



- Cost-effective dynamics thanks to maximum cycle times
- Ideal for vertical operation
- Small moving loads



Cantilever axes DGEA

Features



General information

- Super flat Ω drive head enabling high mechanical torques.
- High-quality guide as for DGE-KF/ DGP-KF axes.

■ Improved dynamics compared to toothed belt axis
DGE-ZR in cantilever operation, as the motor, gear unit and drive head are securely mounted and thus the moving load (profile barrel) is considerably reduced.
- Tried and tested motor controller packages can be utilised.

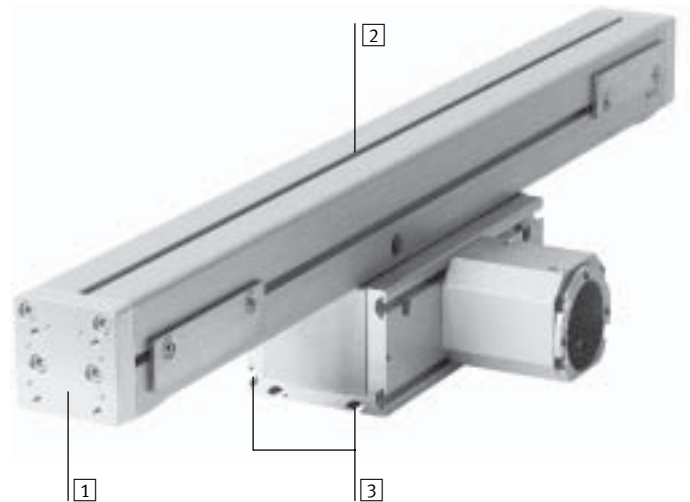
■ Mounting options adapted to the new multi-axis modular system.



Important data

Size	18	25	40
Max. working stroke [mm]	800	900	1 000
Max. working load [kg]	7	18	27
Max. speed [m/s]	3	3	3
Max. feed force [N]	230	400	1 000

At a glance



- 1** Mounting interface for working load: Thread, centring holes and port pattern are identical to the end caps on the DGE axis. Both caps can be machined as desired or removed and replaced by others.
- 2** Profile barrel: 3 sides with slots for external mounting – Clearance for guiding through of tubing and electrical lines
- 3** Mounting interface for cantilever application (adapted to DGE-... slide)

Cantilever axes DGEA

Features

System selection for electromechanical drives

Stepper motor controller
SEC-ST
→ 5 / 2.2-13



Servo motor controller
SEC-AC
→ 5 / 2.2-26



Axis controller
SPC-200
→ 5 / 1.3-2



Stepper motor
MTR-ST
→ 5 / 2.2-2



Servo motor
MTR-AC
→ 5 / 2.2-16



Coupling
KSE-...
→ 5 / 2.3-3



Motor flange
MTR-FL-...
→ 5 / 2.3-8



Cantilever axis
DGEA-...-ZR-...



Toothed belt axis
with recirculating ball bearing guide
DGE-...-ZR-KF-...



Toothed belt axis
with roller guide
DGE-...-ZR-RF-...

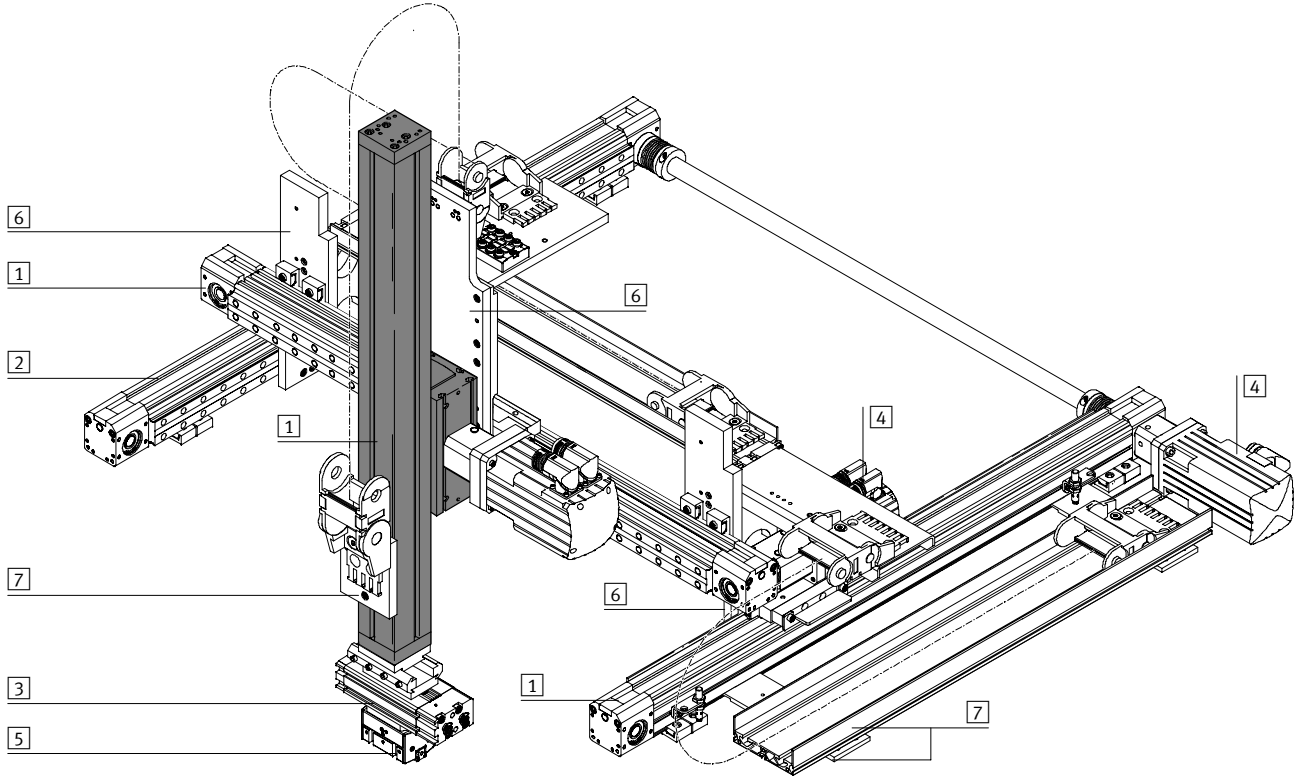


Spindle axis
with recirculating ball bearing guide
DGE-...-SP-...

