



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

Multi-axis modular system

Key features



The concept






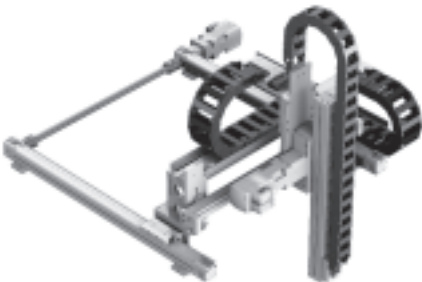
The multi-axis modular system for handling and assembly technology includes basic, connection and installation components for assembling multi-axis systems. These standardised axis combinations are the product of over ten years experience in the designing

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

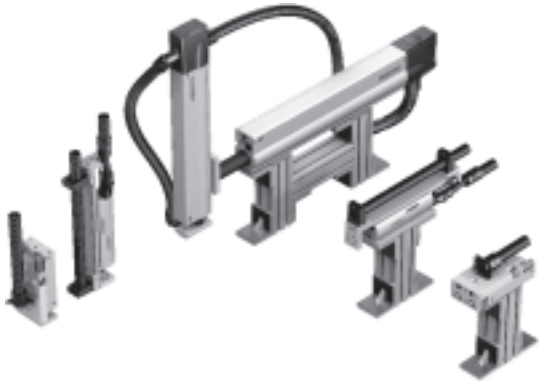
| Pick & place | Linear gantries | 3-Dimensional gantries |
|--|---|---|
| Pneumatic | | Pneumatic/electrical |
|  <p>→ 5 / 3.3-40</p> |  <p>→ 5 / 3.3-58</p> |  <p>→ 5 / 3.3-72</p> |
| Pneumatic with end position controller SPC11 (Soft Stop) | | |
| |  <p>→ 5 / 3.3-58</p> | |
| Electrical with spindle or toothed belt axis | | |
| |  <p>→ 5 / 3.3-58</p> |  <p>→ 5 / 3.3-72</p> |

Multi-axis modular system

Key features

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Pick & place



Linear gantries



3-Dimensional gantries



System components
Multi-axis modular system

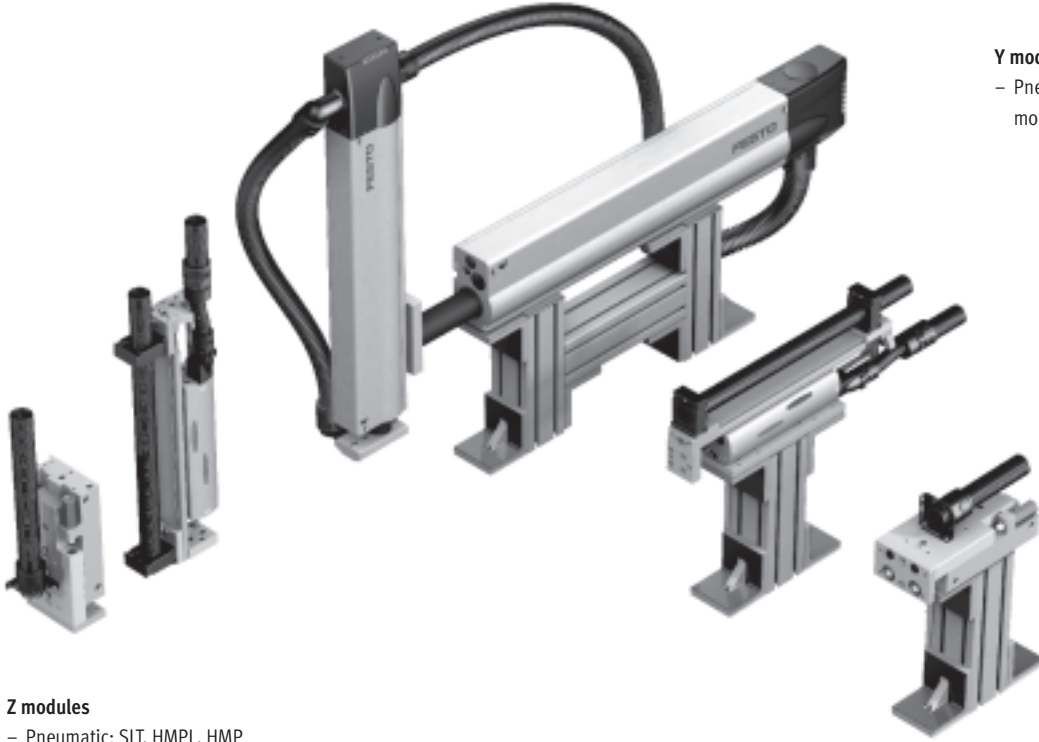
3.3

Pick & place

Key features



Y and Z modules



Y modules

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

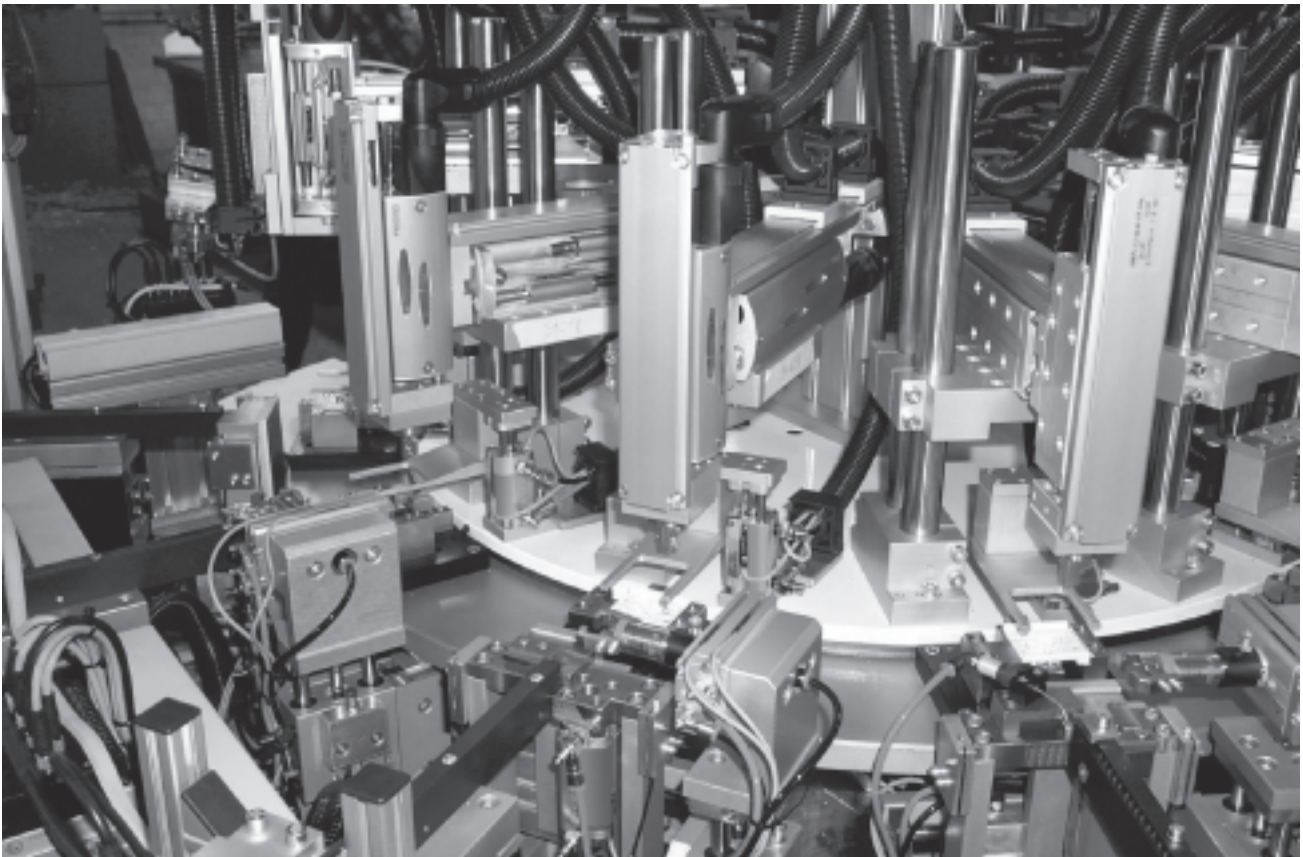
Z modules

- Pneumatic: SLT, HMPL, HMP

System components
Multi-axis modular system

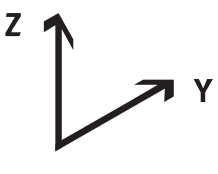





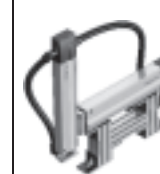
3.3

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 / 3.3-42 | | | | | |

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 / 3.3-46 | – | – |
| DGSL-20 | 30 ... 100 | HMBSY-DGSL-2 → 5 / 3.3-46 | – | – |
| | 125 ... 200 | HMBSY-DGSL-3 → 5 / 3.3-46 | – | – |
| DGSL-25 | 30 ... 100 | HMBSY-DGSL-4 → 5 / 3.3-46 | – | – |
| | 125 ... 200 | HMBSY-DGSL-5 → 5 / 3.3-46 | – | – |
| SLT-16 | 30 ... 150 | – | HMBSY-SLT-1 → 5 / 3.3-47 | – |
| SLT-20 | 30 ... 100 | – | HMBSY-SLT-2 → 5 / 3.3-47 | – |
| | 125 ... 200 | – | HMBSY-SLT-3 → 5 / 3.3-47 | – |
| SLT-25 | 30 ... 100 | – | HMBSY-SLT-4 → 5 / 3.3-47 | – |
| | 125 ... 200 | – | HMBSY-SLT-5 → 5 / 3.3-47 | – |
| HMPL-16 | 50 ... 160 | – | – | HMBSY-HMPL-1 HMBSY-HMPL-2 → 5 / 3.3-48 |
| HMPL-20 | 50 ... 200 | – | – | HMBSY-HMPL-3 HMBSY-HMPL-4 → 5 / 3.3-48 |

Pick & place

Selection aid for basic, connection and installation components

| Y-axis | | | |
|---|---|--|---|
| Function | HMP, HME/DGSL, SLT | HMP, HME/HMPL | HMP, HME/HMP |
|  |  |  |  |
| Pneumatic drives | Stroke [mm] | Type | |
| HMP-16 | 150 ... 250 | HMBSY-HMP-1 → 5 / 3.3-49 | HMBSY-HMP-1 → 5 / 3.3-49 |
| | 320 | HMBSY-HMP-2 → 5 / 3.3-49 | HMBSY-HMP-2 → 5 / 3.3-49 |
| HMP-20 | 100 ... 250 | HMBSY-HMP-3 → 5 / 3.3-49 | HMBSY-HMP-3 → 5 / 3.3-49 |
| | 320 ... 400 | HMBSY-HMP-4 → 5 / 3.3-49 | HMBSY-HMP-4 → 5 / 3.3-49 |
| HMP-25 | 100 ... 200 | HMBSY-HMP-5 → 5 / 3.3-50 | HMBSY-HMP-5 → 5 / 3.3-50 |
| | 250 ... 400 | HMBSY-HMP-6 → 5 / 3.3-50 | HMBSY-HMP-6 → 5 / 3.3-50 |
| HMP-32 | 100 ... 200 | – | HMBSY-HMP-7 → 5 / 3.3-50 |
| | 250 ... 400 | – | HMBSY-HMP-8 → 5 / 3.3-50 |

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 / 3.3-49
Z-axis: HMBSZ-HMPL-3 or 4
→ 5 / 3.3-55

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

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| Z-axis | | | | |
|---|---|---|--|---|
| Function | DGSL/DGSL | SLT/SLT | HMPL/HMPL | HMP, HME/DGSL |
|  |  |  |  |  |
| Pneumatic drives | Type | | | |
| DGSL-10 | HMBSZ-DGSL-1 → 5 / 3.3-51 | - | - | - |
| DGSL-16 | HMBSZ-DGSL-2 → 5 / 3.3-51 | - | - | HMBSZ-DGSL-4 → 5 / 3.3-52 |
| DGSL-20 | HMBSZ-DGSL-3 → 5 / 3.3-51 | - | - | HMBSZ-DGSL-5 → 5 / 3.3-52 |
| DGSL-25 | - | - | - | HMBSZ-DGSL-6 → 5 / 3.3-52 |
| SLT-10 | - | HMBSZ-SLT-1 → 5 / 3.3-53 | - | - |
| SLT-16 | - | HMBSZ-SLT-2 → 5 / 3.3-53 | - | - |
| SLT-20 | - | HMBSZ-SLT-3 → 5 / 3.3-53 | - | - |
| SLT-25 | - | - | - | - |
| HMPL-12 | - | - | HMBSZ-HMPL-1 HMBSZ-HMPL-2 | - |
| HMPL-16 | - | - | → 5 / 3.3-55 | - |
| 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 / 3.3-54 | – | – |
| SLT-20 | HMBSZ-SLT-5 → 5 / 3.3-54 | – | – |
| SLT-25 | HMBSZ-SLT-6 → 5 / 3.3-54 | – | – |
| HMPL-16 | – | HMBSZ-HMPL-3 HMBSZ-HMPL-4 → 5 / 3.3-55 | – |
| HMPL-20 | – | – | – |
| HMP-16 | – | – | HMBSZ-HMP-1 → 5 / 3.3-56 |
| HMP-20 | – | – | HMBSZ-HMP-2 → 5 / 3.3-56 |
| HMP-25 | – | – | HMBSZ-HMP-3 → 5 / 3.3-56 |

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 / 3.3-49
Z-axis: HMBSZ-HMPL-3 or 4
→ 5 / 3.3-55

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

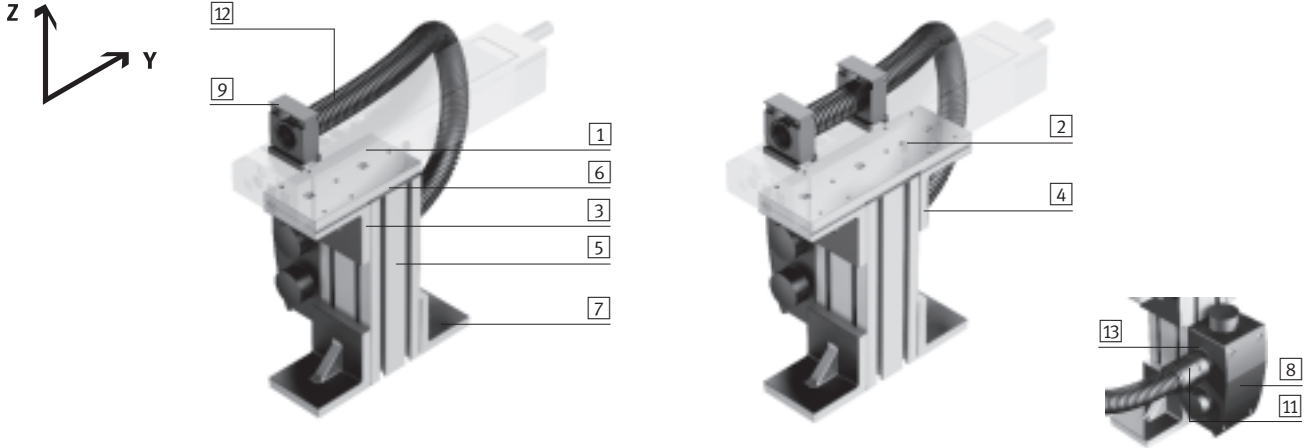
Technical data on the basic, connection and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are documented with the drives.

