



- Modular
- Simple and time-saving project planning
- Fast system assembly

# Multi-axis modular systems

Key features









## The concept

The multi-axis modular system for handling and assembly technology includes basic, connecting and installation components for assembly. These standardised axis combinations are the product of over ten years' experience in designing handling systems.

The concept of the multi-axis modular system is based on a modular design with axis modules along the X, Y and Z-axes. These modules all have the same interfaces and can thus be combined.

Standard solutions with specifications for stroke, effective load and intermediate positions offer practical module combinations. The advantages of this modularity are as follows:

- Simple and time-saving project planning
- Fast system assembly
- Availability of CAD data for standard designs

Selection matrix		
Pick & place	Linear gantries	Three-dimensional gantries
Pneumatic		Pneumatic/electrical
 <p>→ 4</p>	 <p>→ 20</p>	 <p>→ 38</p>
Pneumatic with end-position controller SPC11 (Soft Stop)		
	 <p>→ 20</p>	
Electrical with spindle or toothed belt axis		
	 <p>→ 20</p>	 <p>→ 38</p>

# Multi-axis modular systems

Key features

## Pick & place



## Linear gantries



## Three-dimensional gantries

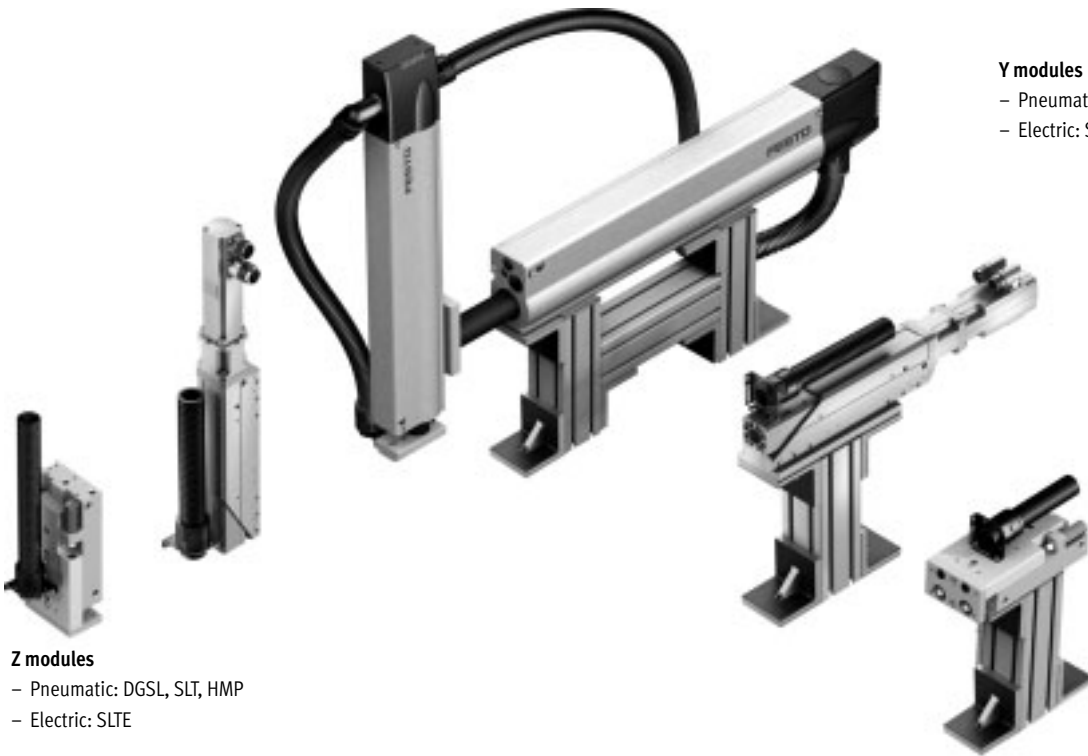


# Pick & place

Key features

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## Y and Z modules



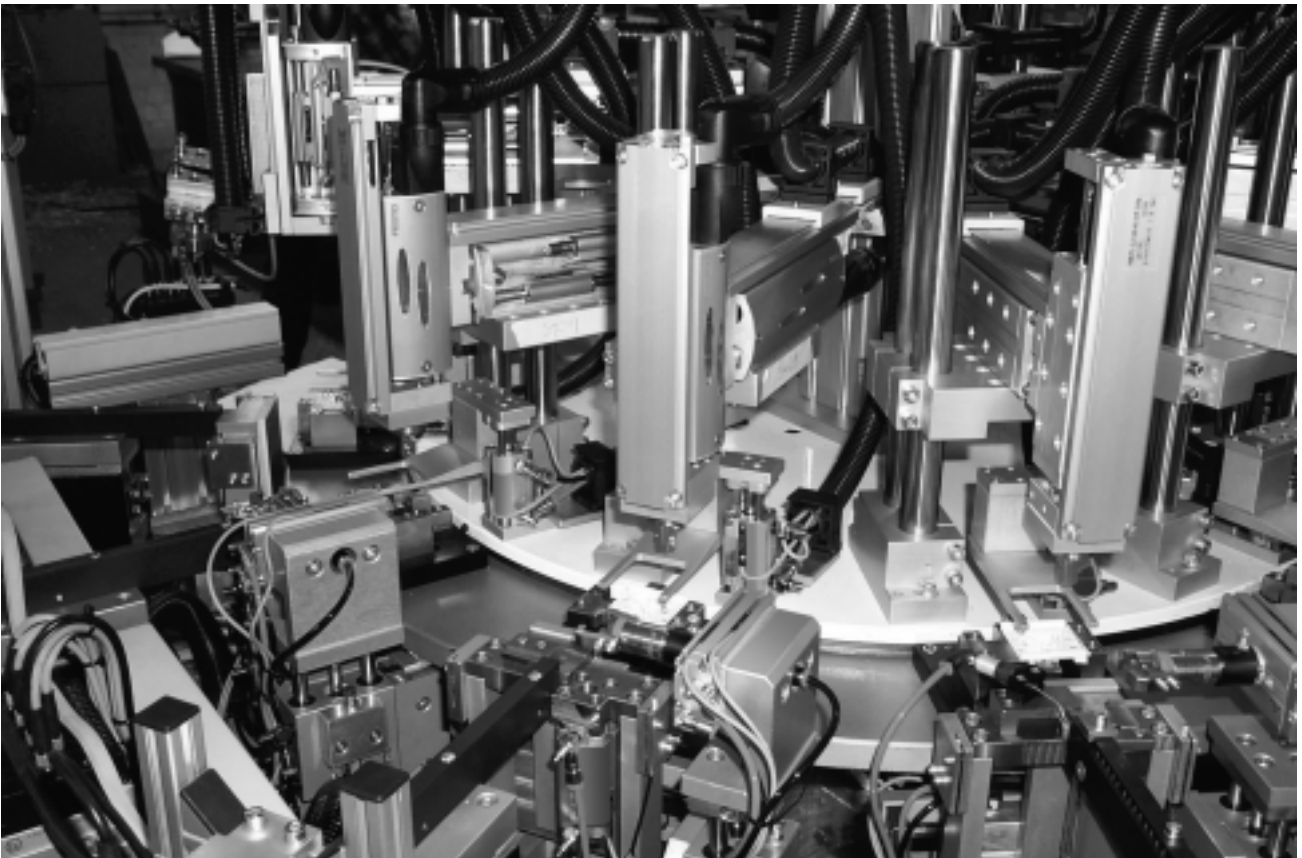
### Y modules

- Pneumatic: DGSL, SLT, HMP
- Electric: SLTE

### Z modules

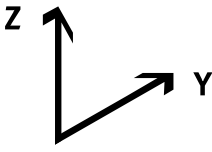




- Pneumatic: DGSL, SLT, HMP
- Electric: SLTE

## Application



# Pick & place




Product range overview

Selection aid				
Function	DGSL/DGSL	SLT(E)/SLT(E)	HM.../DGSL, SLT(E)	HM.../HMP
				
Y-axis	DGSL	SLT(E)	HMP	HMP
Drive type	Pneumatic/electric			
Options	Shock absorber, adjustable/ non-adjustable cushioning	Shock absorber, adjustable/ non-adjustable cushioning	Intermediate position	
Z-axis	DGSL	SLT(E)	DGSL, SLT(E)	HMP
Drive type	Pneumatic/electric			
Options	Shock absorber, adjustable/non-adjustable cushioning	Shock absorber, adjustable/non-adjustable cushioning	Shock absorber, adjustable/non-adjustable cushioning	Intermediate position, clamping unit
Effective load [kg]				
1	■	■	■	■
2	■	■	■	■
3	■	■	■	■
4	■	–	■	■
6	–	–	■	■
10	–	–	–	■
→ Page/Internet	6			

## Pick & place




Selection aid for basic, connecting and installation components

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Y-axis			
Function		DGSL/DGSL	SLT/SLT
			
Pneumatic drives	Stroke [mm]	Type	
DGSL-12	30 ... 150	HMBSY-DGSL-1 → 10	-
DGSL-16	30 ... 150	HMBSY-DGSL-1 → 10	-
DGSL-20	30 ... 100	HMBSY-DGSL-2 → 10	-
	125 ... 200	HMBSY-DGSL-3 → 10	-
DGSL-25	30 ... 100	HMBSY-DGSL-4 → 10	-
	125 ... 200	HMBSY-DGSL-5 → 10	-
SLT-16	30 ... 150	-	HMBSY-SLT-1 → 11
SLT-20	30 ... 100	-	HMBSY-SLT-2 → 11
	125 ... 200	-	HMBSY-SLT-3 → 11
SLT-25	30 ... 100	-	HMBSY-SLT-4 → 11
	125 ... 200	-	HMBSY-SLT-5 → 11

# Pick & place

Selection aid for basic, connecting and installation components

Y-axis		
Function	HMP, DGSL, SLT	HMP, HMP
		
Pneumatic drives	Stroke [mm]	Type
HMP-16	150 ... 250	HMBSY-HMP-1 → 12
	320	HMBSY-HMP-2 → 12
HMP-20	100 ... 250	HMBSY-HMP-3 → 12
	320 ... 400	HMBSY-HMP-4 → 12
HMP-25	100 ... 200	HMBSY-HMP-5 → 13
	250 ... 400	HMBSY-HMP-6 → 13
HMP-32	100 ... 200	- HMBSY-HMP-7 → 13
	250 ... 400	- HMBSY-HMP-8 → 13

### Selection example

Project engineering produced the following drive combination:

Y-axis: HMP-16,  
200 mm stroke  
Z-axis: HMP-16

#### Step 1

Define the drive type in the selection aids for the Y or Z-axis. The associated parts list can be found on the specified page.

Y-axis: HMBSY-HMP-1  
→ 12  
Z-axis: HMBSZ-HMP-1  
→ 18

#### Step 2

The necessary basic, connecting and installation components can be found in the parts list on the specified page.

Y-axis: HMBSY-HMP-1  
Z-axis: HMBSZ-HMP-1





#### Step 3

Technical data on the basic, connecting and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are listed in the documentation for the drives.

## Pick & place

Selection aid for basic, connecting and installation components




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Z-axis			
Function	DGSL/DGSL	SLT/SLT	HMP, DGSL
			
Pneumatic drives	Type		
DGSL-10	HMBSZ-DGSL-1 → 14	–	–
DGSL-12	HMBSZ-DGSL-9 →	–	–
DGSL-16	HMBSZ-DGSL-2 → 14	–	HMBSZ-DGSL-4 → 15
DGSL-20	HMBSZ-DGSL-3 → 14	–	HMBSZ-DGSL-5 → 15
DGSL-25	–	–	HMBSZ-DGSL-6 → 15
SLT-10	–	HMBSZ-SLT-1 → 16	–
SLT-16	–	HMBSZ-SLT-2 → 16	–
SLT-20	–	HMBSZ-SLT-3 → 16	–
SLT-25	–	–	–
HMP-16	–	–	–
HMP-20	–	–	–
HMP-25	–	–	–



## Pick & place

Selection aid for basic, connecting and installation components

Z-axis		
Function	HMP, SLT	HMP, HMP
		
Pneumatic drives	Type	
SLT-16	HMBSZ-SLT-4 → 17	-
SLT-20	HMBSZ-SLT-5 → 17	-
SLT-25	HMBSZ-SLT-6 → 17	-
HMP-16	-	HMBSZ-HMP-1 → 18
HMP-20	-	HMBSZ-HMP-2 → 18
HMP-25	-	HMBSZ-HMP-3 → 18

### Selection example

Project engineering produced the following drive combination:

Y-axis: HMP-16,  
200 mm stroke  
Z-axis: HMP-16

#### Step 1

Define the drive type in the selection aids for the Y or Z-axis. The associated parts list can be found on the specified page.

Y-axis: HMBSY-HMP-1  
→ 12  
Z-axis: HMBSZ-HMP-1  
→ 18

#### Step 2

The necessary basic, connecting and installation components can be found in the parts list on the specified page.

Y-axis: HMBSY-HMP-1  
Z-axis: HMBSZ-HMP-1

#### Step 3

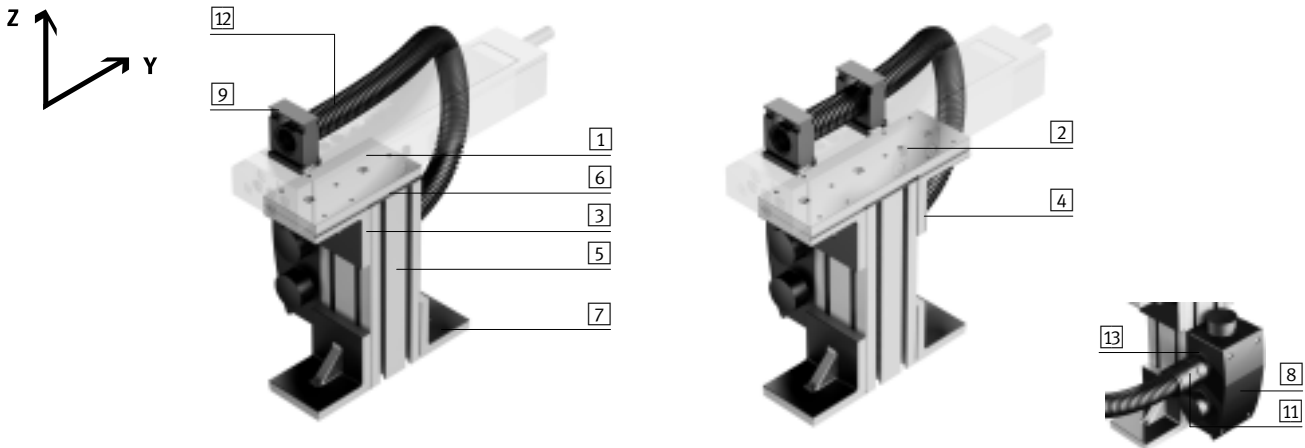
Technical data on the basic, connecting and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are listed in the documentation for the drives.

# Pick & place

Y modules

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## Mini slides DGSL



Parts list												
Type	HMBSY-DGSL-1		HMBSY-DGSL-2		HMBSY-DGSL-3		HMBSY-DGSL-4		HMBSY-DGSL-5		→ Page/ Internet	
For drives	DGSL-12/-16		DGSL-20		125 ... 200		DGSL-25					
Stroke [mm]	30 ... 150		30 ... 100		125 ... 200		30 ... 100		125 ... 200			
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 968 HMVY-1		539 969 HMVY-2		–		539 969 HMVY-2		–		79
2	1	–		–		539 970 HMVY-3		–		539 970 HMVY-3		
3	1	175 967 HMBV-ND		175 967 HMBV-ND		–		175 967 HMBV-ND		–		65
4	2	–		–		175 967 HMBV-ND		–		175 967 HMBV-ND		
5	1 <sup>1)</sup>	175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		62
6	1	175 965 HMBSA-80/80		175 965 HMBSA-80/80		175 965 HMBSA-80/80		175 965 HMBSA-80/80		175 965 HMBSA-80/80		62
7	2	175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		64
8	1	175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV		95
9	1	192 289 MKRS-16,5-B		192 290 MKRS-23-B		192 290 MKRS-23-B		192 290 MKRS-23-B		192 290 MKRS-23-B		102
		548 803 ZBV-M5-7		548 804 ZBV-M6-9		548 804 ZBV-M6-9		548 804 ZBV-M6-9		548 804 ZBV-M6-9		71
11	1	177 571 MKRV-16,5-PG-16		177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21		96
12	1 <sup>2)</sup>	177 566 MKR-16,5-PG-16		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		94
		177 566 MKR-16,5-PG-16		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		94
13	1	193 949 MKA-PG-29-PG-16-KU		177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21		100

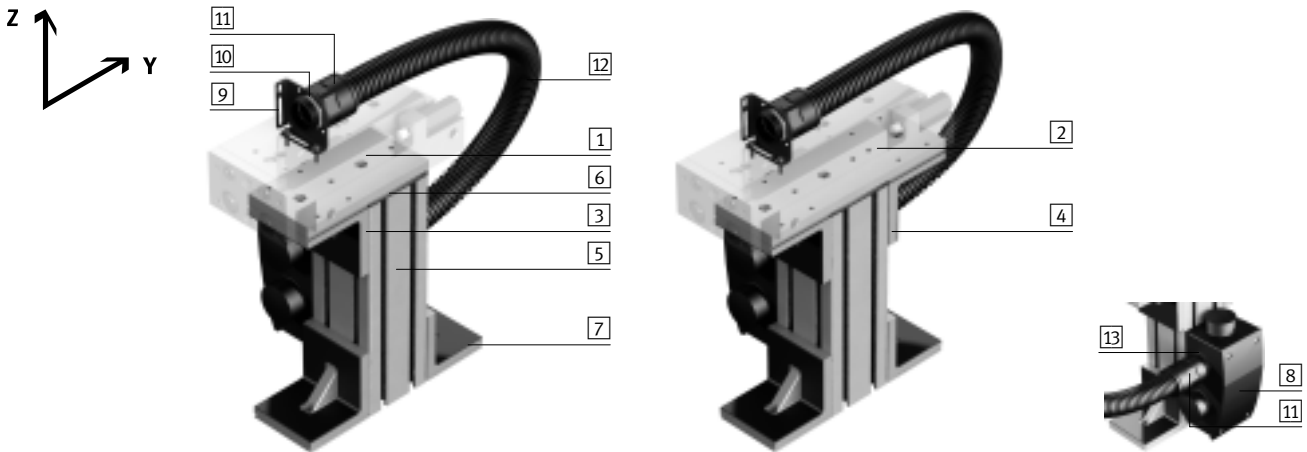
1) Height max. 500 mm

2) Length depends on the stroke of the drive (scope of delivery: 1m)

# Pick & place

Y modules

## Mini slides SLT



### Parts list

Type		HMBSY-SLT-1	HMBSY-SLT-2	HMBSY-SLT-3	HMBSY-SLT-4	HMBSY-SLT-5	→ Page/ Internet			
For drives		SLT-16	SLT-20		SLT-25					
Stroke [mm]		30 ... 150	30 ... 100	125 ... 200	30 ... 100	125 ... 200				
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 968 HMVY-1		539 969 HMVY-2		–		539 969 HMVY-2	–	79
2	1	–		–		539 970 HMVY-3		–	539 970 HMVY-3	
3	1	175 967 HMBV-ND		175 967 HMBV-ND		–		175 967 HMBV-ND	–	65
4	2	–		–		175 967 HMBV-ND		–	175 967 HMBV-ND	
5	1 <sup>1)</sup>	175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80	175 958 HMBS-80/80	62
6	1	175 965 HMBSA-80/80		175 965 HMBSA-80/80		175 965 HMBSA-80/80		175 965 HMBSA-80/80	175 965 HMBSA-80/80	62
7	2	175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB	175 951 HMBF-DB	64
8	1	175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV	175 126 HMZV	95
9	1	193 124 HMZAS-PG-21		193 124 HMZAS-PG-21		193 124 HMZAS-PG-21		193 124 HMZAS-PG-21	193 124 HMZAS-PG-21	103
10	1	177 599 MKM-PG-21		177 599 MKM-PG-21		177 599 MKM-PG-21		177 599 MKM-PG-21	177 599 MKM-PG-21	100
11	2	177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	96
12	1 <sup>2)</sup>	177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	94
13	1	177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21	177 595 MKA-PG-29-PG-21	100

1) Height max. 500 mm

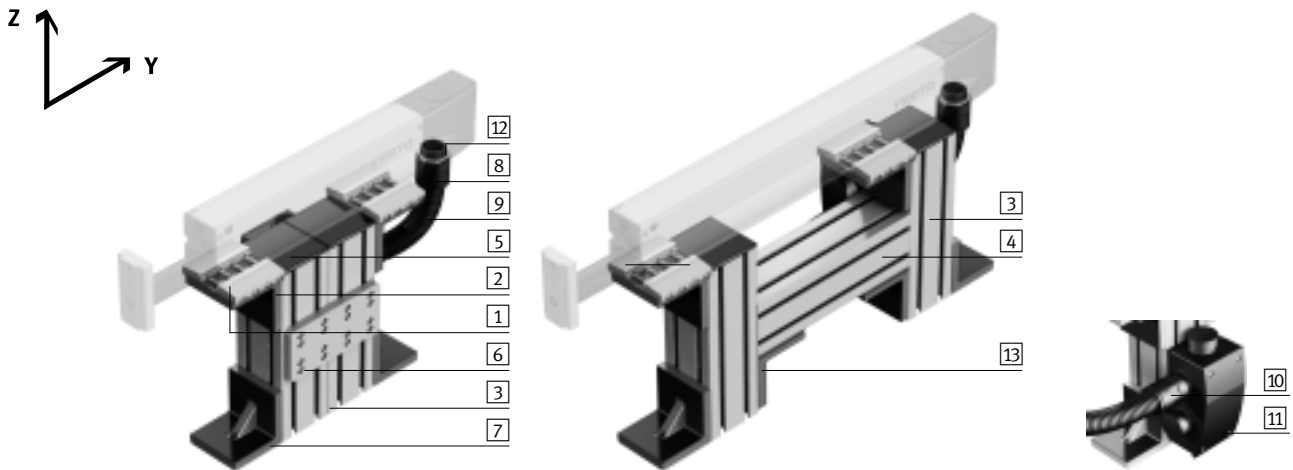
2) Length depends on the stroke of the drive (scope of delivery: 1m)

# Pick & place

Y modules

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## Linear modules HMP



Parts list								
Type	HMBSY-HMP-1		HMBSY-HMP-2		HMBSY-HMP-3		HMBSY-HMP-4	
For drives	HMP-16			HMP-20				
Stroke [mm]	150 ... 250		320		100 ... 250		320 ... 400	
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	→ Page/ Internet
1	2	175 975	HMBK-WS	175 975	HMBK-WS	175 975	HMBK-WS	79
2	2	175 967	HMBV-ND	175 967	HMBV-ND	175 967	HMBV-ND	65
3	2 <sup>1)</sup>	175 958	HMBS-80/80	175 958	HMBS-80/80	175 958	HMBS-80/80	62
4	1 <sup>2)</sup>	-		175 958	HMBS-80/80	-	175 958 HMBS-80/80	
5	2	175 965	HMBSA-80/80	175 965	HMBSA-80/80	175 965	HMBSA-80/80	62
6	1	175 972	HMBSV	-		175 972	HMBSV	63
7	2	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	64
8	2	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 573	MKRV-29-PG-29	96
9	1 <sup>3)</sup>	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 568	MKR-29-PG-29	94
10	1	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	-	-	100
11	1	175 126	HMZV	175 126	HMZV	175 126	HMZV	95
12	1	177 599	MKM-PG-21	177 599	MKM-PG-21	177 600	MKM-PG-29	100
13	2	-		178 228	HMBSW	-	178 228 HMBSW	63

1) Height max. 500 mm

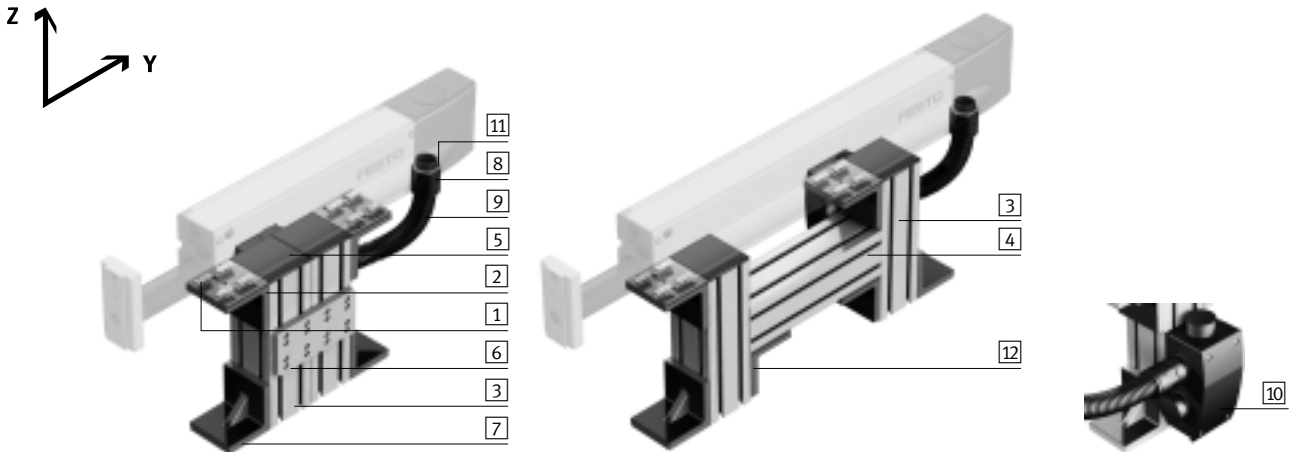
2) Length 250 mm

3) Length depends on the stroke of the drive (scope of delivery: 1m)

# Pick & place

Y modules

## Linear modules HMP



### Parts list

Type		HMBSY-HMP-5	HMBSY-HMP-6	HMBSY-HMP-7	HMBSY-HMP-8	
For drives		HMP-25		HMP-32		
Stroke [mm]		100 ... 200		250 ... 400		→ Page/
Item	Pieces	Part No.	Type	Part No.	Type	Internet
1	2	175 970	HMBK-ND	175 970	HMBK-ND	78
2	2	175 967	HMBV-ND	175 967	HMBV-ND	65
3	2 <sup>1)</sup>	175 958	HMBS-80/80	175 958	HMBS-80/80	62
4	1 <sup>2)</sup>	–		175 958	HMBS-80/80	
5	2	175 965	HMBSA-80/80	175 965	HMBSA-80/80	62
6	1	175 972	HMBSV	175 972	HMBSV	63
7	2	175 951	HMBF-DB	175 951	HMBF-DB	64
8	2	177 573	MKRV-29-PG-29	177 573	MKRV-29-PG-29	96
9	1 <sup>3)</sup>	177 568	MKR-29-PG-29	177 568	MKR-29-PG-29	94
10	1	175 126	HMZV	175 126	HMZV	95
11	1	177 600	MKM-PG-29	177 600	MKM-PG-29	100
12	2	–		178 228	HMBSW	63

1) Height max. 500 mm

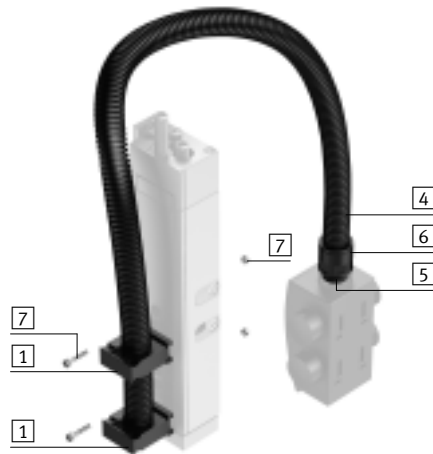
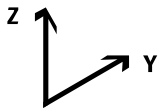
2) Length 350 mm

3) Length depends on the stroke of the drive (scope of delivery: 1m)

# Pick & place

Z modules

## Mini slides DGSL



Parts list									
Type		HMBSZ-DGSL-1	HMBSZ-DGSL-9	HMBSZ-DGSL-2	HMBSZ-DGSL-3				
For drives		DGSL-10	DGSL-12	DGSL-16	DGSL-20				
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	→ Page/Internet	
1	2	192 289	MKRS-16,5-B	192 289	MKRS-16,5-B	192 289	MKRS-16,5-B	103	
			M4x12 DIN 912	548 803	ZBV-M5-7	548 803	ZBV-M5-7	71	
4	1 <sup>1)</sup>	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	94	
5	1	193 949	MKA-PG-29-PG-16-KU	193 949	MKA-PG-29-PG-16-KU	193 949	MKA-PG-29-PG-16-KU	100	
6	1	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	96	
7	1	548 803	ZBV-M5-7	–		548 804	ZBV-M6-9	71	
		–		186 717	ZBH-7 <sup>2)</sup>	–		150 927	ZBH-9 <sup>2)</sup>
7	2	–		M5x14 DIN 912		–		M6x20 DIN 912	–

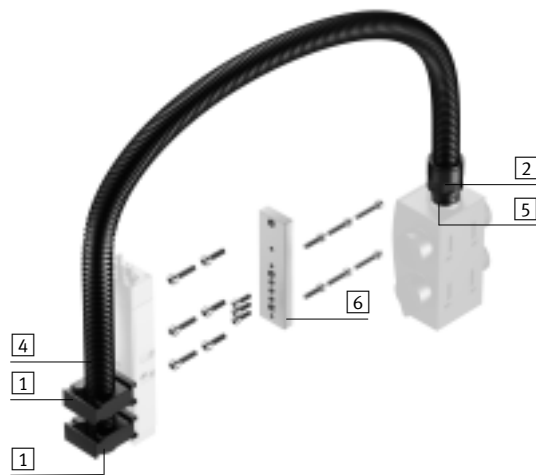
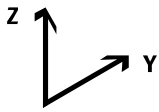
1) Length depends on the stroke of the drive (scope of delivery: 1m)

2) Centring sleeves are included in the scope of delivery of the mini slide DGSL

# Pick & place

Z modules

## Mini slides DGSL



Parts list								
Type	HMBSZ-DGSL-4		HMBSZ-DGSL-5		HMBSZ-DGSL-6		→ Page/Internet	
For drives	DGSL-16		DGSL-20		DGSL-25			
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	
1	2	192 289		192 290		192 290		102
		MKRS-16,5-B		MKRS-23-B		MKRS-23-B		
		548 803		548 804		548 804		71
		ZBV-M5-7		ZBV-M6-9		ZBV-M6-9		
2	1	177 571		177 572		177 572		96
		MKRV-16,5-PG-16		MKRV-23-PG-21		MKRV-23-PG-21		
4	1 <sup>1)</sup>	177 566		177 567		177 567		94
		MKR-16,5-PG-16		MKR-23-PG-21		MKR-23-PG-21		
5	1	193 949		177 595		177 595		100
		MKA-PG-29-PG-16-KU		MKA-PG-29-PG-21		MKA-PG-29-PG-21		
6	1	548 779		548 779		548 779		8
		HMSV-49		HMSV-49		HMSV-49		

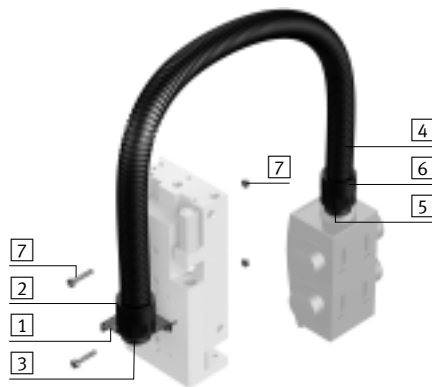
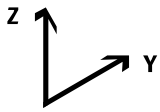
1) Length depends on the stroke of the drive (scope of delivery: 1m)

# Pick & place

Z modules

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## Mini slides SLT



Parts list					
Type		HMBSZ-SLT-1	HMBSZ-SLT-2	HMBSZ-SLT-3	
For drives		SLT-10	SLT-16	SLT-20	
Item	Pieces	Part No. Type	Part No. Type	Part No. Type	→ Page/Internet
[1]	1	192 289 MKRS-16,5-B	193 124 HMZAS-PG-21	193 124 HMZAS-PG-21	103
[2]	1	-	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	96
[3]	1	-	177 599 MKM-PG-21	177 599 MKM-PG-21	100
[4]	1 <sup>1)</sup>	177 566 MKR-16,5-PG-16	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	94
[5]	1	193 949 MKA-PG-29-PG-16-KU	177 595 MKA-PG-29-PG-21	177 595 MKA-PG-29-PG-21	100
[6]	1	177 571 MKRV-16,5-PG-16	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	96
[7]	- <sup>2)</sup>	186 717 ZBH-7	150 927 ZBH-9	189 653 ZBH-12	-
	2	M4x25 DIN 912	M5x30 DIN 912	M6x40 DIN 912	-

1) Length depends on the stroke of the drive (scope of delivery: 1m)

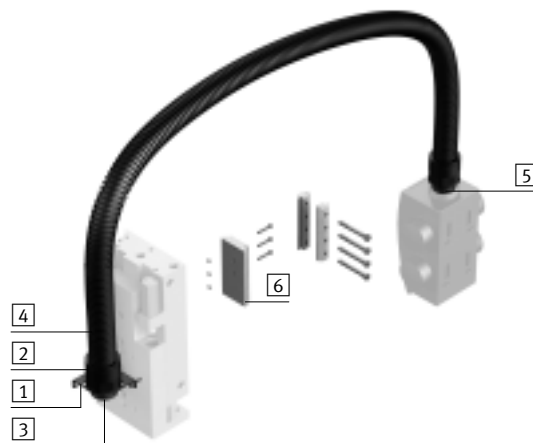
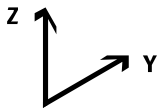
2) Centring sleeves are included in the scope of delivery of the mini slide SLT.