Cantilever axes DGEA

System example

System product for handling and assembly technology



System elements and accessories		
	Brief description	→ Page
1	Axes	Diverse possible combinations in handling and assembly technology Volume 5
2	Passive guide axes	Diverse possible combinations in handling and assembly technology Volume 5
3	Actuators	Diverse possible combinations in handling and assembly technology Volume 1
4	Motors	Servo and stepper motors, with or without gearing Volume 5
5	Gripper	Diverse variation options in handling and assembly technology Volume 1
6	Adapter	For drive/drive and drive/gripper connections Volume 5
7	Installation components	For achieving a clear-cut, safe layout of electrical cables and tubing Volume 5

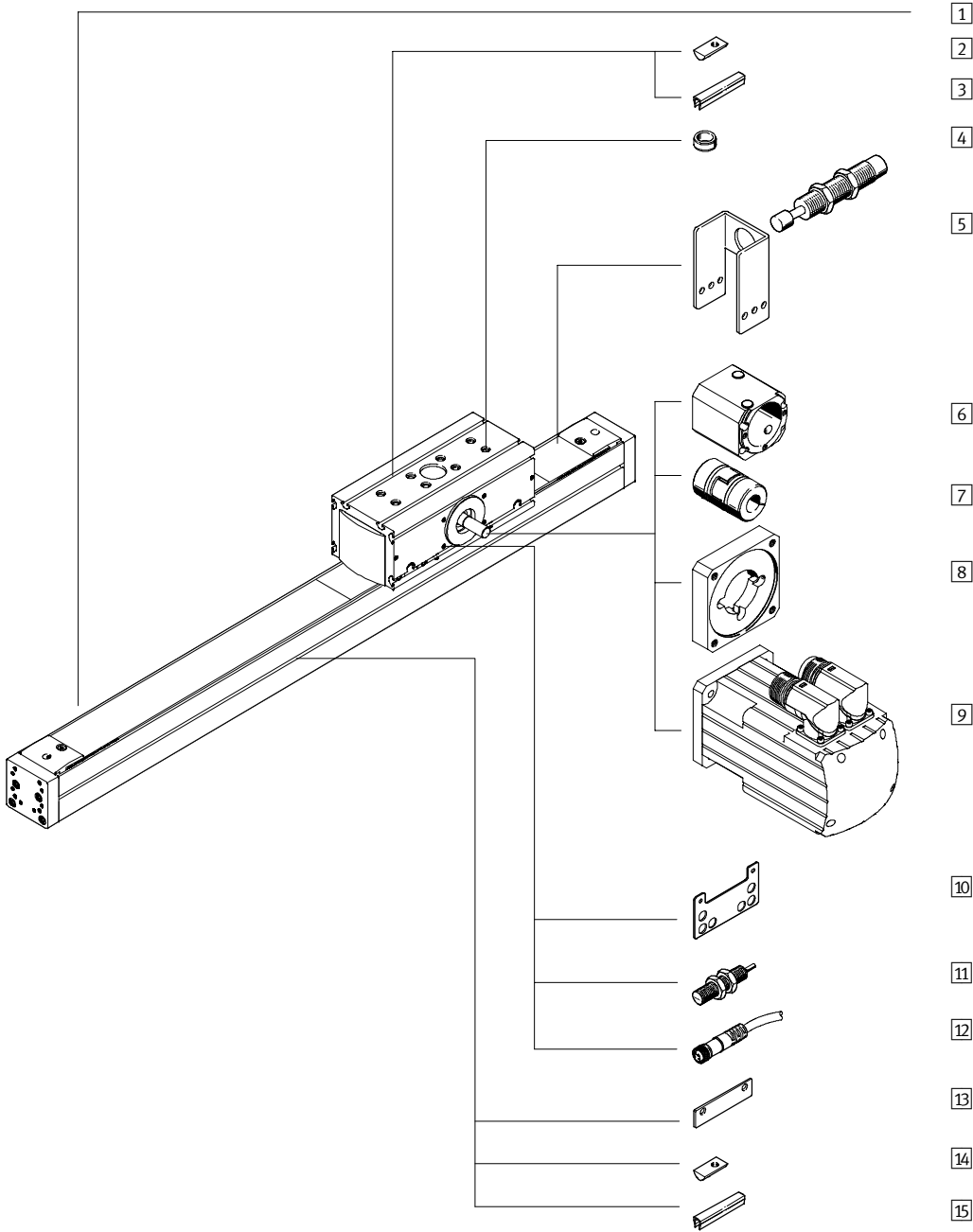
Cantilever axes DGEA

Type codes

		DGEA	-	25	-	500	-	ZR	-	WH	-	KV	-	ZWK	-	STD	-		-	
Type																				
DGEA	Cantilever axis																			
Size																				
Stroke [mm]																				
Drive function																				
ZR	Toothed belt																			
Drive head																				
WH	Drive shaft, rear																			
WV	Drive shaft, front																			
WB	Drive shaft at both ends																			
Coupling housing																				
KV	Drive head, at front																			
KH	Drive head, at rear																			
LV	Drive head at front, for high performance																			
LH	Drive head at rear, for high performance																			
Additional drive head																				
ZWK	Without drive shaft																			
Motor type																				
STD	Stepper motor																			
STG	Stepper motor with gear unit																			
SEG	Servo motor with gear unit																			
SEI	Servo motor with integrated gearing																			
Motor brake																				
BR	Brake																			
Accessories supplied loose																				
...S	Slot cover for profile slot																			
...B	Slot cover for drive head																			
...Y	Slot nut for profile slot																			
...X	Slot nut for drive head																			
...C	Shock absorber with retainer																			
...Z	Centring sleeve																			
L	Mounting kit for proximity sensor																			
...O	Proximity sensor with cable (normally open contact)																			
...P	Proximity sensor with cable (normally closed contact)																			
...W	Proximity sensor with plug (normally open contact)																			
...R	Proximity sensor with plug (normally closed contact)																			
...V	Plug socket with cable, 2.5 m																			

Cantilever axes DGEA

Peripherals overview



Cantilever axes DGEA



Peripherals overview

Variants and accessories		
Type	Brief description	→ Page
1 Cantilever axis DGEA	Electromechanical axes	5 / 2.1-98
2 Slot nut for drive head X	To mount the axis	5 / 2.1-110
3 Slot cover for drive head B	To protect against the ingress of dirt	5 / 2.1-110
4 Centring sleeve Z	To centre the axis	5 / 2.1-110
5 Shock absorber with retainer C	Prevents damage to the axis in the event of a power failure (in vertical operation), if the axis is drawn into the end position by the load	5 / 2.1-109
6 Coupling housing KG	Adapter for mounting the motor on the axis	5 / 2.1-108
7 Coupling KSE	Connecting element between axis and motor	5 / 2.1-108
8 Motor flange MTR-FL	Connecting element between coupling housing and motor	5 / 2.1-108
9 Motor MTR	Motors specially matched to the axis, with or without gearing	5 / 2.1-108
10 Mounting plate L	Adapter for mounting the SIEN proximity sensor on the axis	5 / 2.1-110
11 Proximity sensors O/P/W/R	For use as a signal or safety check	5 / 2.1-111
12 Plug socket with cable V	For proximity sensor	5 / 2.1-111
13 Switch lug L	For sensing the slide position	5 / 2.1-110
14 Slot nut for profile slot Y	For mounting attachments	5 / 2.1-110
15 Slot cover for profile slot S	To protect against the ingress of dirt	5 / 2.1-110

