX, U

Order processing for intelligent motor unit MTR-DCI → 9

5 T, L

Only with slide GK or GV

Transfer order code

DMES - **KF** - - - - - - - : **ZUB** -

MTR-DCI-...S-VCSC-E...-...IO

Motor units MTR-DCI, intelligent servo motors

Ordering data – Modular products

FESTO

Positioning axes DMES

Accessories – Motor units MTR-DCI



M Mandatory data										
Module No.	Motor unit		Flange/size		Nominal voltage		Measuring system		Parameterisation interface	
	Motor type		Torque class		Plug design		Gearing unit		Electrical connection technology	
533 736	MTR	DCI	32	S	VC	SC	E	G7	R2	IO
533 742			42		VD			G14	H2	CO
533 748			52					G22		PB
533 754			62							DN
Order example										
533742	MTR	- DCI	- 42	S	- VC	SC	- E	G7	- R2	IO

Ordering table										
Size	32	42	52	62	Condi- tions	Code	Enter code			
M Module No.	533 736	533 742	533 748	533 754						
Motor unit	Motor unit						MTR			MTR
Motor type	DC servo motor with integrated position controller						-DCI			-DCI
Flange/size	32	42	52	62		-...				
Torque class	Standard torque class						S			S
Nominal voltage	[V] 24 DC				-		-VC			
	[V] -				48 DC		-VD			
Plug design	Straight plug						SC			SC
Measuring system	Encoder						-E			-E
Gearing unit	Integrated planetary gearing i = 6.75						G7			
	Integrated planetary gearing i = 13.73						G14			
				Integrated planetary gearing i = 22.21			G22			
Parameterisation interface	RS232 interface						-R2			
	RS232 interface + control panel						-H2			
Electrical connection technology	I/O interface						IO			
	CANopen						CO			
	Profibus DP						PB			
	DeviceNet						DN			


Transfer order code

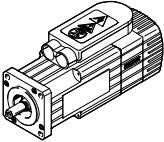
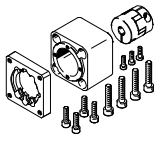


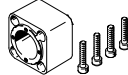
	MTR	-	DCI		S		SC	-	E			-		
--	------------	---	------------	--	----------	--	-----------	---	----------	--	--	---	--	--

PROFIBUS®, DeviceNet®, CANopen® is a registered trademark of its respective trademark holder in certain countries.

Positioning axes DMES

Accessories

 Note
Depending on the combination of motor and drive, it may not be possible to reach the maximum feed force of the drive. The respective no-load driving torque of the kit must be taken into consideration when using parallel kits.

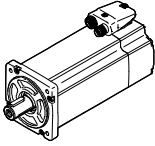
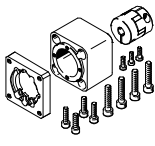


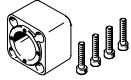
Permissible axis/motor combinations with axial kit – Without gear unit					Technical data → Internet: eamm-a
Motor ¹⁾	Axial kit	Axial kit comprises:			
		Motor flange	Coupling	Coupling housing	
					
Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
DMES-18					
With servo motor					
EMMS-AS-40-...	550961 EAMM-A-E20-40A	552163 EAMF-A-28B-40A	540751 EAMC-B-15-22-5-6	170374 EAMK-A-E20-28B	
EMMS-AS-55-...	550963 EAMM-A-E20-55A	529946 EAMF-A-28A/B-55A	529953 EAMC-B-15-22-5-9	170374 EAMK-A-E20-28B	
With stepper motor					
EMMS-ST-42-...	550962 EAMM-A-E20-42A	552164 EAMF-A-28B-42A	530085 EAMC-B-15-22-5-5	170374 EAMK-A-E20-28B	
With motor unit					
MTR-DCI-32S-...	556991 EAMM-A-E20-32B	–	533707 EAMC-15-20-5-6	533703 EAMK-A-E20-32B	
DMES-25					
With servo motor					
EMMS-AS-40-...	550964 EAMM-A-E32-40A	550985 EAMF-A-44A/B-40A	123040 EAMC-30-35-6-6	124631 EAMK-A-E32-44A	
EMMS-AS-55-...	550965 EAMM-A-E32-55A	529942 EAMF-A-44A/B-55A	530941 EAMC-30-35-6-9	124631 EAMK-A-E32-44A	
With stepper motor					
EMMS-ST-57-...	550966 EAMM-A-E32-57A	530081 EAMF-A-44A/B-57A	530087 EAMC-30-35-6-6.35	124631 EAMK-A-E32-44A	
With integrated drive					
EMCA-EC-67-...	1454246 EAMM-A-E32-67A	1476305 EAMF-A-44A/B/C-67A-S1	530941 EAMC-30-35-6-9	124631 EAMK-A-E32-44A	
With motor unit					
MTR-DCI-42S-...G7	556992 EAMM-A-E32-42B	–	533708 EAMC-30-32-6-8	533704 EAMK-A-E32-42B	
MTR-DCI-42S-...G14	556993 EAMM-A-E32-42C	–	533708 EAMC-30-32-6-8	538578 EAMK-A-E32-42C	

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

Positioning axes DMES

Accessories

FESTO

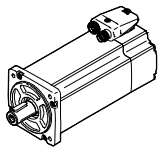
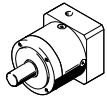
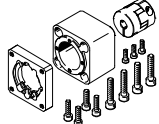
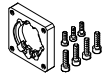

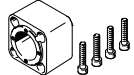
Permissible axis/motor combinations with axial kit – Without gear unit					Technical data → Internet: eamm-a
Motor ¹⁾	Axial kit	Axial kit comprises:			
		Motor flange	Coupling	Coupling housing	
					
Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
DMES-40					
With servo motor					
EMMS-AS-70-...	557448 EAMM-A-E48-64A-70A	529945 EAMF-A-64A/B-70A	525864 EAMC-40-66-11-12	529940 EAMK-A-E48-64A	
EMME-AS-100-...	550973 EAMM-A-E48-100A	529947 EAMF-A-64A/C/D-100A	529952 EAMC-40-66-12-19	529940 EAMK-A-E48-64A	
EMMS-AS-100-...	550973 EAMM-A-E48-100A	529947 EAMF-A-64A/C/D-100A	529952 EAMC-40-66-12-19	529940 EAMK-A-E48-64A	
With stepper motor					
EMMS-ST-57-...	550970 EAMM-A-E48-57A	530081 EAMF-A-44A/B-57A	550995 EAMC-30-35-6.35-12	124632 EAMK-A-E48-44A	
EMMS-ST-87-...	550972 EAMM-A-E48-87A	533140 EAMF-A-64A/B-87A	525864 EAMC-40-66-11-12	529940 EAMK-A-E48-64A	
With integrated drive					
EMCA-EC-67-...	1454248 EAMM-A-E48-67A	1460114 EAMF-A-64A/B-67A-S1	1731999 EAMC-40-66-9-12	529940 EAMK-A-E48-64A	
With motor unit					
MTR-DCI-52S-...-G7	556994 EAMM-A-E48-52B	–	533709 EAMC-42-50-12-12	533705 EAMK-A-E48-52B	
MTR-DCI-52S-...-G14	556995 EAMM-A-E48-52C	–	533709 EAMC-42-50-12-12	538579 EAMK-A-E48-52C	
DMES-63					
With servo motor					
EMMS-AS-70-...	550975 EAMM-A-E72-70A	529945 EAMF-A-64A/B-70A	550999 EAMC-40-66-11-20	529941 EAMK-A-E72-64A	
EMME-AS-100-...	550978 EAMM-A-E72-100A	529947 EAMF-A-64A/C/D-100A	132847 EAMC-40-66-19-20	529941 EAMK-A-E72-64A	
EMMS-AS-100-...	550978 EAMM-A-E72-100A	529947 EAMF-A-64A/C/D-100A	132847 EAMC-40-66-19-20	529941 EAMK-A-E72-64A	
With stepper motor					
EMMS-ST-87-...	550977 EAMM-A-E72-87A	533140 EAMF-A-64A/B-87A	550999 EAMC-40-66-11-20	529941 EAMK-A-E72-64A	
With motor unit					
MTR-DCI-62S-...	556996 EAMM-A-E72-62B	–	533710 EAMC-42-50-14-20	533706 EAMK-A-E72-62B	

