



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

Multi-axis modular system

Key features



The concept






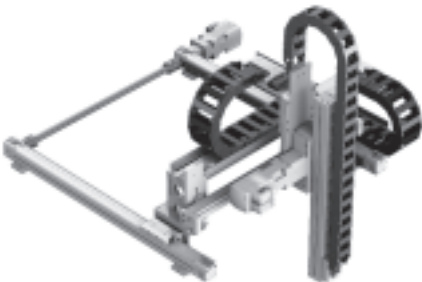
The multi-axis modular system for handling and assembly technology includes basic, connection and installation components for assembling multi-axis systems. These standardised axis combinations are the product of over ten years experience in the designing

of 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, which means they can be combined together.

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

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

Selection matrix

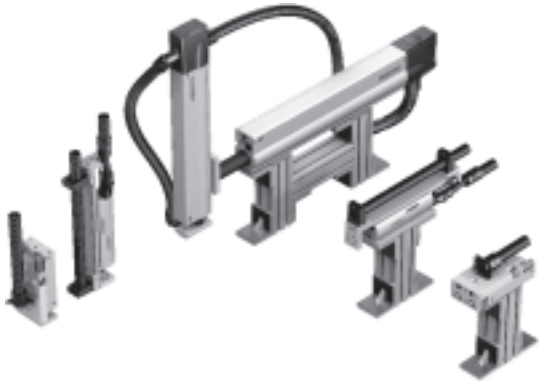
Pick & place	Linear gantries	3-Dimensional gantries
Pneumatic		Pneumatic/electrical
 <p>→ 5 / 3.3-36</p>	 <p>→ 5 / 3.3-54</p>	 <p>→ 5 / 3.3-68</p>
Pneumatic with end position controller SPC11 (Soft Stop)		
	 <p>→ 5 / 3.3-54</p>	
Electrical with spindle or toothed belt axis		
	 <p>→ 5 / 3.3-54</p>	 <p>→ 5 / 3.3-68</p>

Multi-axis modular system

Key features

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Pick & place



Linear gantries



3-Dimensional gantries



System components
Multi-axis modular system

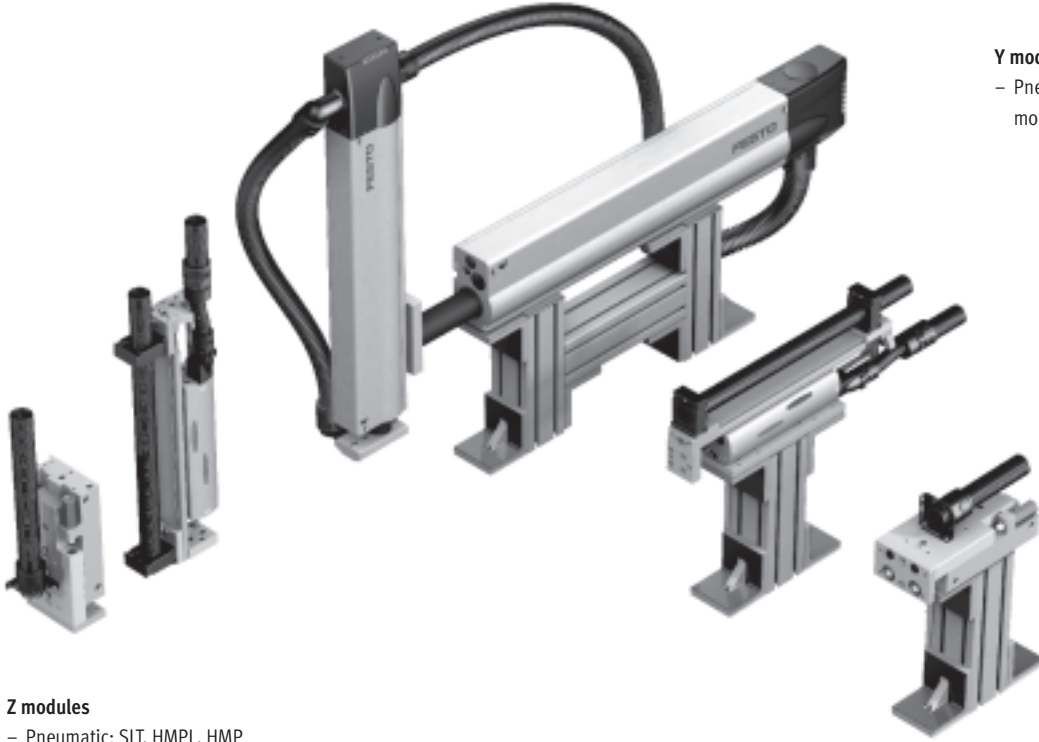
3.3

Pick & place

Key features



Y and Z modules



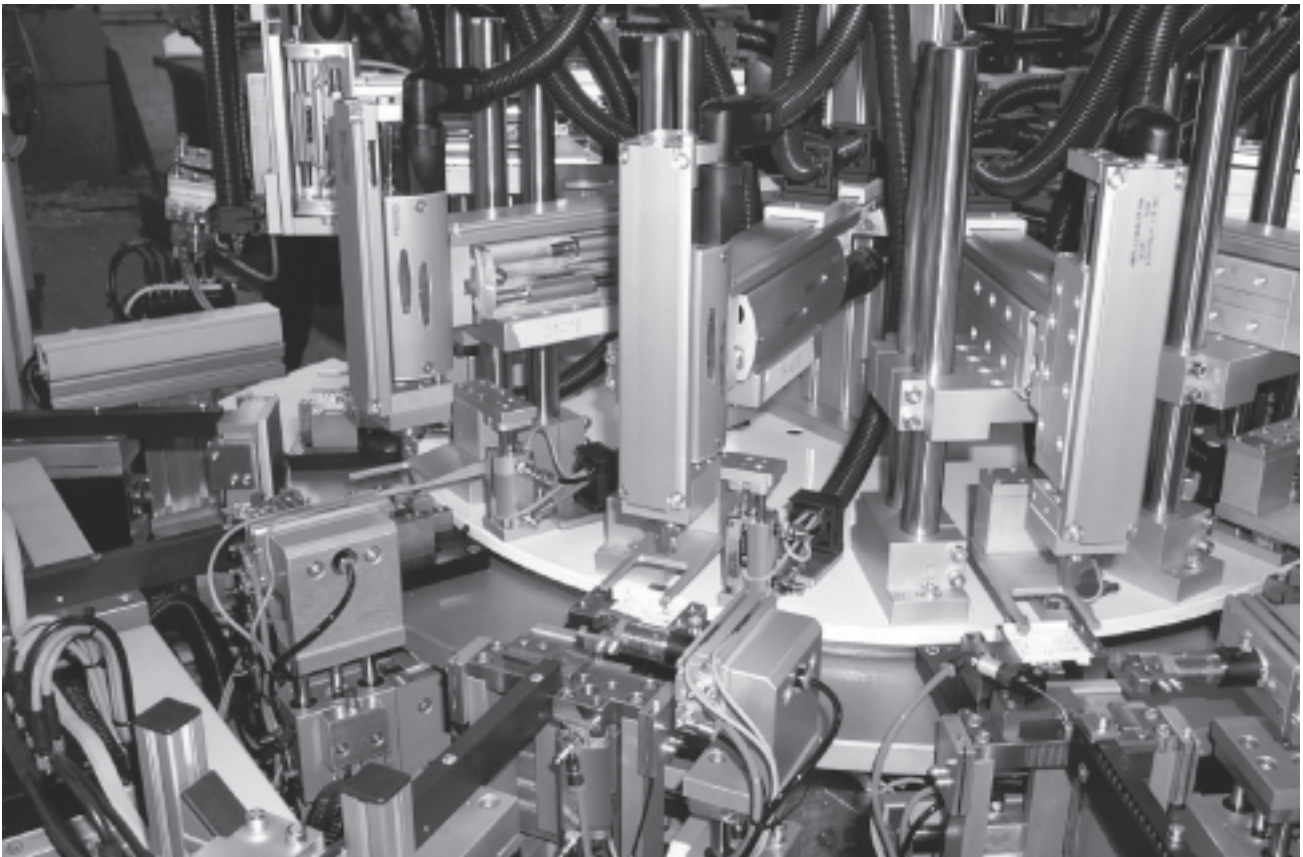
Y modules

- Pneumatic: SLT, HMPL, HMP mounted on basic components

Z modules

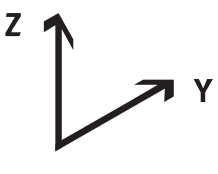





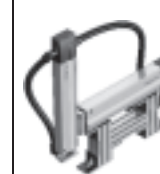
- Pneumatic: SLT, HMPL, HMP

Application



Pick & place





Product range overview

Selection aid						
Function	DGSL/DGSL	SLT/SLT	HMPL/HMPL	HM.../DGSL, SLT	HMP.../HMPL	HM.../HMP
						
Y-axis	DGSL	SLT	HMPL	HMP, HME	HMP, HME	HMP, HME
Drive function	Pneumatic					
Options	Shock absorber, adjustable/non-adjustable cushioning	Shock absorber, adjustable/non-adjustable cushioning	Intermediate position, clamping cartridge	Intermediate position		
Z-axis	DGSL	SLT	HMPL	DGSL, SLT	HMPL	HMP
Drive function	Pneumatic					
Options	Shock absorber, adjustable/non-adjustable cushioning	Shock absorber, adjustable/non-adjustable cushioning	Intermediate position, clamping cartridge	Shock absorber, adjustable/non-adjustable cushioning	Intermediate position, clamping cartridge	
Working load [kg]						
	1	■	■	■	■	■
	2	■	■	■	■	■
	3	■	■	■	■	■
	4	-	-	-	■	■
	6	-	-	-	■	■
	10	-	-	-	-	■
→ Page	5 / 3.3-38					

Pick & place





Selection aid for basic, connection and installation components

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Y-axis				
Function	DGSL/DGSL		SLT/SLT	HMPL/HMPL
				
Pneumatic drives	Stroke [mm]	Type		
DGSL-16	30 ... 150	HMBSY-DGSL-1 → 5 / 3.3-42	–	–
DGSL-20	30 ... 100	HMBSY-DGSL-2 → 5 / 3.3-42	–	–
	125 ... 200	HMBSY-DGSL-3 → 5 / 3.3-42	–	–
DGSL-25	30 ... 100	HMBSY-DGSL-4 → 5 / 3.3-42	–	–
	125 ... 200	HMBSY-DGSL-5 → 5 / 3.3-42	–	–
SLT-16	30 ... 150	–	HMBSY-SLT-1 → 5 / 3.3-43	–
SLT-20	30 ... 100	–	HMBSY-SLT-2 → 5 / 3.3-43	–
	125 ... 200	–	HMBSY-SLT-3 → 5 / 3.3-43	–
SLT-25	30 ... 100	–	HMBSY-SLT-4 → 5 / 3.3-43	–
	125 ... 200	–	HMBSY-SLT-5 → 5 / 3.3-43	–
HMPL-16	50 ... 160	–	–	HMBSY-HMPL-1 HMBSY-HMPL-2 → 5 / 3.3-44
HMPL-20	50 ... 200	–	–	HMBSY-HMPL-3 HMBSY-HMPL-4 → 5 / 3.3-44

Pick & place

Selection aid for basic, connection and installation components

Y-axis		Function		
Function		HMP, HME/DGSL, SLT	HMP, HME/HMPL	HMP, HME/HMP
				
Pneumatic drives	Stroke [mm]	Type		
HMP-16	150 ... 250	HMBSY-HMP-1 → 5 / 3.3-45	HMBSY-HMP-1 → 5 / 3.3-45	–
	320	HMBSY-HMP-2 → 5 / 3.3-45	HMBSY-HMP-2 → 5 / 3.3-45	–
HMP-20	100 ... 250	HMBSY-HMP-3 → 5 / 3.3-45	HMBSY-HMP-3 → 5 / 3.3-45	HMBSY-HMP-3 → 5 / 3.3-45
	320 ... 400	HMBSY-HMP-4 → 5 / 3.3-45	HMBSY-HMP-4 → 5 / 3.3-45	HMBSY-HMP-4 → 5 / 3.3-45
HMP-25	100 ... 200	HMBSY-HMP-5 → 5 / 3.3-46	–	HMBSY-HMP-5 → 5 / 3.3-46
	250 ... 400	HMBSY-HMP-6 → 5 / 3.3-46	–	HMBSY-HMP-6 → 5 / 3.3-46
HMP-32	100 ... 200	–	–	HMBSY-HMP-7 → 5 / 3.3-46
	250 ... 400	–	–	HMBSY-HMP-8 → 5 / 3.3-46

Selection example

Project engineering produced the following drive combination:

Y-axis: HMP-16,
200 mm stroke
Z-axis: HMPL-16,
with intermediate position

Step 1

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

Y-axis: HMBSY-HMP-1
→ 5 / 3.3-45
Z-axis: HMBSZ-HMPL-3 or 4
→ 5 / 3.3-51

Step 2

The necessary basic, connection and installation components can be found in the bill of materials on the specified page.

Y-axis: HMBSY-HMP-1
Z-axis: HMBSZ-HMPL-4

Step 3

Technical data on the basic, connection and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are documented with the drives.

Pick & place





Selection aid for basic, connection and installation components



Z-axis				
Function	DGSL/DGSL	SLT/SLT	HMPL/HMPL	HMP, HME/DGSL
Pneumatic drives	Type			
DGSL-10	HMBSZ-DGSL-1 → 5 / 3.3-47	-	-	-
DGSL-16	HMBSZ-DGSL-2 → 5 / 3.3-47	-	-	HMBSZ-DGSL-4 → 5 / 3.3-48
DGSL-20	HMBSZ-DGSL-3 → 5 / 3.3-47	-	-	HMBSZ-DGSL-5 → 5 / 3.3-48
DGSL-25	-	-	-	HMBSZ-DGSL-6 → 5 / 3.3-48
SLT-10	-	HMBSZ-SLT-1 → 5 / 3.3-49	-	-
SLT-16	-	HMBSZ-SLT-2 → 5 / 3.3-49	-	-
SLT-20	-	HMBSZ-SLT-3 → 5 / 3.3-49	-	-
SLT-25	-	-	-	-
HMPL-12	-	-	HMBSZ-HMPL-1 HMBSZ-HMPL-2	-
HMPL-16	-	-	→ 5 / 3.3-51	-
HMPL-20	-	-	-	-
HMP-16	-	-	-	-
HMP-20	-	-	-	-
HMP-25	-	-	-	-

Pick & place

Selection aid for basic, connection and installation components

Z-axis			
Function	HMP, HME/SLT	HMP, HME/HMPL	HMP, HME/HMP
			
Pneumatic drives	Type		
SLT-16	HMBSZ-SLT-4 → 5 / 3.3-50	–	–
SLT-20	HMBSZ-SLT-5 → 5 / 3.3-50	–	–
SLT-25	HMBSZ-SLT-6 → 5 / 3.3-50	–	–
HMPL-16	–	HMBSZ-HMPL-3 HMBSZ-HMPL-4 → 5 / 3.3-51	–
HMPL-20	–	–	–
HMP-16	–	–	HMBSZ-HMP-1 → 5 / 3.3-52
HMP-20	–	–	HMBSZ-HMP-2 → 5 / 3.3-52
HMP-25	–	–	HMBSZ-HMP-3 → 5 / 3.3-52

Selection example

Project engineering produced the following drive combination:

Y-axis: HMP-16,
200 mm stroke
Z-axis: HMPL-16,
with intermediate position

Step 1

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

Y-axis: HMBSY-HMP-1
→ 5 / 3.3-45
Z-axis: HMBSZ-HMPL-3 or 4
→ 5 / 3.3-51

Step 2

The necessary basic, connection and installation components can be found in the bill of materials on the specified page.

Y-axis: HMBSY-HMP-1
Z-axis: HMBSZ-HMPL-4

Step 3

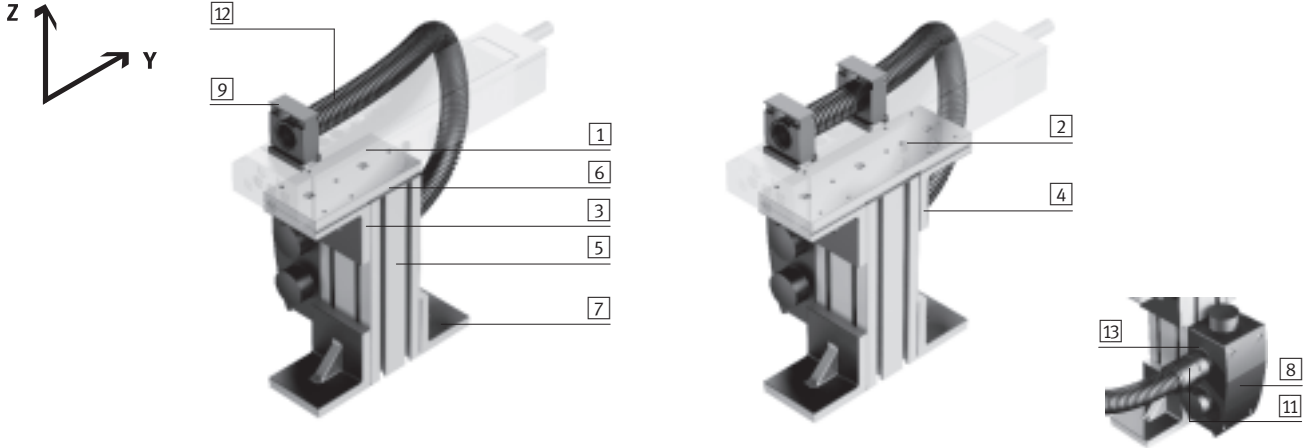
Technical data on the basic, connection and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are documented with the drives.