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 / 3.3-93 |
| [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 / 3.3-90 |
| [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 / 3.3-90 |
| [7] | 2 | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 5 / 3.3-92 |
| [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 |

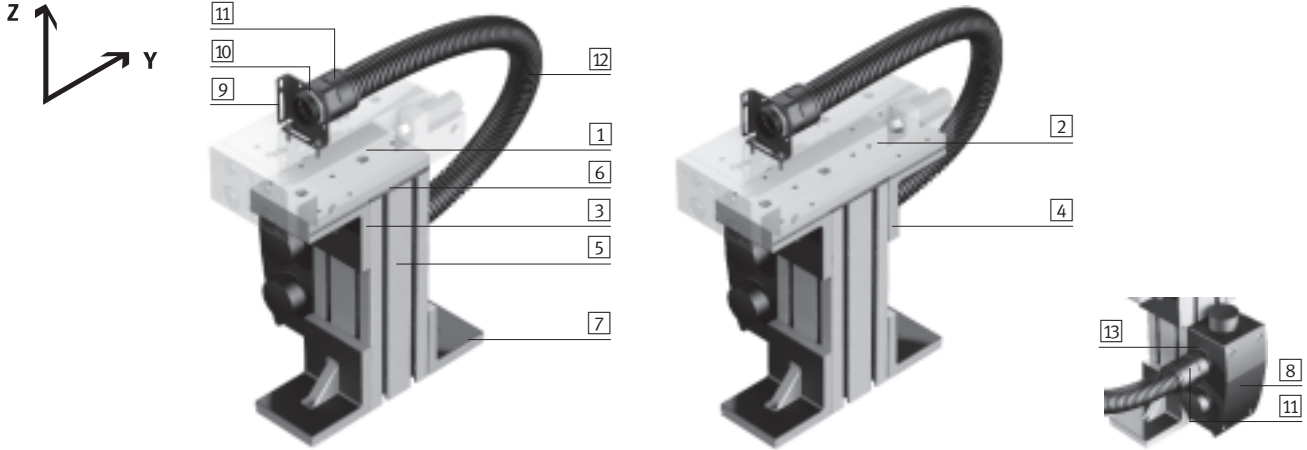
1) Height max. 500 mm

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 / 3.3-93 |
| 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 / 3.3-90 |
| 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 / 3.3-90 |
| 7 | 2 | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 5 / 3.3-92 |
| 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 |

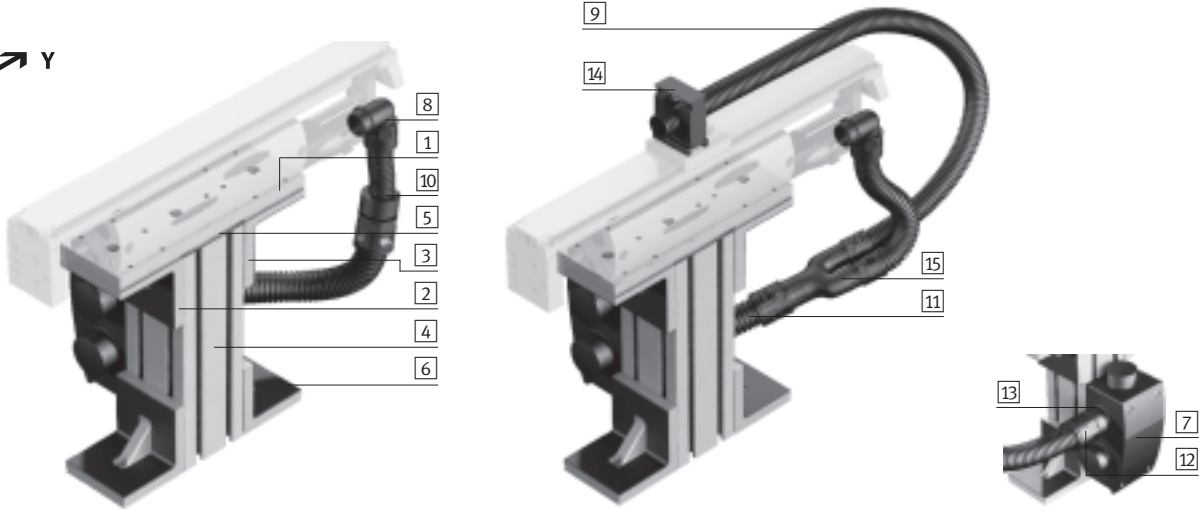
1) Height max. 500 mm
 2) Length depends on the stroke of the drive

Pick & place

Y modules

FESTO

Linear modules HMPL



Bill of materials

| Type | | HMBSY-HMPL-1 | HMBSY-HMPL-2 | HMBSY-HMPL-3 | HMBSY-HMPL-4 | → Page |
|------------|-----------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|-------------|
| For drives | | HMPL-16 | 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 | Part No. Type | |
| 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 / 3.3-93 |
| 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 / 3.3-90 |
| 5 | 1 | 175 965 HMBSA-80/80 | 175 965 HMBSA-80/80 | 175 965 HMBSA-80/80 | 175 965 HMBSA-80/80 | 5 / 3.3-90 |
| 6 | 2 | 175 951 HMBF-DB | 175 951 HMBF-DB | 175 951 HMBF-DB | 175 951 HMBF-DB | 5 / 3.3-92 |
| 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

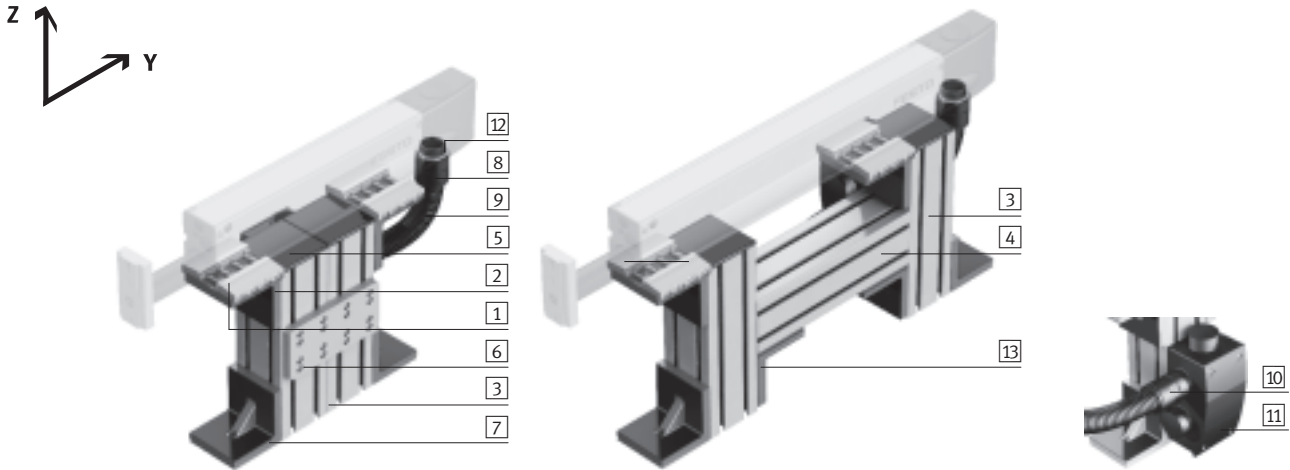
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

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 | | | | | | | | → Page |
|-------------------|-------------------|----------|-----------------|----------|-----------------|----------|-----------------------|-------------|
| 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 | |
| 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 / 3.3-93 |
| 3 | 2 ¹⁾ | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 5 / 3.3-90 |
| 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 / 3.3-90 |
| 6 | 1 | 175 972 | HMBSV | - | | 175 972 | HMBSV | 5 / 3.3-91 |
| 7 | 2 | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 5 / 3.3-92 |
| 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 / 3.3-91 |

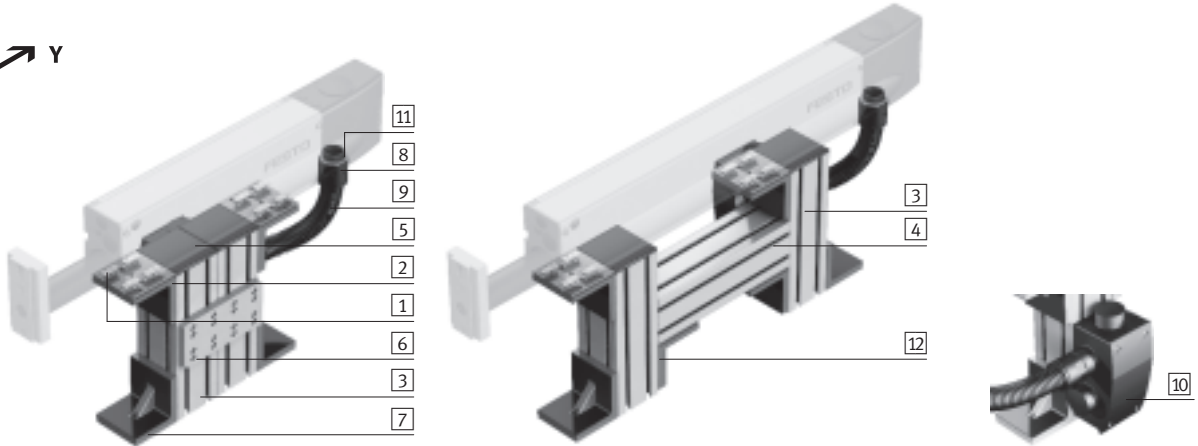
- 1) Height max. 500 mm
- 2) Length 250 mm
- 3) Length depends on the stroke of the drive
- 4) It is not suitable for use with linear module HME

Pick & place

Y modules



Linear modules HMP, HME



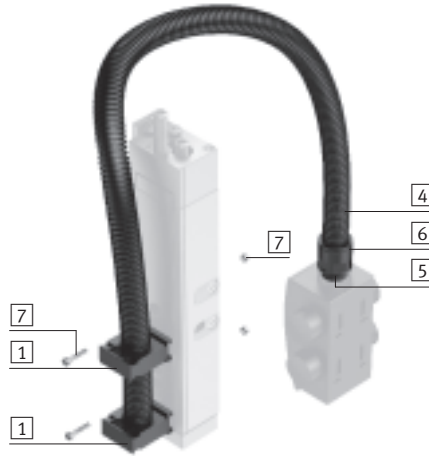
| Bill of materials | | | | | | | | | | |
|-------------------|-------------------|----------|---------------|----------|---------------|----------|---------------|----------|---------------|-------------|
| Type | HMBSY-HMP-5 | | HMBSY-HMP-6 | | HMBSY-HMP-7 | | HMBSY-HMP-8 | | → Page | |
| For drives | 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 | 5 / 3.3-108 |
| [2] | 2 | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 5 / 3.3-93 |
| [3] | 2 ¹⁾ | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 5 / 3.3-90 |
| [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 / 3.3-90 |
| [6] | 1 | 175 972 | HMBSV | - | | 175 972 | HMBSV | - | | 5 / 3.3-91 |
| [7] | 2 | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 5 / 3.3-92 |
| [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 / 3.3-91 |

- 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⁾ | - |

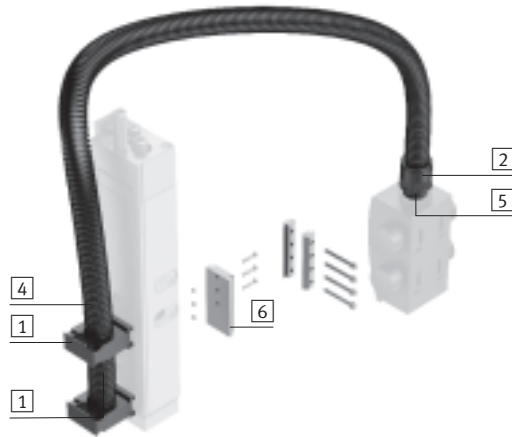
1) Length depends on the stroke of the drive

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

Pick & place

Z modules

Mini slides DGSL



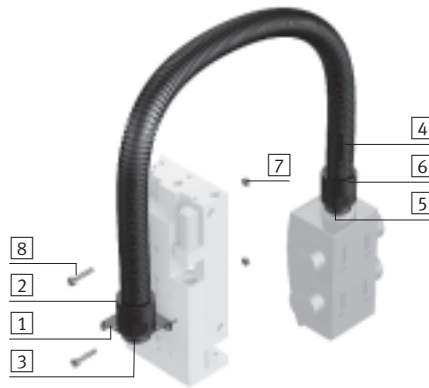
| Bill of materials | | | | | | | | |
|-------------------|-----------------|--------------|--------------------|--------------|-----------------|--------------|-----------------|-------------|
| Type | | HMBSZ-DGSL-4 | | HMBSZ-DGSL-5 | | HMBSZ-DGSL-6 | | |
| For drives | | DGSL-16 | | DGSL-20 | | DGSL-25 | | |
| Item | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | → Page |
| [1] | 2 | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 5 / 3.3-135 |
| | | 548 803 | ZBV-M5-7 | 548 804 | ZBV-M5-9 | 548 804 | ZBV-M5-9 | |
| [2] | 1 | 177 571 | MKRV-16,5-PG-16 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-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 / 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 | | - |

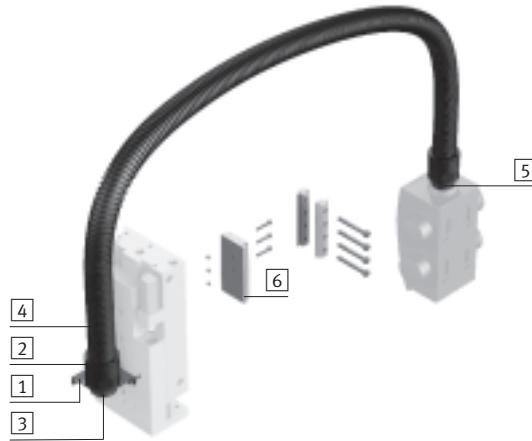
1) Length depends on the stroke of the drive