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

Positioning axes DMES

Accessories

FESTO

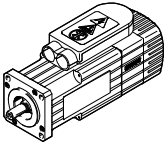
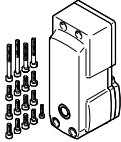
Permissible axis/motor combinations with axial kit – With gear unit						Technical data → Internet: eamm-a
Motor ¹⁾	Gear unit	Axial kit	Axial kit comprises:			
			Motor flange	Coupling	Coupling housing	
						
Type	Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
DMES-25						
With servo motor						
EMME-AS-40-...	EMGA-40-P-G...-EAS-40	1454247 EAMM-A-E32-40G	550986 EAMF-A-44A/B-40G	1453062 EAMC-30-35-6-10	124631 EAMK-A-E32-44A	
EMMS-AS-40-...	EMGA-40-P-G...-SAS-40	1454247 EAMM-A-E32-40G	550986 EAMF-A-44A/B-40G	1453062 EAMC-30-35-6-10	124631 EAMK-A-E32-44A	
With stepper motor						
EMMS-ST-42-...	EMGA-40-P-G...-SST-42	1454247 EAMM-A-E32-40G	550986 EAMF-A-44A/B-40G	1453062 EAMC-30-35-6-10	124631 EAMK-A-E32-44A	
With integrated drive						
EMCA-EC-67-...	EMGC-40-...	1454247 EAMM-A-E32-40G	550986 EAMF-A-44A/B-40G	1453062 EAMC-30-35-6-10	124631 EAMK-A-E32-44A	
DMES-40						
With motor unit						
EMCA-EC-67-...	EMGC-60-...	1454249 EAMM-A-E48-60H	550987 EAMF-A-64A/B-60G/H	1452803 EAMC-40-66-12-14	529940 EAMK-A-E48-64A	
DMES-63						
With servo motor						
EMMS-AS-55-...	EMGA-60-P-G...-SAS-55	550974 EAMM-A-E72-60G	550987 EAMF-A-64A/B-60G/H	550999 EAMC-40-66-11-20	529941 EAMK-A-E72-64A	
EMME-AS-60-...	EMGA-60-P-G...-EAS-60	1454250 EAMM-A-E72-60H	550987 EAMF-A-64A/B-60G/H	1452809 EAMC-40-66-14-20	529941 EAMK-A-E72-64A	
EMMS-AS-70-...	EMGA-60-P-G...-SAS-70	550974 EAMM-A-E72-60G	550987 EAMF-A-64A/B-60G/H	550999 EAMC-40-66-11-20	529941 EAMK-A-E72-64A	
EMMS-AS-70-...	EMGA-80-P-G...-SAS-70	550976 EAMM-A-E72-80G	533139 EAMF-A-64A/C-80G	123849 EAMC-40-66-20-20	529941 EAMK-A-E72-64A	
EMME-AS-80-...	EMGA-80-P-G...-EAS-80	550976 EAMM-A-E72-80G	533139 EAMF-A-64A/C-80G	123849 EAMC-40-66-20-20	529941 EAMK-A-E72-64A	
EMMS-AS-100-...	EMGA-80-P-G...-SAS-100	550976 EAMM-A-E72-80G	533139 EAMF-A-64A/C-80G	123849 EAMC-40-66-20-20	529941 EAMK-A-E72-64A	
With stepper motor						
EMMS-ST-57-...	EMGA-60-P-G...-SST-57	550974 EAMM-A-E72-60G	550987 EAMF-A-64A/B-60G/H	550999 EAMC-40-66-11-20	529941 EAMK-A-E72-64A	
EMMS-ST-87-...	EMGA-80-P-G...-SST-87	550976 EAMM-A-E72-80G	533139 EAMF-A-64A/C-80G	123849 EAMC-40-66-20-20	529941 EAMK-A-E72-64A	
With integrated drive						
EMCA-EC-67-...	EMGC-60-...	1454250 EAMM-A-E72-60H	550987 EAMF-A-64A/B-60G/H	1452809 EAMC-40-66-14-20	529941 EAMK-A-E72-64A	

