



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

Multi-axis modular system

Key features

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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

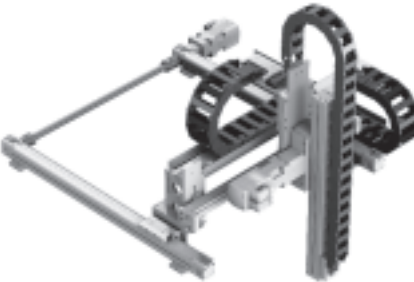
of handling systems.

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	
 →4	 →22	 →36
Pneumatic with end position controller SPC11 (Soft Stop)		
	 →22	
Electrical with spindle or toothed belt axis		
	 →22	 →36

Multi-axis modular system

Key features

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Pick & place



Linear gantries



3-Dimensional gantries

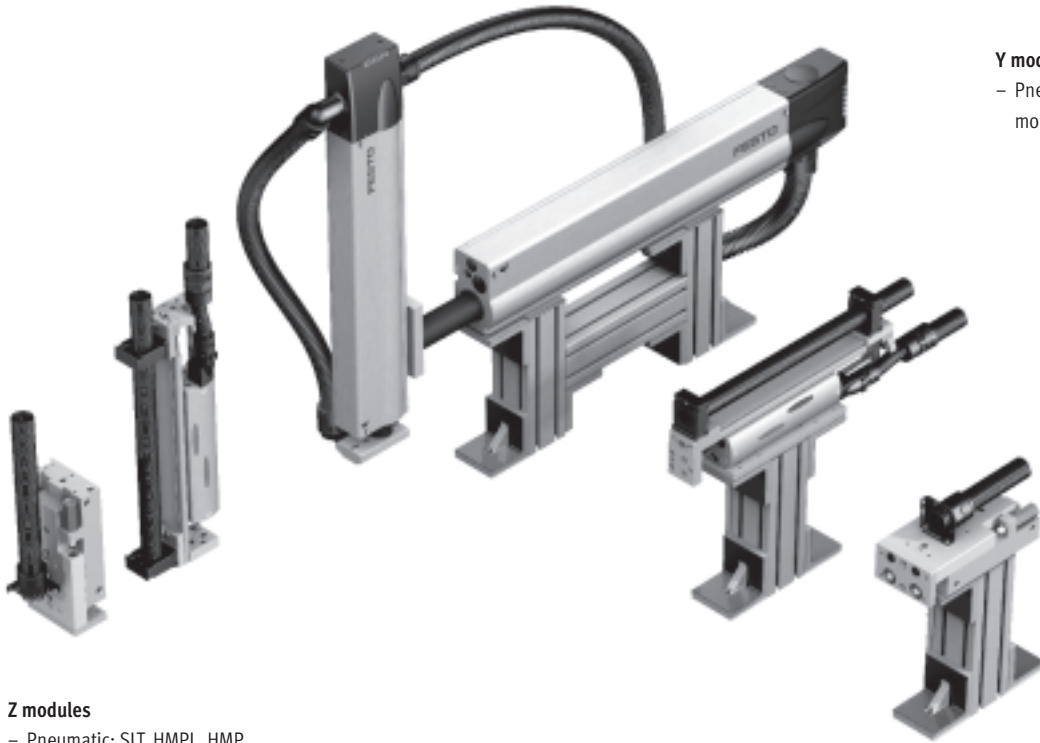


Pick & place

Key features

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Y and Z modules



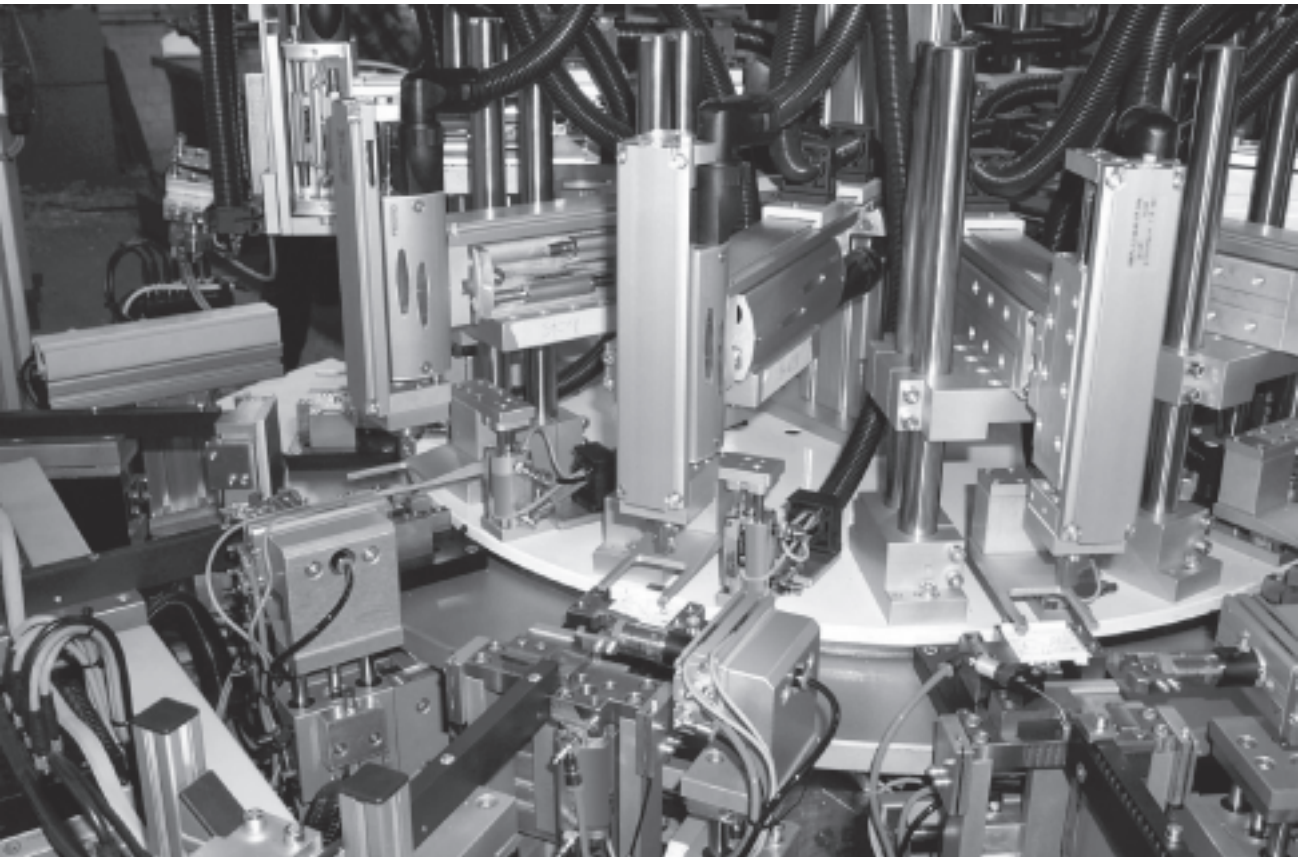
Y modules

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

Z modules

- Pneumatic: SLT, HMPL, HMP

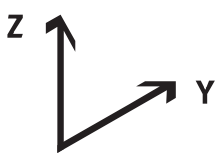
Application



Pick & place

Product range overview

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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-ad-justable cushioning	Shock absorber, adjustable/non-ad-justable cushioning	Intermediate position, clamping cartridge	Intermediate position		
Z-axis	DGSL	SLT	HMPL	DGSL, SLT	HMPL	HMP
Drive function	Pneumatic					
Options	Shock absorber, adjustable/non-ad-justable cushioning	Shock absorber, adjustable/non-ad-justable cushioning	Intermediate position, clamping cartridge	Shock absorber, adjustable/non-ad-justable cushioning	Intermediate position, clamping cartridge	
Working load [kg]						
	1	■	■	■	■	■
	2	■	■	■	■	■
	3	■	■	■	■	■
	4	–	–	–	■	■
	6	–	–	–	■	■
	10	–	–	–	–	–
➔ Page/Internet						
6						

Pick & place

Selection aid for basic, connection and installation components

FESTO

Y-axis				
Function	DGSL/DGSL		SLT/SLT	HMPL/HMPL
				
Pneumatic drives	Stroke [mm]	Type		
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	–
HMPL-16	50 ... 160	–	–	HMBSY-HMPL-1 HMBSY-HMPL-2 ➔ 12
HMPL-20	50 ... 200	–	–	HMBSY-HMPL-3 HMBSY-HMPL-4 ➔ 12

Pick & place

Selection aid for basic, connection and installation components

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Y-axis			
Function	HMP, HME/DGSL, SLT	HMP, HME/HMPL	HMP, HME/HMP
			
Pneumatic drives	Type		
Stroke [mm]			
HMP-16	150 ... 250	HMBSY-HMP-1 ➔ 13	HMBSY-HMP-1 ➔ 13
	320	HMBSY-HMP-2 ➔ 13	HMBSY-HMP-2 ➔ 13
HMP-20	100 ... 250	HMBSY-HMP-3 ➔ 13	HMBSY-HMP-3 ➔ 13
	320 ... 400	HMBSY-HMP-4 ➔ 13	HMBSY-HMP-4 ➔ 13
HMP-25	100 ... 200	HMBSY-HMP-5 ➔ 14	HMBSY-HMP-5 ➔ 14
	250 ... 400	HMBSY-HMP-6 ➔ 14	HMBSY-HMP-6 ➔ 14
HMP-32	100 ... 200	–	HMBSY-HMP-7 ➔ 14
	250 ... 400	–	HMBSY-HMP-8 ➔ 14

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
➔ 13
Z-axis: HMBSZ-HMPL-3 or 4
➔ 19

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

FESTO

Z-axis				
Function	DGSL/DGSL	SLT/SLT	HMPL/HMPL	HMP, HME/DGSL
				
Pneumatic drives	Type			
DGSL-10	HMBSZ-DGSL-1 ➔ 15	–	–	–
DGSL-16	HMBSZ-DGSL-2 ➔ 15	–	–	HMBSZ-DGSL-4 ➔ 16
DGSL-20	HMBSZ-DGSL-3 ➔ 15	–	–	HMBSZ-DGSL-5 ➔ 16
DGSL-25	–	–	–	HMBSZ-DGSL-6 ➔ 16
SLT-10	–	HMBSZ-SLT-1 ➔ 17	–	–
SLT-16	–	HMBSZ-SLT-2 ➔ 17	–	–
SLT-20	–	HMBSZ-SLT-3 ➔ 17	–	–
SLT-25	–	–	–	–
HMPL-12	–	–	HMBSZ-HMPL-1 HMBSZ-HMPL-2 ➔ 19	–
HMPL-16	–	–		–
HMPL-20	–	–		–
HMP-16	–	–	–	–
HMP-20	–	–	–	–
HMP-25	–	–	–	–

Pick & place

Selection aid for basic, connection and installation components

FESTO

Z-axis			
Function	HMP, HME/SLT	HMP, HME/HMPL	HMP, HME/HMP
			
Pneumatic drives	Type		
SLT-16	HMBSZ-SLT-4 → 18	–	–
SLT-20	HMBSZ-SLT-5 → 18	–	–
SLT-25	HMBSZ-SLT-6 → 18	–	–
HMPL-16	–	HMBSZ-HMPL-3 HMBSZ-HMPL-4	–
HMPL-20	–	→ 19	–
HMP-16	–	–	HMBSZ-HMP-1 → 20
HMP-20	–	–	HMBSZ-HMP-2 → 20
HMP-25	–	–	HMBSZ-HMP-3 → 20

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
→ 13
Z-axis: HMBSZ-HMPL-3 or 4
→ 19

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

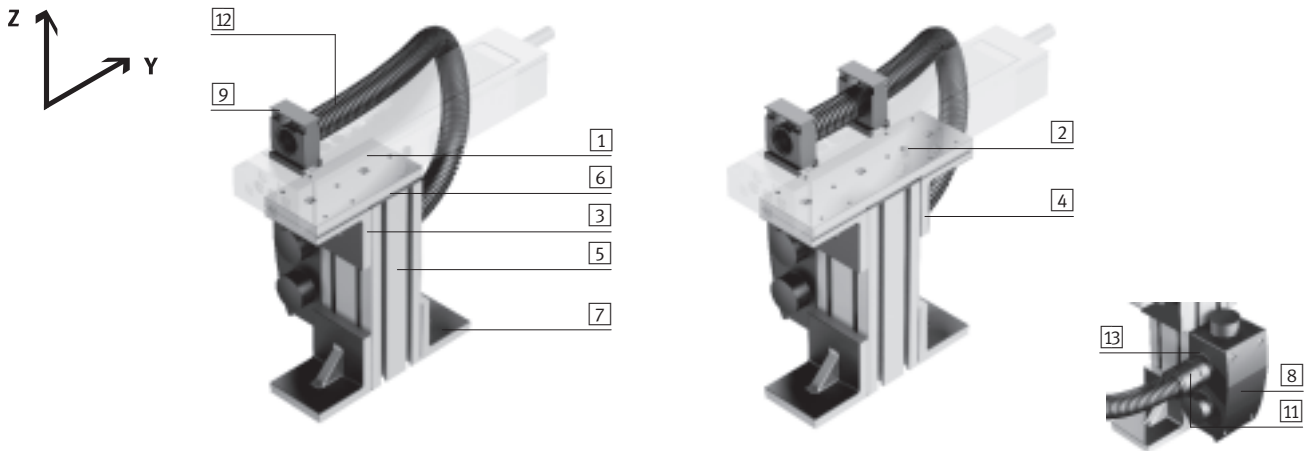
Technical data on the basic, connection and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are documented with the drives.

Pick & place

Y modules

FESTO

Mini slides DGSL



Bill of materials									
Type		HMBSY-DGSL-1	HMBSY-DGSL-2	HMBSY-DGSL-3	HMBSY-DGSL-4	HMBSY-DGSL-5	→ Page/Internet		
For drives		DGSL-16	DGSL-20		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
[1]	1	539 968 HMOVY-1		539 969 HMOVY-2		539 969 HMOVY-2			hmvv
[2]	1	–		–		539 970 HMOVY-3		539 970 HMOVY-3	
[3]	1	175 967 HMBV-ND		175 967 HMBV-ND		175 967 HMBV-ND		175 967 HMBV-ND	hmbv
[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	hmbs
[6]	1	175 965 HMBSA-80/80		175 965 HMBSA-80/80		175 965 HMBSA-80/80		175 965 HMBSA-80/80	hmbsa
[7]	2	175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB	hmbf
[8]	1	175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV	5 / 3.3-59
[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	5 / 3.3-65
[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	5 / 3.3-60
[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	5 / 3.3-58
[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	5 / 3.3-63

1) Height max. 500 mm

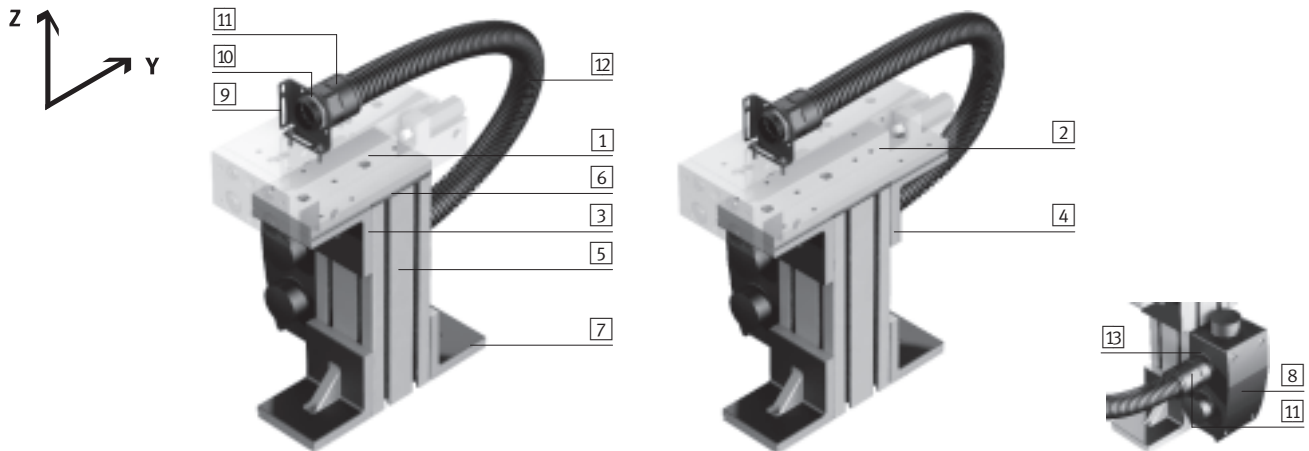
2) Length depends on the stroke of the drive

Pick & place

Y modules

FESTO

Mini slides SLT



Bill of materials											
Type		HMBSY-SLT-1		HMBSY-SLT-2		HMBSY-SLT-3		HMBSY-SLT-4		HMBSY-SLT-5	
For drives		SLT-16		SLT-20				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	–	
2	1	–		–		539 970	HMVY-3	–		539 970	HMVY-3
3	1	175 967	HMBV-ND	175 967	HMBV-ND	–		175 967	HMBV-ND	–	
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
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
7	2	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB
8	1	175 126	HMZV	175 126	HMZV	175 126	HMZV	175 126	HMZV	175 126	HMZV
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
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
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
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
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

1) Height max. 500 mm

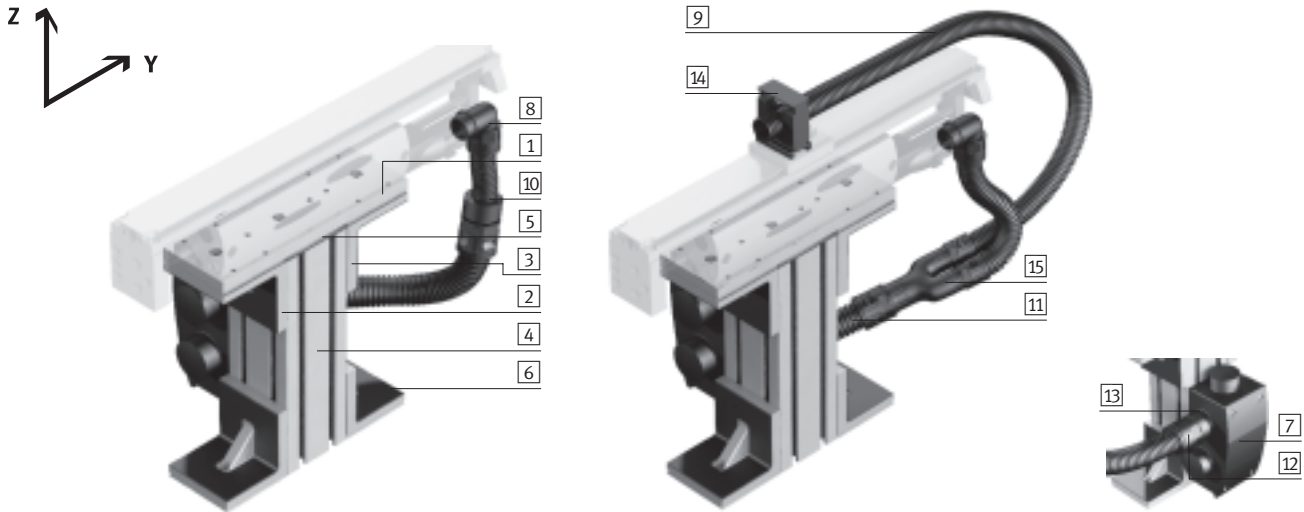
2) Length depends on the stroke of the drive