Cantilever axes DGEA

Technical data



-  - Size
18, 25, 40
-  - Stroke length
100 ... 1,000 mm



Electrical positioning systems
Electromechanical drives
2.1

General technical data			
Size	18	25	40
Design	Cantilever axis with toothed belt		
Guide	Recirculating ball bearing guide		
Fitting position	Any		
Max. working stroke ¹⁾ [mm]	1 ... 800	1 ... 900	1 ... 1,000
Max. working load, independent of position [kg]	5	10	20
Max. working load, vertical [kg]	7	18	27
Max. feed force F_x [N]	230	400	1 000
Max. driving torque [Nm]	3	5.2	19
Max. no-load drive torque ²⁾ [Nm]	0.4	0.4	1
Max. speed [m/s]	3		
Repetition accuracy [mm]	< ±0.05		

- 1) Total stroke = working stroke + 2x stroke reserve
- 2) Measured at a speed of 0.2m/s

Operating and environmental conditions			
Size	18	25	40
Ambient temperature [°C]	-10 ... +60		
Protection class	IP20		

Weights [kg]				
Size	18	25	40	
Product weight	Basic weight at 0 mm stroke ¹⁾	2.8	4.9	14.3
	Additional weight per 100 mm stroke	0.35	0.47	1
Moving weight	Basic weight at 0 mm stroke	1,5	2,4	6,2
	Additional weight per 100 mm stroke	0,35	0,47	1
With second drive head				
Product weight	Basic weight at 0 mm stroke ¹⁾	4.7	8.5	23.2
	Additional weight per 100 mm stroke	0.35	0.47	1
Moving weight	Basic weight at 0 mm stroke	2	3,3	8,6
	Additional weight per 100 mm stroke	0,35	0,47	1

1) Without motor, coupling, coupling housing and accessories

Cantilever axes DGEA

Technical data

Mass moment of inertia				
Size		18	25	40
J_0	[kg cm ²]	2.87	4.45	28
J_0 with second drive head	[kg cm ²]	4.08	6.4	41.5
J_H per metre stroke	[kg cm ² /m]	0.6	0.8	3.65
J_L per kg working load	[kg cm ² /kg]	1.66	1.66	3.65

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

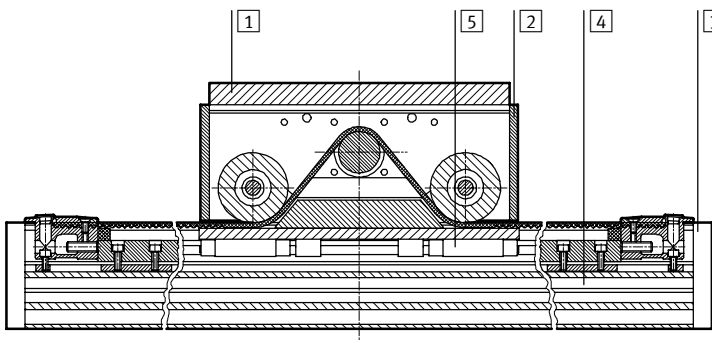
$$J_A = J_0 + J_H \times \text{working stroke [m]} + J_L \times m_{\text{working load [kg]}}$$

Toothed belt				
Size		18	25	40
Expansion ¹⁾	[%]	0.037	0.053	0.056
Pitch	[mm]	3	3	5
Effective radius; effective diameter	[mm]	25.78	25.78	38.2
Feed constant	[mm/rev.]	81	81	120

1) At max. feed force

Materials

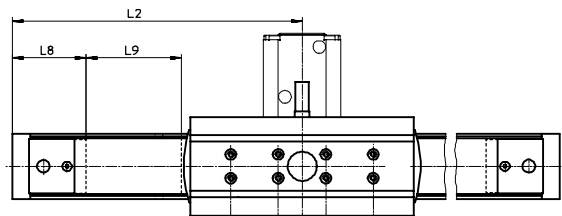
Sectional view



Axis		
1	Drive head slide	Galvanised steel
2	Drive head - Housing	Anodised aluminium
3	End cap	Anodised aluminium
4	Profile	Anodised aluminium
5	Guide rail	Rolled steel, corrotect coated

Stroke reserve

- L2 Drive head in the end position of the working stroke
- L8 Distance between mechanical stop and external dimension of the axis
- L9 The stroke reserve is a safety distance available on both sides of the axis in addition to the stroke.



Example:
Type DGEA-25-500-ZR

Working stroke = 500 mm
 Stroke reserve = (2x 81 mm)
 = 162 mm
 Total stroke = 500 mm + 126 mm
 = 662 mm

Size		18	25	40
L9 per end position	[mm]	81	81	120

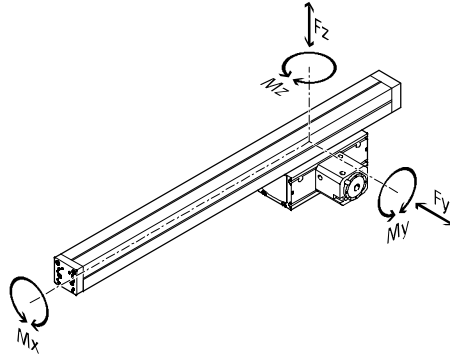
Cantilever axes DGEA

Technical data



Characteristic load values of the guide

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



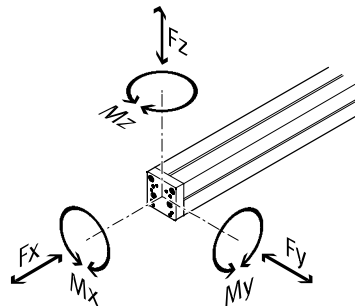
If the cantilever axis is simultaneously subjected to several of the forces and torques listed below, the following equations must be satisfied in addition to the indicated maximum loads.

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

Permissible forces and torques				
Size		18	25	40
F _{y_{max.}}	[N]	2,000	3,080	7,300
F _{z_{max.}}	[N]	2,000	3,080	7,300
M _{x_{max.}}	[Nm]	19	28	133
M _{y_{max.}}	[Nm]	94	230	665
M _{z_{max.}}	[Nm]	65	160	460

Characteristic load values of the interface for mounting the effective load

The forces and torques specified refer to the interface for mounting the effective load. They must not be exceeded during dynamic operation. Special attention must be paid to the cushioning phase.



If the cantilever axis is simultaneously subjected to several of the forces and torques listed below, the following equations must be satisfied in addition to the indicated maximum loads.