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

Pick & place

Z modules

Mini slides SLT



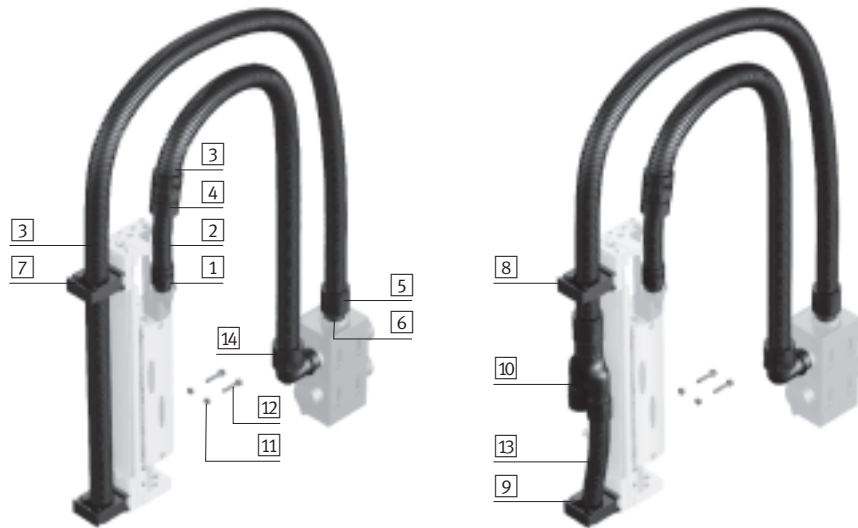
| Bill of materials | | | | | | |
|-------------------|-----------------|-------------|-----------------|-------------|-----------------|----------------------------|
| Type | | HMBSZ-SLT-4 | | HMBSZ-SLT-5 | | HMBSZ-SLT-6 |
| For drives | | SLT-16 | | SLT-20 | | SLT-25 |
| Item | Quantity | Part No.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

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

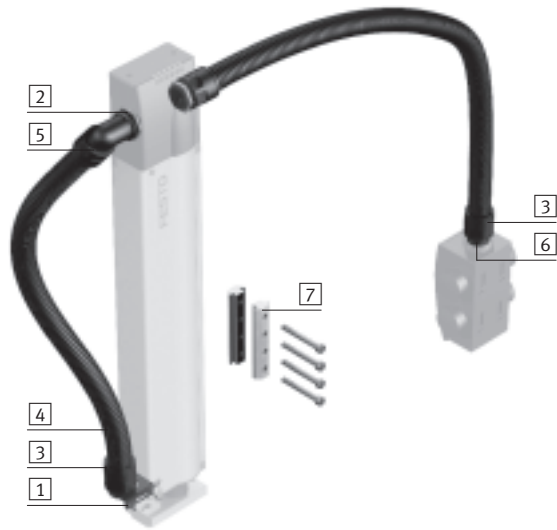
2) In order to be able to mount the retaining clip MKRS, a clamping component (2x code I) must be selected as an accessory in the order for the linear module HMPL.

3) 10 per packaging unit

Pick & place

Z modules

Linear modules HMP



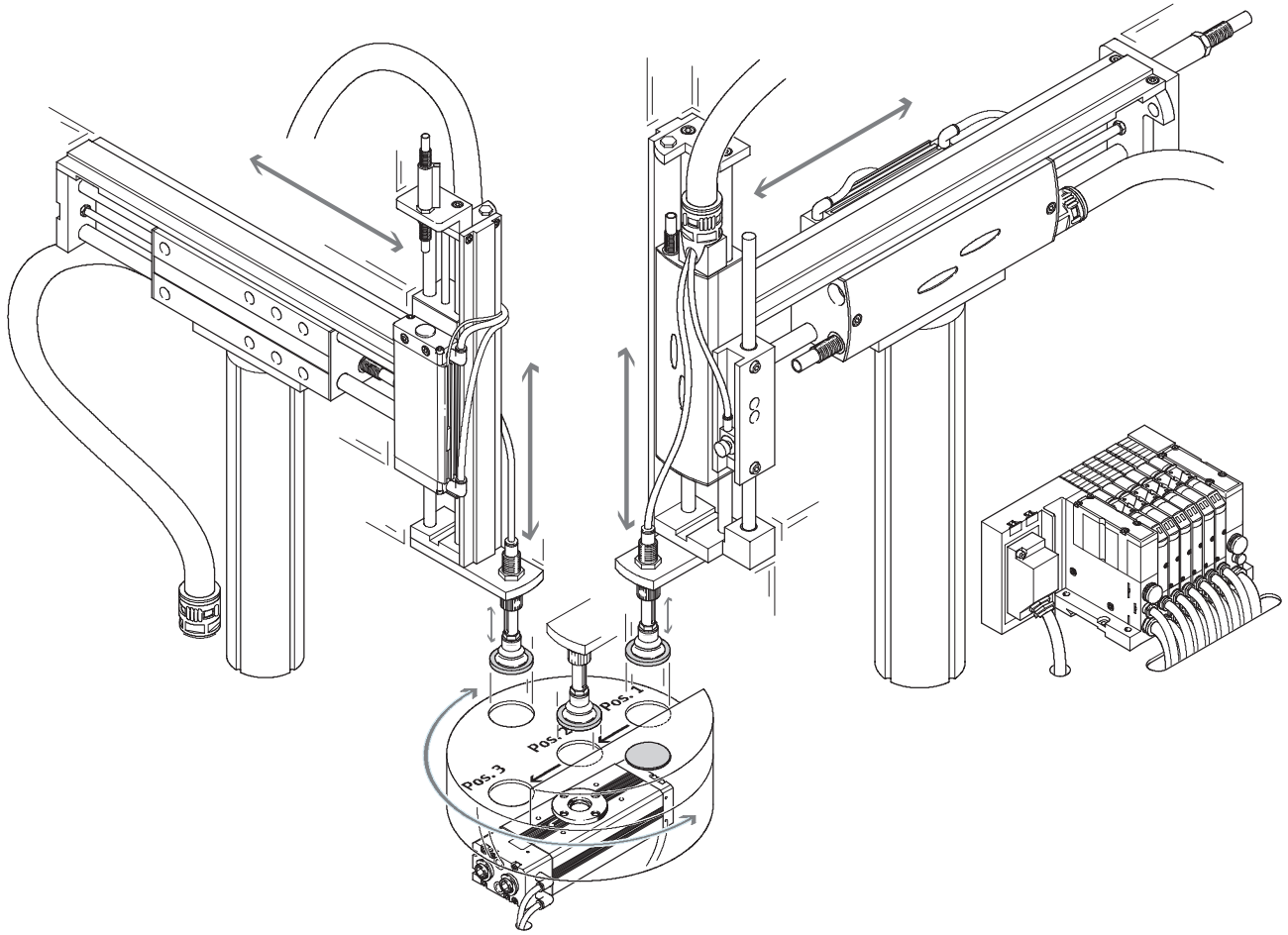
| Bill of materials | | | | | | | |
|-------------------|-----------------|----------------------------|-------------|--------------------------|-------------|--------------------------|-------------|
| Type | HMBSZ-HMP-1 | | HMBSZ-HMP-2 | | HMBSZ-HMP-3 | | → Page |
| For drives | HMP-16 | | HMP-20 | | 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 / 3.3-100 |

1) Length depends on the stroke of the drive

Pick & place

System example

Combination with handling modules HMPL

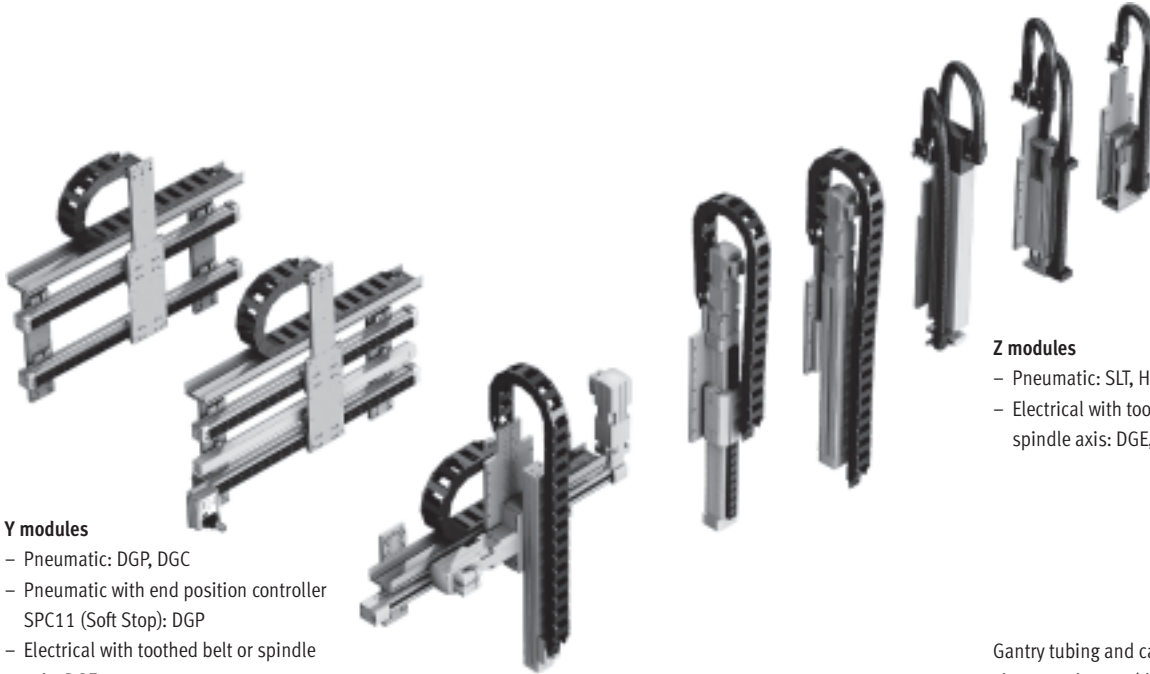


Linear gantries

Key features



Y and Z modules



Y modules

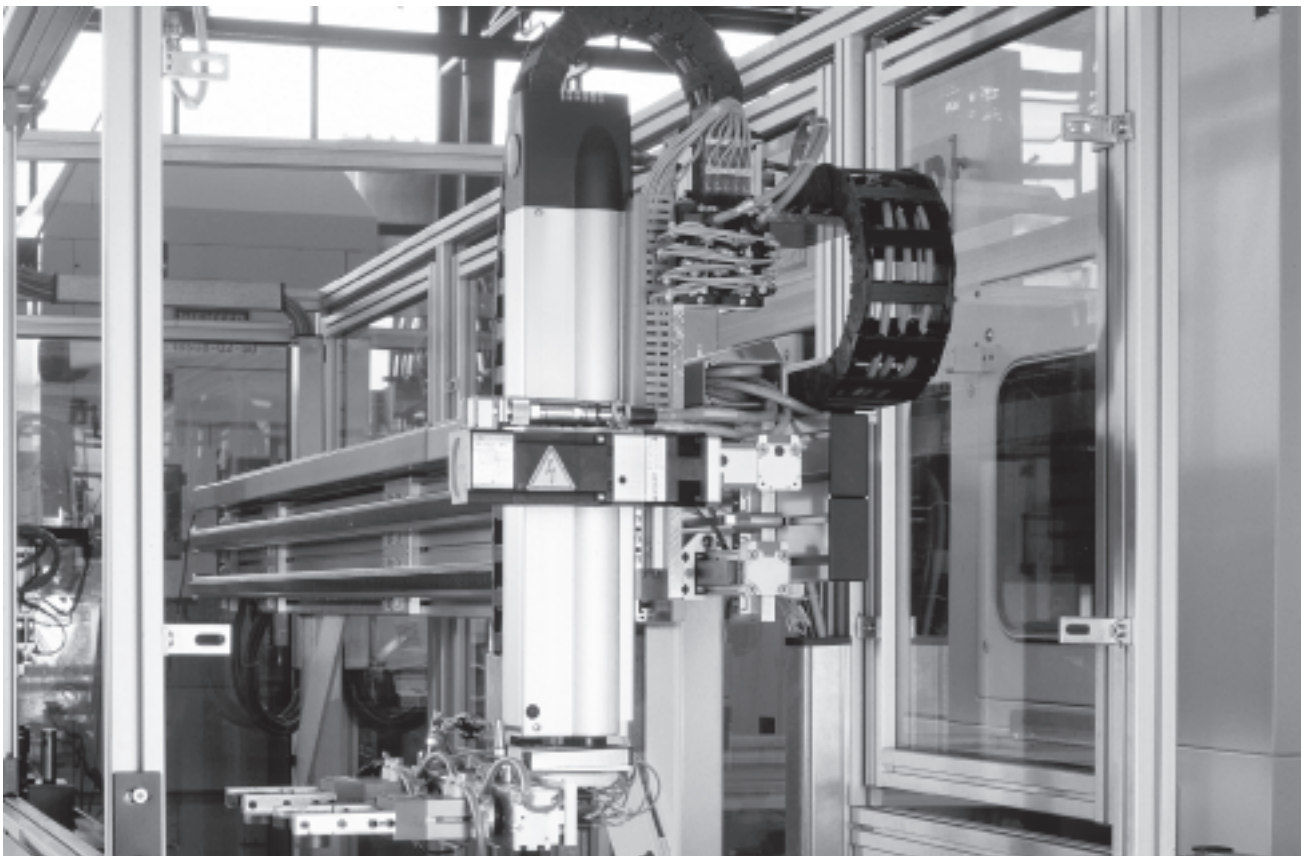
- Pneumatic: DGP, DGC
- Pneumatic with end position controller SPC11 (Soft Stop): DGP
- Electrical with toothed belt or spindle axis: DGE
- Single-axis systems (mono) or drives with guide axis (duo)

Z modules

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

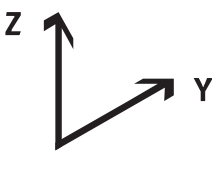


Gantry tubing and cables are routed via protective trunking. Festo uses a base profile for this purpose specially designed for handling technology.