Pick & place

Y modules

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Linear modules HMPL



Bill of materials							
Type		HMBSY-HMPL-1		HMBSY-HMPL-2		HMBSY-HMPL-3	
For drives		HMPL-16		HMPL-20		HMPL-20	
		without intermediate position		with intermediate position		without intermediate position	
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type
[1]	1	539 968	HMVY-1	539 968	HMVY-1	539 970	HMVY-3
[2]	1	175 967	HMBV-ND	175 967	HMBV-ND	–	–
[3]	2	–	–	–	–	175 967	HMBV-ND
[4]	1 ¹⁾	175 958	HMBS-80/80	175 958	HMBS-80/80	175 958	HMBS-80/80
[5]	1	175 965	HMBSA-80/80	175 965	HMBSA-80/80	175 965	HMBSA-80/80
[6]	2	175 951	HMBF-DB	175 951	HMBF-DB	175 951	HMBF-DB
[7]	1	175 126	HMZV	175 126	HMZV	175 126	HMZV
[8]	1	177 576	MKRL-16,5-PG-16	177 576	MKRL-16,5-PG-16	177 576	MKRL-16,5-PG-16
[9]	1 ²⁾	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16
[10]	1	194 321	MKRT-23-16,5	–	–	194 321	MKRT-23-16,5
[11]	1 ²⁾	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
[12]	1	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21
[13]	1	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21
[14]	1 ³⁾	–	–	192 289	MKRS-16,5-B	–	–
[15]	1	–	–	193 946	MKY-PG-21-2PG-16	–	–

1) Height max. 500 mm

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

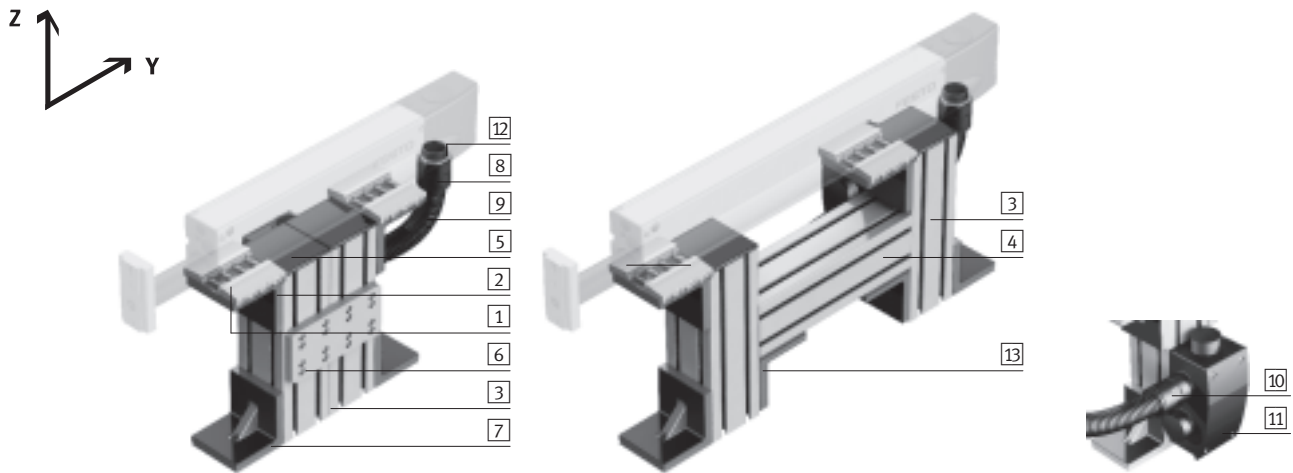
3) In order to be able to mount the retaining clip MKRS, a clamping component (1x code J) must be selected as an accessory in the order for the linear module HMPL.

Pick & place

Y modules

FESTO

Linear modules HMP, HME



Bill of materials										
Type		HMBSY-HMP-1		HMBSY-HMP-2		HMBSY-HMP-3		HMBSY-HMP-4		➔ Page/In- ternet
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	Part No.	Type	
1	2	175 975 HMBK-WS		175 975 HMBK-WS		175 975 HMBK-WS		175 975 HMBK-WS		hmbk
2	2	175 967 HMBV-ND		175 967 HMBV-ND		175 967 HMBV-ND		175 967 HMBV-ND		hmbv
3	2 ¹⁾	175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		hmbs
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		hmbsa
6	1	175 972 HMBSV		–		175 972 HMBSV		–		hmbsv
7	2	175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		hmbf
8	2 ⁴⁾	177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21		177 573 MKRV-29-PG-29		177 573 MKRV-29-PG-29		5 / 3.3-60
9	1 ³⁾⁴⁾	177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		177 568 MKR-29-PG-29		177 568 MKR-29-PG-29		5 / 3.3-58
10	1 ⁴⁾	177 595 MKA-PG-29-PG-21		177 595 MKA-PG-29-PG-21		–		–		5 / 3.3-63
11	1 ⁴⁾	175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV		5 / 3.3-59
12	1 ⁴⁾	177 599 MKM-PG-21		177 599 MKM-PG-21		177 600 MKM-PG-29		177 600 MKM-PG-29		5 / 3.3-65
13	2	–		178 228 HMBSW		–		178 228 HMBSW		hmbsw

1) Height max. 500 mm

2) Length 250 mm

3) Length depends on the stroke of the drive

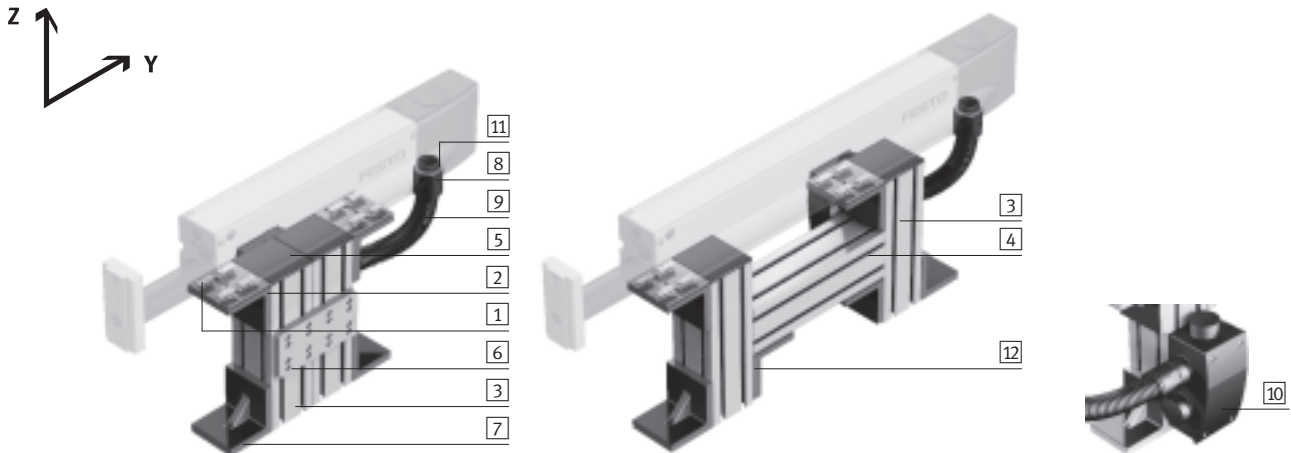
4) It is not suitable for use with linear module HME

Pick & place

Y modules

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Linear modules HMP, HME



Bill of materials										
Type		HMBSY-HMP-5		HMBSY-HMP-6		HMBSY-HMP-7		HMBSY-HMP-8		→ Page/In- ternet
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	
[1]	2	175 970 HMBK-ND		175 970 HMBK-ND		175 970 HMBK-ND		175 970 HMBK-ND		hmbk
[2]	2	175 967 HMBV-ND		175 967 HMBV-ND		175 967 HMBV-ND		175 967 HMBV-ND		hmbv
[3]	2 ¹⁾	175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		175 958 HMBS-80/80		hmbs
[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		hmbsa
[6]	1	175 972 HMBSV		–		175 972 HMBSV		–		hmbsv
[7]	2	175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		175 951 HMBF-DB		hmbf
[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 / 3.3-60
[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 / 3.3-58
[10]	1 ⁴⁾	175 126 HMZV		175 126 HMZV		175 126 HMZV		175 126 HMZV		5 / 3.3-59
[11]	1 ⁴⁾	177 600 MKM-PG-29		177 600 MKM-PG-29		177 600 MKM-PG-29		177 600 MKM-PG-29		5 / 3.3-65
[12]	2	–		178 228 HMBSW		–		178 228 HMBSW		hmbsw

1) Height max. 500 mm

2) Length 350 mm

3) Length depends on the stroke of the drive

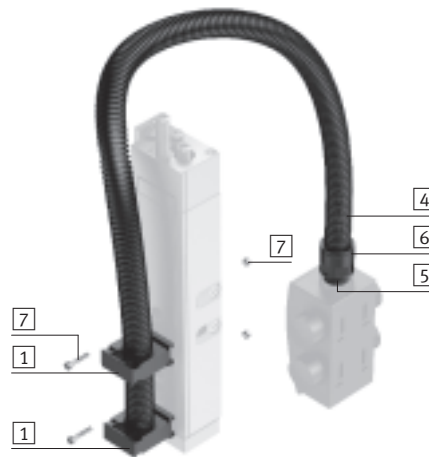
4) It is not suitable for use with linear module HME

Pick & place

Z modules

FESTO

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
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
4	1 ¹⁾	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21
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
6	1	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	177 572	MKRV-23-PG-21
7	1	548 803	ZBV-M5-7	548 804	ZBV-M5-9	150 927	ZBH-9 ²⁾
						→ Page/Internet	

1) Length depends on the stroke of the drive

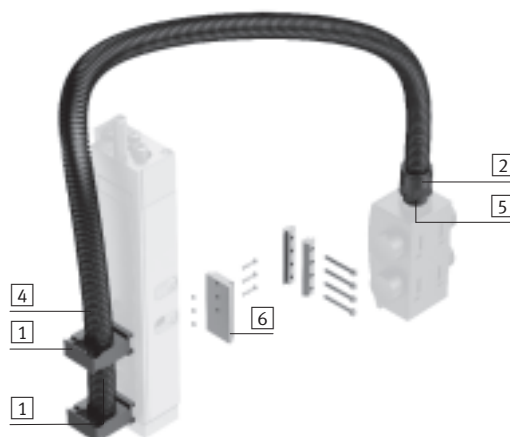
2) Centring sleeves are included in the scope of delivery of the mini slide DGSL.

Pick & place

Z modules

FESTO

Mini slides DGSL



Bill of materials								
Type		HMBSZ-DGSL-4		HMBSZ-DGSL-5		HMBSZ-DGSL-6		
For drives		DGSL-16		DGSL-20		DGSL-25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	
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 / 3.3-65
2	1	177 571 MKRV-16,5-PG-16		177 572 MKRV-23-PG-21		177 572 MKRV-23-PG-21		5 / 3.3-60
4	1 ¹⁾	177 566 MKR-16,5-PG-16		177 567 MKR-23-PG-21		177 567 MKR-23-PG-21		5 / 3.3-58
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 / 3.3-63
6	1	548 779 HMSV-49		548 779 HMSV-49		548 779 HMSV-49		hmsv

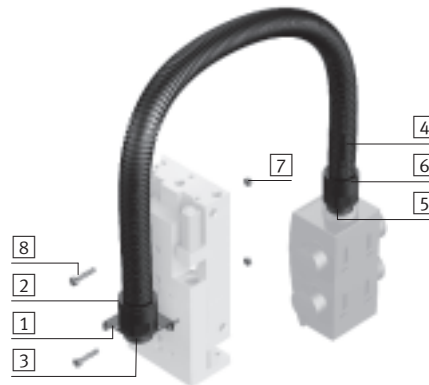
1) Length depends on the stroke of the drive

Pick & place

Z modules

FESTO

Mini slides SLT



Bill of materials							
Type		HMBSZ-SLT-1		HMBSZ-SLT-2		HMBSZ-SLT-3	
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
2	1	–		177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21
3	1	–		177 599	MKM-PG-21	177 599	MKM-PG-21
4	1 ¹⁾	177 566	MKR-16,5-PG-16	177 567	MKR-23-PG-21	177 567	MKR-23-PG-21
5	1	193 949	MKA-PG-29-PG-16-KU	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21
6	1	177 571	MKRV-16,5-PG-16	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21
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

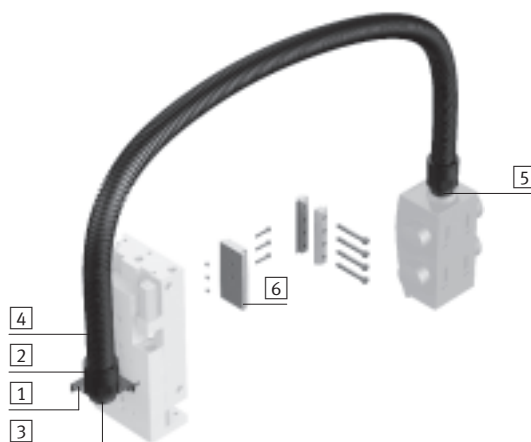
2) Centring sleeves are included in the scope of delivery of the mini slide SLT.

Pick & place

Z modules

FESTO

Mini slides SLT



Bill of materials								
Type		HMBSZ-SLT-4		HMBSZ-SLT-5		HMBSZ-SLT-6		
For drives		SLT-16		SLT-20		SLT-25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.		Type
1	1	193 124		193 124		193 124		5 / 3.3-66
		HMZAS-PG-21		HMZAS-PG-21		HMZAS-PG-21		
2	2	177 572		177 572		177 572		5 / 3.3-60
		MKRV-23-PG-21		MKRV-23-PG-21		MKRV-23-PG-21		
3	1	177 599		177 599		177 599		5 / 3.3-65
		MKM-PG-21		MKM-PG-21		MKM-PG-21		
4	1 ¹⁾	177 567		177 567		177 567		5 / 3.3-58
		MKR-23-PG-21		MKR-23-PG-21		MKR-23-PG-21		
5	1	177 595		177 595		177 595		5 / 3.3-63
		MKA-PG-29-PG-21		MKA-PG-29-PG-21		MKA-PG-29-PG-21		
6	1	178 331		178 332		178 332		hmsv
		HMSV-36		HMSV-37		HMSV-37		

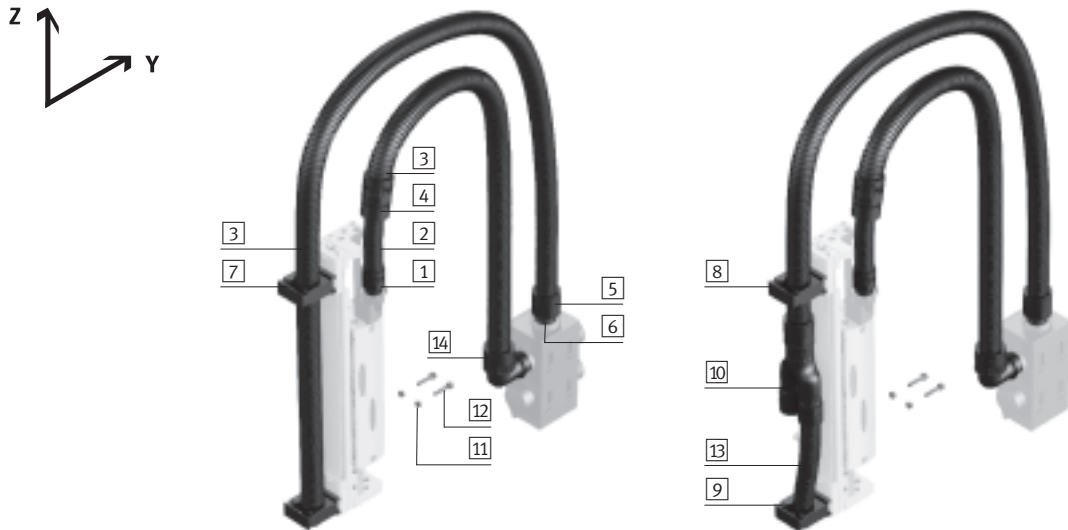
1) Length depends on the stroke of the drive

Pick & place

Z modules

FESTO

Linear modules HMPL



Bill of materials							
Type		HMBSZ-HMPL-1	HMBSZ-HMPL-2	HMBSZ-HMPL-3	HMBSZ-HMPL-4	→ Page/Internet	
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
1	1	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16	177 571	MKRV-16,5-PG-16
2	1 ¹⁾	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16	177 566	MKR-16,5-PG-16
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	1	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21	177 572	MKRV-23-PG-21
6	2	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21	177 595	MKA-PG-29-PG-21
7	2 ²⁾	192 290	MKRS-23-B	–	192 290	–	192 290
8	1 ²⁾	–	192 290	–	192 290	–	192 290
9	1 ²⁾	–	192 289	–	192 289	–	192 289
10	1	–	193 946	–	193 946	–	193 946
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	M5x22 DIN 912	M5x22 DIN 912	M5x22 DIN 912
13	1 ¹⁾	–	177 566	–	177 566	–	177 566
14	1	177 577	MKRL-23-PG-21	177 577	MKRL-23-PG-21	177 577	MKRL-23-PG-21

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 J) must be selected as an accessory in the order for the linear module HMPL.