# Pick & place

Z modules

## Mini slides SLT



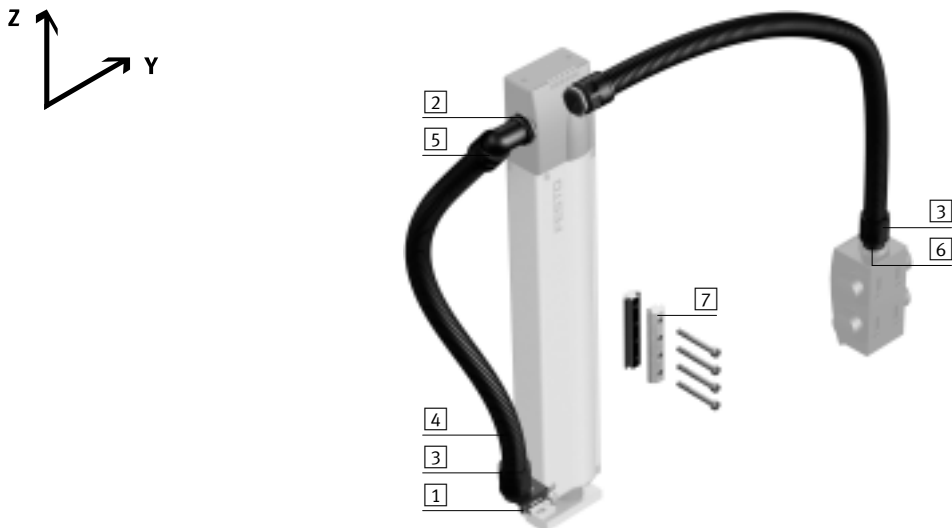
Parts list					
Type		HMBSZ-SLT-4	HMBSZ-SLT-5	HMBSZ-SLT-6	
For drives		SLT-16	SLT-20	SLT-25	
Item	Pieces	Part No. Type	Part No. Type	Part No. Type	→ Page/Internet
1	1	193 124 HMZAS-PG-21	193 124 HMZAS-PG-21	193 124 HMZAS-PG-21	103
2	2	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	96
3	1	177 599 MKM-PG-21	177 599 MKM-PG-21	177 599 MKM-PG-21	100
4	1 <sup>1)</sup>	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	94
5	1	177 595 MKA-PG-29-PG-21	177 595 MKA-PG-29-PG-21	177 595 MKA-PG-29-PG-21	100
6	1	178 331 HMSV-36	178 332 HMSV-37	178 332 HMSV-37	9

1) Length depends on the stroke of the drive (scope of delivery: 1m)

# Pick & place

Z modules

## Linear modules HMP



Parts list					
Type		HMBSZ-HMP-1	HMBSZ-HMP-2	HMBSZ-HMP-3	
For drives		HMP-16	HMP-20	HMP-25	
Item	Pieces	Part No. Type	Part No. Type	Part No. Type	→ Page/Internet
[1]	1	193 124 HMZAS-PG-21	177 603 HMZAS-PG-29	177 603 HMZAS-PG-29	103
[2]	3	177 599 MKM-PG-21	177 600 MKM-PG-29	177 600 MKM-PG-29	100
[3]	3	177 572 MKRV-23-PG-21	177 573 MKRV-29-PG-29	177 573 MKRV-29-PG-29	96
[4]	2 <sup>1)</sup>	177 567 MKR-23-PG-21	177 568 MKR-29-PG-29	177 568 MKR-29-PG-29	94
[5]	1	177 577 MKRL-23-PG-21	177 578 MKRL-29-PG-29	177 578 MKRL-29-PG-29	97
[6]	1	177 595 MKA-PG-29-PG-21	-	-	100
[7]	1	177 647 HMSV-1	177 649 HMSV-3	177 653 HMSV-7	72

1) Length depends on the stroke of the drive (scope of delivery: 1m)



# Linear gantries

Key features

FESTO

## Y and Z modules



### Y modules

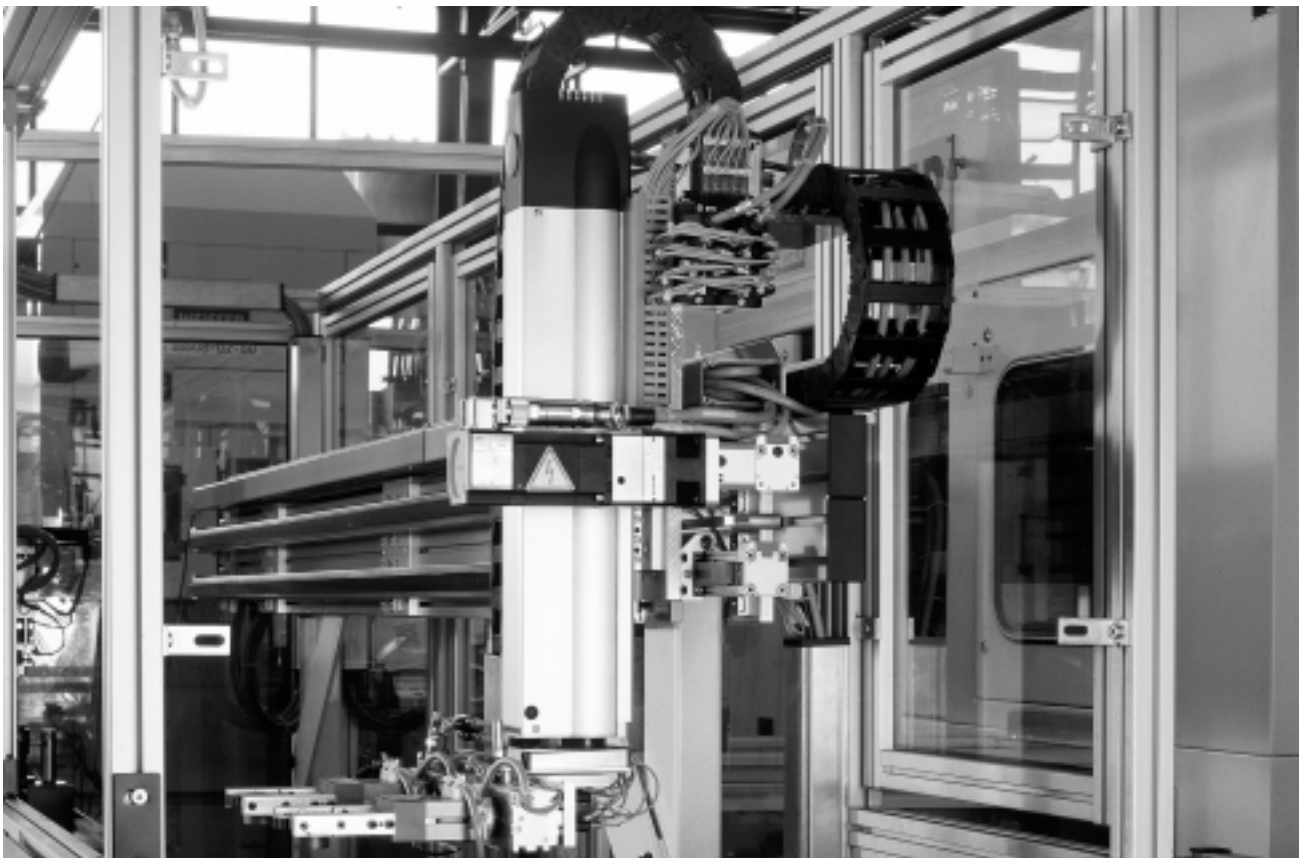
- Pneumatic: DGPL, DGC
- Pneumatic with end-position controller SPC11 (Soft Stop): DGPL
- Electric: DGE
- Single-axis systems (mono) or drives with guide axis (duo)

### Z modules

- Pneumatic: DGSL, SLT, HMP, DGC, DGPL
- Electric: DGE, DGEA

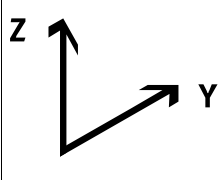



Gantry tubing and cables are routed via energy chains. Festo uses a support profile for this purpose that is specially designed for handling technology.

## Application






# Linear gantries

Product range overview

Selection aid							
System type	Mono 25	Mono 40	Duo 25		Duo 40	Duo 63	
							
Y-axis	DG...-25	DG...-40	DG...-25		DG...-40		DG...-50/63
Drive type	Pneumatic, pneumatic with end-position controller SPC11 (Soft Stop) or electric						
Options	Spindle or toothed belt axis						
Z-axis	DGSL-12 SLT-16	DGSL-16 SLT-20 HMP-16	DGSL-20 SLT-25 HMP-20	DGSL-25 HMP-25	DGPL-40 DGC-40 HMP-32	DGPL-50 DGPL-63 DGC-50 DGC-63	
Drive type	Pneumatic						
Options	–	Intermediate position with HMP	Intermediate position with HMP	Intermediate position with HMP	Intermediate position with HMP		
Z-axis	DGEA-18	DGEA-18 DGE-25-SP-KF	DGEA-25 DGE-40-SP-KF	DGEA-25 DGE-40-SP-KF	DGEA-40 DGE-40-SP-KF	DGEA-40 DGE-63-SP-KF	
Drive type	Electric						
Options	–	Spindle or toothed belt axis	Spindle or toothed belt axis	Spindle or toothed belt axis	Spindle or toothed belt axis		
Effective load [kg]							
	1	■	■	■	■	■	■
	2	■	■	■	■	■	■
	3	–	■	■	■	■	■
	4	–	■	■	■	■	■
	6	–	–	■	■	■	■
	10	–	–	–	■	■	■
	15	–	–	–	–	■	■
	25	–	–	–	–	–	■
→ Page/Internet	22						

# Linear gantries

Selection aid for basic, connecting and installation components

Y-axis			
System type	Mono 25	Mono 40	Duo 25
			
Pneumatic drives	Type		
DGPL-25	HMBSY-LP-M25-1 → 26	–	HMBSY-LP-D25-1 → 28
DGC-25	HMBSY-LP-M25-2 → 26	–	HMBSY-LP-D25-2 → 28
DGPL-25 with SPC11	HMBSY-LP-M25-3 → 26	–	HMBSY-LP-D25-3 → 28
DGPL-40	–	HMBSY-LP-M40-1 → 27	–
DGC-40	–	HMBSY-LP-M40-2 → 27	–
DGPL-40 with SPC11	–	HMBSY-LP-M40-3 → 27	–
Electric drives	Type		
DGE-25 -SP-KF -ZR-KF -ZR-RF	HMBSY-LP-M25-1 → 26 HMBSY-LP-M25-4 → 26	–	HMBSY-LP-D25-1 → 28 HMBSY-LP-D25-4 → 28
DGE-40 -SP-KF -ZR-KF -ZR-RF	–	HMBSY-LP-M40-1 → 27	–

## Selection example:

Project engineering produced the following drive combination:

Y-axis: Duo 25 system with DGE-25-ZR-RF  
Z-axis: SLT-20

### Step 1

Define the drive type in the selection aids for the Y or Z-axis. The associated parts list can be found on the specified page.

Y-axis: HMBSY-LP-D25-4  
→ 28  
Z-axis: HMBSZ-SLT-7  
→ 32

### Step 2

The necessary basic, connecting and installation components can be found in the parts list on the specified page.




Y-axis: HMBSY-LP-D25-4  
Z-axis: HMBSZ-SLT-7

### Step 3

Technical data on the basic, connecting and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are listed in the documentation for the drives.




# Linear gantries

Selection aid for basic, connecting and installation components

Y-axis		
System type	Duo 40	Duo 63
		
Pneumatic drives	Type	
DGPL-40	HMBSY-LP-D40-1 → 29	-
DGC-40	HMBSY-LP-D40-2 → 29	-
DGPL-40 with SPC11	HMBSY-LP-D40-3 → 29	-
DGPL-50 DGPL-63	-	HMBSY-LP-D50/63 → 30
DGC-50	-	HMBSY-LP-D50-2 → 30
DGC-63	-	HMBSY-LP-D63-2 → 30
Electric drives	Type	
DGE-40 -SP-KF -ZR-KF -ZR-RF	HMBSY-LP-D40-1 → 29	-
DGE-63 -SP-KF -ZR-KF -ZR-RF	-	HMBSY-LP-D50/63 → 30

# Linear gantries




Selection aid for basic, connecting and installation components

Z-axis			
System type	Mono 25	Mono 40	Duo 25
			
Pneumatic drives	Type		
DGSL-12	HMBSZ-DGSL-7 → 31	–	–
DGSL-16	–	HMBSZ-DGSL-7 → 31	HMBSZ-DGSL-7 → 31
DGSL-20	–	–	HMBSZ-DGSL-8 → 31
SLT-16	HMBSZ-SLT-7 → 32	–	–
SLT-20	–	HMBSZ-SLT-7 → 32	HMBSZ-SLT-7 → 32
SLT-25	–	–	HMBSZ-SLT-7 → 32
HMP-16	–	HMBSZ-HMP-4 → 33	HMBSZ-HMP-4 → 33
HMP-20	–	–	HMBSZ-HMP-5 → 33
Electric drives	Type		
DGEA-18	HMBSZ-DGEA-1 → 36	HMBSZ-DGEA-1 → 36	HMBSZ-DGEA-1 → 36
DGEA-25	–	–	HMBSZ-DGEA-2 → 36
DGE-25-SP-KF	–	HMBSZ-DGE-1 → 37	HMBSZ-DGE-1 → 37
DGE-40-SP-KF	–	–	HMBSZ-DGE-2 → 37



# Linear gantries

Selection aid for basic, connecting and installation components

Z-axis		
System type	Duo 40	Duo 63
		
Pneumatic drives	Type	
DGSL-25	HMBSZ-DGSL-8 → 31	-
DGPL-40	HMBSZ-DL40-63/DA40 → 34	-
DGPL-50 DGPL-63	-	HMBSZ-DL40-63/DA40 → 34
DGC-40	HMBSZ-DL40-63/DA40 → 35	-
DGC-50 DGC-63	-	HMBSZ-DL40-63/DA40 → 35
HMP-25	HMBSZ-HMP-6 → 33	-
HMP-32	HMBSZ-HMP-6 → 33	-
Electric drives	Type	
DGEA-25	HMBSZ-DGEA-3 → 36	-
DGEA-40	HMBSZ-DGEA-4 → 36	HMBSZ-DL40-63/DA40 → 36
DGE-40-SP-KF	HMBSZ-DGE-3 → 37	-
DGE-63-SP-KF	-	HMBSZ-DL40-63/DA40 → 37

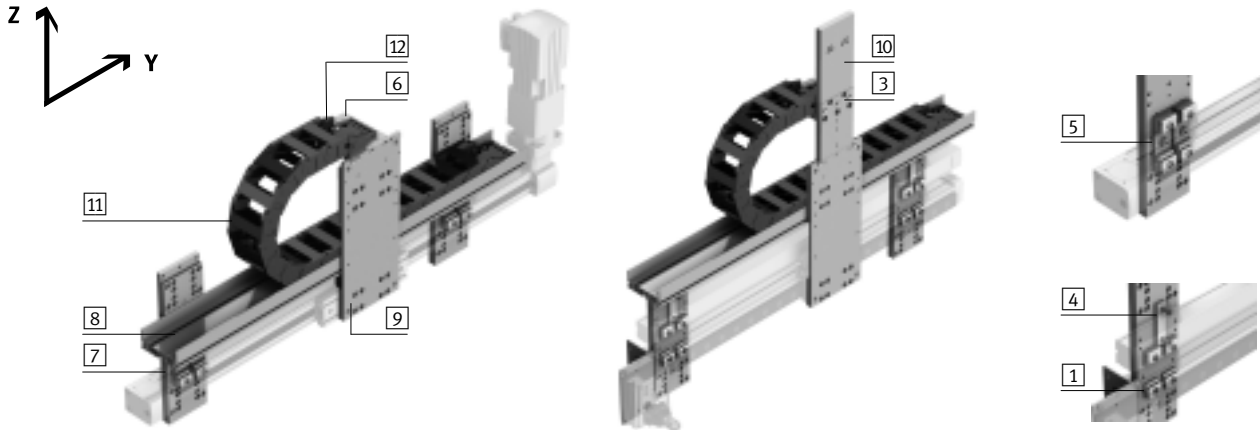
# Linear gantries

Y modules

FESTO

## Mono system for size 25

Toothed belt axes DGE, linear drives DGC, DGPL



Parts list						
Type	HMBSY-LP-M25-1	HMBSY-LP-M25-2	HMBSY-LP-M25-3	HMBSY-LP-M25-4		
For drives	DGPL-25 DGE-25-SP-KF DGE-25-ZR-KF	DGC-25	DGPL-25 with SPC11	DGE-25-ZR-RF		
System type	Mono 25					→ Page/ Internet
Item	Pieces	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
1	2 <sup>1)</sup>	150 736 MUP-18/25	–	150 736 MUP-18/25	150 736 MUP-18/25	mup
	1 <sup>1)</sup>	–	531 753 MUC-25	–	–	muc
3	1	–	–	539 364 HMIM-LP	–	111
4	1 <sup>1)</sup>	–	–	539 973 HMVO-POT	–	85
5	2 <sup>1)</sup>	–	–	–	539 362 HMVO-RF25	85
6	1	539 366 HMIO-AP1	539 366 HMIO-AP1	539 366 HMIO-AP1	539 366 HMIO-AP1	111
7	2 <sup>2)</sup>	539 972 HMVM-LP-DL25/40	539 972 HMVM-LP-DL25/40	539 972 HMVM-LP-DL25/40	539 972 HMVM-LP-DL25/40	82
8	1 <sup>3)</sup>	539 378 HMIA-E05	539 378 HMIA-E05	539 378 HMIA-E05	539 378 HMIA-E05	116
9	1	539 368 HMVS-DL25	539 368 HMVS-DL25	539 368 HMVS-DL25	539 368 HMVS-DL25	84
10	1	–	–	539 365 HMIZB-E03	–	114
11	1 <sup>3)</sup>	IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 0320.55-01-100 and TS 0/n <sub>7</sub> 2				–
12	2	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA				–

1) Per basic kit HMVM-LP-DL25/40

2) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVM-LP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

3) Length depends on the stroke of the drive

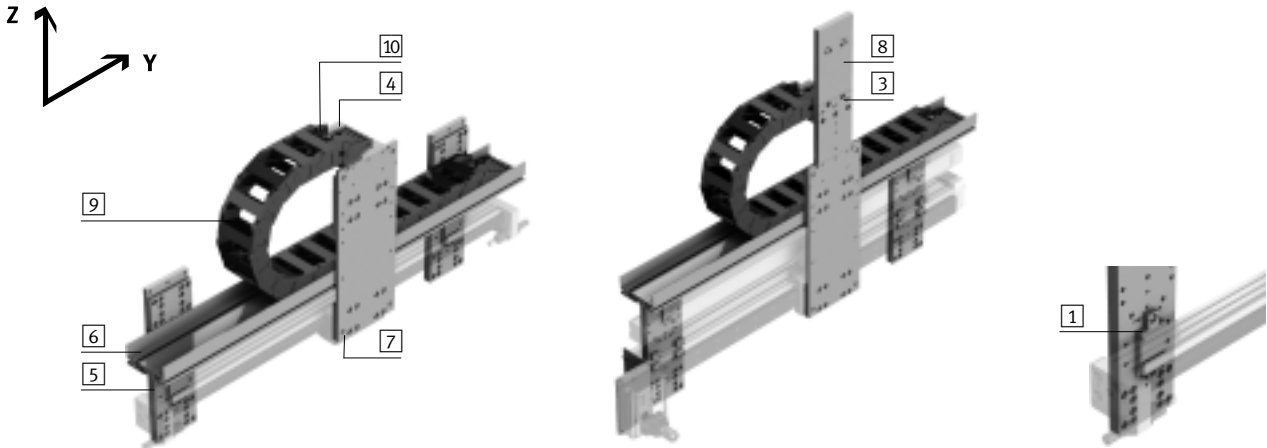
# Linear gantries

Y modules

FESTO

## Mono system for size 40

Toothed belt axes DGE, linear drives DGC, DGPL



Parts list								
Type	HMBSY-LP-M40-1		HMBSY-LP-M40-2		HMBSY-LP-M40-3			
For drives	DGPL-40 DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF		DGC-40		DGPL-40 with SPC11			
System type	Mono 40						→ Page/ Internet	
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	
1	1 <sup>1)</sup>	-		531 755 MUC-40		-		muc
3	1	-		-		539 364 HMIM-LP		111
4	1	539 366 HMIO-AP-1		540 121 HMIO-AP-2		539 366 HMIO-AP-1		111
5	2 <sup>2)</sup>	539 972 HMVM-LP-DL25/40		539 972 HMVM-LP-DL25/40		539 972 HMVM-LP-DL25/40		82
6	1 <sup>3)</sup>	539 378 HMIA-E05		539 378 HMIA-E05		539 378 HMIA-E05		116
7	1	539 369 HMVS-DL40		539 369 HMVS-DL40		539 369 HMVS-DL40		84
8	1	-		-		539 365 HMIZB-E03		114
9	1 <sup>3)</sup>	IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 0320.55-01-100 and TS O/n <sub>7</sub> 2						-
10	2	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA						-

1) Per basic kit HMVM-LP-DL25/40

2) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVM-LP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

3) Length depends on the stroke of the drive

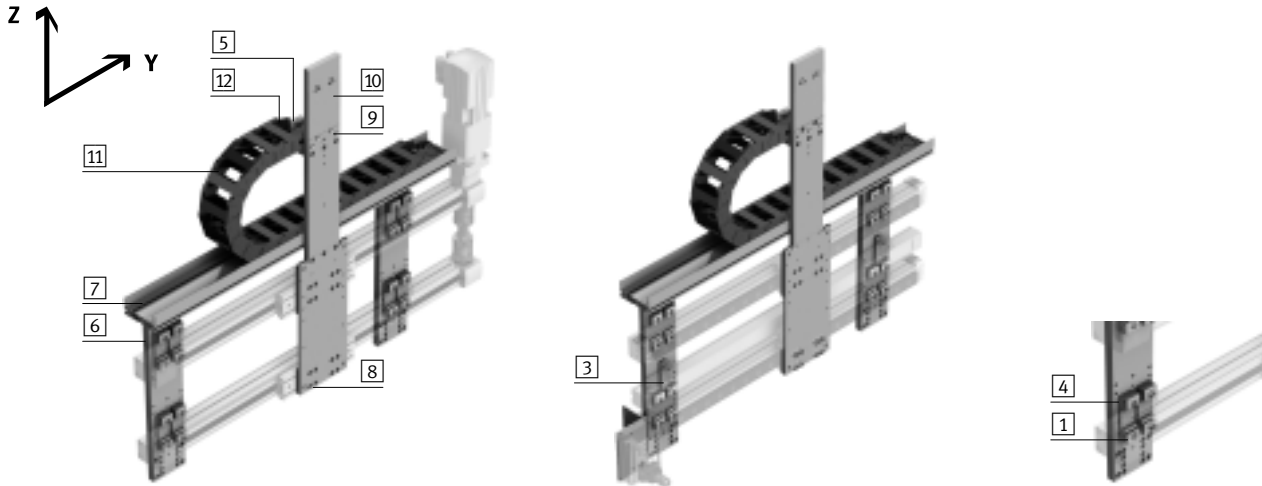
# Linear gantries

Y modules

FESTO

## Duo system for size 25

Toothed belt axes DGE, linear drives DGC, DGPL



Parts list						
Type	HMBSY-LP-D25-1	HMBSY-LP-D25-2	HMBSY-LP-D25-3	HMBSY-LP-D25-4		
For drives	DGPL-25 DGE-25-SP-KF DGE-25-ZR-KF	DGC-25	DGPL-25 with SPC11	DGE-25-ZR-RF		
System type	Duo 25					→ Page/ Internet
Item	Pieces	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
1	4 <sup>1)</sup>	150 736 MUP-18/25	–	150 736 MUP-18/25	150 736 MUP-18/25	mup
	2 <sup>1)</sup>	–	531 753 MUC-25	–	–	muc
3	1 <sup>1)</sup>	–	–	539 973 HMVO-POT	–	85
4	4 <sup>1)</sup>	–	–	–	539 362 HMVO-RF25	85
5	1	539 366 HMIO-AP-1	539 366 HMIO-AP-1	539 366 HMIO-AP-1	539 366 HMIO-AP-1	111
6	2 <sup>2)</sup>	539 971 HMVD-LP-DL25/40	539 971 HMVD-LP-DL25/40	539 971 HMVD-LP-DL25/40	539 971 HMVD-LP-DL25/40	82
7	1 <sup>3)</sup>	539 378 HMIA-E05	539 378 HMIA-E05	539 378 HMIA-E05	539 378 HMIA-E05	116
8	1	539 368 HMVS-DL25	539 368 HMVS-DL25	539 368 HMVS-DL25	539 368 HMVS-DL25	84
9	1	539 363 HMID-LP	539 363 HMID-LP	539 363 HMID-LP	539 363 HMID-LP	112
10	1	539 365 HMIZB-E03	539 365 HMIZB-E03	539 365 HMIZB-E03	539 365 HMIZB-E03	114
11	1 <sup>3)</sup>	IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 0320.55-01-100 and TS 0/n <sub>7</sub> 2				–
12	2	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA				–

1) Per basic kit HMVD-LP-DL25/40

2) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVD-LP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

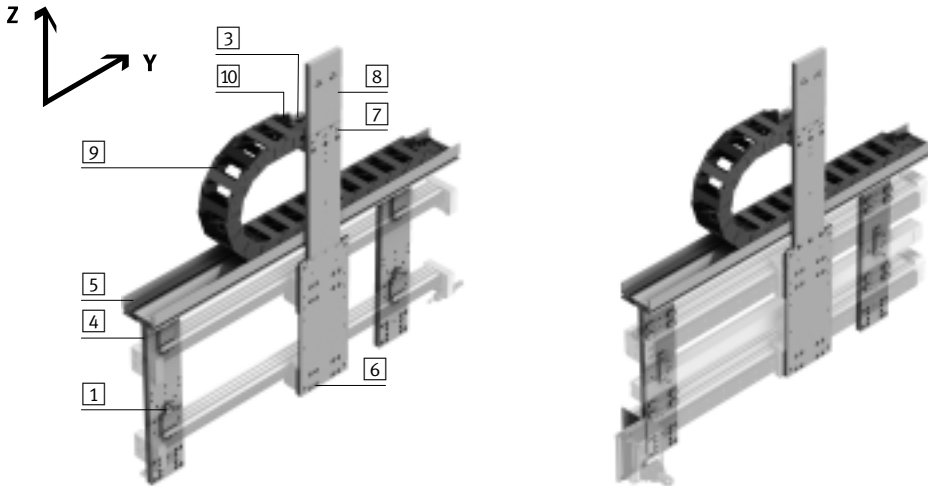
3) Length depends on the stroke of the drive

# Linear gantries

Y modules

## Duo system for size 40

Toothed belt axes DGE, linear drives DGC, DGPL



Parts list							
Type	HMBSY-LP-D40-1		HMBSY-LP-D40-2		HMBSY-LP-D40-3		
For drives	DGPL-40 DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF		DGC-40		DGPL-40 with SPC11		
System type	Duo 40					→ Page/ Internet	
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type
1	2 <sup>1)</sup>	–		531 755 MUC-40		–	muc
3	1	539 366 HMIO-AP-1		540 121 HMIO-AP-2		539 366 HMIO-AP-1	111
4	2 <sup>2)</sup>	539 971 HMVD-LP-DL25/40		539 971 HMVD-LP-DL25/40		539 971 HMVD-LP-DL25/40	82
5	1 <sup>3)</sup>	539 378 HMIA-E05		539 378 HMIA-E05		539 378 HMIA-E05	116
6	1	539 369 HMVS-DL40		539 369 HMVS-DL40		539 369 HMVS-DL40	84
7	1	539 363 HMID-LP		539 363 HMID-LP		539 363 HMID-LP	112
8	1	539 365 HMIZB-E03		539 365 HMIZB-E03		539 365 HMIZB-E03	114
9	1 <sup>3)</sup>	IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 0320.55-01-100 and TS O/n <sub>7</sub> 2					–
10	2	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA					–

1) Per basic kit HMVD-LP-DL25/40

2) Quantity with stroke  $\leq$  500 mm. With stroke > 500 mm, a basic kit HMVD-LP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

3) Length depends on the stroke of the drive

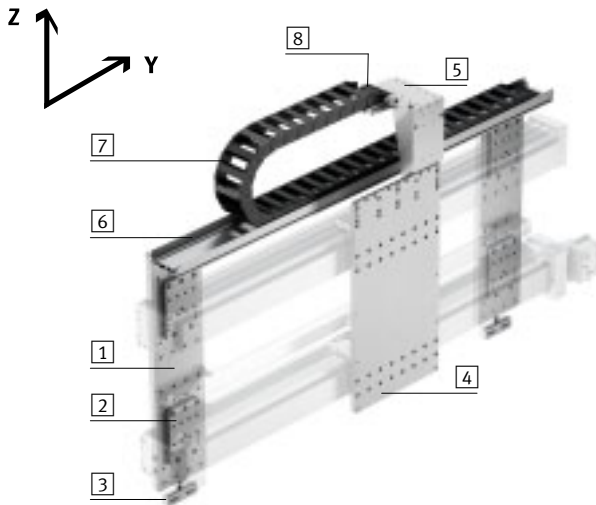
# Linear gantries

Y modules

FESTO

## Duo system for size 63

Toothed belt axes DGE, linear drives DGC, DGPL



Parts list								
Type	HMBSY-LP-D50/63		HMBSY-LP-D50-2		HMBSY-LP-D63-2			
For drives	DGPL-50 DGPL-63 DGE-63-SP-KF DGE-63-ZR-KF DGE-63-ZR-RF		DGC-50		DGC-63			
System type	Duo 63					→ Page/ Internet		
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	
1	2 <sup>1)</sup>	566 879	HMVD-LP-DL63	566 879	HMVD-LP-DL63	566 879	HMVD-LP-DL63	82
2	4 <sup>2)</sup>	566 878	HMVA-63	–	–	–	–	84
2	4 <sup>3)</sup>	–	–	531 756	MUC-50	531 757	MUC-63	muc
3	2	566 884	HMVE	566 884	HMVE	566 884	HMVE	86
4	1	566 883	HMVS-DL63	566 883	HMVS-DL63	566 883	HMVS-DL63	84
5	1	566 886	HMIY-LP-E07	566 886	HMIY-LP-E07	566 886	HMIY-LP-E07	113
6	1 <sup>4)</sup>	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	116
7	1 <sup>4)</sup>	IGUS E2 medium 2400.07.100 and 211 or ENERGY CHAIN MC 0320.75-01-100 and TS O/n <sub>r</sub> 2					–	–
8	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA					–	–