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

Positioning axes DMES

Accessories

FESTO

Permissible axis/motor combinations with parallel kit – Without gear unit		Technical data → Internet: eamm-u	
Motor ¹⁾	Parallel kit		
			<ul style="list-style-type: none"> • Space-saving gravity die-cast housing • Components can be mounted to the kit facing any direction
Type	Part No.	Type	
DMES-18			
With servo motor			
EMMS-AS-40-...	543226	EAMM-U-E24-40A	
With motor unit			
MTR-DCI-32S-...	543225	EAMM-U-E24-32B	
DMES-25			
With servo motor			
EMMS-AS-55-...	543230	EAMM-U-E32-55A	
With motor unit			
MTR-DCI-42S-...-G7	543228	EAMM-U-E32-42B	
MTR-DCI-42S-...-G14	543229	EAMM-U-E32-42C	
DMES-40			
With servo motor			
EMMS-AS-70-...	543234	EAMM-U-E48-70A	
With motor unit			
MTR-DCI-52S-...-G7	543232	EAMM-U-E48-52B	
MTR-DCI-52S-...-G14	543233	EAMM-U-E48-52C	

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

Positioning axes DMES

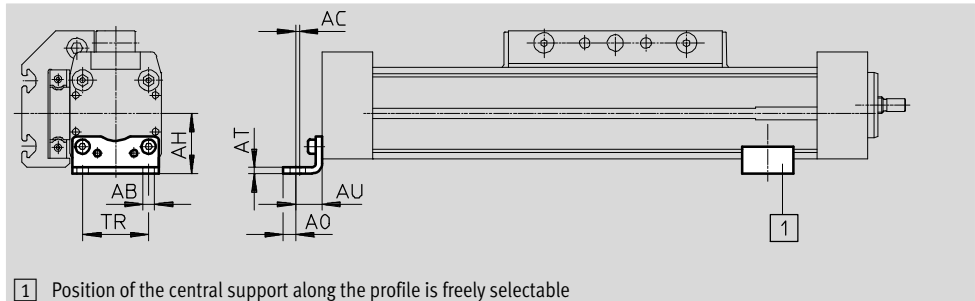
Accessories

Foot mounting HP (order code F)

Materials:
Galvanised steel
Free of copper and PTFE



HP-25



1 Position of the central support along the profile is freely selectable

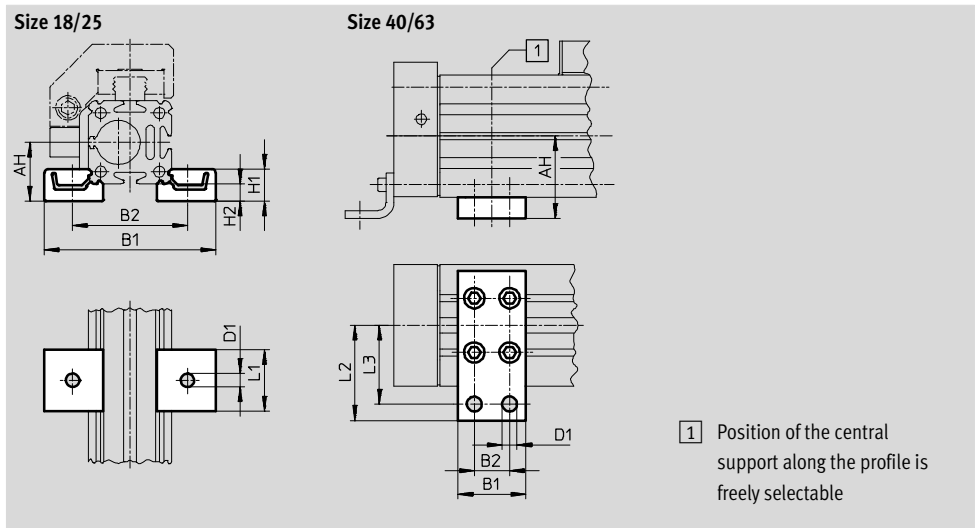
Dimensions and ordering data										
For size	AB ∅	AC	AH	AO	AT	AU	TR	Weight [g]	Part No.	Type
18	5.5	2	24	4.8	3	13.2	24	59	158472	HP-18
25	5.5	2	29.5	6	3	13	32.5	61	150731	HP-25
40	6.6	2	46	8.5	5	17.5	45	188	150733	HP-40
63	11	3	69	13.5	6	28	75	305	150735	HP-63