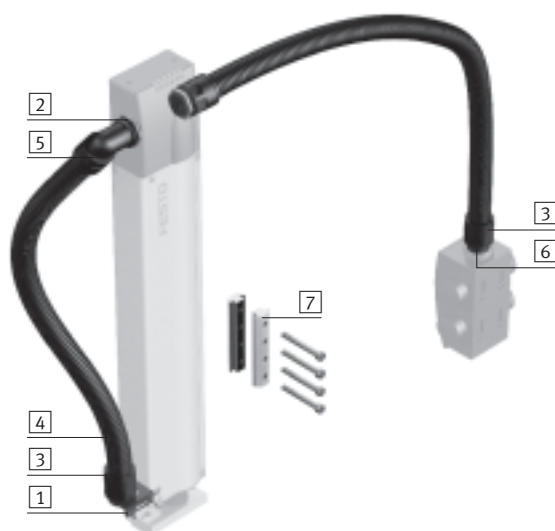
3) 10 per packaging unit

Pick & place

Z modules

FESTO

Linear modules HMP



Bill of materials								
Type		HMBSZ-HMP-1		HMBSZ-HMP-2		HMBSZ-HMP-3	→ Page/Internet	
For drives		HMP-16		HMP-20		HMP-25		
Item	Quantity	Part No.	Type	Part No.	Type	Part No.		Type
1	1	193 124		177 603		177 603		5 / 3.3-66
		HMZAS-PG-21		HMZAS-PG-29		HMZAS-PG-29		
2	3	177 599		177 600		177 600		5 / 3.3-65
		MKM-PG-21		MKM-PG-29		MKM-PG-29		
3	3	177 572		177 573		177 573		5 / 3.3-60
		MKRV-23-PG-21		MKRV-29-PG-29		MKRV-29-PG-29		
4	2 ¹⁾	177 567		177 568		177 568		5 / 3.3-58
		MKR-23-PG-21		MKR-29-PG-29		MKR-29-PG-29		
5	1	177 577		177 578		177 578		5 / 3.3-61
		MKRL-23-PG-21		MKRL-29-PG-29		MKRL-29-PG-29		
6	1	177 595		–		–		5 / 3.3-63
		MKA-PG-29-PG-21						
7	1	177 647		177 649		177 653		hmsv
		HMSV-1		HMSV-3		HMSV-7		

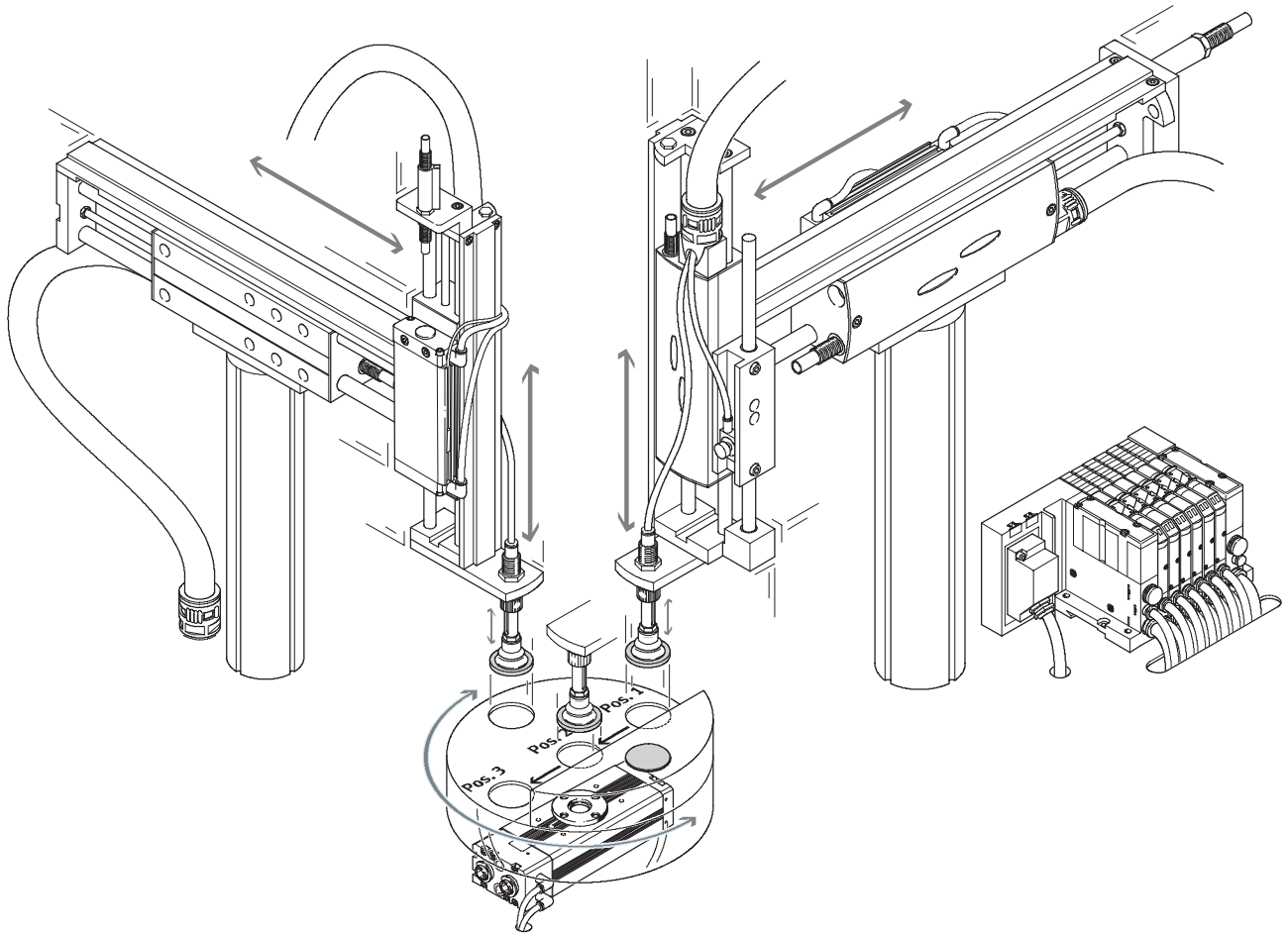
1) Length depends on the stroke of the drive

Pick & place

System example

FESTO

Combination with handling modules HMPL

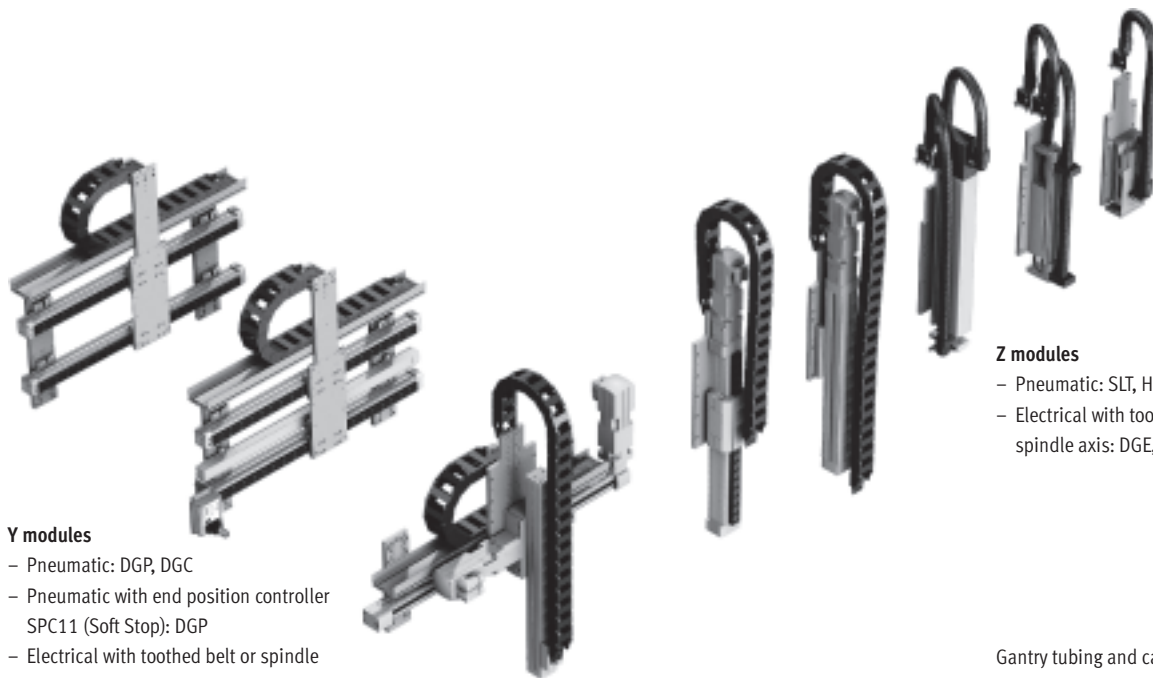


Linear gantries

Key features

FESTO

Y and Z modules



Y modules

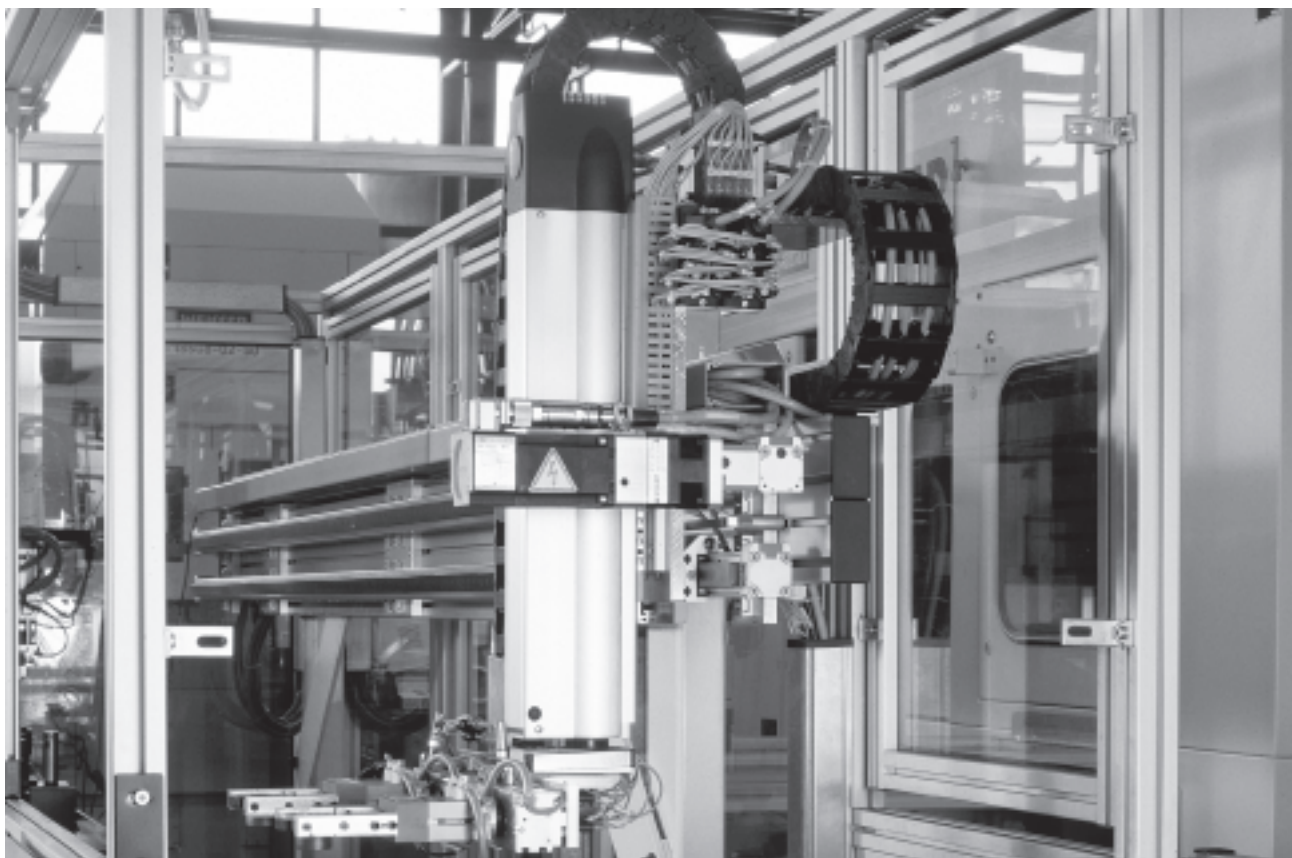
- Pneumatic: DGP, DGC
- Pneumatic with end position controller SPC11 (Soft Stop): DGP
- Electrical with toothed belt or spindle axis: DGE
- Single-axis systems (mono) or drives with guide axis (duo)

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.

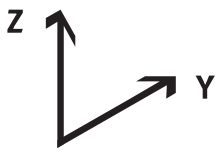
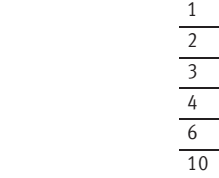
Application



Linear gantries

Product range overview

FESTO

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/Internet	24			

Linear gantries

Selection aid for basic, connection and installation components

FESTO

Y-axis				
System type	Mono 25	Mono 40	Duo 25	Duo 40
				
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	–	HMBSY-LP-D40-1 → 29
DGC-40	–	HMBSY-LP-M40-2 → 27	–	HMBSY-LP-D40-2 → 29
DGPL-40 with SPC11	–	HMBSY-LP-M40-3 → 27	–	HMBSY-LP-D40-3 → 29
Electrical 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	–	HMBSY-LP-D40-1 → 29

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
→ 28
Z-axis: HMBSZ-SLT-7
→ 31

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

FESTO

Z-axis				
System type	Mono 25	Mono 40	Duo 25	Duo 40
				
Pneumatic drives	Type			
DGSL-16	HMBSZ-DGSL-7 → 30	–	–	–
DGSL-20	–	HMBSZ-DGSL-8 → 30	–	–
DGSL-25	–	HMBSZ-DGSL-8 → 30	HMBSZ-DGSL-8 → 30	–
SLT-16	HMBSZ-SLT-7 → 31	–	–	–
SLT-20	–	HMBSZ-SLT-7 → 31	HMBSZ-SLT-7 → 31	–
SLT-25	–	–	HMBSZ-SLT-7 → 31	–
HMPL-16	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 32	–	–	–
HMPL-20	–	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 32	HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 32	–
HMP-16	–	HMBSZ-HMP-4 → 33	HMBSZ-HMP-4 → 33	–
HMP-20	–	–	HMBSZ-HMP-5 → 33	–
HMP-25	–	–	–	HMBSZ-HMP-6 → 33
Electrical drives	Type			
DGEA-18	HMBSZ-DGEA-1 → 34	HMBSZ-DGEA-1 → 34	HMBSZ-DGEA-1 → 34	–
DGEA-25	–	–	HMBSZ-DGEA-2 → 34	HMBSZ-DGEA-3 → 34
DGE-25-SP	–	HMBSZ-DGE-1 → 35	HMBSZ-DGE-1 → 35	–
DGE-40-SP	–	–	HMBSZ-DGE-2 → 35	HMBSZ-DGE-3 → 35

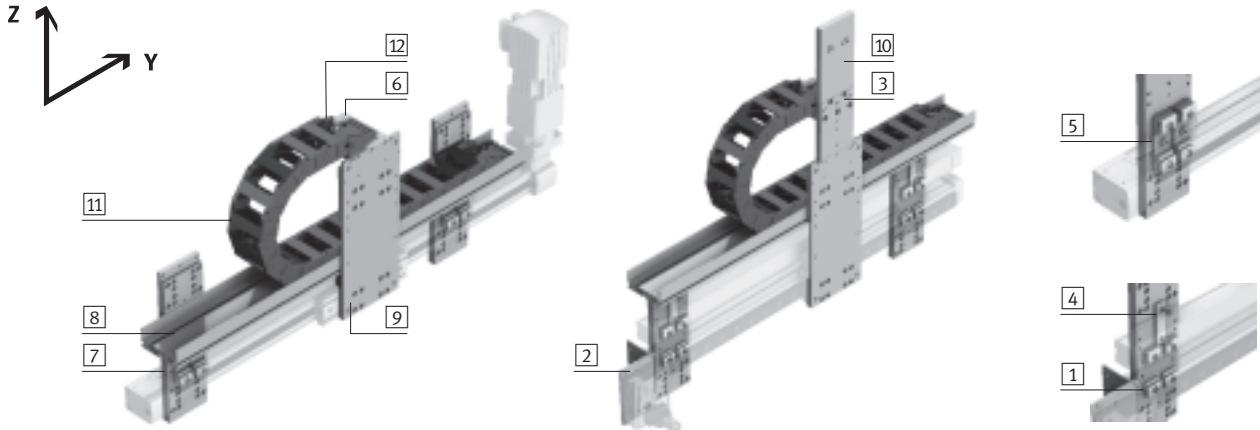
Linear gantries

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	→ Page/Internet
[1]	2 ¹⁾	150 736		150 736		mup
	1 ¹⁾	–		–		muc
[2]	1	–		539 367		hmvw
[3]	1	–		539 364		74
[4]	1 ¹⁾	–		539 973		hmvo
[5]	2 ¹⁾	–		–		hmvo
[6]	1	539 366		539 366		74
		HMIO-AP1		HMIO-AP1		
[7]	2 ²⁾	539 972		539 972		hmvm
		HMVM-LP-DL25/40		HMVM-LP-DL25/40		
[8]	1 ³⁾	539 378		539 378		73
		HMIA-E05		HMIA-E05		
[9]	1	539 368		539 368		hmvs
		HMVS-DL25		HMVS-DL25		
[10]	1	–		539 365		72
		–		HMIZB-E03		
[11]	1	IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/η _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

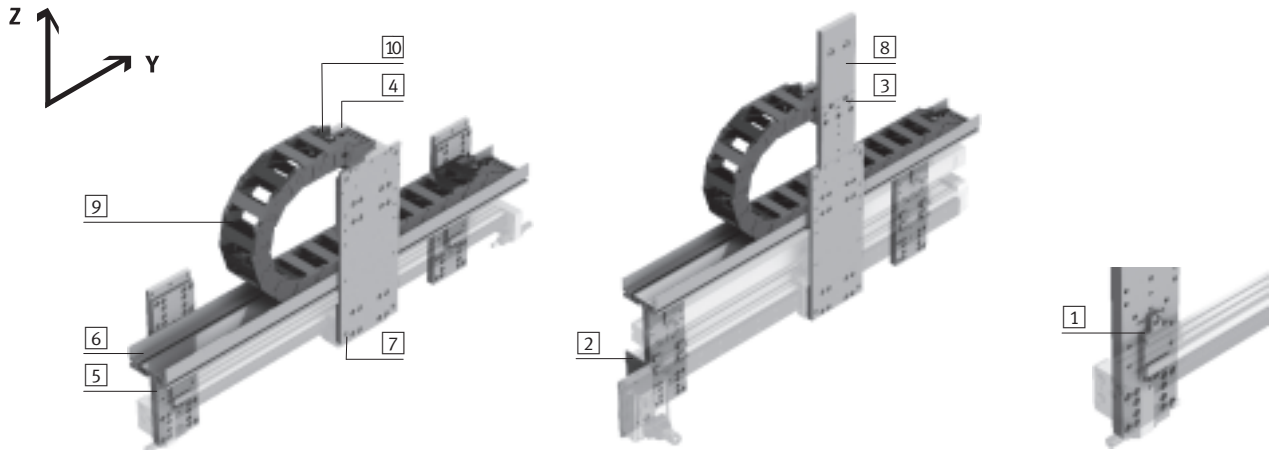
Linear gantries

Y modules

FESTO

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		DGC-40		DGPL-40 with SPC11		
		DGE-40-SP-KF						
		DGE-40-ZR-KF						
System type		Mono 40						
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	➔ Page/Internet
1	1 ¹⁾	–		531 755 MUC-40		–		muc
2	1	–		–		539 367 HMVW-SPC		hmvw
3	1	–		–		539 364 HMIM-LP		74
4	1	539 366 HMIO-AP-1		540 121 HMIO-AP-2		539 366 HMIO-AP-1		74
5	2 ²⁾	539 972 HMVM-LP-DL25/40		539 972 HMVM-LP-DL25/40		539 972 HMVM-LP-DL25/40		hmvm
6	1 ³⁾	539 378 HMIA-E05		539 378 HMIA-E05		539 378 HMIA-E05		73
7	1	539 369 HMVS-DL40		539 369 HMVS-DL40		539 369 HMVS-DL40		hmvs
8	1	–		–		539 365 HMIZB-E03		72
9	1	IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/nT2						–
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

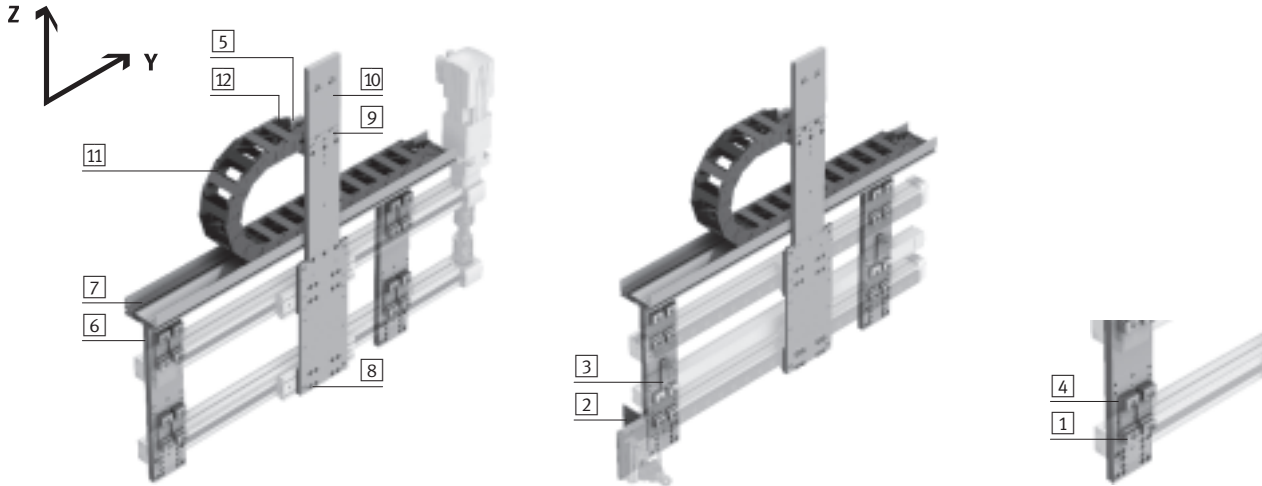
Linear gantries

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	→ Page/Internet
[1]	4 ¹⁾	150 736		150 736		mup
	2 ¹⁾	–		–		muc
[2]	1	–		539 367		hmvw
[3]	1 ¹⁾	–		539 973		hmvo
[4]	4 ¹⁾	–		–		hmvo
[5]	1	539 366		539 366		74
		HMIO-AP-1		HMIO-AP-1		
[6]	2 ²⁾	539 971		539 971		hmvd
		HMVD-LP-DL25/40		HMVD-LP-DL25/40		
[7]	1 ³⁾	539 378		539 378		73
		HMIA-E05		HMIA-E05		
[8]	1	539 368		539 368		hmvs
		HMVS-DL25		HMVS-DL25		
[9]	1	539 363		539 363		74
		HMID-LP		HMID-LP		
[10]	1	539 365		539 365		72
		HMIZB-E03		HMIZB-E03		
[11]	1	IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/η2				–
[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