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 / 3.3-60 | | | |

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 / 3.3-62 | – | HMBSY-LP-D25-1 → 5 / 3.3-64 | – |
| DGC-25 | HMBSY-LP-M25-2 → 5 / 3.3-62 | – | HMBSY-LP-D25-2 → 5 / 3.3-64 | – |
| DGPL-25 with SPC11 | HMBSY-LP-M25-3 → 5 / 3.3-62 | – | HMBSY-LP-D25-3 → 5 / 3.3-64 | – |
| DGPL-40 | – | HMBSY-LP-M40-1 → 5 / 3.3-63 | – | HMBSY-LP-D40-1 → 5 / 3.3-65 |
| DGC-40 | – | HMBSY-LP-M40-2 → 5 / 3.3-63 | – | HMBSY-LP-D40-2 → 5 / 3.3-65 |
| DGPL-40 with SPC11 | – | HMBSY-LP-M40-3 → 5 / 3.3-63 | – | HMBSY-LP-D40-3 → 5 / 3.3-65 |
| Electrical drives | Type | | | |
| DGE-25 -SP-KF | HMBSY-LP-M25-1 → 5 / 3.3-62 | – | HMBSY-LP-D25-1 → 5 / 3.3-64 | – |
| -ZR-KF | | | | |
| -ZR-RF | HMBSY-LP-M25-4 → 5 / 3.3-62 | – | HMBSY-LP-D25-4 → 5 / 3.3-64 | – |
| DGE-40 -SP-KF | – | HMBSY-LP-M40-1 → 5 / 3.3-63 | – | HMBSY-LP-D40-1 → 5 / 3.3-65 |
| -ZR-KF | | | | |
| -ZR-RF | | | | |

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 / 3.3-64
Z-axis: HMBSZ-SLT-7
→ 5 / 3.3-67

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 / 3.3-66 | – | – | – |
| DGSL-20 | – | HMBSZ-DGSL-8 → 5 / 3.3-66 | – | – |
| DGSL-25 | – | HMBSZ-DGSL-8 → 5 / 3.3-66 | HMBSZ-DGSL-8 → 5 / 3.3-66 | – |
| SLT-16 | HMBSZ-SLT-7 → 5 / 3.3-67 | – | – | – |
| SLT-20 | – | HMBSZ-SLT-7 → 5 / 3.3-67 | HMBSZ-SLT-7 → 5 / 3.3-67 | – |
| SLT-25 | – | – | HMBSZ-SLT-7 → 5 / 3.3-67 | – |
| HMPL-16 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-68 | – | – | – |
| HMPL-20 | – | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-68 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-68 | – |
| HMP-16 | – | HMBSZ-HMP-4 → 5 / 3.3-69 | HMBSZ-HMP-4 → 5 / 3.3-69 | – |
| HMP-20 | – | – | HMBSZ-HMP-5 → 5 / 3.3-69 | – |
| HMP-25 | – | – | – | HMBSZ-HMP-6 → 5 / 3.3-69 |
| Electrical drives | Type | | | |
| DGEA-18 | HMBSZ-DGEA-1 → 5 / 3.3-70 | HMBSZ-DGEA-1 → 5 / 3.3-70 | HMBSZ-DGEA-1 → 5 / 3.3-70 | – |
| DGEA-25 | – | – | HMBSZ-DGEA-2 → 5 / 3.3-70 | HMBSZ-DGEA-3 → 5 / 3.3-70 |
| DGE-25-SP | – | HMBSZ-DGE-1 → 5 / 3.3-71 | HMBSZ-DGE-1 → 5 / 3.3-71 | – |
| DGE-40-SP | – | – | HMBSZ-DGE-2 → 5 / 3.3-71 | HMBSZ-DGE-3 → 5 / 3.3-71 |

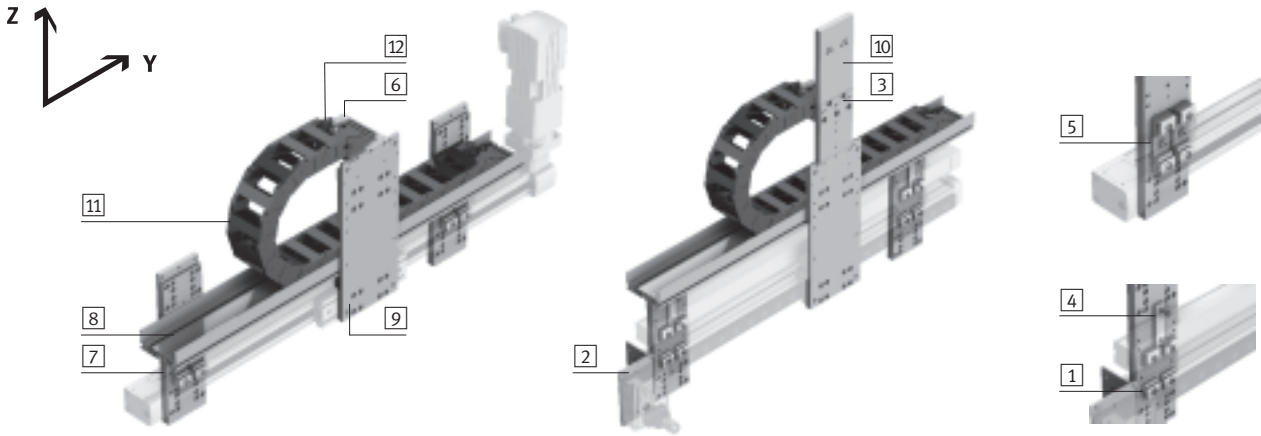
Linear gantries

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.

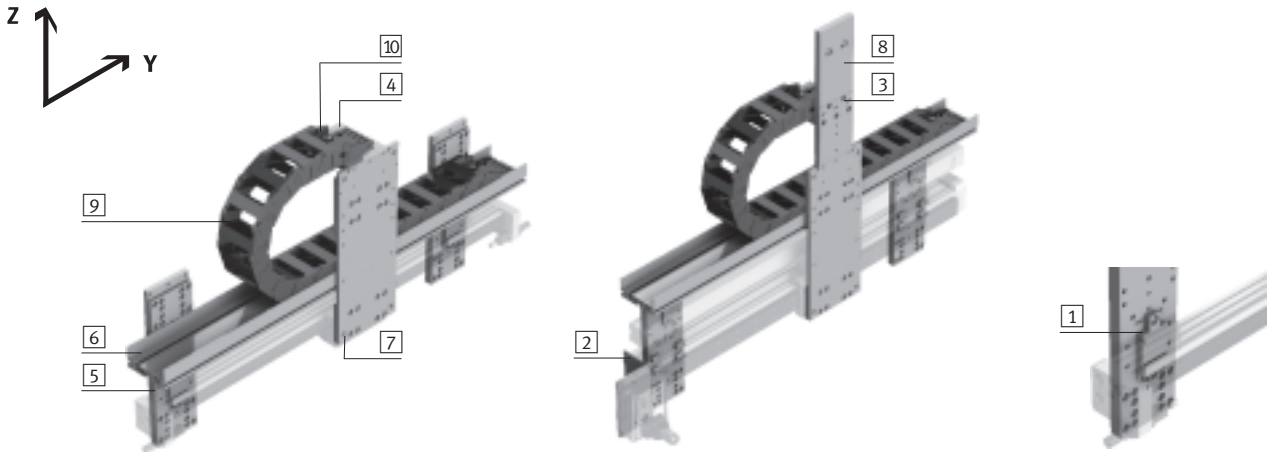
3) Length depends on the stroke of the drive

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

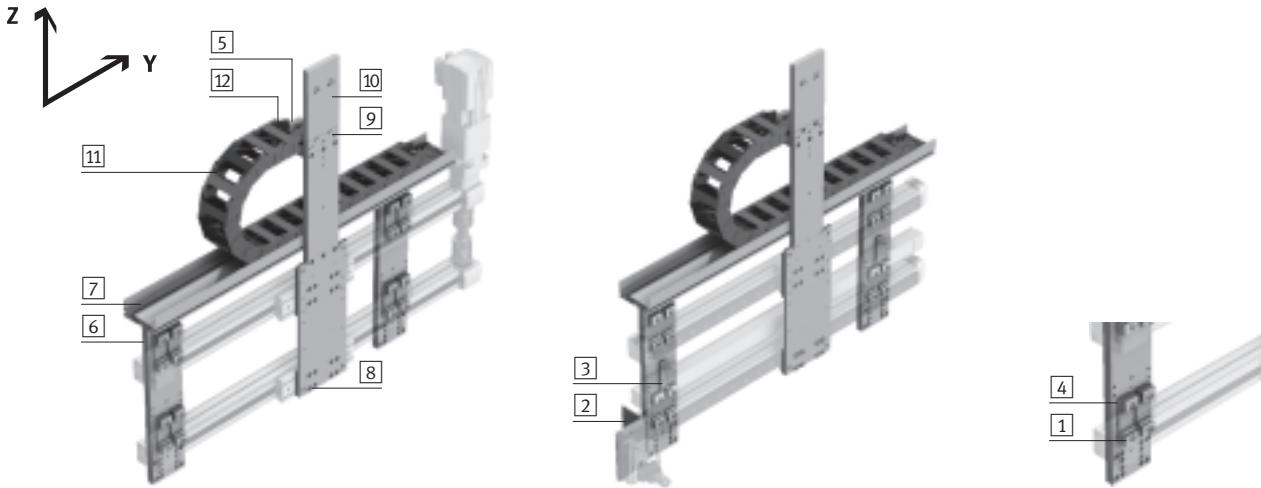
Linear gantries

Y modules



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 | |
| 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 | |
| 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 | |
| 7 | 1 ³⁾ | 539 378 | | 539 378 | | 539 378 | 539 378 | 5 / 3.3-143 |
| | | | 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 | |
| 9 | 1 | 539 363 | | 539 363 | | 539 363 | 539 363 | 5 / 3.3-144 |
| | | | 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 | |
| 11 | 1 | IGUS E2 medium 240.05.100 and 211 or KABELSCHLEPP MC 0320.60-01-100 and TS O/h _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.

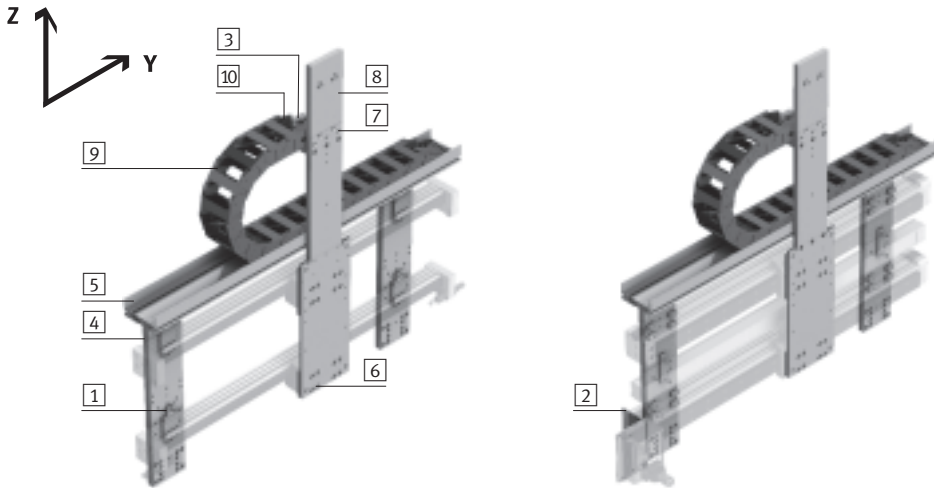
3) Length depends on the stroke of the drive

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 | | → Page | | |
| 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 | |
| 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/η _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

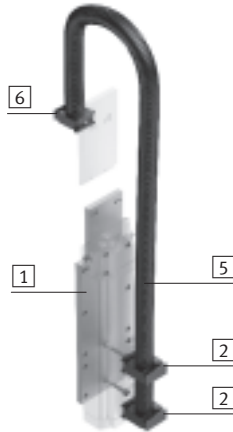
Linear gantries

Z modules



Z modules

Mini slides DGSL



System components
Multi-axis modular system

3.3

| 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 | → Page |
| [1] | 1 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 5 / 3.3-117 |
| [2] | 1 | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 5 / 3.3-135 |
| | | 548 803 | ZBV-M5-7 | 548 804 | ZBV-M5-9 | 548 804 | ZBV-M5-9 | |
| | | 177 566 | MKR-16,5-PG-16 | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | |
| [5] | 1 ¹⁾ | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 5 / 3.3-128 |
| [6] | 1 | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 5 / 3.3-135 |

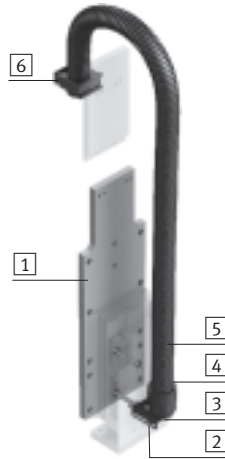
1) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/Duo system

Mini slides SLT



| Bill of materials | | | | | | | | |
|-------------------|-----------------|-------------|---------------|-------------------|---------------|----------|---------------|-------------|
| Type | | HMBSZ-SLT-7 | | | | | | → Page |
| 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 | 5 / 3.3-117 |
| 2 | 1 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 5 / 3.3-136 |
| 3 | 1 | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 | 5 / 3.3-135 |
| 4 | 1 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 5 / 3.3-130 |
| 5 | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 5 / 3.3-128 |
| 6 | 1 | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 5 / 3.3-135 |

1) Length depends on the stroke of the drive

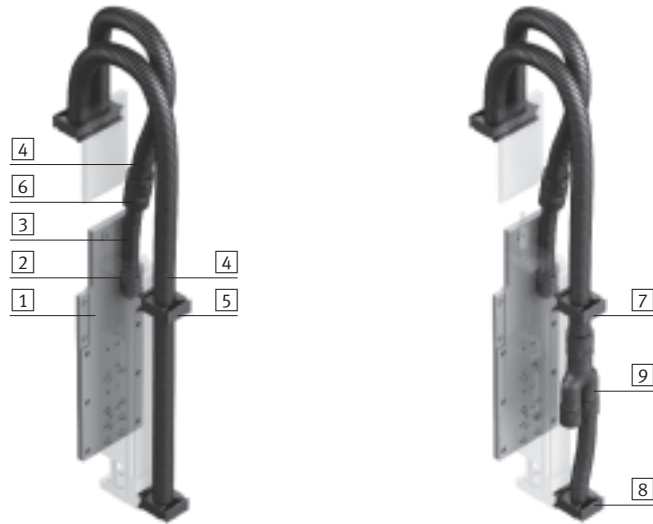
Linear gantries

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 | | |
| System type | | without intermediate position | | | with intermediate position | | | | | |
| | | 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 | HMVZ-4 | 539 375 | HMVZ-4 | 539 375 | HMVZ-4 | 539 375 | HMVZ-4 | 5 / 3.3-117 |
| 2 | 1 | 177 571 | MKRV-16,5-PG-16 | 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 |
| 3 | 1 ¹⁾ | 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 |
| 4 | 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 | 4 ³⁾ | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | - | - | - | - | 5 / 3.3-135 |
| 6 | 1 | 194 321 | MKRT-23-16,5 | 194 321 | MKRT-23-16,5 | 194 321 | MKRT-23-16,5 | 194 321 | MKRT-23-16,5 | 5 / 3.3-132 |
| 7 | 3 ³⁾ | - | - | - | - | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 5 / 3.3-135 |
| 8 | 1 | - | - | - | - | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | |
| 9 | 1 | - | - | - | - | 193 946 | MKY-PG-21-2PG-16 | 193 946 | MKY-PG-21-2PG-16 | 5 / 3.3-132 |