Pick & place

Y modules



Mini slides DGSL



Bill of materials												
Type		HMBSY-DGSL-1	HMBSY-DGSL-2	HMBSY-DGSL-3	HMBSY-DGSL-4	HMBSY-DGSL-5						
For drives		DGSL-16	DGSL-20	125 ... 200		DGSL-25						
Stroke [mm]		30 ... 150	30 ... 100	125 ... 200		30 ... 100	125 ... 200					
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	→ Page
[1]	1	539 968 HMVY-1		539 969 HMVY-2		–		539 969 HMVY-2		–		5 / 3.3-110
[2]	1	–		–		539 970 HMVY-3		–		539 970 HMVY-3		
[3]	1	175 967 HMBV-ND		175 967 HMBV-ND		–		175 967 HMBV-ND		–		5 / 3.3-89
[4]	2	–		–		175 967 HMBV-ND		–		175 967 HMBV-ND		
[5]	1 ¹⁾	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		5 / 3.3-86
[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		5 / 3.3-86
[7]	2	175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		5 / 3.3-88
[8]	1	175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV		5 / 3.3-129
[9]	1	192 289 MKRS-16,5-B 548 803 ZBV-M5-7		192 290 MKRS-23-B 548 804 ZBV-M5-9		192 290 MKRS-23-B 548 804 ZBV-M5-9		192 290 MKRS-23-B 548 804 ZBV-M5-9		192 290 MKRS-23-B 548 804 ZBV-M5-9		5 / 3.3-135
[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		5 / 3.3-130
[12]	1 ²⁾	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		5 / 3.3-128
[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		5 / 3.3-133

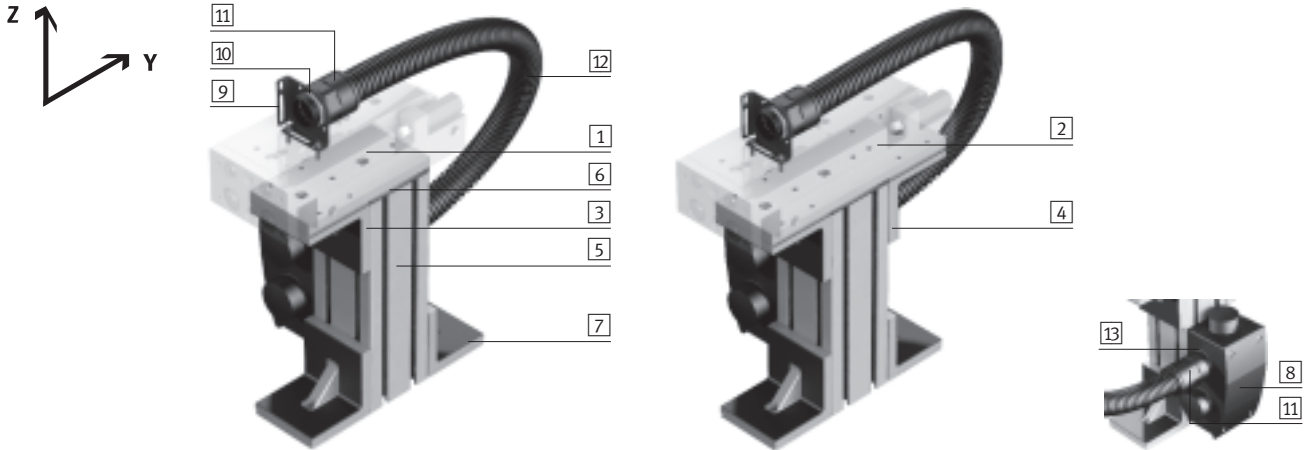
1) Height max. 500 mm

2) Length depends on the stroke of the drive

Pick & place

Y modules

Mini slides SLT



Bill of materials												
Type	HMBSY-SLT-1		HMBSY-SLT-2		HMBSY-SLT-3		HMBSY-SLT-4		HMBSY-SLT-5		→ Page	
For drives	SLT-16		SLT-20		SLT-25		SLT-25					
Stroke [mm]	30 ... 150		30 ... 100		125 ... 200		30 ... 100		125 ... 200			
Item	Quantity	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	–	–	5 / 3.3-110
2	1	–	–	–	–	539 970	HMVY-3	–	–	539 970	HMVY-3	
3	1	175 967	HMBV-ND	175 967	HMBV-ND	–	–	175 967	HMBV-ND	–	–	5 / 3.3-89
4	2	–	–	–	–	175 967	HMBV-ND	–	–	175 967	HMBV-ND	
5	1 ¹⁾	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	5 / 3.3-86
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	5 / 3.3-86
7	2	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	5 / 3.3-88
8	1	175 126	HMZV	175 126	HMZV	175 126	HMZV	175 126	HMZV	175 126	HMZV	5 / 3.3-129
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	5 / 3.3-136
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	5 / 3.3-135
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	5 / 3.3-130
12	1 ²⁾	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	5 / 3.3-128
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	5 / 3.3-133

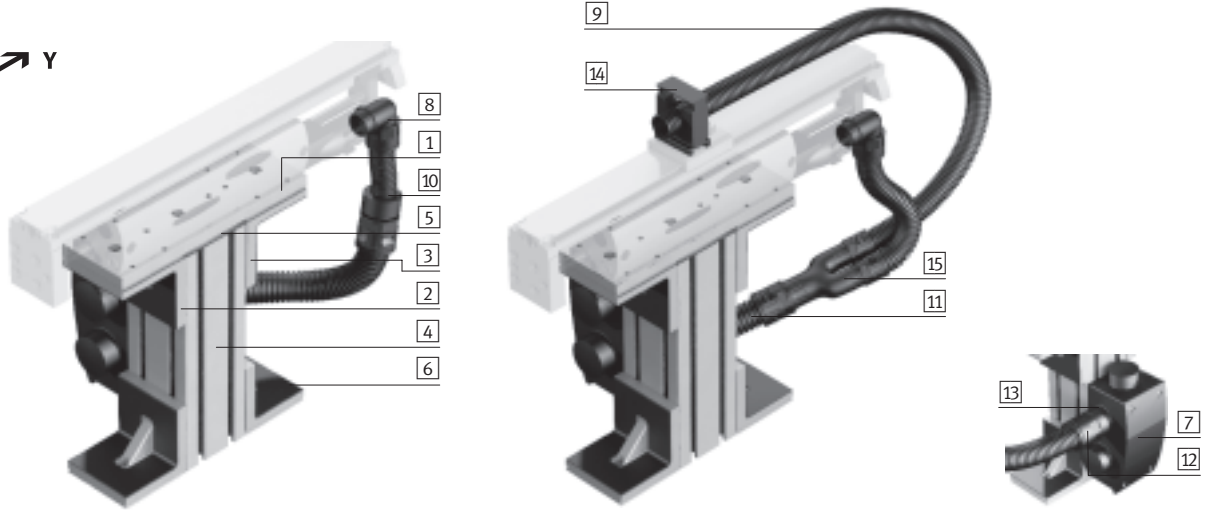
1) Height max. 500 mm
 2) Length depends on the stroke of the drive

Pick & place

Y modules

FESTO

Linear modules HMPL



Bill of materials

Type	HMBSY-HMPL-1	HMBSY-HMPL-2	HMBSY-HMPL-3	HMBSY-HMPL-4		
For drives	HMPL-16		HMPL-20			
	without intermediate position	with intermediate position	without intermediate position	with intermediate position		
Item	Quantity	Part No. Type	Part No. Type	Part No. Type	Part No. Type	→ Page
[1]	1	539 968 HMVY-1	539 968 HMVY-1	539 970 HMVY-3	539 970 HMVY-3	5 / 3.3-110
[2]	1	175 967 HMBV-ND	175 967 HMBV-ND	–	–	5 / 3.3-89
[3]	2	–	–	175 967 HMBV-ND	175 967 HMBV-ND	
[4]	1 ¹⁾	175 958 HMBS-80/80	175 958 HMBS-80/80	175 958 HMBS-80/80	175 958 HMBS-80/80	5 / 3.3-86
[5]	1	175 965 HMBSA-80/80	175 965 HMBSA-80/80	175 965 HMBSA-80/80	175 965 HMBSA-80/80	5 / 3.3-86
[6]	2	175 951 HMBF-DB	175 951 HMBF-DB	175 951 HMBF-DB	175 951 HMBF-DB	5 / 3.3-88
[7]	1	175 126 HMZV	175 126 HMZV	175 126 HMZV	175 126 HMZV	5 / 3.3-129
[8]	1	177 576 MKRL-16,5-PG-16	177 576 MKRL-16,5-PG-16	177 576 MKRL-16,5-PG-16	177 576 MKRL-16,5-PG-16	5 / 3.3-130
[9]	1 ²⁾	177 566 MKR-16,5-PG-16	177 566 MKR-16,5-PG-16	177 566 MKR-16,5-PG-16	177 566 MKR-16,5-PG-16	5 / 3.3-128
[10]	1	194 321 MKRT-23-16,5	–	194 321 MKRT-23-16,5	–	5 / 3.3-132
[11]	1 ²⁾	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	177 567 MKR-23-PG-21	5 / 3.3-128
[12]	1	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	177 572 MKRV-23-PG-21	5 / 3.3-130
[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	5 / 3.3-133
[14]	1 ³⁾	–	192 289 MKRS-16,5-B	–	192 289 MKRS-16,5-B	5 / 3.3-135
[15]	1	–	193 946 MKY-PG-21-2PG-16	–	193 946 MKY-PG-21-2PG-16	5 / 3.3-132

1) Height max. 500 mm

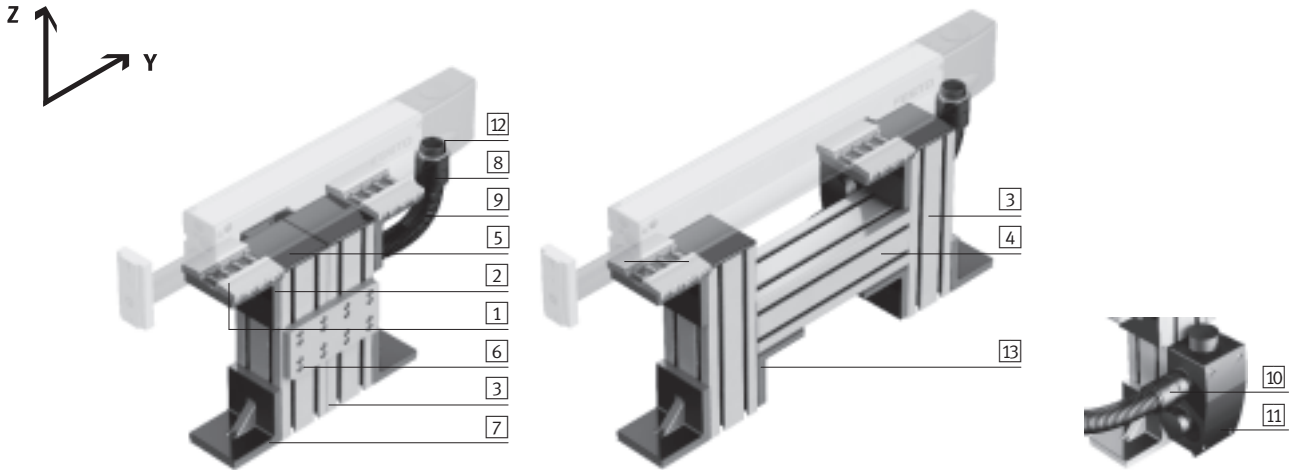
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

3) In order to be able to mount the retaining clip MKRS, a clamping component (1x code J) must be selected as an accessory in the order for the linear module HMPL.

Pick & place

Y modules

Linear modules HMP, HME



Bill of materials								
Type	HMBSY-HMP-1		HMBSY-HMP-2		HMBSY-HMP-3		HMBSY-HMP-4	
For drives	HMP-/HME-16				HMP-20			
Stroke [mm]	150 ... 250		320		100 ... 250		320 ... 400	
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	→ Page
1	2	175 975	HMBK-WS	175 975	HMBK-WS	175 975	HMBK-WS	5 / 3.3-109
2	2	175 967	HMBV-ND	175 967	HMBV-ND	175 967	HMBV-ND	5 / 3.3-89
3	2 ¹⁾	175 958	HMBS-80/80	175 958	HMBS-80/80	175 958	HMBS-80/80	5 / 3.3-86
4	1 ²⁾	-		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	5 / 3.3-86
6	1	175 972	HMBSV	-		175 972	HMBSV	5 / 3.3-87
7	2	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	5 / 3.3-88
8	2 ⁴⁾	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 573	MKRV-29-PG-29	5 / 3.3-130
9	1 ³⁾⁴⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 568	MKR-29-PG-29	5 / 3.3-128
10	1 ⁴⁾	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	-		5 / 3.3-133
11	1 ⁴⁾	175 126	HMZV	175 126	HMZV	175 126	HMZV	5 / 3.3-129
12	1 ⁴⁾	177 599	MKM-PG-21	177 599	MKM-PG-21	177 600	MKM-PG-29	5 / 3.3-135
13	2	-		178 228	HMBSW	-	178 228 HMBSW	5 / 3.3-87

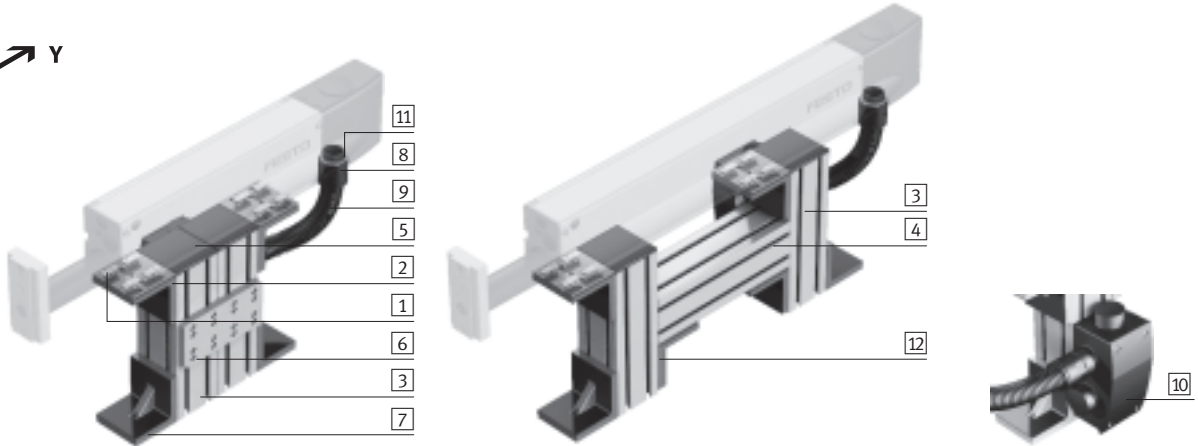
- 1) Height max. 500 mm
- 2) Length 250 mm
- 3) Length depends on the stroke of the drive
- 4) It is not suitable for use with linear module HME

Pick & place

Y modules



Linear modules HMP, HME



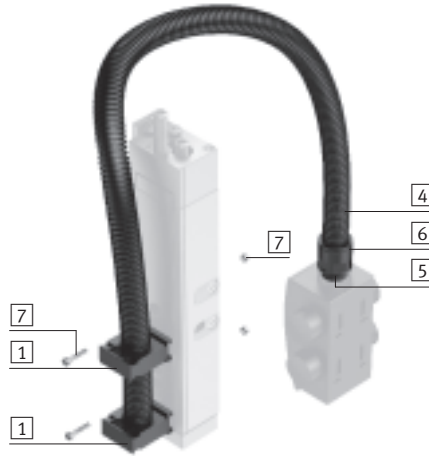
Bill of materials										
Type		HMBSY-HMP-5		HMBSY-HMP-6		HMBSY-HMP-7		HMBSY-HMP-8		
For drives		HMP-/HME-25				HMP-32				
Stroke [mm]		100 ... 200		250 ... 400		100 ... 200		250 ... 400		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	→ Page
[1]	2	175 970	HMBK-ND	175 970	HMBK-ND	175 970	HMBK-ND	175 970	HMBK-ND	5 / 3.3-108
[2]	2	175 967	HMBV-ND	175 967	HMBV-ND	175 967	HMBV-ND	175 967	HMBV-ND	5 / 3.3-89
[3]	2 ¹⁾	175 958	HMBS-80/80	175 958	HMBS-80/80	175 958	HMBS-80/80	175 958	HMBS-80/80	5 / 3.3-86
[4]	1 ²⁾	–		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	175 965	HMBSA-80/80	5 / 3.3-86
[6]	1	175 972	HMBSV	–		175 972	HMBSV	–		5 / 3.3-87
[7]	2	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	5 / 3.3-88
[8]	2 ⁴⁾	177 573	MKRV-29-PG-29	177 573	MKRV-29-PG-29	177 573	MKRV-29-PG-29	177 573	MKRV-29-PG-29	5 / 3.3-130
[9]	1 ³⁾⁴⁾	177 568	MKR-29-PG-29	177 568	MKR-29-PG-29	177 568	MKR-29-PG-29	177 568	MKR-29-PG-29	5 / 3.3-128
[10]	1 ⁴⁾	175 126	HMZV	175 126	HMZV	175 126	HMZV	175 126	HMZV	5 / 3.3-129
[11]	1 ⁴⁾	177 600	MKM-PG-29	177 600	MKM-PG-29	177 600	MKM-PG-29	177 600	MKM-PG-29	5 / 3.3-135
[12]	2	–		178 228	HMBSW	–		178 228	HMBSW	5 / 3.3-87

- 1) Height max. 500 mm
- 2) Length 350 mm
- 3) Length depends on the stroke of the drive
- 4) It is not suitable for use with linear module HME

Pick & place

Z modules

Mini slides DGSL



Bill of materials								
Type		HMBSZ-DGSL-1		HMBSZ-DGSL-2		HMBSZ-DGSL-3		
For drives		DGSL-10		DGSL-16		DGSL-20		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
							→ Page	
1	2	192 289	MKRS-16,5-B M4x12 DIN 912	192 289	MKRS-16,5-B 548 803 ZBV-M5-7	192 290	MKRS-23-B 548 804 ZBV-M5-9	5 / 3.3-136
4	1 ¹⁾	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21	5 / 3.3-128
5	1	193 949	MKA-PG-29-PG-16-KU	193 949	MKA-PG-29-PG-16-KU	177 595	MKA-PG-29-PG-21	5 / 3.3-133
6	1	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	177 572	MKRV-23-PG-21	5 / 3.3-130
7	1	548 803	ZBV-M5-7	548 804	ZBV-M5-9	150 927	ZBH-9 ²⁾	-

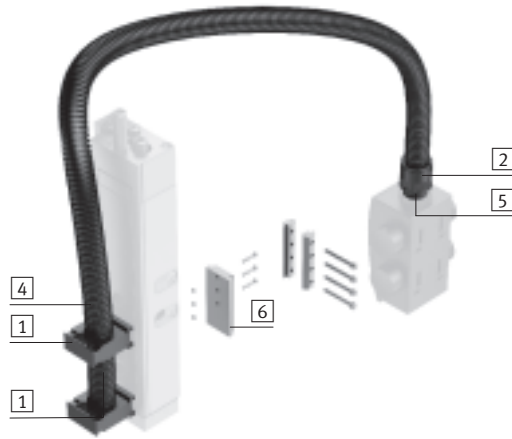
1) Length depends on the stroke of the drive