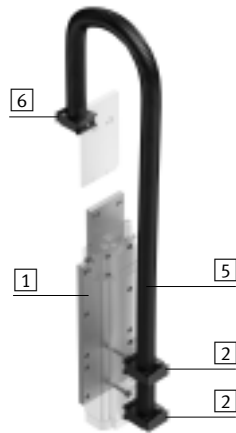
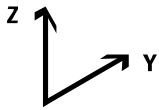
- 1) Quantity with stroke ≤1,000 mm. With stroke > 1,000 mm, a basic kit HMVD-LP-DL63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 2) Quantity with stroke ≤1,000 mm. With stroke > 1,000 mm, two adapter kits HMVA-63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 3) Quantity with stroke ≤1,000 mm. With stroke > 1,000 mm, two central supports MUC must be additionally ordered per 1,000 mm stroke or part thereof.
- 4) Length depends on the stroke of the drive

# Linear gantries

Z modules

**Mono/duo system**

Mini slides DGSL



Parts list								
Type		HMBSZ-DGSL-7			HMBSZ-DGSL-8			→ Page/ Internet
For drives		DGSL-12	DGSL-16	DGSL-20	DGSL-25			
System type		Mono 25	Mono 40 Duo 25	Duo 25	Duo 40			
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 373	HMVZ-2	539 373	HMVZ-2	539 373	HMVZ-2	83
2	1	192 289	MKRS-16,5-B	192 289	MKRS-16,5-B	192 290	MKRS-23-B	102
		548 803	ZBV-M5-7	548 803	ZBV-M5-7	548 804	ZBV-M5-9	71
5	1 <sup>1)</sup>	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21	94
6	1	192 289	MKRS-16,5-B	192 289	MKRS-16,5-B	192 290	MKRS-23-B	102

1) Length depends on the stroke of the drive (scope of delivery: 1m)

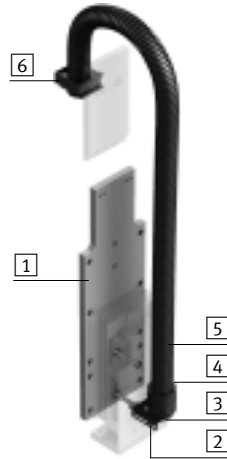
# Linear gantries

Z modules

FESTO

## Mono/duo system

Mini slides SLT



Parts list						
Type	HMBSZ-SLT-7					
For drives	SLT-16	SLT-20	SLT-25			
System type	Mono 25	Mono 40 Duo 25	Duo 25			
Item	Pieces	Part No. Type	Part No. Type	Part No. Type	→ Page/ Internet	
1	1	539 373 HMVZ-2	539 373 HMVZ-2	539 373 HMVZ-2	83	
2	1	193 124 HMZAS-PG-21	193 124 HMZAS-PG-21	193 124 HMZAS-PG-21	103	
3	1	177 599 MKM-PG-21	177 599 MKM-PG-21	177 599 MKM-PG-21	100	
4	1	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	96	
5	1 <sup>1)</sup>	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	94	
6	1	192 290 MKRS-23-B	192 290 MKRS-23-B	192 290 MKRS-23-B	102	

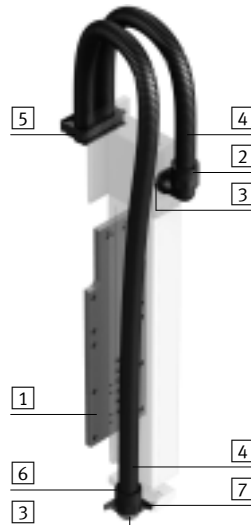
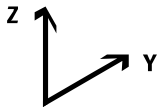
1) Length depends on the stroke of the drive (scope of delivery: 1m)



# Linear gantries

Z modules

Mono/duo system  
Linear modules HMP



Parts list						
Type		HMBSZ-HMP-4	HMBSZ-HMP-5	HMBSZ-HMP-6		
For drives		HMP-16	HMP-20	HMP-25/HMP-32		
System type		Mono 40 Duo 25	Duo 25	Duo 40		
Item	Pieces	Part No.	Type	Part No.	Type	→ Page/ Internet
1	1	539 374 HMVZ-3		539 374 HMVZ-3		83
2	1	177 577 MKRL-23-PG-21		177 578 MKRL-29-PG-29		97
3	2	177 599 MKM-PG-21		177 600 MKM-PG-29		100
4	1 <sup>1)</sup>	177 567 MKR-23-PG-21		177 568 MKR-29-PG-29		94
5	2	192 290 MKRS-23-B		192 291 MKRS-29-B		102
6	1	177 572 MKRV-23-PG-21		177 573 MKRV-29-PG-29		96
7	1	193 124 HMZAS-PG-21		177 603 HMZAS-PG-29		103

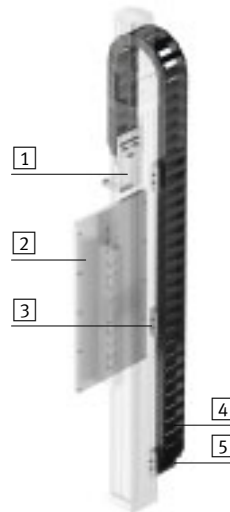
1) Length depends on the stroke of the drive (scope of delivery: 1m)

# Linear gantries

Z modules

## Mono/duo system

Linear drives DGPL



Parts list					
Type	HMBSZ-DL40-63/DA40		HMBSZ-DL40-63/DA40		→ Page/ Internet
For drives	DGPL-40		DGPL-50 DGPL-63		
System type	Duo 40		Duo 63		
Item	Pieces	Part No.	Type	Part No.	Type
1	1	566 885 HMIW-E05/E07		566 885 HMIW-E05/E07	115
2	1	566 876 HMVZ-9		566 876 HMVZ-9	83
3	3 <sup>1)</sup>	566 877 HMIZW-E05/E07-DL40/63		566 877 HMIZW-E05/E07-DL40/63	115
4	1 <sup>2)</sup>	IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2	-
5	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA	-
4	1 <sup>2)</sup>	IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2	-
5	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA	-

1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.

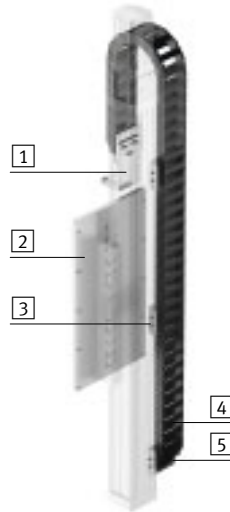
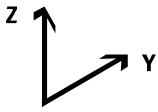
2) Length depends on the stroke of the drive

# Linear gantries

Z modules

**Mono/duo system**

Linear drives DGC



Parts list					
Type		HMBSZ-DL40-63/DA40		HMBSZ-DL40-63/DA40	
For drives		DGC-40		DGC-50 DGC-63	
System type		Duo 40		Duo 63	
Item	Pieces	Part No.	Type	Part No.	Type
1	1	566 885	HMIW-E05/E07	566 885	HMIW-E05/E07
2	1	566 876	HMVZ-9	566 876	HMVZ-9
3	3 <sup>1)</sup>	566 877	HMIZW-E05/E07-DL40/63	566 877	HMIZW-E05/E07-DL40/63
4	1 <sup>2)</sup>	IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2	
5	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA	
4	1 <sup>2)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2	
5	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA	

1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.

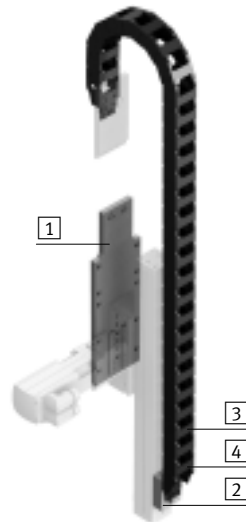
2) Length depends on the stroke of the drive

# Linear gantries

Z modules

## Mono/duo system

Cantilever axes DGEA



Parts list								→ Page/ Internet			
Type	HMBSZ-DGEA-1	HMBSZ-DGEA-2	HMBSZ-DGEA-3	HMBSZ-DGEA-4	HMBSZ-DL40-63/DA40						
For drives	DGEA-18	DGEA-25	DGEA-25	DGEA-40	DGEA-40						
System type	Mono 25 Mono 40 Duo 25	Duo 25	Duo 40	Duo 40	Duo 63						
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type		
1	1	539 374 HMVZ-3		539 375 HMVZ-4		539 377 HMVZ-6		539 377 HMVZ-6		566 876 HMVZ-9	83
2	1	539 370 HMIZF-E03-DA18		539 371 HMIZF-E03-DA25		539 371 HMIZF-E03-DA25		566 895 HMIZF-E03/E05/E07-DA40		566 877 HMIZW-E05/E07-DL40/63	115
3	1 <sup>1)</sup>	IGUS E2 medium 240.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS 0/n <sub>T</sub> 2								-	
4	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA								-	
3	1 <sup>1)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS 0/n <sub>T</sub> 2								-	
4	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA								-	

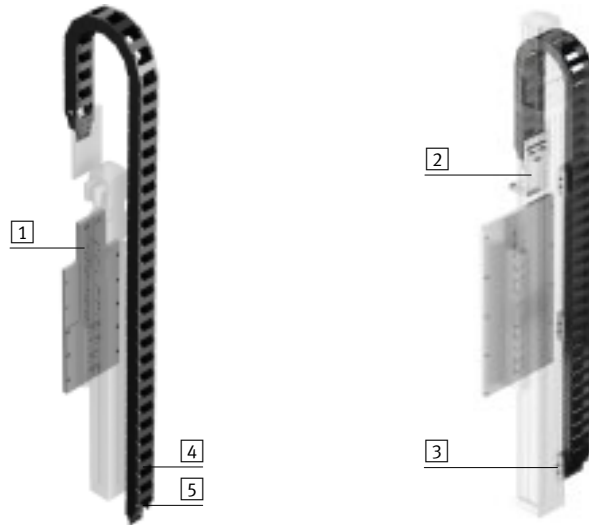
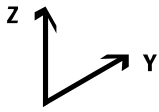
1) Length depends on the stroke of the drive

# Linear gantries

Z modules

## Mono/duo system

Spindle axes DGE



Parts list									
Type		HMBSZ-DGE-1	HMBSZ-DGE-2	HMBSZ-DGE-3	HMBSZ-DL40-63/DA40				
For drives		DGE-25-SP	DGE-40-SP	DGE-40-SP	DGE-63-SP				
System type		Mono 40 Duo 25	Duo 25	Duo 40	Duo 63				
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	→ Page/ Internet	
1	1	539 374 HMVZ-3		539 375 HMVZ-4		539 377 HMVZ-6		83	
2	1	566 885 HMIW-E05/E07						115	
3	3 <sup>1)</sup>	-		-		566 877 HMIZW-E05/E07-DL40/63		115	
4	1 <sup>2)</sup>	IGUS E2 medium 240.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2							-
5	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA							-
4	1 <sup>2)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2							-
5	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA							-

1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.

2) Length depends on the stroke of the drive

# Three-dimensional gantries

Key features

FESTO

## X, Y and Z modules



### Y modules

- Pneumatic: DGPL, DGC
- Electric: DGE
- Single-axis systems (mono) or drives with guide axis (duo)

### Z modules

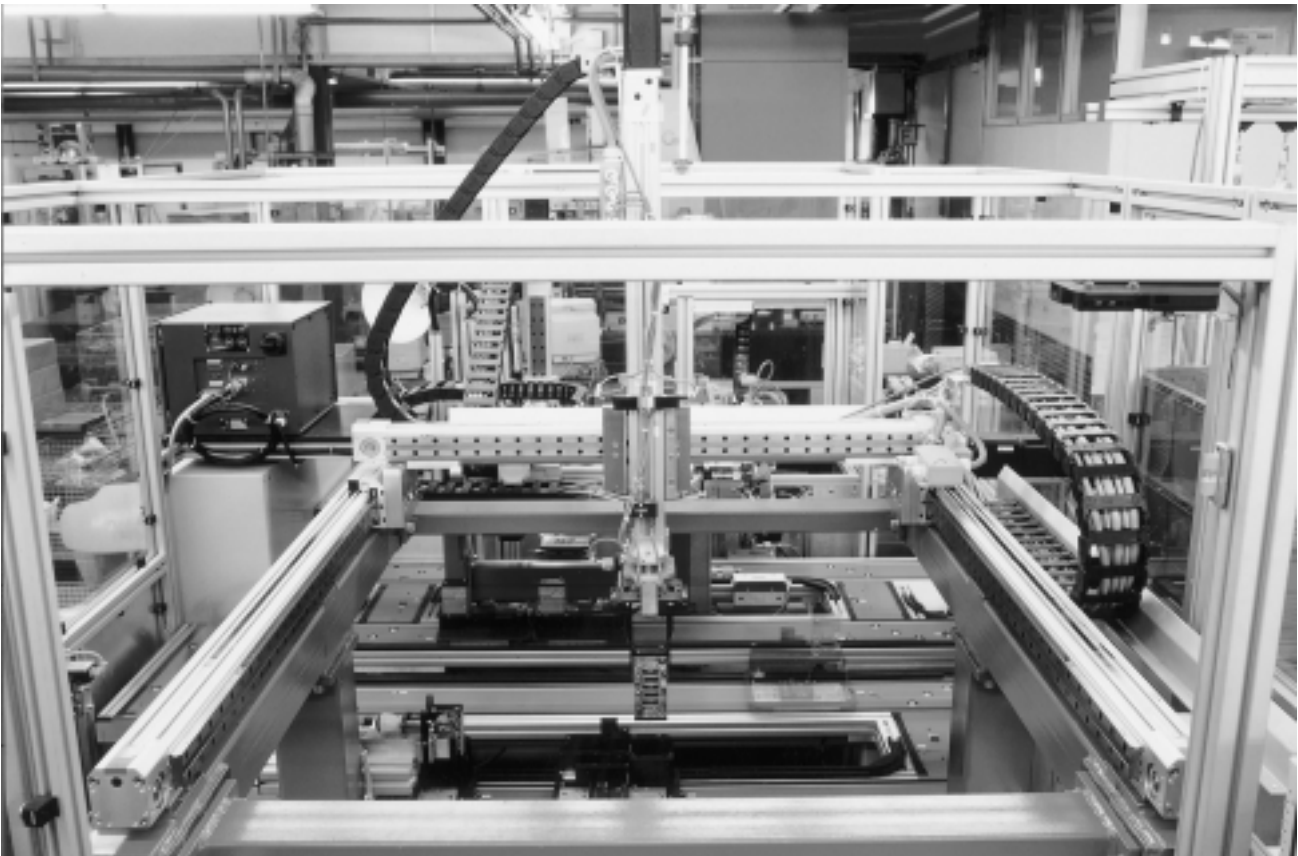
- Pneumatic: DGSL, SLT, HMP, DGC, DGPL
- Electric: DGE, DGEA

### X modules

- Electric: DGE

The components in the multi-axis modular system consist mainly of aluminium plates that are connected to each other and attached to the drives using screw connections and slot nut connectors. This permits fast and easy assembly.

## Application



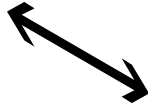


# Three-dimensional gantries

Product range overview

Selection aid							
System type	Mono 25	Mono 40	Duo 25		Duo 40	Duo 63	
X-axis	DGE-25-ZR	DGE-40-ZR	DGE-25-ZR	DGE-40-ZR	DGE-40-ZR	DGE-63-ZR	DGE-63-ZR
Drive type	Electric						
Options	Ball bearing or roller guide						
Y-axis	DG...-25	DG...-40	DG...-25		DG...-40	DG...-50/63	
Drive type	Pneumatic and electric						
Options	Spindle or toothed belt axis						
Z-axis	DGSL-12 SLT-16	DGSL-16 SLT-20 HMP-16	DGSL-20 SLT-25 HMP-20	DGSL-25 HMP-25	DGPL-40 DGC-40 HMP-32	DGPL-50 DGPL-63 DGC-50 DGC-63	
Drive type	Pneumatic						
Options	-	Intermediate position with HMP	Intermediate position with HMP	Intermediate position with HMP	Intermediate position with HMP		
Z-axis	DGEA-18	DGEA-18 DGE-25-SP-KF	DGEA-25 DGE-40-SP-KF	DGEA-25 DGE-40-SP-KF	DGEA-40 DGE-40-SP-KF	DGEA-40 DGE-63-SP-KF	
Drive type	Electric						
Options	-	Spindle or toothed belt axis	Spindle or toothed belt axis	Spindle or toothed belt axis	Spindle or toothed belt axis		
Effective load [kg]							
	1	■	■	■	■	■	■
	2	■	■	■	■	■	■
	3	-	■	■	■	■	■
	4	-	■	■	■	■	■
	6	-	-	■	■	■	■
	10	-	-	-	■	■	■
	15	-	-	-	-	■	■
	25	-	-	-	-	-	■
→ Page/Internet	40						

# Three-dimensional gantries

Selection aid for basic, connecting and installation components

X-axis				
System type	Mono 25		Mono 40	Duo 25
				
Electric drives	Type			
DGE-25	-ZR-KF	HMBSX-RP/FP-25-1 → 46	HMBSX-RP/FP-25-1 → 46	HMBSX-RP/FP-25-1 → 46
	-ZR-RF	HMBSX-RP/FP-25-2 → 46	HMBSX-RP/FP-25-2 → 46	HMBSX-RP/FP-25-2 → 46
DGE-40	-ZR-KF	–	HMBSX-RP/FP-40-1 → 46	HMBSX-RP/FP-40-1 → 46
	-ZR-RF	–	HMBSX-RP/FP-40-2 → 46	HMBSX-RP/FP-40-2 → 46

**Selection example:**

Project engineering produced the following drive combination:

**Step 1**

Define the drive type in the selection aids for the X, Y or Z-axis. The associated parts list can be found on the specified page.

**Step 2**

The necessary basic, connecting and installation components can be found in the parts list on the specified page.

**Step 3**

Technical data on the basic, connecting and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are listed in the documentation for the drives.

X-axis: DGE-40-ZR-KF

X-axis: HMBSX-RP/FP-40-1  
→ 46

X-axis: HMBSX-RP/FP-40-1

Y-axis: Mono 40 system with DGC-40

Y-axis: HMBSY-RP/FP-M40-2  
→ 48

Y-axis: HMBSY-RP/FP-M40-2

Z-axis: HMP-16




Z-axis: HMBSZ-HMP-4  
→ 54

Z-axis: HMBSZ-HMP-4






# Three-dimensional gantries

Selection aid for basic, connecting and installation components

X-axis			
System type		Duo 40	Duo 63
			
			
Electric drives		Type	
DGE-40	-ZR-KF	HMBSX-RP/FP-40-1 → 46	-
	-ZR-RF	HMBSX-RP/FP-40-2 → 46	-
DGE-63	-ZR-KF	HMBSX-RP/FP-63-1 → 47	HMBSX-RP/FP-63-3 → 47
	-ZR-RF	HMBSX-RP/FP-63-2 → 47	-




# Three-dimensional gantries

Selection aid for basic, connecting and installation components

Y-axis			
System type	Mono 25	Mono 40	Duo 25
			
Pneumatic drives	Type		
DGPL-25	HMBSY-RP/FP-M25-1 → 48	–	HMBSY-RP/FP-D25-1 → 49
DGC-25	HMBSY-RP/FP-M25-2 → 48	–	HMBSY-RP/FP-D25-2 → 49
DGPL-40	–	HMBSY-RP/FP-M40-1 → 48	–
DGC-40	–	HMBSY-RP/FP-M40-2 → 48	–
Electric drives	Type		
DGE-25 -SP-KF -ZR-KF -ZR-RF	HMBSY-RP/FP-M25-1 → 48	–	HMBSY-RP/FP-D25-1 → 49
DGE-40 -SP-KF -ZR-KF -ZR-RF	–	HMBSY-RP/FP-M40-1 → 48	–



# Three-dimensional gantries

Selection aid for basic, connecting and installation components

Y-axis		
System type	Duo 40	Duo 63
		
Pneumatic drives		
Type		
DGPL-40	HMBSY-RP/FP-D40-1 → 49	-
DGC-40	HMBSY-RP/FP-D40-2 → 49	-
DGPL-50 DGPL-63	-	HMBSY-RP/FP-D50/63 → 50
DGC-50	-	HMBSY-RP/FP-D50-2 → 50
DGC-63	-	HMBSY-RP/FP-D63-2 → 51
Electric drives		
Type		
DGE-40 -SP-KF -ZR-KF -ZR-RF	HMBSY-RP/FP-D40-1 → 49	-
DGE-63 -SP-KF -ZR-KF -ZR-RF	-	HMBSY-RP/FP-D50/63 → 50




# Three-dimensional gantries

Selection aid for basic, connecting and installation components

Z-axis			
System type	Mono 25	Mono 40	Duo 25
			
Pneumatic drives	Type		
DGSL-12	HMBSZ-DGSL-7 → 52	–	–
DGSL-16	–	HMBSZ-DGSL-7 → 52	HMBSZ-DGSL-7 → 52
DGSL-20	–	–	HMBSZ-DGSL-8 → 52
DGSL-25	–	–	–
SLT-16	HMBSZ-SLT-7 → 53	–	–
SLT-20	–	HMBSZ-SLT-7 → 53	HMBSZ-SLT-7 → 53
SLT-25	–	–	HMBSZ-SLT-7 → 53
HMP-16	–	HMBSZ-HMP-4 → 54	HMBSZ-HMP-4 → 54
HMP-20	–	–	HMBSZ-HMP-5 → 54
HMP-25	–	–	–
Electric drives	Type		
DGEA-18	HMBSZ-DGEA-1 → 57	HMBSZ-DGEA-1 → 57	HMBSZ-DGEA-1 → 57
DGEA-25	–	–	HMBSZ-DGEA-2 → 57
DGE-25-SP-KF	–	HMBSZ-DGE-1 → 58	HMBSZ-DGE-1 → 58
DGE-40-SP-KF	–	–	HMBSZ-DGE-2 → 58

# Three-dimensional gantries

Selection aid for basic, connecting and installation components

Z-axis		
System type	Duo 40	Duo 63
		
Pneumatic drives	Type	
DGSL-25	HMBSZ-DGSL-8 → 52	–
DGPL-40	HMBSZ-DL40-63/DA40 → 55	–
DGPL-50 DGPL-63	–	HMBSZ-DL40-63/DA40 → 55
DGC-40	HMBSZ-DL40-63/DA40 → 56	–
DGC-50 DGC-63	–	HMBSZ-DL40-63/DA40 → 56
HMP-25	HMBSZ-HMP-6 → 54	–
HMP-32	HMBSZ-HMP-6 → 54	–
Electric drives	Type	
DGEA-25	HMBSZ-DGEA-3 → 57	–
DGEA-40	HMBSZ-DGEA-4 → 57	HMBSZ-DL40-63/DA40 → 57
DGE-40-SP-KF	HMBSZ-DGE-3 → 58	–
DGE-63-SP-KF	–	HMBSZ-DL40-63/DA40 → 58

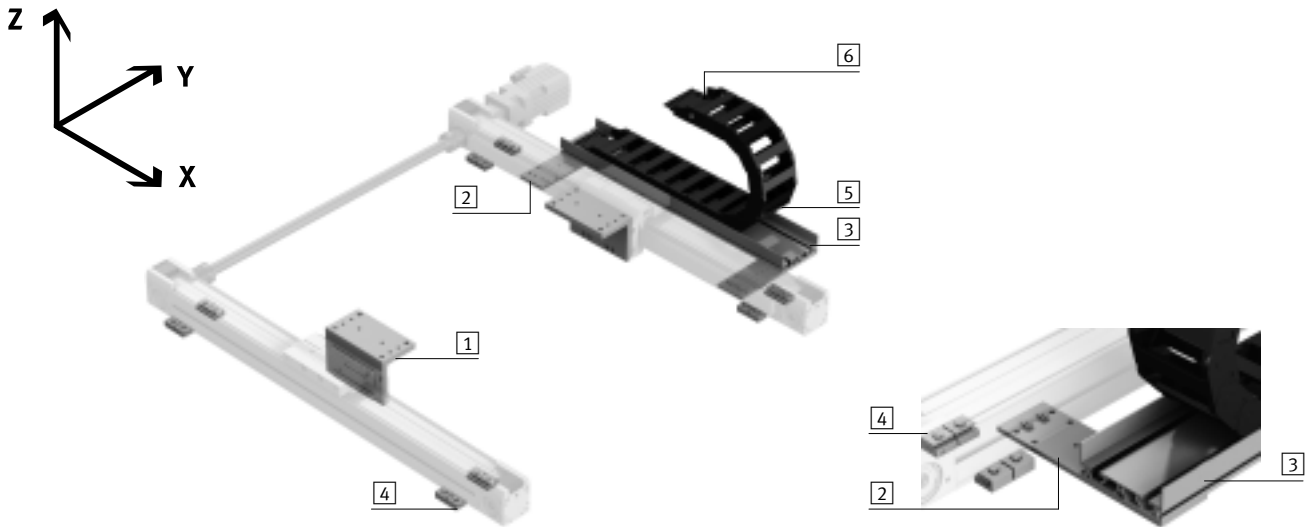
# Three-dimensional gantries

X modules

FESTO

## Basic system for size 25 and 40

Toothed belt axes DGE



Parts list										
Type		HMBSX-RP/FP-25-1	HMBSX-RP/FP-25-2	HMBSX-RP/FP-40-1	HMBSX-RP/FP-40-2	→ Page/ Internet				
	For drives	DGE-25-ZR-KF	DGE-25-ZR-RF	DGE-40-ZR-KF	DGE-40-ZR-RF					
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type			
[1]	2	539 651	HMVW-DL25	539 652	HMVS-RF25	540 325	HMVW-DL40	539 653	HMVS-RF40	80
[2]	2 <sup>1)</sup>	539 654	HMIXB-RP/FP	539 654	HMIXB-RP/FP	539 654	HMIXB-RP/FP	539 654	HMIXB-RP/FP	110
[3]	1 <sup>2)</sup>	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	116
[4]	2 <sup>3)</sup>	150 736	MUP-18/25	150 736	MUP-18/25	-	-	-	-	mup
	1 <sup>3)</sup>	-	-	-	-	150 738	MUP-40	150 738	MUP-40	mup
[5]	1 <sup>2)</sup>	IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01 and TS O/n <sub>T</sub> 2								-
[6]	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA								-

1) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, an installation kit HMIXB-RP/FP must be additionally ordered per 500 mm stroke or part thereof.

2) Length depends on the stroke of the drive

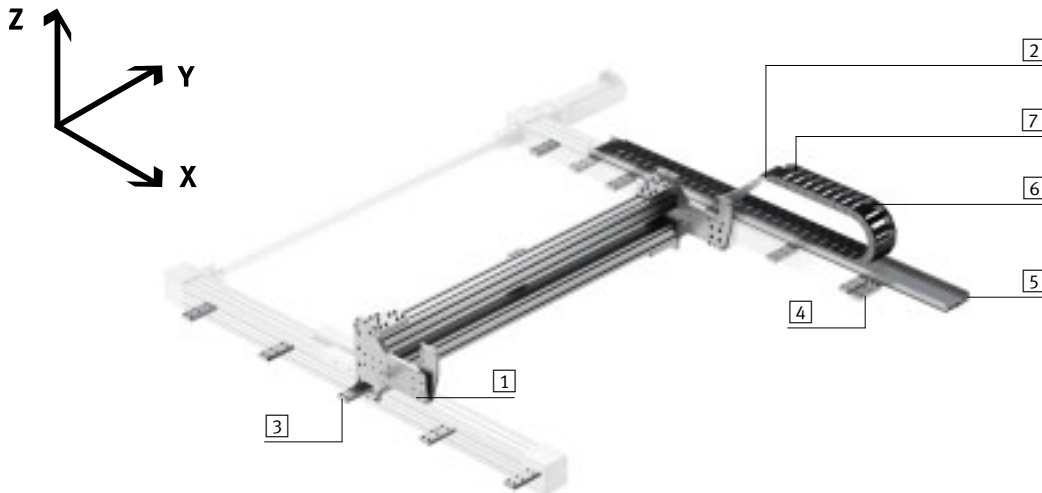
3) Every 500 mm per axis

# Three-dimensional gantries

X modules

## Basic system for size 63

Toothed belt axes DGE



Parts list								
Type	HMBSX-RP/FP-63-1		HMBSX-RP/FP-63-2		HMBSX-RP/FP-63-3			
For drives	DGE-63-ZR-KF		DGE-63-ZR-RF		DGE-63-ZR-KF		→ Page/ Internet	
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	
1	2	566 897	HMVW-DL-63-1	566 898	HMVS-RF63	566 890	HMVW-DL-63-2	80
2	1	566 896	HMIXF-RP/FP-2	566 896	HMIXF-RP/FP-2	566 891	HMIX-RP/FP-E07/E10	110
3	4 <sup>1)</sup>	150 800	MUP-63	150 800	MUP-63	150 800	MUP-63	mup
4	2 <sup>2)</sup>	566 893	HMIXB-RP/FP-2	566 893	HMIXB-RP/FP-2	566 893	HMIXB-RP/FP-2	110
5	1 <sup>3)</sup>	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	116
5	1 <sup>3)</sup>	-	-	-	-	566 894	HMIA-E10	116
6	1 <sup>3)</sup>	IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01 and TS O/n <sub>T</sub> 2					-	-
7	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA					-	-
6	1 <sup>3)</sup>	-				IGUS E2 medium 2400.10.100.0 and 211 or ENERGY CHAIN MC 0320.105-01 and TS O/n <sub>T</sub> 2		-
7	2	-				IGUS E2 medium 2100.ZB or ENERGY CHAIN MC FA/MA		-

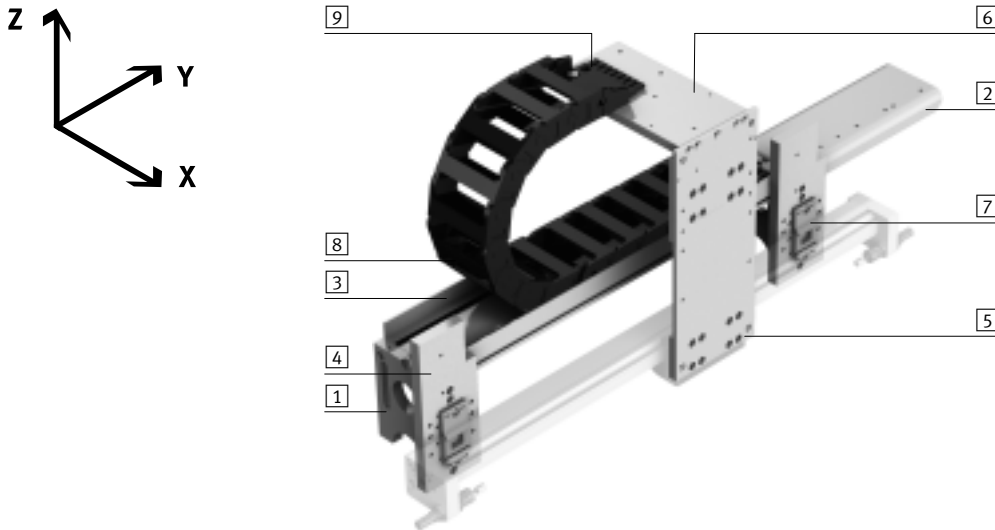
- 1) Quantity with stroke  $\leq$  500 mm. With stroke > 500 mm, two central supports MUP must be additionally ordered per 500 mm stroke or part thereof.
- 2) Quantity with stroke  $\leq$  1,000 mm. With stroke > 1,000 mm, an installation kit HMIXB-RP/FP must be additionally ordered per 1,000 mm stroke or part thereof.
- 3) Length depends on the stroke of the drive