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

Permissible forces and torques				
Size		18	25	40
F _{x_{max.}}	[N]	6 000	6 000	8 400
F _{y_{max.}}	[N]	2,240	2,240	3,200
F _{z_{max.}}	[N]	2 240	2 240	3 200
M _{x_{max.}}	[Nm]	30	50	118
M _{y_{max.}}	[Nm]	125	230	407
M _{z_{max.}}	[Nm]	185	273	580

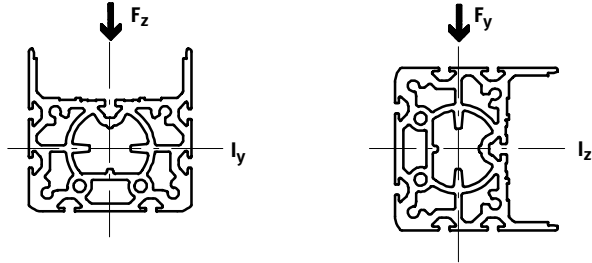


Design tool
PTTool
www.festo.com/en/engineering

Cantilever axes DGEA

Technical data

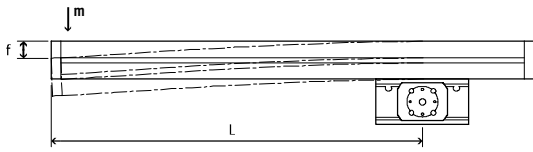
2nd moment of area¹⁾



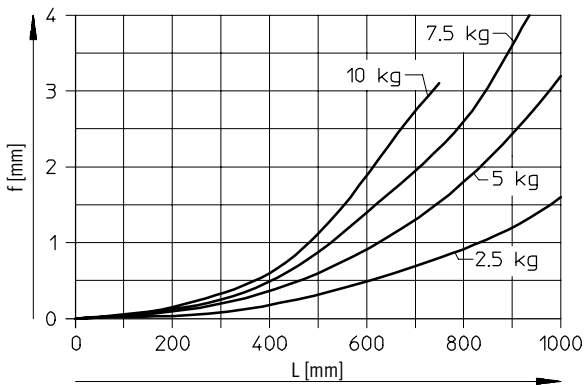
Size		18	25	40
I_y	[mm ⁴]	173×10^3	432×10^3	1759×10^3
I_z	[mm ⁴]	135×10^3	438×10^3	1894×10^3

1) After machining or replacing the end cap, the values become invalid.

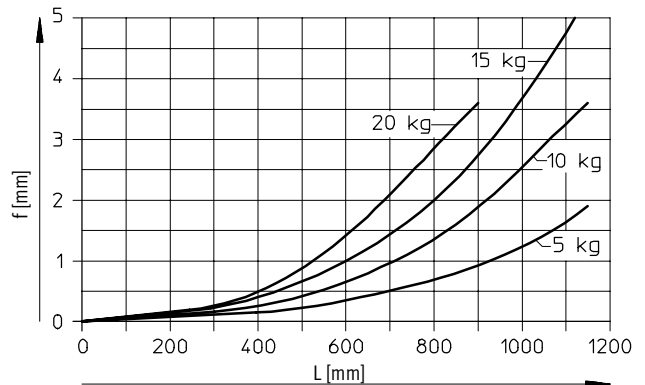
Deflection f of the profile as a function of the distance L and the effective load m



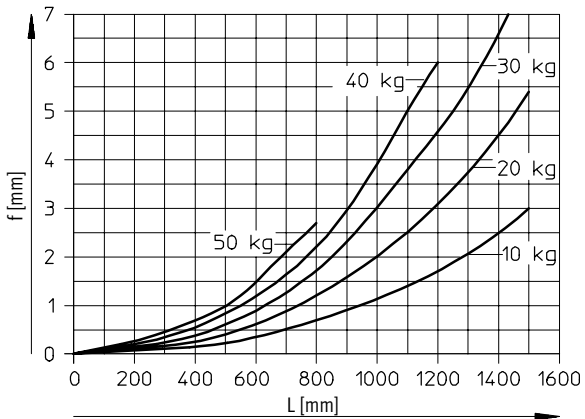
DGEA-18



DGEA-25



DGEA-40



Cantilever axes DGEA

Technical data

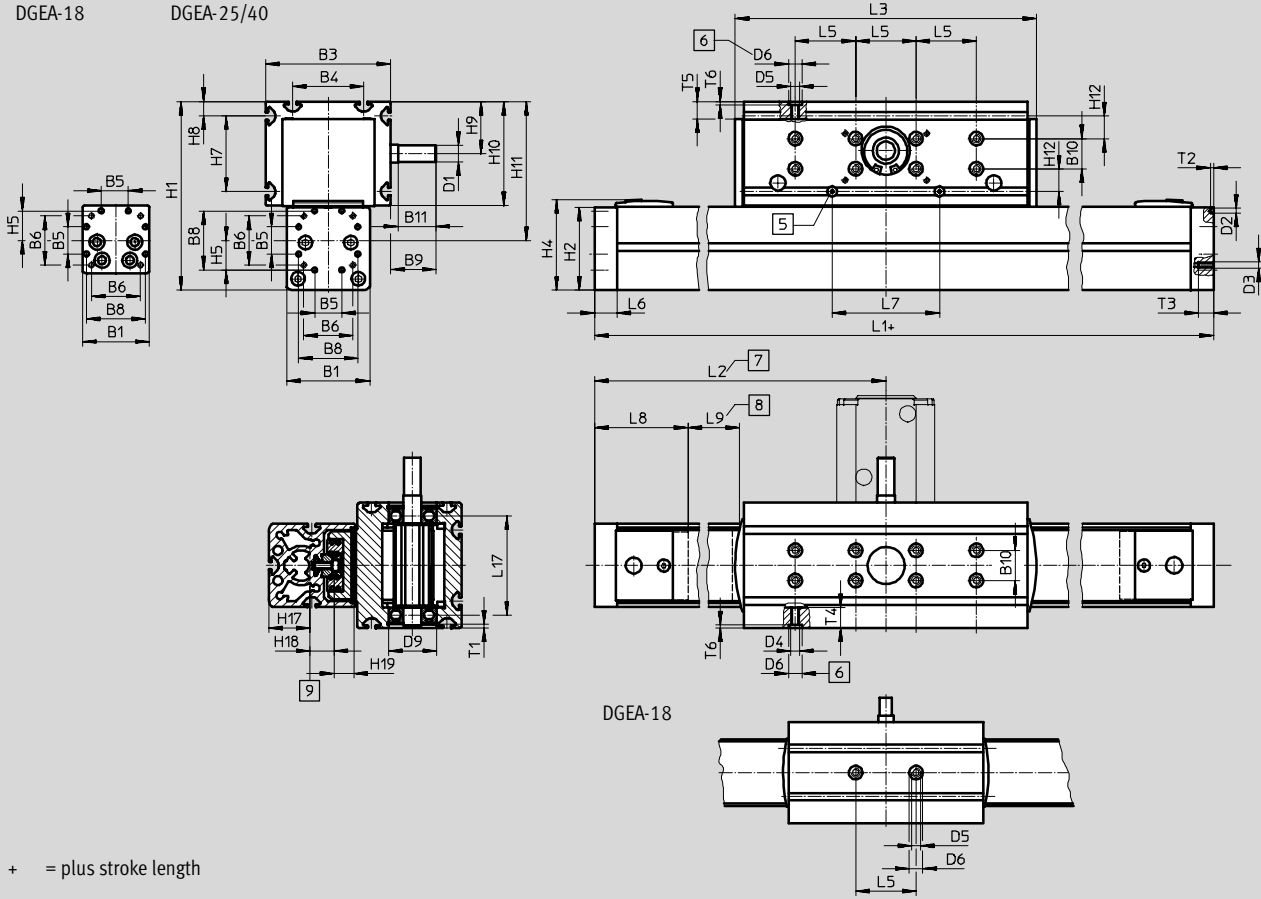


Dimensions

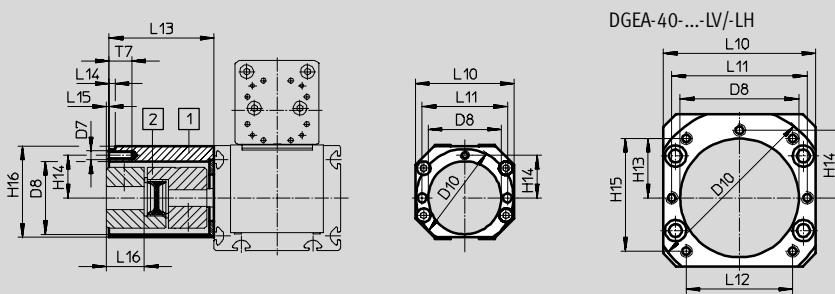
Download CAD data → www.festo.com/en/engineering