1) Length 200 mm

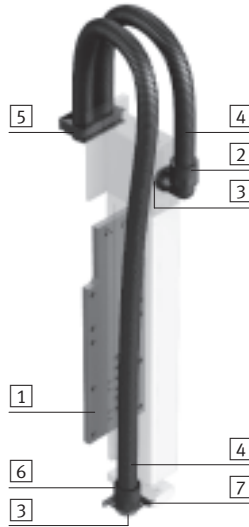
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

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 |

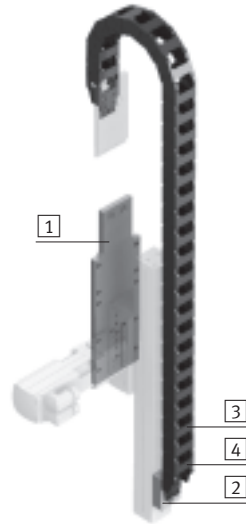
1) Length depends on the stroke of the drive

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 | | | | | | - |

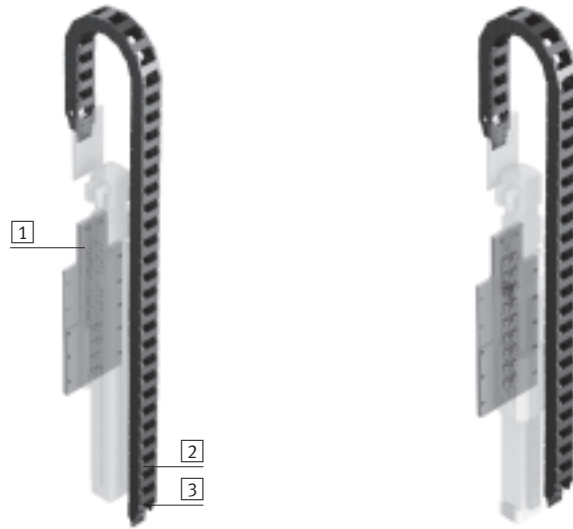
1) Length depends on the stroke of the drive

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 | | | | | | - |

1) Length depends on the stroke of the drive

3-Dimensional gantries

Key features



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

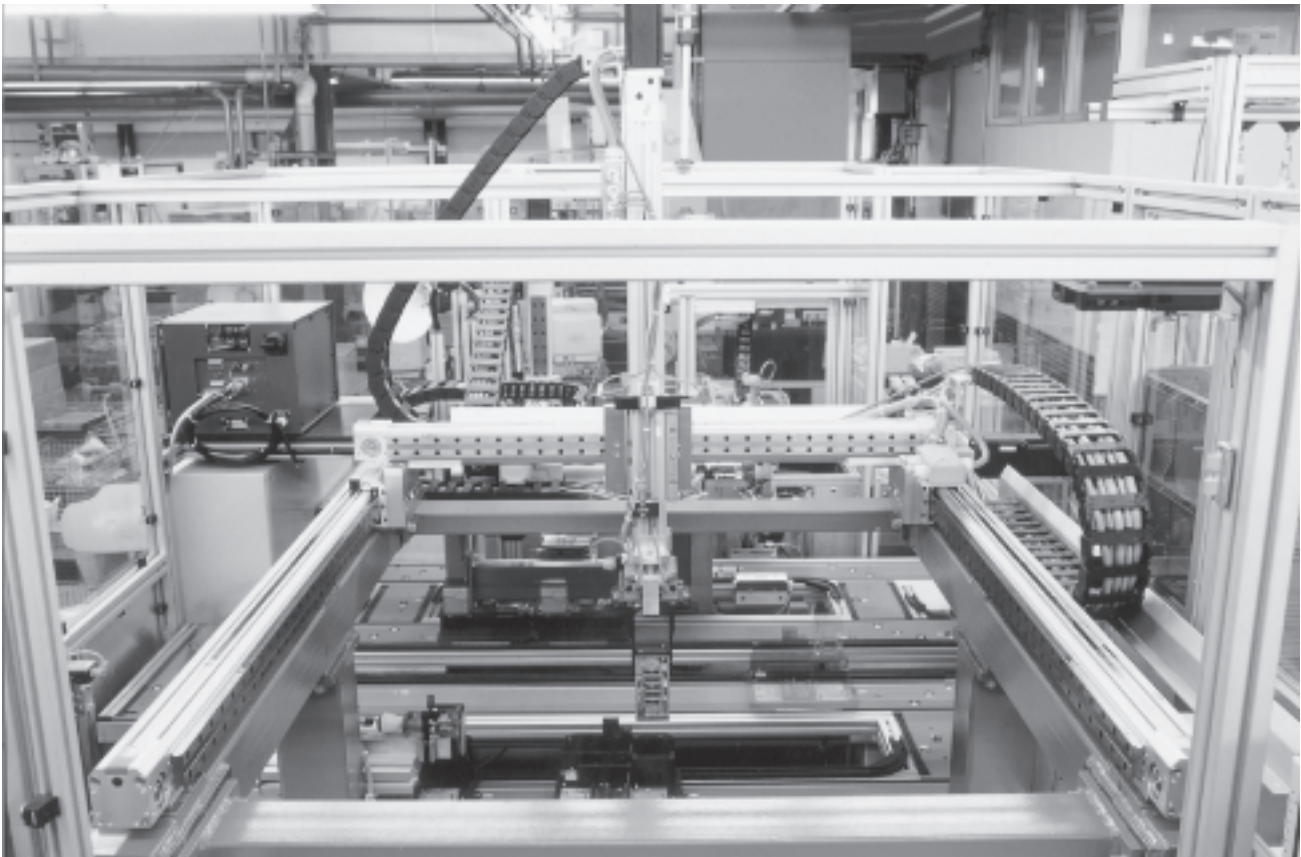
- Pneumatic: SLT, HMPL, HMP
- Electrical with toothed belt or spindle axis: DGE, DGEA

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 / 3.3-74 | | | | |

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 | | | |
| DGE-25 | -ZR-KF | HMBSX-RP/FP-25-1 → 5 / 3.3-77 | HMBSX-RP/FP-25-1 → 5 / 3.3-77 | HMBSX-RP/FP-25-1 → 5 / 3.3-77 | – |
| | -ZR-RF | HMBSX-RP/FP-25-2 → 5 / 3.3-77 | HMBSX-RP/FP-25-2 → 5 / 3.3-77 | HMBSX-RP/FP-25-2 → 5 / 3.3-77 | – |
| DGE-40 | -ZR-KF | – | HMBSX-RP/FP-40-1 → 5 / 3.3-77 | HMBSX-RP/FP-40-1 → 5 / 3.3-77 | HMBSX-RP/FP-40-1 → 5 / 3.3-77 |
| | -ZR-RF | – | HMBSX-RP/FP-40-2 → 5 / 3.3-77 | HMBSX-RP/FP-40-2 → 5 / 3.3-77 | HMBSX-RP/FP-40-2 → 5 / 3.3-77 |

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 / 3.3-77

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

Y-axis: Mono 40 system with DGC-40

Y-axis: HMBSY-RP/FP-M40-2
→ 5 / 3.3-78

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




Z-axis: HMPL-20 without intermediate position

Z-axis: HMBSZ-HMPL-5 or 6
→ 5 / 3.3-82

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 / 3.3-78 | - | HMBSY-RP/FP-D25-1 → 5 / 3.3-79 | - | |
| DGC-25 | HMBSY-RP/FP-M25-2 → 5 / 3.3-78 | - | HMBSY-RP/FP-D25-2 → 5 / 3.3-79 | - | |
| DGPL-40 | - | HMBSY-RP/FP-M40-1 → 5 / 3.3-78 | - | HMBSY-RP/FP-D40-1 → 5 / 3.3-79 | |
| DGC-40 | - | HMBSY-RP/FP-M40-2 → 5 / 3.3-78 | - | HMBSY-RP/FP-D40-2 → 5 / 3.3-79 | |
| Electrical drives | Type | | | | |
| DGE-25 -SP-KF -ZR-KF -ZR-RF | HMBSY-RP/FP-M25-1 → 5 / 3.3-78 | - | HMBSY-RP/FP-D25-1 → 5 / 3.3-79 | - | |
| DGE-40 -SP-KF -ZR-KF -ZR-RF | - | HMBSY-RP/FP-M40-1 → 5 / 3.3-78 | - | HMBSY-RP/FP-D40-1 → 5 / 3.3-79 | |

3-Dimensional gantries

Selection aid for basic, connection and installation components

FESTO

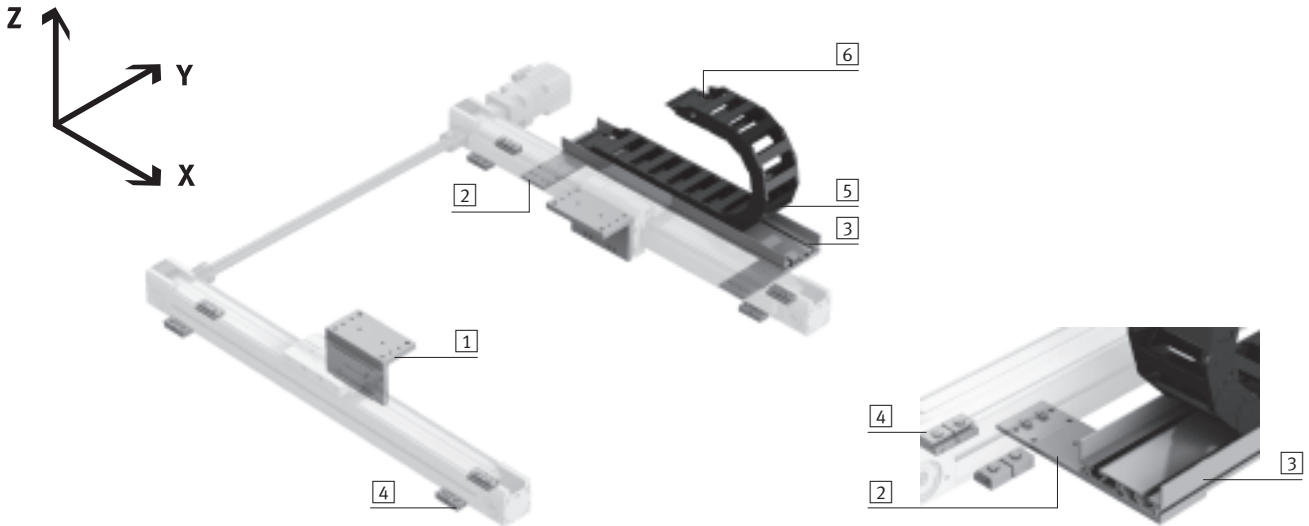
| Z-axis | | | | |
|---|---|--|---|------------------------------|
| System type | Mono 25 | Mono 40 | Duo 25 | Duo 40 |
|  |  | |  | |
| Pneumatic drives | Type | | | |
| DGSL-16 | HMBSZ-DGSL-7 → 5 / 3.3-80 | – | – | – |
| DGSL-20 | – | HMBSZ-DGSL-8 → 5 / 3.3-80 | – | – |
| DGSL-25 | – | HMBSZ-DGSL-8 → 5 / 3.3-80 | HMBSZ-DGSL-8 → 5 / 3.3-80 | – |
| SLT-16 | HMBSZ-SLT-7 → 5 / 3.3-81 | – | – | – |
| SLT-20 | – | HMBSZ-SLT-7 → 5 / 3.3-81 | HMBSZ-SLT-7 → 5 / 3.3-81 | – |
| SLT-25 | – | – | HMBSZ-SLT-7 → 5 / 3.3-81 | – |
| HMPL-16 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-82 | – | – | – |
| HMPL-20 | – | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-82 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 5 / 3.3-82 | – |
| HMP-16 | – | HMBSZ-HMP-4 → 5 / 3.3-83 | HMBSZ-HMP-4 → 5 / 3.3-83 | – |
| HMP-20 | – | – | HMBSZ-HMP-5 → 5 / 3.3-83 | – |
| HMP-25 | – | – | – | HMBSZ-HMP-6 → 5 / 3.3-83 |
| Electrical drives | Type | | | |
| DGEA-18 | HMBSZ-DGEA-1 → 5 / 3.3-84 | HMBSZ-DGEA-1 → 5 / 3.3-84 | HMBSZ-DGEA-1 → 5 / 3.3-84 | – |
| DGEA-25 | – | – | HMBSZ-DGEA-2 v5 / 3.3-84 | HMBSZ-DGEA-3 → 5 / 3.3-84 |
| DGE-25-SP | – | HMBSZ-DGE-1 → 5 / 3.3-85 | HMBSZ-DGE-1 → 5 / 3.3-85 | – |
| DGE-40-SP | – | – | HMBSZ-DGE-2 → 5 / 3.3-85 | HMBSZ-DGE-3 → 5 / 3.3-85 |

3-Dimensional gantries

X modules

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 | | | | | |
|------------|------------------|---|------------------|------------------|-------------|----------|-------------|----------|-------------|-------------|
| 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 | HMVW-DL25 | 539 652 | HMVS-RF25 | 540 325 | HMVW-DL40 | 539 653 | HMVS-RF40 | 5 / 3.3-111 |
| 2 | 2 ¹⁾ | 539 654 | HMIXB-RP/FP | 539 654 | HMIXB-RP/FP | 539 654 | HMIXB-RP/FP | 539 654 | HMIXB-RP/FP | 5 / 3.3-145 |
| 3 | 1 ²⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 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 | MUP-40 | 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