# Three-dimensional gantries

Y modules

## Mono system for size 25 and 40

Toothed belt/spindle axes DGE, linear drives DGC, DGPL



Parts list										
Type	HMBSY-RP/FP-M25-1		HMBSY-RP/FP-M25-2		HMBSY-RP/FP-M40-1		HMBSY-RP/FP-M40-2			
For drives	DGE-25-SP-KF DGE-25-ZR-KF DGE-25-ZR-RF DGPL-25		DGC-25		DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF DGPL-40		DGC-40			
System type	Mono 25				Mono 40				→ Page/ Internet	
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	
[1]	2	539 657	HMVV-RP/FP	539 657	HMVV-RP/FP	539 657	HMVV-RP/FP	539 657	HMVV-RP/FP	81
[2]	1	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	81
[3]	1 <sup>1)</sup>	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	116
[4]	2 <sup>3)</sup>	539 656	HMVM-RP/FP-DL25/40	539 656	HMVM-RP/FP-DL25/40	539 656	HMVM-RP/FP-DL25/40	539 656	HMVM-RP/FP-DL25/40	82
[5]	1	539 368	HMVS-DL25	539 368	HMVS-DL25	539 369	HMVS-DL40	539 369	HMVS-DL40	84
[6]	1	539 659	HMIYF-RF/DL25	539 659	HMIYF-RF/DL25	539 660	HMIYF-RF/DL40	539 660	HMIYF-RF/DL40	113
[7]	2 <sup>2)</sup>	150 736	MUP-18/25	-	-	-	-	-	-	mup
	1 <sup>2)</sup>	-	-	531 753	MUC-25	-	-	531 755	MUC-40	muc
	1 <sup>2)</sup>	-	-	-	-	150 738	MUP-40	-	-	mup
[8]	1 <sup>1)</sup>	IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01 and TS O/η <sub>T</sub> 2								-
[9]	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA								-

1) Length depends on the stroke of the drive

2) Per basic kit HMVM-RP/FP-DL25/40

3) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVM-RP/FP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

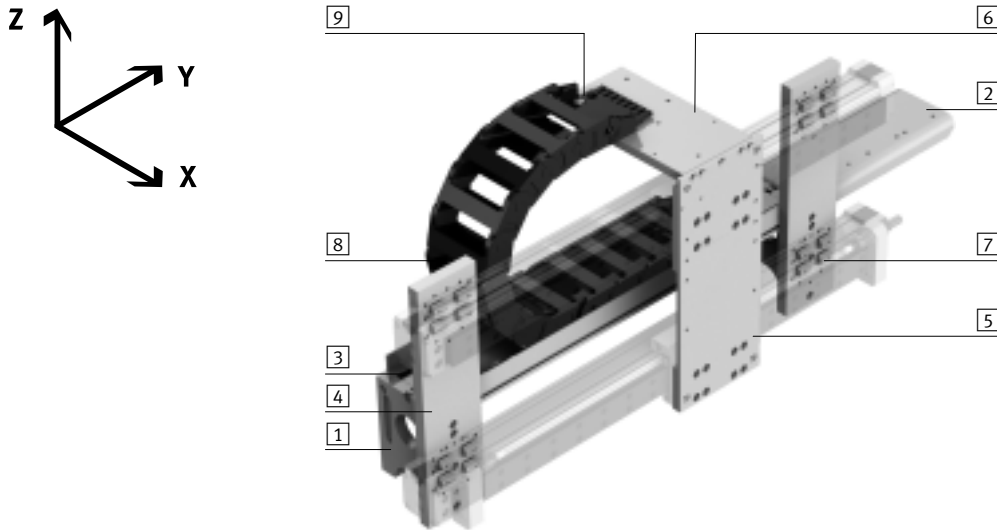


# Three-dimensional gantries

Y modules

## Duo system for size 25 and 40

Toothed belt/spindle axes DGE, linear drives DGC, DGPL



Parts list								
Type	HMBSY-RP/FP-D25-1		HMBSY-RP/FP-D25-2		HMBSY-RP/FP-D40-1		HMBSY-RP/FP-D40-2	
For drives	DGE-25-SP-KF DGE-25-ZR-KF DGE-25-ZR-RF DGPL-25		DGC-25		DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF DGPL-40		DGC-40	
System type	Duo 25				Duo 40			
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	→ Page/ Internet
1	2	539 657	HMVV-RP/FP	539 657	HMVV-RP/FP	539 657	HMVV-RP/FP	81
2	1	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	81
3	1 <sup>1)</sup>	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	116
4	2 <sup>3)</sup>	539 655	HMVD-RP/FP-DL25/40	539 655	HMVD-RP/FP-DL25/40	539 655	HMVD-RP/FP-DL25/40	82
5	1	539 368	HMVS-DL25	539 368	HMVS-DL25	539 369	HMVS-DL40	84
6	1	539 659	HMIYF-RF/DL25	539 659	HMIYF-RF/DL25	539 660	HMIYF-RF/DL40	113
7	4 <sup>2)</sup>	150 736	MUP-18/25	-	-	-	-	mup
	2	-	-	531 753	MUC-25	-	531 755	muc
8	1 <sup>1)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01 and TS O/η <sub>T</sub> 2						-
9	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA						-

1) Length depends on the stroke of the drive

2) Per basic kit HMVD-RP/FP-DL25/40

3) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVD-RP/FP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

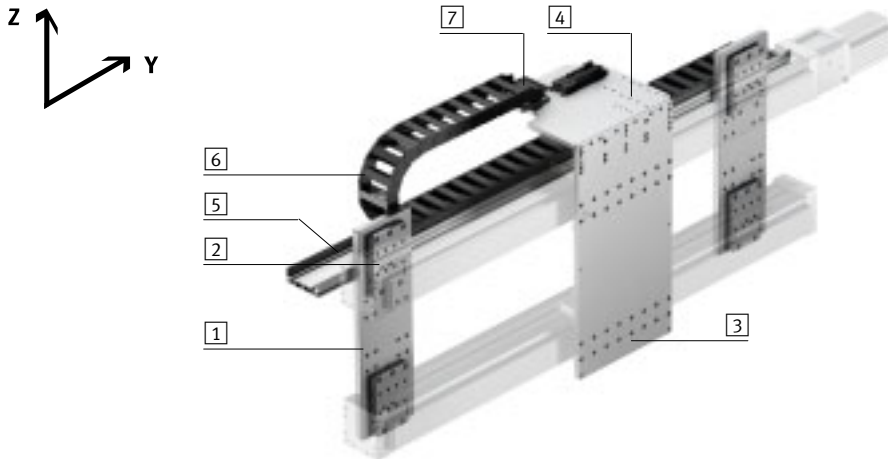
# Three-dimensional gantries

Y modules

FESTO

## Duo system for size 63

Toothed belt/spindle axes DGE, linear drives DGPL



Parts list						
Type	HMBSY-RP/FP-D50/63		HMBSY-RP/FP-D50-2			
For drives	DGPL-50 DGPL-63 DGE-63-SP-KF DGE-63-ZR-KF DGE-63-ZR-RF		DGC-50			
System type	Duo 63			→ Page/ Internet		
Item	Pieces	Part No.	Type	Part No.	Type	
[1]	2 <sup>1)</sup>	566 880	HMVD-RP/FP-DL63	566 880	HMVD-RP/FP-DL63	82
[2]	4 <sup>2)</sup>	566 878	HMVA-63	–		84
[2]	4 <sup>3)</sup>	–		531 756	MUC-50	muc
[3]	1	566 883	HMVS-DL63	566 883	HMVS-DL63	84
[4]	1	566 889	HMIY-RP/FP-E07	566 889	HMIY-RP/FP-E07	114
[5]	1 <sup>4)</sup>	539 379	HMIA-E07-...	539 379	HMIA-E07-...	116
[6]	1 <sup>4)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01 and TS O/nT2				–
[7]	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA				–
–	2	175 958	HMBS-80/80			62
–	1 <sup>5)</sup>	566 892	HMVD-DL40/63			86

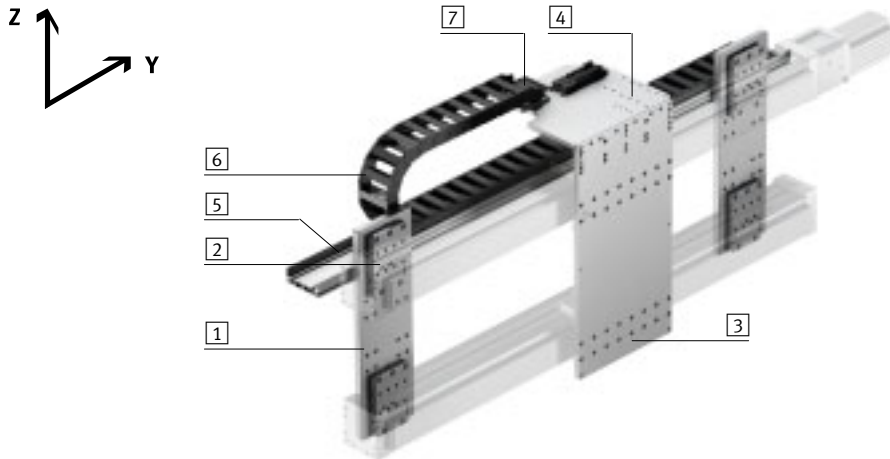
- 1) Quantity with stroke  $\leq 1,000$  mm. With stroke > 1,000 mm, a basic kit HMVD-RP/FP-DL63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 2) Quantity with stroke  $\leq 1,000$  mm. With stroke > 1,000 mm, two adapter kits HMVA-63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 3) Quantity with stroke  $\leq 1,000$  mm. With stroke > 1,000 mm, two central supports MUC-50 must be additionally ordered per 1,000 mm stroke or part thereof.
- 4) Length depends on the stroke of the drive
- 5) Quantity 0 with stroke  $\leq 500$  mm. With stroke > 500 mm, a reinforcing plate HMVD-DL must be ordered.

# Three-dimensional gantries

Y modules

## Duo system for size 63

Linear drives DGC



Parts list				
Type	HMBSY-RP/FP-D63-2			
For drives	DGC-63			
System type	Duo 63			→ Page/ Internet
Item	Pieces	Part No.	Type	
1	2 <sup>1)</sup>	566 880 HMVD-RP/FP-DL63		82
2	4 <sup>2)</sup>	531 757 MUC-63		muc
3	1 <sup>3)</sup>	566 883 HMVS-DL63		84
4	1	566 889 HMIY-RP/FP-E07		114
5	1 <sup>4)</sup>	539 379 HMIA-E07-...		116
6	1 <sup>4)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01 and TS O/n <sub>T</sub> 2		-
7	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA		-
-	2	175 958 HMBS-80/80		62
-	1 <sup>5)</sup>	566 892 HMVD-DL40/63		86

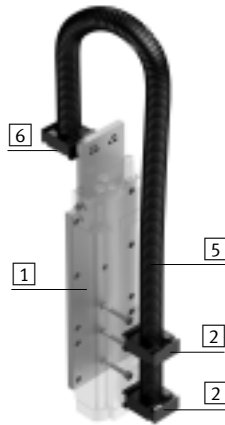
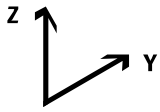
- 1) Quantity with stroke ≤1,000 mm. With stroke > 1,000 mm, a basic kit HMVD-RP/FP-DL63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 2) Quantity with stroke ≤1,000 mm. With stroke > 1,000 mm, two adapter kits HMVA-63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 3) Quantity with stroke ≤1,000 mm. With stroke > 1,000 mm, two central supports MUC-50 must be additionally ordered per 1,000 mm stroke or part thereof.
- 4) Length depends on the stroke of the drive
- 5) Quantity 0 with stroke ≤300 mm. With stroke > 500 mm, a reinforcing plate HMVD-DL must be ordered.

# Three-dimensional gantries

Z modules

**Mono/duo system**

Mini slides DGSL



Parts list								
Type		HMBSZ-DGSL-7		HMBSZ-DGSL-8		→ Page/ Internet		
For drives		DGSL-12	DGSL-16	DGSL-20	DGSL-25			
System type		Mono 25	Mono 40 Duo 25	Duo 25	Duo 40			
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	
[1]	1	539 373	HMVZ-2	539 373	HMVZ-2	539 373	HMVZ-2	83
[2]	1	192 289	MKRS-16,5-B	192 289	MKRS-16,5-B	192 290	MKRS-23-B	102
		548 803	ZBV-M5-7	548 803	ZBV-M5-7	548 804	ZBV-M5-9	71
		177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21	94
[5]	1 <sup>1)</sup>	192 289	MKRS-16,5-B	192 289	MKRS-16,5-B	192 290	MKRS-23-B	102
[6]	1	192 289	MKRS-16,5-B	192 289	MKRS-16,5-B	192 290	MKRS-23-B	102

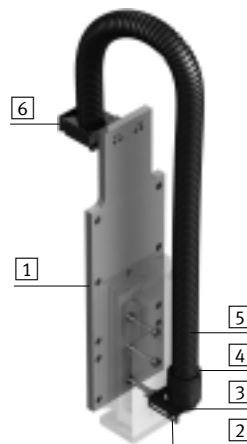
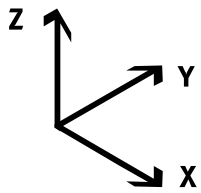
1) Length depends on the stroke of the drive (scope of delivery: 1m)

# Three-dimensional gantries

Z modules

**Mono/duo system**

Mini slides SLT



Parts list						
Type		HMBSZ-SLT-7				→ Page/ Internet
For drives		SLT-16	SLT-20	SLT-25		
System type		Mono 25	Mono 40 Duo 25	Duo 25		
Item	Pieces	Part No.	Type	Part No.	Type	
1	1	539 373	HMVZ-2	539 373	HMVZ-2	83
2	1	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21	103
3	1	177 599	MKM-PG-21	177 599	MKM-PG-21	100
4	1	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	96
5	1 <sup>1)</sup>	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	94
6	1	192 290	MKRS-23-B	192 290	MKRS-23-B	102

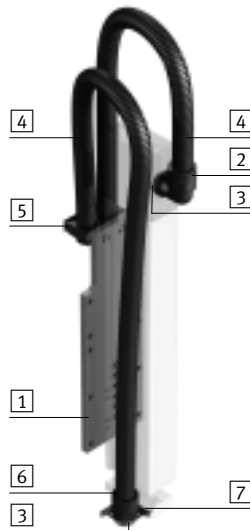
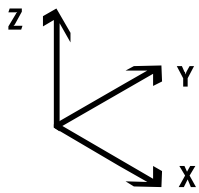
1) Length depends on the stroke of the drive (scope of delivery: 1m)

# Three-dimensional gantries

Z modules

**Mono/duo system**

Linear modules HMP



Parts list						
Type	HMBSZ-HMP-4		HMBSZ-HMP-5		HMBSZ-HMP-6	→ Page/ Internet
For drives	HMP-16		HMP-20		HMP-25/HMP-32	
System type	Mono 40 Duo 25		Duo 25		Duo 40	
Item	Pieces	Part No.	Type	Part No.	Type	
[1]	1	539 374 HMVZ-3		539 374 HMVZ-3	539 377 HMVZ-6	83
[2]	1	177 577 MKRL-23-PG-21		177 578 MKRL-29-PG-29	177 578 MKRL-29-PG-29	97
[3]	2	177 599 MKM-PG-21		177 600 MKM-PG-29	177 600 MKM-PG-29	100
[4]	1 <sup>1)</sup>	177 567 MKR-23-PG-21		177 568 MKR-29-PG-29	177 568 MKR-29-PG-29	94
[5]	2	192 290 MKRS-23-B		192 291 MKRS-29-B	192 291 MKRS-29-B	102
[6]	1	177 572 MKRV-23-PG-21		177 573 MKRV-29-PG-29	177 573 MKRV-29-PG-29	96
[7]	1	193 124 HMZAS-PG-21		177 603 HMZAS-PG-29	177 603 HMZAS-PG-29	103

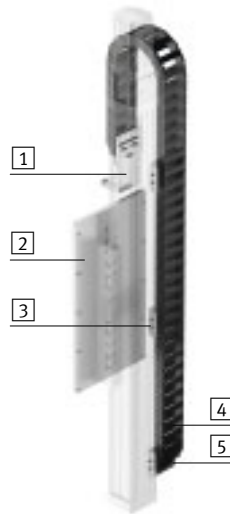
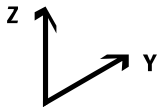
1) Length depends on the stroke of the drive (scope of delivery: 1m)

# Three-dimensional gantries

Z modules

**Mono/duo system**

Linear drives DGPL



Parts list					
Type		HMBSZ-DL40-63/DA40		HMBSZ-DL40-63/DA40	
For drives		DGPL-40		DGPL-50 DGPL-63	
System type		Duo 40		Duo 63	
Item	Pieces	Part No.	Type	Part No.	Type
1	1	566 885	HMIW-E05/E07	566 885	HMIW-E05/E07
2	1	566 876	HMVZ-9	566 876	HMVZ-9
3	3 <sup>1)</sup>	566 877	HMIZW-E05/E07-DL40/63	566 877	HMIZW-E05/E07-DL40/63
4	1 <sup>2)</sup>	IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2	
5	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA	
4	1 <sup>2)</sup>	IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2	
5	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA	

1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.

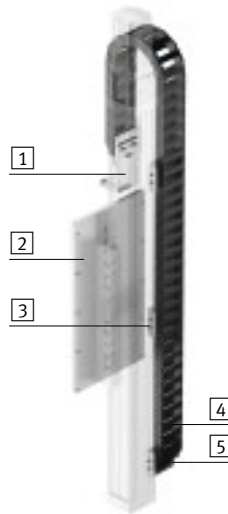
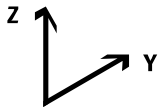
2) Length depends on the stroke of the drive

# Three-dimensional gantries

Z modules

**Mono/duo system**

Linear drives DGC



Parts list					
Type	HMBSZ-DL40-63/DA40		HMBSZ-DL40-63/DA40		
For drives	DGC-40		DGC-50 DGC-63		
System type	Duo 40		Duo 63		→ Page/ Internet
Item	Pieces	Part No.	Type	Part No.	Type
1	1	566 885 HMIW-E05/E07		566 885 HMIW-E05/E07	115
2	1	566 876 HMVZ-9		566 876 HMVZ-9	83
3	3 <sup>1)</sup>	566 877 HMIZW-E05/E07-DL40/63		566 877 HMIZW-E05/E07-DL40/63	115
4	1 <sup>2)</sup>	IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2	-
5	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA	-
4	1 <sup>2)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2		IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2	-
5	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA		IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA	-

1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.

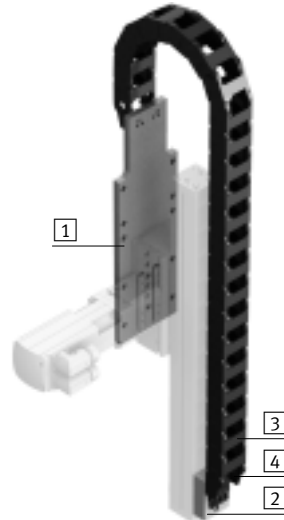
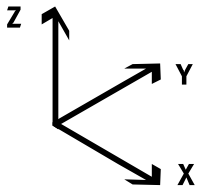
2) Length depends on the stroke of the drive



# Three-dimensional gantries

Z modules

**Mono/duo system**  
Cantilever axes DGEA



Parts list								→ Page/ Internet				
Type	HMBSZ-DGEA-1		HMBSZ-DGEA-2		HMBSZ-DGEA-3		HMBSZ-DGEA-4		HMBSZ-DL40-63/DA40			
For drives	DGEA-18		DGEA-25		DGEA-25		DGEA-40		DGEA-40			
System type	Mono 25 Mono 40 Duo 25		Duo 25		Duo 40		Duo 40		Duo 63			
Item	Pieces	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 374	HMVZ-3	539 375	HMVZ-4	539 377	HMVZ-6	539 377	HMVZ-6	566 876	HMVZ-9	83
2	1	539 370	HMIZF-E03-DA18	539 371	HMIZF-E03-DA25	539 371	HMIZF-E03-DA25	566 895	HMIZF-E03/E05/E07-DA40	566 877	HMIZW-E05/E07-DL40/63	115
3	1 <sup>1)</sup>	IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2										-
4	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA										-
3	1 <sup>1)</sup>	IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2										-
4	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA										-

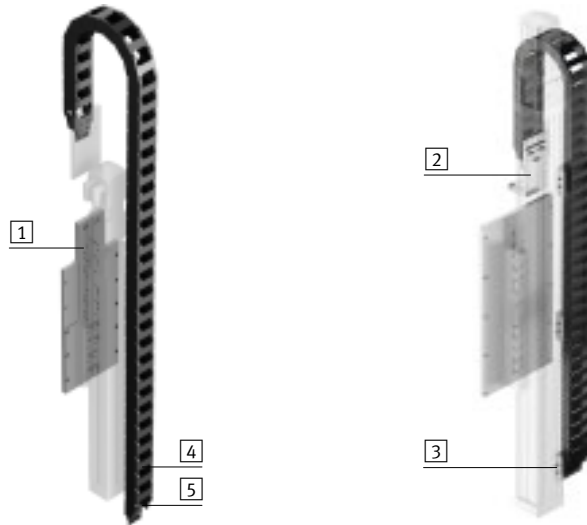
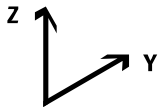
1) Length depends on the stroke of the drive

# Three-dimensional gantries

Z modules

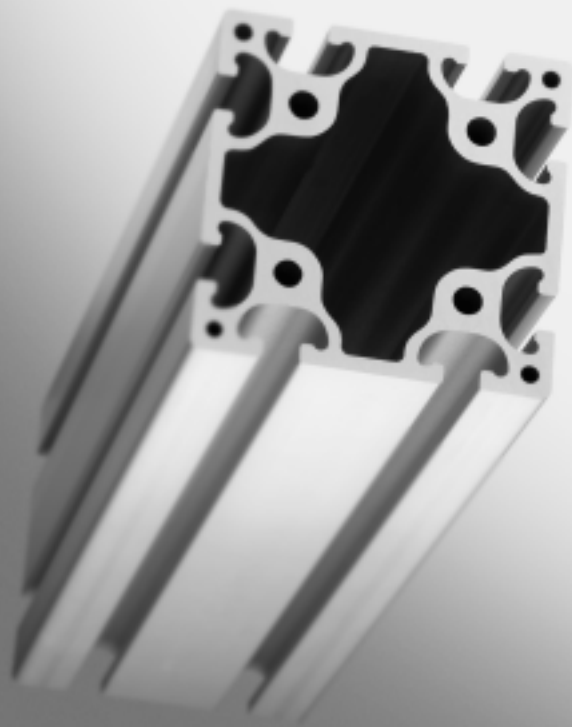
## Mono/duo system

Spindle axes DGE



Parts list							→ Page/ Internet
Type	HMBSZ-DGE-1	HMBSZ-DGE-2	HMBSZ-DGE-3	HMBSZ-DL40-63/DA40			
For drives	DGE-25-SP	DGE-40-SP	DGE-40-SP	DGE-40-SP DGE-63-SP			
System type	Mono 40 Duo 25	Duo 25	Duo 40	Duo 63			
Item	Pieces	Part No. Type	Part No. Type	Part No. Type	Part No. Type		
[1]	1	539 374 HMVZ-3	539 375 HMVZ-4	539 377 HMVZ-6	566 876 HMVZ-9	83	
[2]	1	566 885 HMIW-E05/E07	566 885 HMIW-E05/E07	566 885 HMIW-E05/E07	566 885 HMIW-E05/E07	115	
[3]	3 <sup>1)</sup>	–	–	–	566 877 HMIZW-E05/E07-DL40/63	115	
[4]	1 <sup>2)</sup>	IGUS E2 medium 240.05.100.0 and 211 or ENERGY CHAIN MC 0320.55-01-77 and TS O/n <sub>T</sub> 2				–	
[5]	1	IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA				–	
[4]	1 <sup>2)</sup>	IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01-77 and TS O/n <sub>T</sub> 2				–	
[5]	2	IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA				–	

- 1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.
- 2) Length depends on the stroke of the drive



- Wide range of variants
- Heavy-duty
- Functional
- Flexible

## Basic components

Key features

FESTO



### Basic kits

#### Profile column HMBS

With slot width of 8 mm for mounting connecting and basic kits.

#### Cover cap HMBSA

For covering the end faces of profile columns HMBS.

#### Connecting kit HMBSV

For connecting 2 to 3 profile columns HMBS.

#### Connecting kit HMBSW

For connecting two profile columns HMBS or profile columns with 40 mm slot width.

#### Basic kit HMBF-DB

For direct mounting of profile columns on a base plate or on a machine rack.

#### Connecting kit HMBWS

For connecting one profile column (with 40 mm slot width) to another profile column (with a slot width other than 40 mm).

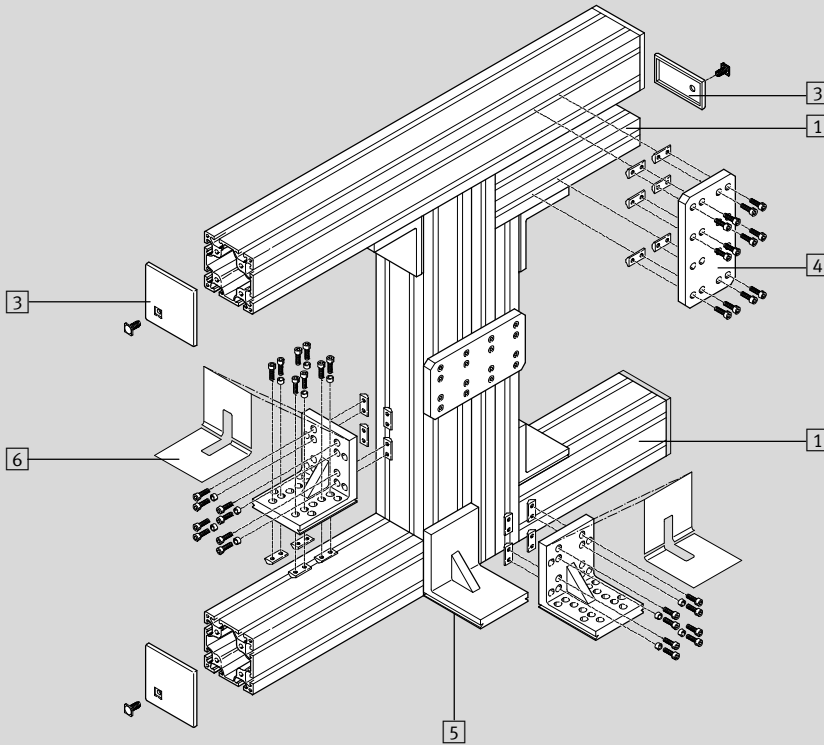
#### Connecting kit HMBV-ND

Interface for connecting basic components to Festo drives.

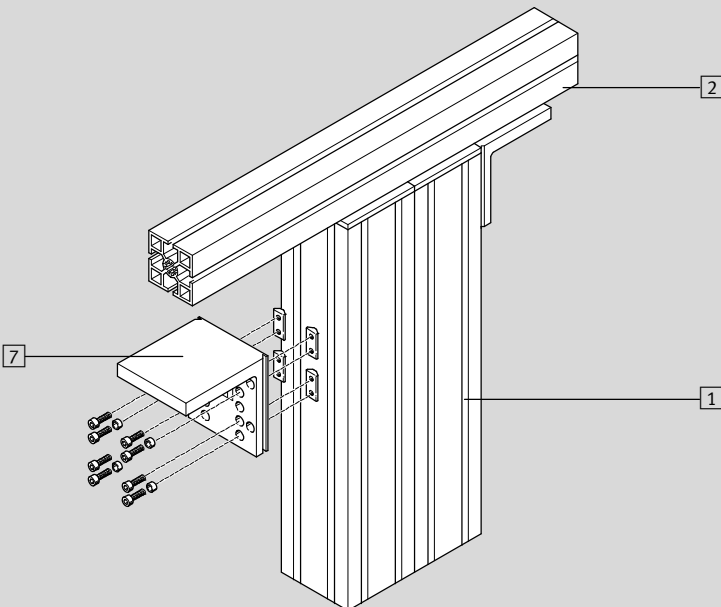
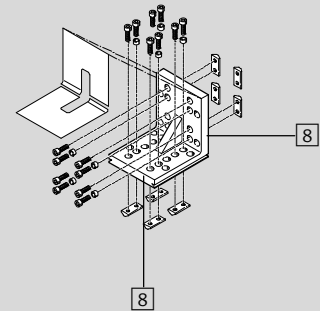
# Basic components

Key features

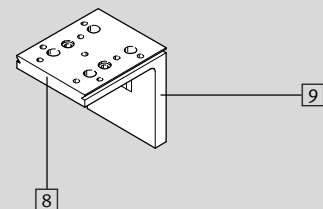
An optimum concept with multiple functionalities



6 Connecting kit HMBSW



7 Connecting kit HMBWS



- 1 Profile column HMBS
- 2 Bosch profile column
- 3 Cover cap HMBSA
- 4 Connecting kit HMBSV

- 5 Basic kit HMBF-DB
- 6 Connecting kit HMBSW
- 7 Connecting kit HMBWS

- 8 Angle bracket for mounting profile columns with a 40 mm hole pattern (Festo, item, May-Tec, Schuco, etc.)

- 9 Angle bracket for mounting profile columns with a hole pattern for slot widths  $\neq$  40 mm (Bosch, Norgren, etc.)

# Basic components

Technical data



## Profile column HMBS

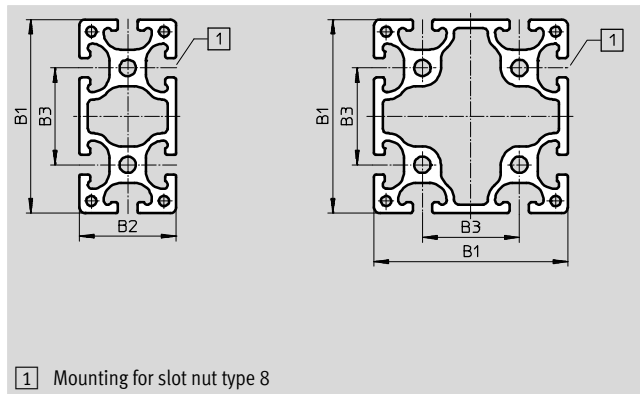
Scope of delivery:

1 column

Material:

Aluminium

Free of copper, PTFE and silicone



Dimensions and ordering data							
Designation	B1	B2	B3	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
Profile column	80	40	40	2	<b>175 964</b>	<b>HMBS-80/40</b>	1
	80	–	40		<b>175 958</b>	<b>HMBS-80/80</b>	1
Accessories (to be ordered separately)							
Slot nut	–			2	<b>186 567</b>	<b>HMBN-8-2M5</b>	10

- Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
- Packaging unit. For HMBS: specify the desired length in mm ( $L_{max.} = 6,000$  mm).