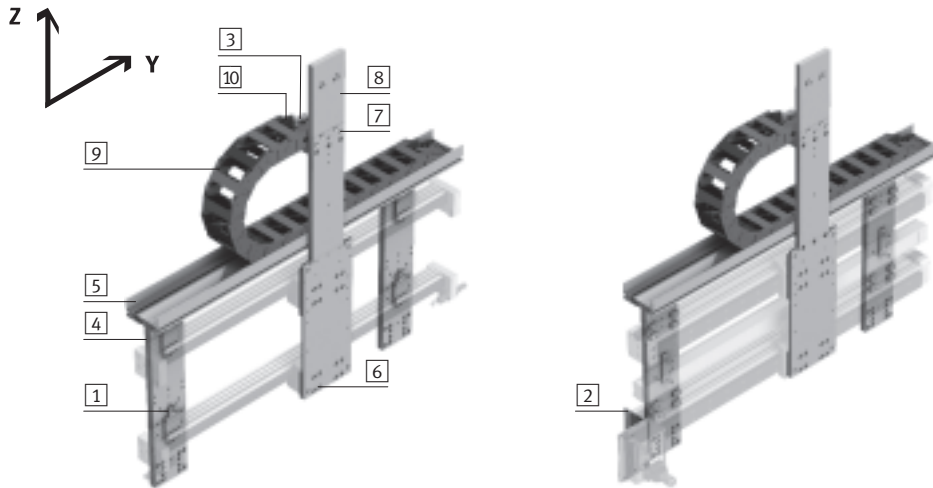
Linear gantries

Y modules

FESTO

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		DGC-40		DGPL-40 with SPC11		
		DGE-40-SP-KF						
		DGE-40-ZR-KF						
System type		Duo 40						
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	➔ Page/Internet
1	2 ¹⁾	–		531 755 MUC-40		–		muc
2	1	–		–		539 367 HMVW-SPC		hmvw
3	1	539 366 HMIO-AP-1		540 121 HMIO-AP-2		539 366 HMIO-AP-1		74
4	2 ²⁾	539 971 HMVD-LP-DL25/40		539 971 HMVD-LP-DL25/40		539 971 HMVD-LP-DL25/40		hmvd
5	1 ³⁾	539 378 HMIA-E05		539 378 HMIA-E05		539 378 HMIA-E05		73
6	1	539 369 HMVS-DL40		539 369 HMVS-DL40		539 369 HMVS-DL40		hmvs
7	1	539 363 HMID-LP		539 363 HMID-LP		539 363 HMID-LP		74
8	1	539 365 HMIZB-E03		539 365 HMIZB-E03		539 365 HMIZB-E03		72
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

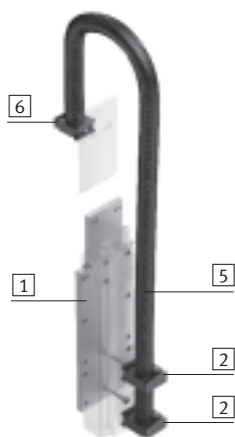
Linear gantries

Z modules

FESTO

Z modules

Mini slides DGSL



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

1) Length depends on the stroke of the drive

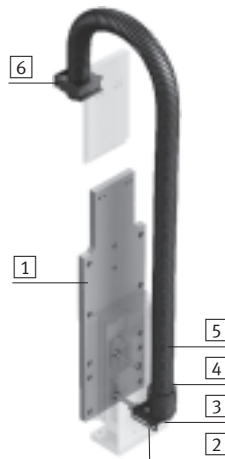
Linear gantries

Z modules

FESTO

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
1	1	539 373	HMVZ-2	539 373	HMVZ-2
2	1	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21
3	1	177 599	MKM-PG-21	177 599	MKM-PG-21
4	1	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
6	1	192 290	MKRS-23-B	192 290	MKRS-23-B

→ Page/Internet

1) Length depends on the stroke of the drive

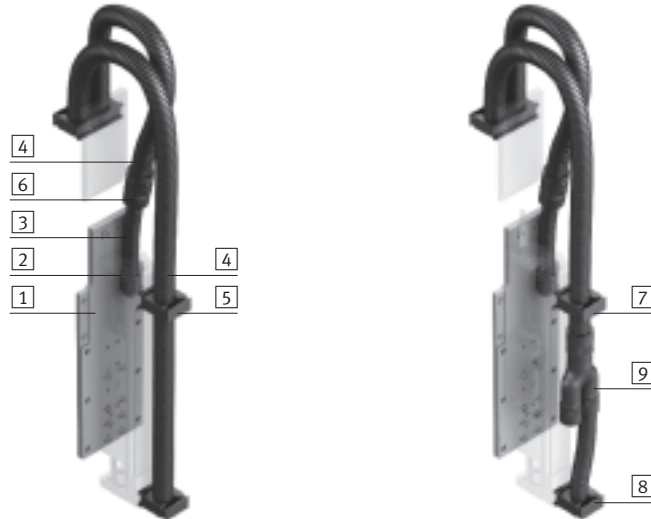
Linear gantries

Z modules

FESTO

Mono/Duo system

Linear modules HMPL



Bill of materials								
Type		HMBSZ-HMPL-5			HMBSZ-HMPL-6			→ Page/Internet
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		539 375		539 375		
		HMVZ-4		HMVZ-4		HMVZ-4		
2	1	177 571		177 571		177 571		
		MKRV-16,5-PG-16		MKRV-16,5-PG-16		MKRV-16,5-PG-16	5 / 3.3-60	
3	1 ¹⁾	177 566		177 566		177 566		
		MKR-16,5-PG-16		MKR-16,5-PG-16		MKR-16,5-PG-16	5 / 3.3-58	
4	1 ²⁾	177 567		177 567		177 567		
		MKR-23-PG-21		MKR-23-PG-21		MKR-23-PG-21		
5	4 ³⁾	192 290		192 290		–		
		MKRS-23-B		MKRS-23-B		–	5 / 3.3-65	
6	1	194 321		194 321		194 321		
		MKRT-23-16,5		MKRT-23-16,5		MKRT-23-16,5	5 / 3.3-62	
7	3 ³⁾	–		–		192 290		
						MKRS-23-B	5 / 3.3-65	
8	1	–		–		192 289		
						MKRS-16,5-B		
9	1	–		–		193 946		
						MKY-PG-21-2PG-16	5 / 3.3-62	

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.

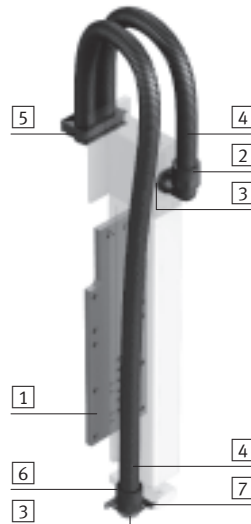
Linear gantries

Z modules

FESTO

Mono/Duo system

Linear modules HMP



Bill of materials								
Type		HMBSZ-HMP-4		HMBSZ-HMP-5		HMBSZ-HMP-6	→ Page/Internet	
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 HMOVZ-3		539 374 HMOVZ-3		539 377 HMOVZ-6		hmvz
2	1	177 577 MKRL-23-PG-21		177 578 MKRL-29-PG-29		177 578 MKRL-29-PG-29		5 / 3.3-61
3	2	177 599 MKM-PG-21		177 600 MKM-PG-29		177 600 MKM-PG-29		5 / 3.3-65
4	1 ¹⁾	177 567 MKR-23-PG-21		177 568 MKR-29-PG-29		177 568 MKR-29-PG-29		5 / 3.3-58
5	2	192 290 MKRS-23-B		192 291 MKRS-29-B		192 291 MKRS-29-B		5 / 3.3-65
6	1	177 572 MKRV-23-PG-21		177 573 MKRV-29-PG-29		177 573 MKRV-29-PG-29		5 / 3.3-60
7	1	193 124 HMZAS-PG-21		177 603 HMZAS-PG-29		177 603 HMZAS-PG-29		5 / 3.3-66

1) Length depends on the stroke of the drive

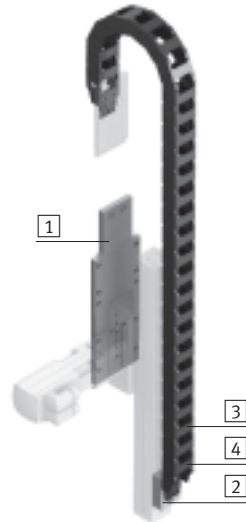
Linear gantries

Z modules

FESTO

Mono/Duo system

Cantilever axes DGEA



Bill of materials								
Type		HMBSZ-DGEA-1		HMBSZ-DGEA-2		HMBSZ-DGEA-3	→ Page/In- ternet	
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		539 375		539 377		hmvz
		HMVZ-3		HMVZ-4		HMVZ-6		
2	1	539 370		539 371		539 371		72
		HMIZF-E03-DA18		HMIZF-E03-DA25		HMIZF-E03-DA25		
3	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS O/ηT2						–
4	1	IGUS E2 medium 2030.12.PZB or KABELSCHLEPP MC FA/MA						–

1) Length depends on the stroke of the drive

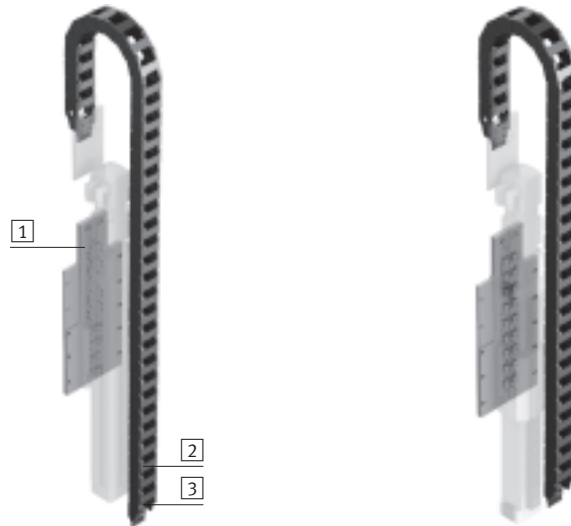
Linear gantries

Z modules

FESTO

Mono/Duo system

Spindle axes DGE



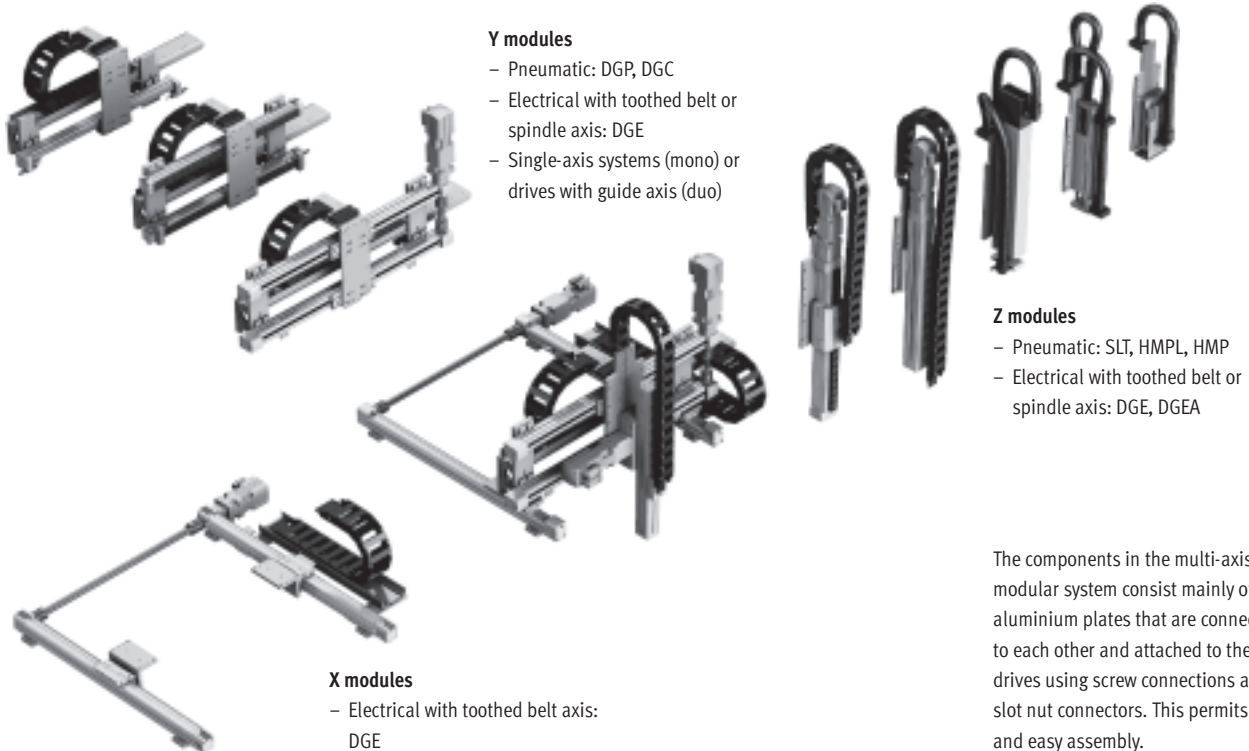
Bill of materials							
Type		HMBSZ-DGE-1		HMBSZ-DGE-2		HMBSZ-DGE-3	➔ Page/Internet
For drives		DGE-25-SP		DGE-40-SP		DGE-40-SP	
System type		Mono 40 Duo 25		Duo 25		Duo 40	
Item	Quantity	Part No.	Type	Part No.	Type	Part No.	
[1]	1	539 374 HMVZ-3		539 375 HMVZ-4		539 377 HMVZ-6	hmvz
[2]	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS O/n _T 2					–
[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

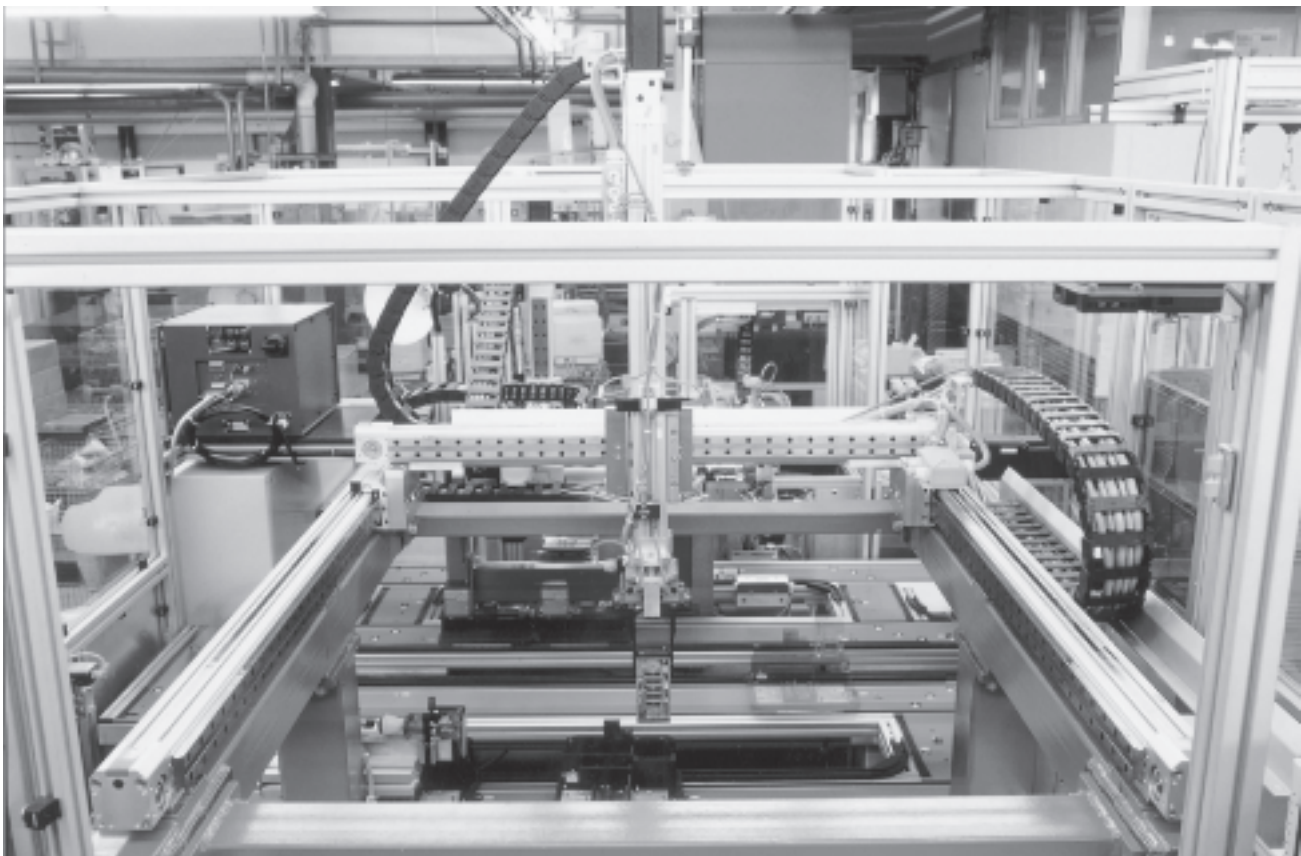
Key features

X, Y and Z modules



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.