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

Pick & place

Z modules

Mini slides DGSL



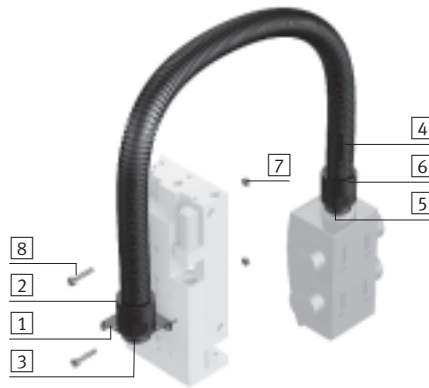
Bill of materials							
Type	HMBSZ-DGSL-4		HMBSZ-DGSL-5		HMBSZ-DGSL-6		→ Page
For drives	DGSL-16		DGSL-20		DGSL-25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	
[1]	2	192 289 MKRS-16,5-B 548 803 ZBV-M5-7		192 290 MKRS-23-B 548 804 ZBV-M5-9		192 290 MKRS-23-B 548 804 ZBV-M5-9	5 / 3.3-135
[2]	1	177 571 MKRV-16,5-PG-16		177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21	5 / 3.3-130
[4]	1 ¹⁾	177 566 MKR-16,5-PG-16		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21	5 / 3.3-128
[5]	1	193 949 MKA-PG-29-PG-16-KU		177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21	5 / 3.3-133
[6]	1	548 779 HMSV-49		548 779 HMSV-49		548 779 HMSV-49	5 / 3.2-10

1) Length depends on the stroke of the drive

Pick & place

Z modules

Mini slides SLT



Bill of materials								
Type		HMBSZ-SLT-1		HMBSZ-SLT-2		HMBSZ-SLT-3		→ Page
For drives		SLT-10		SLT-16		SLT-20		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	192 289	MKRS-16,5-B	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21	5 / 3.3-136
2	1	-		177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	5 / 3.3-130
3	1	-		177 599	MKM-PG-21	177 599	MKM-PG-21	5 / 3.3-135
4	1 ¹⁾	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	5 / 3.3-128
5	1	193 949	MKA-PG-29-PG-16-KU	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	5 / 3.3-133
6	1	177 571	MKRV-16,5-PG-16	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	5 / 3.3-130
7	- ²⁾	186 717	ZBH-7	150 927	ZBH-9	189 653	ZBH-12	-
8	2	M4x25 DIN 912		M5x30 DIN 912		M6x40 DIN 912		-

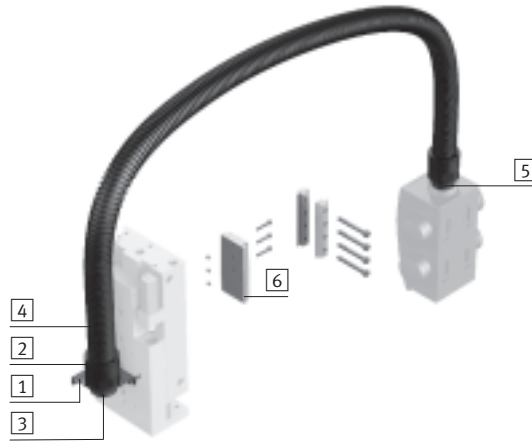
1) Length depends on the stroke of the drive

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

Pick & place

Z modules

Mini slides SLT



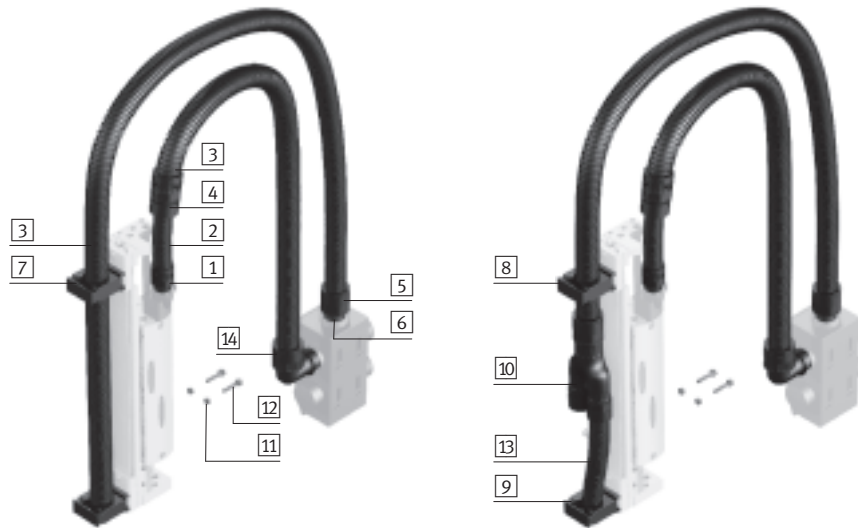
Bill of materials							
Type	HMBSZ-SLT-4		HMBSZ-SLT-5		HMBSZ-SLT-6		→ Page
For drives	SLT-16		SLT-20		SLT-25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	
[1]	1	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21	193 124	5 / 3.3-136
[2]	2	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 572	5 / 3.3-130
[3]	1	177 599	MKM-PG-21	177 599	MKM-PG-21	177 599	5 / 3.3-135
[4]	1 ¹⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 567	5 / 3.3-128
[5]	1	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	177 595	5 / 3.3-133
[6]	1	178 331	HMSV-36	178 332	HMSV-37	178 332	5 / 3.2-11

1) Length depends on the stroke of the drive

Pick & place

Z modules

Linear modules HMPL



Bill of materials								
Type		HMBSZ-HMPL-1	HMBSZ-HMPL-2	HMBSZ-HMPL-3	HMBSZ-HMPL-4			
For drives		HMPL-12	HMPL-12	HMPL-16	HMPL-16			
		HMPL-16	HMPL-16	HMPL-20	HMPL-20			
		HMPL-20	HMPL-20					
		without intermediate position	with intermediate position	without intermediate position	with intermediate position			
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	→ Page
1	1	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	5 / 3.3-130
2	1 ¹⁾	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	5 / 3.3-128
3	2 ¹⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	
4	1	194 321	MKRT-23-16,5	194 321	MKRT-23-16,5	194 321	MKRT-23-16,5	5 / 3.3-132
5	1	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	5 / 3.3-130
6	2	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	5 / 3.3-133
7	2 ²⁾	192 290	MKRS-23-B	-		192 290	MKRS-23-B	5 / 3.3-135
8	1 ²⁾	-		192 290	MKRS-23-B	-		
9	1 ²⁾	-		192 289	MKRS-16,5-B	-		
10	1	-		193 946	MKY-PG-21-2PG-16	-		5 / 3.3-132
11	1 ³⁾	150 927	ZBH-9	150 927	ZBH-9	150 927	ZBH-9	-
12	2	M5x16 DIN 912		M5x16 DIN 912		M5x22 DIN 912		-
13	1 ¹⁾	-		177 566	MKR-16,5-PG-16	-		5 / 3.3-128
14	1	177 577	MKRL-23-PG-21	177 577	MKRL-23-PG-21	177 577	MKRL-23-PG-21	5 / 3.3-131

1) Length depends on the stroke of the drive

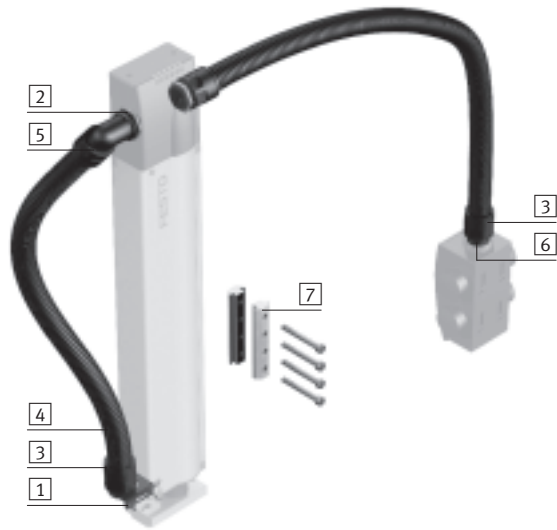
2) In order to be able to mount the retaining clip MKRS, a clamping component (2x code I) must be selected as an accessory in the order for the linear module HMPL.

3) 10 per packaging unit

Pick & place

Z modules

Linear modules HMP



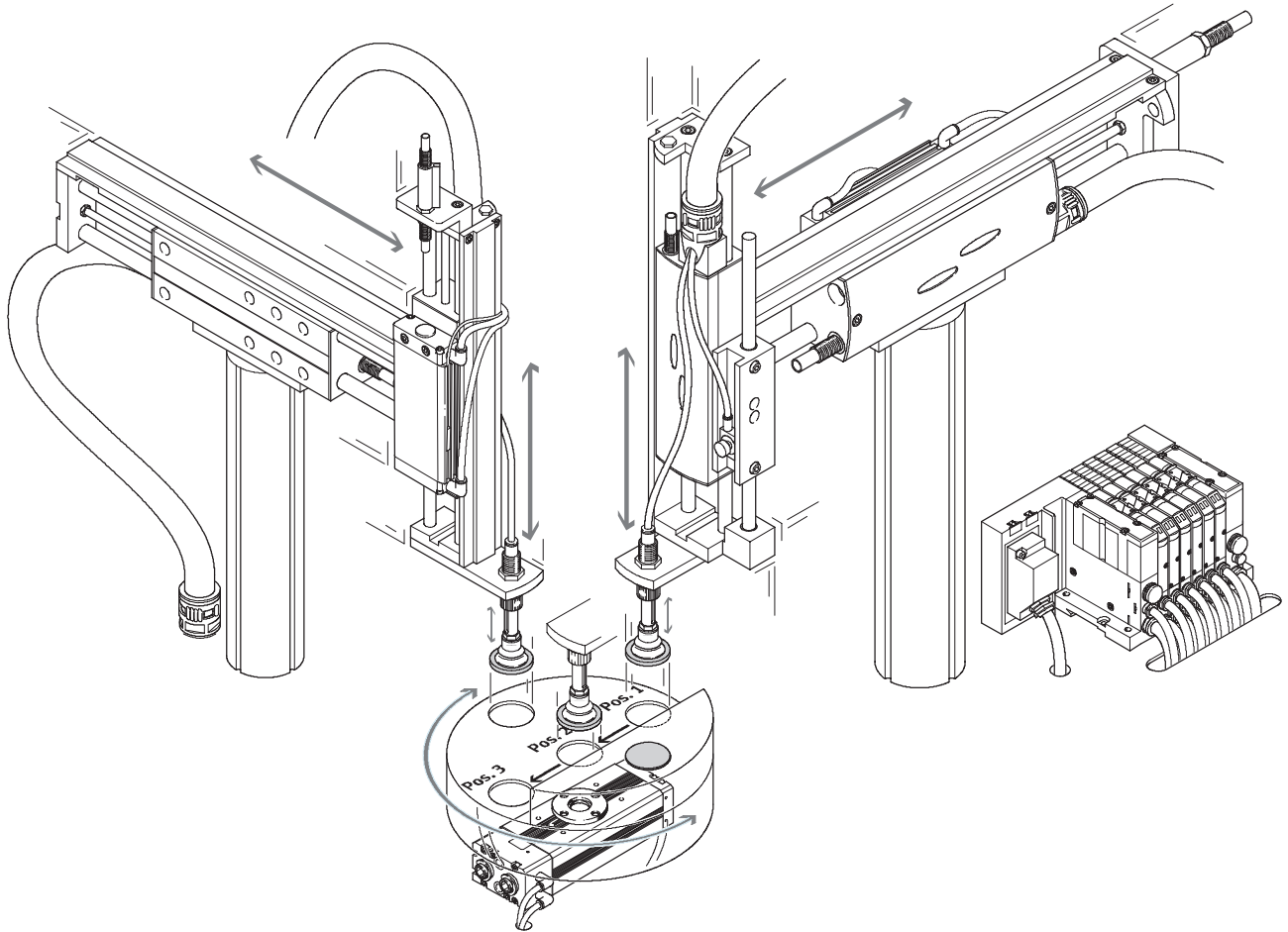
Bill of materials							
Type	HMBSZ-HMP-1		HMBSZ-HMP-2		HMBSZ-HMP-3		→ Page
For drives	HMP-16		HMP-20		HMP-25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	
[1]	1	193 124 HMZAS-PG-21		177 603 HMZAS-PG-29		177 603 HMZAS-PG-29	5 / 3.3-136
[2]	3	177 599 MKM-PG-21		177 600 MKM-PG-29		177 600 MKM-PG-29	5 / 3.3-135
[3]	3	177 572 MKRV-23-PG-21		177 573 MKRV-29-PG-29		177 573 MKRV-29-PG-29	5 / 3.3-130
[4]	2 ¹⁾	177 567 MKR-23-PG-21		177 568 MKR-29-PG-29		177 568 MKR-29-PG-29	5 / 3.3-128
[5]	1	177 577 MKRL-23-PG-21		177 578 MKRL-29-PG-29		177 578 MKRL-29-PG-29	5 / 3.3-131
[6]	1	177 595 MKA-PG-29-PG-21		-		-	5 / 3.3-133
[7]	1	177 647 HMSV-1		177 649 HMSV-3		177 653 HMSV-7	5 / 3.3-95

1) Length depends on the stroke of the drive

Pick & place

System example

Combination with handling modules HMPL

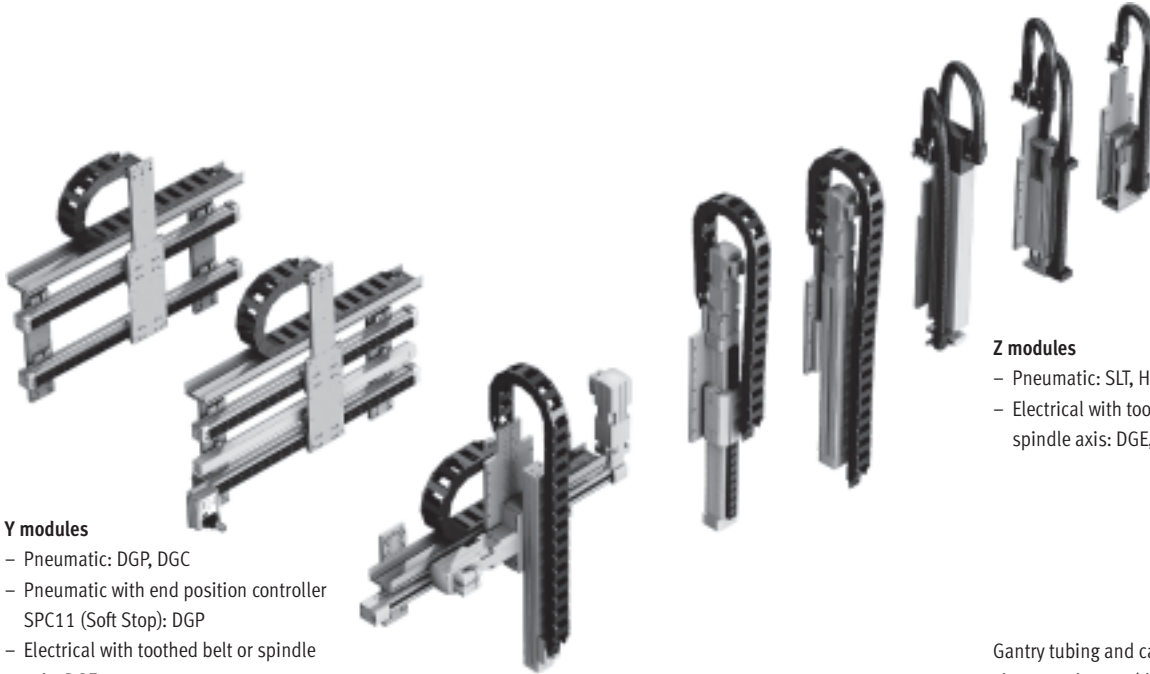


Linear gantries

Key features



Y and Z modules



Y modules

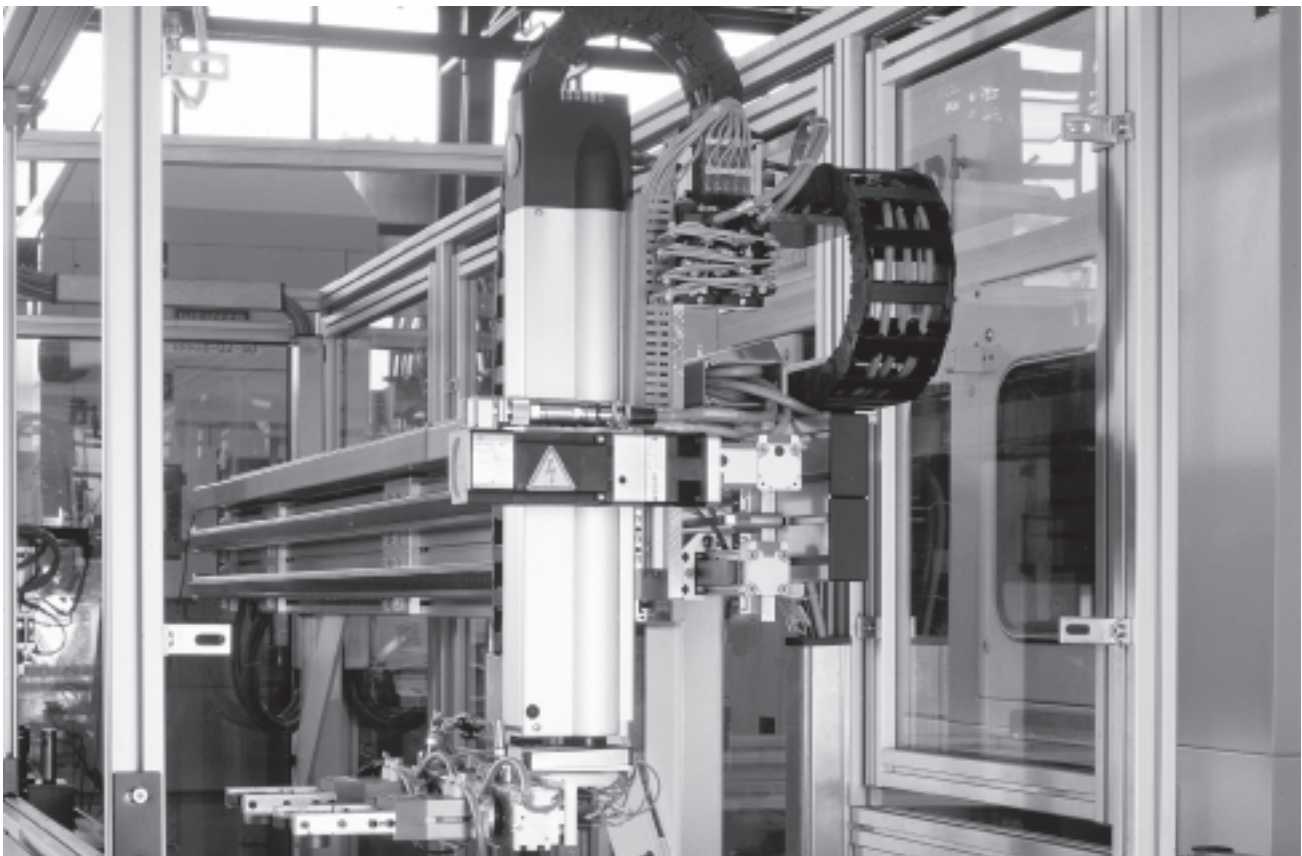
- Pneumatic: DGP, DGC
- Pneumatic with end position controller SPC11 (Soft Stop): DGP
- Electrical with toothed belt or spindle axis: DGE
- Single-axis systems (mono) or drives with guide axis (duo)

Z modules

- Pneumatic: SLT, HMPL, HMP
- Electrical with toothed belt or spindle axis: DGE, DGEA

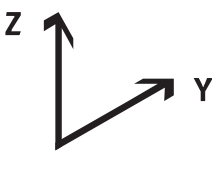


Gantry tubing and cables are routed via protective trunking. Festo uses a base profile for this purpose specially designed for handling technology.