## Cover cap HMBSA

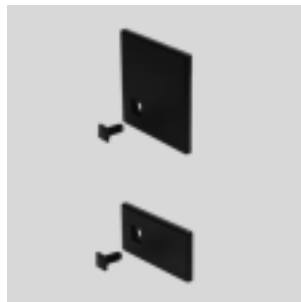
Scope of delivery:

1 cover, 1 plug

Material:

Polyacetal

Free of copper, PTFE and silicone



Dimensions and ordering data						
Designation	Dimensions	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>	
Cover cap	80x40	2	<b>175 966</b>	<b>HMBSA-80/40</b>	1	
	80x80		<b>175 965</b>	<b>HMBSA-80/80</b>	1	

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

# Basic components

Technical data



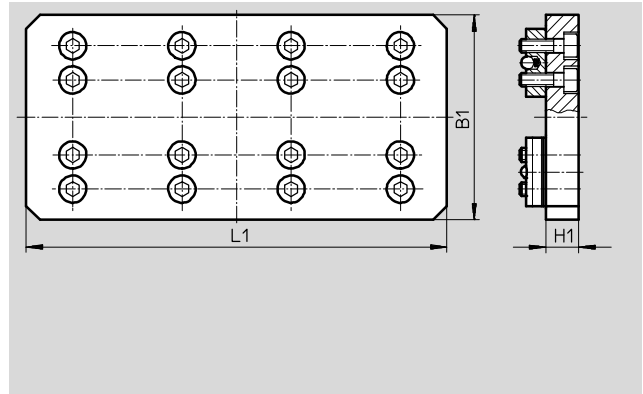
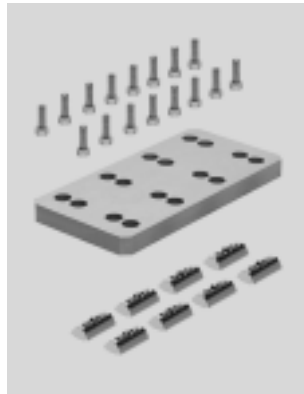
## Connecting kit HMBSV

Scope of delivery:

- 1 mounting plate, 16 screws,
- 8 slot nuts

Material:

- Aluminium
- Free of copper, PTFE and silicone



Dimensions and ordering data							
Designation	B1	H1	L1	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
Connecting kit	75	12	154	2	175 972	HMBSV	1
Accessories (for reorder)							
Slot nut	-	-	-	2	186 567	HMBN-8-2M5	10
Screw	-	-	-	-	-	M5x16	-

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

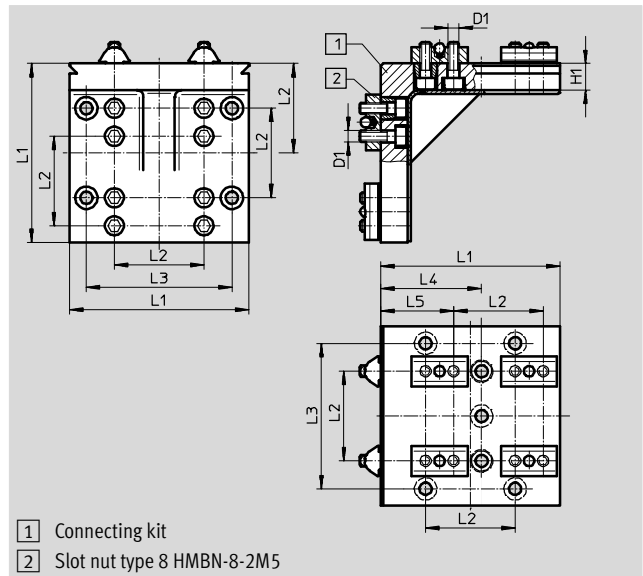
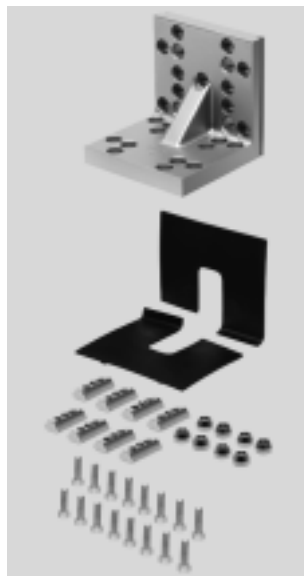
## Connecting kit HMBSW

Scope of delivery:

- 1 bracket, 16 screws, 8 slot nuts,
- 8 spacer rings, 2 cover caps

Material:

- Aluminium
- Cover cap: Polyacetal
- Free of copper, PTFE and silicone



- 1) Connecting kit
- 2) Slot nut type 8 HMBN-8-2M5

Dimensions and ordering data											
Designation	D1	H1	L1	L2	L3	L4	L5	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
Connecting kit	M5	12	80	40	65	45	32.5	2	178 228	HMBSW	1
Accessories (for reorder)											
Slot nut	-	-	-	-	-	-	-	2	186 567	HMBN-8-2M5	10
Spacer ring	-	-	-	-	-	-	-	-	186 563	HMBRD	10
Screw	-	-	-	-	-	-	-	-	-	M5x16	-

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

# Basic components

Technical data



## Basic kit HMBF-DB

Scope of delivery:

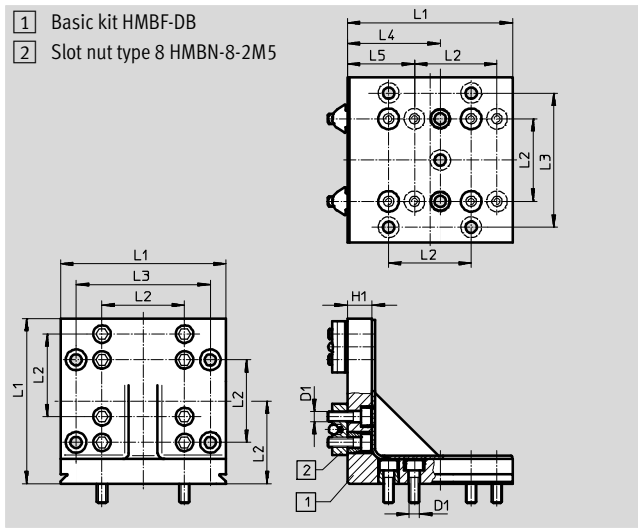
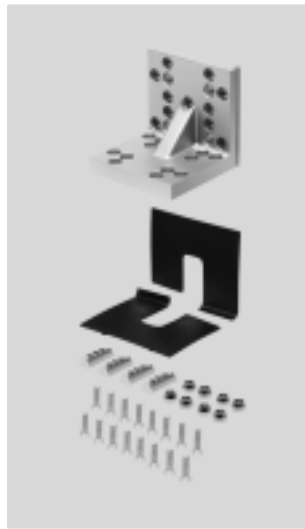
1 bracket, 16 screws, 4 slot nuts,  
8 spacer rings, 2 cover caps

Material:

Aluminium

Cover cap: Polyacetal

Free of copper, PTFE and silicone



Dimensions and ordering data												
Designation	D1	H1	L1	L2	L3	L4	L5	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>	
Basic kit	M5	12	80	40	65	45	32.5	2	<b>175 951</b>	<b>HMBF-DB</b>	1	
Accessories (for reorder)												
Slot nut	-	-	-	-	-	-	-	2	<b>186 567</b>	<b>HMBN-8-2M5</b>	10	
Spacer ring	-	-	-	-	-	-	-	-	<b>186 563</b>	<b>HMBRD</b>	10	
Screw	-	-	-	-	-	-	-	-	-	<b>M5x16</b>	-	

1) Corrosion resistance class 2 according to Festo standard 940 070

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

2) Packaging unit.

## Connecting kit HMBWS

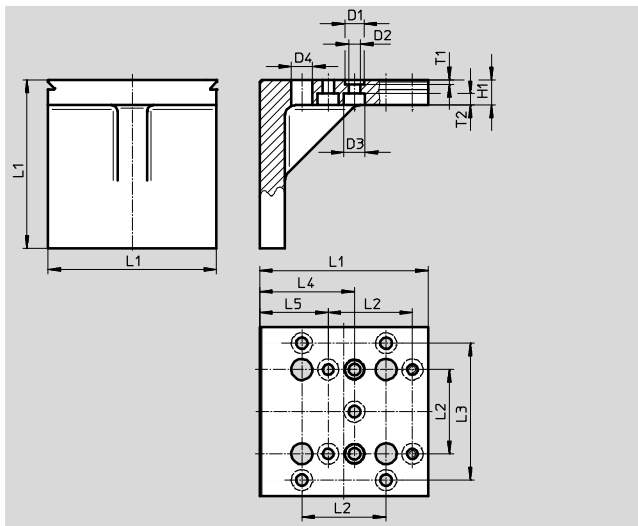
Scope of delivery:

1 bracket

Material:

Aluminium

Free of copper, PTFE and silicone



Dimensions and ordering data																
Designation	D1	D2	D3	D4	H1	L1	L2	L3	L4	L5	T1	T2	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
Connecting kit	9 <sup>H7</sup>	5.5	10	10 <sup>H7</sup>	12	80	40	65	45	32.5	2.1	5.5	2	<b>189 486</b>	<b>HMBWS</b>	1
Accessories (for reorder)																
Slot nut	-	-	-	-	-	-	-	-	-	-	-	-	2	<b>186 567</b>	<b>HMBN-8-2M5</b>	10
Screw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>M5x16</b>	-

1) Corrosion resistance class 2 according to Festo standard 940 070

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

2) Packaging unit.



# Basic components

Technical data

## Connecting kit HMBV-ND

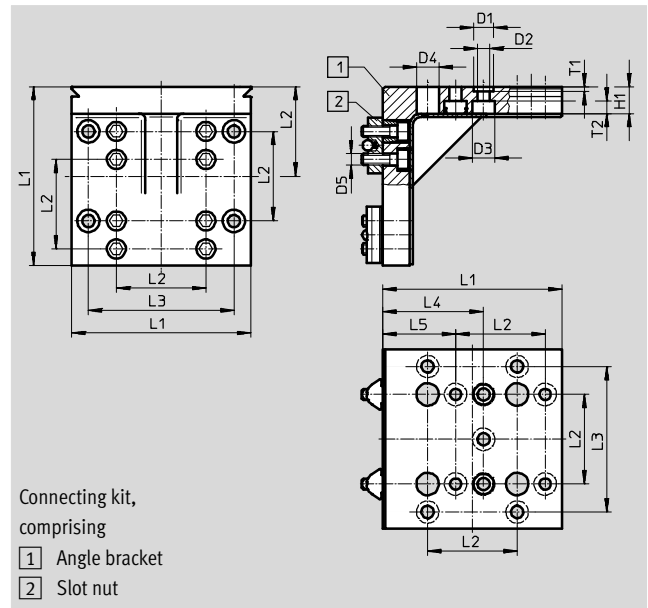
- for HMP
- for SLT with HMBK-WS and HMSV-34 ... 37

### Scope of delivery:

- 1 bracket, 8 screws, 4 slot nuts,
- 4 spacer rings, 2 cover caps

### Material:

- Anodised aluminium
- Free of copper, PTFE and silicone



Dimensions													
Designation	D1	D2	D3	D4	D5	H1	L1	L2	L3	L4	L5	T1	T2
	∅	∅	∅	∅				±0.1	±0.1	±0.1	±0.1	±0.1	
	H7			H7									
Connecting kit	9	5.5	10	10	M5	12	80	40	65	45	32.5	2.1	5.5

Ordering data				
Designation	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
Connecting kit	2	175 967	HMBV-ND	1
Accessories (for reorder)				
Slot nuts	2	186 567	HMBN-8-2M5	10
Spacer rings		186 563	HMBRD	10
Screws		M5x16		-

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

2) Packaging unit.

# Basic components

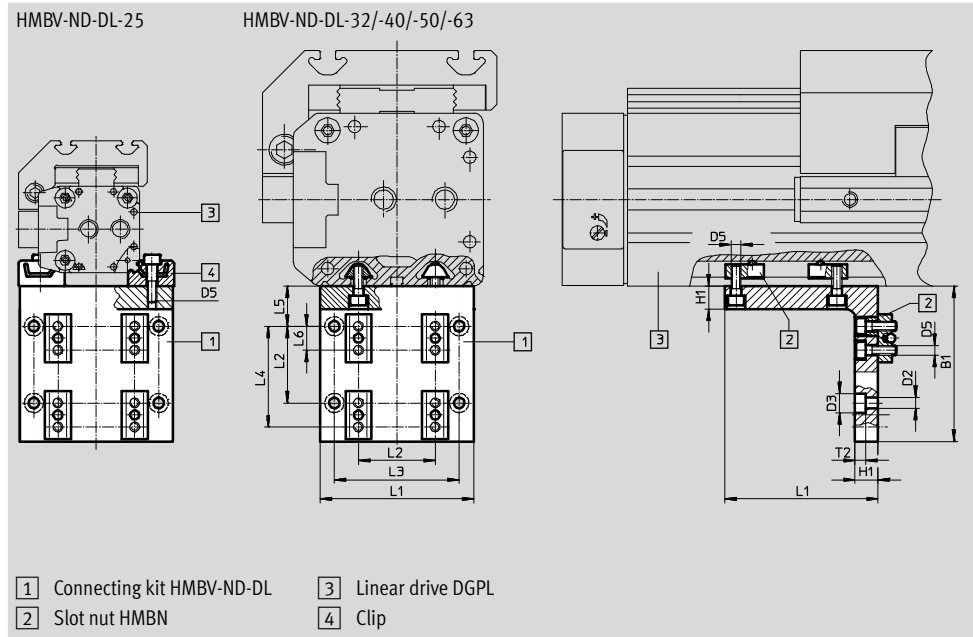
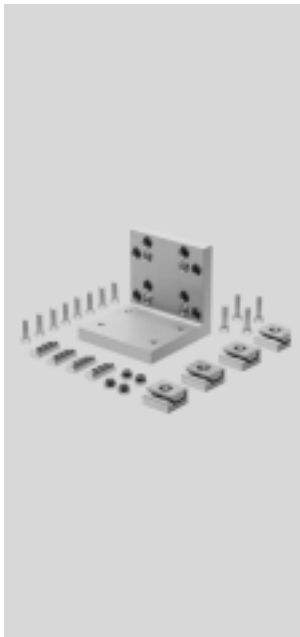
Technical data



**Connecting kit HMBV-ND-DL**  
– for DGPL-25/-32/-40/-50/-63

Scope of delivery:  
All individual parts required for mounting are included.

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions												
Designation	B1	D2 ∅	D3 ∅	D5	H1	L1	L2 ±0.2	L3 ±0.2	L4 ±0.2	L5	L6	T2
Connecting kit	81	5.5	10	M5	12	80	40	65	52.5	21	12.5	5.5

Ordering data				
For ∅	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
25	2	175 985	HMBV-ND-DL25	1
32		175 988	HMBV-ND-DL32	1
40		175 991	HMBV-ND-DL40	1
50		175 994	HMBV-ND-DL50	1
63		175 997	HMBV-ND-DL63	1

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

Ordering data – Accessories (for reorder)									
For ∅	25	32	40	50	63	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
Slot nut	–	4	4	–	–	2	189 654	HMBN-5-M5	10
	–	–	–	4	4		189 655	HMBN-8-M5	10
	4	4	4	4	4		186 566	HMBN-8-2M5	10
Spacer rings	4	4	4	4	4		186 563	HMBRD	10
Central support	2	–	–	–	–		150 736	MUP-18/25	2
Screws	8	12	12	4	4		–	M5x16	–
	4	–	–	–	–		–	M5x20	–

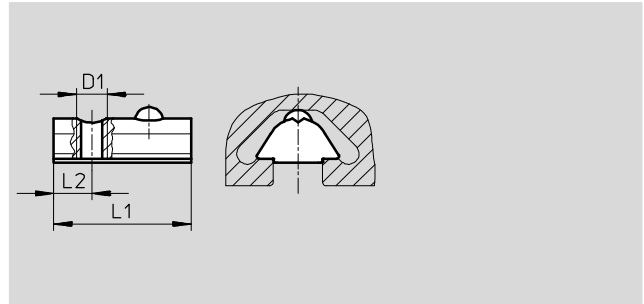
- 1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

# Basic components

Technical data

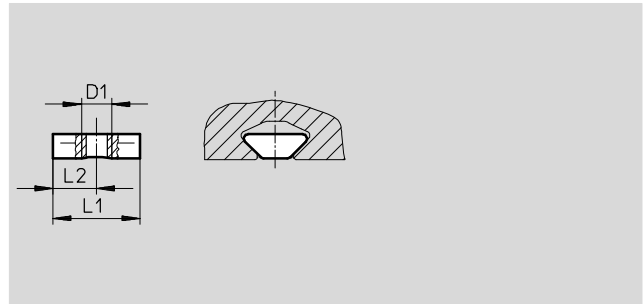
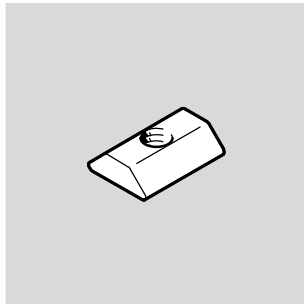
## Slot nut HMBN-5-M5

Material:  
Non-alloyed tempered steel  
Free of copper, PTFE and silicone



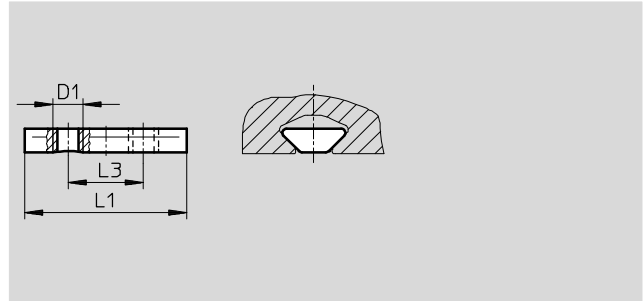
## Slot nut HMBN-5-1M5

Material:  
Non-alloyed tempered steel  
Free of copper, PTFE and silicone



## Slot nut HMBN-5-2M5

Material:  
Non-alloyed tempered steel  
Free of copper, PTFE and silicone



Dimensions and ordering data								
Type	D1	L1	L2	L3	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
HMBN-5-M5	M5	12	4	–	2	189 654	HMBN-5-M5	10
HMBN-5-1M5		14.5	7.25	–	2	547 264	HMBN-5-1M5	10
HMBN-5-2M5		27	–	12.5	2	186 566	HMBN-5-2M5	10

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

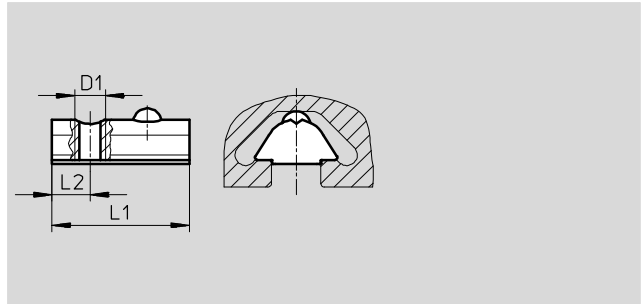
2) Packaging unit.

# Basic components

Technical data

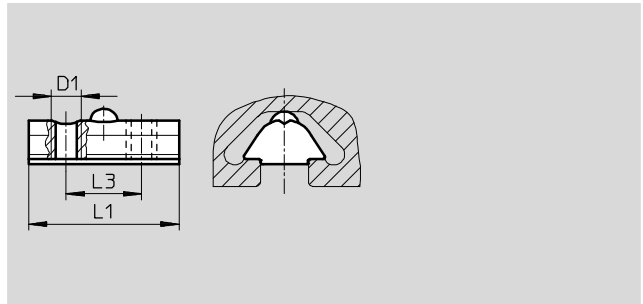
## Slot nut HMBN-8-M5

Material:  
Non-alloyed tempered steel  
Free of copper, PTFE and silicone



## Slot nut HMBN-8-2M5

Material:  
Non-alloyed tempered steel  
Free of copper, PTFE and silicone



Dimensions and ordering data								
Type	D1	L1	L2	L3	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
HMBN-8-M5	M5	22.5	6.25	–	2	<b>189 655</b>	<b>HMBN-8-M5</b>	10
HMBN-8-2M5		25	–	12.5			<b>HMBN-8-2M5</b>	10

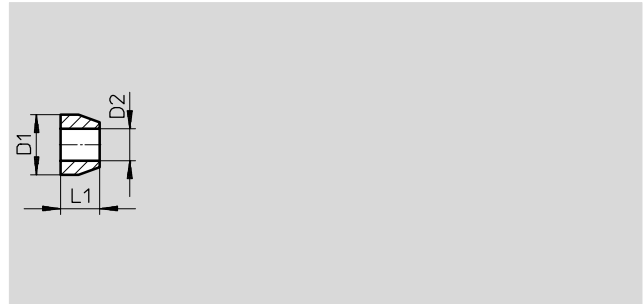
- 1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

# Basic components

Technical data

## Spacer ring HMBRD

Material:  
Corrosion-resistant steel  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	D1	D2	L1	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
	∅	∅					
	h8		±0.1				
HMBRD	10	5.3	6.5	2	<b>186 563</b>	<b>HMBRD</b>	10

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

## Cutting ring HMBRS

Material:  
Corrosion-resistant steel  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	D1	D2	L1	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
	∅	∅					
	+0.04						
HMBRS	9.9	5.3	7	2	<b>186 564</b>	<b>HMBRS</b>	10

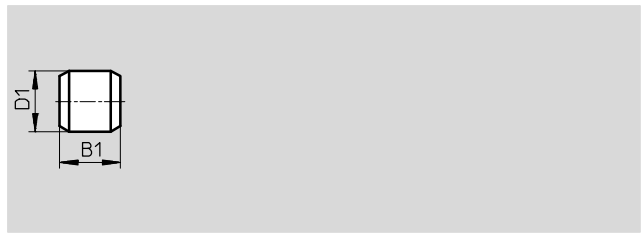
- 1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

# Basic components

Technical data

## Centring pin ZBS

Material:  
Corrosion-resistant steel  
Free of copper, PTFE and silicone

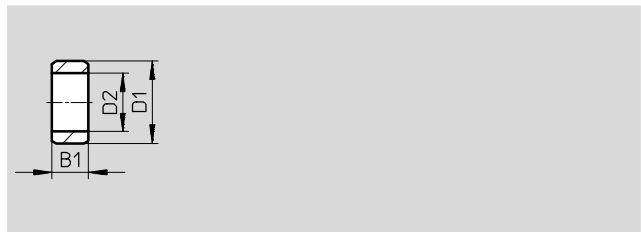


Dimensions and ordering data						
Type	B1	D1	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
	-0.2	∅ h8				
ZBS-2	5	2	2	<b>525 273</b>	<b>ZBS-2</b>	10
ZBS-5	5	5	2	<b>150 928</b>	<b>ZBS-5</b>	10

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

## Centring sleeve ZBH

Material:  
Corrosion-resistant steel  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	D1	D2	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
	-0.2	∅ h7	∅				
ZBH-5	2.4	5	3.2	2	<b>189 652</b>	<b>ZBH-5</b>	10
ZBH-7	3	7	5.3	2	<b>186 717</b>	<b>ZBH-7</b>	10
ZBH-9	4	9	6.4	2	<b>150 927</b>	<b>ZBH-9</b>	10
ZBH-12	5	12	10.3 +0.1	2	<b>189 653</b>	<b>ZBH-12</b>	10

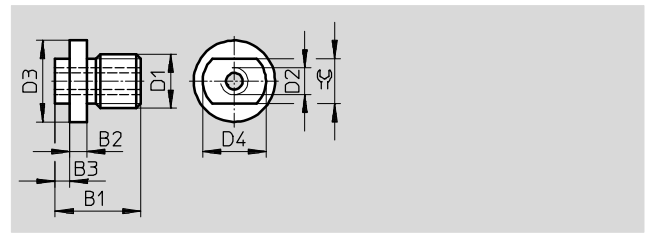
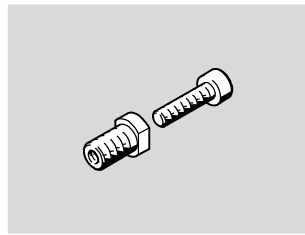
- 1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

# Basic components

Technical data

## Connector sleeve ZBV-M...

Material:  
Corrosion-resistant steel  
Free of copper, PTFE and silicone

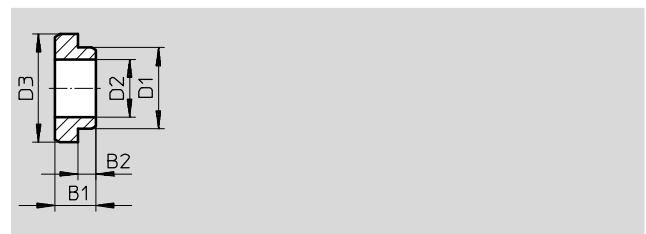
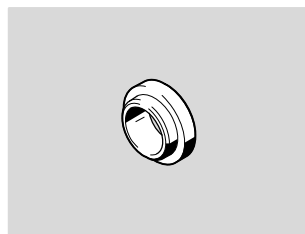


Dimensions and ordering data												
Type	B1	B2	B3	D1	D2	D3 ∅ h7	D4 ∅ h7	≡C	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
ZBV-M4-7	8.7	1.4 <sup>+0.1</sup>	1.3 <sup>+0.05</sup>	M4	M2.5	7	5	4	2	548 802	ZBV-M4-7	3
ZBV-M5-7	11	-	3 <sup>+0.1</sup>	M5	M3	-	7	5.5	2	548 803	ZBV-M5-7	3
ZBV-M6-9	9.5	1.9 <sup>+0.1</sup>	1.6 <sup>+0.05</sup>	M6	M3	9	7	5	2	548 804	ZBV-M6-9	3

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

## Connector sleeve ZBV

Material:  
Corrosion-resistant steel  
Free of copper, PTFE and silicone



Dimensions and ordering data									
Type	B1	B2	D1 ∅ h7	D2 ∅ H13	D3 ∅ h7	CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
ZBV-9-7	3.4	1.5 <sup>+0.05</sup>	7	5.5	9	2	548 805	ZBV-9-7	1
ZBV-12-9	4.5	2 <sup>-0.1</sup>	9	6.4	12	2	548 806	ZBV-12-9	1

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

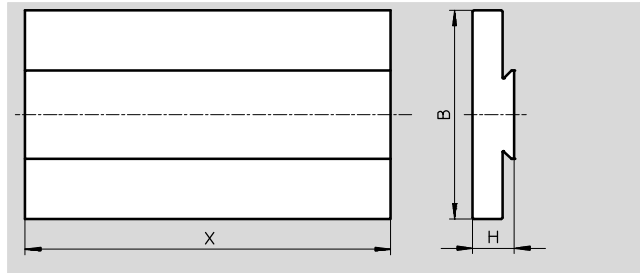
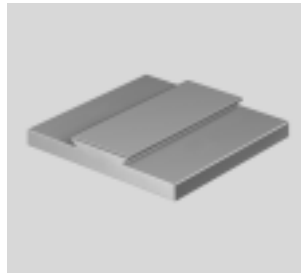
# Basic components

Technical data

## Adapter plate HMAV-...-X

Universal dovetail profile for attaching a base or mounting plate to linear modules HMP

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone

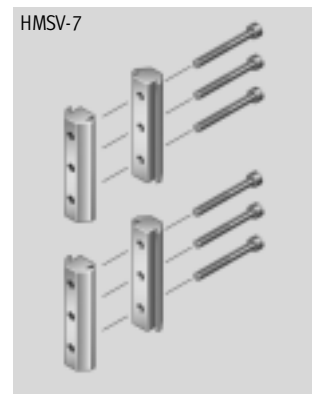
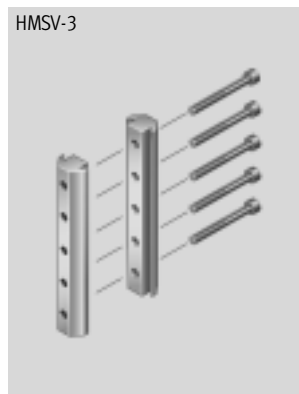
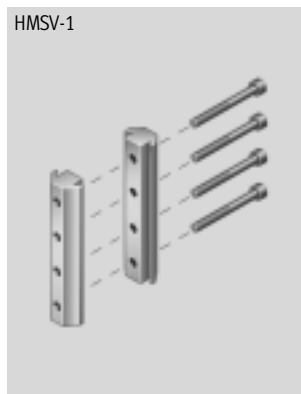


Dimensions and ordering data							
Type	H	B	X <sup>1)</sup>	CRC <sup>2)</sup>	Part No.	Type	PU <sup>3)</sup>
HMAV-80-X	16	80		2	189 451	HMAV-80-X	1
HMAV-90-X	13	90		2	189 450	HMAV-90-X	1

- 1) The length in mm must be quoted when ordering.
- 2) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
- 3) Packaging unit.

## Adapter kit HMSV

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data						
Type	Length		CRC <sup>1)</sup>	Part No.	Type	PU <sup>2)</sup>
HMSV-1	80		2	177 647	HMSV-1	1
HMSV-3	100		2	177 649	HMSV-3	1
HMSV-7	2x 60		2	177 653	HMSV-7	1

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



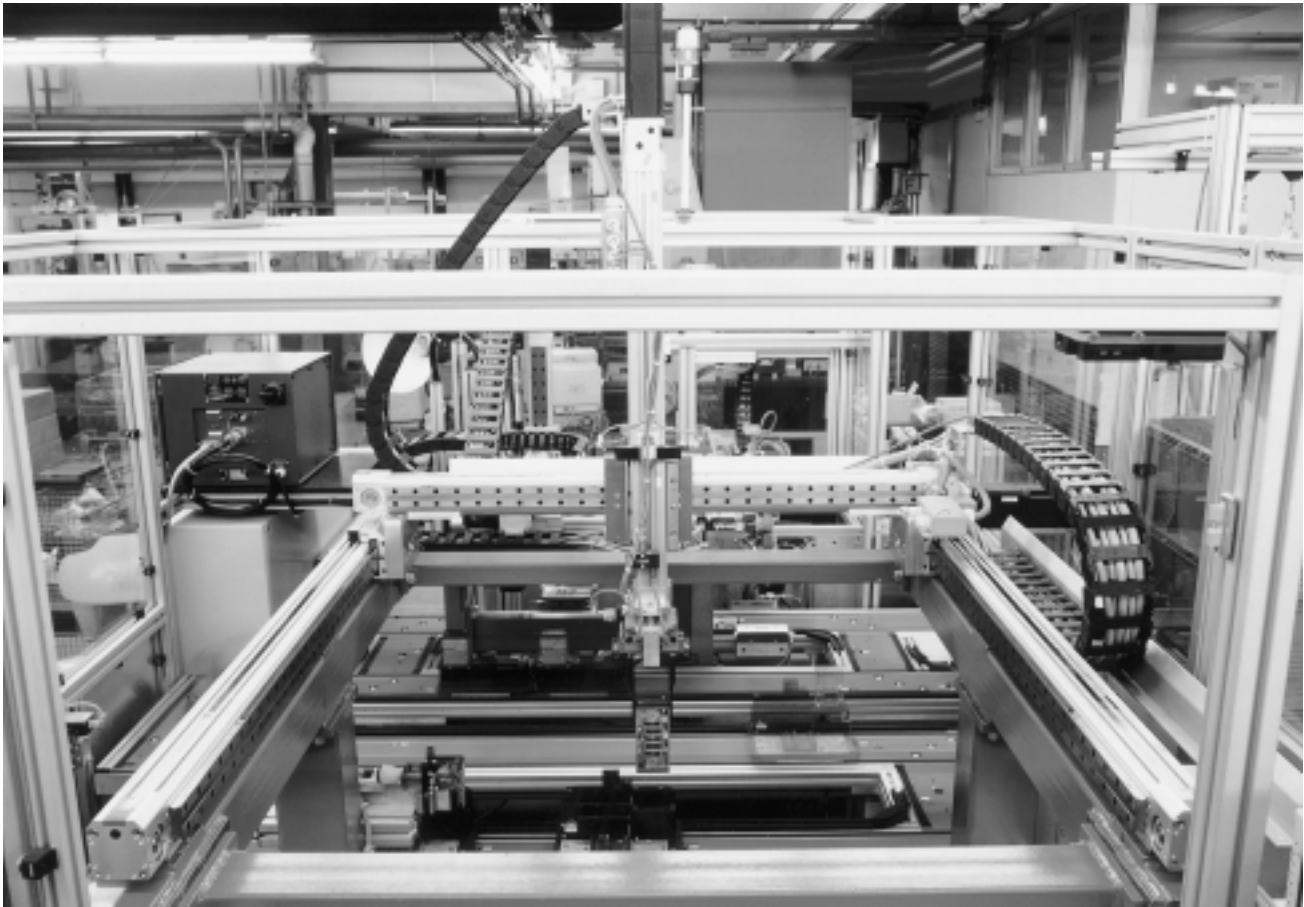


- Modular
- Functional
- Flexible

# Connecting components

Key features

FESTO



## Connecting kits

### Basic kit

Kit that serves as the basis for the individual modules in a multi-axis system and as the interface to the surrounding machines.

### Adapter kit

Kit for connecting drives to one another. Direct mounting or mounting via slot nuts.

### Connecting kit


For connecting drives and basic components.

### Reinforcing kit

Primarily used to reinforce an existing connection. Also used to mount the support profile for energy chains.

### Mounting kit

For mounting accessories such as controllers on multi-axis systems.

-  - Note

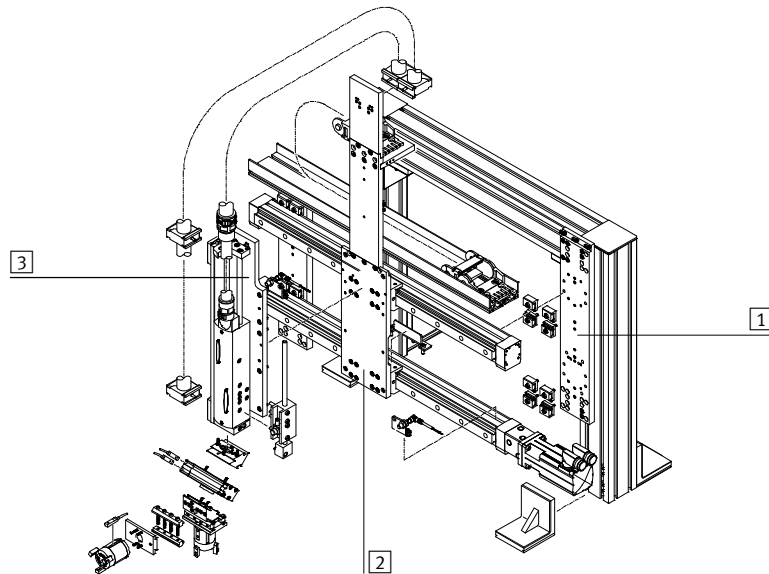
The kits look different depending on their size and combination. They contain all of the holes and threads needed for mounting.