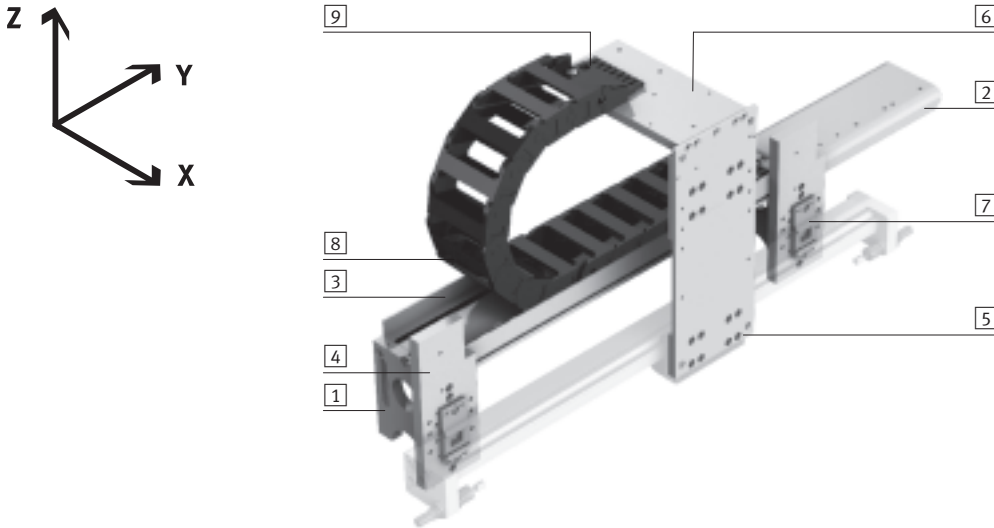
3-Dimensional gantries

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

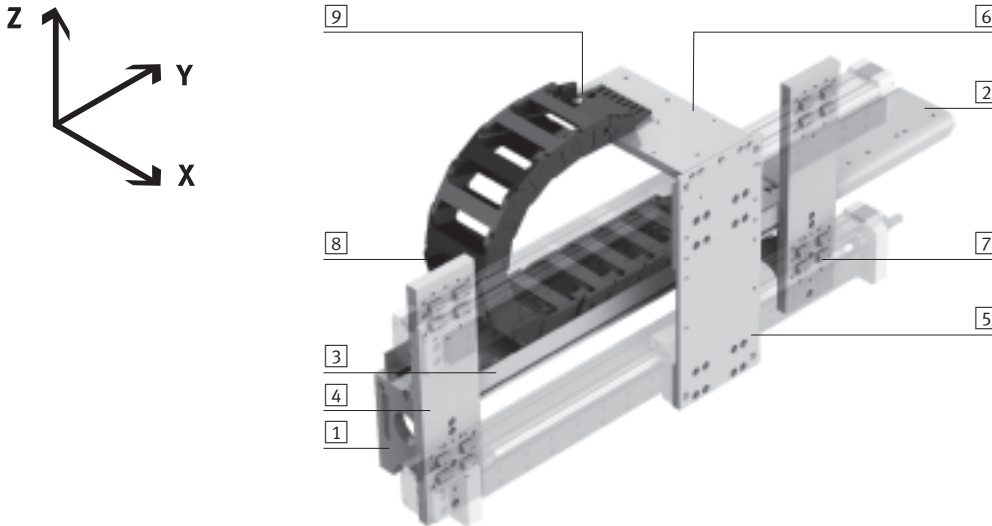
3) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVM-RP/FP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

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.

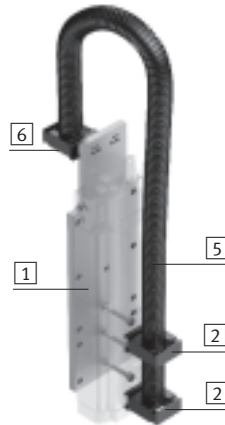
3-Dimensional gantries

Z modules



Mono/Duo system

Mini slides DGSL



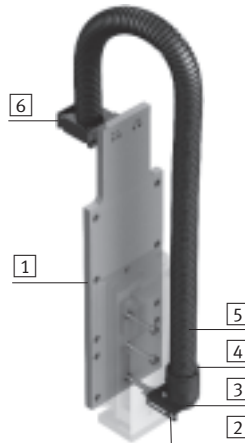
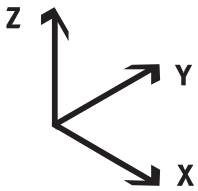
| Bill of materials | | | | | | | |
|-------------------|-----------------|---|------|---|------|---|------|
| Type | | HMBSZ-DGSL-7 | | HMBSZ-DGSL-8 | | | |
| For drives | | DGSL-16 | | DGSL-20 | | DGSL-25 | |
| System type | | Mono 25 | | Mono 40 Duo 25 | | Duo 25 | |
| Item | Quantity | Part No. | 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 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] | 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

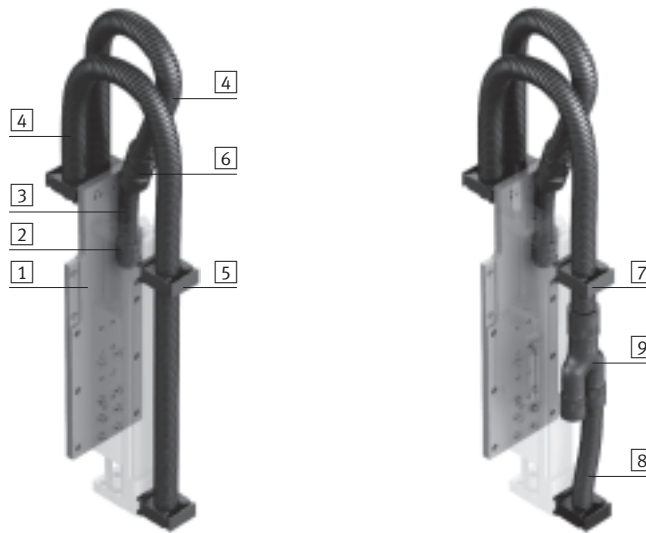
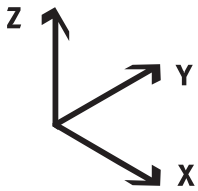
3-Dimensional gantries

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

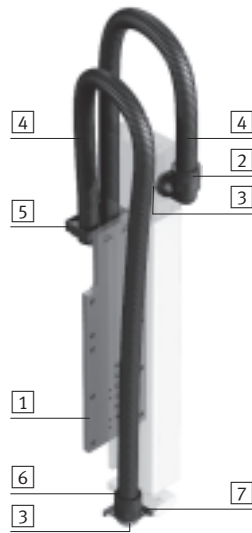
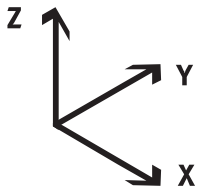
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

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 |

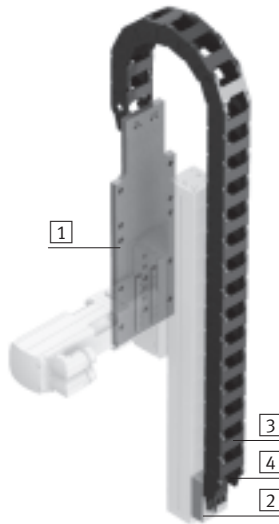
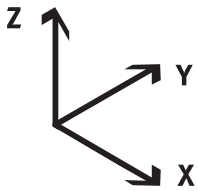
1) Length depends on the stroke of the drive

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 | → 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 | | | - |

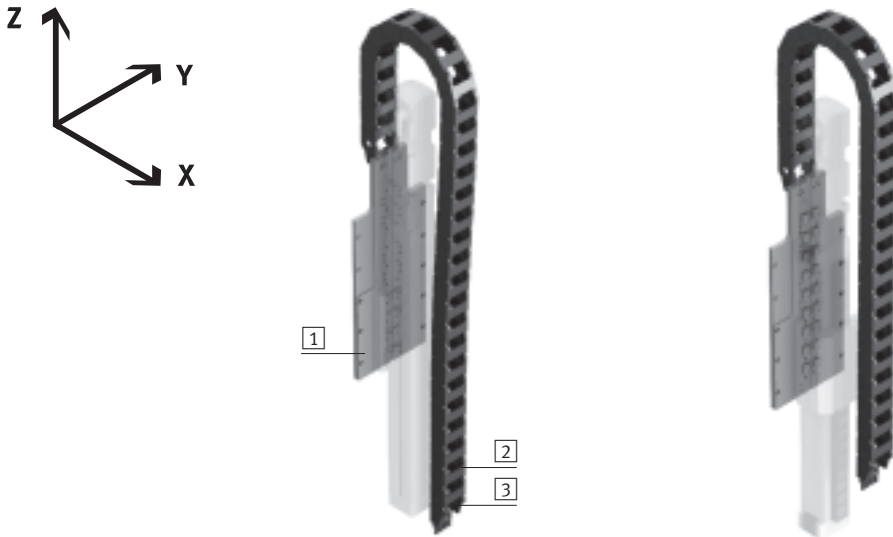
1) Length depends on the stroke of the drive

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 | → Page | |
| 1 | 1 | 539 374 | HMVZ-3 | 539 375 | HMVZ-4 | 539 377 | HMVZ-6 | 5 / 3.3-117 | |
| 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 | | | | | | | - |

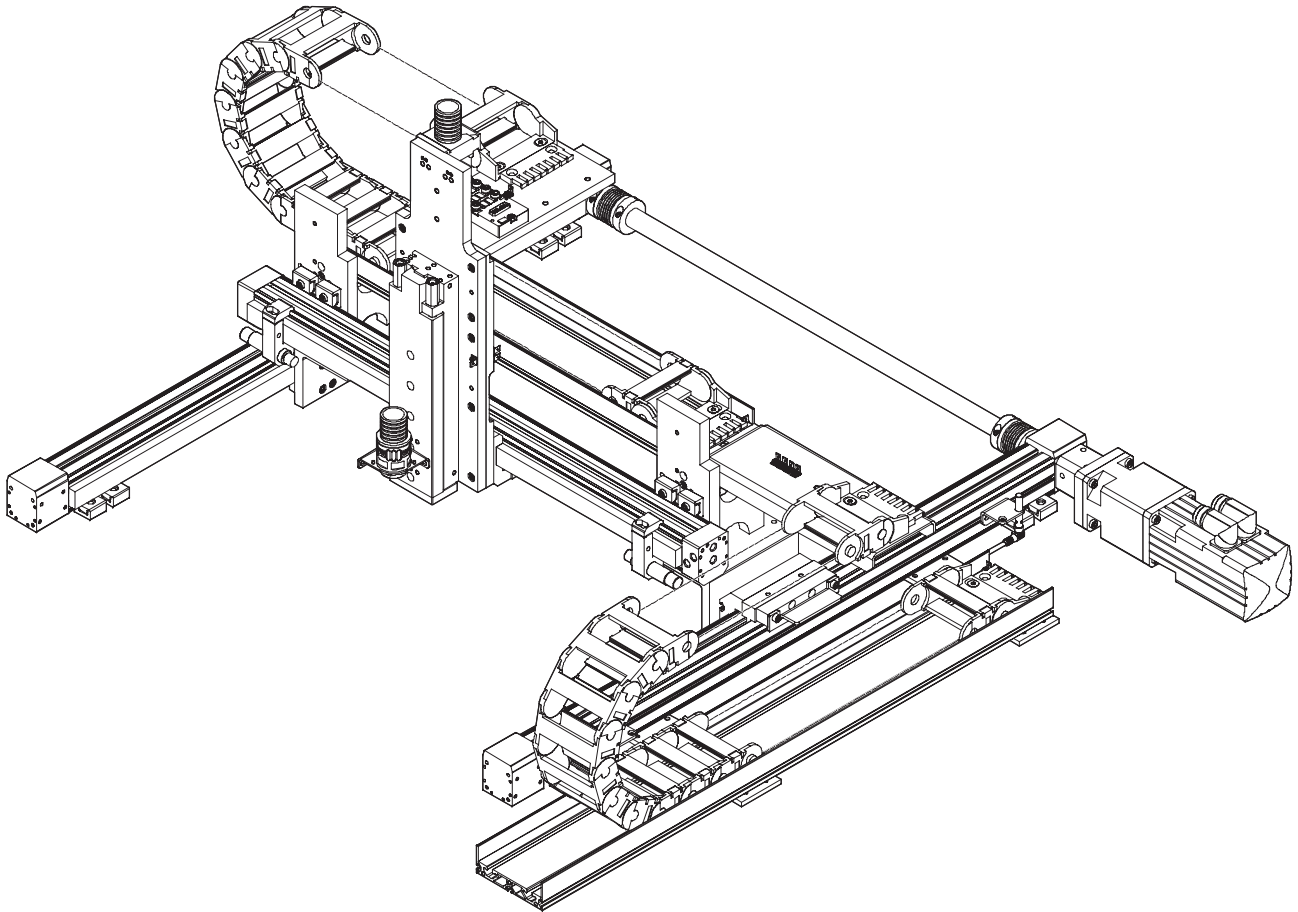
1) Length depends on the stroke of the drive