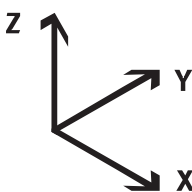
Application



3-Dimensional gantries

Product range overview

FESTO

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/Internet	38				

3-Dimensional gantries

Selection aid for basic, connection and installation components

FESTO

X-axis					
System type		Mono 25	Mono 40	Duo 25	Duo 40
					
Electrical drives	Type				
DGE-25	-ZR-KF	HMBSX-RP/FP-25-1 ➔ 41	HMBSX-RP/FP-25-1 ➔ 41	HMBSX-RP/FP-25-1 ➔ 41	–
	-ZR-RF	HMBSX-RP/FP-25-2 ➔ 41	HMBSX-RP/FP-25-2 ➔ 41	HMBSX-RP/FP-25-2 ➔ 41	–
DGE-40	-ZR-KF	–	HMBSX-RP/FP-40-1 ➔ 41	HMBSX-RP/FP-40-1 ➔ 41	HMBSX-RP/FP-40-1 ➔ 41
	-ZR-RF	–	HMBSX-RP/FP-40-2 ➔ 41	HMBSX-RP/FP-40-2 ➔ 41	HMBSX-RP/FP-40-2 ➔ 41

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
➔ 41

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

Y-axis: Mono 40 system with DGC-40

Y-axis: HMBSY-RP/FP-M40-2
➔ 42

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

Z-axis: HMPL-20 without intermediate position

Z-axis: HMBSZ-HMPL-5 or 6
➔ 46

Z-axis: HMBSZ-HMPL-5

3-Dimensional gantries

FESTO

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 ➔ 42	–	HMBSY-RP/FP-D25-1 ➔ 43	–
DGC-25	HMBSY-RP/FP-M25-2 ➔ 42	–	HMBSY-RP/FP-D25-2 ➔ 43	–
DGPL-40	–	HMBSY-RP/FP-M40-1 ➔ 42	–	HMBSY-RP/FP-D40-1 ➔ 43
DGC-40	–	HMBSY-RP/FP-M40-2 ➔ 42	–	HMBSY-RP/FP-D40-2 ➔ 43
Electrical drives	Type			
DGE-25 -SP-KF -ZR-KF -ZR-RF	HMBSY-RP/FP-M25-1 ➔ 42	–	HMBSY-RP/FP-D25-1 ➔ 43	–
DGE-40 -SP-KF -ZR-KF -ZR-RF	–	HMBSY-RP/FP-M40-1 ➔ 42	–	HMBSY-RP/FP-D40-1 ➔ 43

3-Dimensional gantries

Selection aid for basic, connection and installation components

FESTO

Z-axis				
System type	Mono 25	Mono 40	Duo 25	Duo 40
				
Pneumatic drives	Type			
DGSL-16	HMBSZ-DGSL-7 ➔ 44	–	–	–
DGSL-20	–	HMBSZ-DGSL-8 ➔ 44	–	–
DGSL-25	–	HMBSZ-DGSL-8 ➔ 44	HMBSZ-DGSL-8 ➔ 44	–
SLT-16	HMBSZ-SLT-7 ➔ 45	–	–	–
SLT-20	–	HMBSZ-SLT-7 ➔ 45	HMBSZ-SLT-7 ➔ 45	–
SLT-25	–	–	HMBSZ-SLT-7 ➔ 45	–
HMPL-16	HMBSZ-HMPL-5 HMBSZ-HMPL-6 ➔ 46	–	–	–
HMPL-20	–	HMBSZ-HMPL-5 HMBSZ-HMPL-6 ➔ 46	HMBSZ-HMPL-5 HMBSZ-HMPL-6 ➔ 46	–
HMP-16	–	HMBSZ-HMP-4 ➔ 47	HMBSZ-HMP-4 ➔ 47	–
HMP-20	–	–	HMBSZ-HMP-5 ➔ 47	–
HMP-25	–	–	–	HMBSZ-HMP-6 ➔ 47
Electrical drives	Type			
DGEA-18	HMBSZ-DGEA-1 ➔ 48	HMBSZ-DGEA-1 ➔ 48	HMBSZ-DGEA-1 ➔ 48	–
DGEA-25	–	–	HMBSZ-DGEA-2 v48	HMBSZ-DGEA-3 ➔ 48
DGE-25-SP	–	HMBSZ-DGE-1 ➔ 49	HMBSZ-DGE-1 ➔ 49	–
DGE-40-SP	–	–	HMBSZ-DGE-2 ➔ 49	HMBSZ-DGE-3 ➔ 49

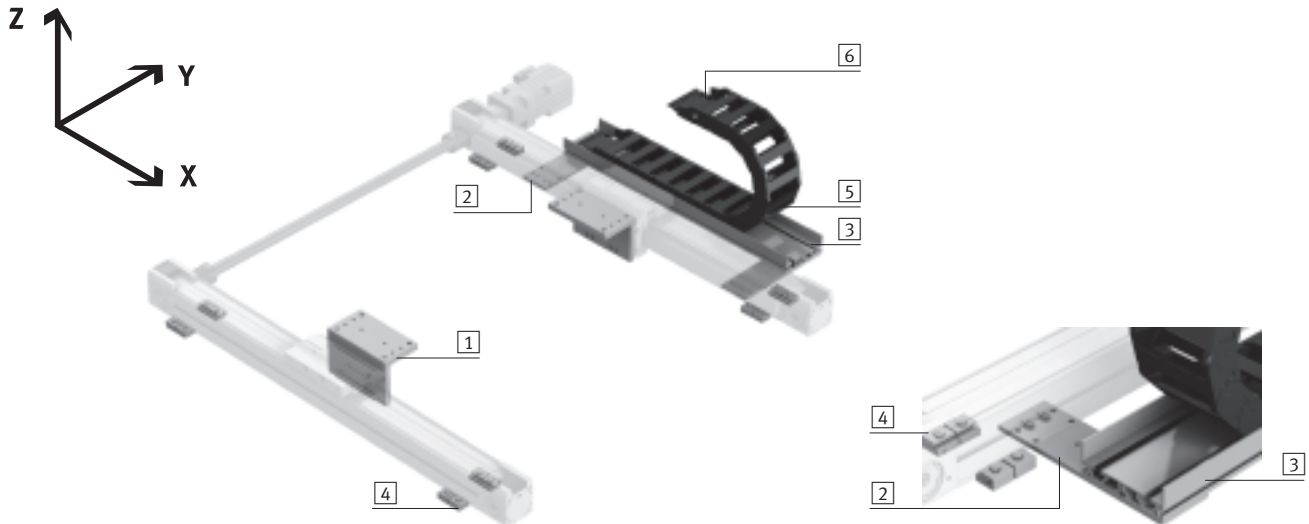
3-Dimensional gantries

X modules

FESTO

Basic system

Toothed belt axes DGE



Bill of materials										
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	Quantity	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	
[1]	1	539 651		539 652		540 325		539 653		hmvs
		HMVW-DL25		HMVS-RF25		HMVW-DL40		HMVS-RF40		
[2]	2 ¹⁾	539 654		539 654		539 654		539 654		75
		HMIXB-RP/FP		HMIXB-RP/FP		HMIXB-RP/FP		HMIXB-RP/FP		
[3]	1 ²⁾	539 379		539 379		539 379		539 379		73
		HMIA-E07		HMIA-E07		HMIA-E07		HMIA-E07		
[4]	2 ³⁾	150 736		150 736		–		–		mup
		MUP-18/25		MUP-18/25						
	1 ³⁾	–		–		150 738		150 738		mup
						MUP-40		MUP-40		
[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

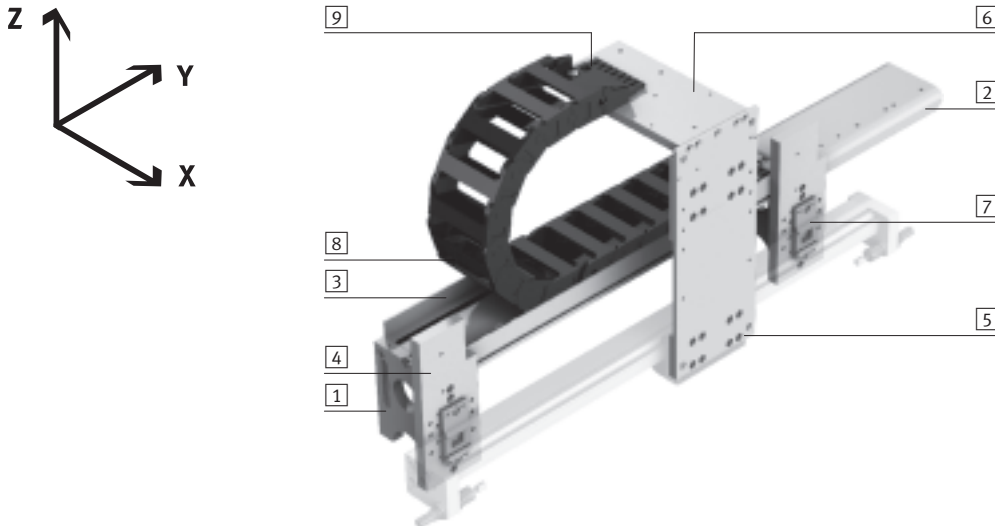
3-Dimensional gantries

Y modules

FESTO

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	
[1]	2	539 657		539 657		539 657		539 657		hmvv
		HMVV-RP/FP		HMVV-RP/FP		HMVV-RP/FP		HMVV-RP/FP		
[2]	1	539 658		539 658		539 658		539 658		hmix
		HMIXF-RP/FP		HMIXF-RP/FP		HMIXF-RP/FP		HMIXF-RP/FP		
[3]	1 ¹⁾	539 379		539 379		539 379		539 379		73
		HMIA-E07		HMIA-E07		HMIA-E07		HMIA-E07		
[4]	2 ³⁾	539 656		539 656		539 656		539 656		hmvm
		HMVM-RP/FP-DL25/40		HMVM-RP/FP-DL25/40		HMVM-RP/FP-DL25/40		HMVM-RP/FP-DL25/40		
[5]	1	539 368		539 368		539 369		539 369		hmvs
		HMVS-DL25		HMVS-DL25		HMVS-DL40		HMVS-DL40		
[6]	1	539 659		539 659		539 660		539 660		76
		HMIYF-RF/DL25		HMIYF-RF/DL25		HMIYF-RF/DL40		HMIYF-RF/DL40		
[7]	2 ²⁾	150 736		–		–		–		mup
		MUP-18/25								
	1 ²⁾	–		531 753		–		531 755		muc
				MUC-25				MUC-40		
	1 ²⁾	–		–		150 738		–		mup
						MUP-40				
[8]	1 ¹⁾	IGUS E2 medium 240.07.100.0 and 211 or KABELSCHLEPP MC 0320.80-01 and TS O/n _T 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.

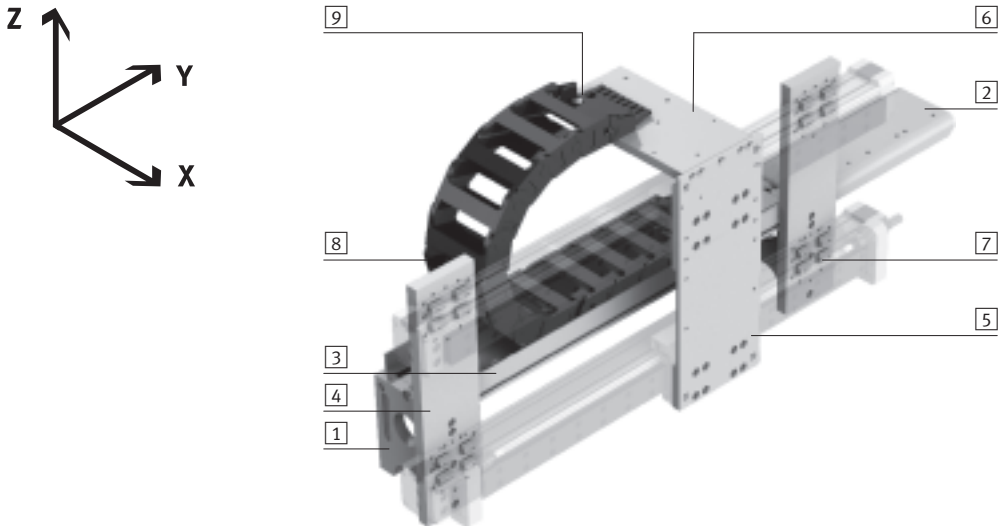
3-Dimensional gantries

Y modules

FESTO

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		→ Page/Internet
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	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	hmvv
[2]	1	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	539 658	HMIXF-RP/FP	hmix
[3]	1 ¹⁾	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	539 379	HMIA-E07	73
[4]	2 ³⁾	539 655	HMVD-RP/FP-DL25/40	539 655	HMVD-RP/FP-DL25/40	539 655	HMVD-RP/FP-DL25/40	539 655	HMVD-RP/FP-DL25/40	hmvd
[5]	1	539 368	HMVS-DL25	539 368	HMVS-DL25	539 369	HMVS-DL40	539 369	HMVS-DL40	hmvs
[6]	1	539 659	HMIYF-RF/DL25	539 659	HMIYF-RF/DL25	539 660	HMIYF-RF/DL40	539 660	HMIYF-RF/DL40	76
[7]	4 ²⁾	150 736	MUP-18/25	–	–	–	–	–	–	mup
	2	–	–	531 753	MUC-25	–	–	531 755	MUC-40	muc
[8]	1 ¹⁾	IGUS E2 medium 240.07.100.0 and 211 or KABELSCHLEPP MC 0320.80-01 and TS O/nT2								–
[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.

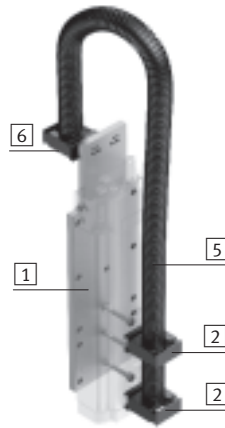
3-Dimensional gantries

Z modules

FESTO

Mono/Duo system

Mini slides DGSL



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

1) Length depends on the stroke of the drive

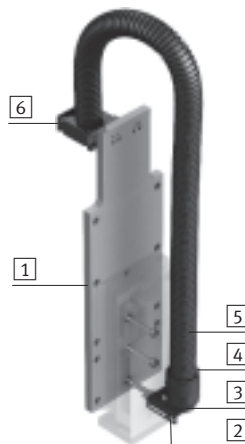
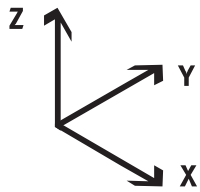
3-Dimensional gantries

Z modules

FESTO

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
1	1	539 373	HMVZ-2	539 373	HMVZ-2
2	1	193 124	HMZAS-PG-21	193 124	HMZAS-PG-21
3	1	177 599	MKM-PG-21	177 599	MKM-PG-21
4	1	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
6	1	192 290	MKRS-23-B	192 290	MKRS-23-B

→ Page/Internet

1) Length depends on the stroke of the drive

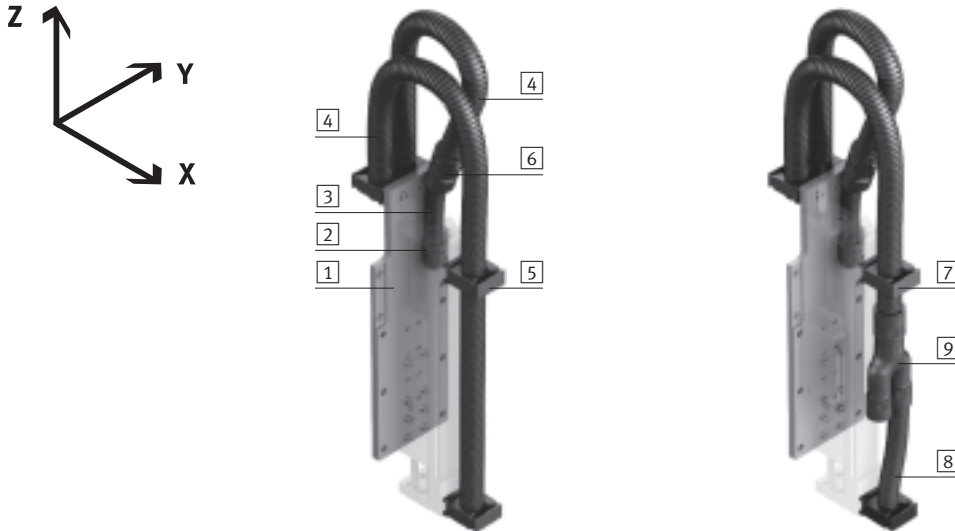
3-Dimensional gantries

Z modules

FESTO

Mono/Duo system

Linear modules HMPL



Bill of materials										
Type		HMBSZ-HMPL-5			HMBSZ-HMPL-6			→ Page/Internet		
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	Part No.	Type	
1	1	539 375		539 375		539 375		539 375		
		HMVZ-4		HMVZ-4		HMVZ-4		HMVZ-4		
2	1	177 571		177 571		177 571		177 571		
		MKRV-16,5-PG-16		MKRV-16,5-PG-16		MKRV-16,5-PG-16		MKRV-16,5-PG-16		
3	1 ¹⁾	177 566		177 566		177 566		177 566		
		MKR-16,5-PG-16		MKR-16,5-PG-16		MKR-16,5-PG-16		MKR-16,5-PG-16		
4	1 ²⁾	177 567		177 567		177 567		177 567		
		MKR-23-PG-21		MKR-23-PG-21		MKR-23-PG-21		MKR-23-PG-21		
5	4 ³⁾	192 290		192 290		–		–		
		MKRS-23-B		MKRS-23-B						
6	1	194 321		194 321		194 321		194 321		
		MKRT-23-16,5		MKRT-23-16,5		MKRT-23-16,5		MKRT-23-16,5		
7	3 ³⁾	–		–		192 290		192 290		
						MKRS-23-B		MKRS-23-B		
8	1	–		–		192 289		192 289		
						MKRS-16,5-B		MKRS-16,5-B		
9	1	–		–		193 946		193 946		
						MKY-PG-21-2PG-16		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.

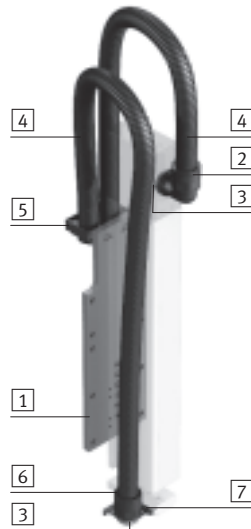
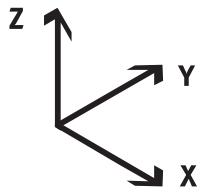
3-Dimensional gantries

Z modules

FESTO

Mono/Duo system

Linear modules HMP



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

→ Page/Internet

1) Length depends on the stroke of the drive

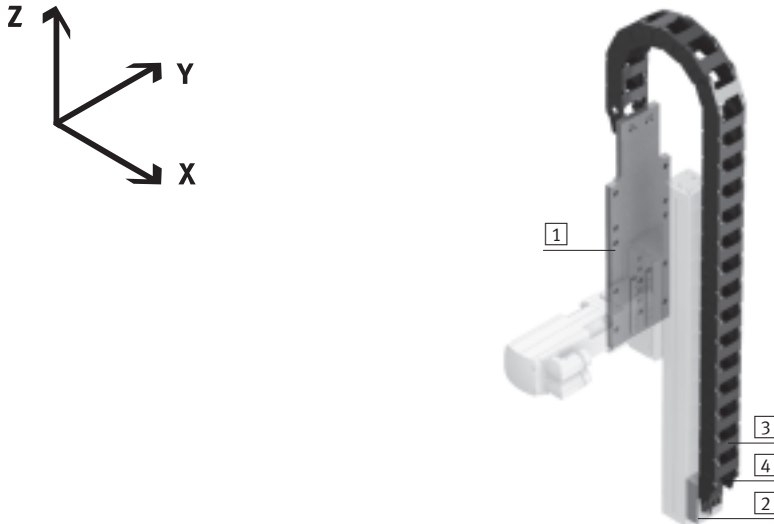
3-Dimensional gantries

Z modules

FESTO

Mono/Duo system

Cantilever axes DGEA



Bill of materials								
Type		HMBSZ-DGEA-1		HMBSZ-DGEA-2		HMBSZ-DGEA-3	→ Page/In- ternet	
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		539 375		539 377		hmvz
		HMVZ-3		HMVZ-4		HMVZ-6		
[2]	1	539 370		539 371		539 371		72
		HMIZF-E03-DA18		HMIZF-E03-DA25		HMIZF-E03-DA25		
[3]	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS O/η _T 2						–
[4]	1	IGUS E2 medium 2030.12.PZB or KABELSCHLEPP MC FA/MA						–