# Connecting components

Key features

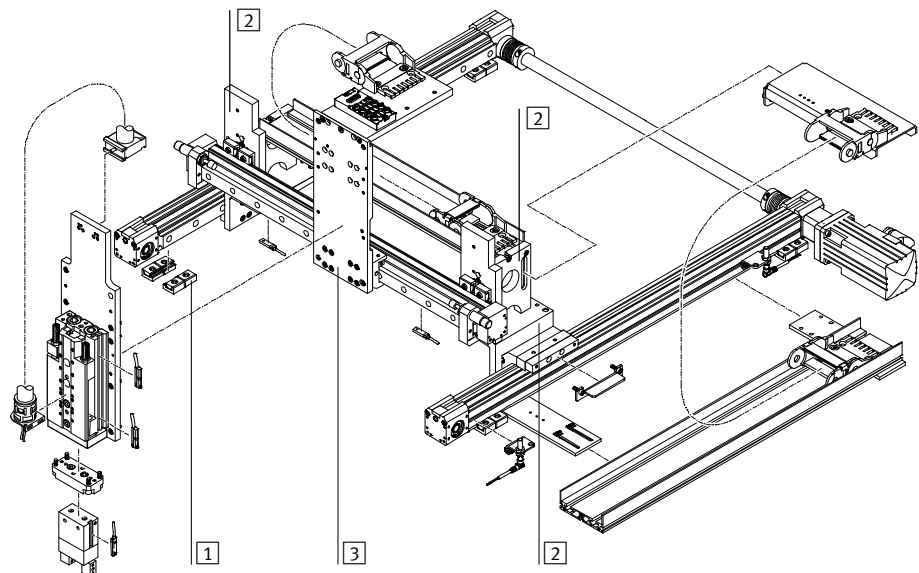
## Linear gantry

- 1 Components for mounting basic axes (basic kit)
- 2 Components for connecting the drives (adapter kit)
- 3 Components for mounting the drives along the Z-axis in gantry designs



## Three-dimensional gantry





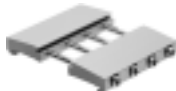

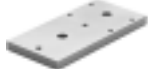

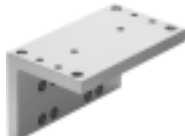

- 1 Components for mounting basic axes
- 2 Components for lateral mounting of an axis (adapter kit, reinforcing kit, basic kit)
- 3 Components for mounting the drives along the Z-axis in gantry designs



# Connecting components



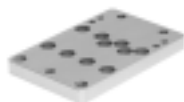
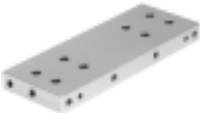


Product range overview

FESTO

Version	Brief description	→ Page/ Internet	Version	Brief description	→ Page/ Internet
Connecting kit HMBK-DB			Adapter kit HMVS-RF		
	<ul style="list-style-type: none"> <li>• For pick &amp; place</li> <li>• For direct mounting of linear modules HMP</li> </ul>	78		<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For connecting X-axes and Y-axes</li> <li>• For toothed belt axis DGE-RF with roller guide</li> <li>• Mounting interface for reinforcing kit HMVV and basic kit HMVM</li> </ul>	81
Connecting kit HMBK-ND			Reinforcing kit HMVV-RP/FP		
	<ul style="list-style-type: none"> <li>• For pick &amp; place</li> <li>• For direct mounting of linear modules HMP</li> </ul>	78		<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For reinforcing the Y-axis</li> <li>• Mounting interface for basic kit HMVM/HMVD, installation components, etc.</li> </ul>	81
Connecting kit HMBK-WS			Basic kit HMVM-LP, HMVD-LP		
	<ul style="list-style-type: none"> <li>• For pick &amp; place</li> <li>• For dovetail mounting of linear modules HMP and mini slides SLT</li> </ul>	79		<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For Y-axis</li> <li>• For mono and duo systems</li> <li>• Mounting interface for profiles, drives and displacement encoders</li> </ul>	82
Connecting kit HMVY			Basic kit HMVM-RP/FP, HMVD-RP/FP		
	<ul style="list-style-type: none"> <li>• For pick &amp; place</li> <li>• For connecting basic components and drives</li> </ul>	79		<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For Y-axis</li> <li>• For mono and duo systems</li> <li>• Mounting interface for drives</li> </ul>	82
Adapter kit HMVW-DL			Basic kit HMVZ		
	<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For connecting X-axes and Y-axes</li> <li>• Mounting interface for reinforcing kit HMVV and basic kit HMVM/HMVD</li> </ul>	80		<ul style="list-style-type: none"> <li>• For linear and three-dimensional gantries</li> <li>• For Z-axis</li> <li>• For mono and duo systems</li> <li>• Mounting interface for drives, installation components, etc.</li> </ul>	83

# Connecting components

Product range overview

Version	Brief description	→ Page/ Internet	Version	Brief description	→ Page/ Internet
Adapter kit HMVS-DL			Adjusting kit HMVE		
	<ul style="list-style-type: none"> <li>• For linear and three-dimensional gantries</li> <li>• For Z-axis</li> <li>• For mono and duo systems</li> <li>• Mounting interface for basic kit HMVZ</li> </ul>	84		<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For aligning the Y-axis</li> </ul>	86
Adapter kit HMVA			Reinforcing plate HMVD-DL		
	<ul style="list-style-type: none"> <li>• For linear and three-dimensional gantries</li> <li>• For Z-axis</li> <li>• For duo systems</li> <li>• Mounting interface for drives</li> </ul>	84		<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For reinforcing the Y-axis beyond a certain length</li> </ul>	86
Connecting plate HMVO-POT					
	<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For Z-axis</li> <li>• Compensating component for compensating the difference in height between an axis and a displacement encoder</li> </ul>	85			
Connecting plate HMVO-RF					
	<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• Compensating component for toothed belt axis DGE-RF for compensating the difference in height with the axes DGE-ZR-KF and DGE-SP-KF</li> </ul>	85			

# Connecting components

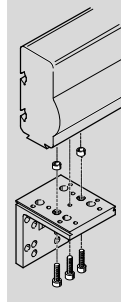
Technical data

**Connecting kit**  
**HMBK-DB**

- For pick & place

- For direct mounting of linear modules HMP

Material:  
Steel  
Free of copper, PTFE and silicone



Dimensions and ordering data				
Type	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMBK-DB	2	15	175 973	HMBK-DB

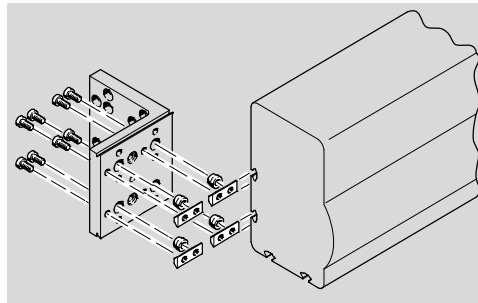
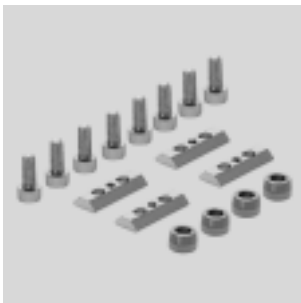
1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

**Connecting kit**  
**HMBK-ND**

- For pick & place

- For direct mounting of linear modules HMP

Material:  
Non-alloyed tempered steel  
Free of copper, PTFE and silicone



Dimensions and ordering data				
Type	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMBK-ND	2	62	175 970	HMBK-ND

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

# Connecting components

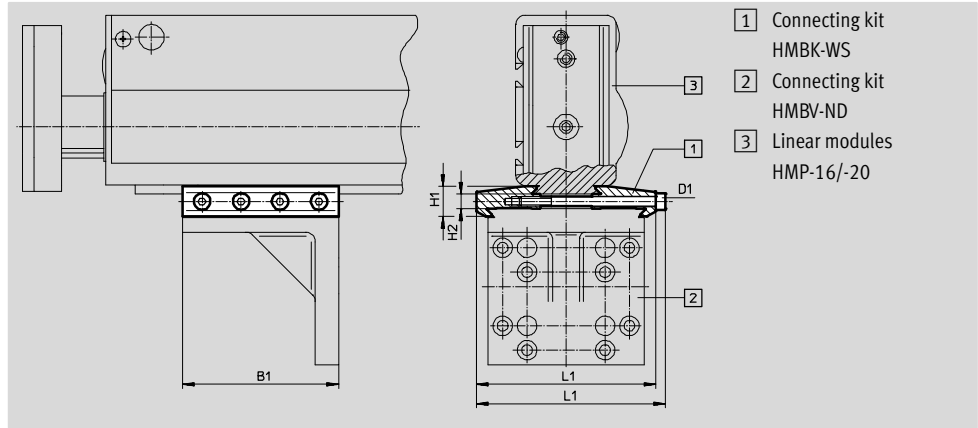
Technical data



## Connecting kit HMBK-WS

- For pick & place
- For dovetail mounting of linear modules HMP and mini slides SLT

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



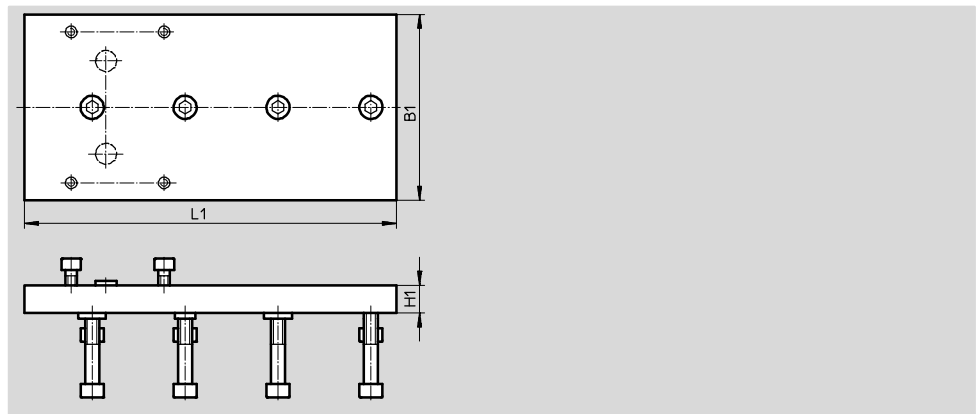
Dimensions and ordering data										
Type	B1	D1	H1	H2	L1	L2	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMBK-WS	80	M5	15.5	7.5	97	92	2	453	175 975	HMBK-WS

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

## Connecting kit HMY

- For pick & place
- For connecting basic components and drives
- Mounting accessories included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data										
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type			
HMY-1	80	12	160	2	410	539 968	HMY-1			
HMY-2	80	12	160		420	539 969	HMY-2			
HMY-3	80	12	240		620	539 970	HMY-3			
HMY-4	80	12	240		720	560 020	HMY-4			

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

# Connecting components

Technical data

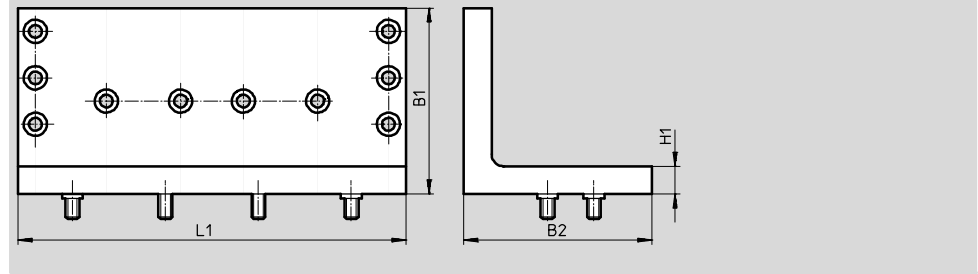


## Adapter kit HMVW-DL

- For three-dimensional gantries
- For connecting X-axes and Y-axes

- Mounting interface for reinforcing kit HMVV and basic kit HMVM/HMVD
- Mounting accessories included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data									
Type	B1	B2	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type	
HMVW-DL25	80	81	12	135	2	640	<b>539 651</b>	<b>HMVW-DL25</b>	
HMVW-DL40	80	81	12	167		800	<b>540 325</b>	<b>HMVW-DL40</b>	
HMVW-DL63-1	80	100	12	230		1,250	<b>566 897</b>	<b>HMVW-DL63-1</b>	

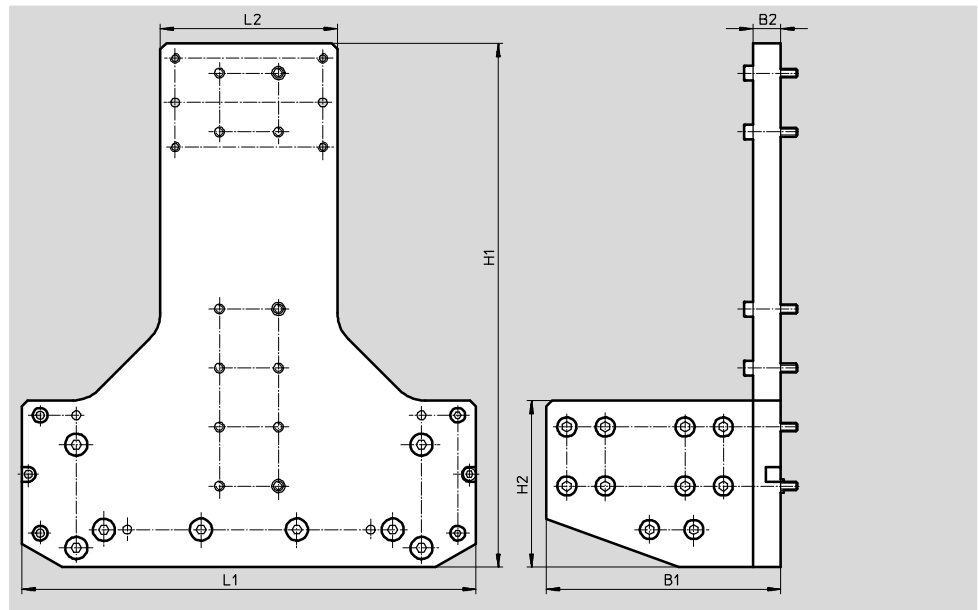
1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

## Mounting bracket HMVW-DL63-2

- For three-dimensional gantries
- For connecting X-axes and Y-axes

- Mounting interface for profile column HMBS and installation kit HMIX
- Mounting accessories included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data										
Type	B1	B2	H1	H2	L1	L2	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVW-DL63-2	159	19	355	113	308	120	2	5,700	<b>566 890</b>	<b>HMVW-DL63-2</b>

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



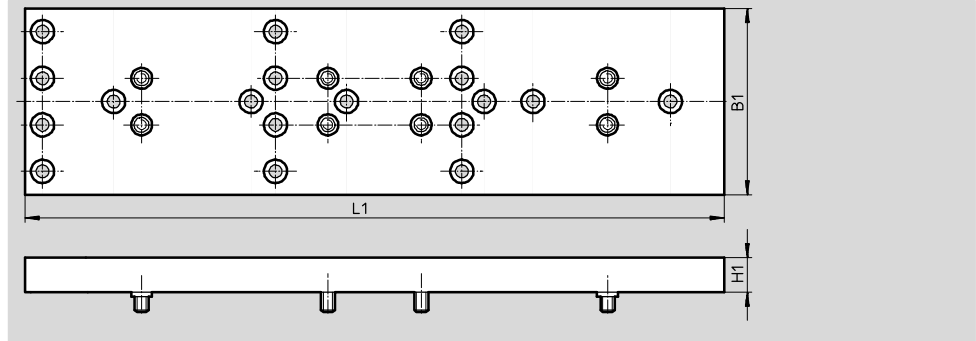
# Connecting components

Technical data

## Adapter kit HMVS-RF

- For three-dimensional gantries
- For connecting X-axes and Y-axes
- For toothed belt axis DGE-RF with roller guide
- Mounting interface for reinforcing kit HMVV and basic kit HMVM
- Mounting accessories included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



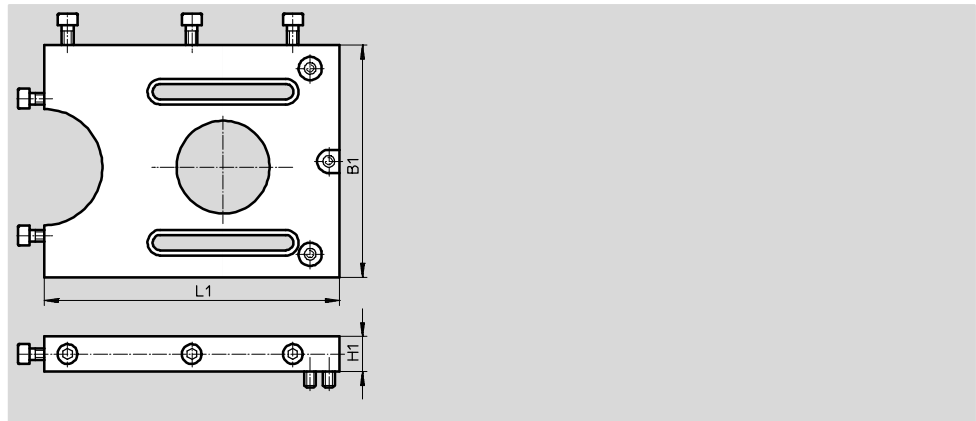
Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVS-RF25	80	15	190	2	600	539 652	HMVS-RF25
HMVS-RF40	80	15	300		930	539 653	HMVS-RF40
HMVS-RF63	90	15	260		950	566 898	HMVS-RF63

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

## Reinforcing kit HMVV-RP/FP

- For three-dimensional gantries
- For reinforcing the Y-axis
- Mounting interface for basic kit HMVM/HMVD, installation components, etc.
- Mounting accessories included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVV-RP/FP	100	15	127	2	400	539 657	HMVV-RP/FP

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

# Connecting components

Technical data

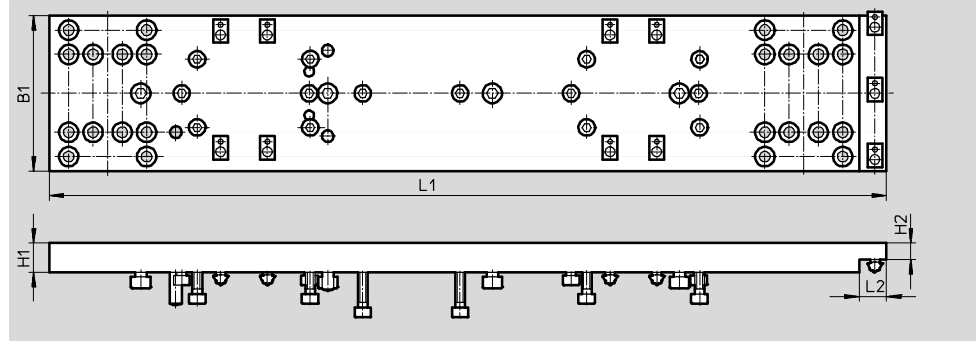


**Basic kit**  
**HMVM-LP**  
**HMVD-LP**

- For linear gantries
- For Y-axis
- For mono and duo systems

- Mounting interface for profiles, drives and displacement encoders
- Mounting accessories included in the scope of delivery

Material:  
 Anodised aluminium  
 Free of copper, PTFE and silicone



Dimensions and ordering data									
For system type	B1	H1	H2	L1	L2	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Mono	80	15	8.5	280	14	2	830	539 972	HMVM-LP-DL25/40
Duo	80	15	8.5	480	14		1,320	539 971	HMVD-LP-DL25/40
Duo	160	19	–	525	–		5,800	566 879	HMVD-LP-DL63

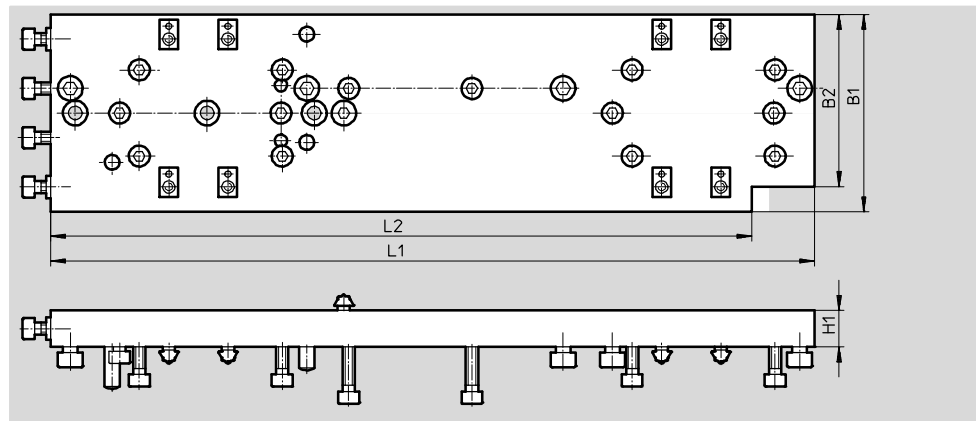
1) Corrosion resistance class 2 according to Festo standard 940 070  
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

**Basic kit**  
**HMVM-RP/FP**  
**HMVD-RP/FP**

- For three-dimensional gantries
- For Y-axis
- For mono and duo systems

- Mounting interface for drives
- Mounting accessories included in the scope of delivery

Material:  
 Anodised aluminium  
 Free of copper, PTFE and silicone



Dimensions and ordering data									
For system type	B1	B2	H1	L1	L2	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Mono	80	64.5	15	200	145.5	2	600	539 656	HMVM-RP/FP-DL25/40
Duo	80	–	15	310	–		1,000	539 655	HMVD-RP/FP-DL25/40
Duo	160	–	19	525	–		4,300	566 880	HMVD-RP/FP-DL63

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

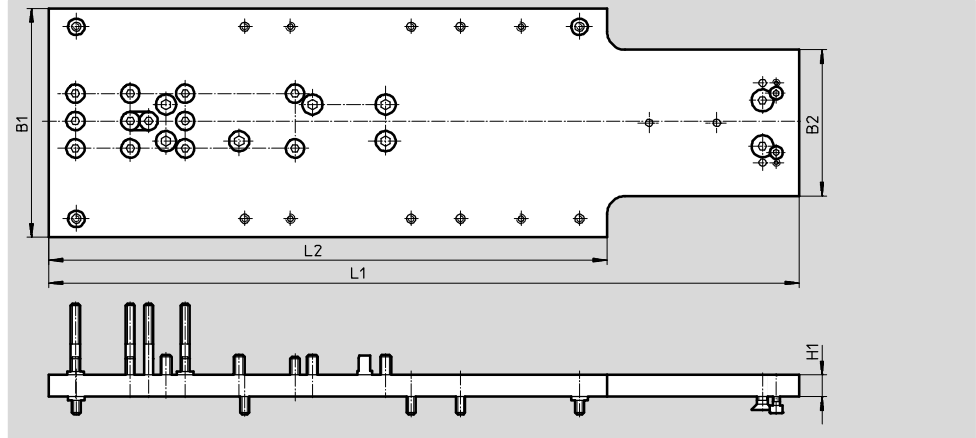
# Connecting components

Technical data

**Basic kit**  
**HMVZ**

- For linear and three-dimensional gantries
- For Z-axis
- For mono and duo systems
- Mounting interface for drives, installation components, etc.
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data									
Type	B1	B2	H1	L1	L2	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVZ-1	125	80	12	410	305	2	1,520	539 372	HMVZ-1
HMVZ-2							1,510	539 373	HMVZ-2
HMVZ-3							1,490	539 374	HMVZ-3
HMVZ-4							1,450	539 375	HMVZ-4
HMVZ-7							1,470	560 021	HMVZ-7
HMVZ-5	167	80	12	422	342		2,080	539 376	HMVZ-5
HMVZ-6							1,900	539 377	HMVZ-6
HMVZ-8	300	-	15	590	-		7,300	566 875	HMVZ-8
HMVZ-9			14				6,900	566 876	HMVZ-9

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

# Connecting components

Technical data

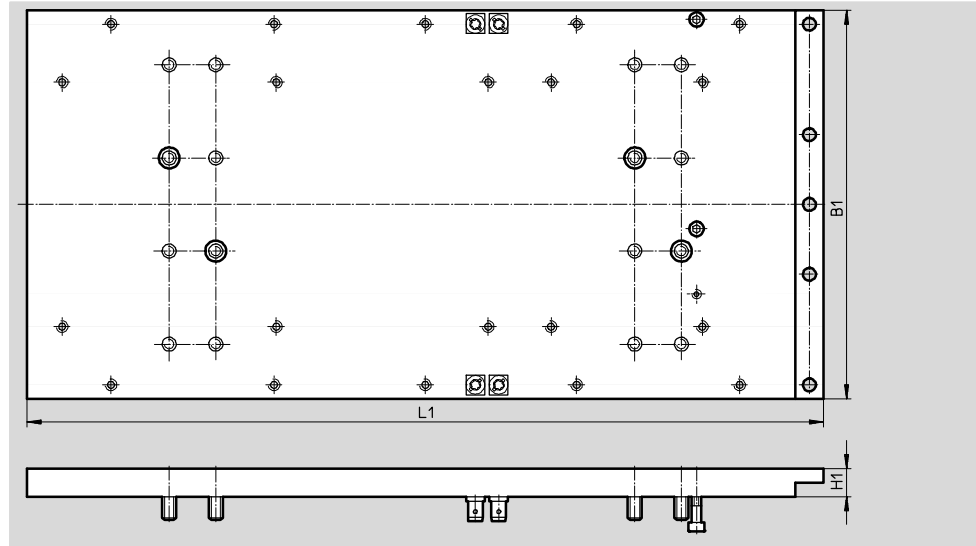


## Adapter kit HMVS-DL

- For linear and three-dimensional gantries
- For Z-axis
- For mono and duo systems

- Mounting interface for basic kit HMVZ
- Mounting accessories and earthing kits included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVS-DL25	125	12	305	2	1,050	539 368	HMVS-DL25
HMVS-DL40	167	12	342		1,800	539 369	HMVS-DL40
HMVS-DL63	300	15	590		7,100	566 883	HMVS-DL63

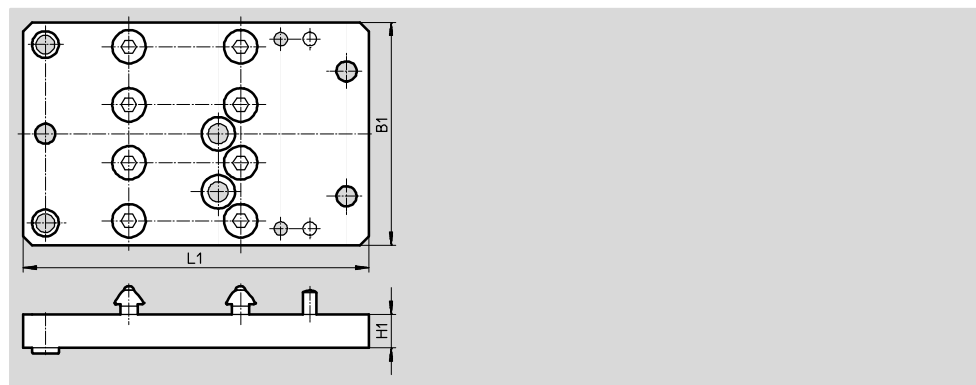
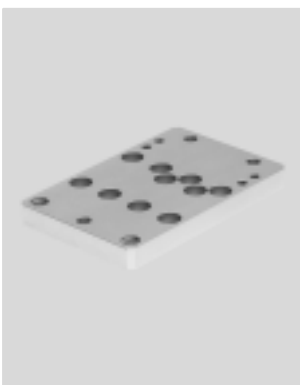
1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

## Adapter kit HMVA

- For linear and three-dimensional gantries
- For Z-axis
- For duo systems

- Mounting interface for drives
- Mounting accessories included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVA-63	100	15	155	2	600	566 878	HMVA-63

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

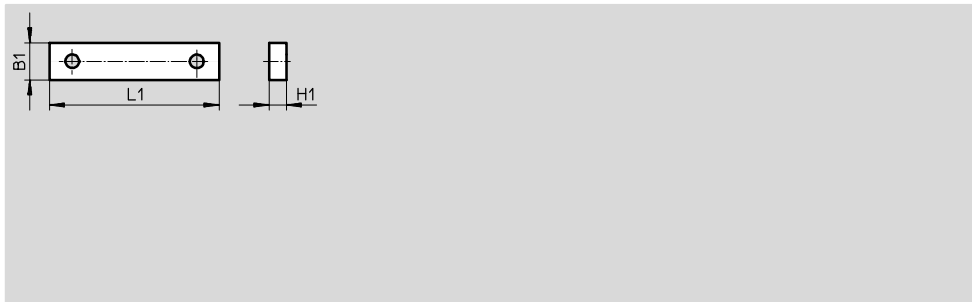
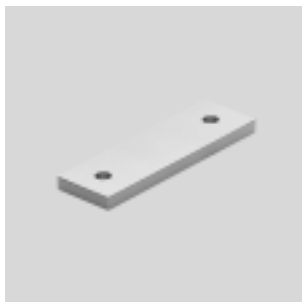
# Connecting components

Technical data

**Connecting plate HMVO-RF**  
**Connecting plate HMVO-POT**

- For linear gantries
- For Z-axis
- Mounting accessories included in the scope of delivery

Material:  
 Anodised aluminium  
 Free of copper, PTFE and silicone



**HMVO-RF25**

Compensating component for toothed belt axis DGE-RF to compensate for the difference in height with the axes DGE-ZR-KF and DGE-SP-KF

**HMVO-POT**

Compensating component for displacement encoder MLO-POT-TLF to compensate the difference in height with the linear drive DGPL-25/-40

Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVO-RF25	25	5.5	80	2	30	<b>539 362</b>	<b>HMVO-RF25</b>
HMVO-POT	15	7	68		20	<b>539 973</b>	<b>HMVO-POT</b>

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

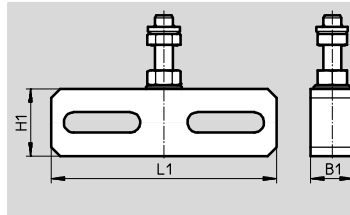
# Connecting components

Technical data

## Adjusting kit HMVE

- For linear gantries
- For aligning the Y-axis

Material:  
Galvanised steel  
Free of copper, PTFE and silicone



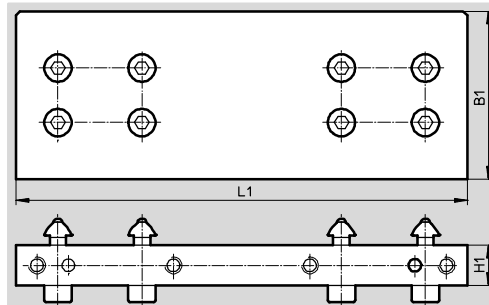
Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVE	19	30	100	2	150	566 884	HMVE

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

## Reinforcing plate HMVD-DL

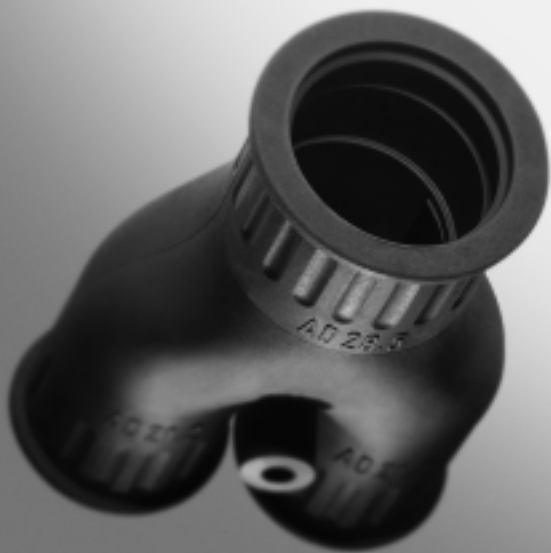
- For three-dimensional gantries
- For reinforcing the Y-axis beyond a certain length
- Mounting accessories included in the scope of delivery

Material:  
Galvanised steel  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMVD	80	19	215	2	900	566 892	HMVD-DL-40/63

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



- Reliable guidance
- Rapid assembly and disassembly
- Low space requirement
- Low noise levels

# Installation components for short strokes

Key features

Installation components facilitate a clear, safe layout of electrical cables and pneumatic tubing.