Application



Linear gantries




Product range overview

Selection aid				
System type	Mono 25	Mono 40	Duo 25	Duo 40
				
Y-axis	DG...-25	DG...-40	DG...-25	DG...-40
Drive function	Pneumatic, pneumatic with end position controller SPC11 (Soft Stop) or electrical			
Options	Spindle or toothed belt axis			
Z-axis	DGSL-16 SLT-16 HMPL-16	DGSL-20 SLT-20 HMPL-20 HMP-16	DGSL-25 SLT-25 HMP-20	HMP-25
Drive function	Pneumatic			
Options	Intermediate position with HMPL	Intermediate position with HMPL, 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
Drive function	Electrical			
Options	–	Spindle or toothed belt axis		Spindle or toothed belt axis
Working load [kg]				
	1	■	■	■
	2	■	■	■
	3	–	■	■
	4	–	■	■
	6	–	–	■
	10	–	–	■
→ Page	5 / 3.3-56			

Linear gantries

Selection aid for basic, connection and installation components



Y-axis				
System type	Mono 25	Mono 40	Duo 25	Duo 40
				
Pneumatic drives	Type			
DGPL-25	HMBSY-LP-M25-1 → 5 / 3.3-58	–	HMBSY-LP-D25-1 → 5 / 3.3-60	–
DGC-25	HMBSY-LP-M25-2 → 5 / 3.3-58	–	HMBSY-LP-D25-2 → 5 / 3.3-60	–
DGPL-25 with SPC11	HMBSY-LP-M25-3 → 5 / 3.3-58	–	HMBSY-LP-D25-3 → 5 / 3.3-60	–
DGPL-40	–	HMBSY-LP-M40-1 → 5 / 3.3-59	–	HMBSY-LP-D40-1 → 5 / 3.3-61
DGC-40	–	HMBSY-LP-M40-2 → 5 / 3.3-59	–	HMBSY-LP-D40-2 → 5 / 3.3-61
DGPL-40 with SPC11	–	HMBSY-LP-M40-3 → 5 / 3.3-59	–	HMBSY-LP-D40-3 → 5 / 3.3-61
Electrical drives	Type			
DGE-25 -SP-KF -ZR-KF -ZR-RF	HMBSY-LP-M25-1 → 5 / 3.3-58 HMBSY-LP-M25-4 → 5 / 3.3-58	–	HMBSY-LP-D25-1 → 5 / 3.3-60 HMBSY-LP-D25-4 → 5 / 3.3-60	–
DGE-40 -SP-KF -ZR-KF -ZR-RF	–	HMBSY-LP-M40-1 → 5 / 3.3-59	–	HMBSY-LP-D40-1 → 5 / 3.3-61

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 bill of materials can be found on the specified page.

Y-axis: HMBSY-LP-D25-4
→ 5 / 3.3-60
Z-axis: HMBSZ-SLT-7
→ 5 / 3.3-63




Step 2
The necessary basic, connection and installation components can be found in the bill of materials on the specified page.

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

Step 3
Technical data on the basic, connection and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are documented with the drives.

Linear gantries

Selection aid for basic, connection and installation components

Z-axis				
System type	Mono 25	Mono 40	Duo 25	Duo 40
				
Pneumatic drives	Type			
DGSL-16	HMBSZ-DGSL-7 → 5 / 3.3-62	–	–	–
DGSL-20	–	HMBSZ-DGSL-8 → 5 / 3.3-62	–	–
DGSL-25	–	HMBSZ-DGSL-8 → 5 / 3.3-62	HMBSZ-DGSL-8 → 5 / 3.3-62	–
SLT-16	HMBSZ-SLT-7 → 5 / 3.3-63	–	–	–
SLT-20	–	HMBSZ-SLT-7 → 5 / 3.3-63	HMBSZ-SLT-7 → 5 / 3.3-63	–
SLT-25	–	–	HMBSZ-SLT-7 → 5 / 3.3-63	–
HMPL-16	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-64	–	–	–
HMPL-20	–	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-64	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-64	–
HMP-16	–	HMBSZ-HMP-4 → 5 / 3.3-65	HMBSZ-HMP-4 → 5 / 3.3-65	–
HMP-20	–	–	HMBSZ-HMP-5 → 5 / 3.3-65	–
HMP-25	–	–	–	HMBSZ-HMP-6 → 5 / 3.3-65
Electrical drives	Type			
DGEA-18	HMBSZ-DGEA-1 → 5 / 3.3-66	HMBSZ-DGEA-1 → 5 / 3.3-66	HMBSZ-DGEA-1 → 5 / 3.3-66	–
DGEA-25	–	–	HMBSZ-DGEA-2 → 5 / 3.3-66	HMBSZ-DGEA-3 → 5 / 3.3-66
DGE-25-SP	–	HMBSZ-DGE-1 → 5 / 3.3-67	HMBSZ-DGE-1 → 5 / 3.3-67	–
DGE-40-SP	–	–	HMBSZ-DGE-2 → 5 / 3.3-67	HMBSZ-DGE-3 → 5 / 3.3-67

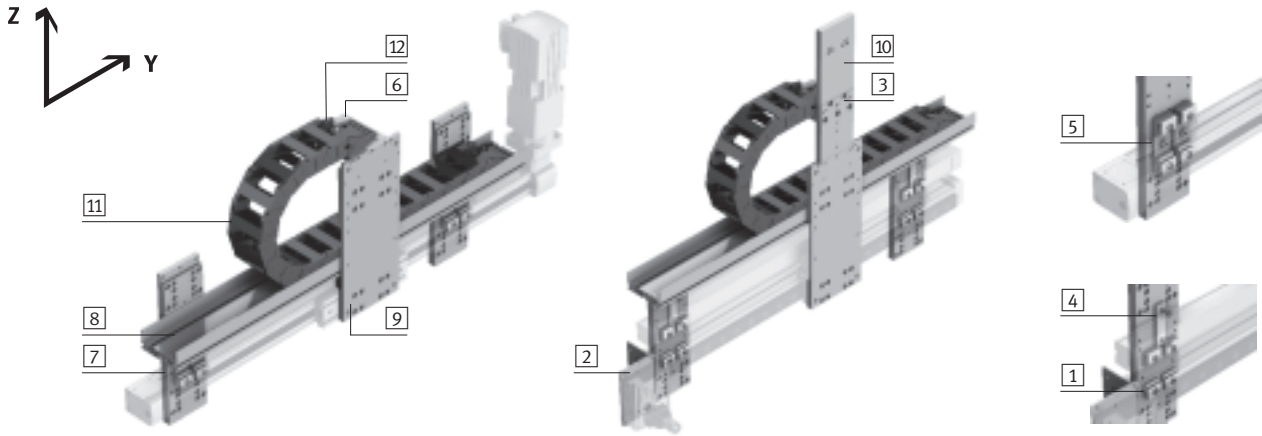
Linear gantries

Y modules

FESTO

Mono system

Toothed belt axes DGE, linear drives DGC, DGPL



Bill of materials

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							
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	→ Page
1	2 ¹⁾	150 736		–		150 736	150 736	Volume 1
	1 ¹⁾	–		531 753		–	–	Volume 1
		MUP-18/25		MUC-25		MUP-18/25	MUP-18/25	
2	1	–		–		539 367	–	5 / 3.3-119
						HMVW-SPC		
3	1	–		–		539 364	–	5 / 3.3-144
						HMIM-LP		
4	1 ¹⁾	–		–		539 973	–	5 / 3.3-118
						HMVO-POT		
5	2 ¹⁾	–		–		–	539 362	5 / 3.3-118
							HMVO-RF25	
6	1	539 366		539 366		539 366	539 366	5 / 3.3-144
		HMIO-AP1		HMIO-AP1		HMIO-AP1	HMIO-AP1	
7	2 ²⁾	539 972		539 972		539 972	539 972	5 / 3.3-114
		HMVM-LP-DL25/40		HMVM-LP-DL25/40		HMVM-LP-DL25/40	HMVM-LP-DL25/40	
8	1 ³⁾	539 378		539 378		539 378	539 378	5 / 3.3-143
		HMIA-E05		HMIA-E05		HMIA-E05	HMIA-E05	
9	1	539 368		539 368		539 368	539 368	5 / 3.3-116
		HMVS-DL25		HMVS-DL25		HMVS-DL25	HMVS-DL25	
10	1	–		–		539 365	–	5 / 3.3-142
						HMIZB-E03		
11	1	IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/n _T 2						–
12	1	IGUS E2 medium 2050.12.PZB or KABELSCHLEPP 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.

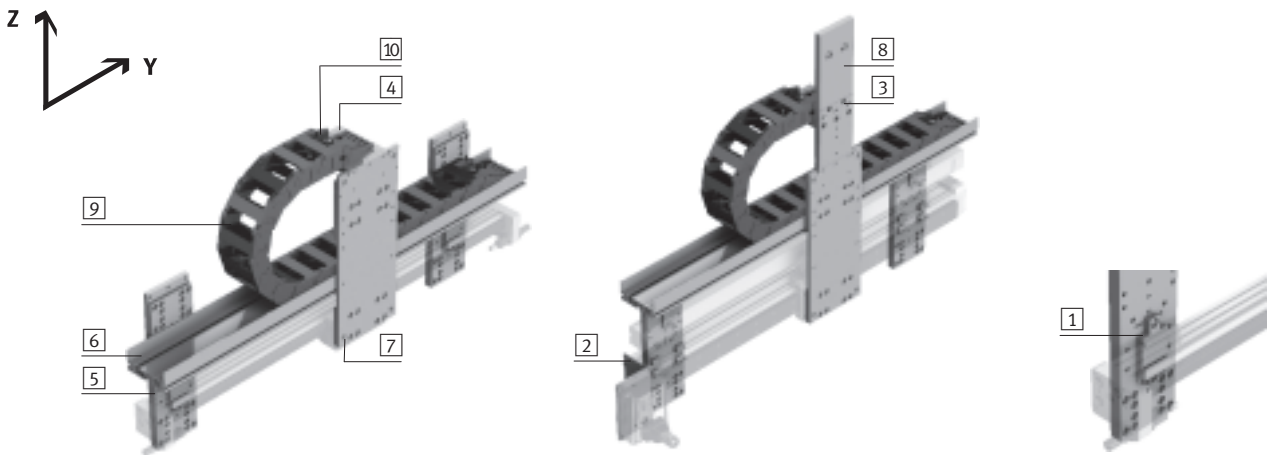
3) Length depends on the stroke of the drive

Linear gantries

Y modules

Mono system

Toothed belt axes DGE, linear drives DGC, DGPL



Bill of materials								
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							
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	→ Page
1	1 ¹⁾	-		531 755 MUC-40		-		Volume 1
2	1	-		-		539 367 HMVW-SPC		5 / 3.3-119
3	1	-		-		539 364 HMIM-LP		5 / 3.3-144
4	1	539 366 HMIO-AP-1		540 121 HMIO-AP-2		539 366 HMIO-AP-1		5 / 3.3-144
5	2 ²⁾	539 972 HMVM-LP-DL25/40		539 972 HMVM-LP-DL25/40		539 972 HMVM-LP-DL25/40		5 / 3.3-114
6	1 ³⁾	539 378 HMIA-E05		539 378 HMIA-E05		539 378 HMIA-E05		5 / 3.3-143
7	1	539 369 HMVS-DL40		539 369 HMVS-DL40		539 369 HMVS-DL40		5 / 3.3-116
8	1	-		-		539 365 HMIZB-E03		5 / 3.3-142
9	1	IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/n _T 2						-
10	1	IGUS E2 medium 2050.12.PZB or KABELSCHLEPP 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

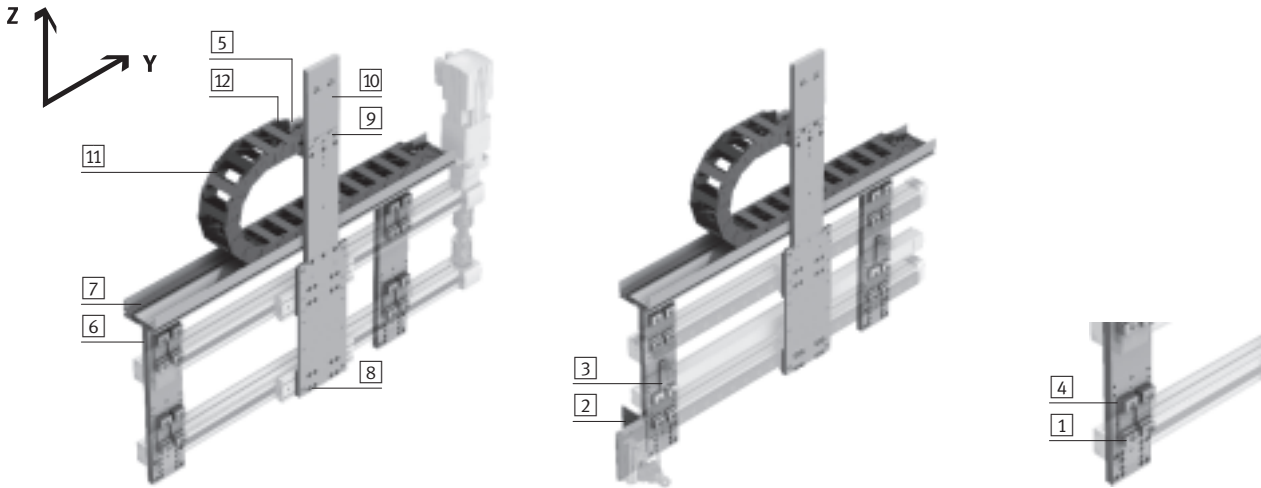
Linear gantries

Y modules

FESTO

Duo system

Toothed belt axes DGE, linear drives DGC, DGPL



Bill of materials

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							
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	→ Page
1	4 ¹⁾	150 736		–		150 736	150 736	Volume 1
	2 ¹⁾	–		531 753		–	–	Volume 1
		MUP-18/25		MUC-25		MUP-18/25	MUP-18/25	
2	1	–		–		539 367	–	5 / 3.3-119
						HMVW-SPC		
3	1 ¹⁾	–		–		539 973	–	5 / 3.3-118
						HMVO-POT		
4	4 ¹⁾	–		–		–	539 362	5 / 3.3-118
							HMVO-RF25	
5	1	539 366		539 366		539 366	539 366	5 / 3.3-144
		HMIO-AP-1		HMIO-AP-1		HMIO-AP-1	HMIO-AP-1	
6	2 ²⁾	539 971		539 971		539 971	539 971	5 / 3.3-114
		HMVD-LP-DL25/40		HMVD-LP-DL25/40		HMVD-LP-DL25/40	HMVD-LP-DL25/40	
7	1 ³⁾	539 378		539 378		539 378	539 378	5 / 3.3-143
		HMIA-E05		HMIA-E05		HMIA-E05	HMIA-E05	
8	1	539 368		539 368		539 368	539 368	5 / 3.3-116
		HMVS-DL25		HMVS-DL25		HMVS-DL25	HMVS-DL25	
9	1	539 363		539 363		539 363	539 363	5 / 3.3-144
		HMID-LP		HMID-LP		HMID-LP	HMID-LP	
10	1	539 365		539 365		539 365	539 365	5 / 3.3-142
		HMIZB-E03		HMIZB-E03		HMIZB-E03	HMIZB-E03	
11	1	IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/n _T 2						–
12	1	IGUS E2 medium 2050.12.PZB or KABELSCHLEPP 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.

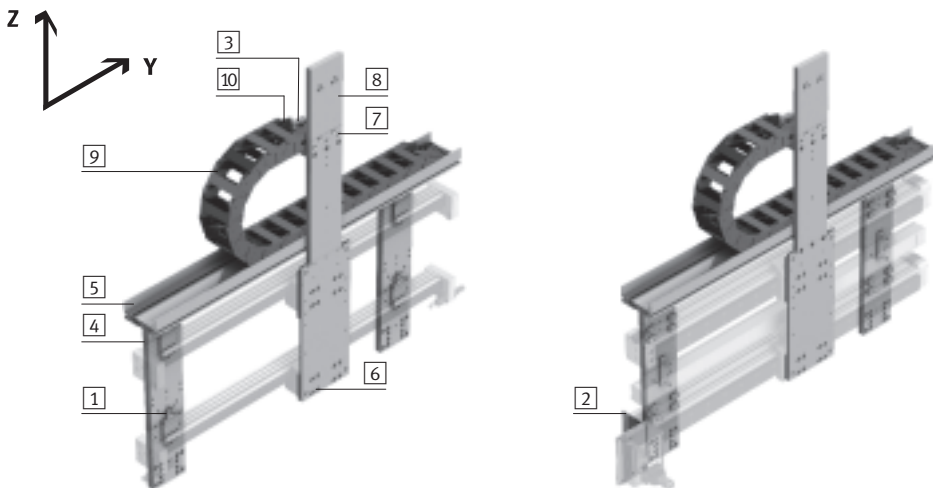
3) Length depends on the stroke of the drive

Linear gantries

Y modules

Duo system

Toothed belt axes DGE, linear drives DGC, DGPL



Bill of materials									
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								
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	→ Page	
1	2 ¹⁾	–		531 755 MUC-40		–		Volume 1	
2	1	–		–		539 367 HMVW-SPC		5 / 3.3-119	
3	1	539 366 HMIO-AP-1		540 121 HMIO-AP-2		539 366 HMIO-AP-1		5 / 3.3-144	
4	2 ²⁾	539 971 HMVD-LP-DL25/40		539 971 HMVD-LP-DL25/40		539 971 HMVD-LP-DL25/40		5 / 3.3-114	
5	1 ³⁾	539 378 HMIA-E05		539 378 HMIA-E05		539 378 HMIA-E05		5 / 3.3-143	
6	1	539 369 HMVS-DL40		539 369 HMVS-DL40		539 369 HMVS-DL40		5 / 3.3-116	
7	1	539 363 HMID-LP		539 363 HMID-LP		539 363 HMID-LP		5 / 3.3-144	
8	1	539 365 HMIZB-E03		539 365 HMIZB-E03		539 365 HMIZB-E03		5 / 3.3-142	
9	1	IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/n _T 2							–
10	1	IGUS E2 medium 2050.12.PZB or KABELSCHLEPP MC FA/MA							–