1) Length depends on the stroke of the drive

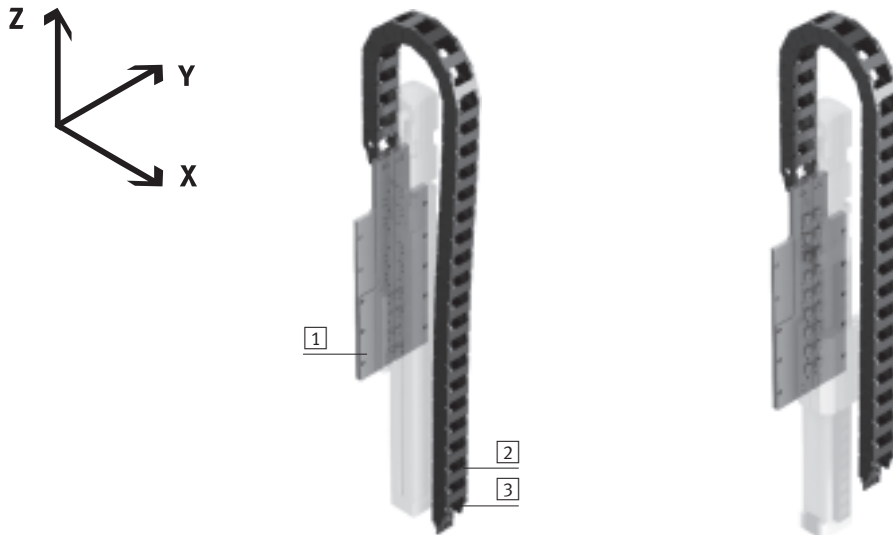
3-Dimensional gantries

Z modules

FESTO

Mono/Duo system

Toothed belt axes DGE



Bill of materials							
Type		HMBSZ-DGE-1		HMBSZ-DGE-2		HMBSZ-DGE-3	➔ Page/In- ternet
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	hmvz
2	1 ¹⁾	IGUS E2 medium 240.03.075.0 and 211 or KABELSCHLEPP MC 0320.40-01-77 and TS O/n _T 2					–
3	1	IGUS E2 medium 2030.12.PZB or KABELSCHLEPP MC FA/MA					–

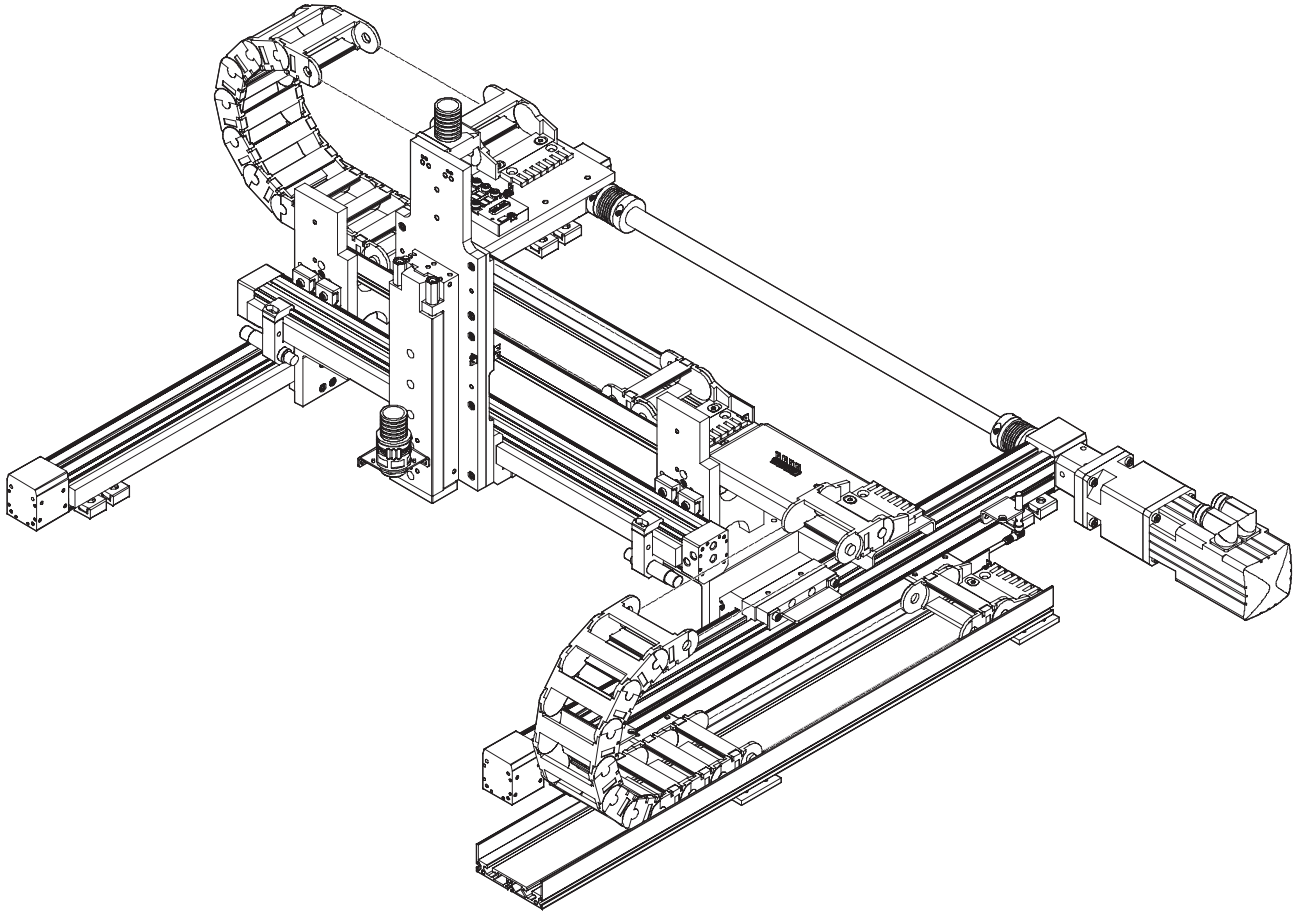
1) Length depends on the stroke of the drive

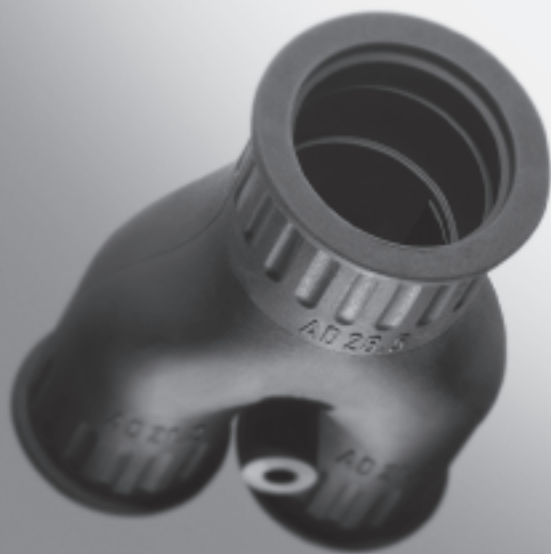
3-Dimensional gantries

System example

FESTO

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





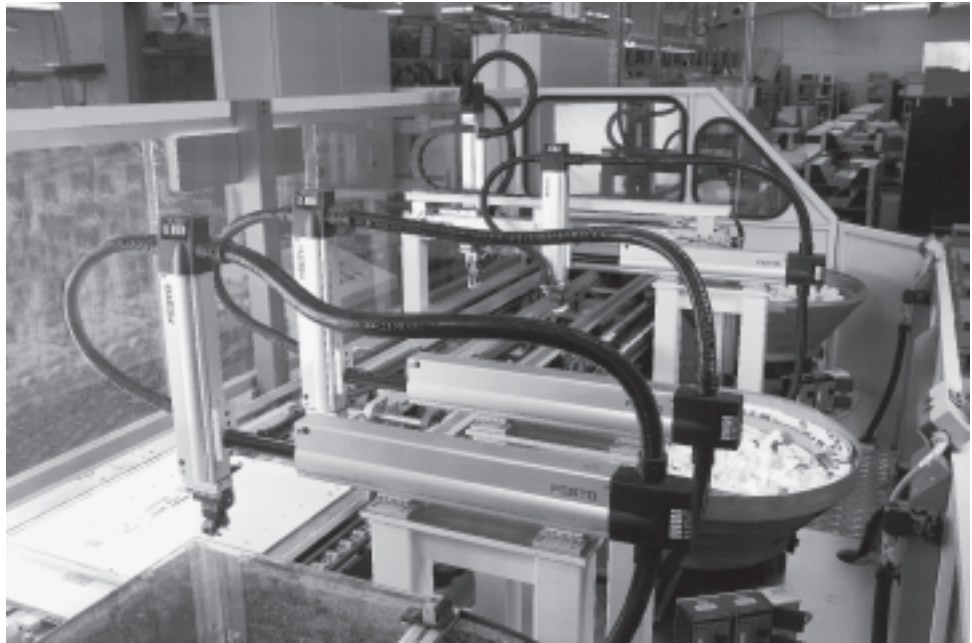
- Reliable guidance
- Rapid assembly and disassembly
- Low space requirement
- Low noise levels

Installation components, for short strokes

Key features

Installation components facilitate a clear-cut, safe layout of electrical cables and pneumatic tubing. They can be quickly dismantled and reassembled if servicing is required. As opposed to chain link trunking, they are distinguished by significantly reduced space requirements and lower noise levels, as well as excellent protection against environmental influences.

FESTO



Protective conduit

MKR



Flexible conduit protects electrical cables and pneumatic tubing at machines and in installations. Corrugated conduit connector MKRT allows for insertion and fastening of a protective conduit with a small diameter 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 need not be pulled through the protective conduit, but rather can be laid into it. The matching connector can also be opened.

Junction box

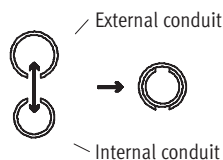
HMZV



Protected distribution 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
- Adapter plate
HMZAS

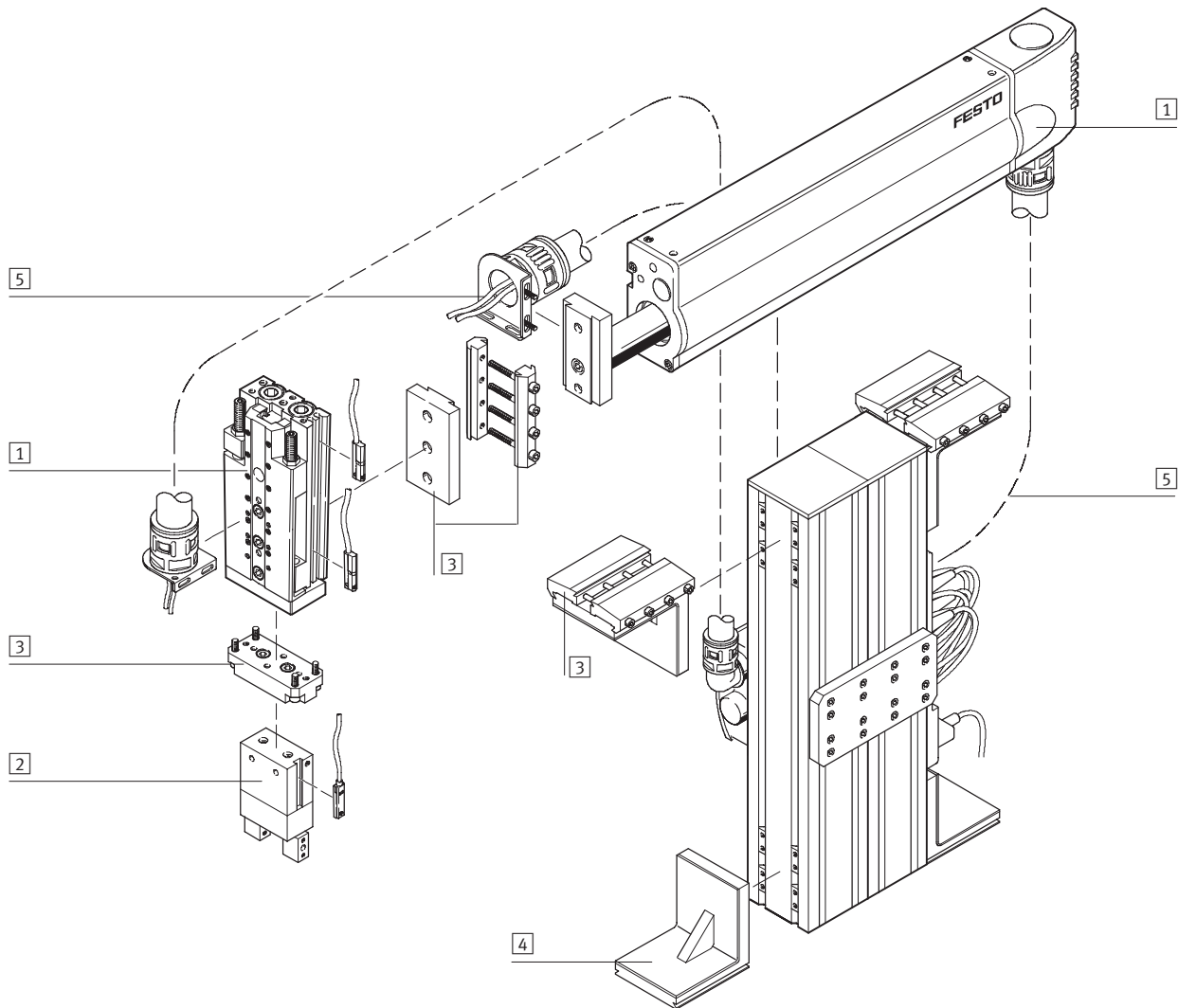


Installation components, for short strokes

System example

FESTO

System product for handling and assembly technology

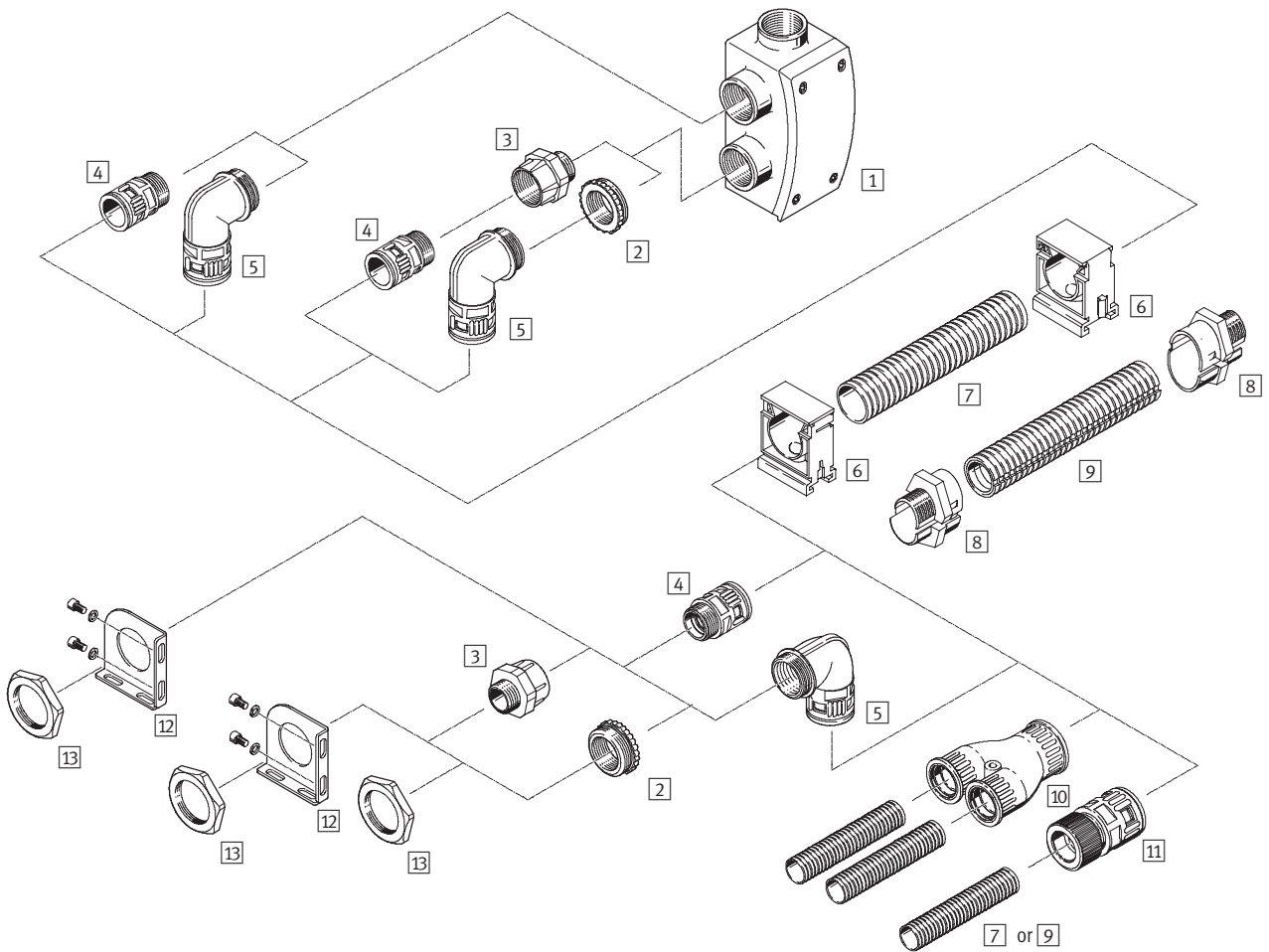


System elements and accessories		
	Brief description	→ Page/Internet
1 Drives	Wide range of combination options within handling and assembly technology	drive
2 Grippers	Wide range of combination options within handling and assembly technology	gripper
3 Adapters	For combining drives with drives and drives with grippers	adapterkit
4 Basic mounting components	Profiles and profile combinations as well as profile/drive combinations	basic component
5 Installation components	For achieving a clear-cut, safe layout for electrical cables and tubing	installation component
– Axes	Wide range of combination options within handling and assembly technology	axes
– Motors	Servo and stepper motors, with or without gearing	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 lines and tubing	5 / 3.3-59
2 Reducing connector MKA	For reducing thread size Material: Brass	5 / 3.3-63
3 Reducing connector MKA-KU	For reducing or enlarging thread size Material: Polyamide	5 / 3.3-64
4 Protective conduit connector MKRV	For securing the protective conduit	5 / 3.3-60
5 Elbow connector for protective conduit MKRL	For securing the protective conduit	5 / 3.3-61
6 Retaining clip MKRS	For securing the protective conduit over long distances	5 / 3.3-65
7 Protective conduit MKR	For protecting lines and tubing	5 / 3.3-58
8 Separable conduit connector MKGV	For securing the protective conduit. The connector is separable so that lines and tubing in the system can be easily replaced.	5 / 3.3-63
9 Separable protective conduit MKG	For protecting lines and tubing. The conduit is separable so that lines and tubing in the system can be easily replaced.	5 / 3.3-59
10 Y distributor MKY	For distributing lines and tubing	5 / 3.3-62
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 lines and tubing.	5 / 3.3-62
12 Adapter plate HMZAS	For securing protective conduit connectors at the drive	5 / 3.3-66
13 Lock nut MKM	For securing connectors at adapter plates	5 / 3.3-65

Installation components, for short strokes

Selection aid

FESTO

Accessories		Protective conduit							Junction box	→ Page/Internet
		MKR					MKG, separable		HMZV	
										
Connecting thread		Pg 9	Pg 11	Pg 16	Pg 21	Pg 29	Pg 21	Pg 29	Pg 29	
Protective conduit connector MKRV										
	Pg 9	■	–	–	–	–	–	–	–	5 / 3.3-60
	Pg 11	–	■	–	–	–	–	–	–	
	Pg 16	–	–	■	–	–	–	–	–	
	Pg 21	–	–	–	■	–	–	–	–	
	Pg 29	–	–	–	–	■	–	–	■	
Elbow connector for protective conduit MKRL										
	Pg 9	■	–	–	–	–	–	–	–	5 / 3.3-61
	Pg 11	–	■	–	–	–	–	–	–	
	Pg 16	–	–	■	–	–	–	–	–	
	Pg 21	–	–	–	■	–	–	–	–	
	Pg 29	–	–	–	–	■	–	–	■	
Y distributor MKY										
	Pg 21	–	–	–	■	–	–	–	–	5 / 3.3-62
	Pg 29	–	–	–	–	■	–	–	–	
Protective conduit connector MKRT										
	Pg 16	–	–	■	■	–	–	–	–	5 / 3.3-62
	Pg 21	–	–	■	■	–	–	–	–	
Protective conduit connector MKGV, separable										
	Pg 21	–	–	–	–	–	■	–	–	5 / 3.3-63
	Pg 29	–	–	–	–	–	–	■	■	
Reducing connector MKA										
	Pg 29	–	–	–	–	–	–	–	■	5 / 3.3-63
Reducing connector MKA-KU										
	Pg 29	–	–	–	–	–	–	–	■	5 / 3.3-64
Technical data → Page/Internet		5 / 3.3-58					5 / 3.3-59		5 / 3.3-59	