They can be quickly dismantled and reassembled if servicing is required. They are mainly used for short strokes in pick & place systems and for installing drives along the Z-axis in gantry units.



## Protective conduit MKR



Flexible conduit protects electrical cables and pneumatic tubing at machines and in installations. The conduit connector MKRT enables a protective conduit with a small diameter to be inserted and fastened into a protective conduit with a larger diameter. Intervention is thus possible at this point in the protective conduit system, for example for maintenance work.

## Separable protective conduit MKG



With separable connector  
Internal and external conduits can be separated from one another. Electrical cables and pneumatic tubing do not need to be pulled through the protective conduit, but can be laid in it. The matching connector can also be opened.

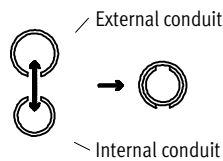
## Junction box HMZV



Protection for electrical cables and pneumatic tubing, especially for multi-axis systems.

## Accessories

- Fittings and connectors  
MKRV, MKGV, MKA, MKRL, MKRT, MKY
- Lock nut  
MKM
- Retaining clip  
MKRS
- Installation kit  
HMZAS

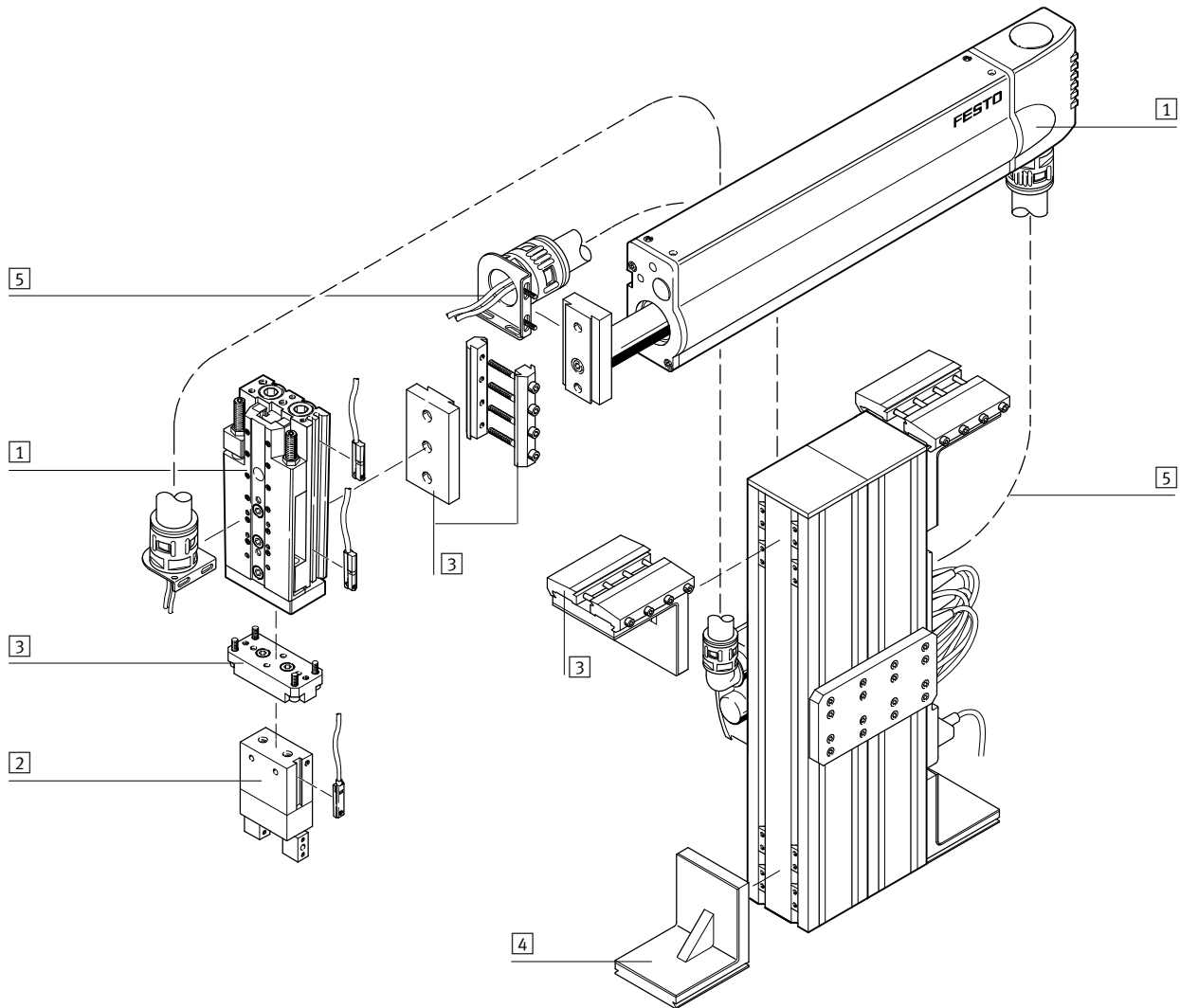




# Installation components for short strokes

System example

System product for handling and assembly technology

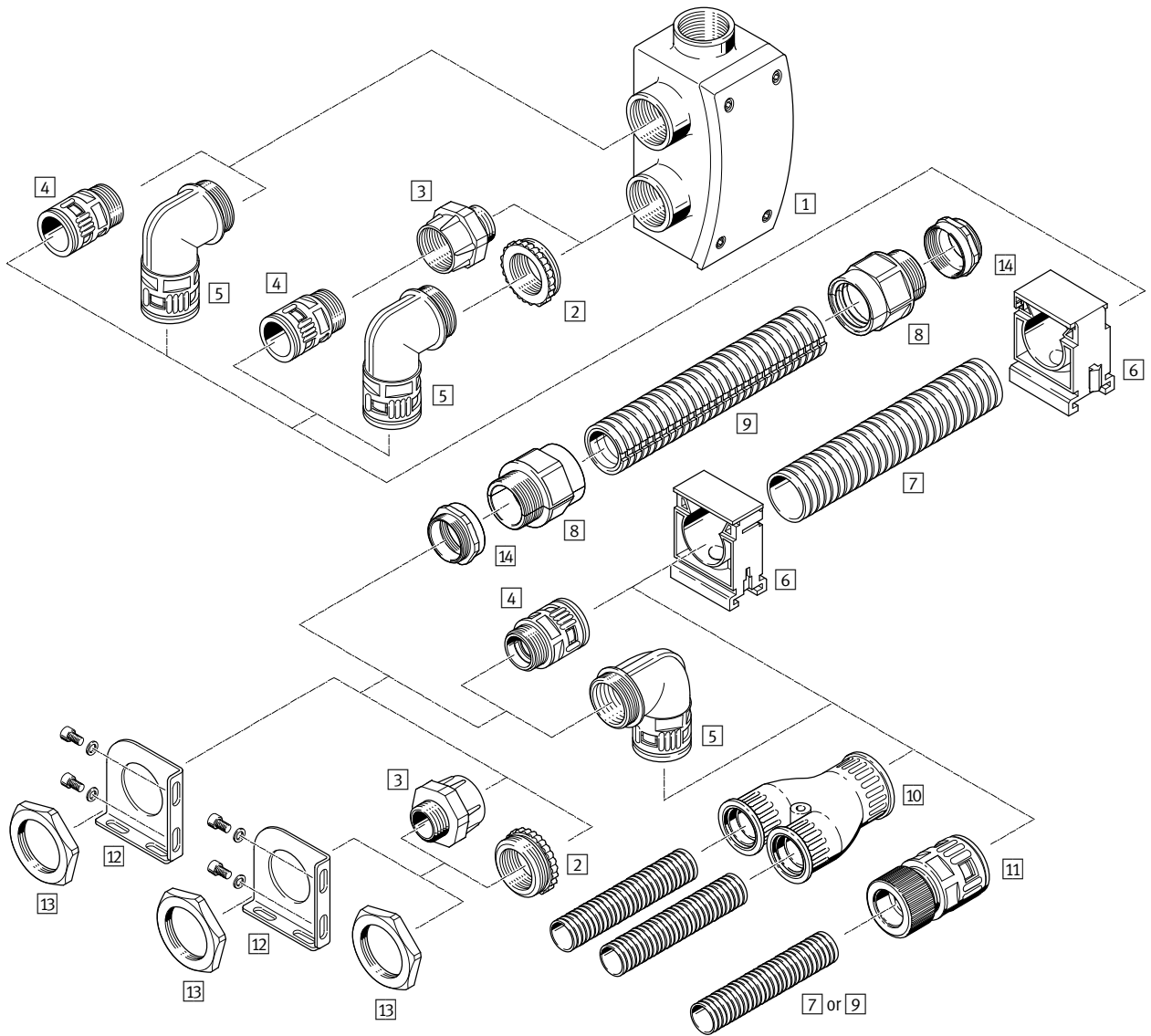


System components and accessories		
	Brief description	→ Page/Internet
1	Drives	Wide range of combinations possible within handling and assembly technology drive
2	Grippers	Wide range of variations possible within handling and assembly technology gripper
3	Adapters	For drive/drive and drive/gripper connections adapter kit
4	Basic components	Profiles and profile connections as well as profile/drive connections basic component
5	Installation components	For a clear, safe layout of electrical cables and tubing installation component
-	Axes	Wide range of combinations possible within handling and assembly technology axis
-	Motors	Servo and stepper motors, with or without gear unit motor

# Installation components for short strokes

Peripherals overview

FESTO














# Installation components for short strokes

Peripherals overview

Variants and accessories		
Type	Brief description	→ Page/Internet
1 Junction box HMZV	For bundling or distributing cables and tubing	95
2 Reducing connector MKA	For reducing thread size Material: Brass	100
3 Reducing connector MKA-KU	For reducing or enlarging thread size Material: Polyamide	101
4 Protective conduit fitting MKRV	For securing a protective conduit	96
5 Elbow connector for protective conduit MKRL	For securing a protective conduit	97
6 Retaining clip MKRS	For securing a protective conduit over long distances	102
7 Protective conduit MKR	For protecting cables and tubing	94
8 Protective conduit fitting MKGV	For securing a protective conduit. The connector can be separated so that cables and tubing in the system can be easily replaced.	99
9 Protective conduit MKG	For protecting cables and tubing. The conduit can be separated so that cables and tubing in the system can be easily replaced.	95
10 Y-distributor MKY	For distributing cables and tubing	98
11 Protective conduit connector MKRT	The protective conduits (different sizes) can be pushed into one another by releasing the connector. This permits easy replacement of cables and tubing.	98
12 Installation kit HMZAS	For securing protective conduit connectors at drives	103
13 Lock nut MKM	For securing connectors at adapter plates	102
14 Reducing connector MKA	Converts the metric thread into a Pg thread	99







# Installation components for short strokes

Selection aid

Accessories		Protective conduit						Junction box	→ Page/Internet
		MKR				MKG, separable		HMZV	
									
Connecting thread		Pg 9	Pg 11	Pg 16	Pg 21	Pg 29	Pg 29	Pg 29	
Protective conduit fitting MKRV									
	Pg 9	■	-	-	-	-	-	-	96
	Pg 11	-	■	-	-	-	-	-	
	Pg 16	-	-	■	-	-	-	-	
	Pg 21	-	-	-	■	-	-	-	
	Pg 29	-	-	-	-	■	-	■	
Elbow connector for protective conduit MKRL									
	Pg 9	■	-	-	-	-	-	-	97
	Pg 11	-	■	-	-	-	-	-	
	Pg 16	-	-	■	-	-	-	-	
	Pg 21	-	-	-	■	-	-	-	
	Pg 29	-	-	-	-	■	-	■	
Y distributor MKY									
	Pg 21	-	-	-	■	-	-	-	98
	Pg 29	-	-	-	-	■	-	-	
Protective conduit connector MKRT									
	Pg 16	-	-	■	■	-	-	-	98
	Pg 21	-	-	■	■	-	-	-	
Protective conduit connector MKGV, separable									
	M25	-	-	-	-	-	-	-	99
	M32, M40	-	-	-	-	-	■	-	
Reducing connector MKA (M/Pg thread)									
	M25/ Pg 21	-	-	-	-	-	-	-	99
	M32, M40/ Pg 29	-	-	-	-	-	■	■	
Reducing connector MKA (Pg/Pg thread)									
	Pg 29/ Pg 21	-	-	-	-	-	-	■	100
Reducing connector MKA-KU									
	Pg 29	-	-	-	-	-	-	■	101
Technical data → Page/Internet		94				95		95	

# Installation components for short strokes

Selection aid

Accessories		Protective conduit					Junction box	→ Page/Internet
		MKR			MKG, separable		HMZV	
								
Connecting thread		Pg 9	Pg 11	Pg 16	Pg 21	Pg 29	Pg 29	Pg 29
<b>Lock nut MKM</b>								
	Pg 9	■	-	-	-	-	-	100
	Pg 11	-	■	-	-	-	-	
	Pg 16	-	-	■	-	-	-	
	Pg 21	-	-	-	■	-	-	
	Pg 29	-	-	-	-	■	■	
<b>Retaining clip MKRS</b>								
	Pg 9	■	-	-	-	-	-	102
	Pg 11	-	■	-	-	-	-	
	Pg 16	-	-	■	-	-	-	
	Pg 21	-	-	-	■	-	-	
	Pg 29	-	-	-	-	■	■	
<b>Installation kit HMZAS</b>								
	For connecting thread Pg 21 and Pg 29							103
Technical data → Page/Internet	94				95		95	

# Installation components for short strokes

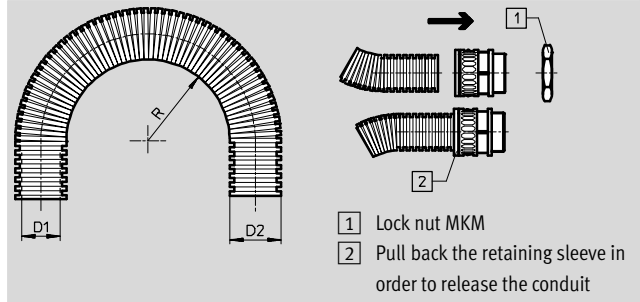
Technical data



**Protective conduit MKR**  
for Pg connecting thread

Material:  
Polyamide  
Free of copper, PTFE and silicone

Scope of delivery: 1m



Dimensions and ordering data					
Pg connecting thread	D1 Ø	D2 Ø	R min.		Protection class
			Static	Dynamic	
Pg 9	10	13	15	45	IP 68
Pg 11	12	15.8	22	55	
Pg 16	16.5	21.2	35	75	
Pg 21	23	28.5	45	100	
Pg 29	29	34.5	50	120	

Pg connecting thread	Temperature range [°C]	Mounting position	CRC <sup>1)</sup>	Weight [g/m]	Part No.	Type
Pg 9	-50 ... +100	Any	2	24	<b>177 564</b>	<b>MKR-10-PG-9</b>
Pg 11				34	<b>177 565</b>	<b>MKR-12-PG-11</b>
Pg 16				56	<b>177 566</b>	<b>MKR-16,5-PG-16</b>
Pg 21				90	<b>177 567</b>	<b>MKR-23-PG-21</b>
Pg 29				120	<b>177 568</b>	<b>MKR-29-PG-29</b>

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

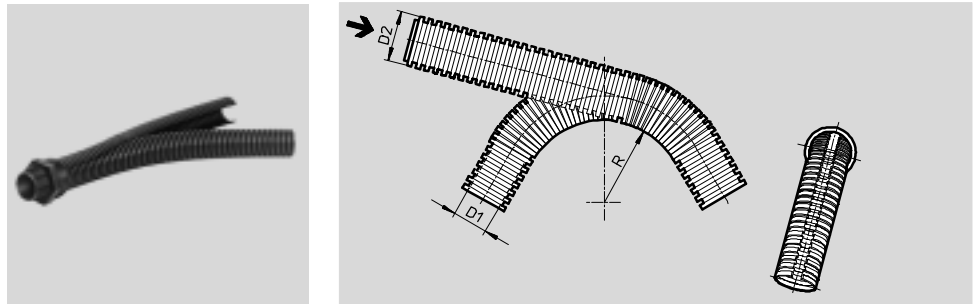
# Installation components for short strokes

Technical data

## Protective conduit MKG, separable for Pg connecting thread

Materials:  
Polypropylene  
Free of copper and PTFE  
RoHS-compliant

Scope of delivery: 1m



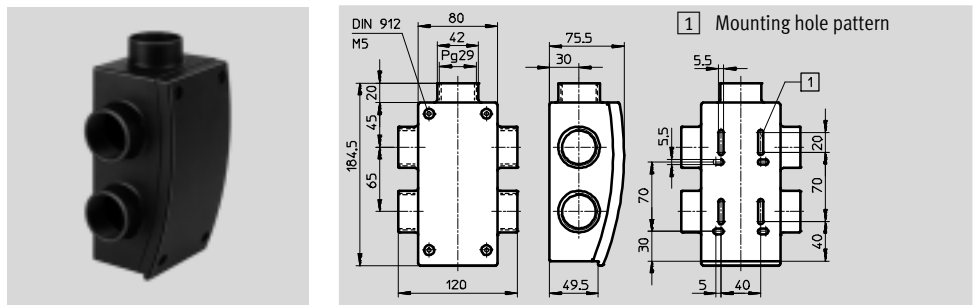
Dimensions and ordering data				
Pg connecting thread	D1 Ø	D2 Ø	R	Temperature range [°C]
Pg 29	22.1	28.4	≥ 60	-20 ... +100
	31.8	42.4	≥ 120	

Pg connecting thread	Mounting position	CRC <sup>1)</sup>	Weight [g/m]	Part No.	Type
Pg 29	Any	2	95	3156318	MKG-23-PG-29-B
			150	3156319	MKG-36-PG-29

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

## Junction box HMZV with mounting kit for profile column HMBS

Material:  
Polyamide  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Pg connecting thread	Temperature range [°C]	Protection class	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Pg 29	-10 ... +60	IP 50	Any	2	280	175 126	HMZV

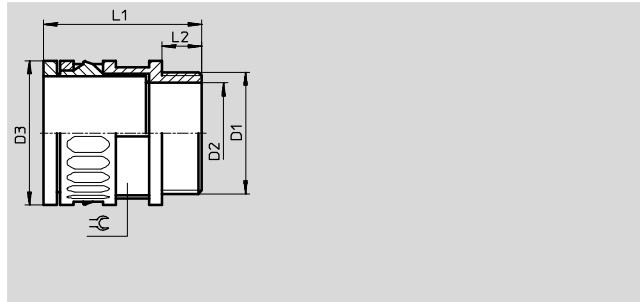
1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

# Installation components for short strokes

Technical data

## Protective conduit fitting MKRV

Material:  
Polyamide  
Free of copper, PTFE and silicone



Dimensions and ordering data						
Pg connecting thread D1 Ø	D2 Ø	D3 Ø	L1	L2	⌀	Temperature range [°C]
Pg 9	10	20	35	10	18	-30 ... +100
Pg 11	12.5	23	37		21	
Pg 16	17	29.5	43.5	12	27	
Pg 21	23.5	37	46		34	
Pg 29	30.5	44	48		40	

Pg connecting thread D1 Ø	Protection class	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Pg 9	IP 67	Any	2	5	177 569	MKRV-10-PG-9
Pg 11				6	177 570	MKRV-21-PG-11
Pg 16				10	177 571	MKRV-16,5-PG-16
Pg 21				14	177 572	MKRV-23-PG-21
Pg 29				22	177 573	MKRV-29-PG-29

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

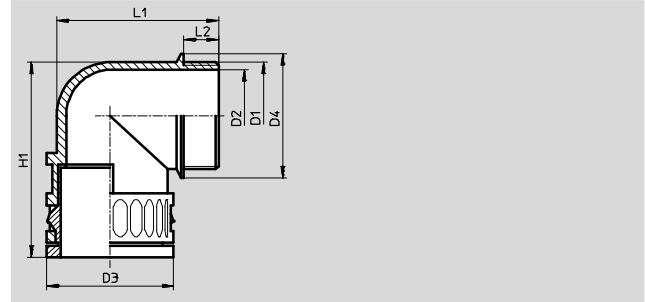


# Installation components for short strokes

Technical data

## Elbow connector for protective conduit MKRL

Material:  
Polyamide  
Free of copper, PTFE and silicone



Dimensions and ordering data						
Pg connecting thread D1 Ø	D2 Ø	D3 Ø	D4 Ø	H1	L1	L2
Pg 9	12	20	20	36	34	10
Pg 11	15.5	23	23	42	37.5	
Pg 16	18	29.5	27	49.5	47	12
Pg 21	24	37	34	57	55	
Pg 29	32	44	43	68	63	

Pg connecting thread D1 Ø	Temperature range [°C]	Protection class	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Pg 9	-30 ... +100	IP 67	Any	2	6	177 574	MKRL-10-PG-9
Pg 11					8	177 575	MKRL-12-PG-11
Pg 16					16	177 576	MKRL-16,5-PG-16
Pg 21					24	177 577	MKRL-23-PG-21
Pg 29					36	177 578	MKRL-29-PG-29

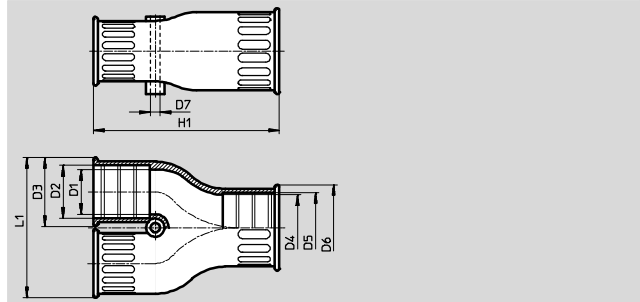
1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

# Installation components for short strokes

Technical data

## Y-distributor MKY

Material:  
Thermoplastic rubber  
Free of copper, PTFE and silicone



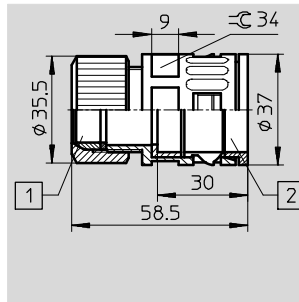
Pg connecting thread D1		D2	D3	D4	D6	D7	H1
D1	D5	∅	∅	∅	∅	∅	
Pg 16	Pg 21	21.2	29.5	25.5	36.5	4	81.5
Pg 21	Pg 29	28.5	36.5	31.5	42.5		86

Pg connecting thread		L1	Temperature range	Protection class	Mounting position	CRC <sup>1)</sup>	Weight	Part No.	Type
D1	D5		[°C]				[g]		
Pg 16	Pg 21	61	-30 ... +80	IP 67	Any	2	34	<b>193 946</b>	<b>MKY-PG-21-2PG-16</b>
Pg 21	Pg 29	79					50		

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

## Protective conduit connector MKRT

Material:  
Polyamide  
Free of copper, PTFE and silicone



- 1) For protective conduit MKR-16,5-PG16
- 2) For protective conduit MKR-23-PG21

Pg connecting thread		Temperature range	Protection class	Mounting position	CRC <sup>1)</sup>	Weight	Part No.	Type
		[°C]				[g]		
Pg 16/Pg 21		-10 ... +60	IP67	Any	2	40	<b>194 321</b>	<b>MKRT-23-16,5</b>

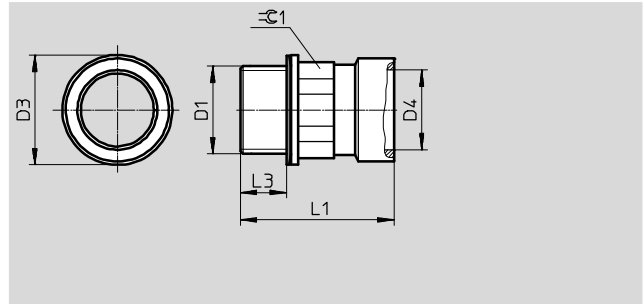
1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

# Installation components for short strokes

Technical data

## Protective conduit fitting MKGV, separable

Materials:  
Polyamide  
Free of copper and PTFE  
RoHS-compliant



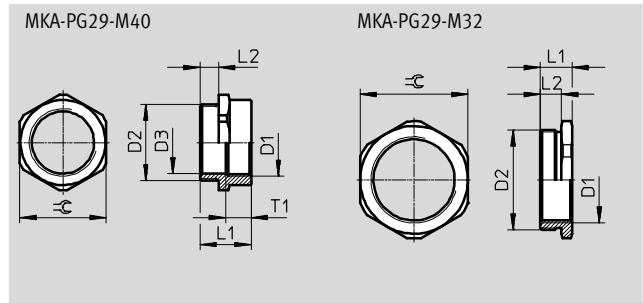
Dimensions and ordering data					
M-connecting thread D1 Ø	D3 Ø max.	D4 Ø	L1	L3	☞
M32x1.5	40	23	56	17	33
M40x1.5	53	36	74.5	22	50

M-connecting thread D1 Ø	Temperature range [°C]	Degree of protection	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
M32x1.5	-40 ... +100	IP 54	Any	2	17	3152612	MKGV-23-M32-B
M40x1.5					46	3152613	MKGV-36-M40

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

## Reducing connector MKA Conversion of M thread to Pg thread

Materials:  
Nickel-plated brass  
RoHS-compliant



Dimensions and ordering data						
M-connecting thread D1 Ø	D2 Ø	D3 Ø	L1	L2	T1	☞
M32x1.5	Pg29	-	12	8	-	40
M40x1.5	Pg29	32	21	8	10.5	43

M-connecting thread	Temperature range [°C]	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
M32x1.5	-40 ... +200	Any	2	93	1879672	MKA-PG29-M32
M40x1.5				113	1879673	MKA-PG29-M40

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

# Installation components for short strokes

Technical data

## Reducing connector MKA

For reducing Pg 29 to Pg 21

Material:  
Nickel-plated brass  
Free of copper, PTFE and silicone

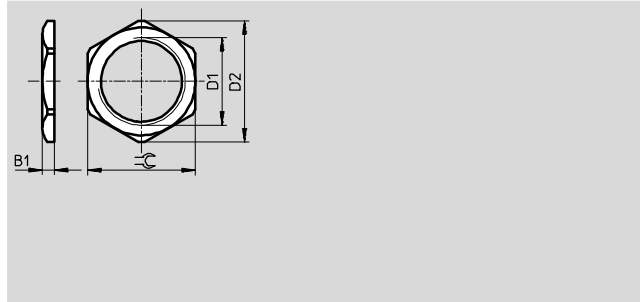


Dimensions and ordering data							
Pg connecting thread	Temperature range [°C]	Protection class	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Pg 29/Pg 21	-30 ... +80	IP 50	Any	2	41	177 595	MKA-PG-29-PG-21

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

## Lock nut MKM

Material:  
Nickel-plated brass  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Pg connecting thread D1	D2	B1	⌀	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No. Type
Pg 9	20	2.8	18	Any	2	2	177 596 MKM-PG-9
Pg 11	23.5	3	21			3	177 597 MKM-PG-11
Pg 16	29		26			5	177 598 MKM-PG-16
Pg 21	35.5		32			8	177 599 MKM-PG-21
Pg 29	45	4	41			14	177 600 MKM-PG-29

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

# Installation components for short strokes

Technical data

## Reducing connector MKA-KU

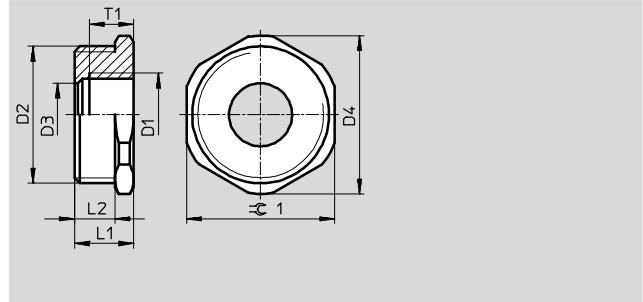
For reducing Pg 21 to Pg 16

For reducing Pg 29 to Pg 16

Material:

Polyamide

Free of copper, PTFE and silicone



Dimensions and ordering data							
Pg connecting thread	D1	D2	D3 Ø	D4 Ø	L1	L2	T1 Ø
Pg 21/Pg 16	Pg 16	Pg 21	16	35.5	16	11	12
Pg 29/Pg 16		Pg 29	17	42.8	17		

Pg connecting thread	≈C	Temperature range [°C]	Protection class	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Pg 21/Pg 16	81.5	-30 ... +80	IP 50	Any	2	8	<b>193 948</b>	<b>MKA-PG-21-PG-16-KU</b>
Pg 29/Pg 16	86					12	<b>193 949</b>	<b>MKA-PG-29-PG-16-KU</b>

1) Corrosion resistance class 2 according to Festo standard 940 070

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

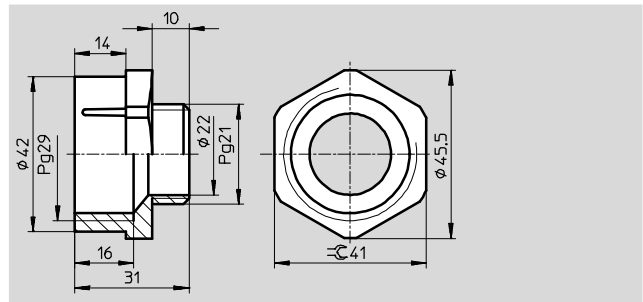
## Reducing connector MKA-KU

For enlarging Pg 21 to Pg 29

Material:

Polyamide

Free of copper, PTFE and silicone



Dimensions and ordering data							
Pg connecting thread	Temperature range [°C]	Protection class	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Pg 21/Pg 29	-30 ... +80	IP 50	Any	2	36	<b>177 594</b>	<b>MKA-PG-21-PG-29-KU</b>

1) Corrosion resistance class 2 according to Festo standard 940 070

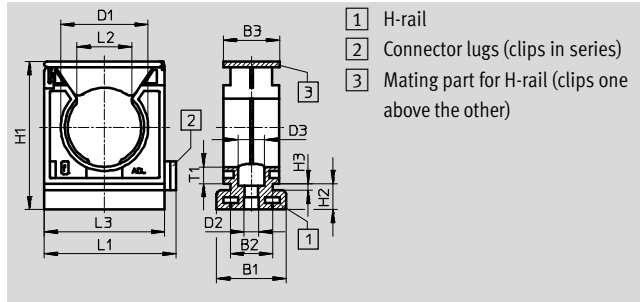
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

# Installation components for short strokes

Technical data

## Retaining clip MKRS

Material:  
Polyamide  
Free of copper, PTFE and silicone



Dimensions and ordering data										
Pg connecting thread	B1	B2	B3	D1 ∅	D2 ∅	D3 ∅	H1	H2	H3	L1
Pg 9	25	15	20	13	4.2	8	29	6.3	2.3	30
Pg 11				15.8						
Pg 16				21.2			47.5			
Pg 21				28.5						
Pg 29				34.5						

Pg connecting thread	L2	L3	T1	Temperature range [°C]	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
Pg 9	8.5	26	5.7	-30 ... +80	2	5	192 287	MKRS-10-B
Pg 11	10					6	192 288	MKRS-12-B
Pg 16	16.6	32.5	6.8			8	192 289	MKRS-16,5-B
Pg 21	20	43.5				12	192 290	MKRS-23-B
Pg 29	25.5					14	192 291	MKRS-29-B

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

# Installation components for short strokes

Technical data

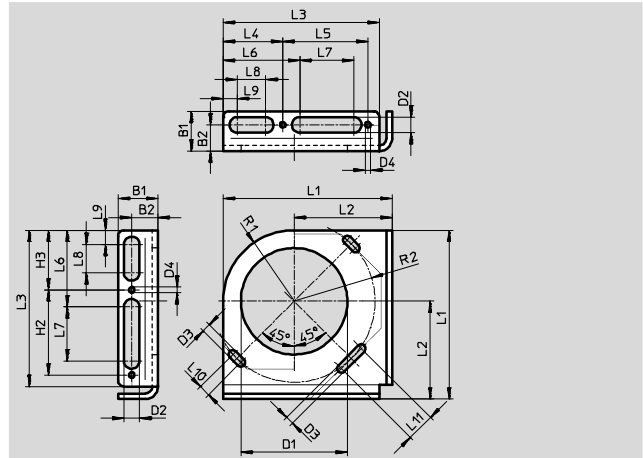
## Installation kit HMZAS

For attaching a protective conduit to the front plate of linear modules

Material:

Powder-coated steel

Free of copper, PTFE and silicone

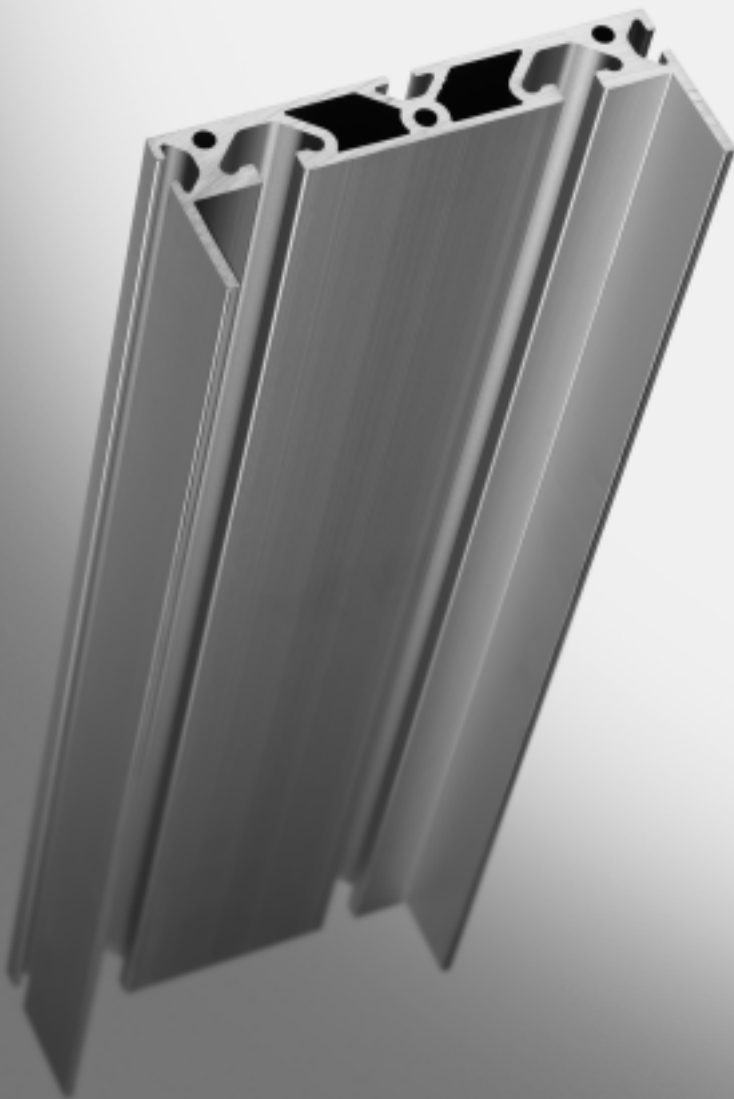


Dimensions and ordering data									
For linear module	B1	B2	D1 ∅	D2 ∅	D3 ∅	D4 ∅	H2	H3	L1
HMP	14	9.25	37.5	5.3	3	2	30	21	59.5
For linear module	L2	L3	L4	L5	L6	L7	L8	L9	L10
HMP	34.5	55	21	30	27	19	10	5	4
For linear module	L11	R1	R2	Mounting position	CRC <sup>1)</sup>	Weight [g]	Part No.	Type	
HMP	10	25	28.5	Any	1	44	177 603	HMZAS-PG-29	

1) Corrosion resistance class 1 according to Festo standard 940 070  
Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.