DGEA-18

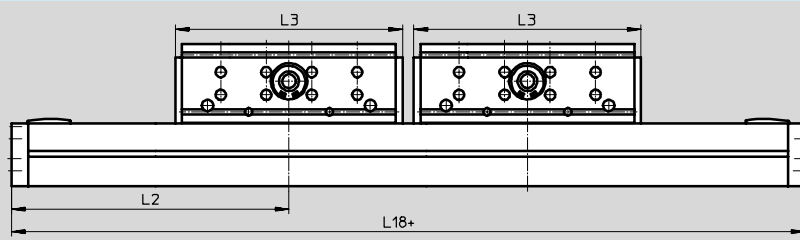
DGEA-25/40



Coupling housing



With second drive head



Cantilever axes DGEA

Technical data

Profile barrel

Size 18

Size 25

Size 40

1 Coupling housing

2 Coupling

4 Mounting slot for slot nut NST

5 Lubrication nipple

6 Hole for centring sleeve ZBH-9

7 Slide in end position of the working stroke

8 Stroke reserve (available safety distance from mechanical end position at both ends)

9 Centre of gravity of the moving intrinsic load

Size	Variant	B1	B2	B3	B4	B5	B6	B8	B9	B10	B11	D1 ∅ h6	D2 ∅	D3
						±0.1								
18	KV/KH	44	–	67	32	18	32.5	39.1	16	–	12	8	–	–
25	KV/KH	55	–	83	47	18	32.5	39.1	29.8	20	25	11	3	M4
40	KV/KH	80	40	111.8	72	28	49	53	30.1	40	25	15	4	M5
	LV/LH													

Size	Variant	D4	D5	D6 ∅ H7	D7	D8 ∅	D9 ∅ H7	D10 ∅ g7	H1	H2	H3	H4	H5	H7
18	KV/KH	–	M6	9	M4	32	28	44	99	45	18	50.8	19.55	20
25	KV/KH	M6	M6	9	M6	48	32	64	128	57.7	28.7	63.1	19.55	50
40	KV/KH	M6	M6	9	M6	48	40	64	197	85	24	91.3	26.5	72
	LV/LH				M8	78		118						

Size	Variant	H8	H9	H10	H11	H12	H13	H14 ±0.1	H15	H16	H17	H18	H19
18	KV/KH	8	30.5	52	77	–	–	19	–	45	19.6	10	14.3
25	KV/KH	9.5	32.5	69	95	15	–	28	–	60	27.1	16	13.3
40	KV/KH	15.5	55.5	110	153	16	–	28	–	60	42.8	21.5	18
	LV/LH							39					

Size	Variant	L1	L2	L3	L5	L6	L7	L8	L9	L10	L11	L12	L13
18	KV/KH	419.5	210	138	40	13	28	58	81	65	38	–	40
25	KV/KH	487.5	244	202	40	15	71	60	81	65	56	–	65
40	KV/KH	662	331	256	40	15	94	81	120	65	56	–	65
	LV/LH									100	89	70	96

Size	Variant	L14	L15	L16	L17	L18	T1	T2	T3	T4 min.	T5 min.	T6	T7
18	KV/KH	3.2	–3.6	14.6	53	569.5	1.6	–	–	–	11	2.1	10
25	KV/KH	4	2.2	22.8	65.6	697.5	2.3	2	10	11	11	2.1	13
40	KV/KH	4	2.2	22.8	90	926	2.8	3	10	11	11	2.1	13
	LV/LH	5	–0.9	35.9									18