Central support MUP (order code M)

Materials:
Anodised aluminium
Free of copper and PTFE



MUP-40



1 Position of the central support along the profile is freely selectable

Dimensions and ordering data												
For size	AH	B1	B2	D1 ∅	H1	H2	L1	L2	L3	Weight [g]	Part No.	Type
18	24	70.5	47	5.5	13	7	25	-	-	33	150736	MUP-18/25
25	29.5	81	58	5.5	13	7	25	-	-	33	150736	MUP-18/25
40	46	35	22	6.6	-	-	-	47	40	126	150738	MUP-40
63	69	50	26	11	-	-	-	77	65	340	150800	MUP-63

Positioning axes DMES

Accessories



Sensor bracket HWS

for inductive proximity sensors

(order code T)

Material:

Galvanised steel



Switch lug SF

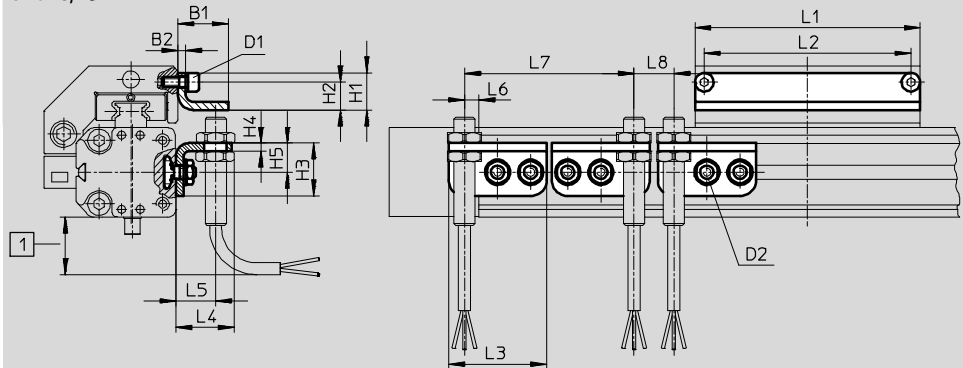
(order code L)

Material:

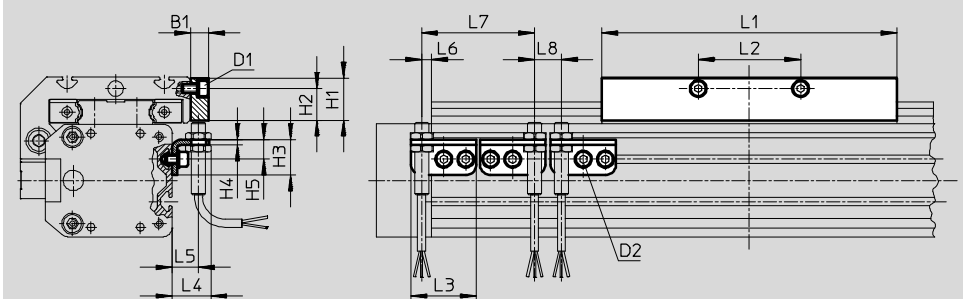
Galvanised steel



Size 18/25



Size 40/63



1 Protruding sensor cable, ensure sufficient installation space





Dimensions and ordering data														
For size	D1	D2	B1	B2	H1	H2	H3	H4	H5	L1	L2	L3	L4	L5
18	M4	M5	19	3	14	10.5	20	3	11	85	78	37	22.5	15
25	M5	M5	27	3	20.5	15.3	20	3	11	105	88	37	34.5	27
40	M5	M5	10	-	24	18	20	3	11	167	58	37	22.5	15
63	M8	M5	10	-	35	25	20	3	11	230	72	37	22.5	15