- Reliable guidance
- Rapid assembly and disassembly
- Low space requirement

# Installation components for long strokes

## Key features

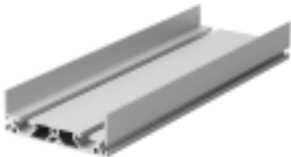
Installation components facilitate a clear, safe layout of electrical cables and pneumatic tubing.

They can be quickly dismantled and reassembled if servicing is required. They are mainly used for long strokes in gantries and cantilever axes for connecting energy chains for the drives along the X and Y-axes.

All the parts required for connection are included in the scope of delivery.



### Support profile HMIA



The support profile for energy chains is ideally suited for the requirements of handling and assembly technology thanks to its lightweight, compact and functional design. This guarantees fast assembly of the energy chains and profile via slot nut connections.

### Installation kits HMIXB-RP/FP      HMIXF-RP/FP



The installation kits permit easy and fast attachment of the energy chains to the connectors of the multi-axis modular system. The kits are harmonised with the connectors for each standard so that the moving part of the energy chain is always horizontal.



This means that cables and tubing are optimally routed over long strokes.

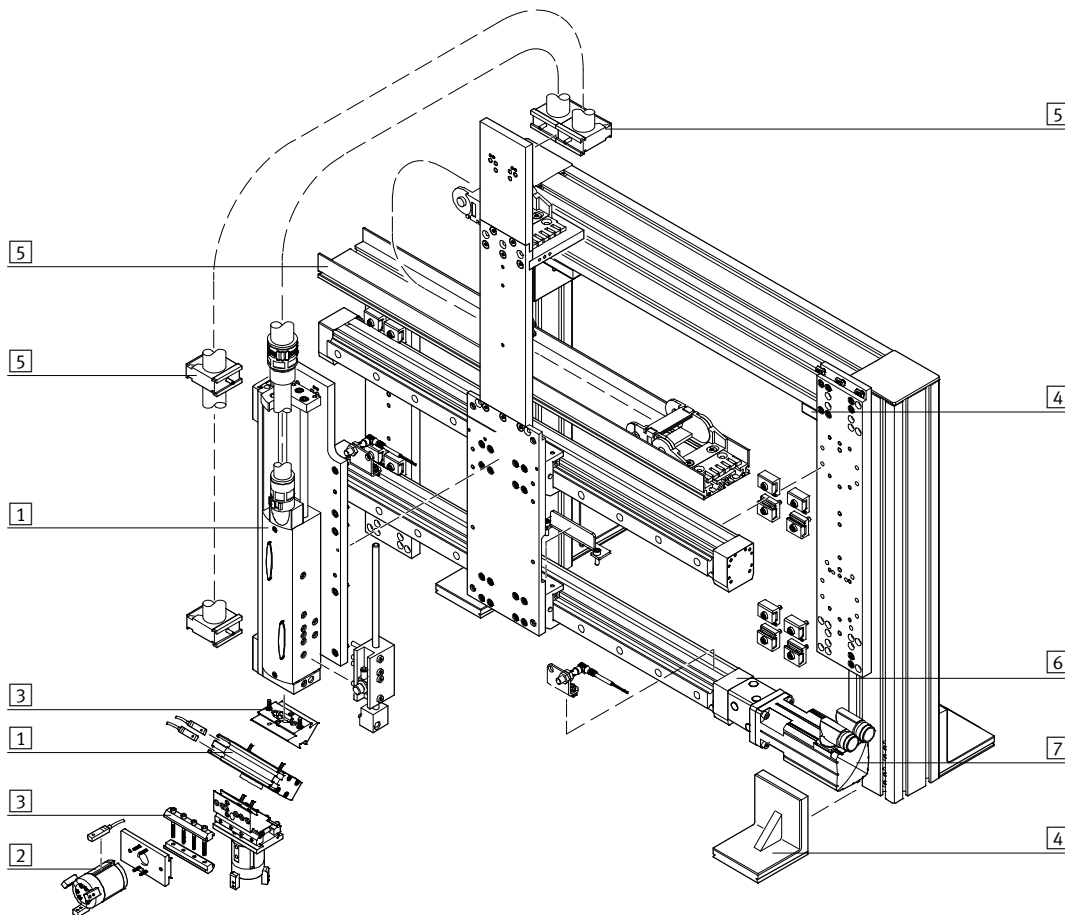
### Accessories

- Slot nuts
- Energy chains (IGUS/ENERGY CHAIN)

# Installation components for long strokes

System example

System product for handling and assembly technology



System components and accessories			
	Brief description	→ Page/Internet	
1	Drives	Wide range of combinations possible within handling and assembly technology	drive
2	Grippers	Wide range of variations possible within handling and assembly technology	gripper
3	Adapters	For drive/drive and drive/gripper connections	adapter kit
4	Basic components	Profiles and profile connections as well as profile/drive connections	basic component
5	Installation components	For a clear, safe layout of electrical cables and tubing	installation component
6	Axes	Wide range of combinations possible within handling and assembly technology	axis
7	Motors	Servo and stepper motors, with or without gear unit	motor







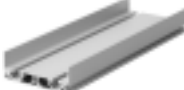
# Installation components for long strokes

Selection aid

Version	Brief description	→ Page/Internet
Installation kit HMIXB-RP/FP		
	<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For X-axis</li> <li>• For mounting the support profile HMIA-E07, HMIA-E10</li> </ul>	110
Installation kit HMIXF-RP/FP		
	<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For X-axis</li> <li>• For mounting the energy chain</li> </ul>	110
Installation kit HMIX-RP/FP-E07/E10		
	<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For X-axis</li> <li>• For mounting the energy chain</li> </ul>	111
Installation kit HMIM-LP		
	<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For Z-axis</li> <li>• Extension plate for height compensation in mono systems</li> </ul>	111
Installation kit HMID-LP		
	<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For Z-axis</li> <li>• Extension plate for height compensation in duo systems</li> </ul>	112
Installation kit HMIO-AP		
	<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For Y-axis</li> <li>• For mounting the energy chain</li> </ul>	112
Installation kit HMIYF-RF		
	<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For Y-axis</li> <li>• For mounting the energy chain</li> </ul>	113

# Installation components for long strokes

Selection aid

Version	Brief description	→ Page/Internet
Installation kit HMIY-LP-E07		
	<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For Y-axis</li> <li>• For mounting the energy chain</li> </ul>	113
Installation kit HMIY-RP/FP-E07		
	<ul style="list-style-type: none"> <li>• For three-dimensional gantries</li> <li>• For Y-axis</li> <li>• For mounting the energy chain</li> </ul>	114
Installation kit HMIZB-E03		
	<ul style="list-style-type: none"> <li>• For linear gantries</li> <li>• For Z-axis</li> <li>• For connecting energy chains and protective conduits</li> </ul>	114
Installation kit HMIW-E05/E07		
	<ul style="list-style-type: none"> <li>• For linear and three-dimensional gantries</li> <li>• For Z-axis</li> <li>• For mounting the energy chain</li> </ul>	115
Installation kit HMIZF-E03		
	<ul style="list-style-type: none"> <li>• For linear and three-dimensional gantries</li> <li>• For Z-axis</li> <li>• For mounting the energy chain</li> </ul>	115
Mounting kit HMIZW-E05/E07-DL40/63		
	<ul style="list-style-type: none"> <li>• For linear and three-dimensional gantries</li> <li>• For Z-axis</li> <li>• For mounting the energy chain</li> </ul>	116
Support profile HMIA		
	<ul style="list-style-type: none"> <li>• For linear and three-dimensional gantries</li> <li>• For X and Y-axes</li> <li>• For mounting and guiding the energy chains</li> </ul>	116

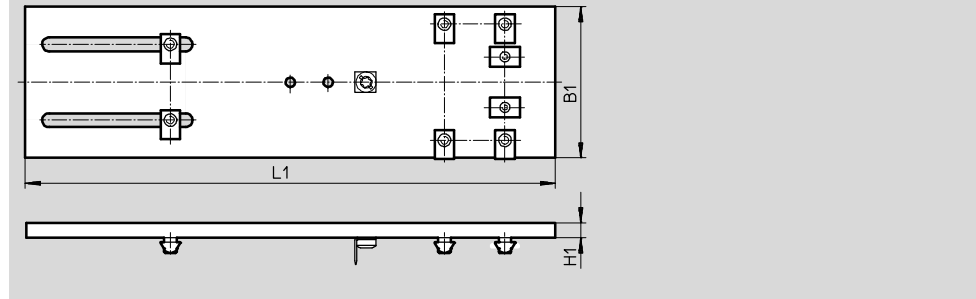
# Installation components for long strokes

Technical data

## Installation kit HMIXB-RP/FP

- For three-dimensional gantries
- For X-axis
- For mounting the support profile  
HMIA-E07, HMIA-E10
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



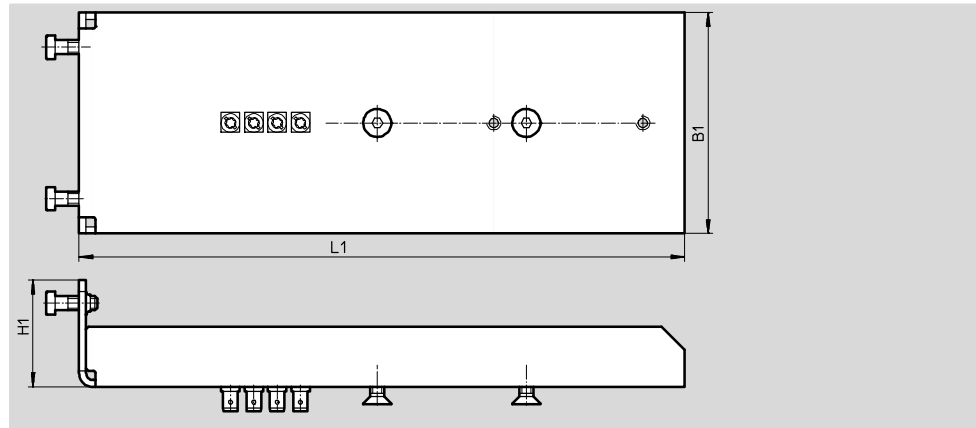
Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIXB-RP/FP	60	6	210	2	200	539 654	HMIXB-RP/FP
HMIXB-RP/FP-2	50	14	245		400	566 893	HMIXB-RP/FP-2

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

## Installation kit HMIXF-RP/FP

- For three-dimensional gantries
- For X-axis
- For mounting the energy chain
- Mounting accessories and earthing kits included in the scope of delivery

Material:  
Galvanised steel  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIXF-RP/FP	95	46	260	2	330	539 658	HMIXF-RP/FP
HMIXF-RP/FP-2	95	46	314		1,050	566 896	HMIXF-RP/FP-2

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

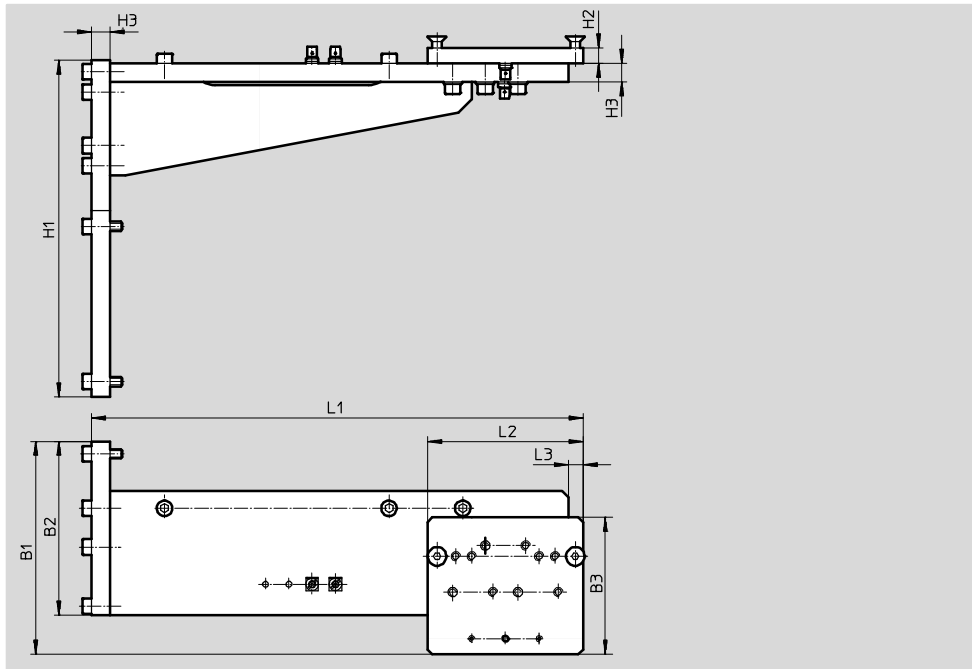
# Installation components for long strokes

Technical data

**Installation kit**  
**HMIX-RP/FP-E07/E10**

- For three-dimensional gantries
- For X-axis
- For mounting the energy chain
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



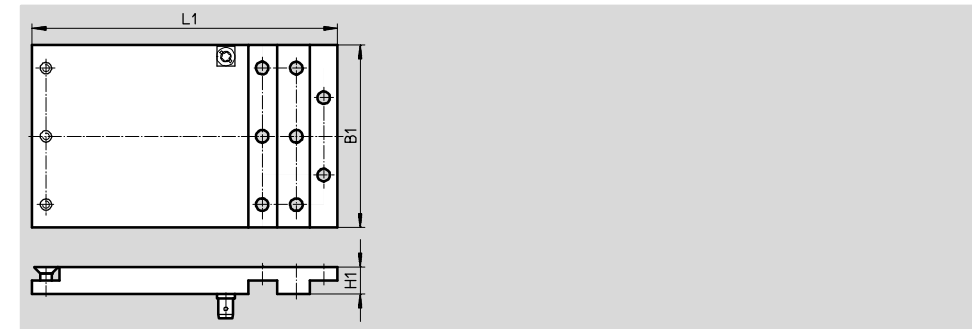
Dimensions and ordering data													
Type	B1	B2	B3	H1	H2	H3	L1	L2	L3	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIX	137	112	88	217	10	12	316.5	100	9.5	2	1,900	566 891	HMIX-RP/FP-E07/E10

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

**Installation kit**  
**HMIM-LP**

- For linear gantries
- For Z-axis
- Extension plate for height compensation in mono systems
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data						
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No. Type
HMIM-LP	80	12	134	2	300	539 364 HMIM-LP

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

# Installation components for long strokes

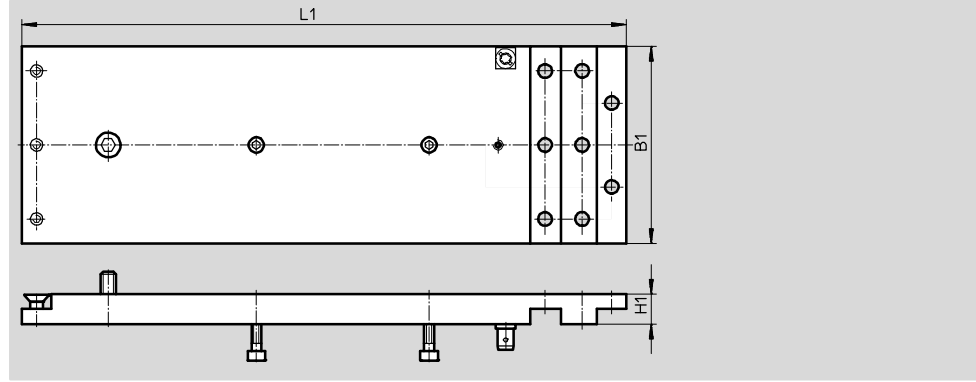
Technical data

**FESTO**

## Installation kit HMID-LP

- For linear gantries
- For Z-axis
- Extension plate for height compensation in duo systems
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



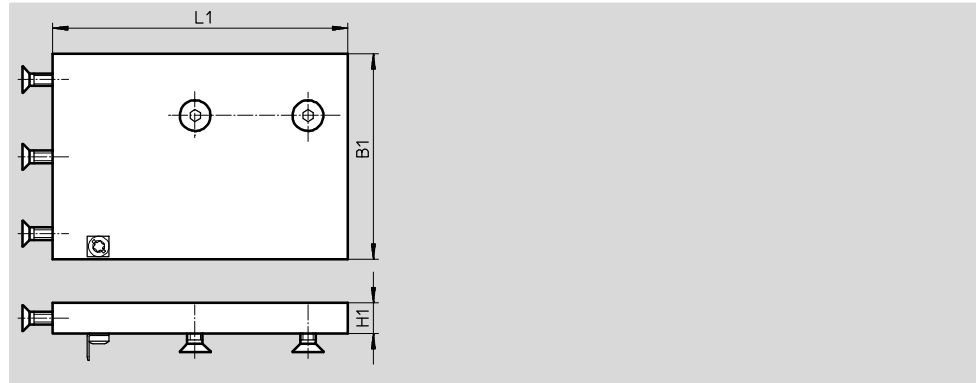
Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMID-LP	80	12	285	2	700	539 363	HMID-LP

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

## Installation kit HMIO-AP

- For linear gantries
- For Y-axis
- For mounting the energy chain
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIO-AP-1	80	12	95	2	240	539 366	HMIO-AP-1
HMIO-AP-2	80	12	115		300	540 121	HMIO-AP-2

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



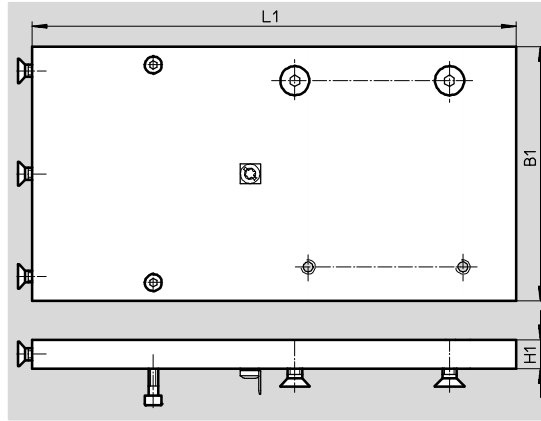
# Installation components for long strokes

Technical data

**Installation kit**  
**HMIYF-RF/DL**

- For three-dimensional gantries
- For Y-axis
- For mounting the energy chain
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



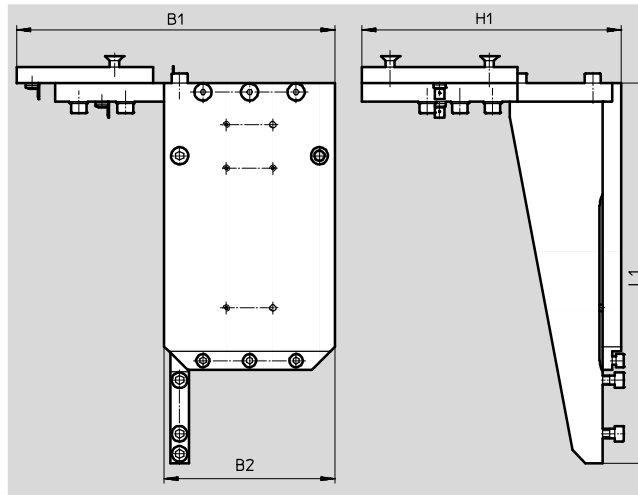
Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIYF-RF/DL25	105	12	200	2	700	539 659	HMIYF-RF/DL25
HMIYF-RF/DL40	167	12	227		1,200	539 660	HMIYF-RF/DL40

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

**Installation kit**  
**HMIY-LP-E07**

- For linear gantries
- For Y-axis
- For mounting the energy chain
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data								
Type	B1	B2	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIY	205	110	167	245	2	1,950	566 886	HMIY-LP-E07

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

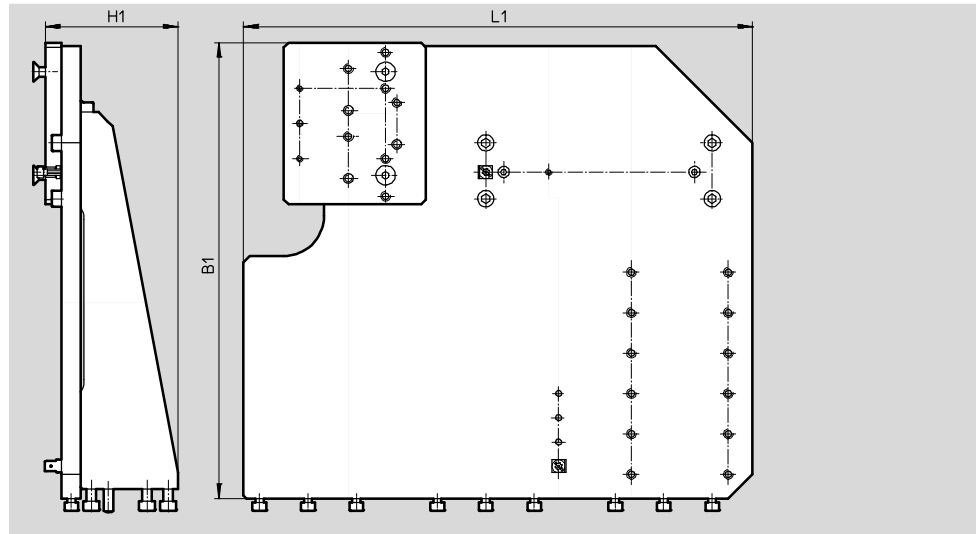
# Installation components for long strokes

Technical data

**FESTO**

## Installation kit HMIY-RP/FP-E07

- For three-dimensional gantries
  - For Y-axis
  - For mounting the energy chain
  - Mounting accessories and earthing kit included in the scope of delivery
- Material:  
Anodised aluminium  
Free of copper, PTFE and silicone

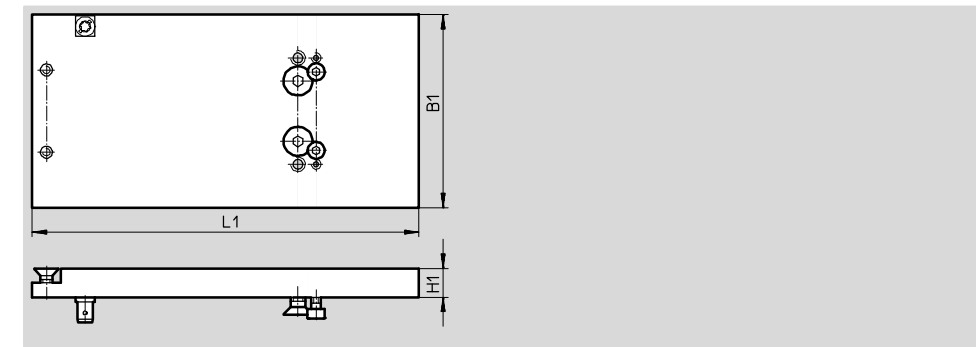


Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIY	282	82	315	2	3,450	566 889	HMIY-RP/FP-E07

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

## Installation kit HMIZB-E03

- For linear gantries
  - For Z-axis
  - For connecting energy chains and protective conduits
  - Cantilever axes DGEA
  - Spindle axes DGE
  - Linear modules HMP
  - Mini slides SLT
  - Mounting accessories and earthing kit included in the scope of delivery
- Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data							
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIZB-E03	80	12	160	2	410	539 365	HMIZB-E03

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

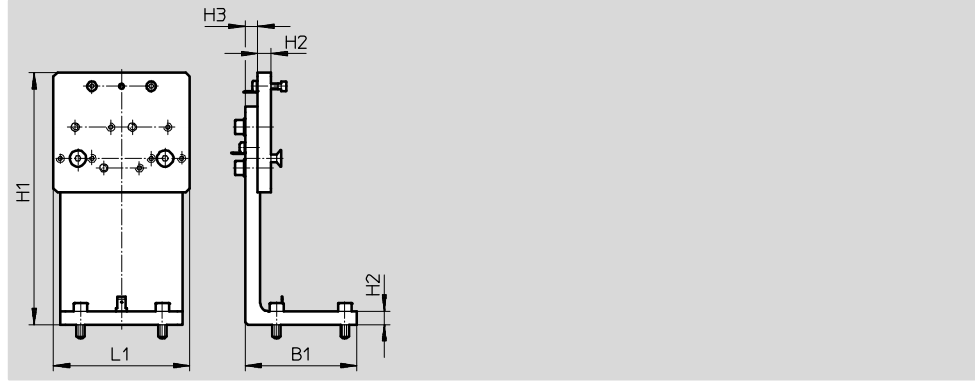
# Installation components for long strokes

Technical data

## Installation kit HMIW-E05/E07

- For linear and three-dimensional gantries
- For Z-axis
- For mounting the energy chain
- Mounting accessories included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



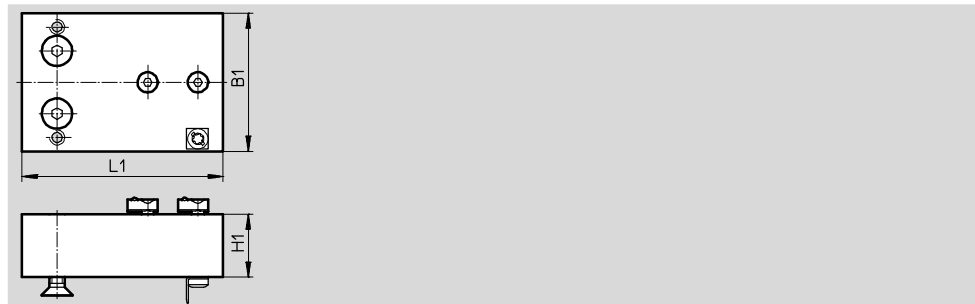
Dimensions and ordering data										
Type	B1	H1	H2	H3	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type	
HMIW	82	185	10	9	100	2	900	566 885	HMIW-E05/E07	

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

## Installation kit HMIZF-E03

- For linear and three-dimensional gantries
- For Z-axis
- For mounting the energy chain
- Cantilever axes DGEA
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data										
Type	B1	H1	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type			
HMIZF...-DA18	60	10	80	2	130	539 370	HMIZF-E03-DA18			
HMIZF...-DA25	55	25	80		300	539 371	HMIZF-E03-DA25			
HMIZF...-DA40	80	10	120		300	566 895	HMIZF-E03/E05/E07-DA40			

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

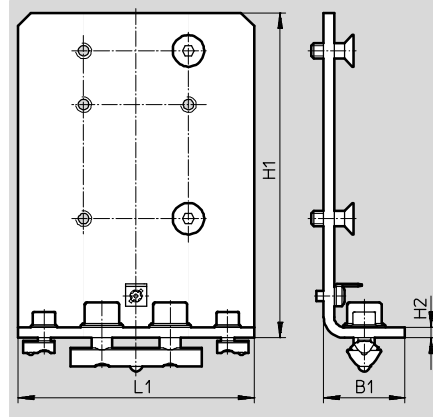
# Installation components for long strokes

Technical data

## Mounting kit HMIZW-E05/E07-DL40/63

- For linear and three-dimensional gantries
- For Z-axis
- For mounting the energy chain
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Galvanised steel  
Free of copper, PTFE and silicone



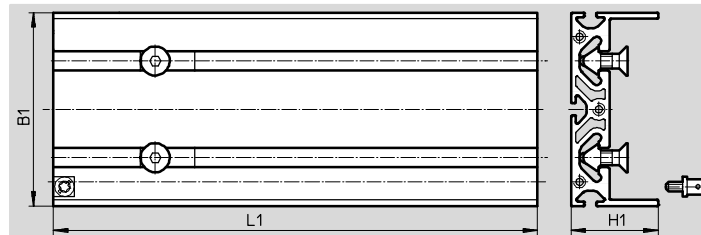
Dimensions and ordering data								
Type	B1	H1	H2	L1	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
HMIZW	31	124	4	90	2	400	566 877	HMIZW-E05/E07-DL40/63

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

## Support profile HMIA

- For linear and three-dimensional gantries
- For X and Y-axes
- For mounting and guiding the energy chains
- Mounting accessories and earthing kit included in the scope of delivery

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



The length L1 is dependent on the stroke and must be quoted in the order ( $L_{max.} = 3 \text{ m}$ ).

Dimensions and ordering data						
Type	B1	H1	CRC <sup>1)</sup>	Weight per metre [g]	Part No.	Type
HMIA-E03	60	36	2	1,510	567 061	HMIA-E03-...
HMIA-E05	80	36		2,120	539 378	HMIA-E05-...
HMIA-E07	100	36		2,340	539 379	HMIA-E07-...
HMIA-E10	130	36		3,200	566 894	HMIA-E10-...

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