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

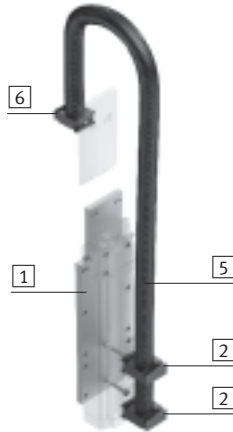
2) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVD-LP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

3) Length depends on the stroke of the drive

Linear gantries

Z modules

Z modules
Mini slides DGSL



Bill of materials							
Type		HMBSZ-DGSL-7		HMBSZ-DGSL-8			
For drives		DGSL-16		DGSL-20		DGSL-25	
System type		Mono 25		Mono 40 Duo 25		Duo 25	
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type
[1]	1	539 373	HMVZ-2	539 373	HMVZ-2	539 373	HMVZ-2
[2]	1	192 289	MKRS-16,5-B	192 290	MKRS-23-B	192 290	MKRS-23-B
		548 803	ZBV-M5-7	548 804	ZBV-M5-9	548 804	ZBV-M5-9
[5]	1 ¹⁾	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
[6]	1	192 289	MKRS-16,5-B	192 290	MKRS-23-B	192 290	MKRS-23-B

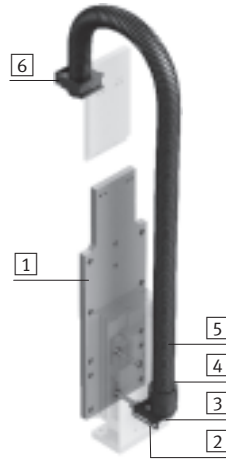
1) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/Duo system

Mini slides SLT



Bill of materials							
Type		HMBSZ-SLT-7					
For drives		SLT-16		SLT-20		SLT-25	
System type		Mono 25		Mono 40 Duo 25		Duo 25	
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type
1	1	539 373	HMVZ-2	539 373	HMVZ-2	539 373	HMVZ-2
2	1	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21
3	1	177 599	MKM-PG-21	177 599	MKM-PG-21	177 599	MKM-PG-21
4	1	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21
5	1 ¹⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
6	1	192 290	MKRS-23-B	192 290	MKRS-23-B	192 290	MKRS-23-B

1) Length depends on the stroke of the drive

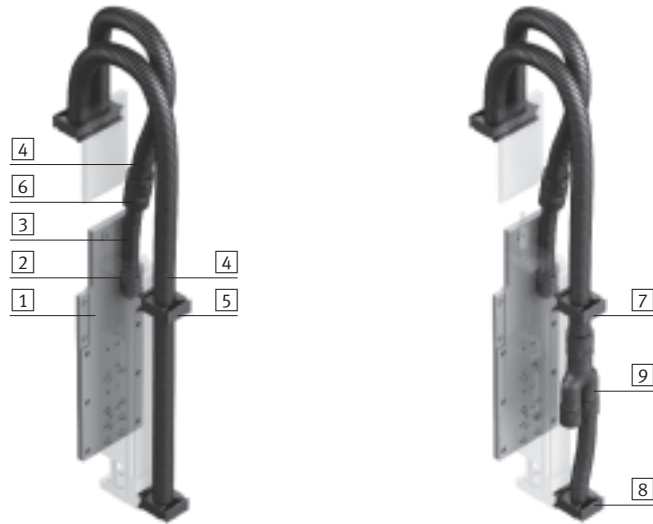
Linear gantries

Z modules



Mono/Duo system

Linear modules HMPL



Bill of materials

Type		HMBSZ-HMPL-5		HMBSZ-HMPL-6		→ Page	
For drives		HMPL-16	HMPL-20	HMPL-16	HMPL-20		
		without intermediate position		with intermediate position			
System type		Mono 25	Mono 40 Duo 25	Mono 25	Mono 40 Duo 25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type
1	1	539 375	HMVZ-4	539 375	HMVZ-4	539 375	HMVZ-4
2	1	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16
3	1 ¹⁾	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16
4	1 ²⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
5	4 ³⁾	192 290	MKRS-23-B	192 290	MKRS-23-B	-	-
6	1	194 321	MKRT-23-16,5	194 321	MKRT-23-16,5	194 321	MKRT-23-16,5
7	3 ³⁾	-	-	-	-	192 290	MKRS-23-B
8	1	-	-	-	-	192 289	MKRS-16,5-B
9	1	-	-	-	-	193 946	MKY-PG-21-2PG-16

1) Length 200 mm

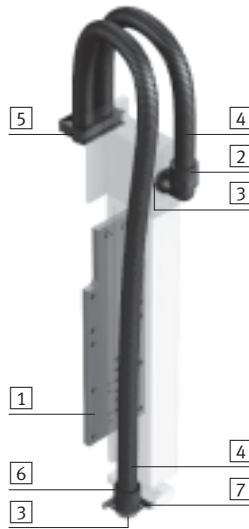
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

3) In order to be able to mount the retaining clip MKRS, a clamping component (2x code J) must be selected as an accessory in the order for the linear module HMPL.

Linear gantries

Z modules

Mono/Duo system
Linear modules HMP



Bill of materials								
Type	HMBSZ-HMP-4		HMBSZ-HMP-5		HMBSZ-HMP-6		→ Page	
For drives	HMP-16		HMP-20		HMP-25			
System type	Mono 40 Duo 25		Duo 25		Duo 40			
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 374	HMVZ-3	539 374	HMVZ-3	539 377	HMVZ-6	5 / 3.3-117
2	1	177 577	MKRL-23-PG-21	177 578	MKRL-29-PG-29	177 578	MKRL-29-PG-29	5 / 3.3-131
3	2	177 599	MKM-PG-21	177 600	MKM-PG-29	177 600	MKM-PG-29	5 / 3.3-135
4	1 ¹⁾	177 567	MKR-23-PG-21	177 568	MKR-29-PG-29	177 568	MKR-29-PG-29	5 / 3.3-128
5	2	192 290	MKRS-23-B	192 291	MKRS-29-B	192 291	MKRS-29-B	5 / 3.3-135
6	1	177 572	MKRV-23-PG-21	177 573	MKRV-29-PG-29	177 573	MKRV-29-PG-29	5 / 3.3-130
7	1	193 124	HMZAS-PG-21	177 603	HMZAS-PG-29	177 603	HMZAS-PG-29	5 / 3.3-136

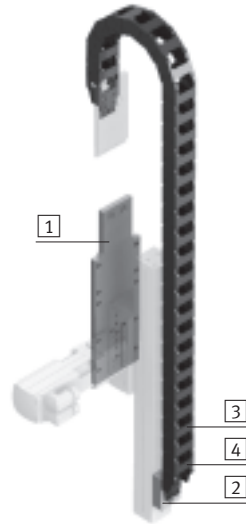
1) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/Duo system

Cantilever axes DGEA



Bill of materials

Type	HMBSZ-DGEA-1	HMBSZ-DGEA-2	HMBSZ-DGEA-3		
For drives	DGEA-18	DGEA-25	DGEA-25		
System type	Mono 25 Mono 40 Duo 25	Duo 25	Duo 40		
Item	Quantity	Part No. Type	Part No. Type	Part No. Type	→ Page
[1]	1	539 374 HMVZ-3	539 375 HMVZ-4	539 377 HMVZ-6	5 / 3.3-117
[2]	1	539 370 HMIZF-E03-DA18	539 371 HMIZF-E03-DA25	539 371 HMIZF-E03-DA25	5 / 3.3-142
[3]	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS 0/n _T 2			-
[4]	1	IGUS E2 medium 2030.12.PZB or KABELSCHLEPP MC FA/MA			-

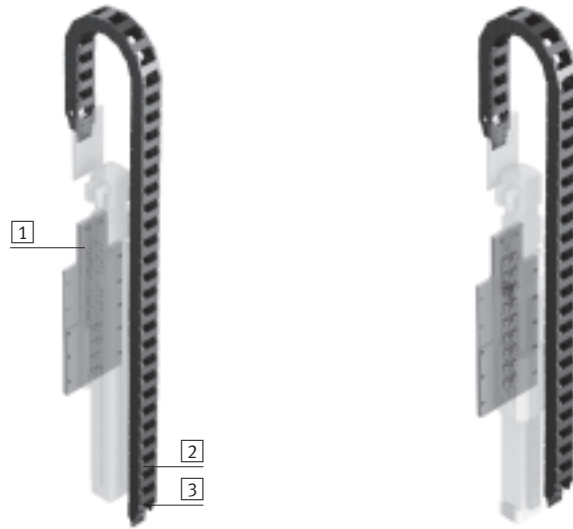
1) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/Duo system

Spindle axes DGE



Bill of materials								
Type	HMBSZ-DGE-1		HMBSZ-DGE-2		HMBSZ-DGE-3			
For drives	DGE-25-SP		DGE-40-SP		DGE-40-SP			
System type	Mono 40 Duo 25		Duo 25		Duo 40			
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 374	HMVZ-3	539 375	HMVZ-4	539 377	HMVZ-6	
2	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS O/nT2						-
3	1	IGUS E2 medium 2030.12.PZB or KABELSCHLEPP MC FA/MA						-
							→ Page	

1) Length depends on the stroke of the drive

3-Dimensional gantries

Key features

FESTO

X, Y and Z modules



Y modules

- Pneumatic: DGP, DGC
- Electrical with toothed belt or spindle axis: DGE
- Single-axis systems (mono) or drives with guide axis (duo)



Z modules

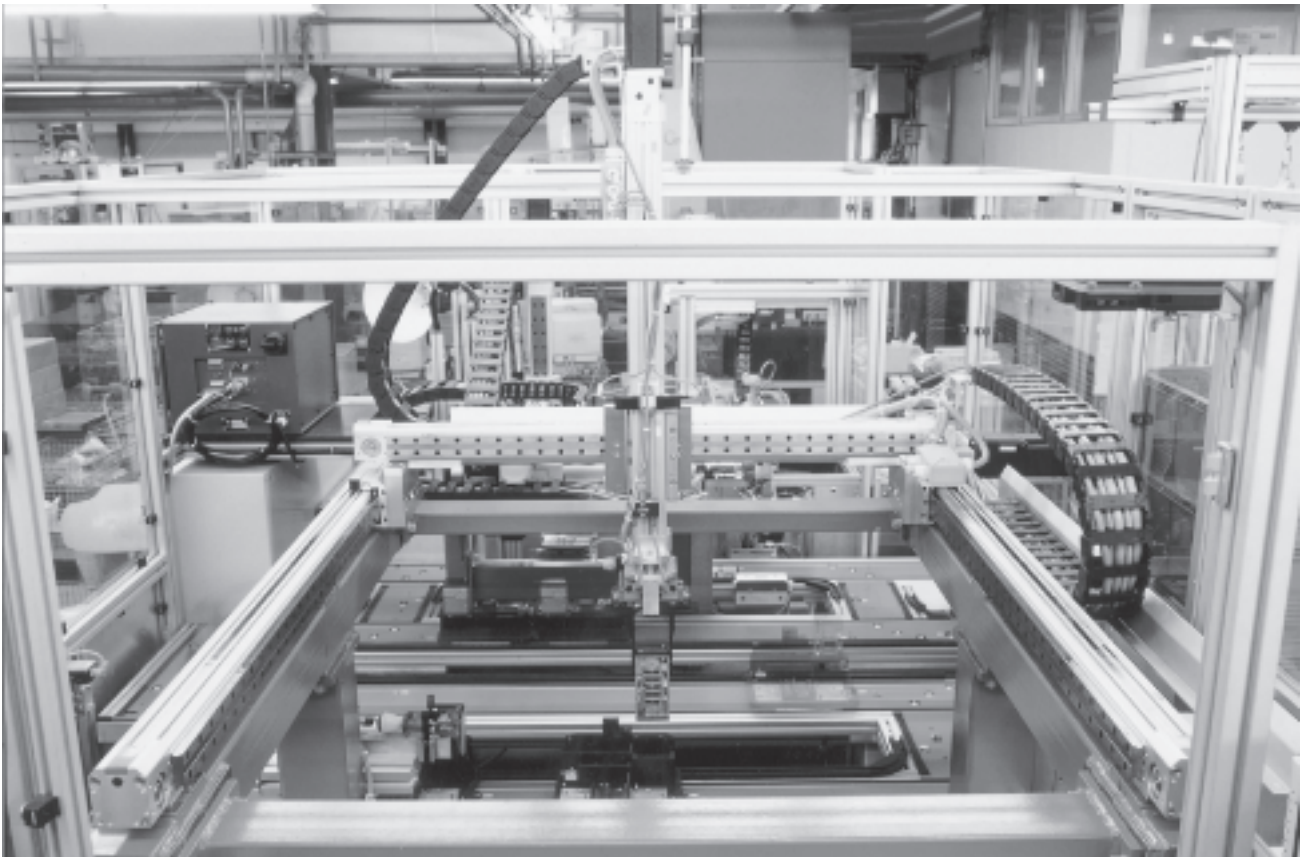
- Pneumatic: SLT, HMPL, HMP
- Electrical with toothed belt or spindle axis: DGE, DGEA

X modules

- Electrical with toothed belt axis: 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



3-Dimensional gantries

Product range overview



Selection aid					
System type	Mono 25	Mono 40	Duo 25		Duo 40
X-axis	DGE-25-ZR	DGE-40-ZR	DGE-25-ZR	DGE-40-ZR	DGE-40-ZR
Drive function	Electrical				
Options	Ball bearing or roller guide				
Y-axis	DG...-25	DG...-40	DG...-25	DG...-40	
Drive function	Pneumatic and electrical				
Options	Spindle or toothed belt axis				
Z-axis	DGSL-16 SLT-16 HMPL-16	DGSL-20 SLT-20 HMPL-20 HMP-16	DGSL-25 SLT-25 HMP-20	HMP-25	
Drive function	Pneumatic				
Options	Intermediate position with HMPL	Intermediate position with HMPL, 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	
Drive function	Electrical				
Options	-	Spindle or toothed belt axis		Spindle or toothed belt axis	
Working load [kg]					
	1	■	■	■	■
	2	■	■	■	■
	3	-	■	■	■
	4	-	■	■	■
	6	-	-	■	■
	10	-	-	-	■
→ Page	5 / 3.3-70				

3-Dimensional gantries

Selection aid for basic, connection and installation components



X-axis					
System type		Mono 25	Mono 40	Duo 25	Duo 40
Electrical drives		Type			
DGE-25	-ZR-KF	HMBSX-RP/FP-25-1 → 5 / 3.3-73	HMBSX-RP/FP-25-1 → 5 / 3.3-73	HMBSX-RP/FP-25-1 → 5 / 3.3-73	-
	-ZR-RF	HMBSX-RP/FP-25-2 → 5 / 3.3-73	HMBSX-RP/FP-25-2 → 5 / 3.3-73	HMBSX-RP/FP-25-2 → 5 / 3.3-73	-
DGE-40	-ZR-KF	-	HMBSX-RP/FP-40-1 → 5 / 3.3-73	HMBSX-RP/FP-40-1 → 5 / 3.3-73	HMBSX-RP/FP-40-1 → 5 / 3.3-73
	-ZR-RF	-	HMBSX-RP/FP-40-2 → 5 / 3.3-73	HMBSX-RP/FP-40-2 → 5 / 3.3-73	HMBSX-RP/FP-40-2 → 5 / 3.3-73

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 bill of materials can be found on the specified page.

Step 2
The necessary basic, connection and installation components can be found in the bill of materials on the specified page.

Step 3
Technical data on the basic, connection and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are documented with the drives.

X-axis: DGE-40-ZR-KF

X-axis: HMBSX-RP/FP-40-1
→ 5 / 3.3-73

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

Y-axis: Mono 40 system with DGC-40

Y-axis: HMBSY-RP/FP-M40-2
→ 5 / 3.3-74

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




Z-axis: HMPL-20 without intermediate position

Z-axis: HMBSZ-HMPL-5 or 6
→ 5 / 3.3-78

Z-axis: HMBSZ-HMPL-5

3-Dimensional gantries




Selection aid for basic, connection and installation components

Y-axis					
System type	Mono 25	Mono 40	Duo 25	Duo 40	
					
Pneumatic drives	Type				
DGPL-25	HMBSY-RP/FP-M25-1 → 5 / 3.3-74	–	HMBSY-RP/FP-D25-1 → 5 / 3.3-75	–	
DGC-25	HMBSY-RP/FP-M25-2 → 5 / 3.3-74	–	HMBSY-RP/FP-D25-2 → 5 / 3.3-75	–	
DGPL-40	–	HMBSY-RP/FP-M40-1 → 5 / 3.3-74	–	HMBSY-RP/FP-D40-1 → 5 / 3.3-75	
DGC-40	–	HMBSY-RP/FP-M40-2 → 5 / 3.3-74	–	HMBSY-RP/FP-D40-2 → 5 / 3.3-75	
Electrical drives	Type				
DGE-25 -SP-KF -ZR-KF -ZR-RF	HMBSY-RP/FP-M25-1 → 5 / 3.3-74	–	HMBSY-RP/FP-D25-1 → 5 / 3.3-75	–	
DGE-40 -SP-KF -ZR-KF -ZR-RF	–	HMBSY-RP/FP-M40-1 → 5 / 3.3-74	–	HMBSY-RP/FP-D40-1 → 5 / 3.3-75	

3-Dimensional gantries

Selection aid for basic, connection and installation components

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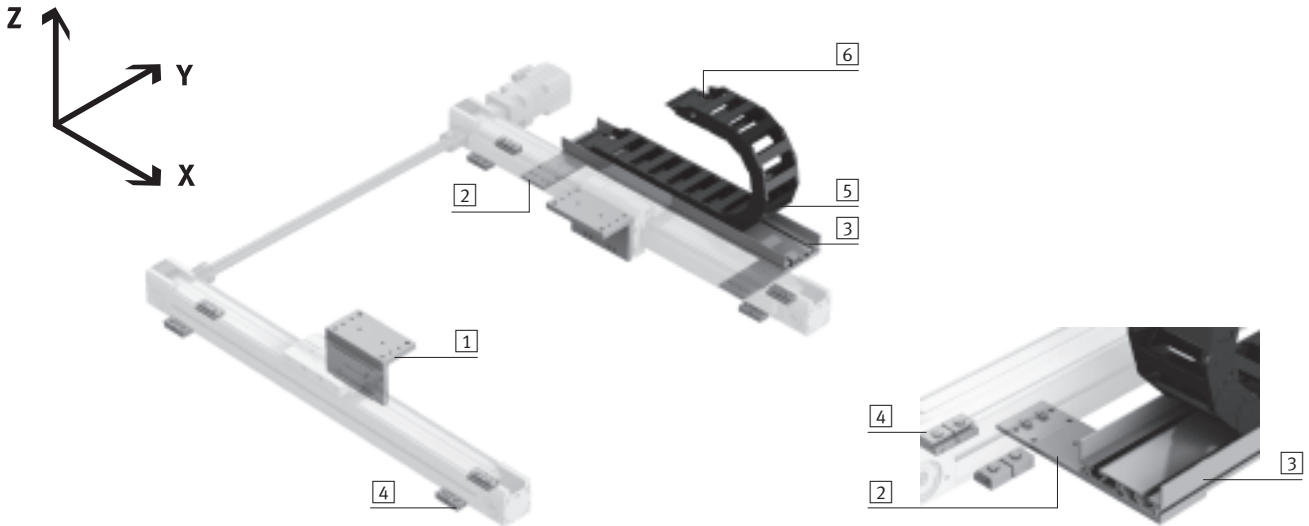
Z-axis				
System type	Mono 25	Mono 40	Duo 25	Duo 40
				