3-Dimensional gantries

System example

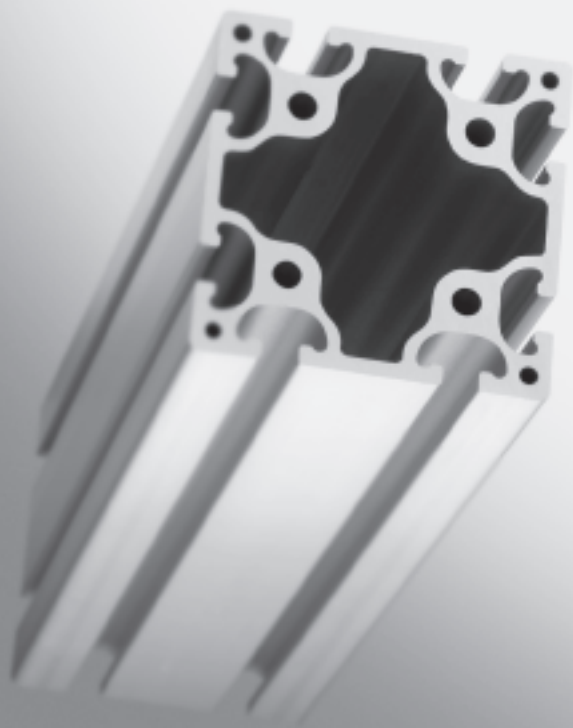


Combination with toothed-belt axis DGE-RF/linear drive DGC/mini-slide SLT



System components
Multi-axis modular system

3.3



- Wide range of variants
- Sturdy
- Functional
- Versatile

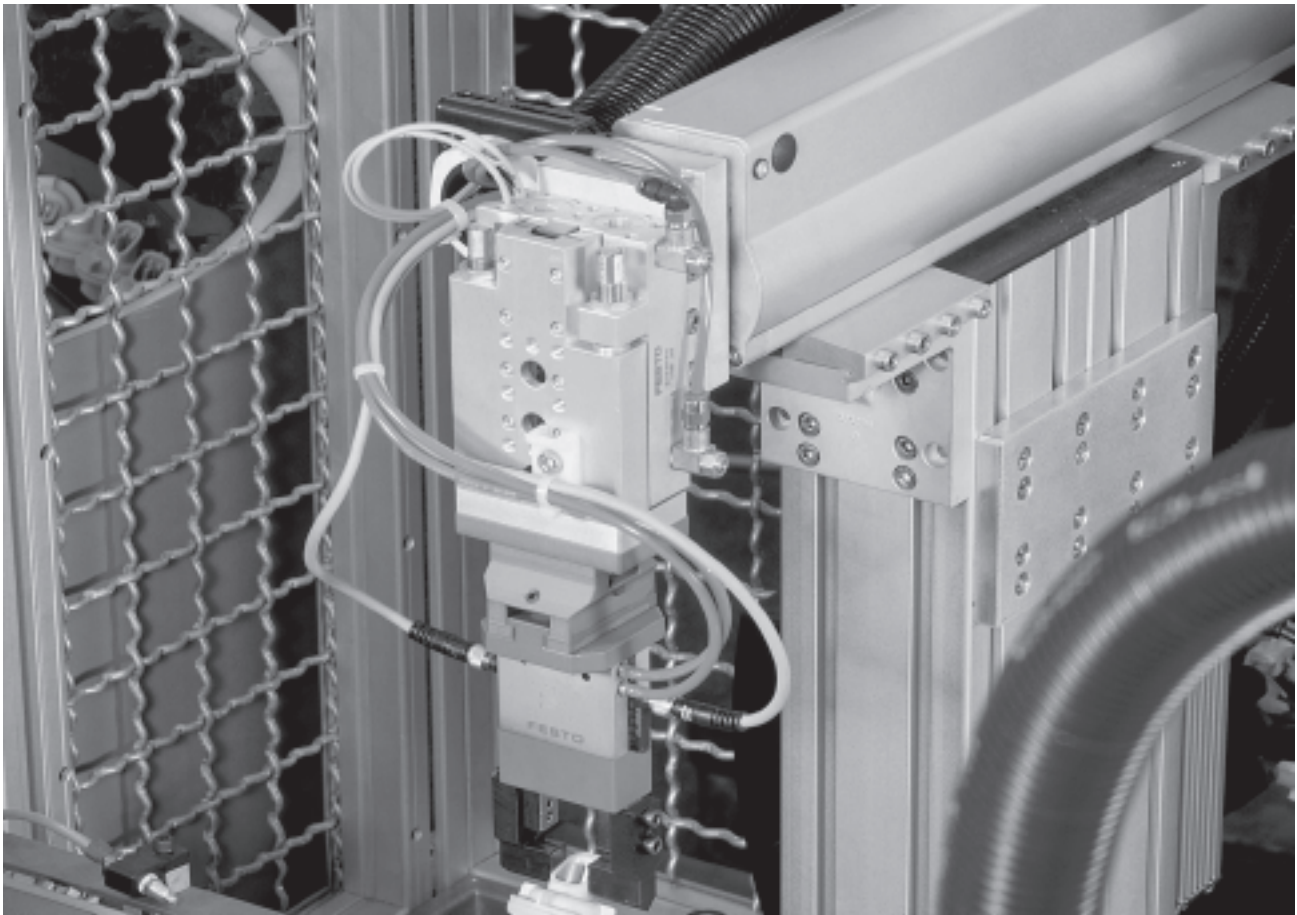
Basic components

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).

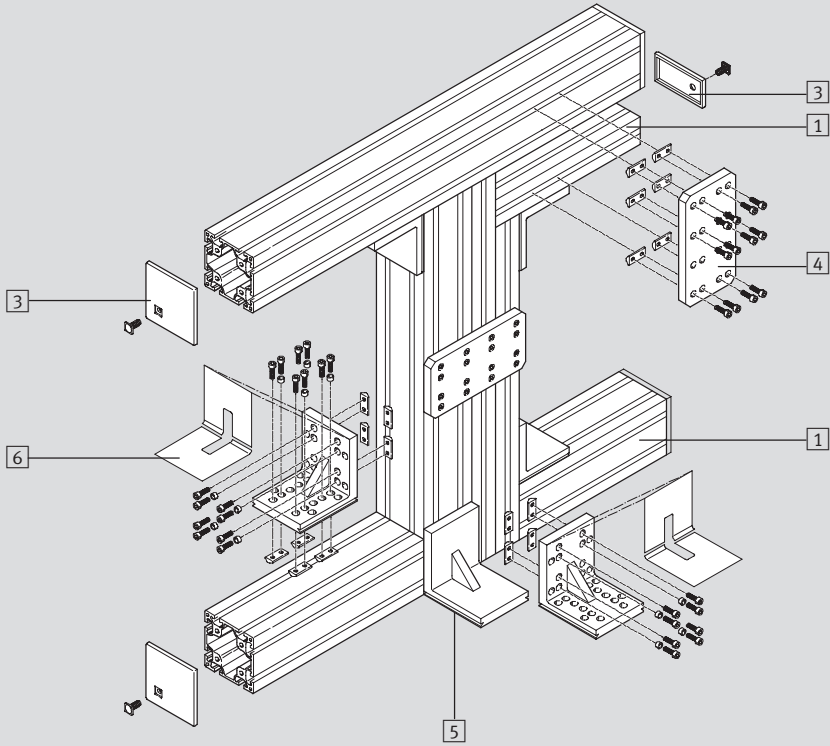
Connecting kit HMBV-ND

Interface for connecting basic components to Festo drives.

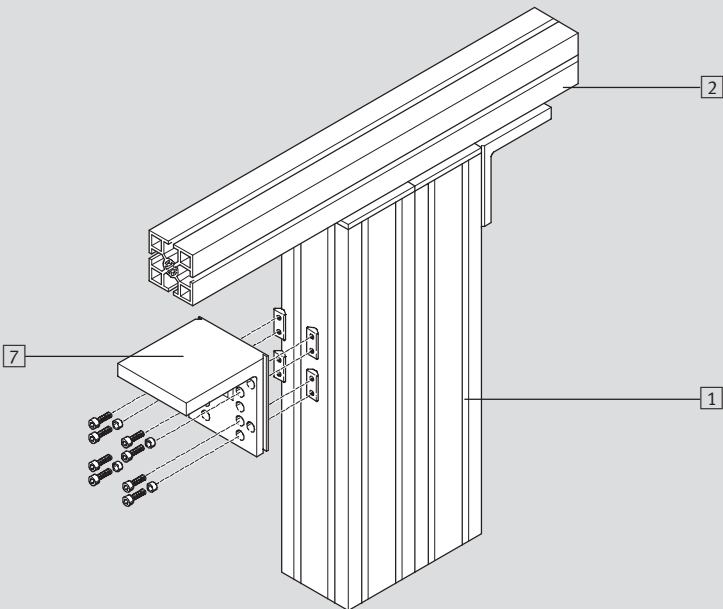
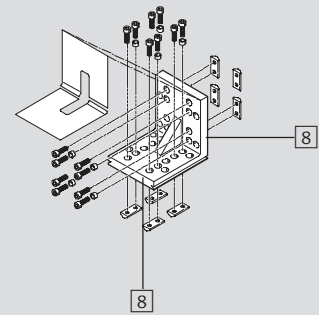
Basic components

Key features

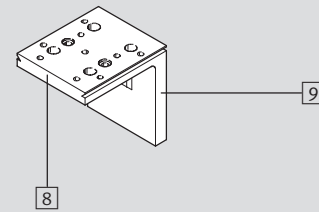
Optimum concept of multiple functionalities



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

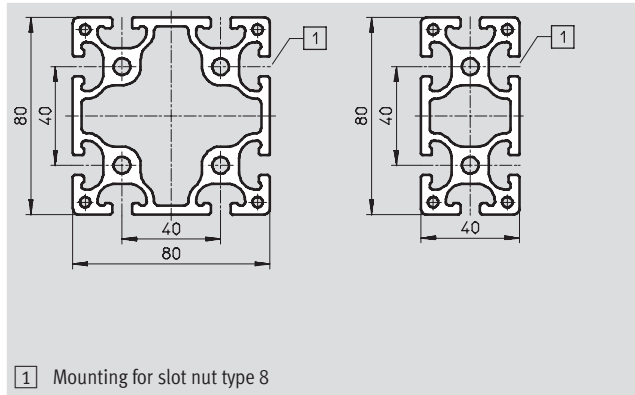
Technical data



Profile column HMBS

Scope of delivery:
1 support column

Material:
Aluminium
Free of copper, PTFE and silicone



1) Mounting for slot nut type 8

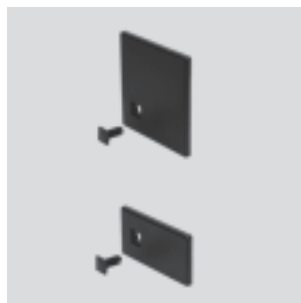
| Ordering data | | | | |
|--|-------------------|----------|------------|------------------|
| Dimensions | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| 80x40 | 2 | 175 964 | HMBS-80/40 | 1 |
| 80x80 | | 175 958 | HMBS-80/80 | 1 |
| Accessories (to be ordered separately) | | | | |
| Slot nuts | 2 | 186 567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

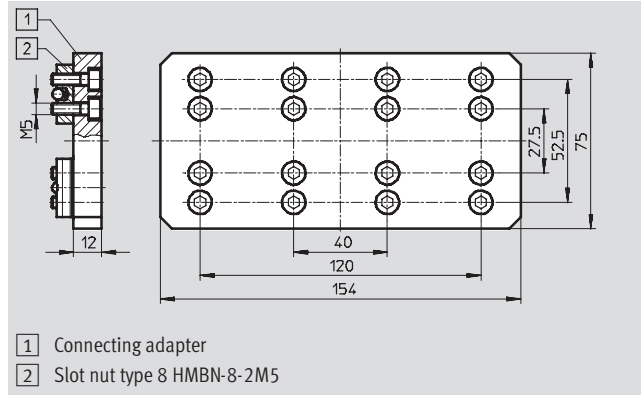
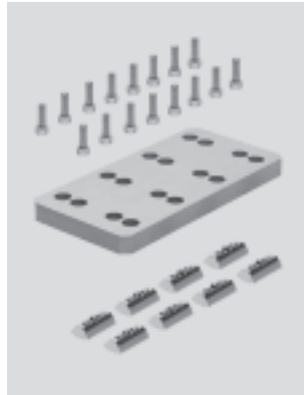
Technical data



Connecting kit HMBSV

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

Material:
Aluminium
Free of copper, PTFE and silicone



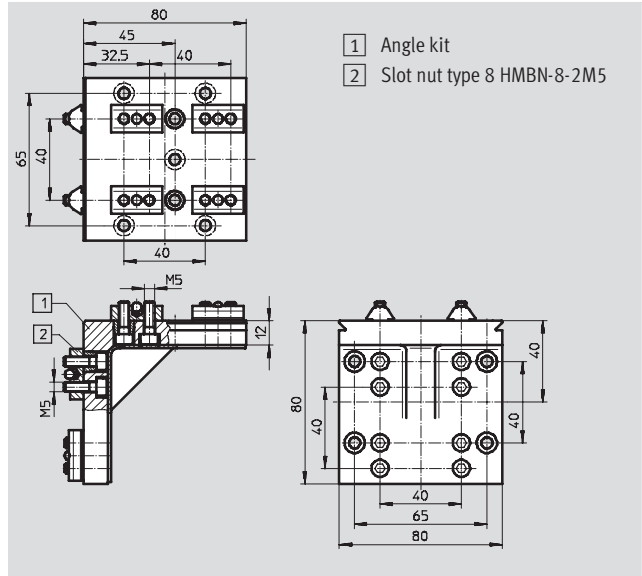
| Ordering data | | | | |
|---------------------------|-------------------|----------|------------|------------------|
| | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| Connecting kit | 2 | 175 972 | HMBSV | 1 |
| Accessories (for reorder) | | | | |
| Slot nuts | 2 | 186 567 | HMBN-8-2M5 | 10 |
| Screws | | M5x16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

- 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

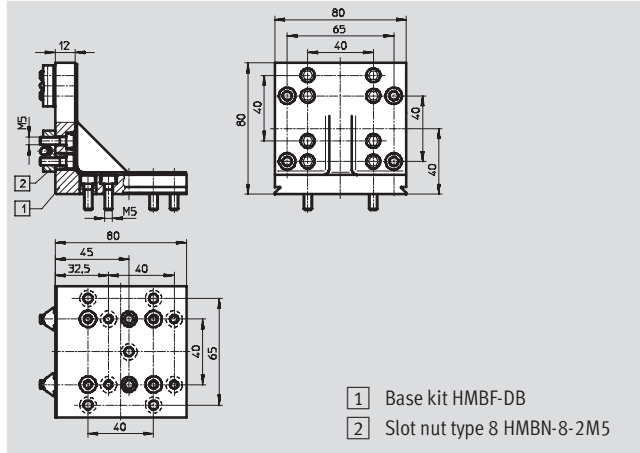
Technical data



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



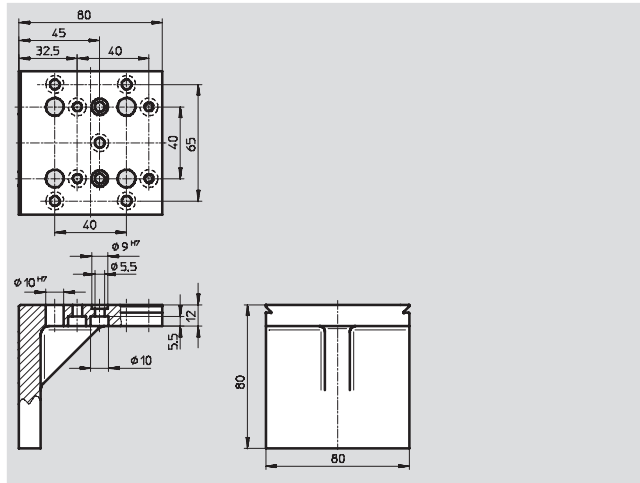
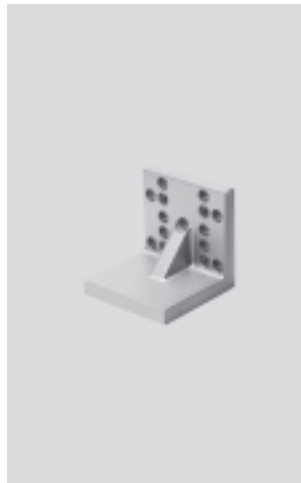
| Ordering data | | | | |
|---------------------------|-------------------|----------|------------|------------------|
| | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| Base kit HMBF-DB | 2 | 175 951 | HMBF-DB | 1 |
| Accessories (for reorder) | | | | |
| Slot nuts | 2 | 186 567 | HMBN-8-2M5 | 10 |
| Spacer rings | | 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