For size	L6	L7	L8	Weight [g]	Part No.	Type
	Max.	Min.	Min.			
18	5.5	64	15	34	188968	HWS-18/25-M8
				59	188964	SF-18
25	5.5	64	15	34	188968	HWS-18/25-M8
				75	188965	SF-25
40	5.5	64	15	37	188969	HWS-40-M8
				328	188966	SF-40
63	5.5	64	15	45	188970	HWS-63-M8
				630	188967	SF-63


Positioning axes DMES

Accessories

FESTO

Ordering data – Inductive proximity sensors M8						Technical data → Internet: sien	
	Electrical connection		Switching output	LED	Cable length [m]	Part No.	Type
	Cable	M8 plug connector					
N/O contact							
	3-wire	–	PNP	■	2.5	150386	SIEN-M8B-PS-K-L
	–	3-pin	PNP	■	–	150387	SIEN-M8B-PS-S-L
N/C contact							
	3-wire	–	PNP	■	2.5	150390	SIEN-M8B-PO-K-L
	–	3-pin	PNP	■	–	150391	SIEN-M8B-PO-S-L


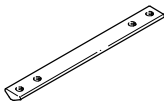



Ordering data – Proximity sensors for T-slot, magneto-resistive						Technical data → Internet: smt	
	Type of mounting		Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact							
	Insertable in the slot from above, flush with the cylinder profile, short design		PNP	Plug connector M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0,3-M8D
				Cable, 3-wire	2.5	574335	SMT-8M-A-PS-24V-E-2,5-OE

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

Positioning axes DMES

Accessories

FESTO

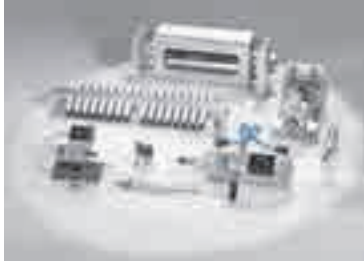
Ordering data				Technical data → Internet: mounting component		
	For size	Comment	Order code	Part No.	Type	PU ¹⁾
Slot nut NST						
	18/25	For mounting slot	Y	526091	NST-HMV-M4	10
	40			150914	NST-5-M5	1
	63			150915	NST-8-M6	1
Slot nut NSTL						
	25	For slide	X	158410	NSTL-25	1
	40			158412	NSTL-40	1
	63			158414	NSTL-63	1
Centring pin ZBS/centring sleeve ZBH						
	18	For slide	Z	150928	ZBS-5	10
	25/40/63			150927	ZBH-9	10
Slot cover ABP						
	40	For mounting slot Every 0.5 m	B	151681	ABP-5	2
	63			151682	ABP-8	2
Slot cover ABP-S						
	18/25/40/63	For sensor slot Every 0.5 m	S	151680	ABP-5-S	2

1) Packaging unit quantity

Product Range and Company Overview

A Complete Suite and Company Overview

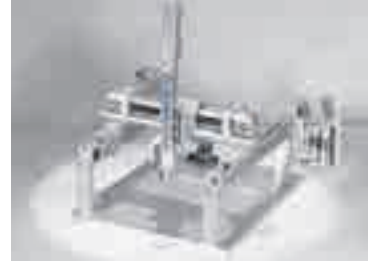
Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drivers



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 16,000 employees in 60 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.