Installation components, for short strokes

Selection aid

FESTO

Accessories		Protective conduit						Junction box	→ Page/ Internet
		MKR				MKG, separable		HMZV	
									
Connecting thread		Pg 9	Pg 11	Pg 16	Pg 21	Pg 29	Pg 21	Pg 29	Pg 29
Lock nut MKM									
	Pg 9	■	–	–	–	–	–	–	5 / 3.3-65
	Pg 11	–	■	–	–	–	–	–	
	Pg 16	–	–	■	–	–	–	–	
	Pg 21	–	–	–	■	–	■	–	
	Pg 29	–	–	–	–	■	–	■	
Retaining clip MKRS									
	Pg 9	■	–	–	–	–	–	–	5 / 3.3-65
	Pg 11	–	■	–	–	–	–	–	
	Pg 16	–	–	■	–	–	–	–	
	Pg 21	–	–	–	■	–	■	–	
	Pg 29	–	–	–	–	■	–	■	
Adapter plate HMZAS									
	For connecting thread Pg 21 and Pg 29								5 / 3.3-66
Technical data → Page/Internet		5 / 3.3-58				5 / 3.3-59		5 / 3.3-59	

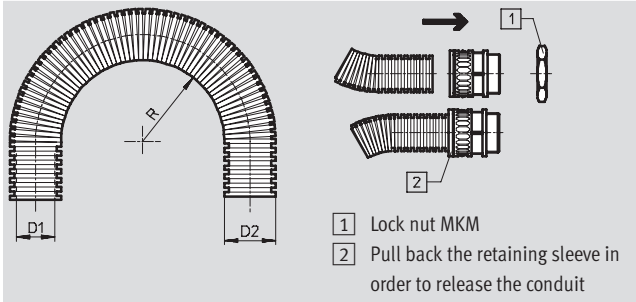
Installation components, for short strokes

Technical data



Protective conduit MKR
for Pg connecting thread

Material:
Polyamide
Free of copper, PTFE and silicone



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 ¹⁾	Weight [g/m]	Part No.	Type
Pg 9	-50 ... +100	Any	2	24	177 564	MKR-10-PG-9
Pg 11				34	177 565	MKR-12-PG-11
Pg 16				56	177 566	MKR-16,5-PG-16
Pg 21				90	177 567	MKR-23-PG-21
Pg 29				120	177 568	MKR-29-PG-29

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 surrounding industrial atmosphere or media such as cooling or lubricating agents.

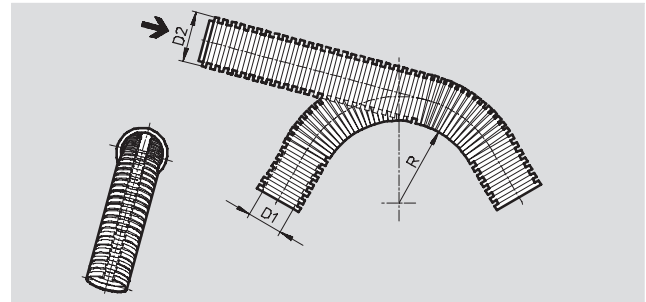
Installation components, for short strokes

Technical data

FESTO

Protective conduit MKG, separable for Pg connecting thread

Material:
Polypropylene
Free of copper, PTFE and silicone



Dimensions and ordering data					
Pg connecting thread	D1 Ø	D2 Ø	R	Temperature range [°C]	Protection class
Pg 21	19.5	25.5	≥ 130	-20 ... +90	IP 50
Pg 29	24.2	31	≥ 155		
	31	41.4	≥ 205		

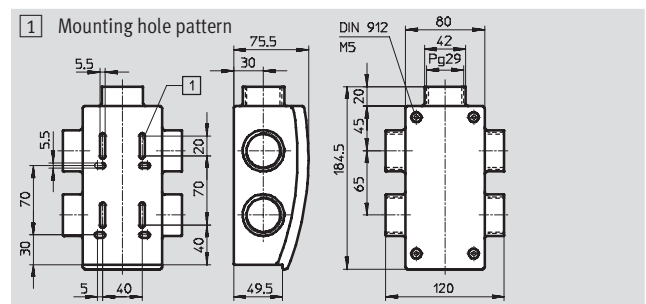
Pg connecting thread	Mounting position	CRC ¹⁾	Weight [g/m]	Part No.	Type
Pg 21	Any	2	82	177 588	MKG-20-PG-21
Pg 29			123	177 589	MKG-23-PG-29
			195	177 590	MKG-37-PG-29

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 surrounding industrial atmosphere or media such as cooling 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 ¹⁾	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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

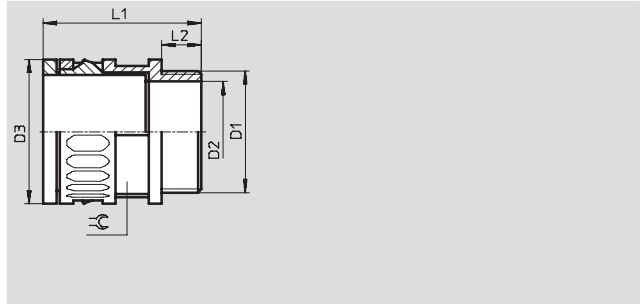
Installation components, for short strokes

Technical data

FESTO

Protective conduit connector MKRV

Material:
Polyamide
Free of copper, PTFE and silicone



Dimensions and ordering data						
Pg connecting thread D1	D2	D3	L1	L2	⌀	Temperature range
Ø	Ø	Ø				[°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	Protection class	Mounting position	CRC ¹⁾	Weight	Part No.	Type
Ø				[g]		
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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

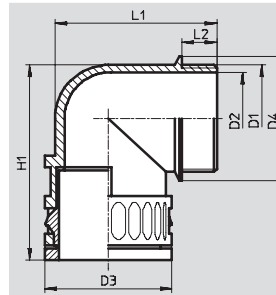
Installation components, for short strokes

Technical data

FESTO

Elbow connector for protective conduit MKRL

Material:
Polyamide
Free of copper, PTFE and silicone



Dimensions and ordering data						
Pg connecting thread D1	D2	D3	D4	H1	L1	L2
Ø	Ø	Ø	Ø			
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	
Pg 21	24	37	34	57	55	12
Pg 29	32	44	43	68	63	

Pg connecting thread D1	Temperature range [°C]	Protection class	Mounting position	CRC ¹⁾	Weight [g]	Part No.	Type
Ø							
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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

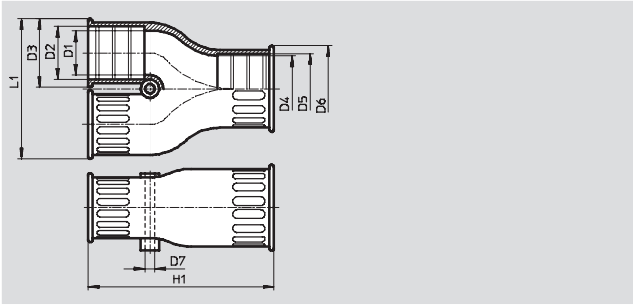
Installation components, for short strokes

Technical data



Y distributor MKY

Material:
Thermoplastic rubber
Free of copper, PTFE and silicone



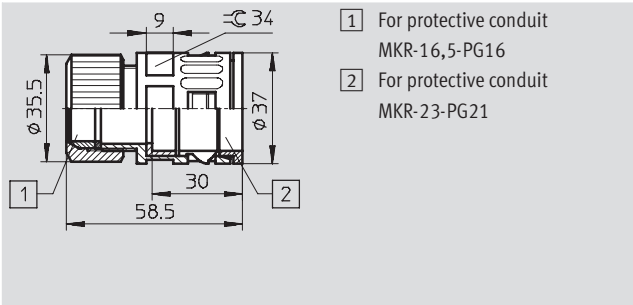
Dimensions and ordering data							
Pg connecting thread D1	D2	D3	D4	D5	D6	D7	H1
Ø	Ø	Ø	Ø	Ø	Ø	Ø	
Pg 21	21.2	29.5	25.5	28.5	36.5	4	81.5
Pg 29	28.5	36.5	31.5	34.5	42.5		86

Pg connecting thread D1	L1	Temperature range [°C]	Protection class	Mounting position	CRC ¹⁾	Weight [g]	Part No.	Type
Ø								
Pg 21	61	-30 ... +80	IP 67	Any	2	34	193 946	MKY-PG-21-2PG-16
Pg 29	79					50	193 947	MKY-PG-29-2PG-21

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 surrounding industrial atmosphere or media such as cooling 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

Dimensions and ordering data						
Pg connecting thread	Temperature range [°C]	Protection class	Mounting position	CRC ¹⁾	Weight [g]	Part No. Type
Pg 16/Pg 21	-10 ... +60	IP 67	Any	2	40	194 321 MKRT-23-16,5

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 surrounding industrial atmosphere or media such as cooling or lubricating agents.

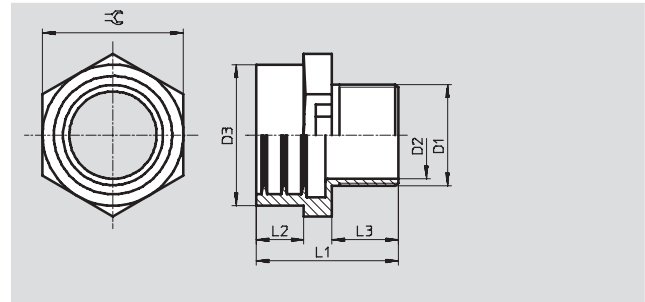
Installation components, for short strokes

Technical data

FESTO

Protective conduit connector MKGV, separable

Material:
Polyamide
Free of copper, PTFE and silicone



Dimensions and ordering data						
Pg connecting thread D1	D2	D3	L1	L2	L3	≡
Ø	Ø	Ø				
Pg 21	20	26	34	12	17	32
Pg 29	31	32	42	13	21	41
		42	50	17	22	50

Pg connecting thread D1	Temperature range [°C]	Protection class	Mounting position	CRC ¹⁾	Weight [g]	Part No.	Type
Ø							
Pg 21	-20 ... +100	IP 50	Any	2	11	177 591	MKGV-20-PG-21
Pg 29					19	177 592	MKGV-23-PG-29
					27	177 593	MKGV-37-PG-29

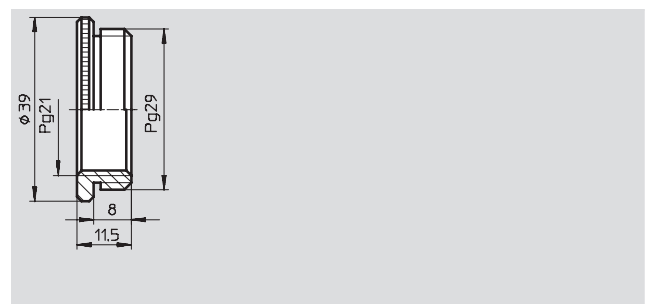
1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

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 ¹⁾	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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Installation components, for short strokes

Technical data

FESTO

Reducing connector MKA-KU

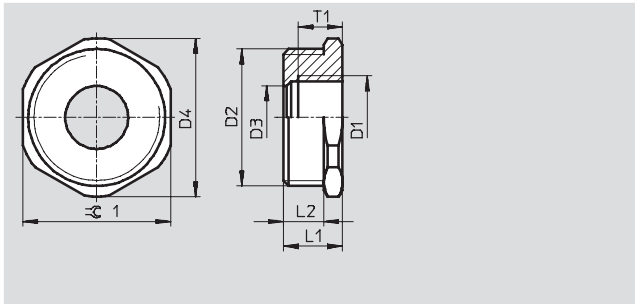
For reducing Pg 21 to Pg 16

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

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 surrounding industrial atmosphere or media such as cooling or lubricating agents.

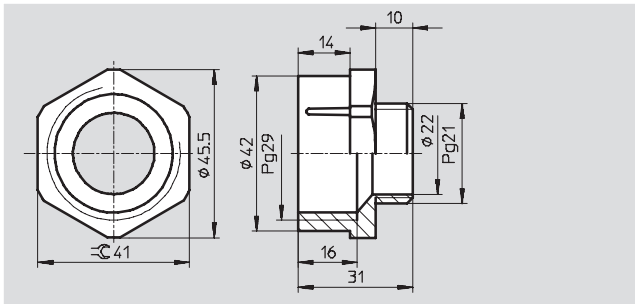
Reducing connector MKA-KU

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 ¹⁾	Weight [g]	Part No. Type
Pg 21/Pg 29	-30 ... +80	IP 50	Any	2	36	177 594 MKA-PG-21-PG-29-KU

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 surrounding industrial atmosphere or media such as cooling or lubricating agents.

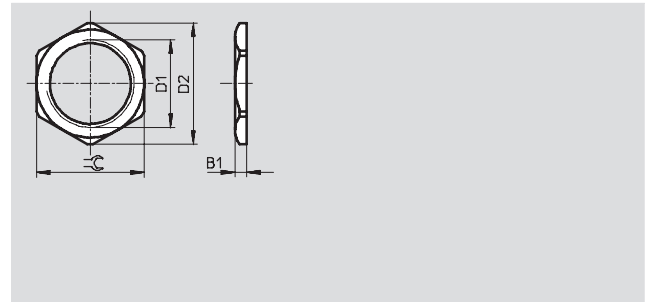
Installation components, for short strokes

Technical data

FESTO

Lock nut MKM

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



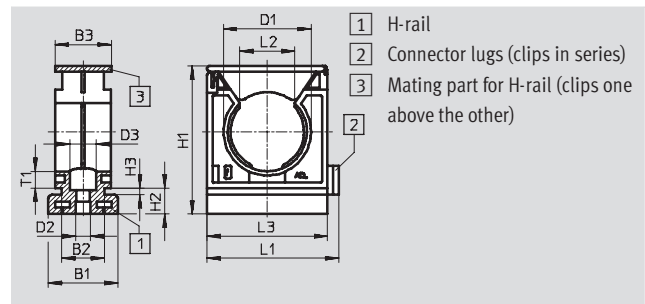
Dimensions and ordering data								
Pg connecting thread D1	D2	D3	$\approx$	Mounting position	CRC ¹⁾	Weight [g]	Part No.	Type
$\varnothing$	$\varnothing$	$\varnothing$						
Pg 9	20	2.8	18	Any	2	2	177 596	MKM-PG-9
Pg 11	23.5	3	21			3	177 597	MKM-PG-11
Pg 16	29		26			5	177 598	MKM-PG-16
Pg 21	35.5	3.5	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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Retaining clip MKRS

Material:
Polyamide
Free of copper, PTFE and silicone



Dimensions and ordering data										
Pg connecting thread	B1	B2	B3	D1 Ø	D2 Ø	D3 Ø	H1	H2	H3	L1
Pg 9	25	15	20	13	4.2	8	32	9.3	2.3	30
Pg 11				15.8			40			36.5
Pg 16				21.2			53.5			47.5
Pg 21				28.5						
Pg 29				34.5						

Pg connecting thread	L2	L3	T1	Temperature range [°C]	CRC ¹⁾	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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Installation components, for short strokes

Technical data

FESTO

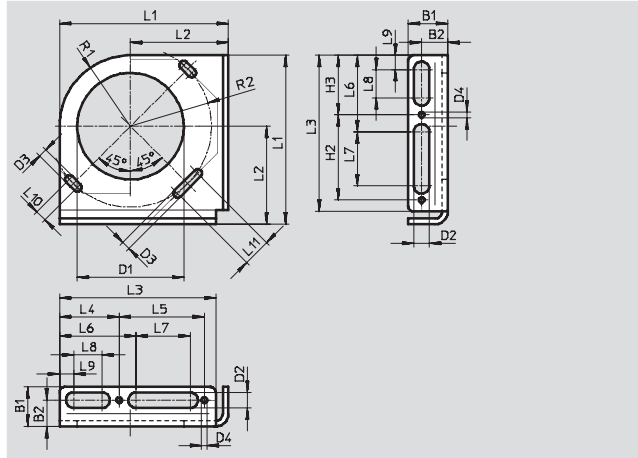
Installation kit HMZAS

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

Material:

Powder coated steel

Free of copper, PTFE and silicone



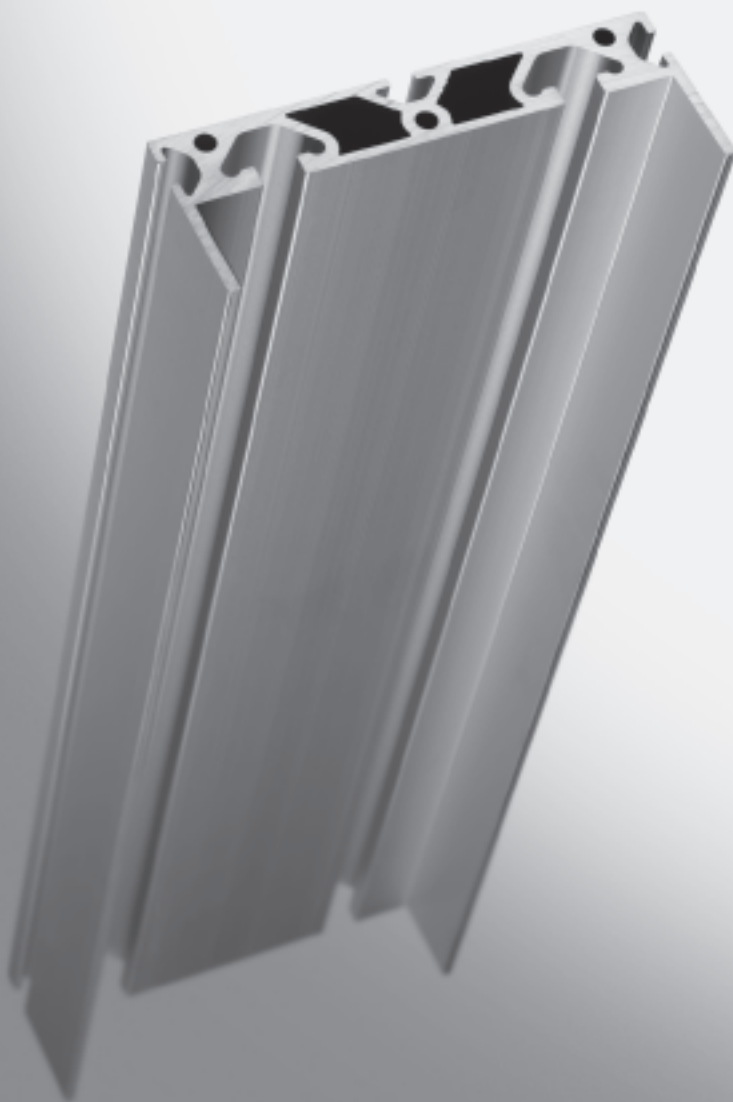
Dimensions and ordering data									
For linear module	B1	B2	D1 Ø	D2 Ø	D3 Ø	D4 Ø	H2	H3	L1
HMPL	14	9.25	28.6	5.3	3	–	–	–	54.5
HMP			37.5			2	30	21	59.5

For linear module	L2	L3	L4	L5	L6	L7	L8	L9	L10
HMPL	33.5	50	–	–	19	26	4.5	5	4
HMP	34.5	55	21	30	27	19	10	5	4

For linear module	L11	R1	R2	Mounting position	CRC ¹⁾	Weight [g]	Part No.	Type
HMPL	10	21	22	Any	1	35	193 124	HMZAS-PG-21
HMP	10	25	28.5			44	177 603	HMZAS-PG-29

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

Components requiring low corrosion resistance. 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.