Connecting kit HMBV-ND

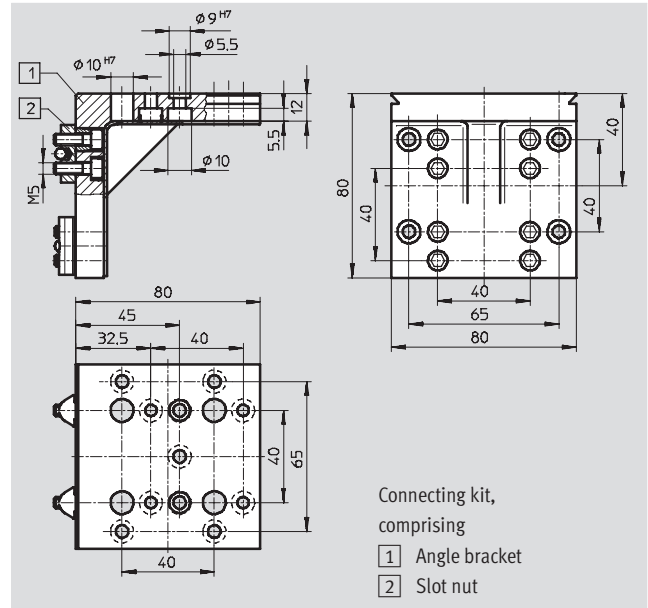
- for HMP, HMPL
- for SLT with HMBK-WS and HMSV-34 ... 37

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 | PJ 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

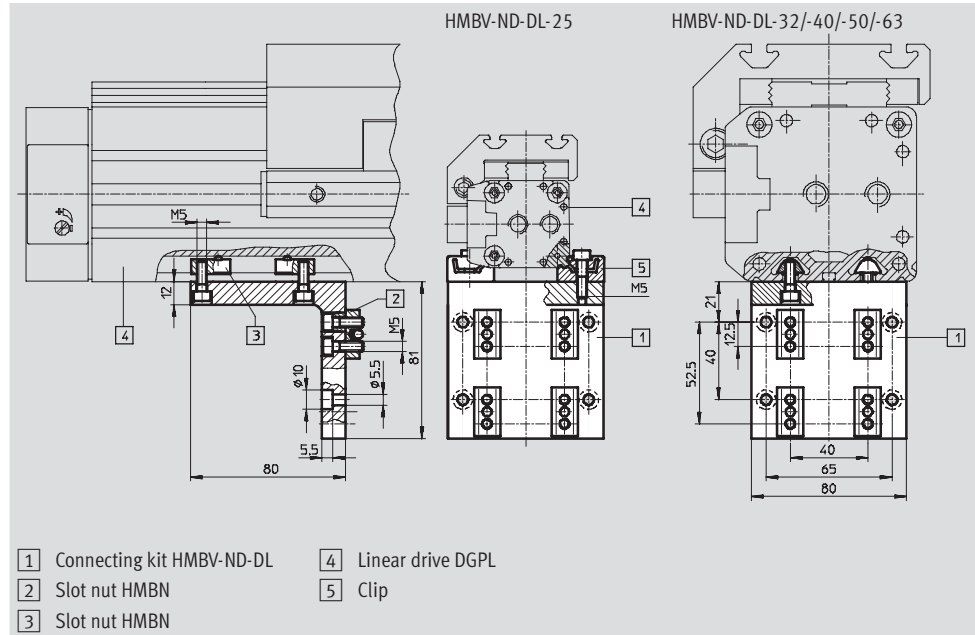
Technical data



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 | - | - | ■ | ■ |

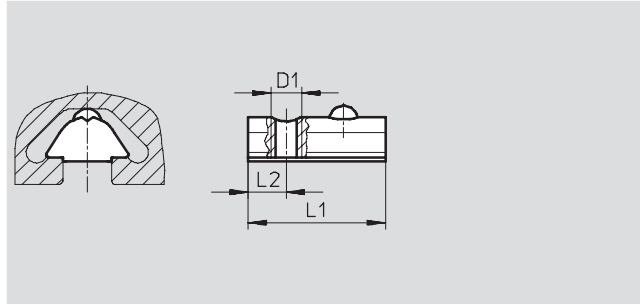
Basic components

Technical data



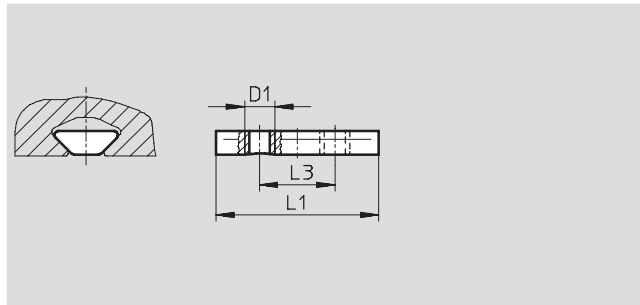
Slot nut HMBN-5-M5

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



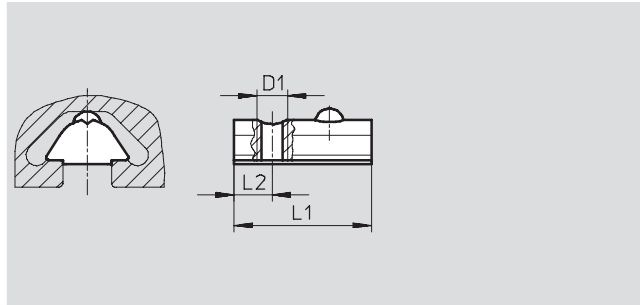
Slot nut HMBN-5-2M5

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



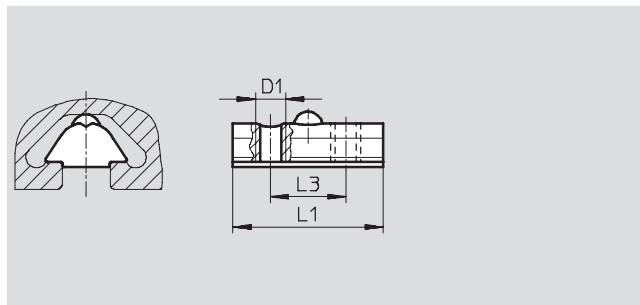
Slot nut HMBN-8-M5

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.

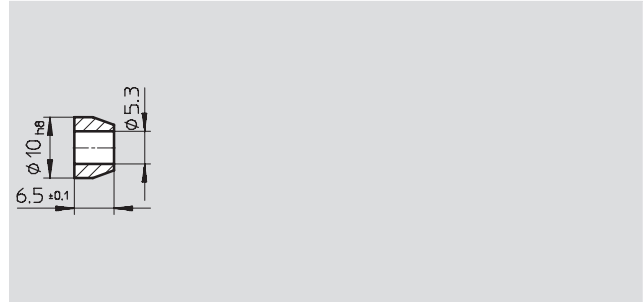
2) Packaging unit quantity

Basic components

Technical data

Spacer ring HMBRD

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

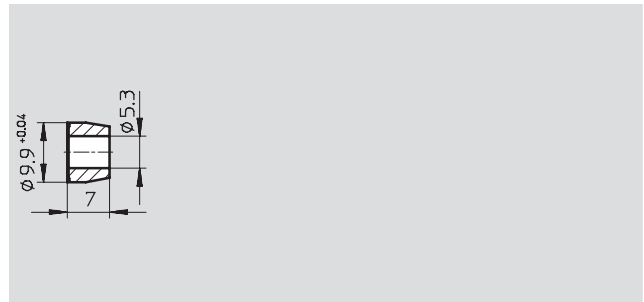


| Ordering data | | | |
|-------------------|----------|-------|-------------------|
| CRC ¹⁾ | Part No. | Type | PJU ²⁾ |
| 2 | 186 563 | HMBRD | 10 |

- 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

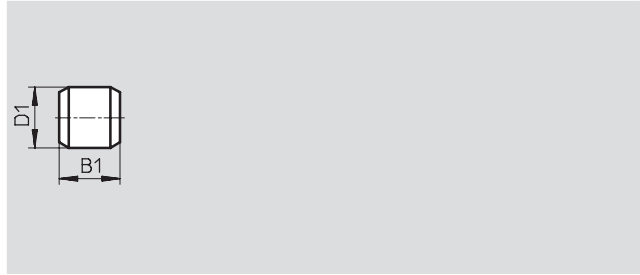
Basic components

Technical data



Centring pin ZBS

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

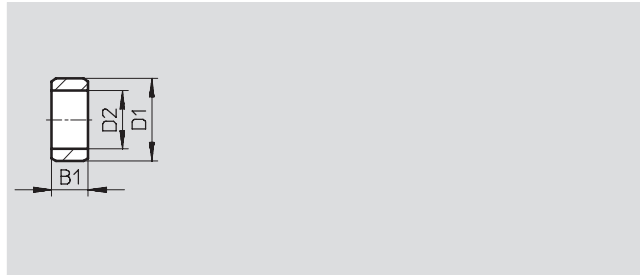


| Dimensions and ordering data | | | | | |
|------------------------------|---------|-------------------|----------------|---------------|------------------|
| B1 | D1 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| -0.2 | ∅ h8 | | | | |
| 5 | 2 | 2 | 525 273 | ZBS-02 | 10 |
| 5 | 5 | 2 | 150 928 | ZBS-5 | 10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

- 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

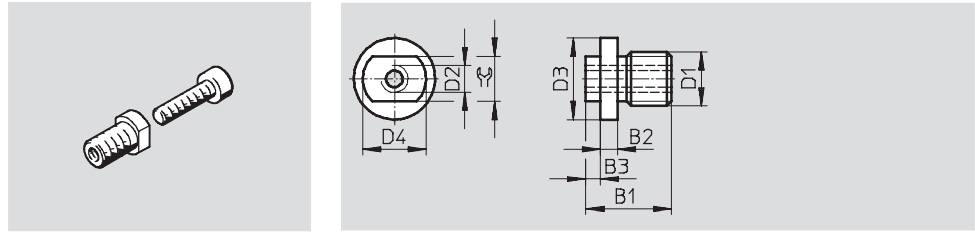
Basic components

Technical data



Connector sleeve ZBV-M...

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



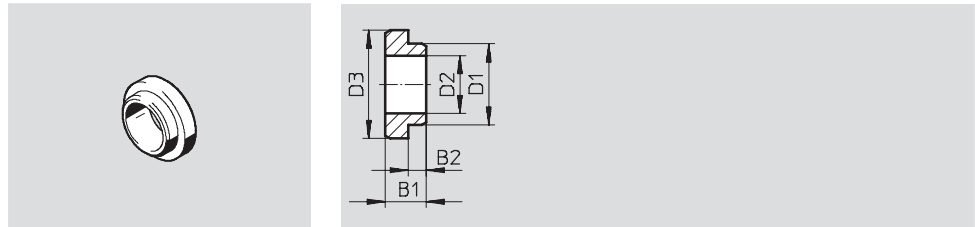
| Dimensions and ordering data | | | | | | | |
|------------------------------|---------------------|-------------------|----|------|---------------|---------------|-----|
| B1 | B2 | B3 | D1 | D2 | D3 ∅ h7 | D4 ∅ h7 | ⊕ |
| 8.7 | 1.4 ^{+0.1} | 1.3±0.05 | M4 | M2.5 | 7 | 5 | 4 |
| 11 | - | 3 ^{+0.1} | M5 | M3 | - | 7 | 5.5 |
| 9.5 | 1.9 ^{+0.1} | 1.6±0.05 | M6 | M3 | 9 | 7 | 5 |

| CRC ¹⁾ | Part No. | Type | PU ²⁾ |
|-------------------|----------|----------|------------------|
| 2 | 548 802 | ZBV-M4-7 | 10 |
| 2 | 548 803 | ZBV-M5-7 | 10 |
| 2 | 548 804 | ZBV-M5-9 | 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

Connector sleeve ZBV

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



| Dimensions and ordering data | | | | | | | | |
|------------------------------|-------------------|---------------|---------------|----------------|-------------------|----------|----------|------------------|
| B1 | B2 | D1 ∅ h7 | D2 ∅ h7 | D3 ∅ H13 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| 3.4 | 1.5±0.05 | 7 | 9 | 5.5 | 2 | 548 805 | ZBV-9-7 | 10 |
| 4.5 | 2 _{-0.1} | 9 | 12 | 6.4 | 2 | 548 806 | ZBV-12-9 | 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

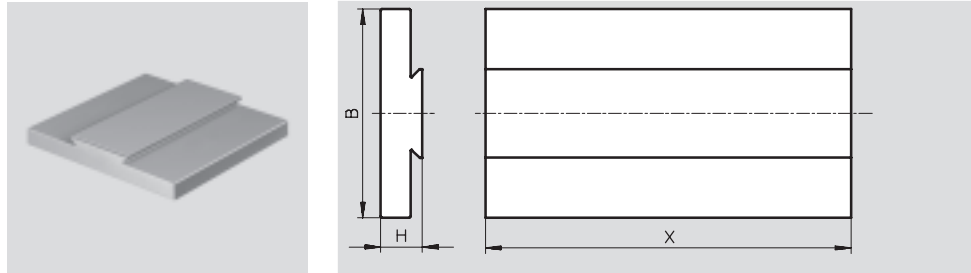
Technical data



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

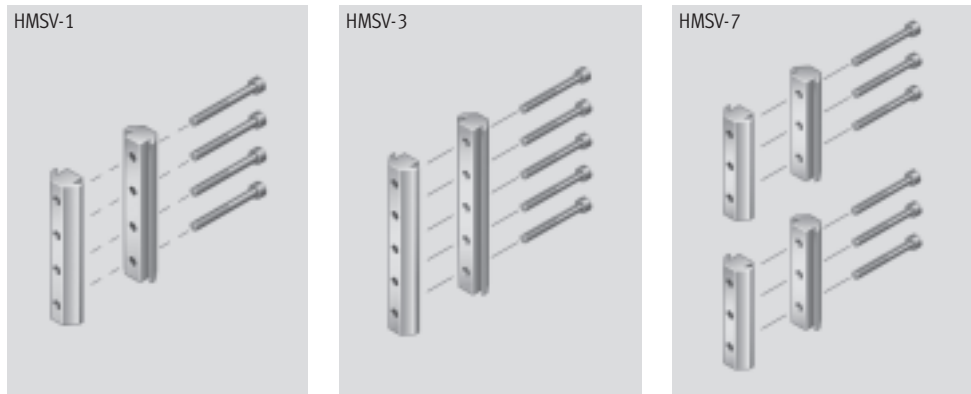


| Dimensions and ordering data | | | | | | |
|------------------------------|----|-----------------|-------------------|----------|-----------|------------------|
| H | B | X ¹⁾ | CRC ²⁾ | Part No. | Type | PJ ³⁾ |
| 16 | 80 | | 2 | 189 451 | HMAV-80-X | 1 |
| 13 | 90 | | 2 | 189 450 | HMAV-90-X | 1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

- 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