Cantilever axes DGEA

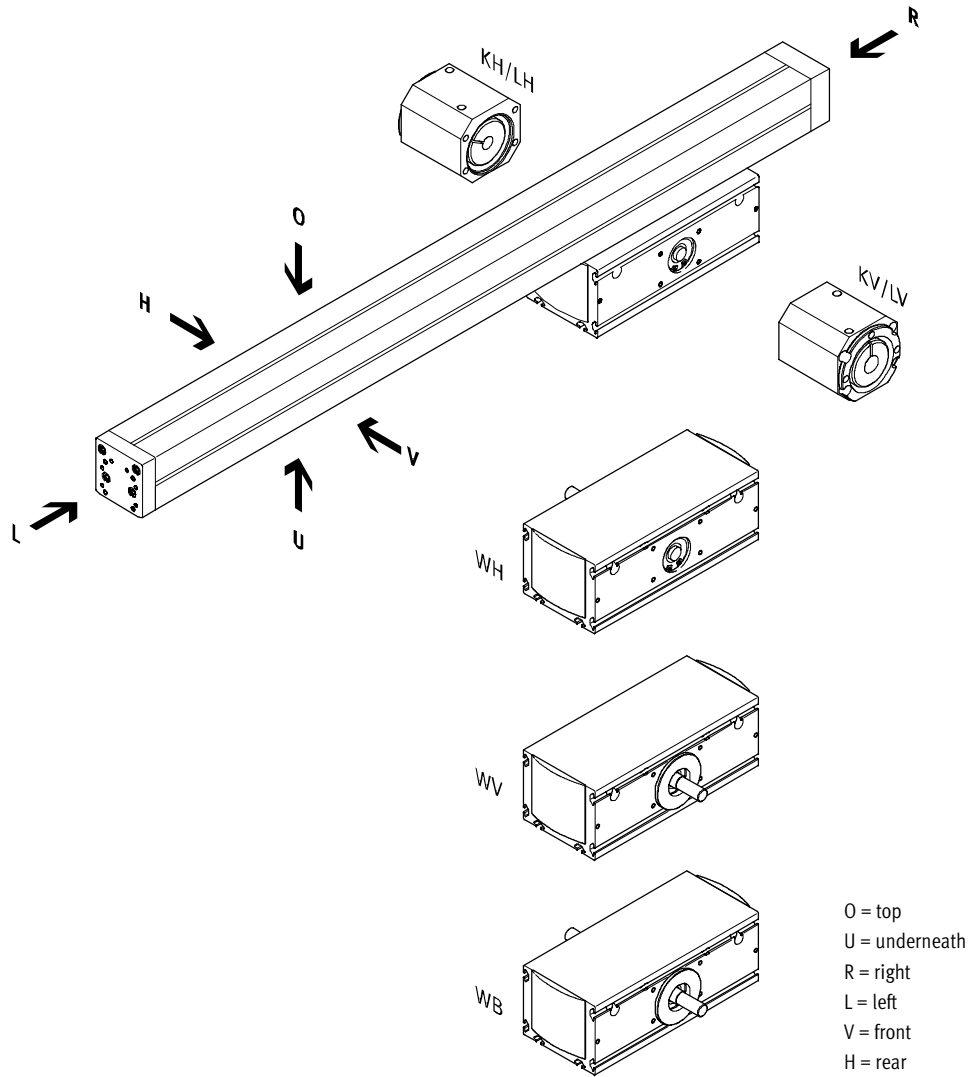
Ordering data – Modular product system



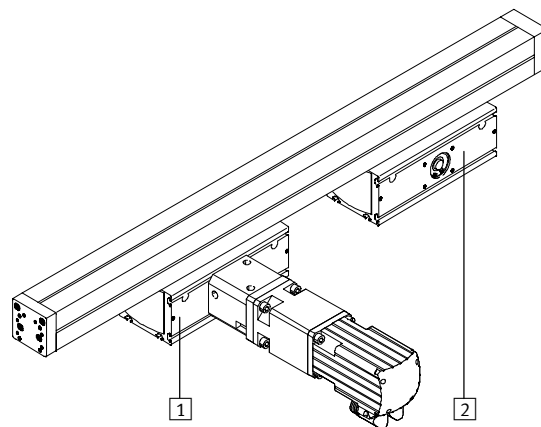
Order code

Mandatory data/Options

WH	Drive shaft, rear
WV	Drive shaft, front
WB	Drive shaft at both ends
KV/LV	Coupling housing, front
KH/LH	Coupling housing, rear
ZWK	Second drive head



- 1 Drive head
- 2 Optionally:
Passive drive head
(to increase the mechanical
torque load)



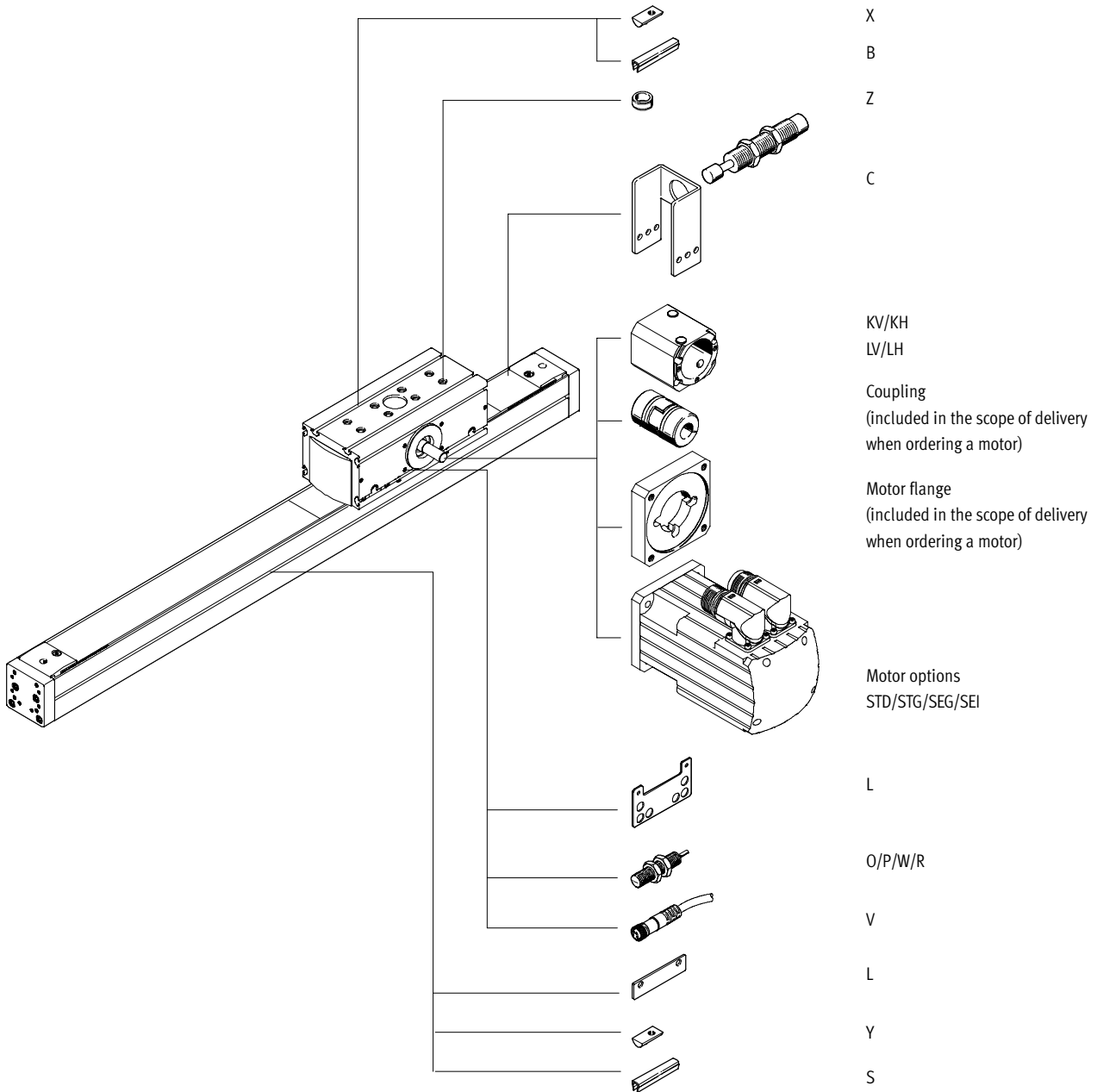
Cantilever axes DGEA

Ordering data – Modular product system



Order code

Options



Cantilever axes DGEA

Ordering data – Modular product system



Mandatory data						Options				
Module No.	Design	Size	Stroke	Drive function	Drive head	Coupling housing	Additional drive head	Motor type	Brake	
195 611	DGEA	18	1 ... 1000	ZR	WH	KV	ZWK	STD	BR	
195 612		25			WV	KH		STG		
195 613		40			WB	LV LH		SEG SEI		
Ordering example										
195 612	DGEA	- 25	- 850	- ZR	- WV	- KV	-	- STD	- BR	

Ordering table						
Size	18	25	40	Condi- tions	Code	Enter code
M Module No.	195 611	195 612	195 613			
Design	Cantilever axis with toothed belt				DGEA	DGEA
Size	18	25	40		-...	
Stroke [mm]	1 ... 800	1 ... 900	1 ... 1,000		-...	
Drive function	Electromechanical drive with toothed belt				-ZR	-ZR
Drive head	Drive shaft, rear				-WH	
	Drive shaft, front				-WV	
	Drive shaft at both ends				-WB	
Coupling housing	Standard		Coupling housing standard for drive head, front	-	1	-KV
			Coupling housing standard for drive head, rear	-	2	-KH
	Large version (for high performance)		-	For drive head, front	1	-LV
			-	For drive head, rear	2	-LH
Additional drive head	Without drive shaft				-ZWK	
Motor type	Stepper motor			-	3	-STD
	-			Stepper motor with gear unit on one drive head	4	-STG
	-			Servo motor with gear unit on one drive head	3	-SEG
	-			Servo motor with integrated gear unit on one drive head	4	-SEI
Brake ¹⁾	Motor brake				5	-BR

1) Always order brake for vertical applications for safety reasons.