Pneumatic drives	Type			
DGSL-16	HMBSZ-DGSL-7 → 5 / 3.3-76	-	-	-
DGSL-20	-	HMBSZ-DGSL-8 → 5 / 3.3-76	-	-
DGSL-25	-	HMBSZ-DGSL-8 → 5 / 3.3-76	HMBSZ-DGSL-8 → 5 / 3.3-76	-
SLT-16	HMBSZ-SLT-7 → 5 / 3.3-77	-	-	-
SLT-20	-	HMBSZ-SLT-7 → 5 / 3.3-77	HMBSZ-SLT-7 → 5 / 3.3-77	-
SLT-25	-	-	HMBSZ-SLT-7 → 5 / 3.3-77	-
HMPL-16	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-78	-	-	-
HMPL-20	-	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-78	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-78	-
HMP-16	-	HMBSZ-HMP-4 → 5 / 3.3-79	HMBSZ-HMP-4 → 5 / 3.3-79	-
HMP-20	-	-	HMBSZ-HMP-5 → 5 / 3.3-79	-
HMP-25	-	-	-	HMBSZ-HMP-6 → 5 / 3.3-79
Electrical drives	Type			
DGEA-18	HMBSZ-DGEA-1 → 5 / 3.3-80	HMBSZ-DGEA-1 → 5 / 3.3-80	HMBSZ-DGEA-1 → 5 / 3.3-80	-
DGEA-25	-	-	HMBSZ-DGEA-2 v5 / 3.3-80	HMBSZ-DGEA-3 → 5 / 3.3-80
DGE-25-SP	-	HMBSZ-DGE-1 → 5 / 3.3-81	HMBSZ-DGE-1 → 5 / 3.3-81	-
DGE-40-SP	-	-	HMBSZ-DGE-2 → 5 / 3.3-81	HMBSZ-DGE-3 → 5 / 3.3-81

3-Dimensional gantries

X modules

Basic system

Toothed belt axes DGE



Bill of materials							Page		
Type		HMBSX-RP/FP-25-1	HMBSX-RP/FP-25-2	HMBSX-RP/FP-40-1	HMBSX-RP/FP-40-2				
	For drives	DGE-25-ZR-KF	DGE-25-ZR-RF	DGE-40-ZR-KF	DGE-40-ZR-RF				
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type		
1	1	539 651	HMVW-DL25	539 652	HMVS-RF25	540 325	HMVW-DL40	539 653	5 / 3.3-111
2	2 ¹⁾	539 654	HMIXB-RP/FP	539 654	HMIXB-RP/FP	539 654	HMIXB-RP/FP	539 654	5 / 3.3-145
3	1 ²⁾	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	539 379	5 / 3.3-143
4	2 ³⁾	150 736	MUP-18/25	150 736	MUP-18/25	-	-	-	Volume 1
	1 ³⁾	-	-	-	-	150 738	MUP-40	150 738	Volume 1
5	1 ²⁾	IGUS E2 medium 240.07.100.0 and 211 or KABELSCHLEPP MC 0320.80-01 and TS O/n _T 2					-	-	-
6	1	IGUS E2 medium 2070.12.PZB or KABELSCHLEPP 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

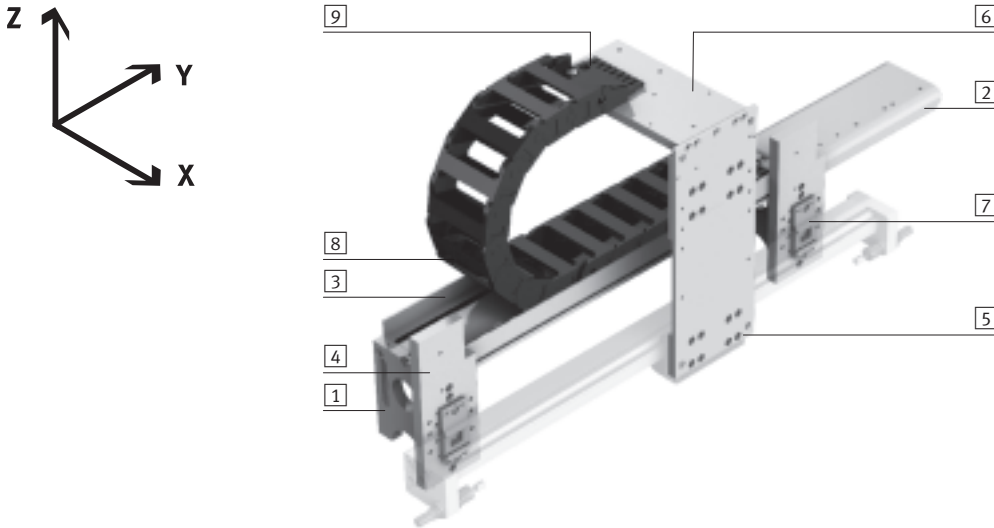
3-Dimensional gantries

Y modules



Mono system

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



Bill of materials

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			
Item	Quantity	Part No. Type	Part No. Type	Part No. Type	Part No. Type	→ Page
[1]	2	539 657 HMVV-RP/FP	539 657 HMVV-RP/FP	539 657 HMVV-RP/FP	539 657 HMVV-RP/FP	5 / 3.3-113
[2]	1	539 658 HMIXF-RP/FP	539 658 HMIXF-RP/FP	539 658 HMIXF-RP/FP	539 658 HMIXF-RP/FP	5 / 3.3-113
[3]	1 ¹⁾	539 379 HMIA-E07	539 379 HMIA-E07	539 379 HMIA-E07	539 379 HMIA-E07	5 / 3.3-143
[4]	2 ³⁾	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	5 / 3.3-115
[5]	1	539 368 HMVS-DL25	539 368 HMVS-DL25	539 369 HMVS-DL40	539 369 HMVS-DL40	5 / 3.3-116
[6]	1	539 659 HMIYF-RF/DL25	539 659 HMIYF-RF/DL25	539 660 HMIYF-RF/DL40	539 660 HMIYF-RF/DL40	5 / 3.3-146
[7]	2 ²⁾	150 736 MUP-18/25	–	–	–	Volume 1
	1 ²⁾	–	531 753 MUC-25	–	531 755 MUC-40	Volume 1
	1 ²⁾	–	–	150 738 MUP-40	–	Volume 1
[8]	1 ¹⁾	IGUS E2 medium 240.07.100.0 and 211 or KABELSCHLEPP MC 0320.80-01 and TS O/n ₇ 2				–
[9]	1	IGUS E2 medium 2070.12.PZB or KABELSCHLEPP MC FA/MA				–

1) Length depends on the stroke of the drive

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

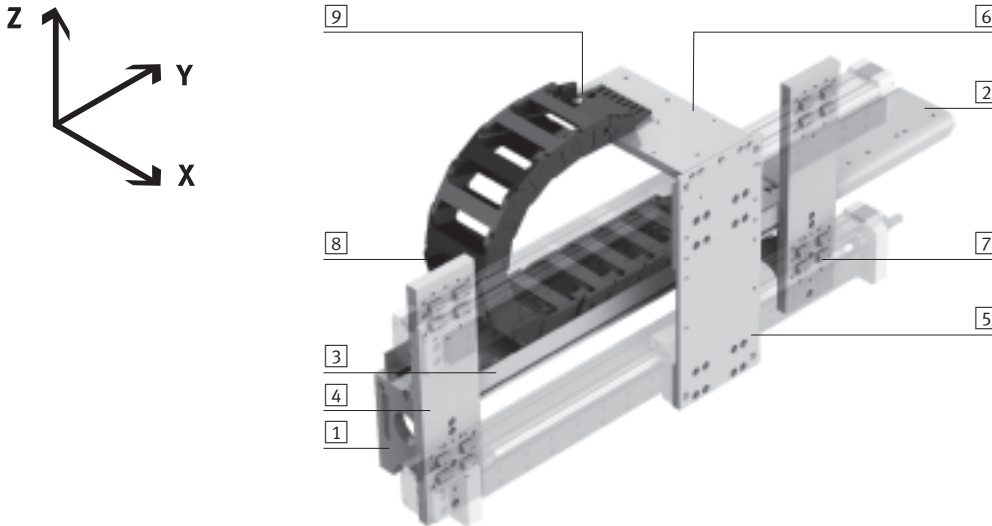
3) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVM-RP/FP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

3-Dimensional gantries

Y modules

Duo system

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



Bill of materials								
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	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	Page
1	2	539 657	HMVV-RP/FP	539 657	HMVV-RP/FP	539 657	HMVV-RP/FP	5 / 3.3-113
2	1	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	5 / 3.3-113
3	1 ¹⁾	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	5 / 3.3-143
4	2 ³⁾	539 655	HMVD-RP/FP-DL25/40	539 655	HMVD-RP/FP-DL25/40	539 655	HMVD-RP/FP-DL25/40	5 / 3.3-115
5	1	539 368	HMVS-DL25	539 368	HMVS-DL25	539 369	HMVS-DL40	5 / 3.3-116
6	1	539 659	HMIYF-RF/DL25	539 659	HMIYF-RF/DL25	539 660	HMIYF-RF/DL40	5 / 3.3-146
7	4 ²⁾	150 736	MUP-18/25	-	-	-	-	Volume 1
	2	-	-	531 753	MUC-25	-	531 755	MUC-40
8	1 ¹⁾	IGUS E2 medium 240.07.100.0 and 211 or KABELSCHLEPP MC 0320.80-01 and TS O/η ₂						-
9	1	IGUS E2 medium 2070.12.PZB or KABELSCHLEPP 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.

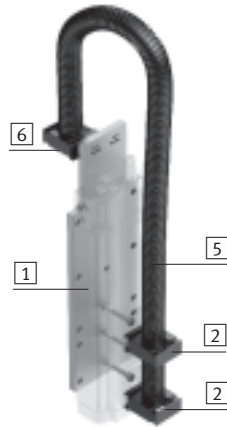
3-Dimensional gantries

Z modules



Mono/Duo system

Mini slides DGSL



Bill of materials							
Type		HMBSZ-DGSL-7		HMBSZ-DGSL-8			
For drives		DGSL-16		DGSL-20		DGSL-25	
System type		Mono 25		Mono 40 Duo 25		Duo 25	
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type
[1]	1	539 373	HMVZ-2	539 373	HMVZ-2	539 373	HMVZ-2
[2]	1	192 289	MKRS-16,5-B	192 290	MKRS-23-B	192 290	MKRS-23-B
		548 803	ZBV-M5-7	548 804	ZBV-M5-9	548 804	ZBV-M5-9
[5]	1 ¹⁾	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
[6]	1	192 289	MKRS-16,5-B	192 290	MKRS-23-B	192 290	MKRS-23-B

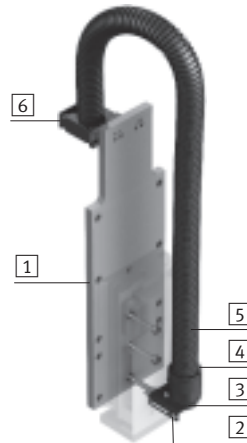
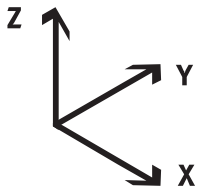
1) Length depends on the stroke of the drive

3-Dimensional gantries

Z modules

Mono/Duo system

Mini slides SLT



Bill of materials							
Type		HMBSZ-SLT-7					
For drives		SLT-16		SLT-20		SLT-25	
System type		Mono 25		Mono 40 Duo 25		Duo 25	
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type
1	1	539 373	HMVZ-2	539 373	HMVZ-2	539 373	HMVZ-2
2	1	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21
3	1	177 599	MKM-PG-21	177 599	MKM-PG-21	177 599	MKM-PG-21
4	1	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21
5	1 ¹⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
6	1	192 290	MKRS-23-B	192 290	MKRS-23-B	192 290	MKRS-23-B

1) Length depends on the stroke of the drive

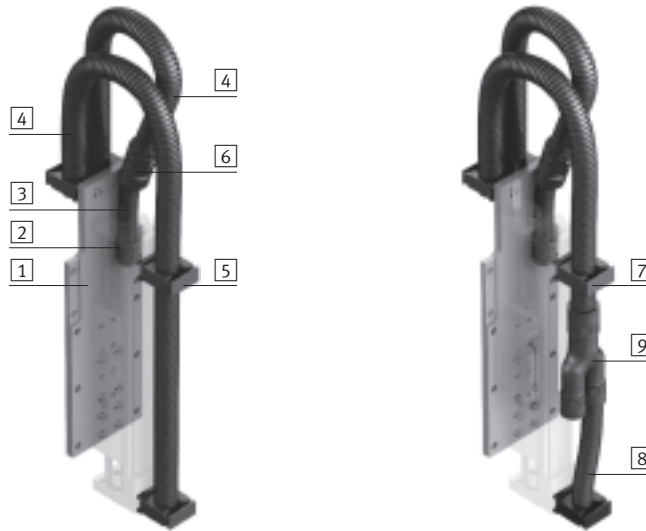
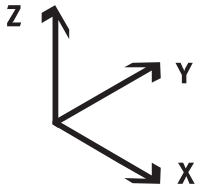
3-Dimensional gantries

Z modules



Mono/Duo system

Linear modules HMPL



Bill of materials

Type		HMBSZ-HMPL-5		HMBSZ-HMPL-6		→ Page	
For drives		HMPL-16	HMPL-20	HMPL-16	HMPL-20		
		without intermediate position		with intermediate position			
System type		Mono 25	Mono 40 Duo 25	Mono 25	Mono 40 Duo 25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type
[1]	1	539 375	HMVZ-4	539 375	HMVZ-4	539 375	HMVZ-4
[2]	1	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16
[3]	1 ¹⁾	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16
[4]	1 ²⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
[5]	4 ³⁾	192 290	MKRS-23-B	192 290	MKRS-23-B	–	–
[6]	1	194 321	MKRT-23-16,5	194 321	MKRT-23-16,5	194 321	MKRT-23-16,5
[7]	3 ³⁾	–	–	–	–	192 290	MKRS-23-B
[8]	1	–	–	–	–	192 289	MKRS-16,5-B
[9]	1	–	–	–	–	193 946	MKY-PG-21-2PG-16

1) Length 200 mm

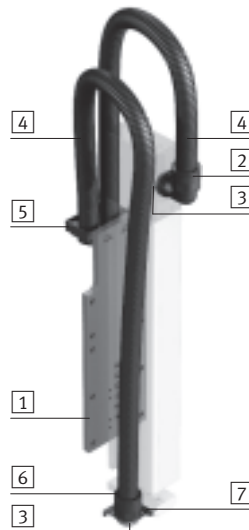
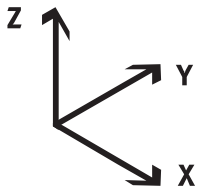
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

3) In order to be able to mount the retaining clip MKRS, a clamping component (2x code J) must be selected as an accessory in the order for the linear module HMPL.

3-Dimensional gantries

Z modules

Mono/Duo system
Linear modules HMP



Bill of materials								
Type	HMBSZ-HMP-4		HMBSZ-HMP-5		HMBSZ-HMP-6		→ Page	
For drives	HMP-16		HMP-20		HMP-25			
System type	Mono 40 Duo 25		Duo 25		Duo 40			
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 374	HMVZ-3	539 374	HMVZ-3	539 377	HMVZ-6	5 / 3.3-117
2	1	177 577	MKRL-23-PG-21	177 578	MKRL-29-PG-29	177 578	MKRL-29-PG-29	5 / 3.3-131
3	2	177 599	MKM-PG-21	177 600	MKM-PG-29	177 600	MKM-PG-29	5 / 3.3-135
4	1 ¹⁾	177 567	MKR-23-PG-21	177 568	MKR-29-PG-29	177 568	MKR-29-PG-29	5 / 3.3-128
5	2	192 290	MKRS-23-B	192 291	MKRS-29-B	192 291	MKRS-29-B	5 / 3.3-135
6	1	177 572	MKRV-23-PG-21	177 573	MKRV-29-PG-29	177 573	MKRV-29-PG-29	5 / 3.3-130
7	1	193 124	HMZAS-PG-21	177 603	HMZAS-PG-29	177 603	HMZAS-PG-29	5 / 3.3-136

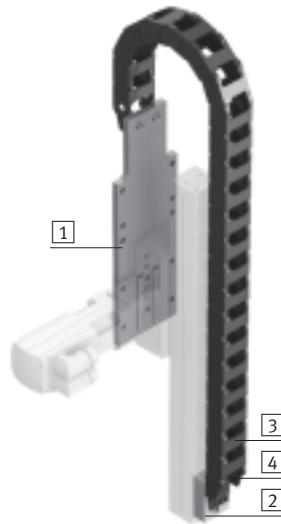
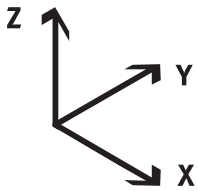
1) Length depends on the stroke of the drive

3-Dimensional gantries

Z modules

Mono/Duo system

Cantilever axes DGEA



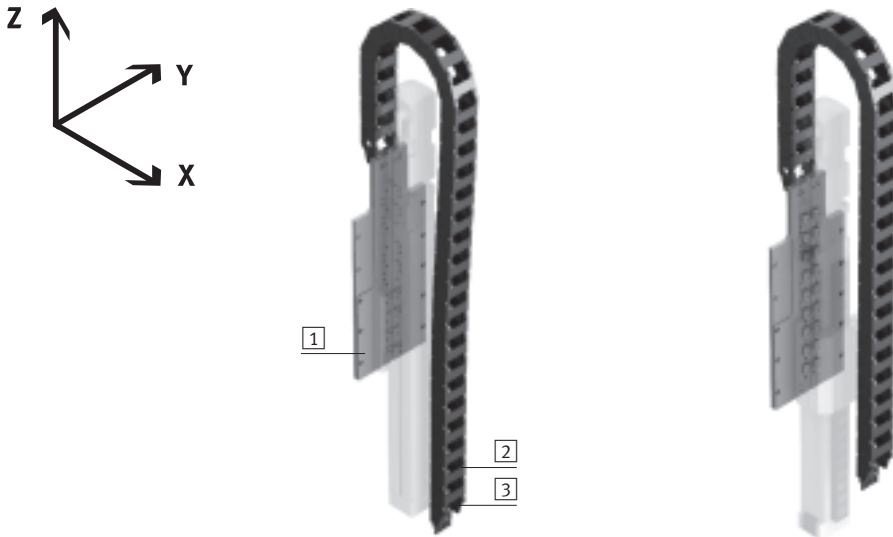
Bill of materials								
Type		HMBSZ-DGEA-1		HMBSZ-DGEA-2		HMBSZ-DGEA-3		
For drives		DGEA-18		DGEA-25		DGEA-25		
System type		Mono 25 Mono 40 Duo 25		Duo 25		Duo 40		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
[1]	1	539 374 HMVZ-3		539 375 HMVZ-4		539 377 HMVZ-6		
[2]	1	539 370 HMIZF-E03-DA18		539 371 HMIZF-E03-DA25		539 371 HMIZF-E03-DA25		
[3]	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS 0/n _T 2					-	
[4]	1	IGUS E2 medium 2030.12.PZB or KABELSCHLEPP MC FA/MA					-	