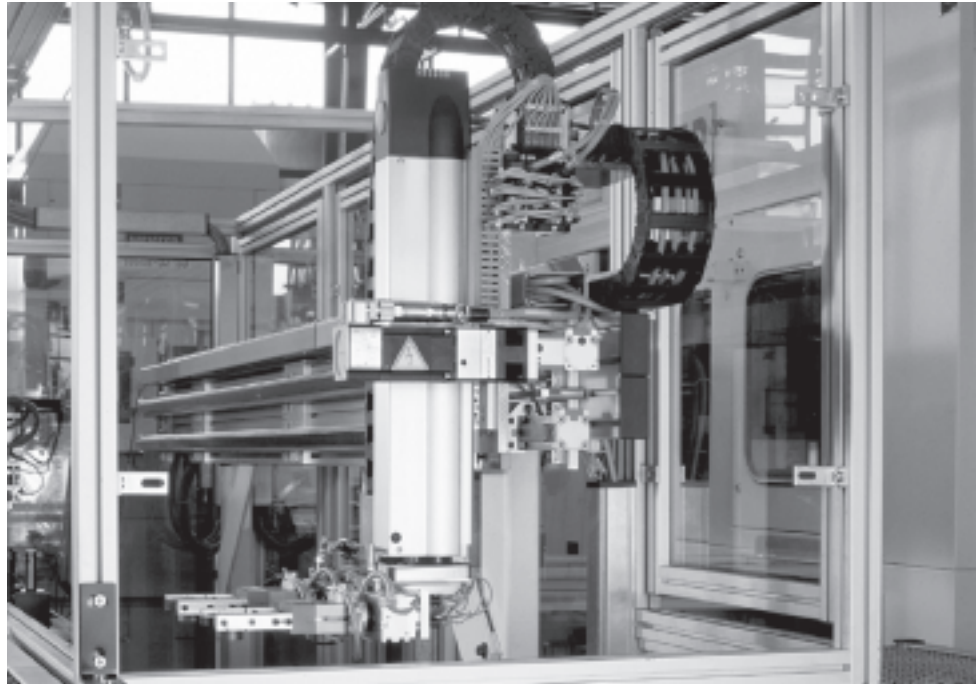
- Reliable guidance
- Rapid assembly and dismantling
- Low space requirement

Installation components, for long strokes

Key features

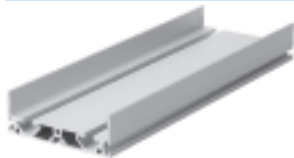
Installation components facilitate a clear-cut, safe layout of electrical cables and pneumatic tubing. They can be quickly dismantled and reassembled if servicing is required. They are mainly used for long strokes in gantries and cantilever axes for connecting protective trunking for the drives along the X- and Y-axes.

All the parts required for the combination are included in the scope of delivery



Base profile

HMIA



The base profile for protective trunking 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 protective trunking and profile via slot nut connections.

Installation kits

HMIXB-RP/FP



The installation kits permit easy and fast attachment of the protective trunking 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 protective trunking is always horizontal.

HMIXF-RP/FP



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

Accessories

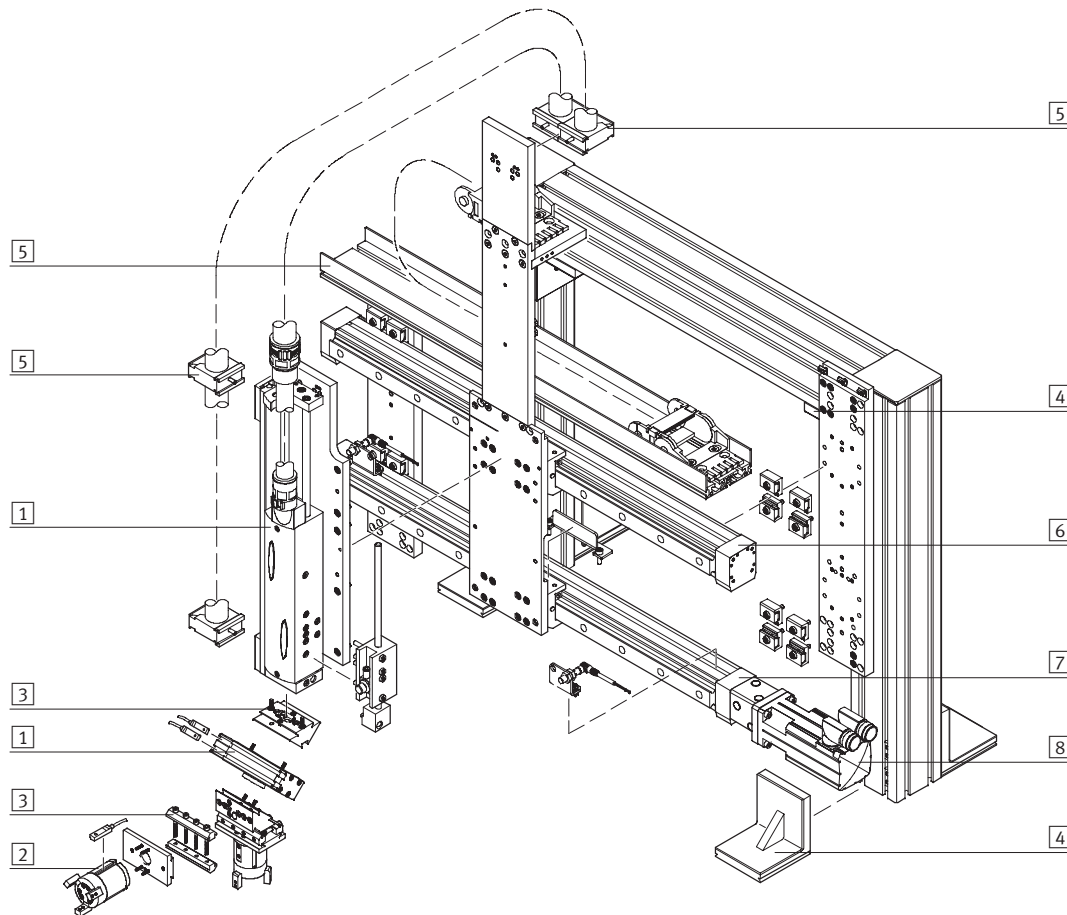
- Slot nuts
- Protective trunking (IGUS/KABELSCHLEPP)

Installation components, for long strokes

System example

FESTO

System product for handling and assembly technology

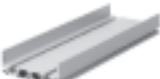


System elements and accessories		
	Brief description	→ Page/Internet
1 Drives	Wide range of combinations options within handling and assembly technology	drive
2 Grippers	Wide range of combination options within handling and assembly technology	gripper
3 Adapters	For drive/drive and drive/gripper combinations	adapter kit
4 Basic components	Profiles and profile connections as well as profile/drive connections	basic component
5 Installation components	For achieving a clear-cut, safe layout of electrical cables and tubing	installation component
6 Passive guide axes	To increase force and torque capacity in multi-axis modular systems	axes
7 Axes	Wide range of combinations options within handling and assembly technology	axes
8 Motors	Servo and stepper motors, with or without gearing	motor

Installation components, for long strokes

Selection aid

FESTO

Installation kits and base profiles	Protective trunking			KABELSCHLEPP MC series		
	IGUS E2 medium series 240					
	Energy chain			Energy chain		
	240.03.075	240.05.100	240.07.100	0320.40-01-077	0320.60-01-100	0320.80-01-100
	Connecting piece			Connecting piece		
	2030.12.PZB	2050.12.PZB	2070.12.PZB	FA/MA	FA/MA	FA/MA
	Internal divider			Internal divider		
	211	211	211	TS 0-η _T 2	TS 0-η _T 2	TS 0-η _T 2
Installation kit HMIZB-E03 	→ 72	–	–	→ 72	–	–
Installation kit HMIZF-E03-DA18 	→ 72	–	–	→ 72	–	–
Installation kit HMIZF-E03-DA25 	→ 72	–	–	→ 72	–	–
Base profile HMIA-E05 	–	→ 73	–	–	→ 73	–
Base profile HMIA-E07 	–	–	→ 73	–	–	→ 73
Installation kit HMIO-AP-1 	–	→ 73	–	–	→ 73	–
Installation kit HMIO-AP-2 	–	→ 73	–	–	→ 73	–

Installation components, for long strokes

Selection aid

FESTO

Installation kits and base profiles	Protective trunking			KABELSCHLEPP MC series		
	IGUS E2 medium series 240			Energy chain		
	Energy chain			Energy chain		
	240.03.075	240.05.100	240.07.100	0320.40-01-077	0320.60-01-100	0320.80-01-100
	Connecting piece			Connecting piece		
	2030.12.PZB	2050.12.PZB	2070.12.PZB	FA/MA	FA/MA	FA/MA
	Internal divider			Internal divider		
	211	211	211	TS 0-η _T 2	TS 0-η _T 2	TS 0-η _T 2
Installation kit HMIXF-RP/FP 	–	–	→ 73	–	–	→ 73
Installation kit HMIYF-RF/DL25 	–	–	→ 76	–	–	→ 76
Installation kit HMIYF-RF/DL40 	–	–	→ 76	–	–	→ 76
Installation kit HMIM-LP 	→ 74			→ 74		
Installation kit HMID-LP 	→ 74			→ 74		
Installation kit HMIXB-RP/FP 	→ 75			→ 75		

Installation components, for long strokes

Technical data

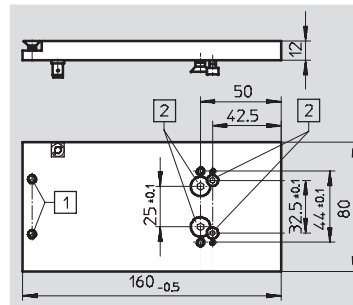
FESTO

Installation kit HMIZB-E03

For connecting protective trunking and protective conduits to the Z-axis in linear gantries

- Cantilever axes DGEA
- Spindle axes DGE
- Linear modules HMP and HMPL
- Mini slides SLT
- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 HMIM-LP/HMID-LP
- 2 Protective trunking

Technical data and ordering codes

CRC ¹⁾	Weight	Part No.	Type
	[g]		
2	410	539 365	HMIZB-E03

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

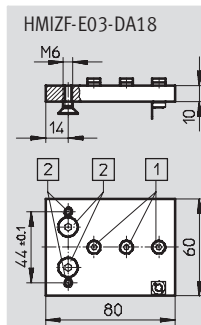
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation kit HMIZF-E03

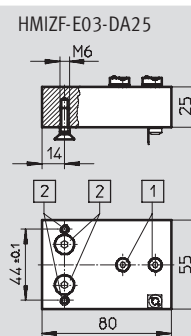
For connecting protective trunking to the Z-axis in gantries

- Cantilever axes DGEA
- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 DGEA-18
- 2 Protective trunking



- 1 DGEA-25
- 2 Protective trunking

Technical data and ordering codes

CRC ¹⁾	Weight	Part No.	Type
	[g]		
2	130	539 370	HMIZF-E03-DA18
	300	539 371	HMIZF-E03-DA25

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.

Installation components, for long strokes

Technical data

FESTO

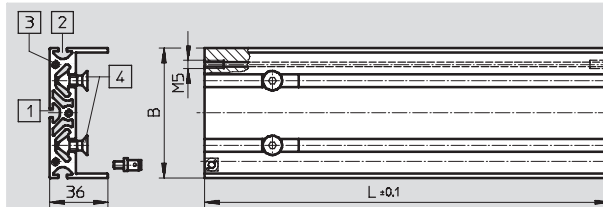
Base profile HMIA



For mounting and routing the protective trunking in gantries along the X- and Y-axes

- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 HMIXB-RP/FP
- 2 HMVM-LP-DL25/40, HMVD-LP-DL25/40
- 3 HMVV-RP/FP
- 4 Protective trunking

The length L depends on the stroke length and must be specified with the order ($L_{\max.} = 3 \text{ m}$).

Technical data and ordering codes				
B	CRC ¹⁾	Weight per metre	Part No.	Type
[mm]		[g]		
80	2	2120	539 378	HMIA-E05
100		2340	539 379	HMIA-E07

- 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.

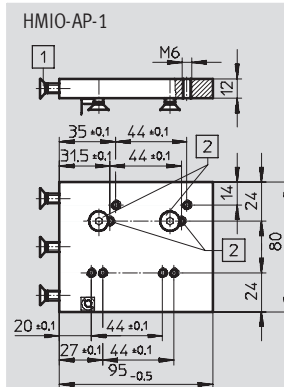
Installation kit HMIO-AP



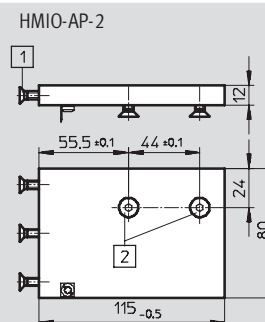
For mounting the protective trunking along the Y-axis in linear gantries

- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 HMVS-DL25, HMVS-DL40
HMIM-LD
HMID-LD
- 2 Protective trunking



- 1 HMVS-DL40
HMID-LD
- 2 Protective trunking

Technical data and ordering codes			
CRC ¹⁾	Weight	Part No.	Type
	[g]		
2	240	539 366	HMIO-AP-1
	300	540 121	HMIO-AP-2

- 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.

Installation components, for long strokes

Technical data

FESTO

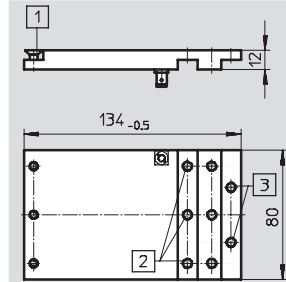
Installation kit HMIM-LP



Extension plate for linear gantries for height compensation in mono systems and systems with end position controller SPC-11

- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 HMVS-DL25, HMVS-DL40
- 2 HMIO-AP-1
- 3 HMIZB-E03

Technical data and ordering codes

CRC ¹⁾	Weight [g]	Part No.	Type
2	300	539 364	HMIM-LP

- 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.

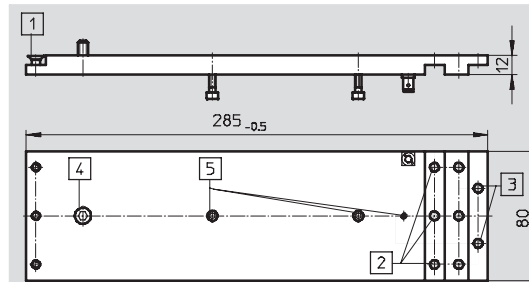
Installation kit HMID-LP



Extension plate for linear gantries for height compensation in duo systems

- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 HMVS-DL25, HMVS-DL40
- 2 HMIO-AP-1, HMIO-AP-2
- 3 HMIZB-E03
- 4 HMVZ
- 5 MPV-E/A08-M8, MPV-E/A12-M8

Technical data and ordering codes

CRC ¹⁾	Weight [g]	Part No.	Type
2	700	539 363	HMID-LP

- 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.

Installation components, for long strokes

Technical data

FESTO

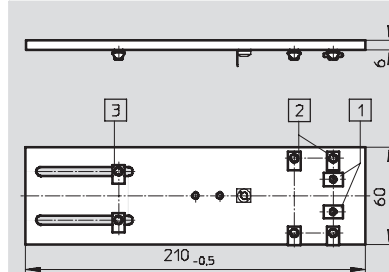
Installation kit HMIXB-RP/FP



For mounting the base profile
HMIA-E07 along the X-axis in
3-dimensional gantries

- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 DGE-25
- 2 DGE-40
- 3 HMIA-E07

Technical data and ordering codes

CRC ¹⁾	Weight	Part No.	Type
	[g]		
2	200	539 654	HMIXB-RP/FP

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.

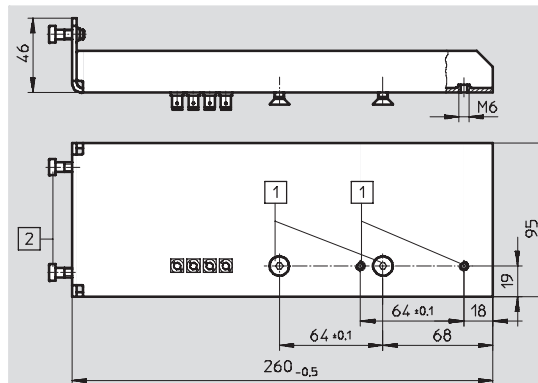
Installation kit HMIXF-RP/FP



For mounting the protective trunking
along the X-axis in 3-dimensional
gantries

- Fastening material and earthing kits are included in delivery

Material:
Galvanised steel
Free of copper, PTFE and silicone



- 1 Protective trunking
- 2 HMVV-RP/FP

Technical data and ordering codes

CRC ¹⁾	Weight	Part No.	Type
	[g]		
2	330	539 658	HMIXF-RP/FP

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.

Installation components, for long strokes

Technical data



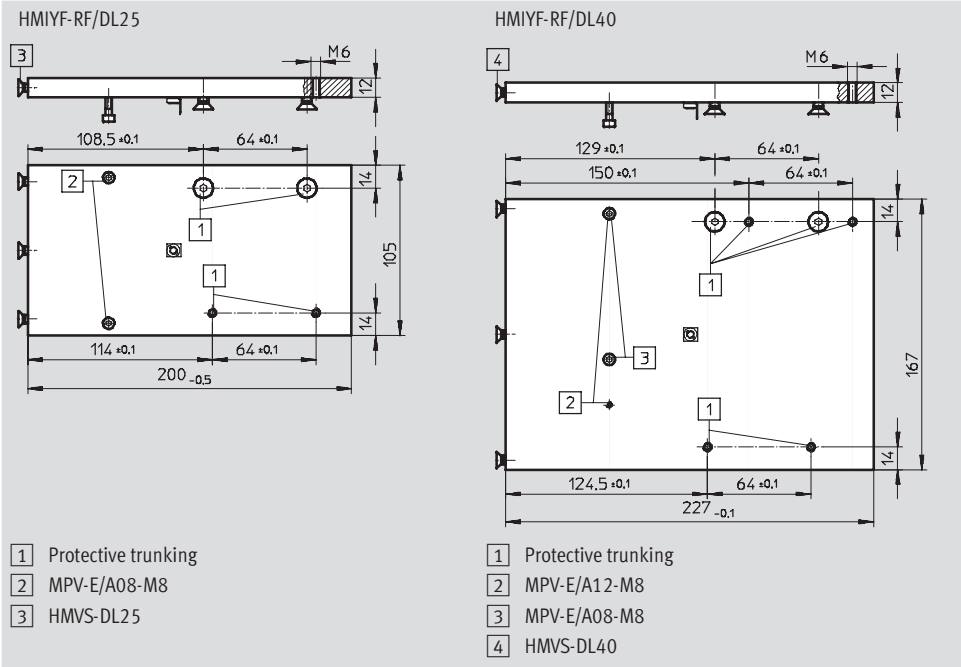
Installation kit HMIYF-RF/DL



For mounting the protective trunking along the Y-axis in 3-dimensional gantries

- Fastening material and earthing kits are included in delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



Technical data and ordering codes			
CRC ¹⁾	Weight	Part No.	Type
	[g]		
2	700	539 659	HMIYF-RF/DL25
	1200	539 660	HMIYF-RF/DL40

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.

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Custom Control Cabinets

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

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Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 11,500 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

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