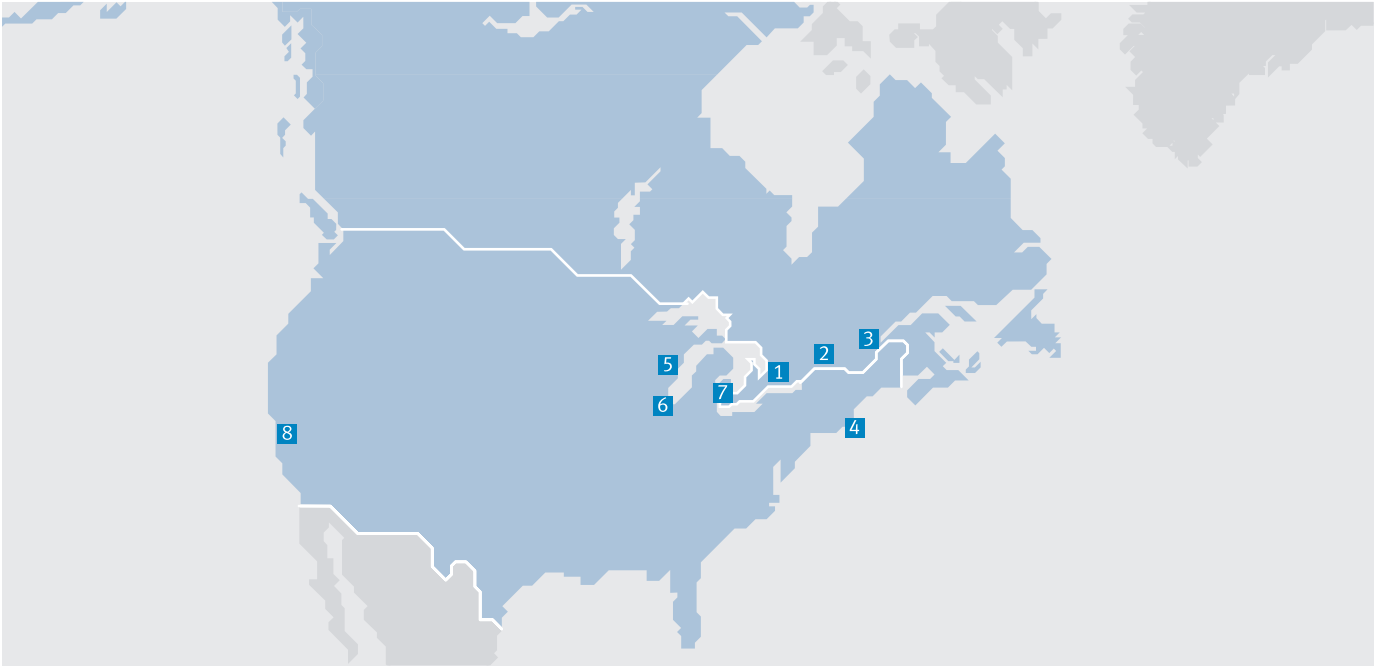


© Copyright 2013, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmental friendly printing plant.

Festo North America



**1 Festo Canada
Headquarters
Festo Inc.**
5300 Explorer Drive
Mississauga, ON
L4W 5G4

2 Montréal
5600, Trans-Canada
Pointe-Claire, QC
H9R 1B6

3 Québec City
2930, rue Watt#117
Québec, QC
G1X 4G3



**4 Festo United States
Headquarters
Festo Corporation**
395 Moreland Road
Hauppauge, NY
11788

5 Appleton
North 922 Tower View Drive, Suite N
Greenville, WI
54942

7 Detroit
1441 West Long Lake Road
Troy, MI
48098

6 Chicago
85 W Algonquin - Suite 340
Arlington Heights, IL
60005

8 Silicon Valley
4935 Southfront Road, Suite F
Livermore, CA
94550

Festo Regional Contact Center

Canadian Customers

Commercial Support:
Tel: 1 877 GO FESTO (1 877 463 3786)
Fax: 1 877 FX FESTO (1 877 393 3786)
Email: festo.canada@ca.festo.com

Technical Support:
Tel: 1 866 GO FESTO (1 866 463 3786)
Fax: 1 877 FX FESTO (1 877 393 3786)
Email: technical.support@ca.festo.com

USA Customers

Commercial Support:
Tel: 1 800 99 FESTO (1 800 993 3786)
Fax: 1 800 96 FESTO (1 800 963 3786)
Email: customer.service@us.festo.com

Technical Support:
Tel: 1 866 GO FESTO (1 866 463 3786)
Fax: 1 800 96 FESTO (1 800 963 3786)
Email: product.support@us.festo.com