- 1 **KV, LV** Only with drive head WV, WB.
- 2 **KH, LH** Only with drive head WH, WB.
- 3 **STD, SEG** Only with coupling housing KV, KH.

- 4 **STG, SEI** Only with coupling housing LV, LH.
- 5 **BR** Only permitted with motor type.

Note
The motor controller and cable set must be ordered separately.
Ordering data:
Stepper motor → 5 / 2.2-2
Servo motor → 5 / 2.2-16

Transfer order code

- - - - - - - - - -

Cantilever axes DGEA

Ordering data – Modular product system



Options							
Accessories	Slot cover	Slot nut	Shock absorber with retainer	Centring sleeve	Retaining plate for proximity sensor	Inductive proximity sensor	Plug socket with cable
ZUB	...S ...B	...Y ...X	...C	...Z	L	...O ...P ...W ...R	...V
ZUB	- 2B		2C	10Z	L	2P2W	2V

Ordering table							
Size		18	25	40	Condi- tions	Code	Enter code
↓	Accessories	Supplied separately				ZUB-	ZUB-
0	Slot cover	For profile slot	1 ... 10			...S	
		For drive head	1 ... 10			...B	
	Slot nut	For profile slot	1 ... 10			...Y	
		For drive head	1 ... 10			...X	
	Shock absorber with retainer		1 ... 2			...C	
	Centring sleeve		10, 20, 30, 40, 50, 60, 70, 80, 90			...Z	
	Retaining plate for inductive proximity switch, incl. 2 switch lugs		1			L	
	Inductive proximity sensor	NO contact, cable	1 ... 5			...O	
		NC contact, cable	1 ... 5			...P	
		NO contact, plug	1 ... 5			...W	
		NC contact, plug	1 ... 5			...R	
	Plug socket with cable		1 ... 10			...V	

Note

Cantilever axes DGEA offer the same mounting options (on the cover of the profile and drive head) as the electromechanical axes.

Note however that there is no 1:1 conformity with regard to size.

Example:
Profile dimension DGEA-18 corresponds to DGE-25.

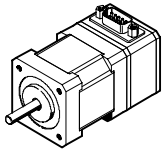

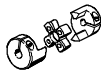

Transfer order code

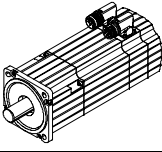

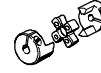

ZUB - [] [] [] [] [] [] [] []


Cantilever axes DGEA

Accessories



Permissible combinations with stepper motor								
Order code	Motor		Motor flange		Coupling		Coupling housing	
								
	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type
For DGEA-18								
Without gearing/without brake								
STD	530 065	MTR-ST-87-48S-AA	530 082	MTR-FL44-ST87	123 042	KSE-30-D08-D11	530 468	DGEA-KG-18-ZR-FL44
Without gearing/with brake								
STD + BR	530 066	MTR-ST-87-48S-AB	530 082	MTR-FL44-ST87	123 042	KSE-30-D08-D11	530 468	DGEA-KG-18-ZR-FL44
For DGEA-25								
Without gearing/without brake								
STD	530 065	MTR-ST-87-48S-AA	533 140	MTR-FL64-ST87	530 090	KSE-40-D11-D11	530 469	DGEA-KG-25-ZR-FL64
Without gearing/with brake								
STD + BR	530 066	MTR-ST-87-48S-AB	533 140	MTR-FL64-ST87	530 090	KSE-40-D11-D11	530 469	DGEA-KG-25-ZR-FL64
For DGEA-40								
With gearing/without brake								
STG	530 067	MTR-ST-87-48S-GA	533 139	MTR-FL64-PL80	123 845	KSE-40-D15-D20	124 629	DGEA-KG-40-ZR-FL64
With gearing/with brake								
STG + BR	530 068	MTR-ST-87-48S-GB	533 139	MTR-FL64-PL80	123 845	KSE-40-D15-D20	124 629	DGEA-KG-40-ZR-FL64

Permissible combinations with servo motor								
Order code	Motor		Motor flange		Coupling		Coupling housing	
								
	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type
For DGEA-18								
With gearing/without brake								
SEG	526 725	MTR-AC-55-3S-GA	529 944	MTR-FL44-PL60	123 042	KSE-30-D08-D11	530 468	DGEA-KG-18-ZR-FL44
With gearing/with brake								
SEG + BR	526 726	MTR-AC-55-3S-GB	529 944	MTR-FL44-PL60	123 042	KSE-30-D08-D11	530 468	DGEA-KG-18-ZR-FL44
For DGEA-25								
With gearing/without brake								
SEG	526 729	MTR-AC-70-3S-GA	529 945	MTR-FL64-AC70	525 864	KSE-40-D11-D12	530 469	DGEA-KG-25-ZR-FL64
With gearing/with brake								
SEG + BR	526 730	MTR-AC-70-3S-GB	529 945	MTR-FL64-AC70	524 864	KSE-40-D11-D12	530 469	DGEA-KG-25-ZR-FL64
For DGEA-40								
With integrated gearing/without brake								
SEI	526 737	MTR-AC-100-5S-GA	529 949	MTR-FL118-AC100	530 940	KSE-65-D15-D24	530 470	DGEA-KG-40-ZR-FL118
With integrated gearing/with brake								
SEI + BR	526 738	MTR-AC-100-5S-GB	529 949	MTR-FL118-AC100	530 940	KSE-65-D15-D24	530 470	DGEA-KG-40-ZR-FL118

-  - Note

The gearings have a reduction ratio of 4 : 1. Technical data for stepper motors → 5 / 2.2-2 Technical data for servo motors → 5 / 2.2-16