1) Length depends on the stroke of the drive

3-Dimensional gantries

Z modules

Mono/Duo system
Toothed belt axes DGE



Bill of materials								
Type	HMBSZ-DGE-1		HMBSZ-DGE-2		HMBSZ-DGE-3			
For drives	DGE-25-SP		DGE-40-SP		DGE-40-SP			
System type	Mono 40 Duo 25		Duo 25		Duo 40			
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
1	1	539 374	HMVZ-3	539 375	HMVZ-4	539 377	HMVZ-6	
2	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS O/nT2						-
3	1	IGUS E2 medium 2030.12.PZB or KABELSCHLEPP MC FA/MA						-

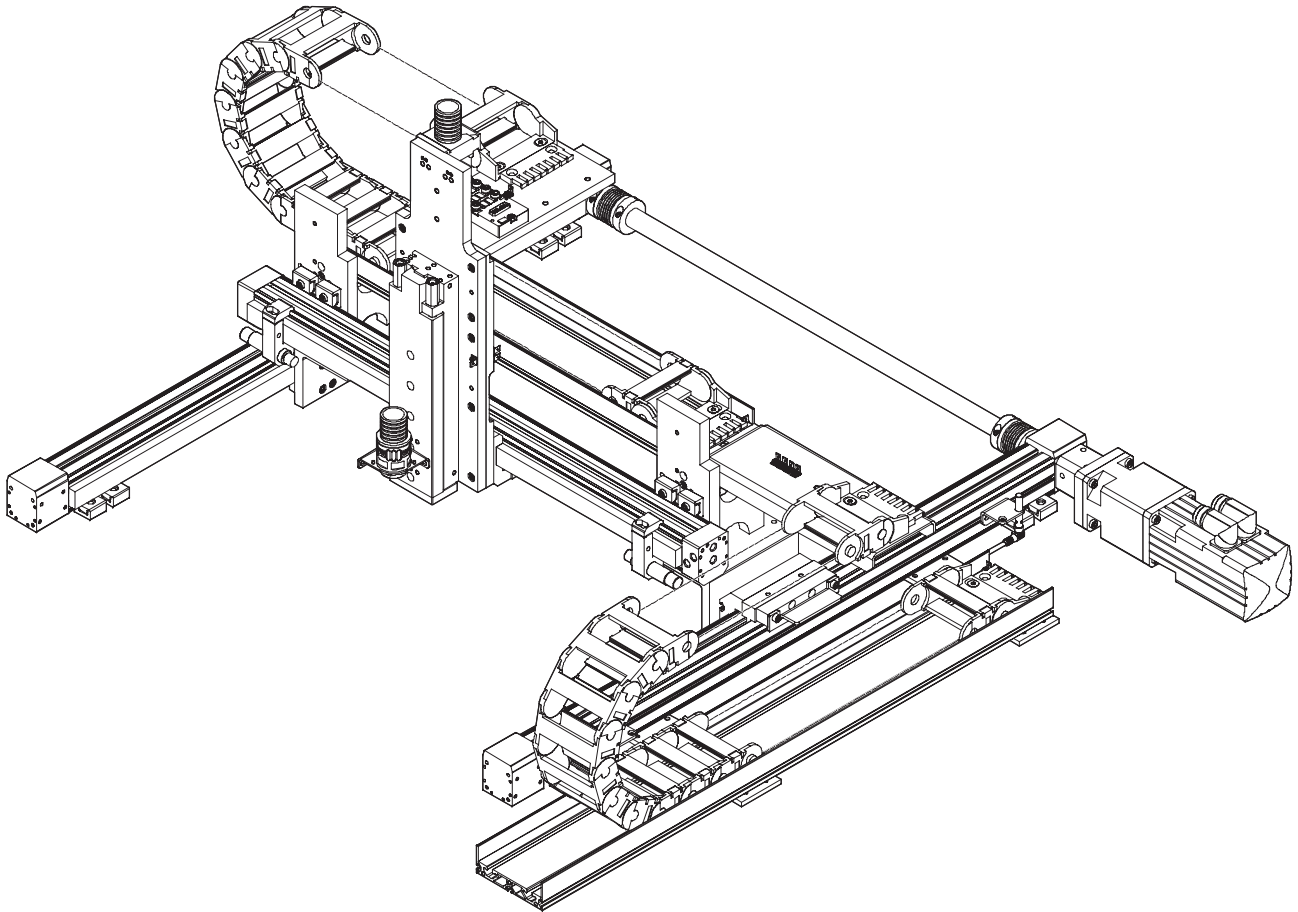
1) Length depends on the stroke of the drive

3-Dimensional gantries

System example

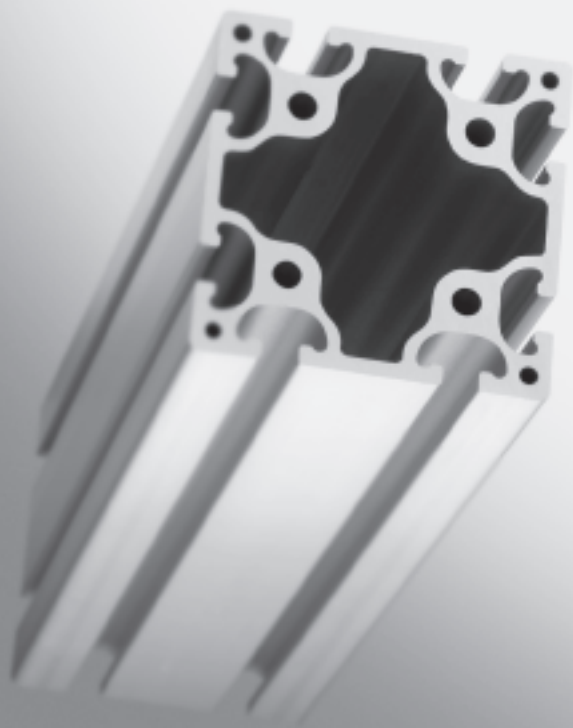


Combination with toothed-belt axis DGE-RF/linear drive DGC/mini-slide SLT



System components
Multi-axis modular system

3.3



- Wide range of variants
- Sturdy
- Functional
- Versatile

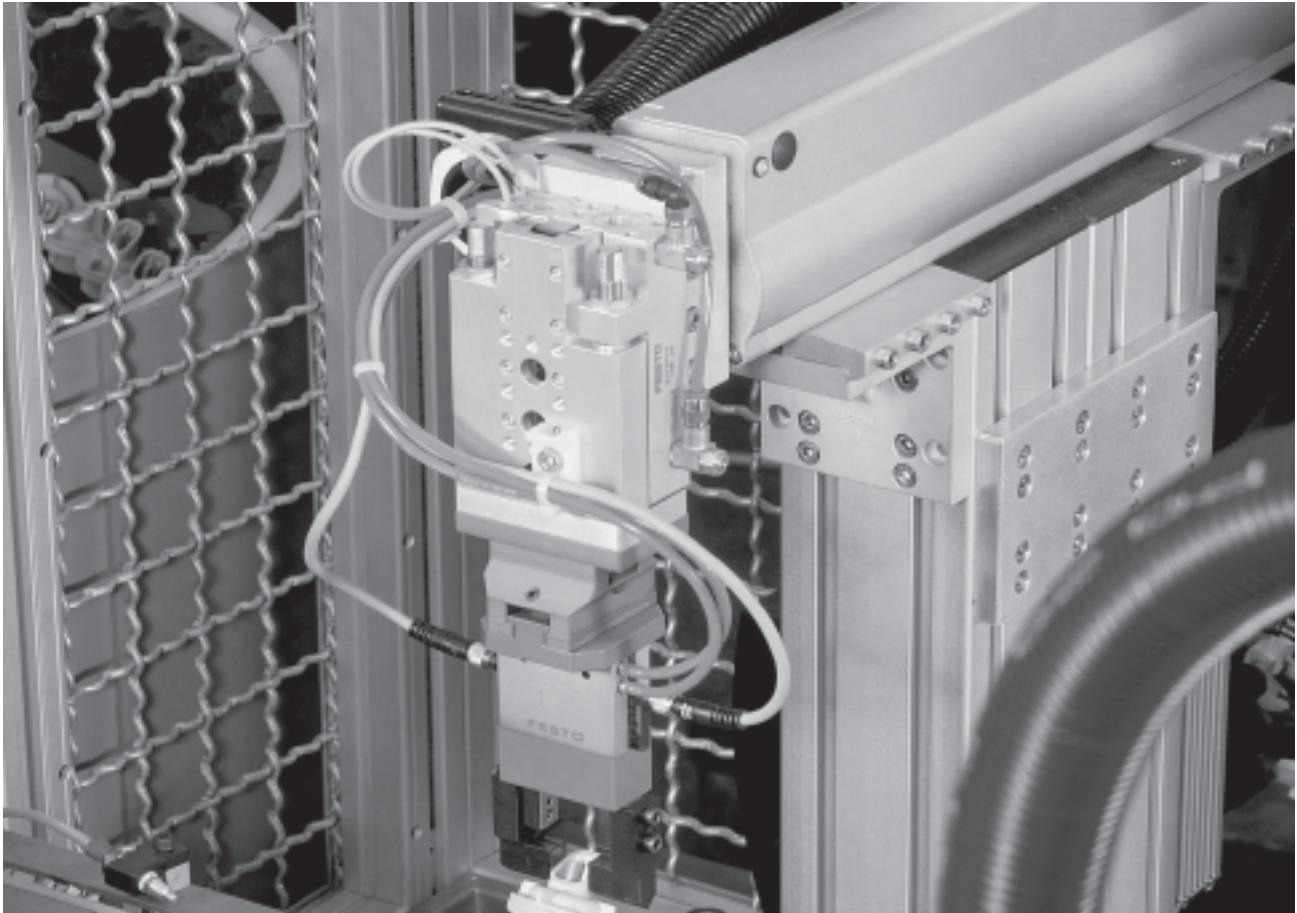
Basic components

Key features



System components
Multi-axis modular system

3.3



Basic kits

Profile column HMBS

With slot width 8 mm for mounting adapter 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.

Angle kit HMBSW

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

Base kit HMBF-DB

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

Angle connector HMBWS

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

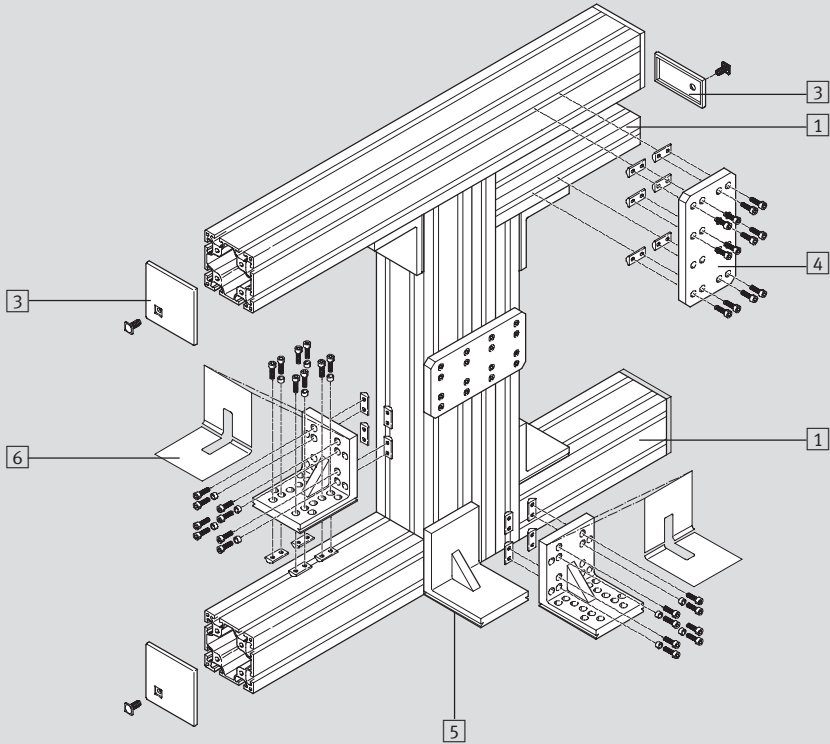
Connecting kit HMBV-ND

Interface for connecting basic components to Festo drives.

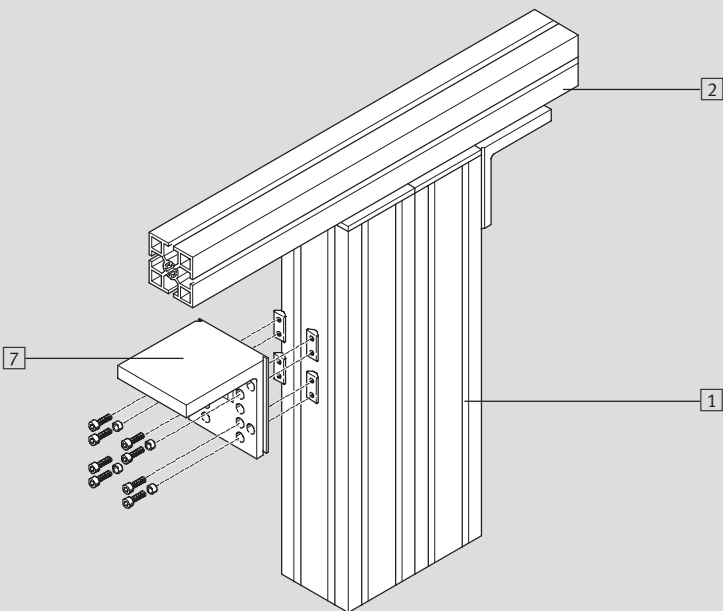
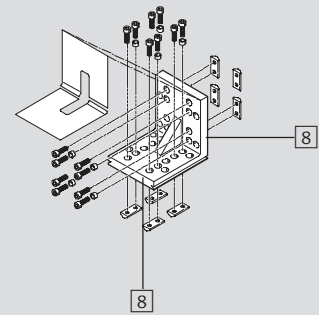
Basic components

Key features

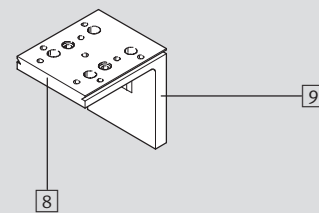
Optimum concept of multiple functionalities



6 Angle kit HMBSW



7 Angle connector HMBWS



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

- 5 Base kit HMBF-DB
- 6 Angle kit HMBSW
- 7 Angle connector HMBWS

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

- 9 Angle flange for mounting profile columns with a hole grid pattern for slot widths ≠ 40 mm (Bosch, Norgren, etc.)

Basic components

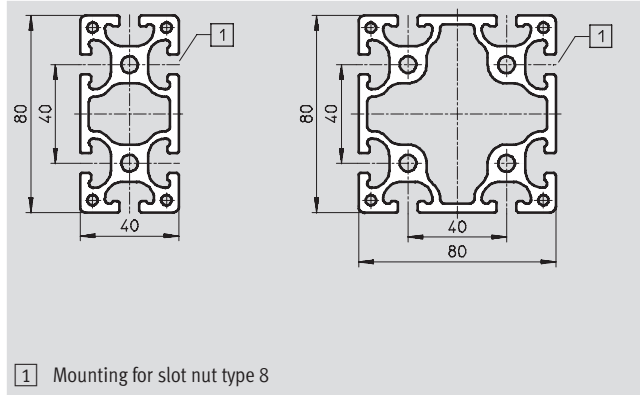
Technical data



Profile column HMBS

Scope of delivery:
1 support column

Material:
Aluminium
Free of copper, PTFE and silicone



1) Mounting for slot nut type 8

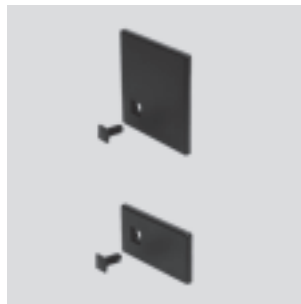
Ordering data				
Dimensions	CRC ¹⁾	Part No.	Type	PU ²⁾
80x40	2	175 964	HMBS-80/40	1
80x80		175 958	HMBS-80/80	1
Accessories (to be ordered separately)				
Slot nuts	2	186 567	HMBN-8-2M5	10

- Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity. With HMBS: Specify the desired length in mm ($L_{max} = 6,000$ mm).