Cantilever axes DGEA

Accessories



Shock absorber kit

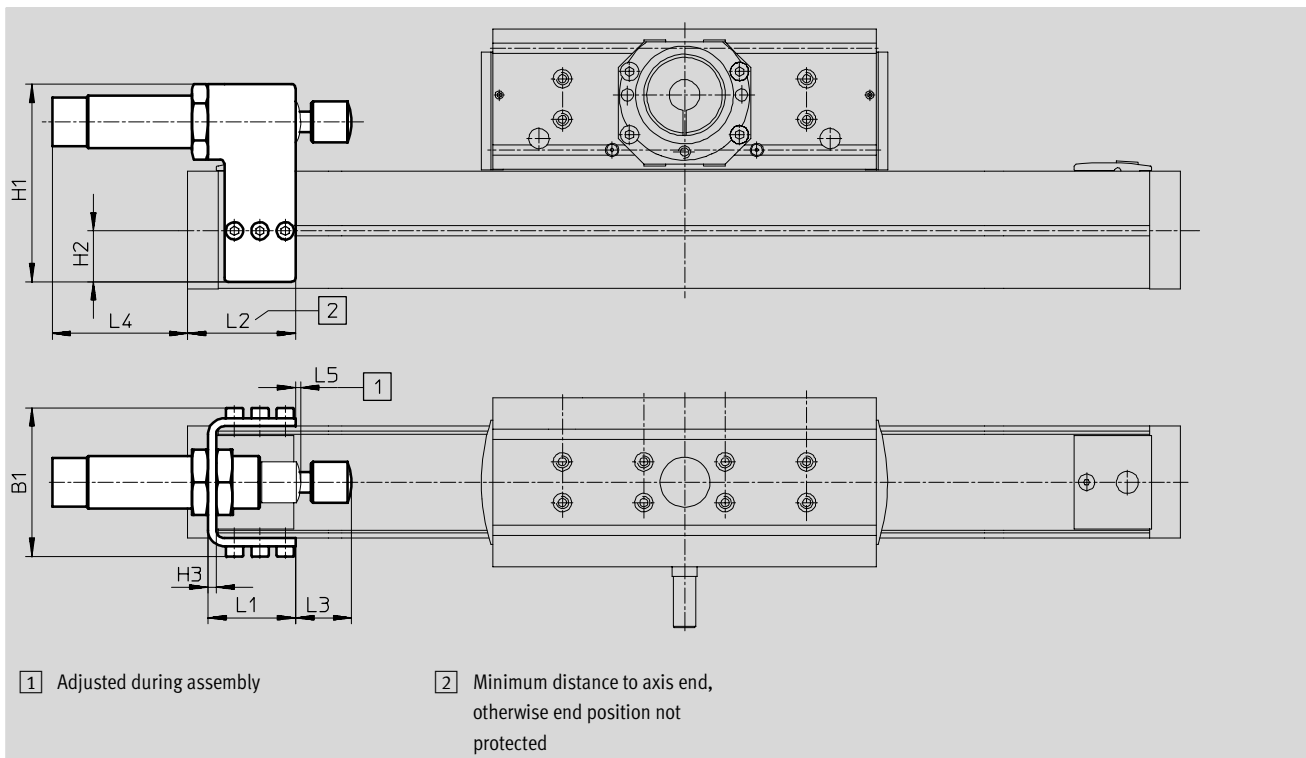
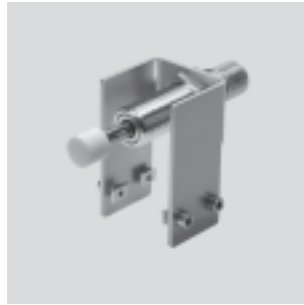
DGEA-...-YSR

(Order code: C)

Material:

Galvanised steel

Free of copper, PTFE and silicone



Dimensions and ordering data												
For size	B1	H1	H2	H3	L1	L2 +1	L3	L4	L5 +1	Weight [g]	Part No.	Type
18	59	80	15	3	44	67	1)	1)	2	390	525 865	DGEA-18-YSR
25	73	97	25	4	43	60	1)	1)	2	630	525 866	DGEA-25-YSR
40	98	122	14	4	70.5	81	1)	1)	2	1 200	525 867	DGEA-40-YSR

1) Dimension is related to the size of the shock absorber and the mounting position of the shock absorber kit

Cantilever axes DGEA

Accessories



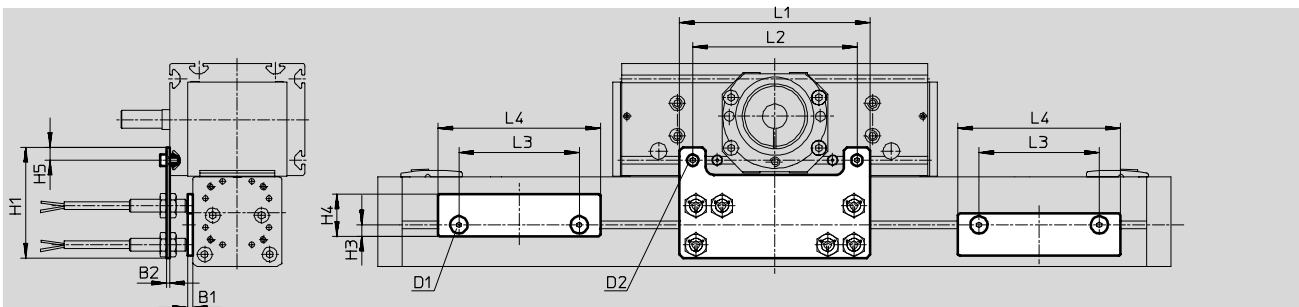
Mounting kit for proximity sensor

DGEA-...-SIE-M8

(Order code: L)

Material:

Galvanised steel



Dimensions and ordering data									
For size	B1	B2	D1	D2	H1	H2	H3	H4	H5
18	3	2	M4	M4	77	35	5	21	7.5
25	3	2	M4	M5	68	17	7	26	8
40	3	7	M4	M5	92	42	7	26	10

For size	L1	L2	L3	L4	Weight [g]	Part No.	Type
18	114	90	74	84	200	525 868	DGEA-18-SIE-M8
25	117	101	85	100	250	525 869	DGEA-25-SIE-M8
40	190	133	124.5	145	600	525 870	DGEA-40-SIE-M8

Ordering data						Technical data → Volume 1	
	For size	Remarks	Order code	Part No.	Type	PU ¹⁾	
Slot nut NST							
	18	For profile slot	Y	526 091	NST-HMV-M4	1	
	25, 40					150 914	NST-5-M5
	18, 25, 40	For drive head	X	150 914	NST-5-M5	1	
Centring sleeve ZBH							
	18, 25, 40	For drive head	Z	150 927	ZBH-9	10	
Slot cover ABP/ABP-S							
	18	For profile slot	S	151 680	ABP-5-S	2	
	25, 40					0.5 m each	151 681
	18, 25, 40	For drive head	B	151 681	ABP-5	2	
		0.5 m each					









1) Packaging unit quantity









Cantilever axes DGEA

Accessories



Ordering data – Inductive proximity sensors M8						Technical data → Volume 4	
	Electrical connection		Switch output	LED	Cable length [m]	Part No.	Type
	Cables	M8 plug					
NO contact							
	3-wire	–	PNP		2.5	150 386	SIEN-M8B-PS-K-L
	–	3-pin	PNP			150 387	SIEN-M8B-PS-S-L
NC contact							
	3-wire	–	PNP		2.5	150 390	SIEN-M8B-PO-K-L
	–	3-pin	PNP			150 391	SIEN-M8B-PO-S-L

Ordering data – Plug sockets						Technical data → Volume 1	
	Mounting	Switch output		Connection	Cable length [m]	Part No.	Type
		PNP	NPN				
Straight socket							
	M8 union nut			3-pin	2.5	159 420	SIM-M8-3GD-2,5-PU
					5	159 421	SIM-M8-3GD-5-PU
Angled plug socket							
	M8 union nut			3-pin	2.5	159 422	SIM-M8-3WD-2,5-PU
					5	159 423	SIM-M8-3WD-5-PU

 Core Range