Cover cap HMBSA

Scope of delivery:
1 cover, 1 plug

Material:
Polyacetate
Free of copper, PTFE and silicone



Ordering data				
Dimensions	CRC ¹⁾	Part No.	Type	PU ²⁾
80x40	2	175 966	HMBSA-80/40	1
80x80		175 965	HMBSA-80/80	1

- Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Basic components

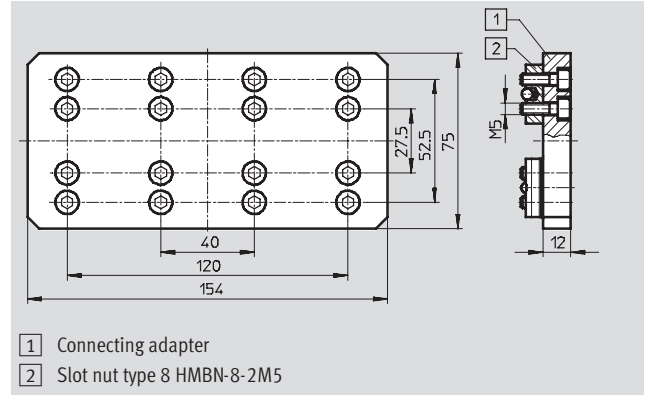
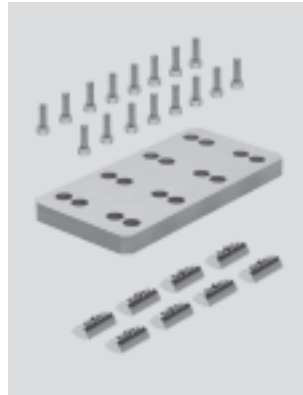
Technical data



Connecting kit HMBSV

Scope of delivery:
1 mounting plate, 16 screws, 8 slot nuts

Material:
Aluminium
Free of copper, PTFE and silicone



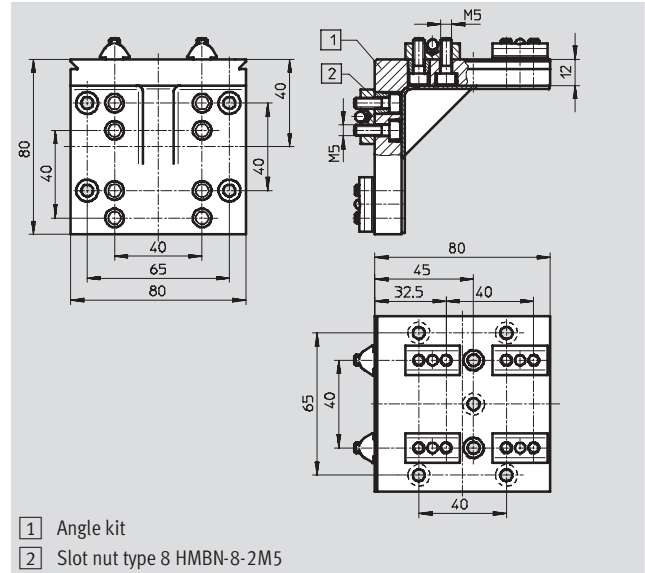
Ordering data				
	CRC ¹⁾	Part No.	Type	PU ²⁾
Connecting kit	2	175 972	HMBSV	1
Accessories (for reorder)				
Slot nuts	2	186 567	HMBN-8-2M5	10
Screws		M5x16		-

- Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Angle kit HMBSW

Scope of delivery:
1 bracket, 16 screws, 8 slot nuts,
8 spacer rings, 2 cover caps

Material:
Aluminium
Cover cap: Polyacetate
Free of copper, PTFE and silicone



Ordering data				
	CRC ¹⁾	Part No.	Type	PU ²⁾
Angle kit HMBSW	2	178 228	HMBSW	1
Accessories (for reorder)				
Slot nuts	2	186 567	HMBN-8-2M5	10
Spacer rings		186 563	HMBRD	10
Screws		M5x16		-

- Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Basic components

Technical data



Base kit HMBF-DB

Scope of delivery:

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

Material:

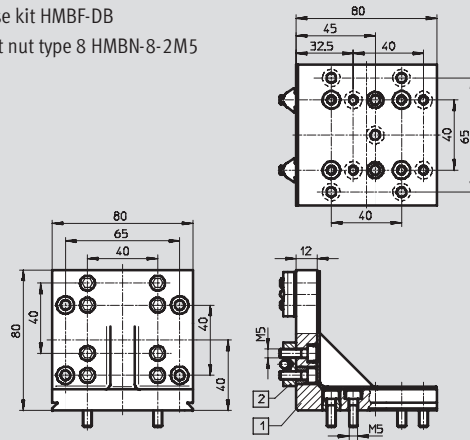
Aluminium

Cover cap: Polyacetate

Free of copper, PTFE and silicone



- 1 Base kit HMBF-DB
- 2 Slot nut type 8 HMBN-8-2M5



Ordering data				
	CRC ¹⁾	Part No.	Type	PU ²⁾
Base kit HMBF-DB	2	175 951	HMBF-DB	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 requiring moderate corrosion resistance. 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 quantity

Angle connector HMBWS

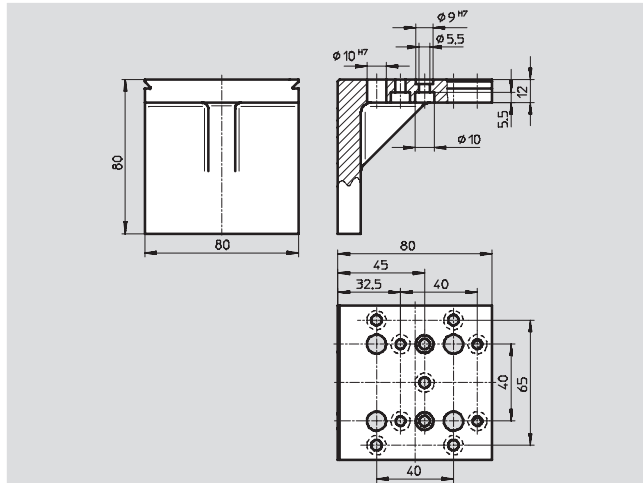
Scope of delivery:

1 bracket

Material:

Aluminium

Free of copper, PTFE and silicone



Ordering data				
	CRC ¹⁾	Part No.	Type	PU ²⁾
Angle connector HMBWS	2	189 486	HMBWS	1
Accessories (for reorder)				
Slot nuts	2	186 567	HMBN-8-2M5	10
Screws		M5x16		—

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Basic components

Technical data

FESTO

Connecting kit HMBV-ND

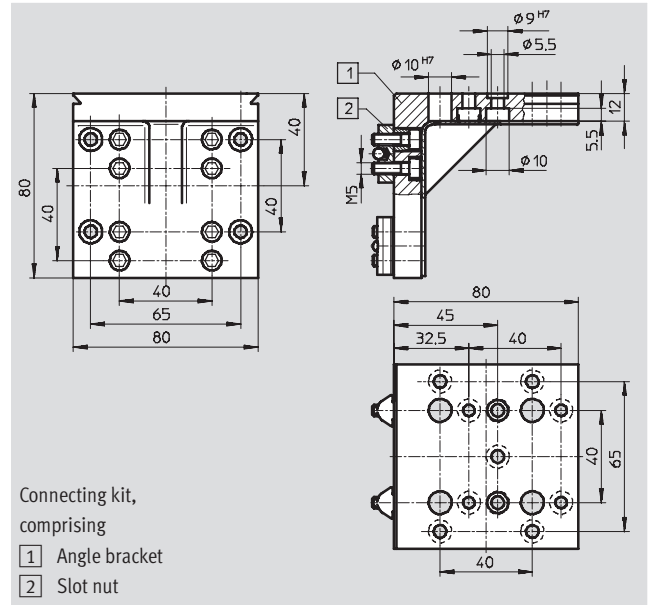
- for HMP, HMPL
- for SLT with HMBK-WS and HMSV-34 ... 37

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



Ordering data				
	CRC ¹⁾	Part No.	Type	PU ²⁾
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 requiring moderate corrosion resistance. 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 quantity

Basic components

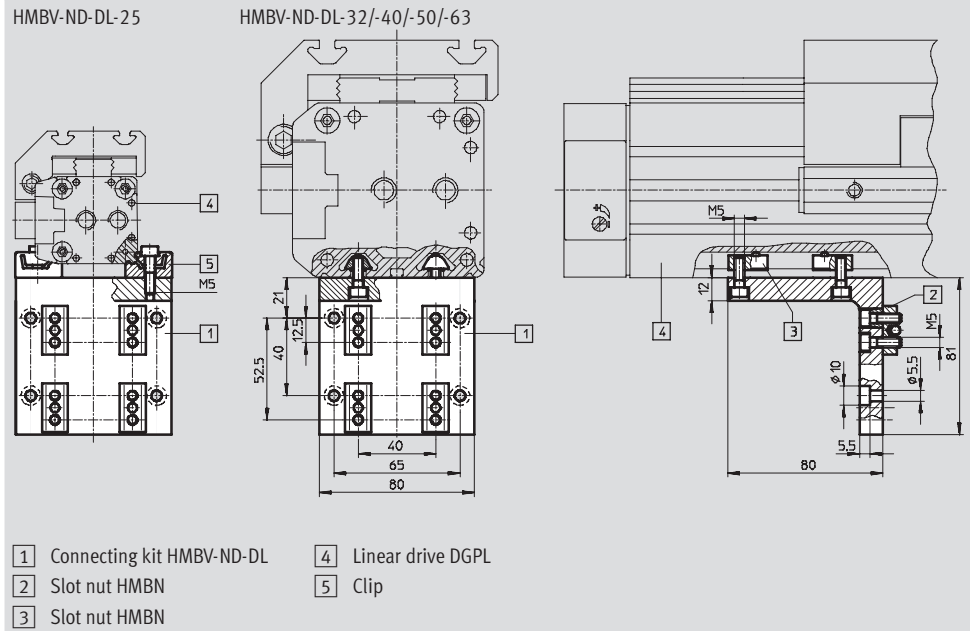
Technical data



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



System components
Multi-axis modular system

3.3

Ordering data					
For Ø	CRC ¹⁾	Part No.	Type	PU ²⁾	
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 requiring moderate corrosion resistance. 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 quantity

Ordering data – Accessories (for reorder)											
For Ø	25	32	40	50	63	CRC ¹⁾	Part No.	Type	PU ²⁾		
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 requiring moderate corrosion resistance. 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 quantity

Basic components

Technical data

FESTO

Combination options – Slot nuts/drives, profile column					
Drives		Slot nuts			
		HMBN-5-M5	HMBN-5-2M5	HMBN-8-M5	HMBN-8-2M5
Linear module HMP					
∅	16 ... 32	-	■	-	-
Linear drive DGPL, profile barrel					
∅	32	■	-	-	-
	40	■	-	-	-
	50	-	-	■	■
	63	-	-	■	■
Linear drive DGPL-HD, profile barrel at side					
∅	18	■	-	-	-
	25	■	-	-	-
	40	-	-	■	■
Linear drive DGPL-HD, profile barrel underneath					
∅	18	■	-	-	-
	25	-	-	■	■
	40	-	-	■	■
Profile column HMBS					
Dimensions	80x40	-	-	■	■
	80x80	-	-	■	■

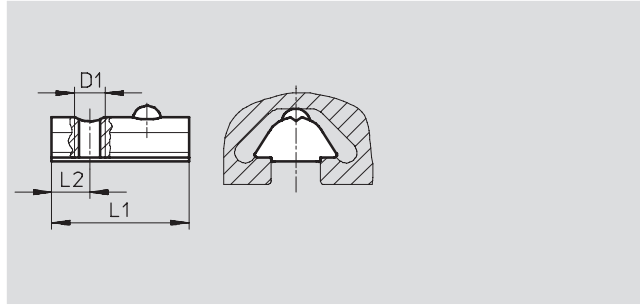
Basic components

Technical data



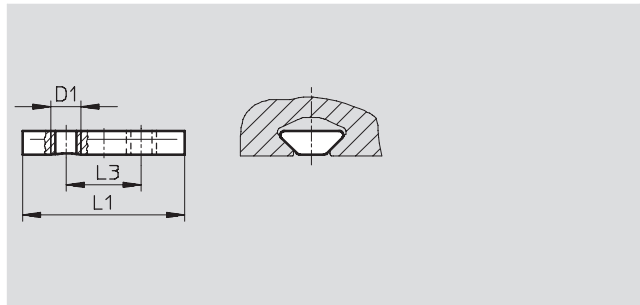
Slot nut HMBN-5-M5

Material:
Tempered steel, non-alloyed
Free of copper, PTFE and silicone



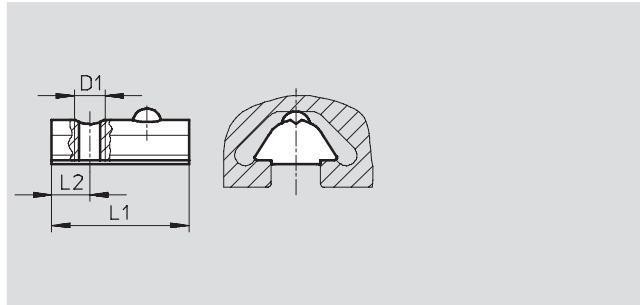
Slot nut HMBN-5-2M5

Material:
Tempered steel, non-alloyed
Free of copper, PTFE and silicone



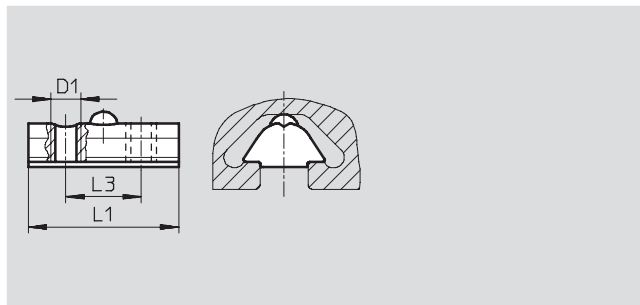
Slot nut HMBN-8-M5

Material:
Tempered steel, non-alloyed
Free of copper, PTFE and silicone



Slot nut HMBN-8-2M5

Material:
Tempered steel, non-alloyed
Free of copper, PTFE and silicone



Dimensions and ordering data							
D1	L1	L2	L3	CRC ¹⁾	Part No.	Type	PJ ²⁾
M5	12	4	–	2	189 654	HMBN-5-M5	10
	27	–	12.5		186 566	HMBN-5-2M5	10
	22.5	6.25	–		189 655	HMBN-8-M5	10
	25	–	12.5		186 567	HMBN-8-2M5	10

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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.

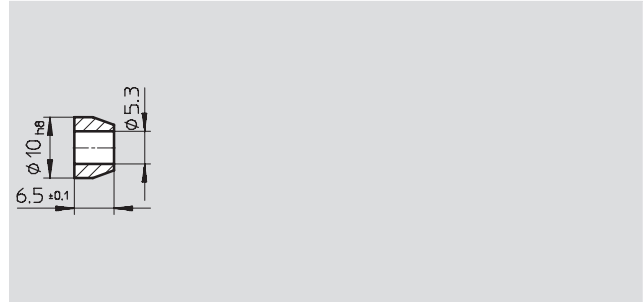
2) Packaging unit quantity

Basic components

Technical data

Spacer ring HMBRD

Material:
Steel, corrosion-resistant
Free of copper, PTFE and silicone

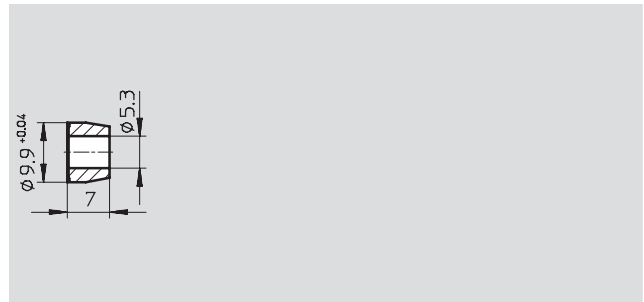


Ordering data			
CRC ¹⁾	Part No.	Type	PJU ²⁾
2	186 563	HMBRD	10

- Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Cutting ring HMBRS

Material:
Steel, corrosion-resistant
Free of copper, PTFE and silicone



Ordering data			
CRC ¹⁾	Part No.	Type	PJU ²⁾
2	186 564	HMBRS	10

- Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

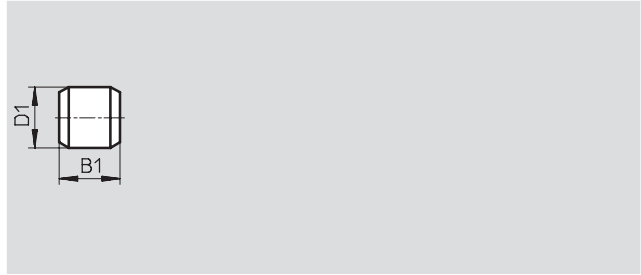
Basic components

Technical data



Centring pin ZBS

Material:
Steel, corrosion-resistant
Free of copper, PTFE and silicone

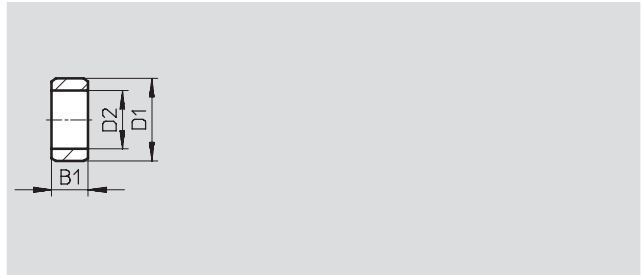


Dimensions and ordering data					
B1	D1	CRC ¹⁾	Part No.	Type	PU ²⁾
-0.2	∅ h8				
5	2	2	525 273	ZBS-02	10
5	5	2	150 928	ZBS-5	10

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Centring sleeve ZBH

Material:
Steel, corrosion-resistant
Free of copper, PTFE and silicone



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

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Basic components

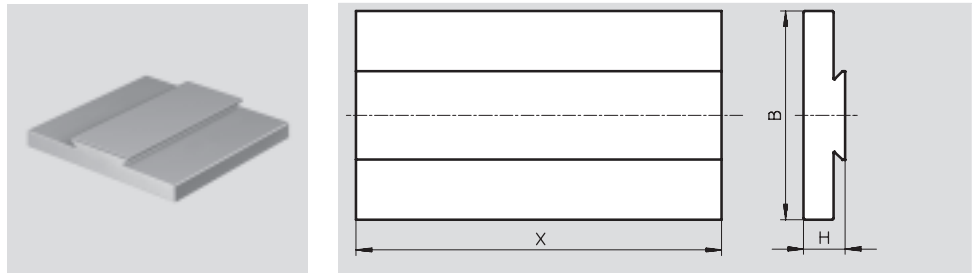
Technical data



Adapter plate HMAV-...-X

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone

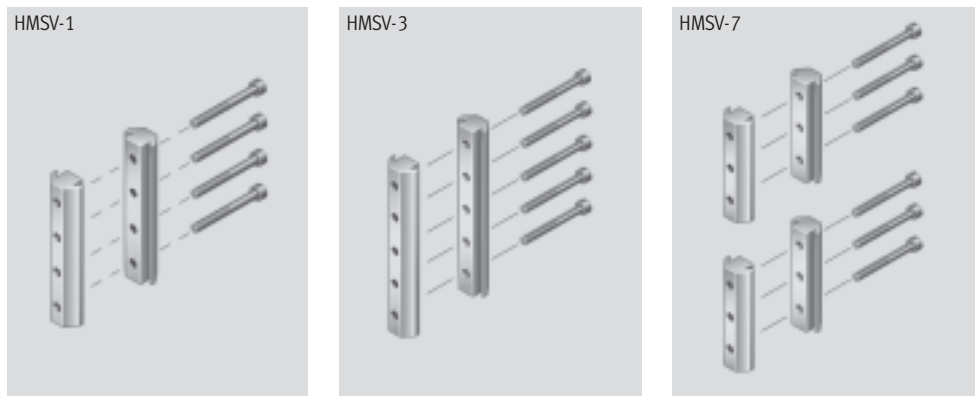


Dimensions and ordering data						
H	B	X ¹⁾	CRC ²⁾	Part No.	Type	PJ ³⁾
16	80		2	189 451	HMAV-80-X	1
13	90		2	189 450	HMAV-90-X	1

- 1) The length in mm must be quoted in the order.
- 2) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

Adapter kit HMSV

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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 quantity

